

Thursday, January 07, 2010

Page 1 of 4  
REQUEST NUMBER: 10-1128

# 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: 10-1128

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 1/7/2010

TURNAROUND/REPORT DUE: 2/6/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

*Jeffrey St*

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
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SW-846:6020		1	RE12-10-7617	R	1/4/2010	
		1	RE12-10-7618	R	1/4/2010	
		1	RE12-10-7619	R	1/4/2010	
		1	RE12-10-7620	R	1/4/2010	
		1	RE12-10-7621	R	1/4/2010	
		1	RE12-10-7622	R	1/4/2010	
		1	RE12-10-7623	R	1/4/2010	
		1	RE12-10-7624	R	1/4/2010	
		1	RE12-10-7625	R	1/4/2010	

Thursday, January 07, 2010

REQUEST NUMBER: 10-1128

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:6020						
1		1	RE12-10-7626	R	1/4/2010	
1		1	RE12-10-7627	R	1/4/2010	
1		1	RE12-10-7628	R	1/4/2010	
1		1	RE12-10-7629	R	1/4/2010	
1		1	RE12-10-7630	R	1/4/2010	
1		1	RE12-10-7631	R	1/4/2010	
1		1	RE12-10-7632	R	1/4/2010	
1		1	RE12-10-7655	R	1/4/2010	
1		1	RE12-10-7656	R	1/4/2010	
1		1	RE12-10-7662	W	1/4/2010	
SW-846:6850						
1		1	RE12-10-7617	R	1/4/2010	
1		1	RE12-10-7618	R	1/4/2010	
1		1	RE12-10-7619	R	1/4/2010	
1		1	RE12-10-7620	R	1/4/2010	
1		1	RE12-10-7621	R	1/4/2010	
1		1	RE12-10-7622	R	1/4/2010	
1		1	RE12-10-7623	R	1/4/2010	
1		1	RE12-10-7624	R	1/4/2010	
1		1	RE12-10-7625	R	1/4/2010	
1		1	RE12-10-7626	R	1/4/2010	
1		1	RE12-10-7627	R	1/4/2010	
1		1	RE12-10-7628	R	1/4/2010	
1		1	RE12-10-7629	R	1/4/2010	
1		1	RE12-10-7630	R	1/4/2010	
1		1	RE12-10-7631	R	1/4/2010	
1		1	RE12-10-7632	R	1/4/2010	
1		1	RE12-10-7655	R	1/4/2010	
1		1	RE12-10-7656	R	1/4/2010	

Thursday, January 07, 2010

REQUEST NUMBER: 10-1128

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:6850	SW-846:7470A	1	RE12-10-7662	W	1/4/2010	
		1	RE12-10-7662	W	1/4/2010	
		1	RE12-10-7617	R	1/4/2010	
		1	RE12-10-7618	R	1/4/2010	
		1	RE12-10-7619	R	1/4/2010	
		1	RE12-10-7620	R	1/4/2010	
		1	RE12-10-7621	R	1/4/2010	
		1	RE12-10-7622	R	1/4/2010	
		1	RE12-10-7623	R	1/4/2010	
		1	RE12-10-7624	R	1/4/2010	
SW-846:7471A	SW-846:9012A	1	RE12-10-7625	R	1/4/2010	
		1	RE12-10-7626	R	1/4/2010	
		1	RE12-10-7627	R	1/4/2010	
		1	RE12-10-7628	R	1/4/2010	
		1	RE12-10-7629	R	1/4/2010	
		1	RE12-10-7630	R	1/4/2010	
		1	RE12-10-7631	R	1/4/2010	
		1	RE12-10-7632	R	1/4/2010	
		1	RE12-10-7655	R	1/4/2010	
		1	RE12-10-7656	R	1/4/2010	
SW-846:9012A	SW-846:7623	1	RE12-10-7617	R	1/4/2010	
		1	RE12-10-7618	R	1/4/2010	
		1	RE12-10-7619	R	1/4/2010	
		1	RE12-10-7620	R	1/4/2010	
		1	RE12-10-7621	R	1/4/2010	
		1	RE12-10-7622	R	1/4/2010	
		1	RE12-10-7623	R	1/4/2010	
		1	RE12-10-7624	R	1/4/2010	
		1	RE12-10-7625	R	1/4/2010	
		1	RE12-10-7626	R	1/4/2010	

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REQUEST NUMBER: 10-1128

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:9012A						
		1	RE12-10-7625	R	1/4/2010	
		1	RE12-10-7626	R	1/4/2010	
		1	RE12-10-7627	R	1/4/2010	
		1	RE12-10-7628	R	1/4/2010	
		1	RE12-10-7629	R	1/4/2010	
		1	RE12-10-7630	R	1/4/2010	
		1	RE12-10-7631	R	1/4/2010	
		1	RE12-10-7632	R	1/4/2010	
		1	RE12-10-7655	R	1/4/2010	
		1	RE12-10-7656	R	1/4/2010	
		1	RE12-10-7662	W	1/4/2010	

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Thursday, January 07, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1128

LOS ALAMOS

REQUEST NUMBER: 10-1128

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/6/2010

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
RE12-10-7619	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7618	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7623	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7622	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7621	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7617	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7620	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7624	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7630	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7628	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7632	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7629	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7626	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7631	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7627	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7625	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7656	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7655	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7662	1	POLY	METALS+U-GEL	Nitric Acid	W
RE12-10-7662	1	POLY	SW-846:6850	Ice	W
RE12-10-7662	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: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7617

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:	QBT3		Allh
TIME COLLECTED (HH:MM)		10:51		SUB-MEDIA:	TUFF 1		NA
PRS ID:	12-001(b)	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	12-610639			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	3		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY 12M 11/4/10	None	Y	
1		Met+U+CLO4+C N	1 GAL POLY 1 L	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty sand, some roots

SAMPLE COMMENTS: NA

LOCATION DESC: 1a-8 north west of firing site

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \pm 22$  dpm  
 $\beta \pm 1755$  dpmPID  $\frac{\text{reading}}{\text{ambient}} = \frac{0.0}{0.0}$  ppm

HE negative

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Rolando Savaderra

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) <i>TLMcFarland</i>	Date/Time 01/04/10 1600	RECEIVED BY (Printed Name) K. G. ... (Signature) <i>[Signature]</i>	Date/Time 1/4/10 4:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7618

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:	QBT3		A11h
TIME COLLECTED (HH:MM)		11:21		SUB-MEDIA:	TUFF 1		NA
PRS ID:	12-001(b)	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	12-610639			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	NO			BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY 72m 1/4/10	None	Y	
1	↓	Met+U+CLO4+C N	1 GAL POLY 1 L	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, few rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 19-8, northwest of firing site

## FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \pm 38$  dpm  
 $\text{BY} \pm 7618$  dpm

PID  $\frac{\text{reading}}{\text{ambient}} = \frac{0.0}{0.0}$  ppm

COLLECTED BY (PRINT)

REVIEWED BY (PRINT)

T. McFarland

Patricia Saunders

RELINQUISHED BY (Printed Name) T. McFarland (Signature) <i>T. McFarland</i>	Date/Time 01/04/10 1600	RECEIVED BY <i>K. Bruce</i> (Printed Name) (Signature) <i>K. Bruce</i>	Date/Time 1/4/10 4:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7619

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1243		SUB-MEDIA:		TUFF 1	
PRS ID: 12-001(b)		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: 12-610640		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		↓		FIELD PREP: NA		↓	
TOP DEPTH: 0		0.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		1.0		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	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY 13m 1/4x1/0	None	Y	
1	↓	Met+U+CLO4+C N	1 GAL POLY 1 L	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, some roots, few rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 1a-37, north of firing point

## FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 66$  dpm  
 $\beta \leq 2010$  dpm  
 PID  $\frac{\text{ambient}}{\text{reading}} = \frac{0.0}{0.0}$  ppm  
 HE negative

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Patricia Saunders

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) Tracy McFarland	Date/Time 01/04/10 1600	RECEIVED BY (Printed Name) K. Buccione (Signature) [Signature]	Date/Time 1/4/10 4100
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7620

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:	OBT3		Allh
TIME COLLECTED (HH:MM)		1252		SUB-MEDIA:	TUFF 1		NA
PRS ID:	12-001(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	12-610640			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	2.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	2.8		SCREEN/PORT DESC:	NA		
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		BOREHOLE DIRECTION:
							NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 GAL POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt

SAMPLE COMMENTS: NA

LOCATION DESC: 1a-3Z north of firing point

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 38$  dpm  
 $\text{BY} \leq 1707$  dpm  
 PID ambient reading  $\frac{0.0}{0.0}$  ppm

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Rolenda Saunders

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) Tracy	Date/Time 01/04/10 1600	RECEIVED BY (Printed Name) K. Green (Signature) [Signature]	Date/Time 1/4/10 4:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

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

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7621

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:	QBT3		Alh
TIME COLLECTED (HH:MM)		1300		SUB-MEDIA:	TUFF 1		NA
PRS ID:	12-001(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	12-610641			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	1.0		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	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		Met+U+CLO4+C N	1 GAL POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty sand, some small rocks

FD: RE12-10-7656

SAMPLE COMMENTS:

NA

LOCATION DESC:

1a-40, west of firing point

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 38 dpm

PID ambient reading

0.0 ppm

BY ≤ 2090 dpm

HE negative

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Refenda Saunders

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) Tracy Z...	Date/Time 6/10/10 1600	RECEIVED BY (Printed Name) K. G. ... (Signature) [Signature]	Date/Time 1/4/10 4:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7622

WORK ORDER:

	<u>AS PLANNED</u>	<u>AS COLLECTED</u>	<u>AS PLANNED</u>	<u>AS COLLECTED</u>
DATE COLLECTED(MM/DD/YYYY):		01/04/2010	MEDIA:	OBT3
TIME COLLECTED (HH:MM)		1310	SUB-MEDIA:	TUFF 1
PRS ID:	12-001(b)	ok	SAMPLE TECH CODE:	HA
LOCATION ID:	12-610641	↓	FIELD QC TYPE:	NA
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV
BOTTOM DEPTH:	0	3.2	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	NO/NA	BOREHOLE DECLINATION:	NA	BOREHOLE DIRECTION:
			NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY 7am 1/4/2010	None	Y	
1	↓	Met+U+CLO4+CN	1 GAL POLY 1 L	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sandy silt, some rocks

FR RE12-10-7662

SAMPLE COMMENTS:

NA

LOCATION DESC:

1a-40, west of firing pt

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 38$  dpm $\beta \leq 1990$  dpmPID ambient  
rem reading  
7am 1/4/2010 $\frac{0.0}{0.0}$  ppm

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

Rolenda Saunders

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) <i>Tracy M</i>	Date/Time 01/04/10 1600	RECEIVED BY (Printed Name) K. G. ... (Signature) <i>[Signature]</i>	Date/Time 1/4/10 4:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7623

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:	QBT3		A11h
TIME COLLECTED (HH:MM)		1349		SUB-MEDIA:	TUFF 1		NA
PRS ID:	12-001(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	12-610642			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		
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY 73m 01/04/2010	None	Y	
1		Met+U+CLO4+C N	1 GAL POLY 1 L	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC:

1a-41, spring pb

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 46$  dpm $\beta \leq 1852$  dpmPID ambient reading  $\frac{0.0}{0.0}$  ppm  
HE negative

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

Rolanda Saunders

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) <i>Tracy McFarland</i>	Date/Time 01/04/10 1600	RECEIVED BY (Printed Name) K. Bruce (Signature) <i>K. Bruce</i>	Date/Time 1/4/10 4:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time



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

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7624

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:	QBT3		AHh
TIME COLLECTED (HH:MM)		1409		SUB-MEDIA:	TUFF 1		NA
PRS ID:	12-001(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	12-610642			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	2.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	2.6		SCREEN/PORT DESC:	NA		
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY 12m 1/04/2010	None	Y	
1		Met+U+CLO4+C N	1 GAL POLY 1L	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC:

16-41, firing pit

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 11$  dpm  
 $\text{BY} \leq 2000$  dpm  
 PID  $\frac{\text{ambient}}{\text{reading}} = \frac{0.0}{0.0}$  ppm

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) TL McFarland (Signature) <i>Tracy McFarland</i>	Date/Time 01/04/10 1600	RECEIVED BY (Printed Name) K. Bruce (Signature) <i>K. Bruce</i>	Date/Time 1/4/10 4100
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7625

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/10	01/04/10	MEDIA:	OBT3		ALLH
TIME COLLECTED (HH:MM)		10:52		SUB-MEDIA:	TUFF 1		N/A
PRS ID:	12-001(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	12-610643	OK		FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC	OK		FIELD PREP:	NA		
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV		✓
BOTTOM DEPTH:	0	0.6		SCREEN/PORT DESC:			N/A
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	N/A			COMPOSITE TIME INTERVAL:	N/A		
BOREHOLE: YES/NO/NA	NO/NA			BOREHOLE DECLINATION:	N/A		
BOREHOLE DIRECTION:	N/A						

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

SAMPLE DESC: brown sandy silt, few Rocks

SAMPLE COMMENTS:

N/A

LOCATION DESC: 1a-42 west of firing site

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 44$  dpm $\text{BY} \leq 1803$  dpmambient  
Reading 0.0 ppm HE Neg

COLLECTED BY (PRINT)

Belinda Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) Tracy M. T.	Date/Time 01/04/10 1600	RECEIVED BY (Printed Name) K. Green (Signature) [Signature]	Date/Time 1/4/10 4:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7626

WORK ORDER:

	<u>AS PLANNED</u>	<u>AS COLLECTED</u>		<u>AS PLANNED</u>	<u>AS COLLECTED</u>
DATE COLLECTED(MM/DD/YYYY):		01/04/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		11:04	SUB-MEDIA:	TUFF 1	N/A
PRS ID: 12-001(b)		OK	SAMPLE TECH CODE: HA		OK
LOCATION ID: 12-610643		OK	FIELD QC TYPE: NA		↓
LOCATION TYPE: <u>GENERIC</u>		OK	FIELD PREP: NA		↓
TOP DEPTH: 0		2.0	SAMPLE USAGE: INV		↓
BOTTOM DEPTH: 0		3.0	SCREEN/PORT DESC:		N/A
FIELD MATRIX: R		S	EXCAVATED: YES/NO/NA		N/A
COMPOSITE TYPE: <u>N/A</u>			COMPOSITE TIME INTERVAL: <u>N/A</u>		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA			BOREHOLE DECLINATION: <u>N/A</u>		BOREHOLE DIRECTION: <u>N/A</u>

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

SAMPLE DESC: brown silt

FD; 12-10-7655

SAMPLE COMMENTS:

N/A

LOCATION DESC: 1a-42 west of firing site

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 27$  dpmPID ambient  $\frac{0.0}{0.0}$  ppm $\text{BY} \leq 1686$  dpm

COLLECTED BY (PRINT)

Theresa Saunders

REVIEWED BY (PRINT) ThMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) ThMcFarland	01/04/10	(Printed Name) K. G. ...	1/4/10
(Signature)	1600	(Signature)	4100
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7627

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:	OBT3		ALLH
TIME COLLECTED (HH:MM)		11:28		SUB-MEDIA:	TUFF 1		N/A
PRS ID:	12-001(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	12-610644	↓		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:			N/A
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	N/A			COMPOSITE TIME INTERVAL:	N/A		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA	NO/NA			BOREHOLE DECLINATION:	N/A		
				BOREHOLE DIRECTION:	N/A		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+ClO4+C N	1 GAL POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Dark brown sandy silt  
Some clay, few rocks, few roots

SAMPLE COMMENTS:

N/A

LOCATION DESC: 1a-43  
north of firing site

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 11 dpm

BY ≤ 1838 dpm

PID ambient reading 0.0 7 PM  
HE Neg

COLLECTED BY (PRINT)

Rebecca Saunders

REVIEWED BY (PRINT)

TLMcFarland

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) TLMcFarland	Date/Time 01/04/10 1600	RECEIVED BY K. Greene (Printed Name) (Signature) K. Greene	Date/Time 1/4/10 4:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7628

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:	QBT3		ALLH
TIME COLLECTED (HH:MM)		1230		SUB-MEDIA:	TUFF 1		N/A
PRS ID:	12-001(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	12-610644	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	2.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	2.5		SCREEN/PORT DESC:			N/A
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	N/A			COMPOSITE TIME INTERVAL:	N/A		
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	N/A		
				BOREHOLE DIRECTION:	N/A		

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

SAMPLE DESC: Dark brown Sandy silt  
Some clay, few rocks, few roots

SAMPLE COMMENTS:

N/A

LOCATION DESC: 1a-43

North of firing site

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 60$  dpm

PID

 $\text{BY} \leq 1879$  dpmambient  
reading 0.0 ppm

COLLECTED BY (PRINT)

ThMcFarland

REVIEWED BY (PRINT)

Rolenda Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) ThMcFarland	01/04/10	K. Gucce	1/4/10
(Signature) Tray	1600	(Signature)	4:00
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7629

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:	QBT3		A11h
TIME COLLECTED (HH:MM)		1346		SUB-MEDIA:	TUFF.1		NA
PRS ID:	12-001(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	12-610645	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	0.4		SCREEN/PORT DESC:	NA		
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY 12m 01/04/2010	None	Y	
1	↓	Met+U+CLO4+C N	1 GAL POLY 1 L	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sandy silt

SAMPLE COMMENTS: NA

LOCATION DESC: 1a-39, south of firing pt

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 33$  dpm      PID  $\frac{\text{ambient reading}}{0.0}$  ppm  
 $\text{BX} \leq 2080$  dpm      HE negative

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

Rolanda Saunders

RELINQUISHED BY (Printed Name) TL McFarland (Signature) <i>TL McFarland</i>	Date/Time 01/04/10 1600	RECEIVED BY (Printed Name) <i>V. G. ...</i> (Signature) <i>[Signature]</i>	Date/Time 1/4/10 4:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7630

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:	QBT3		ALLH
TIME COLLECTED (HH:MM)		1406		SUB-MEDIA:	TUFF 1		NA
PRS ID:	12-001(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	12-610645	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	2.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	2.7		SCREEN/PORT DESC:	NA		
FIELD MATRIX:	R			EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY 12 m 01/04/2010	None	Y	
1	↓	Met+U+CLO4+C N	1 GAL POLY 1 L	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand

SAMPLE COMMENTS: NA

LOCATION DESC: 1a-39, south of firing pt

## FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 88$  dpm $\beta \leq 2140$  dpmPID  $\frac{\text{ambient}}{\text{reading}} = \frac{0.0}{0.0}$  ppm

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

Rolanda Saunders

RELINQUISHED BY (Printed Name) TL McFarland (Signature) <i>TL McFarland</i>	Date/Time 01/04/10 1600	RECEIVED BY <i>K. Bruce</i> (Printed Name) (Signature) <i>K. Bruce</i>	Date/Time 1/4/10 410
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7631

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/04/2010	MEDIA:	QBT3	Allh
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	TUFF 1	NA
PRS ID:	12-001(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	12-610646	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.6	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES/NO/NA		
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA	
			WATER FLOWING: YES/NO/NA		
BOREHOLE: YES/NO/NA			BOREHOLE DECLINATION:	NA	
			BOREHOLE DIRECTION:	NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY 7m 01/04/2010	None	Y	
1	↓	Met+U+CLO4+C N	1 GAL POLY 1 Liter	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

## SAMPLE DESC:

Dark Brown moist silty sand, few roots and rocks 7m 01/04/2010

SAMPLE COMMENTS: NA

LOCATION DESC: 1a-36, south of firing site

## FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 16 dpm  
BY ≤ 2030 dpm  
PID ambient reading 0.0  
0.0 ppm  
HE negative

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) TLMcFarland	Date/Time 01/04/10 1600	RECEIVED BY (Printed Name) K. Gucce (Signature) [Signature]	Date/Time 1/4/10 4:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7632

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/04/2010	MEDIA:	QBT3	Allh
TIME COLLECTED (HH:MM)		1455	SUB-MEDIA:	TUFF 1	NA
PRS ID:	12-001(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	12-610646	↓	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	AM241+GS+ISO PU+ISOU	1 LITER POLY 12M 1/4/2010	None	Y	
1	↓	Met+U+CLO4+C N	1 GAL POLY 1 Liter	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty sand

SAMPLE COMMENTS:

NA

LOCATION DESC:

1a-36 South of firing site

FIELD SCREENING/MEASUREMENT RESULTS:

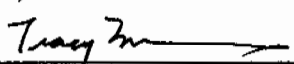
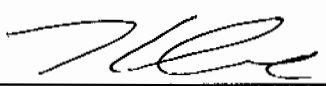
 $\alpha \leq 27$  dpmPID  $\frac{\text{ambient}}{\text{reading}}$  $\frac{0.0}{0.0}$  ppm $\beta \leq 2050$  dpm

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) 	Date/Time 01/04/10 1600	RECEIVED BY (Printed Name) K. G. ... (Signature) 	Date/Time 1/4/10 4100
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7655

WORK ORDER:

	<u>AS PLANNED</u>	<u>AS COLLECTED</u>		<u>AS PLANNED</u>	<u>AS COLLECTED</u>
DATE COLLECTED(MM/DD/YYYY):		01/04/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		11:04	SUB-MEDIA:	TUFF 1	N/A
PRS ID:	12-001(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	OK	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	2.0	SAMPLE USAGE:	QC	✓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		N/A
FIELD MATRIX:	R	S	EXCAVATED: YES/NO/NA		N/A
COMPOSITE TYPE:	N/A		COMPOSITE TIME INTERVAL:	N/A	WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA	NO		BOREHOLE DECLINATION:	N/A	BOREHOLE DIRECTION:
					N/A

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	73m 1/4/10 8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		Met+U+CLO4+C N	1 GAL POLY	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of brown silt

FD, REPS  
01/04/10 RE12-10-7626

SAMPLE COMMENTS:

NA

LOCATION DESC: 1a-42

West of firing site

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 27$  dpmPID ambient  
reading 0.0 ppmBY  $\leq 1686$  dpm

COLLECTED BY (PRINT)

Rebecca Saunders

REVIEWED BY (PRINT)

TLMcFarland

RELINQUISHED BY (Printed Name) TLMcFarland (Signature)	Date/Time 01/04/10 1600	RECEIVED BY (Printed Name) K. Grice (Signature)	Date/Time 1/4/10 4:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7656

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:	OBT3		Allh
TIME COLLECTED (HH:MM)		1300		SUB-MEDIA:	TUFF 1		NA
PRS ID:	12-001(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	UNK	12-610641		FIELD QC TYPE:	ED		↓
LOCATION TYPE:	GENERIC	OK		FIELD PREP:	NA		
TOP DEPTH:	0	0.0		SAMPLE USAGE:	QC		
BOTTOM DEPTH:	0	1.0		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	NO/NA			BOREHOLE DECLINATION:	NA		BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY 13M 1/04/2010	None	Y	
1		Met+U+CLO4+C N	1 L POLY 1 L	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE12-10-7624

Brown silty sand, some small rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 1a-40, west of firing pt

## FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 38 dpm  
BYZ 2090 dpm

PID  $\frac{\text{ambient}}{\text{reading}}$   $\frac{0.0}{0.0}$  ppm  
HE negative

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Rolanda Saunders

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) <i>Tracy McFarland</i>	Date/Time 01/04/10 1600	RECEIVED BY <i>K. Bruce</i> (Printed Name) (Signature) <i>[Signature]</i>	Date/Time 1/4/10 4:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2490

EVENT NAME: 4th Qtr. FY09 - SWMU 12-001(b) of CU 12-001(a)-99 - Threemile Cyn.

SAMPLE ID: RE12-10-7662

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/04/2010		MEDIA:	NA		ok
TIME COLLECTED (HH:MM)		1318		SUB-MEDIA:	OTHER		
PRS ID:	12-001(b)	ok		SAMPLE TECH CODE:	DC		
LOCATION ID:	UNK	12-610641		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	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	↓	SW-846:6850	250 ML POLY	Ice	Y	
1	↓	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE12-10-7622

SAMPLE COMMENTS:

Ringside

LOCATION DESC:

1a-40 West of firing Point

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT)

TL McFarlane

REVIEWED BY (PRINT)

Rokenda Saunders

RELINQUISHED BY (Printed Name) Th McFarlane (Signature) Tracy	Date/Time 01/04/10 1600	RECEIVED BY (Printed Name) K. G. ... (Signature) [Signature]	Date/Time 1/4/10 4100
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## Rad Screening Data Release Form

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

RE12-10-7625  
7626  
7655  
7617  
7618  
7859  
7853  
7852  
7851  
7850  
7849

RE12-10-7848  
7627  
7622  
7656  
7621  
7620  
7619  
7628  
7624  
7629  
7630  
7623

RE12-10-7631  
7632


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):

RE12-10-7662

Reason: Rinsate

.....  
Print Last Name McFarland Signature Tracy [Signature] Date 01/04/2010

DATA VALIDATION COVER SHEET	
<b>5116-1</b>  <p style="text-align: center;"><b>Data Validation Cover Sheet</b></p>	Records Use only  

**Section I.**

REQUEST NUMBER: 10-1128      VALIDATION DATE: 02/17/10      LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee      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 MS/MSD associated with the water sample was performed on a LANL sample from another RN. No sample data was qualified as a result.


**Reviewed by:** Monica Dymerski      **Level I**      **Date:** 02/18/10

VALIDATOR'S SIGNATURE: Ellen McEntee

DATE: 02/17/10


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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The Internal Standard (IS) relative retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC1d	R, PERC1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The sample result is $\leq 5X$ the concentration of the related analyte in the method blank.	U, PERC4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was $>5X$ .	N/A	J+, PERC4a
<input type="checkbox"/>	<input 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	
<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"/>	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: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7619

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144001

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte <sup>a</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.597	2.39	0.597	ug/kg	U	1	20-JAN-10 18:11	per0120028a
	Perchlorate Isotope Ratio						1	20-JAN-10 18:11	per0120028a
14797-73-0	Perchlorate-101	.597	2.39	0.597	ug/kg	U	1	20-JAN-10 18:11	per0120028a
	Perchlorate-O(18)			5.62	ug/kg		1	20-JAN-10 18:11	per0120028a

<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 %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: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7618

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144002

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte <sup>a</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.617	2.47	0.617	ug/kg	U	1	20-JAN-10 18:35	per0120031a
	Perchlorate Isotope Ratio						1	20-JAN-10 18:35	per0120031a
14797-73-0	Perchlorate-101	.617	2.47	0.617	ug/kg	U	1	20-JAN-10 18:35	per0120031a
	Perchlorate-O(18)			6.17	ug/kg		1	20-JAN-10 18:35	per0120031a

<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  $\frac{1}{\% \text{Solids}}$

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: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7623

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144003

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.591	2.36	1.17	ug/kg	J	1	20-JAN-10 18:44	per0120032a
	Perchlorate Isotope Ratio			3.01			1	20-JAN-10 18:44	per0120032a
14797-73-0	Perchlorate-101	.591	2.36	1.19	ug/kg	J	1	20-JAN-10 18:44	per0120032a
	Perchlorate-O(18)			6.01	ug/kg		1	20-JAN-10 18:44	per0120032a

<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  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 940138  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE12-10-7622  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144004  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 91

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.549	2.2	0.549	ug/kg	U	1	20-JAN-10 18:52	per0120033a
	Perchlorate Isotope Ratio						1	20-JAN-10 18:52	per0120033a
14797-73-0	Perchlorate-101	.549	2.2	0.549	ug/kg	U	1	20-JAN-10 18:52	per0120033a
	Perchlorate-O(18)			5.58	ug/kg		1	20-JAN-10 18:52	per0120033a

<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

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: 940138  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE12-10-7621  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 24414005  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 92.4

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	0.541	ug/kg	U	1	20-JAN-10 19:00	per0120034a
	Perchlorate Isotope Ratio						1	20-JAN-10 19:00	per0120034a
14797-73-0	Perchlorate-101	.541	2.16	0.541	ug/kg	U	1	20-JAN-10 19:00	per0120034a
	Perchlorate-O(18)			5.52	ug/kg		1	20-JAN-10 19:00	per0120034a

<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

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7617

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144006

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 90.8

CAS No.	Analyte <sup>a</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.909	ug/kg	J	1	20-JAN-10 19:32	per0120038a
	Perchlorate Isotope Ratio			2.85			1	20-JAN-10 19:32	per0120038a
14797-73-0	Perchlorate-101	.551	2.2	0.979	ug/kg	J	1	20-JAN-10 19:32	per0120038a
	Perchlorate-O(18)			5.56	ug/kg		1	20-JAN-10 19:32	per0120038a

<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  $\frac{1}{\% \text{Solids}}$

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: 240138  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE12-10-7620  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144007  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 89

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.563	2.25	0.563	ug/kg	U	1	20-JAN-10 19:40	per0120039a
	Perchlorate Isotope Ratio						1	20-JAN-10 19:40	per0120039a
14797-73-0	Perchlorate-101	.563	2.25	0.563	ug/kg	U	1	20-JAN-10 19:40	per0120039a
	Perchlorate-O(18)			5.82	ug/kg		1	20-JAN-10 19:40	per0120039a

<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. RE12-10-7624  
 Lab Code: GEL Date Received: 08-JAN-10  
 Instrument: LCMSMS GEL Job No (SDG): 10-1128  
 Method: SW846 6850 Modified GEL Sample ID: 244144008  
 Matrix: SOIL Date Filtered: 19-JAN-10  
 Extraction Batch ID: 240138 Injection Volume (uL): 20  
 Extraction Type: Solid Prep %Solids: 91.6  
 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	.546	2.18	0.546	ug/kg	J	1	20-JAN-10 19:48	per0120040a
	Perchlorate Isotope Ratio			2.84			1	20-JAN-10 19:48	per0120040a
14797-73-0	Perchlorate-101	.546	2.18	0.590	ug/kg	J	1	20-JAN-10 19:48	per0120040a
	Perchlorate-O(18)			5.31	ug/kg		1	20-JAN-10 19:48	per0120040a

<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  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 940138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7630  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144002  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 88  
 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	2.28	0.571	ug/kg	U	1	20-JAN-10 19:56	per0120041a
	Perchlorate Isotope Ratio						1	20-JAN-10 19:56	per0120041a
14797-73-0	Perchlorate-101	.571	2.28	0.571	ug/kg	U	1	20-JAN-10 19:56	per0120041a
	Perchlorate-O(18)			5.79	ug/kg		1	20-JAN-10 19:56	per0120041a

<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

Client Sample No.

RE12-10-7628

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 940138

Extraction Type: Solid Prep

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144010

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 90

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	.558	2.23	0.558	ug/kg	U	1	20-JAN-10 20:04	per0120042a
	Perchlorate Isotope Ratio						1	20-JAN-10 20:04	per0120042a
14797-73-0	Perchlorate-101	.558	2.23	0.558	ug/kg	U	1	20-JAN-10 20:04	per0120042a
	Perchlorate-O(18)			5.88	ug/kg		1	20-JAN-10 20:04	per0120042a

<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: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7632

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144011

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 90.8

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	20-JAN-10 20:12	per0120043a
	Perchlorate Isotope Ratio						1	20-JAN-10 20:12	per0120043a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	20-JAN-10 20:12	per0120043a
	Perchlorate-O(18)			5.68	ug/kg		1	20-JAN-10 20:12	per0120043a

<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: 940138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7629  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144012  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 82

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	.612	2.45	0.738	ug/kg	J	1	20-JAN-10 20:20	per0120044a
	Perchlorate Isotope Ratio			2.82			1	20-JAN-10 20:20	per0120044a
14797-73-0	Perchlorate-101	.612	2.45	0.803	ug/kg	J	1	20-JAN-10 20:20	per0120044a
	Perchlorate-O(18)			6.26	ug/kg		1	20-JAN-10 20:20	per0120044a

<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: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7626

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144013

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.22	0.600	ug/kg	J	1	20-JAN-10 20:28	per0120045a
	Perchlorate Isotope Ratio			2.89			1	20-JAN-10 20:28	per0120045a
14797-73-0	Perchlorate-101	.556	2.22	0.637	ug/kg	J	1	20-JAN-10 20:28	per0120045a
	Perchlorate-O(18)			5.62	ug/kg		1	20-JAN-10 20:28	per0120045a

<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

Client Sample No.

RE12-10-7631

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 940138

Extraction Type: Solid Prep

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144014

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 83

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	.601	2.4	0.601	ug/kg	U	1	20-JAN-10 20:36	per0120046a
	Perchlorate Isotope Ratio						1	20-JAN-10 20:36	per0120046a
14797-73-0	Perchlorate-101	.601	2.4	0.601	ug/kg	U	1	20-JAN-10 20:36	per0120046a
	Perchlorate-O(18)			6.41	ug/kg		1	20-JAN-10 20:36	per0120046a

<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

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7627

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144015

Date Filtered: 19-JAN-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	.656	2.62	0.656	ug/kg	U	1	20-JAN-10 20:44	per0120047a
	Perchlorate Isotope Ratio						1	20-JAN-10 20:44	per0120047a
14797-73-0	Perchlorate-101	.656	2.62	0.656	ug/kg	U	1	20-JAN-10 20:44	per0120047a
	Perchlorate-O(18)			6.76	ug/kg		1	20-JAN-10 20:44	per0120047a

<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 Valve 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: 940138  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE12-10-7625  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144016  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 82

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.607	2.43	0.607	ug/kg	U	1	20-JAN-10 21:16	per0120051a
	Perchlorate Isotope Ratio						1	20-JAN-10 21:16	per0120051a
14797-73-0	Perchlorate-101	.607	2.43	0.607	ug/kg	U	1	20-JAN-10 21:16	per0120051a
	Perchlorate-O(18)			6.38	ug/kg		1	20-JAN-10 21:16	per0120051a

<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

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7656

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144017

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 92.4

CAS No.	Analyte <sup>A</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	0.541	ug/kg	U	1	20-JAN-10 21:25	per0120052a
	Perchlorate Isotope Ratio						1	20-JAN-10 21:25	per0120052a
14797-73-0	Perchlorate-101	.541	2.16	0.541	ug/kg	U	1	20-JAN-10 21:25	per0120052a
	Perchlorate-O(18)			5.44	ug/kg		1	20-JAN-10 21:25	per0120052a

<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

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: 940138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7655  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144018  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 90.1

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	.555	2.22	0.599	ug/kg	J	1	20-JAN-10 21:33	per0120053a
	Perchlorate Isotope Ratio			3			1	20-JAN-10 21:33	per0120053a
14797-73-0	Perchlorate-101	.555	2.22	0.612	ug/kg	J	1	20-JAN-10 21:33	per0120053a
	Perchlorate-O(18)			5.71	ug/kg		1	20-JAN-10 21:33	per0120053a

<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  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: WATER  
 Extraction Batch ID: 940153  
 Extraction Type: Filter/DAI  
 Sample Volume/Weight: 10.0 mL  
 Concentrated Extract Volume: 10.0  
 Client Sample No. RE12-10-7662  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128-1  
 GEL Sample ID: 244145001  
 Date Filtered: 13-JAN-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	15-JAN-10 22:09	per0115034a
	Perchlorate Isotope Ratio						1	15-JAN-10 22:09	per0115034a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	15-JAN-10 22:09	per0115034a
	Perchlorate-O(18)			0.489	ug/L		1	15-JAN-10 22:09	per0115034a

<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  $\frac{1}{\% \text{Solids}}$

**DATA VALIDATION COVER SHEET****5118-1**

Records Use only

**Data Validation Cover Sheet****Section I.**REQUEST NUMBER: 10-1128 VALIDATION DATE: 02/17/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Ellen McEntee 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):

1. In the MB associated with the soil samples, U, Fe, and Zn were detected. The associated results for Zn in samples RE12-10-7617, -7631, -7627, and -7625; and U in samples -7618, -7622, -7632, and -7626 were detects >5X but  $\leq 50X$  the MB concentrations and, thus, were qualified JJ4a. All other associated sample results were >50X the MB concentration and, thus, were not qualified based on professional judgment.
2. In the ICB/CCB associated with the soil samples, Sb, Cu, Tl, U, and Be were detected. The Tl results in all samples, and the Sb results in samples -7629 and -7631 were detects  $\leq 5X$  the blank concentration and, thus, were qualified U,I4b. All other associated sample results were either NDs or >5X the blank concentrations and, thus, were not qualified. In the CCB associated with the water sample, K and Se were detected. The associated result for K was a detect  $\leq 5X$  the CCB concentration and, thus, was qualified U,I4b. The associated result for Se was an ND and, thus, was not qualified.
3. In the FR, sample -7662 associated with all soil samples, Al, Ba, Ca, Cr, Fe, Mn, and Na were detected. The associated results for Na in all samples except -7630 were  $\leq 5X$  the FR concentration and, thus, were qualified U,I4d. All other associated results were >5X the FR concentrations and, thus, were not qualified.
4. The MS %Rs associated with the soil samples were < the laboratory LAL but  $\geq 10\%$  for Sb and Ni. All associated results for Sb were NDs or qualified NDs and, thus, were qualified UJ,I6a. All associated results for Ni were detects and, thus, were qualified J-,I6a. The MS %Rs associated with the soil samples were > the laboratory UAL for Mg and K. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %Rs associated with the soil samples were > the laboratory UAL for Al and Fe, and <10% for Mn, however, the sample

concentrations were >4X the spike concentrations. Data were not qualified, based on professional judgment.


5. It should be noted that the MS/MSD for ICP-MS and CVAA associated with the water sample, were performed on LANL samples from other RNs. No sample data was qualified as a result.

**Reviewed by:** Monica Dymerski      **Level I**      **Date:** 02/18/10


VALIDATOR'S SIGNATURE:       DATE: 02/17/10

Form 5118-1, Revision 0.0

LOS ALAMOS  
Environmental Restoration Project


METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2  Metals Analytical Data Validation Checklist	Records Use only  

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2


METALS ANALYTICAL DATA VALIDATION CHECKLIST		
5118-2	Records Use only	
Metals 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. Metals interference check sample percent recovery value is $\geq 50\%$ and $< 80\%$	UJ, I2a	J-, I2a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. Metals interference check sample percent recovery value is $> 120\%$ .	N/A	J+, I2b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. The sample result is $\leq 5X$ the concentration of the related analyte in the method blank.	U, I4	N/A
<input 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 $< \text{the LAL}$ but $> 10\%$ . Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. The associated matrix spike recovery was $> \text{the UAL}$ . Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b



METALS ANALYTICAL DATA VALIDATION CHECKLIST	
<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"/>	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The sample and the duplicate sample results were $\geq 5X$ the RL and the duplicate RPD was $>20\%$ for water samples and $>35\%$ for soil samples.	UJ, I10a	J, I10a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. The LCS percent recovery was $<10\%$ . Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS percent recover was $<$ the LAL but $>10\%$ . Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The LCS percent recovery was $>$ the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	32. The quantitating IS area count is $<10\%$ for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST		
5118-2	Records Use only	
Metals Analytical Data Validation Checklist		

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144001

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7619

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13000000	ug/Kg		7890	23200	23200	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-36-0	Antimony UJ,16a	1160	ug/Kg	UN	383	1160	1160	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-38-2	Arsenic	2.45	mg/kg		0.233	1.17	1.17	2	MS	SKJ	01/16/10 01:05	100115-3	940093
7440-39-3	Barium	257000	ug/Kg		116	580	580	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-41-7	Beryllium	1.23	mg/kg		0.0233	0.117	0.117	2	MS	SKJ	01/16/10 01:05	100115-3	940093
7440-43-9	Cadmium	291	ug/Kg	J	116	580	580	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-70-2	Calcium	2270000	ug/Kg		9290	29000	29000	1	P	HSC	01/26/10 13:08	012610C-1	940180
7440-47-3	Chromium	16100	ug/Kg	*	174	580	580	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-48-4	Cobalt	7790	ug/Kg		174	580	580	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-50-8	Copper	7220	ug/Kg		348	1160	1160	1	P	HSC	01/25/10 23:27	012510A-2	940180
7439-89-6	Iron	14600000	ug/Kg		9290	29000	29000	1	P	HSC	01/25/10 23:27	012510A-2	940180
7439-92-1	Lead	17000	ug/Kg		290	1160	1160	1	P	HSC	01/25/10 23:27	012510A-2	940180
7439-95-4	Magnesium J+,16b	2330000	ug/Kg	N	9870	34800	34800	1	P	HSC	01/26/10 13:08	012610C-1	940180
7439-96-5	Manganese	567000	ug/Kg		232	1160	1160	1	P	HSC	01/25/10 23:27	012510A-2	940180
7439-97-6	Mercury	14.6	ug/kg		4.76	14	14	1	AV	JXL1	01/26/10 10:15	012610S1-5	943271
7440-02-0	Nickel J-,16a	8.17	mg/kg	N	0.117	0.466	0.466	2	MS	SKJ	01/18/10 16:08	100118-4	940093
7440-09-7	Potassium J+,16b	2180000	ug/Kg	N	7430	29000	29000	1	P	HSC	01/26/10 13:08	012610C-1	940180
7782-49-2	Selenium	1.17	mg/kg	U	0.583	1.17	1.17	2	MS	SKJ	01/16/10 01:05	100115-3	940093
7440-22-4	Silver	693	ug/Kg		116	580	580	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-23-5	Sodium U,14d	61400	ug/Kg		8130	29000	29000	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-28-0	Thallium U,14b	0.288	mg/kg		0.0699	0.233	0.233	2	MS	SKJ	01/16/10 01:05	100115-3	940093
7440-61-1	Uranium	1.67	mg/kg		0.0154	0.0466	0.0466	2	MS	SKJ	01/16/10 01:05	100115-3	940093
7440-62-2	Vanadium	30400	ug/Kg		116	580	580	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-66-6	Zinc	29000	ug/Kg		383	1160	1160	1	P	HSC	01/25/10 23:27	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.512	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.514	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.511	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144002

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7618

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	15900000	ug/Kg		8160	24000	24000	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-36-0	Antimony UJ,16a	1200	ug/Kg	UN	396	1200	1200	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-38-2	Arsenic	2.54	mg/kg		0.247	1.23	1.23	2	MS	SKJ	01/16/10 01:49	100115-3	940093
7440-39-3	Barium	203000	ug/Kg		120	600	600	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-41-7	Beryllium	1.2	mg/kg		0.0247	0.123	0.123	2	MS	SKJ	01/16/10 01:49	100115-3	940093
7440-43-9	Cadmium	167	ug/Kg	J	120	600	600	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-70-2	Calcium	2490000	ug/Kg		9600	30000	30000	1	P	HSC	01/26/10 13:26	012610C-1	940180
7440-47-3	Chromium	14800	ug/Kg	*	180	600	600	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-48-4	Cobalt	6670	ug/Kg		180	600	600	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-50-8	Copper	7260	ug/Kg		360	1200	1200	1	P	HSC	01/26/10 00:02	012510A-2	940180
7439-89-6	Iron	16700000	ug/Kg		9600	30000	30000	1	P	HSC	01/26/10 00:02	012510A-2	940180
7439-92-1	Lead	14700	ug/Kg		300	1200	1200	1	P	HSC	01/26/10 00:02	012510A-2	940180
7439-95-4	Magnesium J+,16b	2800000	ug/Kg	N	10200	36000	36000	1	P	HSC	01/26/10 13:26	012610C-1	940180
7439-96-5	Manganese	394000	ug/Kg		240	1200	1200	1	P	HSC	01/26/10 00:02	012510A-2	940180
7439-97-6	Mercury	15.1	ug/kg		4.75	14	14	1	AV	JXL1	01/26/10 10:27	012610S1-5	943271
7440-02-0	Nickel J-,16a	8.25	mg/kg	N	0.123	0.493	0.493	2	MS	SKJ	01/18/10 16:23	100118-4	940093
7440-09-7	Potassium J+,16b	2360000	ug/Kg	N	7680	30000	30000	1	P	HSC	01/26/10 13:26	012610C-1	940180
7782-49-2	Selenium	1.23	mg/kg	U	0.617	1.23	1.23	2	MS	SKJ	01/16/10 01:49	100115-3	940093
7440-22-4	Silver	645	ug/Kg		120	600	600	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-23-5	Sodium U,14d	106000	ug/Kg		8400	30000	30000	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-28-0	Thallium U,14b	0.245	mg/kg	J	0.074	0.247	0.247	2	MS	SKJ	01/16/10 01:49	100115-3	940093
7440-61-1	Uranium J,14a	0.886	mg/kg		0.0163	0.0493	0.0493	2	MS	SKJ	01/16/10 01:49	100115-3	940093
7440-62-2	Vanadium	30100	ug/Kg		120	600	600	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-66-6	Zinc	32900	ug/Kg		396	1200	1200	1	P	HSC	01/26/10 00:02	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.5	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.514	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.53	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144003

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7623

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11400000	ug/Kg		7820	23000	23000	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-36-0	Antimony UJ, I6a	1150	ug/Kg	UN	379	1150	1150	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-38-2	Arsenic	2	mg/kg		0.233	1.17	1.17	2	MS	SKJ	01/16/10 01:55	100115-3	940093
7440-39-3	Barium	346000	ug/Kg		115	575	575	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-41-7	Beryllium	0.908	mg/kg		0.0233	0.117	0.117	2	MS	SKJ	01/16/10 01:55	100115-3	940093
7440-43-9	Cadmium	241	ug/Kg	J	115	575	575	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-70-2	Calcium	2410000	ug/Kg		9190	28700	28700	1	P	HSC	01/26/10 13:37	012610C-1	940180
7440-47-3	Chromium	20000	ug/Kg	*	172	575	575	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-48-4	Cobalt	6450	ug/Kg		172	575	575	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-50-8	Copper	14300	ug/Kg		345	1150	1150	1	P	HSC	01/26/10 00:24	012510A-2	940180
7439-89-6	Iron	13300000	ug/Kg		9190	28700	28700	1	P	HSC	01/26/10 00:24	012510A-2	940180
7439-92-1	Lead	16300	ug/Kg		287	1150	1150	1	P	HSC	01/26/10 00:24	012510A-2	940180
7439-95-4	Magnesium J+, I6b	1980000	ug/Kg	N	9770	34500	34500	1	P	HSC	01/26/10 13:37	012610C-1	940180
7439-96-5	Manganese	467000	ug/Kg		230	1150	1150	1	P	HSC	01/26/10 00:24	012510A-2	940180
7439-97-6	Mercury	12.5	ug/kg	J	4.49	13.2	13.2	1	AV	JXL1	01/26/10 10:29	012610S1-5	943271
7440-02-0	Nickel J-, I6a	7.79	mg/kg	N	0.117	0.466	0.466	2	MS	SKJ	01/18/10 16:30	100118-4	940093
7440-09-7	Potassium J+, I6b	1940000	ug/Kg	N	7360	28700	28700	1	P	HSC	01/26/10 13:37	012610C-1	940180
7782-49-2	Selenium	1.17	mg/kg	U	0.583	1.17	1.17	2	MS	SKJ	01/16/10 01:55	100115-3	940093
7440-22-4	Silver	682	ug/Kg		115	575	575	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-23-5	Sodium U, I4d	62700	ug/Kg		8050	28700	28700	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-28-0	Thallium U, I4b	0.215	mg/kg	J	0.0699	0.233	0.233	2	MS	SKJ	01/16/10 01:55	100115-3	940093
7440-61-1	Uranium	2.5	mg/kg		0.0154	0.0466	0.0466	2	MS	SKJ	01/16/10 01:55	100115-3	940093
7440-62-2	Vanadium	25900	ug/Kg		115	575	575	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-66-6	Zinc	36400	ug/Kg		379	1150	1150	1	P	HSC	01/26/10 00:24	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.507	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.514	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.537	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144004

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7622

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 91

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	16000000	ug/Kg		7200	21200	21200	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-36-0	Antimony UJ,16a	1060	ug/Kg	UN	349	1060	1060	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-38-2	Arsenic	2.34	mg/kg		0.213	1.06	1.06	2	MS	SKJ	01/16/10 02:01	100115-3	940093
7440-39-3	Barium	210000	ug/Kg		106	529	529	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-41-7	Beryllium	1.04	mg/kg		0.0213	0.106	0.106	2	MS	SKJ	01/16/10 02:01	100115-3	940093
7440-43-9	Cadmium	284	ug/Kg	J	106	529	529	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-70-2	Calcium	2120000	ug/Kg		8470	26500	26500	1	P	HSC	01/26/10 13:41	012610C-1	940180
7440-47-3	Chromium	11900	ug/Kg	*	159	529	529	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-48-4	Cobalt	6090	ug/Kg		159	529	529	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-50-8	Copper	6980	ug/Kg		318	1060	1060	1	P	HSC	01/26/10 00:31	012510A-2	940180
7439-89-6	Iron	14400000	ug/Kg		8470	26500	26500	1	P	HSC	01/26/10 00:31	012510A-2	940180
7439-92-1	Lead	14600	ug/Kg		265	1060	1060	1	P	HSC	01/26/10 00:31	012510A-2	940180
7439-95-4	Magnesium J+,16b	2380000	ug/Kg	N	9000	31800	31800	1	P	HSC	01/26/10 13:41	012610C-1	940180
7439-96-5	Manganese	372000	ug/Kg		212	1060	1060	1	P	HSC	01/26/10 00:31	012510A-2	940180
7439-97-6	Mercury	15.8	ug/kg		4.3	12.7	12.7	1	AV	JXL1	01/26/10 10:30	012610S1-5	943271
7440-02-0	Nickel J-,16a	7.27	mg/kg	N	0.106	0.425	0.425	2	MS	SKJ	01/18/10 16:32	100118-4	940093
7440-09-7	Potassium J+,16b	1950000	ug/Kg	N	6770	26500	26500	1	P	HSC	01/26/10 13:41	012610C-1	940180
7782-49-2	Selenium	1.06	mg/kg	U	0.531	1.06	1.06	2	MS	SKJ	01/16/10 02:01	100115-3	940093
7440-22-4	Silver	312	ug/Kg	J	106	529	529	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-23-5	Sodium U,14d	87800	ug/Kg		7410	26500	26500	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-28-0	Thallium U,14b	0.208	mg/kg	J	0.0638	0.213	0.213	2	MS	SKJ	01/16/10 02:01	100115-3	940093
7440-61-1	Uranium J,14a	0.875	mg/kg		0.014	0.0425	0.0425	2	MS	SKJ	01/16/10 02:01	100115-3	940093
7440-62-2	Vanadium	29800	ug/Kg		106	529	529	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-66-6	Zinc	27700	ug/Kg		349	1060	1060	1	P	HSC	01/26/10 00:31	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.517	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.519	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.521	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144005

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7621

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 92.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10100000	ug/Kg		7200	21200	21200	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-36-0	Antimony UJ,16a	1060	ug/Kg	UN	349	1060	1060	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-38-2	Arsenic	1.43	mg/kg		0.214	1.07	1.07	2	MS	SKJ	01/16/10 02:20	100115-3	940093
7440-39-3	Barium	503000	ug/Kg		106	529	529	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-41-7	Beryllium	0.728	mg/kg		0.0214	0.107	0.107	2	MS	SKJ	01/16/10 02:20	100115-3	940093
7440-43-9	Cadmium	200	ug/Kg	J	106	529	529	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-70-2	Calcium	1790000	ug/Kg		8470	26500	26500	1	P	HSC	01/26/10 13:45	012610C-1	940180
7440-47-3	Chromium	14200	ug/Kg	*	159	529	529	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-48-4	Cobalt	5200	ug/Kg		159	529	529	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-50-8	Copper	29000	ug/Kg		318	1060	1060	1	P	HSC	01/26/10 00:38	012510A-2	940180
7439-89-6	Iron	12100000	ug/Kg		8470	26500	26500	1	P	HSC	01/26/10 00:38	012510A-2	940180
7439-92-1	Lead	20200	ug/Kg		265	1060	1060	1	P	HSC	01/26/10 00:38	012510A-2	940180
7439-95-4	Magnesium J+,16b	1640000	ug/Kg	N	9000	31800	31800	1	P	HSC	01/26/10 13:45	012610C-1	940180
7439-96-5	Manganese	386000	ug/Kg		212	1060	1060	1	P	HSC	01/26/10 00:38	012510A-2	940180
7439-97-6	Mercury	6.98	ug/kg	J	4.35	12.8	12.8	1	AV	JXL1	01/26/10 10:32	012610S1-5	943271
7440-02-0	Nickel J-,16a	6.38	mg/kg	N	0.107	0.428	0.428	2	MS	SKJ	01/18/10 16:35	100118-4	940093
7440-09-7	Potassium J+,16b	1470000	ug/Kg	N	6770	26500	26500	1	P	HSC	01/26/10 13:45	012610C-1	940180
7782-49-2	Selenium	1.07	mg/kg	U	0.536	1.07	1.07	2	MS	SKJ	01/16/10 02:20	100115-3	940093
7440-22-4	Silver	456	ug/Kg	J	106	529	529	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-23-5	Sodium U,14d	72500	ug/Kg		7410	26500	26500	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-28-0	Thallium U,14b	0.168	mg/kg	J	0.0643	0.214	0.214	2	MS	SKJ	01/16/10 02:20	100115-3	940093
7440-61-1	Uranium	1.72	mg/kg		0.0141	0.0428	0.0428	2	MS	SKJ	01/16/10 02:20	100115-3	940093
7440-62-2	Vanadium	23600	ug/Kg		106	529	529	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-66-6	Zinc	30500	ug/Kg		349	1060	1060	1	P	HSC	01/26/10 00:38	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.505	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.511	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.507	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144006

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7617

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 90.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10800000	ug/Kg		7250	21300	21300	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-36-0	Antimony UJ,16a	1070	ug/Kg	UN	352	1070	1070	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-38-2	Arsenic	2.25	mg/kg		0.219	1.1	1.1	2	MS	SKJ	01/16/10 02:26	100115-3	940093
7440-39-3	Barium	197000	ug/Kg		107	533	533	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-41-7	Beryllium	0.940	mg/kg		0.0219	0.11	0.11	2	MS	SKJ	01/16/10 02:26	100115-3	940093
7440-43-9	Cadmium	224	ug/Kg	J	107	533	533	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-70-2	Calcium	2100000	ug/Kg		8520	26600	26600	1	P	HSC	01/26/10 13:48	012610C-1	940180
7440-47-3	Chromium	31300	ug/Kg	*	160	533	533	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-48-4	Cobalt	6180	ug/Kg		160	533	533	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-50-8	Copper	8170	ug/Kg		320	1070	1070	1	P	HSC	01/26/10 00:46	012510A-2	940180
7439-89-6	Iron	12200000	ug/Kg		8520	26600	26600	1	P	HSC	01/26/10 00:46	012510A-2	940180
7439-92-1	Lead	16400	ug/Kg		266	1070	1070	1	P	HSC	01/26/10 00:46	012510A-2	940180
7439-95-4	Magnesium J+,16b	1910000	ug/Kg	N	9060	32000	32000	1	P	HSC	01/26/10 13:48	012610C-1	940180
7439-96-5	Manganese	475000	ug/Kg		213	1070	1070	1	P	HSC	01/26/10 00:46	012510A-2	940180
7439-97-6	Mercury	11.6	ug/kg	J	4.2	12.4	12.4	1	AV	JXL1	01/26/10 10:34	012610S1-5	943271
7440-02-0	Nickel J-,16a	9	mg/kg	N	0.11	0.438	0.438	2	MS	SKJ	01/18/10 16:37	100118-4	940093
7440-09-7	Potassium J+,16b	1790000	ug/Kg	N	6820	26600	26600	1	P	HSC	01/26/10 13:48	012610C-1	940180
7782-49-2	Selenium	1.1	mg/kg	U	0.548	1.1	1.1	2	MS	SKJ	01/16/10 02:26	100115-3	940093
7440-22-4	Silver	482	ug/Kg	J	107	533	533	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-23-5	Sodium U,14d	60000	ug/Kg		7460	26600	26600	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-28-0	Thallium U,14b	0.20	mg/kg	J	0.0657	0.219	0.219	2	MS	SKJ	01/16/10 02:26	100115-3	940093
7440-61-1	Uranium	2.59	mg/kg		0.0145	0.0438	0.0438	2	MS	SKJ	01/16/10 02:26	100115-3	940093
7440-62-2	Vanadium	25700	ug/Kg		107	533	533	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-66-6	Zinc J,14a	23900	ug/Kg		352	1070	1070	1	P	HSC	01/26/10 00:46	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.503	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.517	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.535	g	30	mL	01/25/10	TXB3

EJM  
02/17/10



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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144007

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7620

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	18500000	ug/Kg		7460	22000	22000	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-36-0	Antimony UJ,16a	1100	ug/Kg	UN	362	1100	1100	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-38-2	Arsenic	2.34	mg/kg		0.225	1.13	1.13	2	MS	SKJ	01/16/10 02:33	100115-3	940093
7440-39-3	Barium	242000	ug/Kg		110	549	549	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-41-7	Beryllium	1.3	mg/kg		0.0225	0.113	0.113	2	MS	SKJ	01/16/10 02:33	100115-3	940093
7440-43-9	Cadmium	262	ug/Kg	J	110	549	549	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-70-2	Calcium	2570000	ug/Kg		8780	27400	27400	1	P	HSC	01/26/10 13:52	012610C-1	940180
7440-47-3	Chromium	12100	ug/Kg	*	165	549	549	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-48-4	Cobalt	6660	ug/Kg		165	549	549	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-50-8	Copper	7590	ug/Kg		329	1100	1100	1	P	HSC	01/26/10 00:53	012510A-2	940180
7439-89-6	Iron	15700000	ug/Kg		8780	27400	27400	1	P	HSC	01/26/10 00:53	012510A-2	940180
7439-92-1	Lead	15600	ug/Kg		274	1100	1100	1	P	HSC	01/26/10 00:53	012510A-2	940180
7439-95-4	Magnesium J+,16b	2520000	ug/Kg	N	9330	32900	32900	1	P	HSC	01/26/10 13:52	012610C-1	940180
7439-96-5	Manganese	414000	ug/Kg		220	1100	1100	1	P	HSC	01/26/10 00:53	012510A-2	940180
7439-97-6	Mercury	17.1	ug/kg		4.28	12.6	12.6	1	AV	JXL1	01/26/10 10:35	012610S1-5	943271
7440-02-0	Nickel J-,16a	8.59	mg/kg	N	0.113	0.451	0.451	2	MS	SKJ	01/18/10 16:39	100118-4	940093
7440-09-7	Potassium J+,16b	2080000	ug/Kg	N	7030	27400	27400	1	P	HSC	01/26/10 13:52	012610C-1	940180
7782-49-2	Selenium	1.13	mg/kg	U	0.563	1.13	1.13	2	MS	SKJ	01/16/10 02:33	100115-3	940093
7440-22-4	Silver	594	ug/Kg		110	549	549	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-23-5	Sodium U,14d	97300	ug/Kg		7680	27400	27400	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-28-0	Thallium U,14b	0.239	mg/kg		0.0676	0.225	0.225	2	MS	SKJ	01/16/10 02:33	100115-3	940093
7440-61-1	Uranium	1.33	mg/kg		0.0149	0.0451	0.0451	2	MS	SKJ	01/16/10 02:33	100115-3	940093
7440-62-2	Vanadium	30900	ug/Kg		110	549	549	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-66-6	Zinc	28800	ug/Kg		362	1100	1100	1	P	HSC	01/26/10 00:53	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.5	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.513	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.537	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144008

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7624

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 91.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13300000	ug/Kg		7320	21500	21500	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-36-0	Antimony UJ,16a	1080	ug/Kg	UN	355	1080	1080	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-38-2	Arsenic	2.13	mg/kg		0.215	1.08	1.08	2	MS	SKJ	01/16/10 02:39	100115-3	940093
7440-39-3	Barium	249000	ug/Kg		108	539	539	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-41-7	Beryllium	0.979	mg/kg		0.0215	0.108	0.108	2	MS	SKJ	01/16/10 02:39	100115-3	940093
7440-43-9	Cadmium	230	ug/Kg	J	108	539	539	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-70-2	Calcium	2810000	ug/Kg		8620	26900	26900	1	P	HSC	01/26/10 13:56	012610C-1	940180
7440-47-3	Chromium	13500	ug/Kg	*	162	539	539	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-48-4	Cobalt	6720	ug/Kg		162	539	539	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-50-8	Copper	7270	ug/Kg		323	1080	1080	1	P	HSC	01/26/10 01:00	012510A-2	940180
7439-89-6	Iron	13800000	ug/Kg		8620	26900	26900	1	P	HSC	01/26/10 01:00	012510A-2	940180
7439-92-1	Lead	14300	ug/Kg		269	1080	1080	1	P	HSC	01/26/10 01:00	012510A-2	940180
7439-95-4	Magnesium J+,16b	2250000	ug/Kg	N	9160	32300	32300	1	P	HSC	01/26/10 13:56	012610C-1	940180
7439-96-5	Manganese	443000	ug/Kg		215	1080	1080	1	P	HSC	01/26/10 01:00	012510A-2	940180
7439-97-6	Mercury	11.6	ug/kg	J	4.16	12.2	12.2	1	AV	JXL1	01/26/10 10:37	012610S1-5	943271
7440-02-0	Nickel J-,16a	7.68	mg/kg	N	0.108	0.431	0.431	2	MS	SKJ	01/18/10 16:46	100118-4	940093
7440-09-7	Potassium J+,16b	1880000	ug/Kg	N	6890	26900	26900	1	P	HSC	01/26/10 13:56	012610C-1	940180
7782-49-2	Selenium	1.08	mg/kg	U	0.539	1.08	1.08	2	MS	SKJ	01/16/10 02:39	100115-3	940093
7440-22-4	Silver	517	ug/Kg	J	108	539	539	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-23-5	Sodium U,14d	82900	ug/Kg		7540	26900	26900	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-28-0	Thallium U,14b	0.213	mg/kg	J	0.0646	0.215	0.215	2	MS	SKJ	01/16/10 02:39	100115-3	940093
7440-61-1	Uranium	1.53	mg/kg		0.0142	0.0431	0.0431	2	MS	SKJ	01/16/10 02:39	100115-3	940093
7440-62-2	Vanadium	28100	ug/Kg		108	539	539	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-66-6	Zinc	28500	ug/Kg		355	1080	1080	1	P	HSC	01/26/10 01:00	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.507	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.507	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.536	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144009

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7630

LEVEL: Low

DATE RECEIVED 08-JAN-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	19400000	ug/Kg		7460	22000	22000	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-36-0	Antimony UJ,16a	1100	ug/Kg	UN	362	1100	1100	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-38-2	Arsenic	2.47	mg/kg		0.227	1.14	1.14	2	MS	SKJ	01/16/10 02:45	100115-3	940093
7440-39-3	Barium	218000	ug/Kg		110	549	549	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-41-7	Beryllium	1.22	mg/kg		0.0227	0.114	0.114	2	MS	SKJ	01/16/10 02:45	100115-3	940093
7440-43-9	Cadmium	152	ug/Kg	J	110	549	549	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-70-2	Calcium	2580000	ug/Kg		8780	27400	27400	1	P	HSC	01/26/10 13:59	012610C-1	940180
7440-47-3	Chromium	11400	ug/Kg	*	165	549	549	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-48-4	Cobalt	4800	ug/Kg		165	549	549	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-50-8	Copper	7570	ug/Kg		329	1100	1100	1	P	HSC	01/26/10 01:07	012510A-2	940180
7439-89-6	Iron	14900000	ug/Kg		8780	27400	27400	1	P	HSC	01/26/10 01:07	012510A-2	940180
7439-92-1	Lead	14000	ug/Kg		274	1100	1100	1	P	HSC	01/26/10 01:07	012510A-2	940180
7439-95-4	Magnesium J+,16b	2710000	ug/Kg	N	9330	32900	32900	1	P	HSC	01/26/10 13:59	012610C-1	940180
7439-96-5	Manganese	288000	ug/Kg		220	1100	1100	1	P	HSC	01/26/10 01:07	012510A-2	940180
7439-97-6	Mercury	21.9	ug/kg		4.17	12.3	12.3	1	AV	JXL1	01/26/10 10:42	012610S1-5	943271
7440-02-0	Nickel J-,16a	8.64	mg/kg	N	0.114	0.455	0.455	2	MS	SKJ	01/18/10 16:48	100118-4	940093
7440-09-7	Potassium J+,16b	2110000	ug/Kg	N	7020	27400	27400	1	P	HSC	01/26/10 13:59	012610C-1	940180
7782-49-2	Selenium	1.14	mg/kg	U	0.568	1.14	1.14	2	MS	SKJ	01/16/10 02:45	100115-3	940093
7440-22-4	Silver	557	ug/Kg		110	549	549	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-23-5	Sodium	133000	ug/Kg		7680	27400	27400	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-28-0	Thallium U,14b	0.231	mg/kg		0.0682	0.227	0.227	2	MS	SKJ	01/16/10 02:45	100115-3	940093
7440-61-1	Uranium	0.983	mg/kg		0.015	0.0455	0.0455	2	MS	SKJ	01/16/10 02:45	100115-3	940093
7440-62-2	Vanadium	26300	ug/Kg		110	549	549	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-66-6	Zinc	29100	ug/Kg		362	1100	1100	1	P	HSC	01/26/10 01:07	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.502	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.52	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.559	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144010

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7628

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	15000000	ug/Kg		7250	21300	21300	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-36-0	Antimony UJ,16a	1070	ug/Kg	UN	352	1070	1070	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-38-2	Arsenic	2.29	mg/kg		0.219	1.09	1.09	2	MS	SKJ	01/16/10 03:04	100115-3	940093
7440-39-3	Barium	228000	ug/Kg		107	533	533	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-41-7	Beryllium	1.1	mg/kg		0.0219	0.109	0.109	2	MS	SKJ	01/16/10 03:04	100115-3	940093
7440-43-9	Cadmium	255	ug/Kg	J	107	533	533	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-70-2	Calcium	2480000	ug/Kg		8530	26700	26700	1	P	HSC	01/26/10 14:03	012610C-1	940180
7440-47-3	Chromium	13100	ug/Kg	*	160	533	533	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-48-4	Cobalt	6910	ug/Kg		160	533	533	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-50-8	Copper	7140	ug/Kg		320	1070	1070	1	P	HSC	01/26/10 01:14	012510A-2	940180
7439-89-6	Iron	15300000	ug/Kg		8530	26700	26700	1	P	HSC	01/26/10 01:14	012510A-2	940180
7439-92-1	Lead	14900	ug/Kg		267	1070	1070	1	P	HSC	01/26/10 01:14	012510A-2	940180
7439-95-4	Magnesium J+,16b	2480000	ug/Kg	N	9070	32000	32000	1	P	HSC	01/26/10 14:03	012610C-1	940180
7439-96-5	Manganese	433000	ug/Kg		213	1070	1070	1	P	HSC	01/26/10 01:14	012510A-2	940180
7439-97-6	Mercury	9.72	ug/kg	J	4.44	13	13	1	AV	JXLJ	01/26/10 10:44	012610S1-5	943271
7440-02-0	Nickel J-,16a	7.84	mg/kg	N	0.109	0.437	0.437	2	MS	SKJ	01/18/10 16:50	100118-4	940093
7440-09-7	Potassium J+,16b	2210000	ug/Kg	N	6830	26700	26700	1	P	HSC	01/26/10 14:03	012610C-1	940180
7782-49-2	Selenium	1.09	mg/kg	U	0.547	1.09	1.09	2	MS	SKJ	01/16/10 03:04	100115-3	940093
7440-22-4	Silver	606	ug/Kg		107	533	533	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-23-5	Sodium U,14d	74200	ug/Kg		7470	26700	26700	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-28-0	Thallium U,14b	0.222	mg/kg		0.0656	0.219	0.219	2	MS	SKJ	01/16/10 03:04	100115-3	940093
7440-61-1	Uranium	1.13	mg/kg		0.0144	0.0437	0.0437	2	MS	SKJ	01/16/10 03:04	100115-3	940093
7440-62-2	Vanadium	31500	ug/Kg		107	533	533	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-66-6	Zinc	28400	ug/Kg		352	1070	1070	1	P	HSC	01/26/10 01:14	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.51	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.523	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.513	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144011

BASIS: Dry Weight

DATE COLLECTED 04 JAN-10

CLIENT ID: RE12-10-7632

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 90.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	14100000	ug/Kg		7330	21600	21600	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-36-0	Antimony UJ,16a	1080	ug/Kg	UN	356	1080	1080	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-38-2	Arsenic	2.25	mg/kg		0.219	1.09	1.09	2	MS	SKJ	01/16/10 03:10	100115-3	940093
7440-39-3	Barium	219000	ug/Kg		108	539	539	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-41-7	Beryllium	1.01	mg/kg		0.0219	0.109	0.109	2	MS	SKJ	01/16/10 03:10	100115-3	940093
7440-43-9	Cadmium	209	ug/Kg	J	108	539	539	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-70-2	Calcium	2230000	ug/Kg		8620	27000	27000	1	P	HSC	01/26/10 14:14	012610C-1	940180
7440-47-3	Chromium	11600	ug/Kg	*	162	539	539	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-48-4	Cobalt	6090	ug/Kg		162	539	539	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-50-8	Copper	7050	ug/Kg		323	1080	1080	1	P	HSC	01/26/10 01:36	012510A-2	940180
7439-89-6	Iron	15200000	ug/Kg		8620	27000	27000	1	P	HSC	01/26/10 01:36	012510A-2	940180
7439-92-1	Lead	13400	ug/Kg		270	1080	1080	1	P	HSC	01/26/10 01:36	012510A-2	940180
7439-95-4	Magnesium J+,16b	2530000	ug/Kg	N	9160	32300	32300	1	P	HSC	01/26/10 14:14	012610C-1	940180
7439-96-5	Manganese	370000	ug/Kg		216	1080	1080	1	P	HSC	01/26/10 01:36	012510A-2	940180
7439-97-6	Mercury	14.7	ug/kg		4.19	12.3	12.3	1	AV	JXL1	01/26/10 10:45	012610S1-5	943271
7440-02-0	Nickel J-,16a	7.77	mg/kg	N	0.109	0.437	0.437	2	MS	SKJ	01/18/10 16:53	100118-4	940093
7440-09-7	Potassium J+,16b	2190000	ug/Kg	N	6900	27000	27000	1	P	HSC	01/26/10 14:14	012610C-1	940180
7782-49-2	Selenium	1.09	mg/kg	U	0.547	1.09	1.09	2	MS	SKJ	01/16/10 03:10	100115-3	940093
7440-22-4	Silver	579	ug/Kg		108	539	539	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-23-5	Sodium U,14d	94800	ug/Kg		7550	27000	27000	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-28-0	Thallium U,14b	0.210	mg/kg	J	0.0656	0.219	0.219	2	MS	SKJ	01/16/10 03:10	100115-3	940093
7440-61-1	Uranium J,14a	0.810	mg/kg		0.0144	0.0437	0.0437	2	MS	SKJ	01/16/10 03:10	100115-3	940093
7440-62-2	Vanadium	29300	ug/Kg		108	539	539	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-66-6	Zinc	29600	ug/Kg		356	1080	1080	1	P	HSC	01/26/10 01:36	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.504	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.511	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.536	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144012

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7629

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9800000	ug/Kg		8200	24100	24100	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-36-0	Antimony U,14b	886	ug/Kg	JN	398	1210	1210	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-38-2	Arsenic	2.12	mg/kg		0.244	1.22	1.22	2	MS	SKJ	01/16/10 03:16	100115-3	940093
7440-39-3	Barium	207000	ug/Kg		121	603	603	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-41-7	Beryllium	0.858	mg/kg		0.0244	0.122	0.122	2	MS	SKJ	01/16/10 03:16	100115-3	940093
7440-43-9	Cadmium	191	ug/Kg	J	121	603	603	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-70-2	Calcium	2140000	ug/Kg		9650	30200	30200	1	P	HSC	01/26/10 14:18	012610C-1	940180
7440-47-3	Chromium	74300	ug/Kg	*	181	603	603	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-48-4	Cobalt	5470	ug/Kg		181	603	603	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-50-8	Copper	9110	ug/Kg		362	1210	1210	1	P	HSC	01/26/10 01:43	012510A-2	940180
7439-89-6	Iron	12000000	ug/Kg		9650	30200	30200	1	P	HSC	01/26/10 01:43	012510A-2	940180
7439-92-1	Lead	13000	ug/Kg		302	1210	1210	1	P	HSC	01/26/10 01:43	012510A-2	940180
7439-95-4	Magnesium J+,16b	1820000	ug/Kg	N	10300	36200	36200	1	P	HSC	01/26/10 14:18	012610C-1	940180
7439-96-5	Manganese	362000	ug/Kg		241	1210	1210	1	P	HSC	01/26/10 01:43	012510A-2	940180
7439-97-6	Mercury	7.12	ug/kg	J	4.74	14	14	1	AV	JXL1	01/26/10 10:47	012610S1-5	943271
7440-02-0	Nickel J-,16a	8.87	mg/kg	N	0.122	0.487	0.487	2	MS	SKJ	01/18/10 16:55	100118-4	940093
7440-09-7	Potassium J+,16b	1920000	ug/Kg	N	7720	30200	30200	1	P	HSC	01/26/10 14:18	012610C-1	940180
7782-49-2	Selenium	1.22	mg/kg	U	0.609	1.22	1.22	2	MS	SKJ	01/16/10 03:16	100115-3	940093
7440-22-4	Silver	594	ug/Kg	J	121	603	603	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-23-5	Sodium U,14d	66800	ug/Kg		8450	30200	30200	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-28-0	Thallium U,14b	0.166	mg/kg	J	0.0731	0.244	0.244	2	MS	SKJ	01/16/10 03:16	100115-3	940093
7440-61-1	Uranium	3.59	mg/kg		0.0161	0.0487	0.0487	2	MS	SKJ	01/16/10 03:16	100115-3	940093
7440-62-2	Vanadium	23200	ug/Kg		121	603	603	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-66-6	Zinc	37300	ug/Kg		398	1210	1210	1	P	HSC	01/26/10 01:43	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.502	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.507	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.526	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144013

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7626

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	16700000	ug/Kg		7410	21800	21800	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-36-0	Antimony UJ,16a	1090	ug/Kg	UN	359	1090	1090	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-38-2	Arsenic	2.17	mg/kg		0.218	1.09	1.09	2	MS	SKJ	01/16/10 03:23	100115-3	940093
7440-39-3	Barium	225000	ug/Kg		109	545	545	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-41-7	Beryllium	1.08	mg/kg		0.0218	0.109	0.109	2	MS	SKJ	01/16/10 03:23	100115-3	940093
7440-43-9	Cadmium	255	ug/Kg	J	109	545	545	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-70-2	Calcium	2460000	ug/Kg		8710	27200	27200	1	P	HSC	01/26/10 14:22	012610C-1	940180
7440-47-3	Chromium	12300	ug/Kg	*	163	545	545	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-48-4	Cobalt	6510	ug/Kg		163	545	545	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-50-8	Copper	7120	ug/Kg		327	1090	1090	1	P	HSC	01/26/10 01:50	012510A-2	940180
7439-89-6	Iron	15400000	ug/Kg		8710	27200	27200	1	P	HSC	01/26/10 01:50	012510A-2	940180
7439-92-1	Lead	14700	ug/Kg		272	1090	1090	1	P	HSC	01/26/10 01:50	012510A-2	940180
7439-95-4	Magnesium J+,16b	2430000	ug/Kg	N	9260	32700	32700	1	P	HSC	01/26/10 14:22	012610C-1	940180
7439-96-5	Manganesec	415000	ug/Kg		218	1090	1090	1	P	HSC	01/26/10 01:50	012510A-2	940180
7439-97-6	Mercury	15	ug/kg		4.33	12.7	12.7	1	AV	JXL1	01/26/10 10:49	012610S1-5	943271
7440-02-0	Nickel J-,16a	8.02	mg/kg	N	0.109	0.436	0.436	2	MS	SKJ	01/18/10 17:02	100118-4	940093
7440-09-7	Potassium J+,16b	2070000	ug/Kg	N	6970	27200	27200	1	P	HSC	01/26/10 14:22	012610C-1	940180
7782-49-2	Selenium	1.09	mg/kg	U	0.545	1.09	1.09	2	MS	SKJ	01/16/10 03:23	100115-3	940093
7440-22-4	Silver	500	ug/Kg	J	109	545	545	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-23-5	Sodium U,14d	84900	ug/Kg		7630	27200	27200	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-28-0	Thallium U,14b	0.217	mg/kg	J	0.0654	0.218	0.218	2	MS	SKJ	01/16/10 03:23	100115-3	940093
7440-61-1	Uranium J,14a	0.879	mg/kg		0.0144	0.0436	0.0436	2	MS	SKJ	01/16/10 03:23	100115-3	940093
7440-62-2	Vanadium	30200	ug/Kg		109	545	545	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-66-6	Zinc	29100	ug/Kg		359	1090	1090	1	P	HSC	01/26/10 01:50	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.51	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.51	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.523	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144014

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7631

LEVEL: Low

DATE RECEIVED 08-JAN-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	10500000	ug/Kg		8140	24000	24000	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-36-0	Antimony U,14b	955	ug/Kg	JN	395	1200	1200	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-38-2	Arsenic	2.46	mg/kg		0.238	1.19	1.19	2	MS	SKJ	01/16/10 03:29	100115-3	940093
7440-39-3	Barium	200000	ug/Kg		120	599	599	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-41-7	Beryllium	0.915	mg/kg		0.0238	0.119	0.119	2	MS	SKJ	01/16/10 03:29	100115-3	940093
7440-43-9	Cadmium	228	ug/Kg	J	120	599	599	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-70-2	Calcium	2260000	ug/Kg		9580	29900	29900	1	P	HSC	01/26/10 14:25	012610C-1	940180
7440-47-3	Chromium	56800	ug/Kg	*	180	599	599	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-48-4	Cobalt	6570	ug/Kg		180	599	599	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-50-8	Copper	7530	ug/Kg		359	1200	1200	1	P	HSC	01/26/10 01:58	012510A-2	940180
7439-89-6	Iron	13900000	ug/Kg		9580	29900	29900	1	P	HSC	01/26/10 01:58	012510A-2	940180
7439-92-1	Lead	15300	ug/Kg		299	1200	1200	1	P	HSC	01/26/10 01:58	012510A-2	940180
7439-95-4	Magnesium J+,16b	1930000	ug/Kg	N	10200	35900	35900	1	P	HSC	01/26/10 14:25	012610C-1	940180
7439-96-5	Manganese	465000	ug/Kg		240	1200	1200	1	P	HSC	01/26/10 01:58	012510A-2	940180
7439-97-6	Mercury	12.4	ug/kg	J	4.87	14.3	14.3	1	AV	JXL1	01/26/10 10:50	012610S1-5	943271
7440-02-0	Nickel J-,16a	11.3	mg/kg	N	0.119	0.476	0.476	2	MS	SKJ	01/18/10 17:04	100118-4	940093
7440-09-7	Potassium J+,16b	1860000	ug/Kg	N	7660	29900	29900	1	P	HSC	01/26/10 14:25	012610C-1	940180
7782-49-2	Selenium	1.19	mg/kg	U	0.595	1.19	1.19	2	MS	SKJ	01/16/10 03:29	100115-3	940093
7440-22-4	Silver	796	ug/Kg		120	599	599	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-23-5	Sodium U,14d	60700	ug/Kg		8380	29900	29900	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-28-0	Thallium U,14b	0.201	mg/kg	J	0.0714	0.238	0.238	2	MS	SKJ	01/16/10 03:29	100115-3	940093
7440-61-1	Uranium	1.92	mg/kg		0.0157	0.0476	0.0476	2	MS	SKJ	01/16/10 03:29	100115-3	940093
7440-62-2	Vanadium	28100	ug/Kg		120	599	599	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-66-6	Zinc J,14a	26700	ug/Kg		395	1200	1200	1	P	HSC	01/26/10 01:58	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.505	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.502	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.504	g	30	mL	01/25/10	TXB3

EJM  
02/17/10



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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144015

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7627

LEVEL: Low

DATE RECEIVED 08-JAN-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	9460000	ug/Kg		8830	26000	26000	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-36-0	Antimony UJ,16a	1300	ug/Kg	UN	429	1300	1300	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-38-2	Arsenic	2.21	mg/kg		0.25	1.25	1.25	2	MS	SKJ	01/16/10 03:47	100115-3	940093
7440-39-3	Barium	204000	ug/Kg		130	649	649	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-41-7	Beryllium	0.876	mg/kg		0.025	0.125	0.125	2	MS	SKJ	01/16/10 03:47	100115-3	940093
7440-43-9	Cadmium	275	ug/Kg	J	130	649	649	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-70-2	Calcium	2450000	ug/Kg		10400	32500	32500	1	P	HSC	01/26/10 14:29	012610C-1	940180
7440-47-3	Chromium	21400	ug/Kg	*	195	649	649	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-48-4	Cobalt	5800	ug/Kg		195	649	649	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-50-8	Copper	10700	ug/Kg		390	1300	1300	1	P	HSC	01/26/10 02:05	012510A-2	940180
7439-89-6	Iron	12200000	ug/Kg		10400	32500	32500	1	P	HSC	01/26/10 02:05	012510A-2	940180
7439-92-1	Lead	16000	ug/Kg		325	1300	1300	1	P	HSC	01/26/10 02:05	012510A-2	940180
7439-95-4	Magnesium J+,16b	1860000	ug/Kg	N	11000	39000	39000	1	P	HSC	01/26/10 14:29	012610C-1	940180
7439-96-5	Manganese	427000	ug/Kg		260	1300	1300	1	P	HSC	01/26/10 02:05	012510A-2	940180
7439-97-6	Mercury	13.9	ug/kg		4.51	13.3	13.3	1	AV	JXL1	01/26/10 10:52	012610S1-5	943271
7440-02-0	Nickel J-,16a	8.22	mg/kg	N	0.125	0.5	0.5	2	MS	SKJ	01/18/10 17:06	100118-4	940093
7440-09-7	Potassium J+,16b	1960000	ug/Kg	N	8310	32500	32500	1	P	HSC	01/26/10 14:29	012610C-1	940180
7782-49-2	Selenium	1.25	mg/kg	U	0.625	1.25	1.25	2	MS	SKJ	01/16/10 03:47	100115-3	940093
7440-22-4	Silver	632	ug/Kg	J	130	649	649	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-23-5	Sodium U,14d	46500	ug/Kg		9090	32500	32500	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-28-0	Thallium U,14b	0.219	mg/kg	J	0.075	0.25	0.25	2	MS	SKJ	01/16/10 03:47	100115-3	940093
7440-61-1	Uranium	2.92	mg/kg		0.0165	0.05	0.05	2	MS	SKJ	01/16/10 03:47	100115-3	940093
7440-62-2	Vanadium	25400	ug/Kg		130	649	649	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-66-6	Zinc J,14a	28700	ug/Kg		429	1300	1300	1	P	HSC	01/26/10 02:05	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.525	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.505	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.593	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144016

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7625

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11000000	ug/Kg		8090	23800	23800	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-36-0	Antimony UJ,16a	1190	ug/Kg	UN	393	1190	1190	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-38-2	Arsenic	2.09	mg/kg		0.238	1.19	1.19	2	MS	SKJ	01/16/10 03:54	100115-3	940093
7440-39-3	Barium	197000	ug/Kg		119	595	595	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-41-7	Beryllium	1.07	mg/kg		0.0238	0.119	0.119	2	MS	SKJ	01/16/10 03:54	100115-3	940093
7440-43-9	Cadmium	281	ug/Kg	J	119	595	595	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-70-2	Calcium	2290000	ug/Kg		9520	29800	29800	1	P	HSC	01/26/10 14:33	012610C-1	940180
7440-47-3	Chromium	27200	ug/Kg	*	179	595	595	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-48-4	Cobalt	5690	ug/Kg		179	595	595	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-50-8	Copper	18500	ug/Kg		357	1190	1190	1	P	HSC	01/26/10 02:12	012510A-2	940180
7439-89-6	Iron	12300000	ug/Kg		9520	29800	29800	1	P	HSC	01/26/10 02:12	012510A-2	940180
7439-92-1	Lead	15600	ug/Kg		298	1190	1190	1	P	HSC	01/26/10 02:12	012510A-2	940180
7439-95-4	Magnesium J+,16b	1810000	ug/Kg	N	10100	35700	35700	1	P	HSC	01/26/10 14:33	012610C-1	940180
7439-96-5	Manganese	411000	ug/Kg		238	1190	1190	1	P	HSC	01/26/10 02:12	012510A-2	940180
7439-97-6	Mercury	11.8	ug/kg	J	4.82	14.2	14.2	1	AV	JXL1	01/26/10 10:54	012610S1-5	943271
7440-02-0	Nickel J-,16a	8.47	mg/kg	N	0.119	0.475	0.475	2	MS	SKJ	01/18/10 17:08	100118-4	940093
7440-09-7	Potassium J+,16b	1820000	ug/Kg	N	7620	29800	29800	1	P	HSC	01/26/10 14:33	012610C-1	940180
7782-49-2	Selenium	1.19	mg/kg	U	0.594	1.19	1.19	2	MS	SKJ	01/16/10 03:54	100115-3	940093
7440-22-4	Silver	589	ug/Kg	J	119	595	595	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-23-5	Sodium U,14d	57000	ug/Kg		8330	29800	29800	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-28-0	Thallium U,14b	0.203	mg/kg	J	0.0713	0.238	0.238	2	MS	SKJ	01/16/10 03:54	100115-3	940093
7440-61-1	Uranium	1.68	mg/kg		0.0157	0.0475	0.0475	2	MS	SKJ	01/16/10 03:54	100115-3	940093
7440-62-2	Vanadium	24700	ug/Kg		119	595	595	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-66-6	Zinc J,14a	26900	ug/Kg		393	1190	1190	1	P	HSC	01/26/10 02:12	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.511	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.51	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.514	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144017

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7656

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 92.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8490000	ug/Kg		7010	20600	20600	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-36-0	Antimony UJ,16a	1030	ug/Kg	UN	340	1030	1030	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-38-2	Arsenic	1.47	mg/kg		0.212	1.06	1.06	2	MS	SKJ	01/16/10 04:00	100115-3	940093
7440-39-3	Barium	469000	ug/Kg		103	515	515	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-41-7	Beryllium	0.819	mg/kg		0.0212	0.106	0.106	2	MS	SKJ	01/16/10 04:00	100115-3	940093
7440-43-9	Cadmium	175	ug/Kg	J	103	515	515	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-70-2	Calcium	1740000	ug/Kg		8240	25800	25800	1	P	HSC	01/26/10 14:36	012610C-1	940180
7440-47-3	Chromium	13000	ug/Kg	*	155	515	515	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-48-4	Cobalt	4610	ug/Kg		155	515	515	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-50-8	Copper	18900	ug/Kg		309	1030	1030	1	P	HSC	01/26/10 02:19	012510A-2	940180
7439-89-6	Iron	10900000	ug/Kg		8240	25800	25800	1	P	HSC	01/26/10 02:19	012510A-2	940180
7439-92-1	Lead	21700	ug/Kg		258	1030	1030	1	P	HSC	01/26/10 02:19	012510A-2	940180
7439-95-4	Magnesium J+,16b	1410000	ug/Kg	N	8760	30900	30900	1	P	HSC	01/26/10 14:36	012610C-1	940180
7439-96-5	Manganese	350000	ug/Kg		206	1030	1030	1	P	HSC	01/26/10 02:19	012510A-2	940180
7439-97-6	Mercury	7.44	ug/kg	J	4.25	12.5	12.5	1	AV	JXL1	01/26/10 10:56	012610S1-5	943271
7440-02-0	Nickel J-,16a	7.95	mg/kg	N	0.106	0.424	0.424	2	MS	SKJ	01/18/10 17:11	100118-4	940093
7440-09-7	Potassium J+,16b	1310000	ug/Kg	N	6600	25800	25800	1	P	HSC	01/26/10 14:36	012610C-1	940180
7782-49-2	Selenium	1.06	mg/kg	U	0.53	1.06	1.06	2	MS	SKJ	01/16/10 04:00	100115-3	940093
7440-22-4	Silver	489	ug/Kg	J	103	515	515	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-23-5	Sodium U,14d	72800	ug/Kg		7210	25800	25800	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-28-0	Thallium U,14b	0.156	mg/kg	J	0.0636	0.212	0.212	2	MS	SKJ	01/16/10 04:00	100115-3	940093
7440-61-1	Uranium	1.56	mg/kg		0.014	0.0424	0.0424	2	MS	SKJ	01/16/10 04:00	100115-3	940093
7440-62-2	Vanadium	20700	ug/Kg		103	515	515	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-66-6	Zinc	27700	ug/Kg		340	1030	1030	1	P	HSC	01/26/10 02:19	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.51	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.525	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.519	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144018

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7655

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 90.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	16600000	ug/Kg		7410	21800	21800	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-36-0	Antimony UJ,16a	1090	ug/Kg	UN	360	1090	1090	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-38-2	Arsenic	2.29	mg/kg		0.217	1.09	1.09	2	MS	SKJ	01/16/10 04:06	100115-3	940093
7440-39-3	Barium	248000	ug/Kg		109	545	545	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-41-7	Beryllium	1.18	mg/kg		0.0217	0.109	0.109	2	MS	SKJ	01/16/10 04:06	100115-3	940093
7440-43-9	Cadmium	286	ug/Kg	J	109	545	545	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-70-2	Calcium	2500000	ug/Kg		8720	27300	27300	1	P	HSC	01/26/10 14:40	012610C-1	940180
7440-47-3	Chromium	12300	ug/Kg	*	164	545	545	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-48-4	Cobalt	6010	ug/Kg		164	545	545	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-50-8	Copper	7020	ug/Kg		327	1090	1090	1	P	HSC	01/26/10 02:26	012510A-2	940180
7439-89-6	Iron	14500000	ug/Kg		8720	27300	27300	1	P	HSC	01/26/10 02:26	012510A-2	940180
7439-92-1	Lead	14700	ug/Kg		273	1090	1090	1	P	HSC	01/26/10 02:26	012510A-2	940180
7439-95-4	Magnesium J+,16b	2480000	ug/Kg	N	9270	32700	32700	1	P	HSC	01/26/10 14:40	012610C-1	940180
7439-96-5	Manganese	383000	ug/Kg		218	1090	1090	1	P	HSC	01/26/10 02:26	012510A-2	940180
7439-97-6	Mercury	15.2	ug/kg		4.14	12.2	12.2	1	AV	JXL1	01/26/10 10:57	012610S1-5	943271
7440-02-0	Nickel J-,16a	7.85	mg/kg	N	0.109	0.434	0.434	2	MS	SKJ	01/18/10 17:13	100118-4	940093
7440-09-7	Potassium J+,16b	2200000	ug/Kg	N	6980	27300	27300	1	P	HSC	01/26/10 14:40	012610C-1	940180
7782-49-2	Selenium	1.09	mg/kg	U	0.543	1.09	1.09	2	MS	SKJ	01/16/10 04:06	100115-3	940093
7440-22-4	Silver	312	ug/Kg	J	109	545	545	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-23-5	Sodium U,14d	85600	ug/Kg		7630	27300	27300	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-28-0	Thallium U,14b	0.218	mg/kg		0.0652	0.217	0.217	2	MS	SKJ	01/16/10 04:06	100115-3	940093
7440-61-1	Uranium	0.988	mg/kg		0.0143	0.0434	0.0434	2	MS	SKJ	01/16/10 04:06	100115-3	940093
7440-62-2	Vanadium	29000	ug/Kg		109	545	545	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-66-6	Zinc	28500	ug/Kg		360	1090	1090	1	P	HSC	01/26/10 02:26	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.511	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.509	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.547	g	30	mL	01/25/10	TXB3

EJM  
02/17/10

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

SDG No: 10-1128-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244145001

BASIS: As Received

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7662

LEVEL: Low

DATE RECEIVED 08-JAN-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	235	ug/L		68	200	200	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	SKJ	01/14/10 01:22	100113-2	940082
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-39-3	Barium	2.99	ug/L	J	1	5	5	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	01/21/10 16:33	100121-5	940082
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	SKJ	01/14/10 01:22	100113-2	940082
7440-70-2	Calcium	63.1	ug/L	J	50	200	200	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-47-3	Chromium	1.48	ug/L	J	1	5	5	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	01/18/10 17:45	011810-1	940084
7439-89-6	Iron	122	ug/L		30	100	100	1	P	HSC	01/18/10 17:45	011810-1	940084
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	SKJ	01/14/10 01:22	100113-2	940082
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	01/18/10 17:45	011810-1	940084
7439-96-5	Manganese	4.63	ug/L	J	1	5	5	1	MS	SKJ	01/14/10 01:22	100113-2	940082
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	01/14/10 10:31	011410W1-6	941150
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-09-7	Potassium	148	ug/L	J	50	150	150	1	P	HSC	01/18/10 17:45	011810-1	940084
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-23-5	Sodium	175	ug/L	J	100	300	300	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	SKJ	01/14/10 23:12	100114-3	940082
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	SKJ	01/14/10 01:22	100113-2	940082
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	01/18/10 17:45	011810-1	940084

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940082	940079	SW846 3005A	50	mL	50	mL	01/11/10	FGA
940084	940083	SW846 3005A	50	mL	50	mL	01/11/10	FGA
941150	941148	SW846 7470A Prep	20	mL	20	mL	01/13/10	TXB3

EJM  
02/17/10

## DATA VALIDATION COVER SHEET

5120-1

Records Use only

## Data Validation Cover Sheet



## Section I.

REQUEST NUMBER: 10-1128 VALIDATION DATE: 02/17/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Ellen McEntee 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 | PESTICIDES/POLYCHLORINATED BIPHENYLS         |
| <input type="checkbox"/> OTHER (DESCRIBE): total cyanide only |  |   |  |


## Section II. Completeness Check

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


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

1. In the CCB associated with the water sample, total cyanide was detected. The associated result was an ND and, thus, was not qualified.
2. The MS %R associated with the water sample was < the laboratory LAL but  $\geq 10\%$  for total cyanide. The associated sample result was an ND and, thus, was qualified UJ, I6a. It should be noted that the MS for total cyanide was performed on a LANL sample from another RN. No sample data was qualified as a result.

Reviewed by: Monica Dymerski Level I Date: 02/18/10VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 02/17/10


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

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

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

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 checked="" type="checkbox"/>	<input 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: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7629  
Sample ID: 244144012  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 18.3%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	75.6	278	ug/kg	1	AXC2	01/13/10	1159	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7626  
Sample ID: 244144013  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 10%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	J	81.2	74.1	272	ug/kg	1	AXC2	01/13/10	1200	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7631  
Sample ID: 244144014  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 16.8%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	80.2	295	ug/kg	1	AXC2	01/13/10	1201	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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## Certificate of Analysis

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7627  
Sample ID: 244144015  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 23.8%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	J	136	87.5	322	ug/kg	1	AXC2	01/13/10	1202	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7625  
Sample ID: 244144016  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 17.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	J	77.0	76.4	281	ug/kg	1	AXC2	01/13/10	1203	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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## Certificate of Analysis

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7656  
Sample ID: 244144017  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 7.58%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	65.7	242	ug/kg	1	AXC2	01/13/10	1204	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7655  
Sample ID: 244144018  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 9.91%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	75.5	277	ug/kg	1	AXC2	01/13/10	1059	940232	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1530	940231

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	



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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7619  
Sample ID: 244144001  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 16.2%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	75.1	276	ug/kg	1	AXC2	01/13/10	1142	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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## Certificate of Analysis

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7618  
Sample ID: 244144002  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 18.9%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	76.2	280	ug/kg	1	AXC2	01/13/10	1147	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

**Certificate of Analysis**

Company : Los Alamos National Laboratory  
Address : PO Box 1663  
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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7623  
Sample ID: 244144003  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 15.4%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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**Flow Injection Analysis**

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	71.7	264	ug/kg	1	AXC2	01/13/10	1147	940229	1
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**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

**The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9012A	

## Certificate of Analysis

Company : Los Alamos National Laboratory  
Address : PO Box 1663  
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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID:	RE12-10-7622	Project:	LANL01004
Sample ID:	244144004	Client ID:	LANL010
Matrix:	R		
Collect Date:	04-JAN-10 12:00		
Receive Date:	08-JAN-10		
Collector:	Client		
Moisture:	8.99%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	74.7	275	ug/kg	1	AXC2	01/13/10	1148	940229	1

**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

**The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9012A	

**Certificate of Analysis**

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7621  
Sample ID: 244144005  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 7.57%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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**Flow Injection Analysis**

*SW9012A Cyanide, Total Federal "Dry Weight Corrected"*

Cyanide, Total	U	ND	72.1	265	ug/kg	1	AXC2	01/13/10	1149	940229	1
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**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

**The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9012A	

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Company : Los Alamos National Laboratory  
Address : PO Box 1663  
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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7617  
Sample ID: 244144006  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 9.24%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	70.7	260	ug/kg	1	AXC2	01/13/10	1150	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7620  
Sample ID: 244144007  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 11.2%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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#### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	75.1	276	ug/kg	1	AXC2	01/13/10	1151	940229	1
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#### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

#### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Company : Los Alamos National Laboratory  
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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7624  
Sample ID: 244144008  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 8.44%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	65.1	240	ug/kg	1	AXC2	01/13/10	1152	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	



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Company : Los Alamos National Laboratory  
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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7630  
Sample ID: 244144009  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 12.4%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	76.1	280	ug/kg	1	AXC2	01/13/10	1244	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

**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: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7628  
Sample ID: 244144010  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 10.4%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	69.0	254	ug/kg	1	AXC2	01/13/10	1154	940229	1

**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

**The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7632  
Sample ID: 244144011  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 9.24%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	69.4	255	ug/kg	1	AXC2	01/13/10	1155	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

## 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: January 15, 2010

Client SDG: 10-1128-1

Client Sample ID: RE12-10-7662  
Sample ID: 244145001  
Matrix: W  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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**Flow Injection Analysis**

*SW9012A Cyanide, Total "As Received"*

Cyanide, Total	U	ND	UJ,16a	1.66	5.00	ug/L	1	AXC2	01/12/10	1344	939574	1
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**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/11/10	1322	939573

**The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9012A	

Thursday, January 07, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1128

LOS ALAMOS

REQUEST NUMBER: 10-1128

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/6/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

244/44%, 244/45%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE12-10-7619	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7618	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7623	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7622	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7621	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7617	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7620	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7624	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7630	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7628	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7632	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7629	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7626	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7631	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7627	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7625	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7656	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7655	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7662	1	POLY	METALS+U-GEL	Nitric Acid	W
RE12-10-7662	1	POLY	SW-846:6850	Ice	W
RE12-10-7662	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

1/7/10 1400

Printed Name

Signature

Greg Tyler 1-8-10 0905

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

Thursday, January 07, 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: 10-1128  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 1/7/2010  
TURNAROUND/REPORT DUE: 2/6/2010  
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background  
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:  
Signature: 

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-6020	1	RE12-10-7617	R	1/4/2010	
		1	RE12-10-7618	R	1/4/2010	
		1	RE12-10-7619	R	1/4/2010	
		1	RE12-10-7620	R	1/4/2010	
		1	RE12-10-7621	R	1/4/2010	
		1	RE12-10-7622	R	1/4/2010	
		1	RE12-10-7623	R	1/4/2010	
		1	RE12-10-7624	R	1/4/2010	
		1	RE12-10-7625	R	1/4/2010	

Thursday, January 07, 2010 Page 2 of 4  
 REQUEST NUMBER: 10-1128

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE12-10-7626	R	1/4/2010	
		1	RE12-10-7627	R	1/4/2010	
		1	RE12-10-7628	R	1/4/2010	
		1	RE12-10-7629	R	1/4/2010	
		1	RE12-10-7630	R	1/4/2010	
		1	RE12-10-7631	R	1/4/2010	
		1	RE12-10-7632	R	1/4/2010	
		1	RE12-10-7655	R	1/4/2010	
		1	RE12-10-7656	R	1/4/2010	
		1	RE12-10-7662	W	1/4/2010	
	SW-846:6850	1	RE12-10-7617	R	1/4/2010	
		1	RE12-10-7618	R	1/4/2010	
		1	RE12-10-7619	R	1/4/2010	
		1	RE12-10-7620	R	1/4/2010	
		1	RE12-10-7621	R	1/4/2010	
		1	RE12-10-7622	R	1/4/2010	
		1	RE12-10-7623	R	1/4/2010	
		1	RE12-10-7624	R	1/4/2010	
		1	RE12-10-7625	R	1/4/2010	
		1	RE12-10-7626	R	1/4/2010	
		1	RE12-10-7627	R	1/4/2010	
		1	RE12-10-7628	R	1/4/2010	
		1	RE12-10-7629	R	1/4/2010	
		1	RE12-10-7630	R	1/4/2010	
		1	RE12-10-7631	R	1/4/2010	
		1	RE12-10-7632	R	1/4/2010	
		1	RE12-10-7655	R	1/4/2010	
		1	RE12-10-7656	R	1/4/2010	

Thursday, January 07, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9850	1	RE12-10-7662	W	1/4/2010	
	SW-846:7470A	1	RE12-10-7662	W	1/4/2010	
	SW-846:7471A	1	RE12-10-7617	R	1/4/2010	
		1	RE12-10-7618	R	1/4/2010	
		1	RE12-10-7619	R	1/4/2010	
		1	RE12-10-7620	R	1/4/2010	
		1	RE12-10-7621	R	1/4/2010	
		1	RE12-10-7622	R	1/4/2010	
		1	RE12-10-7623	R	1/4/2010	
		1	RE12-10-7624	R	1/4/2010	
		1	RE12-10-7625	R	1/4/2010	
		1	RE12-10-7626	R	1/4/2010	
		1	RE12-10-7627	R	1/4/2010	
		1	RE12-10-7628	R	1/4/2010	
		1	RE12-10-7629	R	1/4/2010	
		1	RE12-10-7630	R	1/4/2010	
		1	RE12-10-7631	R	1/4/2010	
		1	RE12-10-7632	R	1/4/2010	
		1	RE12-10-7655	R	1/4/2010	
		1	RE12-10-7656	R	1/4/2010	
	SW-846:9012A	1	RE12-10-7617	R	1/4/2010	
		1	RE12-10-7618	R	1/4/2010	
		1	RE12-10-7619	R	1/4/2010	
		1	RE12-10-7620	R	1/4/2010	
		1	RE12-10-7621	R	1/4/2010	
		1	RE12-10-7622	R	1/4/2010	
		1	RE12-10-7623	R	1/4/2010	
		1	RE12-10-7624	R	1/4/2010	



Thursday, January 07, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8012A	1	RE12-10-7625	R	1/4/2010	
		1	RE12-10-7626	R	1/4/2010	
		1	RE12-10-7627	R	1/4/2010	
		1	RE12-10-7628	R	1/4/2010	
		1	RE12-10-7629	R	1/4/2010	
		1	RE12-10-7630	R	1/4/2010	
		1	RE12-10-7631	R	1/4/2010	
		1	RE12-10-7632	R	1/4/2010	
		1	RE12-10-7655	R	1/4/2010	
		1	RE12-10-7656	R	1/4/2010	
		1	RE12-10-7662	W	1/4/2010	

Final Page of REQUEST NUMBER 10-1128



January 12, 2010

www.gel.com

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

Re: LANL ER Project  
Work Orders: 244144 244145  
SDG: 10-1128

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 08, 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: 10-1128  
Enclosures

**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 244144 and 244145**  
**SDG: 10-1128**

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# Case Narrative

**Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 244144 and 244145  
SDG # : 10-1128**

**January 12, 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 January 08, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

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

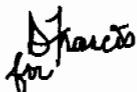
<b><u>Laboratory ID</u></b>	<b><u>Client ID</u></b>
244144001	RE12-10-7619
244144002	RE12-10-7618
244144003	RE12-10-7623
244144004	RE12-10-7622
244144005	RE12-10-7621
244144006	RE12-10-7617
244144007	RE12-10-7620
244144008	RE12-10-7624
244144009	RE12-10-7630
244144010	RE12-10-7628
244144011	RE12-10-7632
244144012	RE12-10-7629
244144013	RE12-10-7626
244144014	RE12-10-7631
244144015	RE12-10-7627
244144016	RE12-10-7625
244144017	RE12-10-7656
244144018	RE12-10-7655
244145001	RE12-10-7662

### 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 12 January 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	CI641

# **Chain of Custody and Supporting Documentation**

Thursday, January 07, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1128

LOS ALAMOS

REQUEST NUMBER: 10-1128

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/6/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

244144%, 244145%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE12-10-7619	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7618	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7623	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7622	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7621	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7617	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7620	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7624	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7630	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7628	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7632	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7629	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7626	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7631	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7627	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7625	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7656	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7655	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7662	1	POLY	METALS+U-GEL	Nitric Acid	W
RE12-10-7662	1	POLY	SW-846:6850	Ice	W
RE12-10-7662	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:

Date Time

Received By:

Date Time

Printed Name

Signature

1/7/10 1400

Printed Name

Signature

Greg Tyler 1-8-10 0905

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date Time

Remarks:

Printed Name

Signature

Thursday, January 07, 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: 1/7/2010**

**TURNAROUND/REPORT DUE: 2/6/2010**

**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: 10-1128

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

REQUEST NUMBER: 10-1128

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-6020					
		1	RE12-10-7617	R	1/4/2010	
		1	RE12-10-7618	R	1/4/2010	
		1	RE12-10-7619	R	1/4/2010	
		1	RE12-10-7620	R	1/4/2010	
		1	RE12-10-7621	R	1/4/2010	
		1	RE12-10-7622	R	1/4/2010	
		1	RE12-10-7623	R	1/4/2010	
		1	RE12-10-7624	R	1/4/2010	
		1	RE12-10-7625	R	1/4/2010	

Thursday, January 07, 2010

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REQUEST NUMBER: 10-1128

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE12-10-7626	R	1/4/2010	
		1	RE12-10-7627	R	1/4/2010	
		1	RE12-10-7628	R	1/4/2010	
		1	RE12-10-7629	R	1/4/2010	
		1	RE12-10-7630	R	1/4/2010	
		1	RE12-10-7631	R	1/4/2010	
		1	RE12-10-7632	R	1/4/2010	
		1	RE12-10-7655	R	1/4/2010	
		1	RE12-10-7656	R	1/4/2010	
		1	RE12-10-7662	W	1/4/2010	
	SW-846:6850	1	RE12-10-7617	R	1/4/2010	
		1	RE12-10-7618	R	1/4/2010	
		1	RE12-10-7619	R	1/4/2010	
		1	RE12-10-7620	R	1/4/2010	
		1	RE12-10-7621	R	1/4/2010	
		1	RE12-10-7622	R	1/4/2010	
		1	RE12-10-7623	R	1/4/2010	
		1	RE12-10-7624	R	1/4/2010	
		1	RE12-10-7625	R	1/4/2010	
		1	RE12-10-7626	R	1/4/2010	
		1	RE12-10-7627	R	1/4/2010	
		1	RE12-10-7628	R	1/4/2010	
		1	RE12-10-7629	R	1/4/2010	
		1	RE12-10-7630	R	1/4/2010	
		1	RE12-10-7631	R	1/4/2010	
		1	RE12-10-7632	R	1/4/2010	
		1	RE12-10-7655	R	1/4/2010	
		1	RE12-10-7656	R	1/4/2010	

Thursday, January 07, 2010

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REQUEST NUMBER: 10-1128

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE12-10-7662	W	1/4/2010	
	SW-846:7470A	1	RE12-10-7662	W	1/4/2010	
	SW-846:7471A	1	RE12-10-7617	R	1/4/2010	
		1	RE12-10-7618	R	1/4/2010	
		1	RE12-10-7619	R	1/4/2010	
		1	RE12-10-7620	R	1/4/2010	
		1	RE12-10-7621	R	1/4/2010	
		1	RE12-10-7622	R	1/4/2010	
		1	RE12-10-7623	R	1/4/2010	
		1	RE12-10-7624	R	1/4/2010	
		1	RE12-10-7625	R	1/4/2010	
		1	RE12-10-7626	R	1/4/2010	
		1	RE12-10-7627	R	1/4/2010	
		1	RE12-10-7628	R	1/4/2010	
		1	RE12-10-7629	R	1/4/2010	
		1	RE12-10-7630	R	1/4/2010	
		1	RE12-10-7631	R	1/4/2010	
		1	RE12-10-7632	R	1/4/2010	
		1	RE12-10-7655	R	1/4/2010	
		1	RE12-10-7656	R	1/4/2010	
	SW-846:9012A	1	RE12-10-7617	R	1/4/2010	
		1	RE12-10-7618	R	1/4/2010	
		1	RE12-10-7619	R	1/4/2010	
		1	RE12-10-7620	R	1/4/2010	
		1	RE12-10-7621	R	1/4/2010	
		1	RE12-10-7622	R	1/4/2010	
		1	RE12-10-7623	R	1/4/2010	
		1	RE12-10-7624	R	1/4/2010	

Thursday, January 07, 2010

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REQUEST NUMBER: 10-1128

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE12-10-7625	R	1/4/2010	
		1	RE12-10-7626	R	1/4/2010	
		1	RE12-10-7627	R	1/4/2010	
		1	RE12-10-7628	R	1/4/2010	
		1	RE12-10-7629	R	1/4/2010	
		1	RE12-10-7630	R	1/4/2010	
		1	RE12-10-7631	R	1/4/2010	
		1	RE12-10-7632	R	1/4/2010	
		1	RE12-10-7655	R	1/4/2010	
		1	RE12-10-7656	R	1/4/2010	
		1	RE12-10-7662	W	1/4/2010	

Final Page of REQUEST NUMBER 10-1128



## SAMPLE RECEIPT &amp; REVIEW FORM

Client: LANL			SDG/ARCOC/Work Order: 10-1128		
Received By: Greg Tyler			Date Received: 1/08/10		
Suspected Hazard Information		Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.	
COC/Samples marked as radioactive?			X	Maximum Counts Observed*: 20cpm	
Classified Radioactive II by RSO?			X		
COC/Samples marked containing PCBs?			X		
Shipped as a DOT Hazardous?			X	Hazard Class Shipped: UN#:	
Samples identified as Foreign Soil?			X		
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags    blue ice    dry ice    none    other 1, 2C    9, 13, 14C
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: <b>No time on Chain of Custody.</b>
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			
Comments: Fed Ex Tracking Numbers: 7209 7849 4203 1C    7209 7849 4133 13C 7209 7849 4188 1C    7209 7849 4122 14C 7209 7849 4166 2C 7209 7849 4155 2C 7209 7849 4199 2C 7209 7849 4177 2C 7209 7849 4144 9C					

PM (or PMA) review: Initials

Date

1/11/10



JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

SHIP DATE: 07JAN10  
ACTWGT: 37.0 LB MAN  
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A05529E00

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



FedEx  
Express

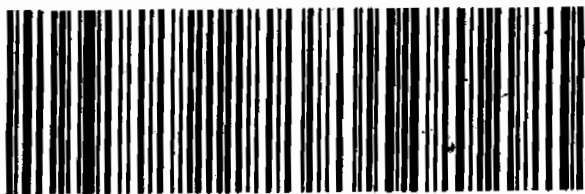


2 of 2  
PSH 7209 7849 4203  
263  
strn 7209 7849 4199 0201

FRI - 08JAN A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

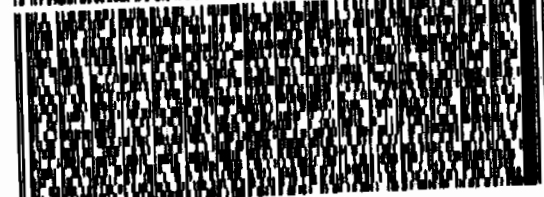
VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A05529E00

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Express



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PSH 7209 7849 4166  
263  
strn 7209 7849 4155 0201

FRI - 08JAN A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



ORIGIN ID: 6AFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

SHIP DATE: 07JAN10  
ACTWGT: 58.0 LB MAN  
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

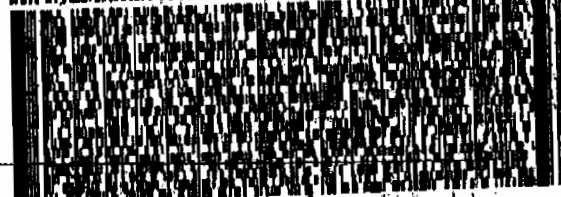
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A05529E00

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Express



2 of 2  
PSH 7209 7849 4188  
263  
strn 7209 7849 4177 0201

FRI - 08JAN A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

ACTWGT: 58.0 LB MAN  
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

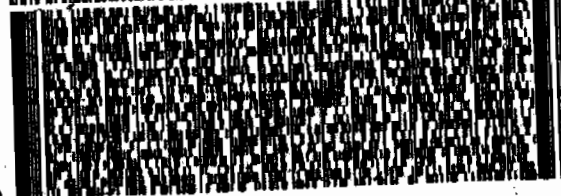
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A05529E00

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



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Express



1 of 2  
TRK# 7209 7849 4155  
263  
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FRI - 08JAN A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



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

SHIP DATE: 07JAN10  
ACTWGT: 55.0 LB MAN  
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

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REF: 6B010AMR3A05529E00



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1 of 2  
TRKH 7209 7849 4177  
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FRI - 08JAN A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



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

ACTWGT: 23.0 LB MAN  
CAD: 0014176/CAFE2449

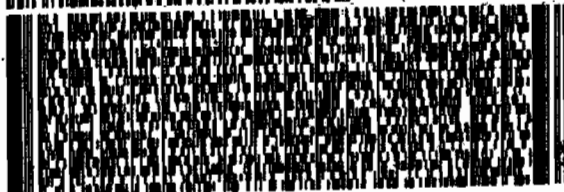
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GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 566-8171

REF: 6B010AMR2A0515BYD0



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0201

FRI - 08JAN A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



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

SHIP DATE: 07JAN10  
ACTWGT: 55.0 LB MAN  
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 566-8171

REF: 6B010AMR3A05529E00



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NN MASTER NN

FRI - 08JAN A1  
PRIORITY OVERNIGHT

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SC-US  
CHS

XX CHSA



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

SHIP DATE: 08JAN10  
ACTWGT: 55.0 LB MAN  
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 566-8171

REF: 6B010AMR2A0515BYD0



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Express

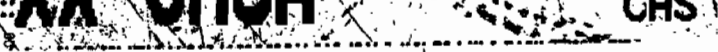




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TRKH 7209 7849 4133  
0201  
NN MASTER NN

FRI - 08JAN A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



ORIGIN ID: SAFA (505) 665-9958 JOYLENE VALDEZ LOS ALAMOS NATL LAB TAGG BLDG 1237 DPU 03 LOS ALAMOS, NM 87545 UNITED STATES US		SHIP DATE: 07JAN10 WGT: 57.0 LB MAN J: 0014175/CAFE2448	
TO VALERIE DAVIS GENERAL ENGINEERING LAB 2040 SAVAGE RD CHARLESTON SC 29407 (843) 556-9171 REF: 6B010AMR2A0515		JILL SENDER	
14C			
			
MPS# 7209 3 0263 Instr# 77 7849 4122 09 7849 4111 0281		FRI 08JAN A1 PRIORITY OVERNIGHT 29407 CHS	
XX CHSA			

# **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 10-1128

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: 940141

Prep Batch Number: 940138

Sample Analysis

Sample ID	Client ID
244144001	RE12-10-7619
244144002	RE12-10-7618
244144003	RE12-10-7623
244144004	RE12-10-7622
244144005	RE12-10-7621
244144006	RE12-10-7617
244144007	RE12-10-7620
244144008	RE12-10-7624
244144009	RE12-10-7630
244144010	RE12-10-7628
244144011	RE12-10-7632
244144012	RE12-10-7629
244144013	RE12-10-7626
244144014	RE12-10-7631
244144015	RE12-10-7627

10-1128-PERLCMS

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244144016	RE12-10-7625
244144017	RE12-10-7656
244144018	RE12-10-7655
1202011825	Interference Check Sample (ICS)
1202011821	Method Blank (MB)
1202011822	Laboratory Control Sample (LCS)
1202011823	244144001(RE12-10-7619) Matrix Spike (MS)
1202011824	244144001(RE12-10-7619) 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.

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**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

**QC Sample Designation**

Sample 244144001 (RE12-10-7619) 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.

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#### 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: Kesha M. Mauer

Date: 01/26/10

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# 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: 240138

Extraction Type: Solid Prep

Client Sample No.

RE12-10-7619

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144001

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 84

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	.597	2.39	0.597	ug/kg	U	1	20-JAN-10 18:11	per0120028a
	Perchlorate Isotope Ratio						1	20-JAN-10 18:11	per0120028a
14797-73-0	Perchlorate-101	.597	2.39	0.597	ug/kg	U	1	20-JAN-10 18:11	per0120028a
	Perchlorate-O(18)			5.62	ug/kg		1	20-JAN-10 18:11	per0120028a

<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: 240138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7618

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144002

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.617	2.47	0.617	ug/kg	U	1	20-JAN-10 18:35	per0120031a
	Perchlorate Isotope Ratio						1	20-JAN-10 18:35	per0120031a
14797-73-0	Perchlorate-101	.617	2.47	0.617	ug/kg	U	1	20-JAN-10 18:35	per0120031a
	Perchlorate-O(18)			6.17	ug/kg		1	20-JAN-10 18:35	per0120031a

<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: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7623

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144003

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.591	2.36	1.17	ug/kg	J	1	20-JAN-10 18:44	per0120032a
	Perchlorate Isotope Ratio			3.01			1	20-JAN-10 18:44	per0120032a
14797-73-0	Perchlorate-101	.591	2.36	1.19	ug/kg	J	1	20-JAN-10 18:44	per0120032a
	Perchlorate-Q(18)			6.01	ug/kg		1	20-JAN-10 18:44	per0120032a

<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  
**Lab Code:** GEL  
**Instrument:** LCMSMS  
**Method:** SW846 6850 Modified  
**Matrix:** SOIL  
**Extraction Batch ID:** 940138  
**Extraction Type:** Solid Prep  
**Client Sample No.** RE12-10-7622  
**Date Received:** 08-JAN-10  
**GEL Job No (SDG):** 10-1128  
**GEL Sample ID:** 244144004  
**Date Filtered:** 19-JAN-10  
**Injection Volume (uL):** 20  
**%Solids:** 21

**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	.549	2.2	0.549	ug/kg	U	1	20-JAN-10 18:52	per0120033a
	Perchlorate Isotope Ratio						1	20-JAN-10 18:52	per0120033a
14797-73-0	Perchlorate-101	.549	2.2	0.549	ug/kg	U	1	20-JAN-10 18:52	per0120033a
	Perchlorate-O(18)			5.58	ug/kg		1	20-JAN-10 18:52	per0120033a

<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: 240138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7621

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144005

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 92.4

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	0.541	ug/kg	U	1	20-JAN-10 19:00	per0120034a
	Perchlorate Isotope Ratio						1	20-JAN-10 19:00	per0120034a
14797-73-0	Perchlorate-101	.541	2.16	0.541	ug/kg	U	1	20-JAN-10 19:00	per0120034a
	Perchlorate-O(18)			5.52	ug/kg		1	20-JAN-10 19:00	per0120034a

<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: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7617

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144006

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 90.8

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.909	ug/kg	J	1	20-JAN-10 19:32	per0120038a
	Perchlorate Isotope Ratio			2.85			1	20-JAN-10 19:32	per0120038a
14797-73-0	Perchlorate-101	.551	2.2	0.979	ug/kg	J	1	20-JAN-10 19:32	per0120038a
	Perchlorate-O(18)			5.56	ug/kg		1	20-JAN-10 19:32	per0120038a

<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: 940138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7620  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144007  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 89

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	.563	2.25	0.563	ug/kg	U	1	20-JAN-10 19:40	per0120039a
	Perchlorate Isotope Ratio						1	20-JAN-10 19:40	per0120039a
14797-73-0	Perchlorate-101	.563	2.25	0.563	ug/kg	U	1	20-JAN-10 19:40	per0120039a
	Perchlorate-O(18)			5.82	ug/kg		1	20-JAN-10 19:40	per0120039a

<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: 240138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7624  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144008  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 21.6

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	.546	2.18	0.546	ug/kg	J	1	20-JAN-10 19:48	per0120040a
	Perchlorate Isotope Ratio			2.84			1	20-JAN-10 19:48	per0120040a
14797-73-0	Perchlorate-101	.546	2.18	0.590	ug/kg	J	1	20-JAN-10 19:48	per0120040a
	Perchlorate-O(18)			5.31	ug/kg		1	20-JAN-10 19:48	per0120040a

<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

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: 240138

Extraction Type: Solid Prep

Client Sample No.

RE12-10-7630

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144009

Date Filtered: 19-JAN-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	2.28	0.571	ug/kg	U	1	20-JAN-10 19:56	per0120041a
	Perchlorate Isotope Ratio						1	20-JAN-10 19:56	per0120041a
14797-73-0	Perchlorate-101	.571	2.28	0.571	ug/kg	U	1	20-JAN-10 19:56	per0120041a
	Perchlorate-O(18)			5.79	ug/kg		1	20-JAN-10 19:56	per0120041a

<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: 240138

Extraction Type: Solid Prep

Client Sample No.

RE12-10-7628

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144010

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 90

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	.558	2.23	0.558	ug/kg	U	1	20-JAN-10 20:04	per0120042a
	Perchlorate Isotope Ratio						1	20-JAN-10 20:04	per0120042a
14797-73-0	Perchlorate-101	.558	2.23	0.558	ug/kg	U	1	20-JAN-10 20:04	per0120042a
	Perchlorate-O(18)			5.88	ug/kg		1	20-JAN-10 20:04	per0120042a

<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  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 240138  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE12-10-7632  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144011  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 90.8

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	20-JAN-10 20:12	per0120043a
	Perchlorate Isotope Ratio						1	20-JAN-10 20:12	per0120043a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	20-JAN-10 20:12	per0120043a
	Perchlorate-O(18)			5.68	ug/kg		1	20-JAN-10 20:12	per0120043a

<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

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 940138

Extraction Type: Solid Prep

Client Sample No.

RE12-10-7629

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144012

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 82

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	.612	2.45	0.738	ug/kg	J	1	20-JAN-10 20:20	per0120044a
	Perchlorate Isotope Ratio			2.82			1	20-JAN-10 20:20	per0120044a
14797-73-0	Perchlorate-101	.612	2.45	0.803	ug/kg	J	1	20-JAN-10 20:20	per0120044a
	Perchlorate-O(18)			6.26	ug/kg		1	20-JAN-10 20:20	per0120044a

<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  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 940138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7626  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144013  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 90  
 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	.556	2.22	0.600	ug/kg	J	1	20-JAN-10 20:28	per0120045a
	Perchlorate Isotope Ratio			2.89			1	20-JAN-10 20:28	per0120045a
14797-73-0	Perchlorate-101	.556	2.22	0.637	ug/kg	J	1	20-JAN-10 20:28	per0120045a
	Perchlorate-O(18)			5.62	ug/kg		1	20-JAN-10 20:28	per0120045a

<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



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: 240138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7631  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144014  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 83

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	.601	2.4	0.601	ug/kg	U	1	20-JAN-10 20:36	per0120046a
	Perchlorate Isotope Ratio						1	20-JAN-10 20:36	per0120046a
14797-73-0	Perchlorate-101	.601	2.4	0.601	ug/kg	U	1	20-JAN-10 20:36	per0120046a
	Perchlorate-O(18)			6.41	ug/kg		1	20-JAN-10 20:36	per0120046a

<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: 940138

Extraction Type: Solid Prep

Client Sample No.

RE12-10-7627

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144015

Date Filtered: 19-JAN-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	.656	2.62	0.656	ug/kg	U	1	20-JAN-10 20:44	per0120047a
	Perchlorate Isotope Ratio						1	20-JAN-10 20:44	per0120047a
14797-73-0	Perchlorate-101	.656	2.62	0.656	ug/kg	U	1	20-JAN-10 20:44	per0120047a
	Perchlorate-O(18)			6.76	ug/kg		1	20-JAN-10 20:44	per0120047a

<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: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7625

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144016

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.607	2.43	0.607	ug/kg	U	1	20-JAN-10 21:16	per0120051a
	Perchlorate Isotope Ratio						1	20-JAN-10 21:16	per0120051a
14797-73-0	Perchlorate-101	.607	2.43	0.607	ug/kg	U	1	20-JAN-10 21:16	per0120051a
	Perchlorate-O(18)			6.38	ug/kg		1	20-JAN-10 21:16	per0120051a

<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: 940138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7656  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144017  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 % Solids: 92.4

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	.541	2.16	0.541	ug/kg	U	1	20-JAN-10 21:25	per0120052a
	Perchlorate Isotope Ratio						1	20-JAN-10 21:25	per0120052a
14797-73-0	Perchlorate-101	.541	2.16	0.541	ug/kg	U	1	20-JAN-10 21:25	per0120052a
	Perchlorate-O(18)			5.44	ug/kg		1	20-JAN-10 21:25	per0120052a

<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:** 940138  
**Extraction Type:** Solid Prep  
**Client Sample No.** RE12-10-7655  
**Date Received:** 08-JAN-10  
**GEL Job No (SDG):** 10-1128  
**GEL Sample ID:** 244144018  
**Date Filtered:** 19-JAN-10  
**Injection Volume (uL):** 20  
**%Solids:** 90.1

**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	.555	2.22	0.599	ug/kg	J	1	20-JAN-10 21:33	per0120053a
	Perchlorate Isotope Ratio			3			1	20-JAN-10 21:33	per0120053a
14797-73-0	Perchlorate-101	.555	2.22	0.612	ug/kg	J	1	20-JAN-10 21:33	per0120053a
	Perchlorate-O(18)			5.71	ug/kg		1	20-JAN-10 21:33	per0120053a

<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): 10-1128

Extract Batch Code: 940138 Date Filtered: 19-JAN-10

Matrix: SOIL Sample ID: 1202011822

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.06	ug/kg	103		70 - 130
Perchlorate Isotope Ratio		2.95				-
Perchlorate-101	2.00	2.14	ug/kg	107		70 - 130
Perchlorate-O(18)		5	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.

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL GEL Job No. (SDG): 10-1128

Extract Batch Code: 940138 Date Filtered: 19-JAN-10

Matrix: SOIL Sample ID: 1202011825

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.91	ug/kg	95.6		70 - 130
Perchlorate Isotope Ratio		3.16				
Perchlorate-101	2.00	1.86	ug/kg	92.8		70 - 130
Perchlorate-O(18)		4.54	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.



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

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120027a

Sample Date: 20-Jan-2010

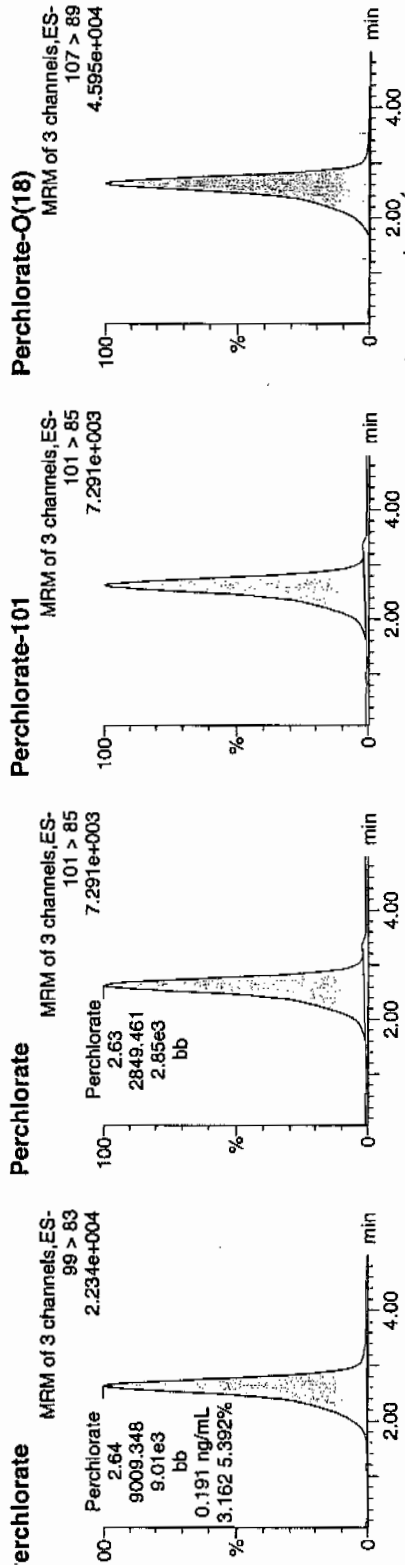
Sample Time: 18:03:48

Sample ID: 1202011825

Sample Label: 1:5,C

622  
01-21-10

LANC | 940141 | 5020 | ICS | 11



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202011825 Perchlorate	99 > 83	2.64	9009.348	9009.348	bb			0.1912	95.62	-4.38	859.541	3.16
202011825 Perchlorate-101	101 > 85	2.63	2849.461	2849.461	bb			0.1856	92.78	-7.22	112.505	
202011825 Perchlorate-O(18)	107 > 89	2.63	18288.986	18288.986	bb			0.4542	90.84	-9.16	2073.5...	

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1128

Extract Batch Code: 940138

Date Extracted: 19-JAN-10

GEL MS/PS ID: 1202011823

Client ID: RE12-10-7619

GEL MSD/PSD ID: 1202011824

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	2.39	0.227	ug/kg	2.51	95.6		2.53	96.7		1.06		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.08			2.89			0			-
Perchlorate-101	2.39	0.226	ug/kg	2.50	95.2		2.69	103		7.3		30	75 - 125
Perchlorate-O(18)	0	5.62	ug/kg	5.45			5.71			4.55			-

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

Comments:

Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1128

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	20-JAN-10	per0120001a	IPB001
Perchlorate-101	0.00	0	NA	20-JAN-10	per0120001a	IPB001
Perchlorate	0.00	0	NA	20-JAN-10	per0120002a	IPB001
Perchlorate-101	0.00	0	NA	20-JAN-10	per0120002a	IPB001

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

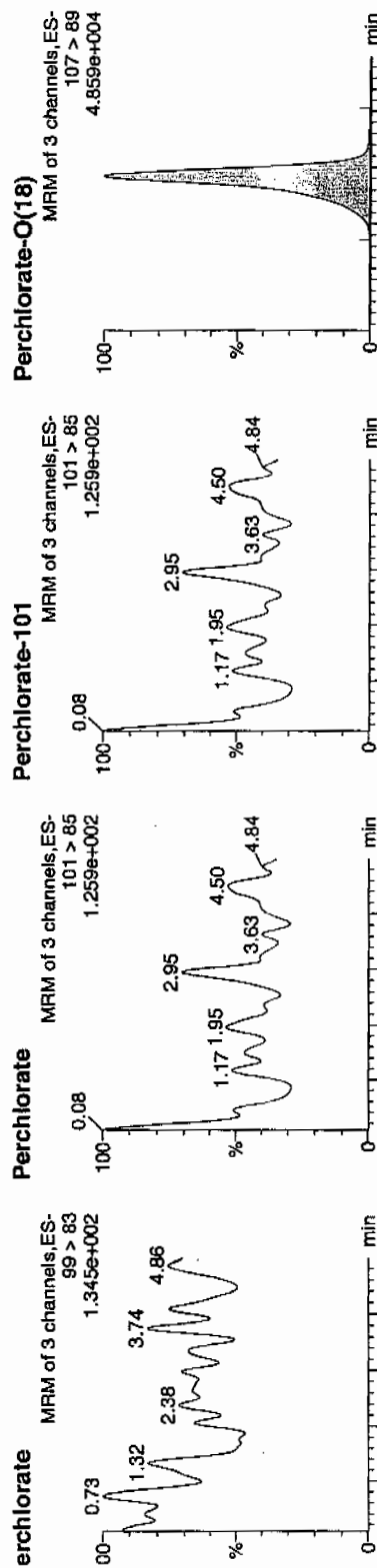
Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per012010a.mdb 20 Jan 2010 15:44:00  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per012010a.cdb 21 Jan 2010 07:27:15

Sample Name: per0120001a  
Date: 20-Jan-2010  
Time: 14:34:41  
Lab: IPB001  
Label: 1:1,A

01-21-10



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	2.84	19600.951	19600.951	bb			0.4868	97.36	-2.64	160.294	

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120002a

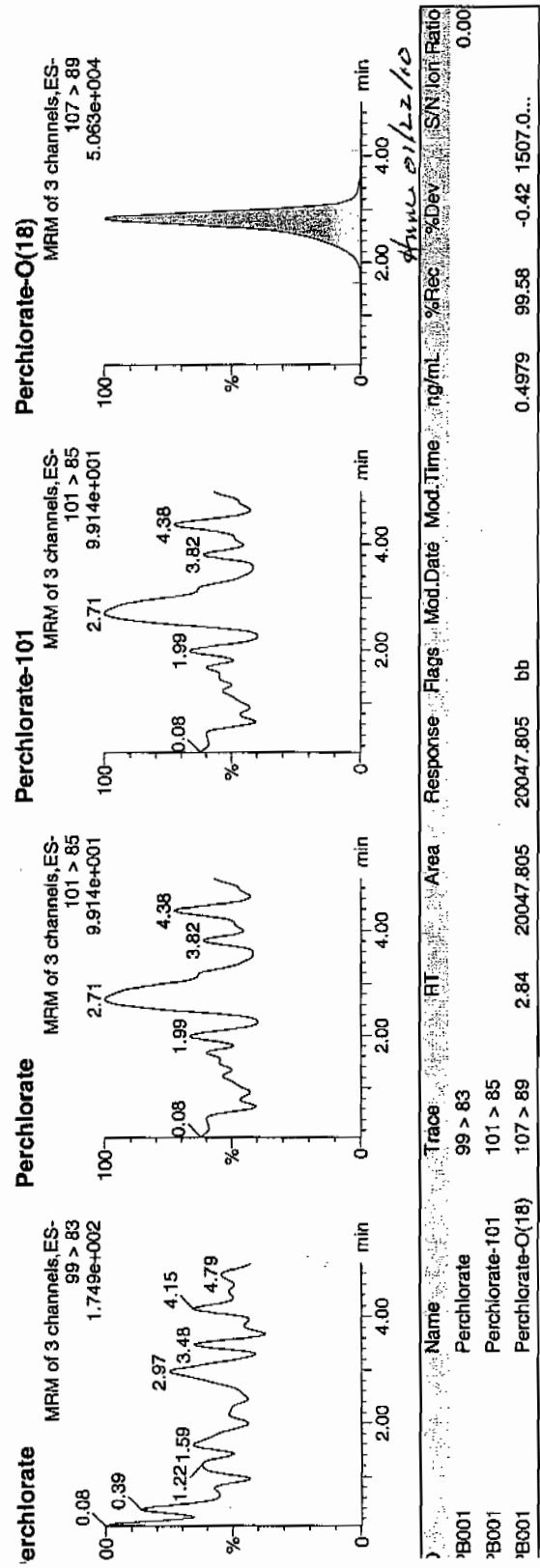
Date: 20-Jan-2010

Time: 14:42:54

Job: IPB001

File: 1:1,A

01-21-10



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	2.84	20047.805	20047.805	bb			0.4979	99.58	-0.42	1507.0...	

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1128

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	20-JAN-10	per0120008a	IPB002
Perchlorate-101	0.00	0	NA	20-JAN-10	per0120008a	IPB002
Perchlorate	0.00	0	NA	20-JAN-10	per0120010a	IPB003
Perchlorate-101	0.00	0	NA	20-JAN-10	per0120010a	IPB003
Perchlorate	0.00	0	NA	20-JAN-10	per0120023a	IPB004
Perchlorate-101	0.00	0	NA	20-JAN-10	per0120023a	IPB004
Perchlorate	0.00	0	NA	20-JAN-10	per0120036a	IPB005
Perchlorate-101	0.00	0	NA	20-JAN-10	per0120036a	IPB005
Perchlorate	0.00	0	NA	20-JAN-10	per0120049a	IPB006
Perchlorate-101	0.00	0	NA	20-JAN-10	per0120049a	IPB006
Perchlorate	0.00	0	NA	20-JAN-10	per0120054a	IPB007
Perchlorate-101	0.00	0	NA	20-JAN-10	per0120054a	IPB007
Perchlorate	0.00	0	NA	20-JAN-10	per0120062a	IPB008

Form 4

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-1128

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	20-JAN-10	per0120062a	IPB008

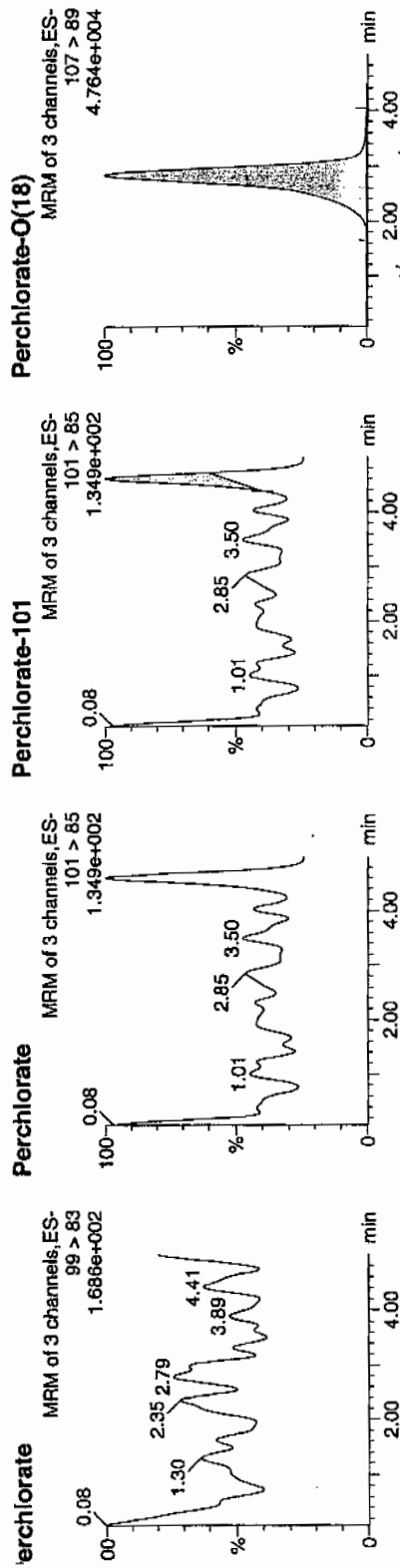
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

01-21-10

Sample Name: per0120008a  
Date: 20-Jan-2010  
Time: 15:31:00  
ID: IPB002  
File: 1:1,A



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	4.60	10.547	10.547	bb			0.0007	95.00	-5.00	14.000	
Perchlorate-O(18)	107 > 89	2.82	19125.730	19125.730	bb			0.4750			246.768	



Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120010a

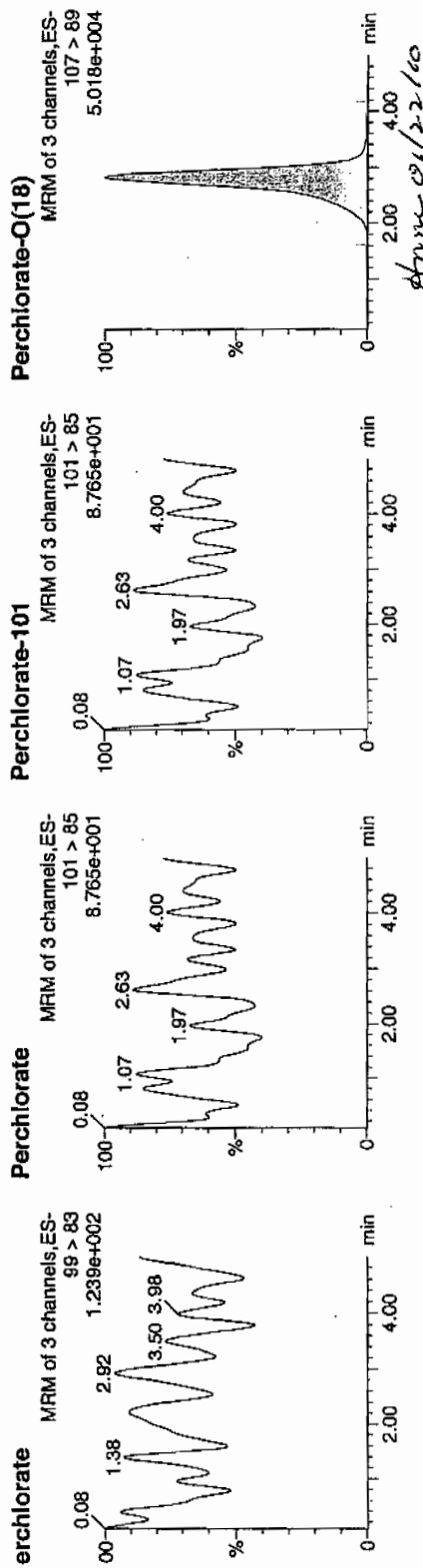
Sample Date: 20-Jan-2010

Sample Time: 15:47:04

Sample ID: IPB003

Sample Label: 1:1,A

0.21-10



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	2.82	19950.449	19950.449	bb			0.4955	99.09	-0.91	2622.5...	

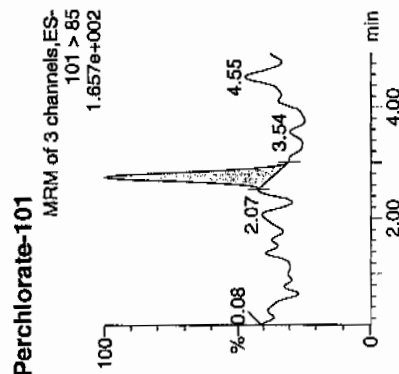
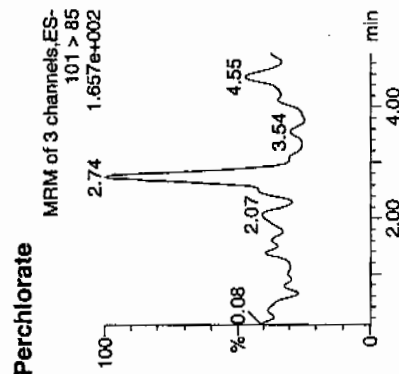
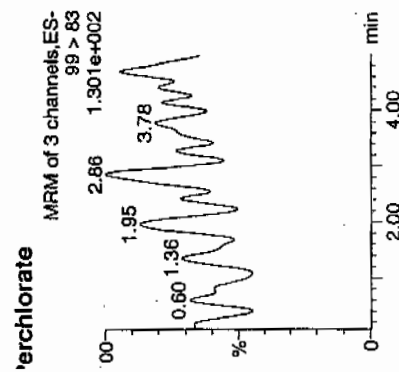
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120023a  
Date: 20-Jan-2010  
Time: 17:31:37  
ID: IPB004  
Label: 1:1,A

Q-11-10



Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83	2.74	20.739	20.739	bb			0.0014	92.96	-7.04	3797.0...	0.00
Perchlorate-101	101 > 85	2.74	20.739	20.739	bb			0.0014	92.96	-7.04	3797.0...	0.00
Perchlorate-O(18)	107 > 89	2.77	18715.227	18715.227	bb			0.4648	92.96	-7.04	3797.0...	0.00

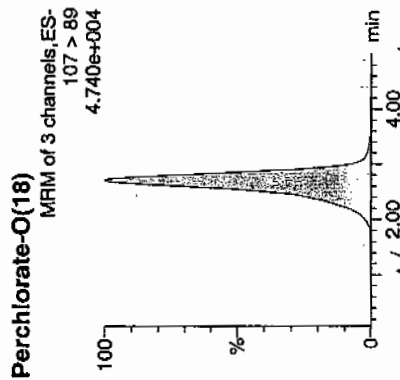
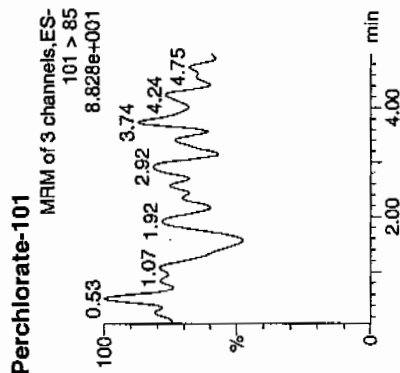
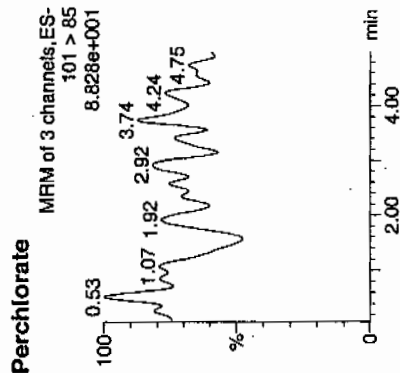
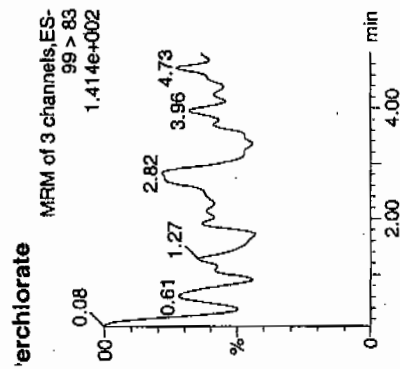
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120036a  
Date: 20-Jan-2010  
Time: 19:16:12  
Operator: IPB005  
Sample: 1:1,A

Q-21-10



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	2.71	18331.297	18331.297	bb			0.4553	91.05	-8.95	2525.2...	0.00

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

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120049a

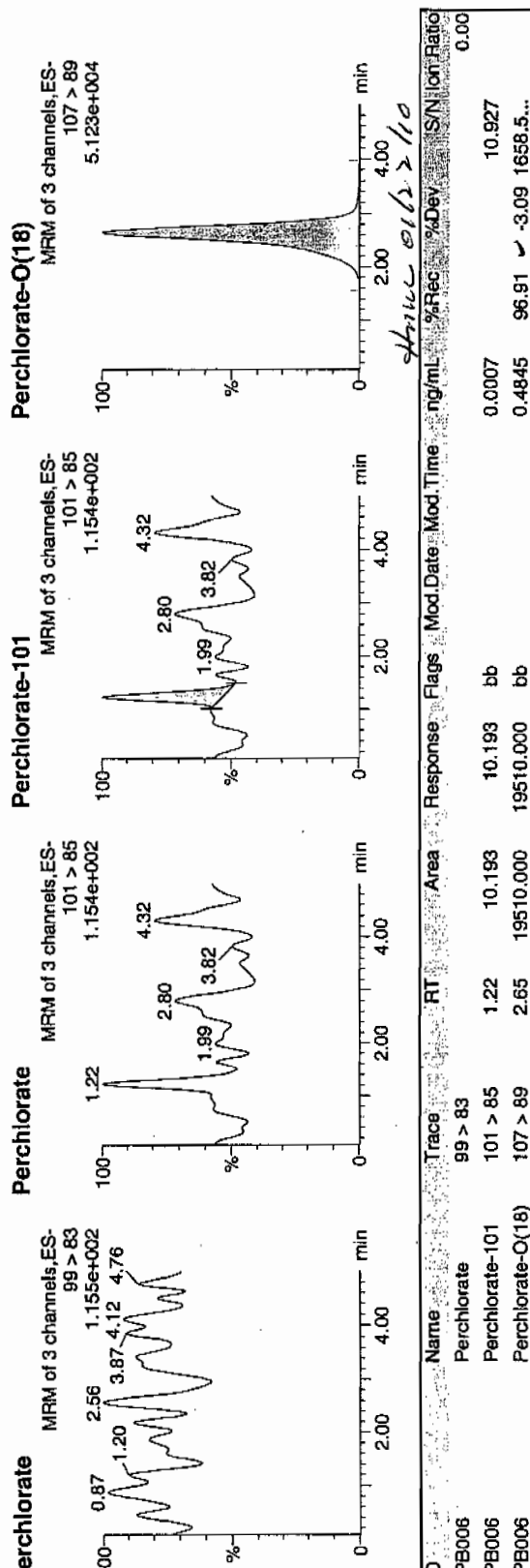
Sample Date: 20-Jan-2010

Sample Time: 21:00:54

Sample ID: IPB006

Sample Label: 1:1,A

Q-21-10



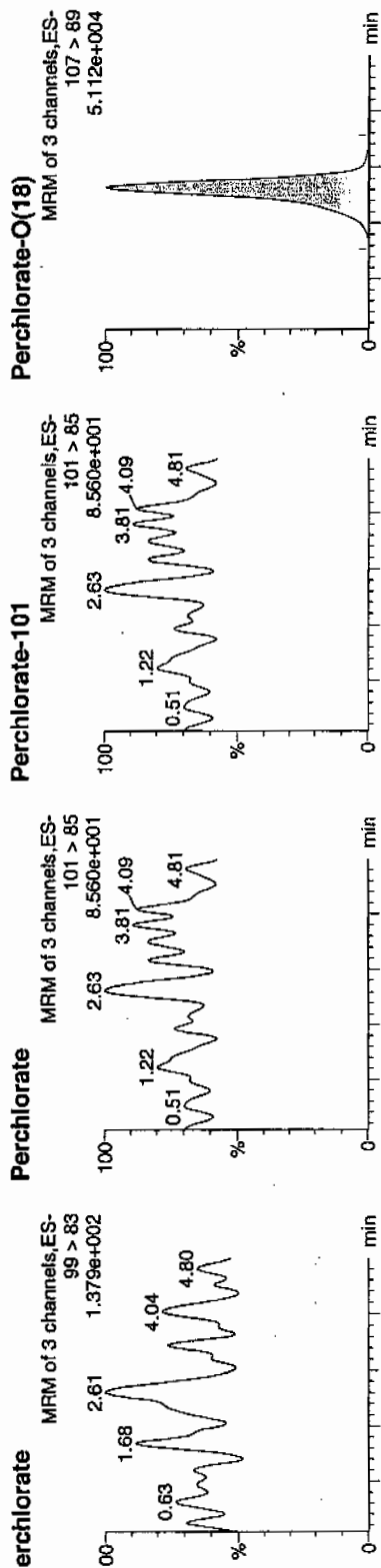
Quantify Sample Report MassLynx 4.0 SP4  
 he GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
 Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120054a  
 Date: 20-Jan-2010  
 Time: 21:41:08  
 ID: IPB007  
 Lot: 1:1,A

01-21-10



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	2.64	19230.340	19230.340	bb			0.4776	95.52	-4.48	3070.2...	

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time

Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120062a

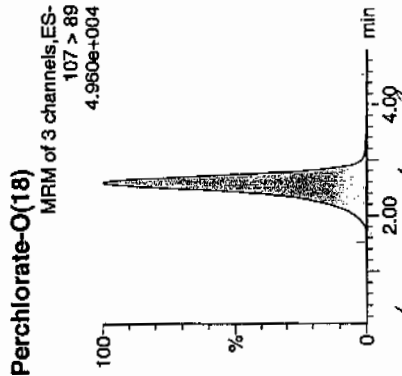
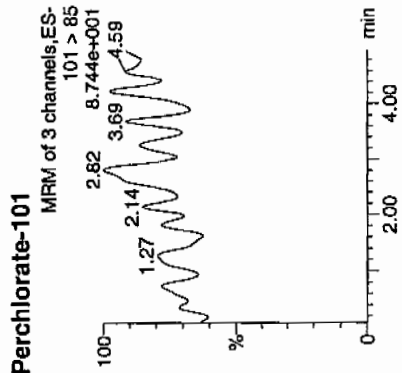
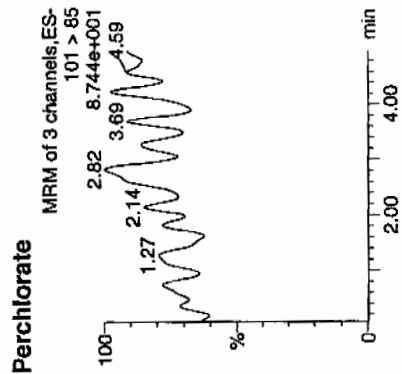
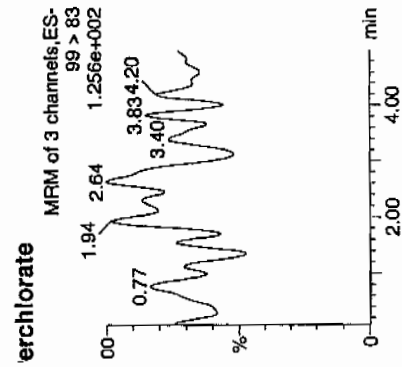
Sample Date: 20-Jan-2010

Sample Time: 22:45:44

Sample ID: IPB008

Sample Label: 1:1,A

01-21-10



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	2.59	18635.371	18635.371	bb			0.4628	92.56	-7.44	12945...	
Perchlorate-O(18)	107 > 89											

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

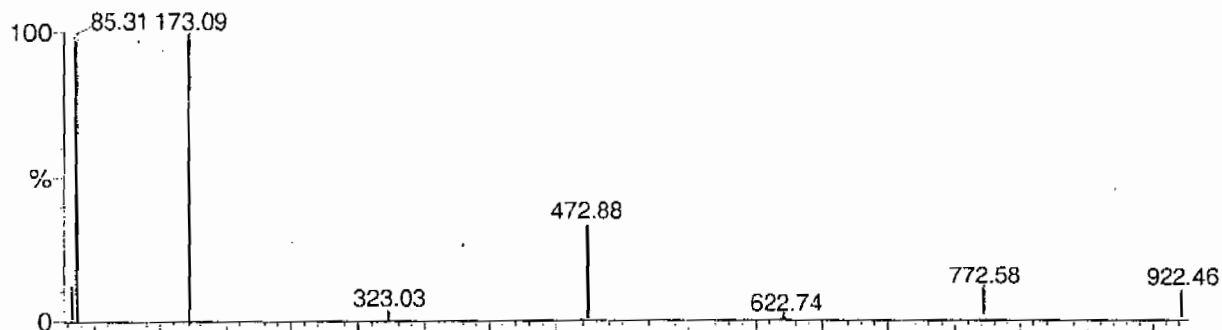
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

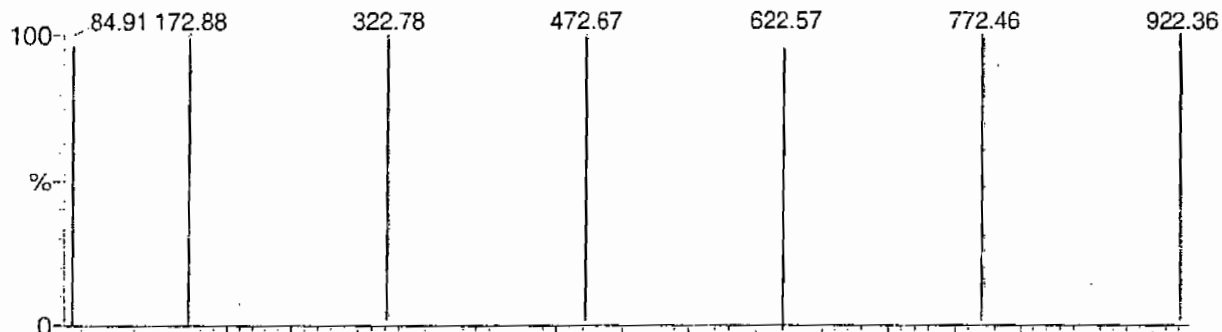
DATA HIGHLIGHTED BY CURVE 01-07-03

Data file: STATMS1 - Uncalibrated

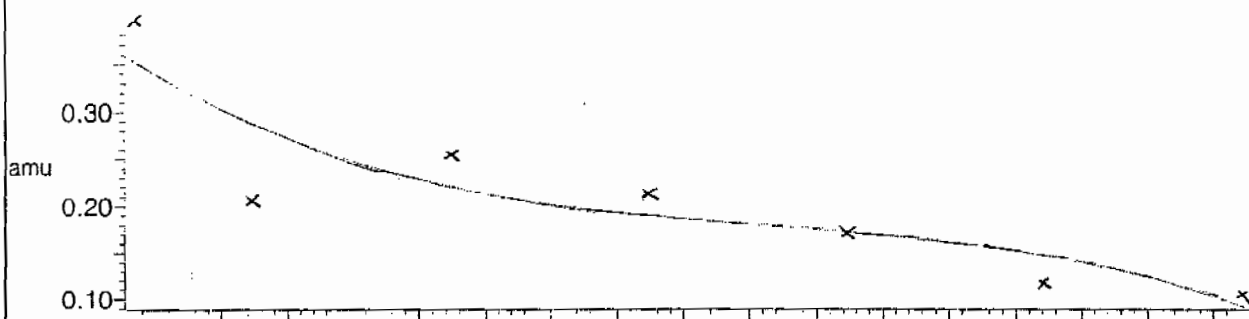
7 matches of 7 tested references



Reference file: Nairb

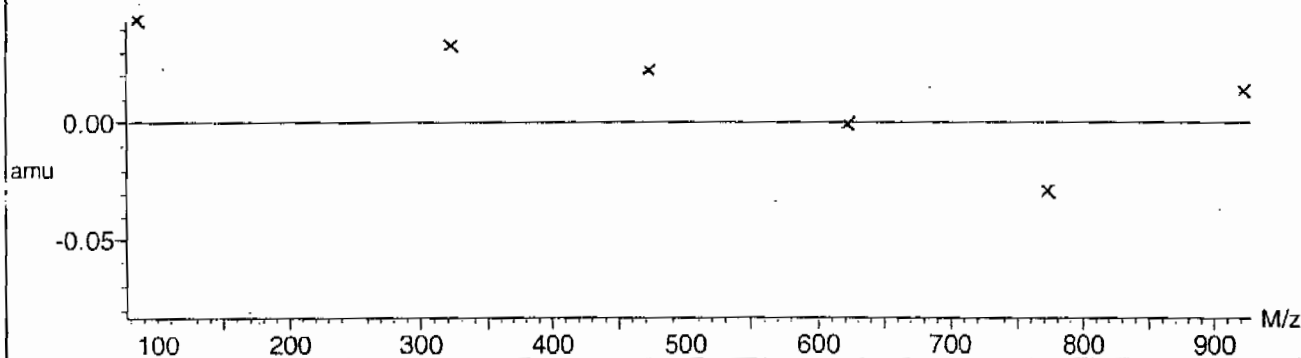


Mass difference (Raw - Ref mass)



Residuals

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

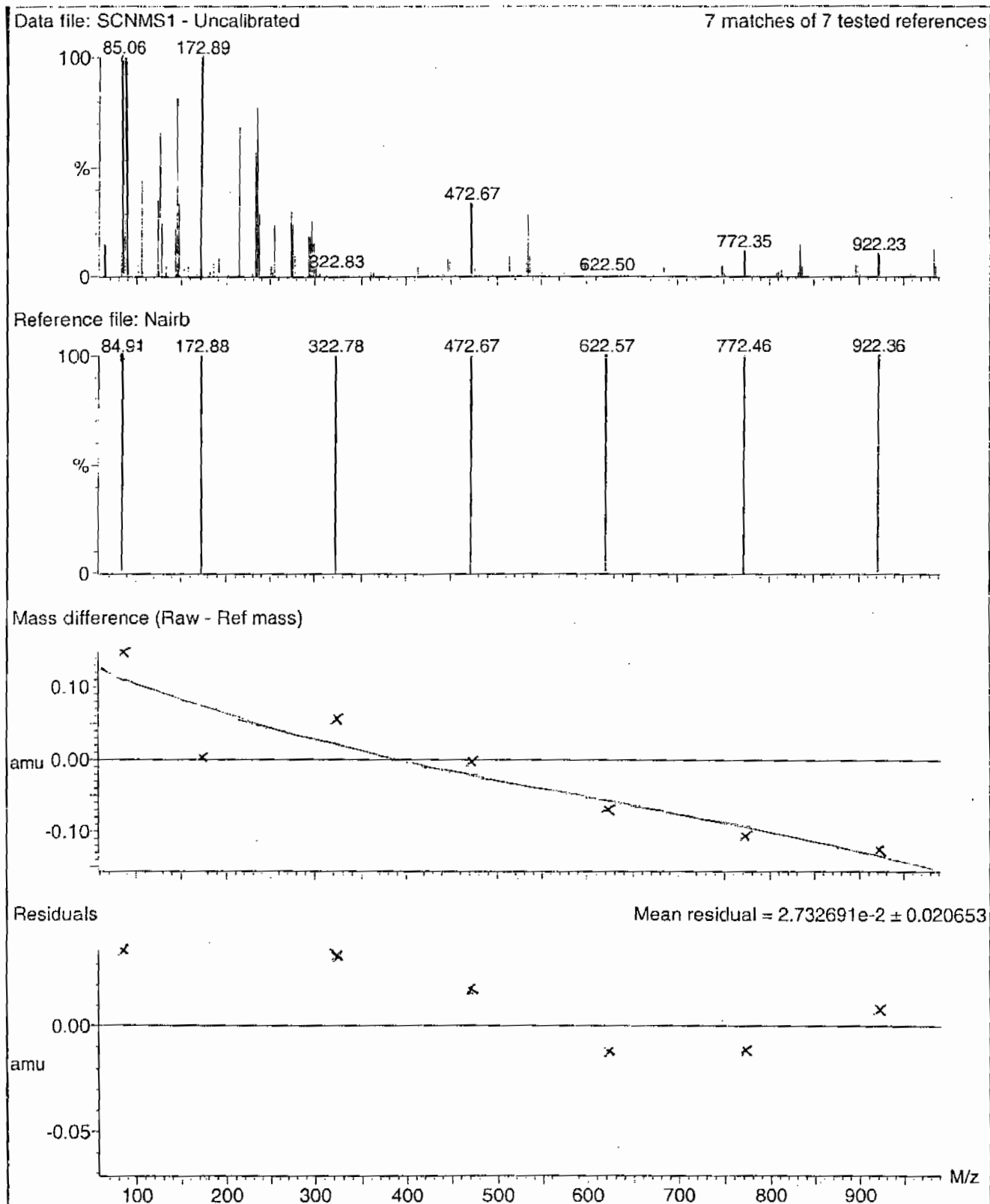




Calibration Report - MS1 Scanning

Page 1 of 1

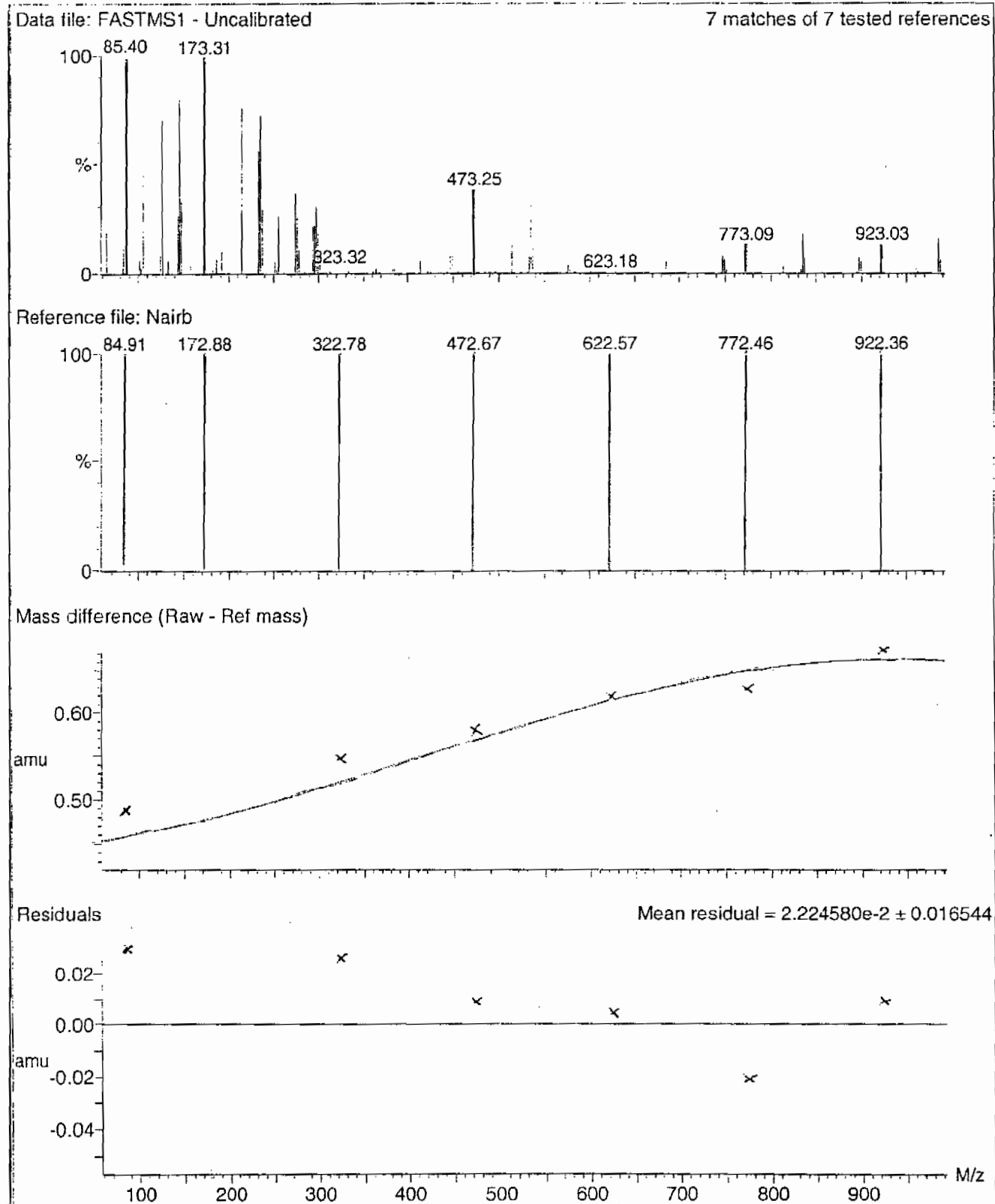
Printed: Tue Jan 08 12:20:09 2008



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

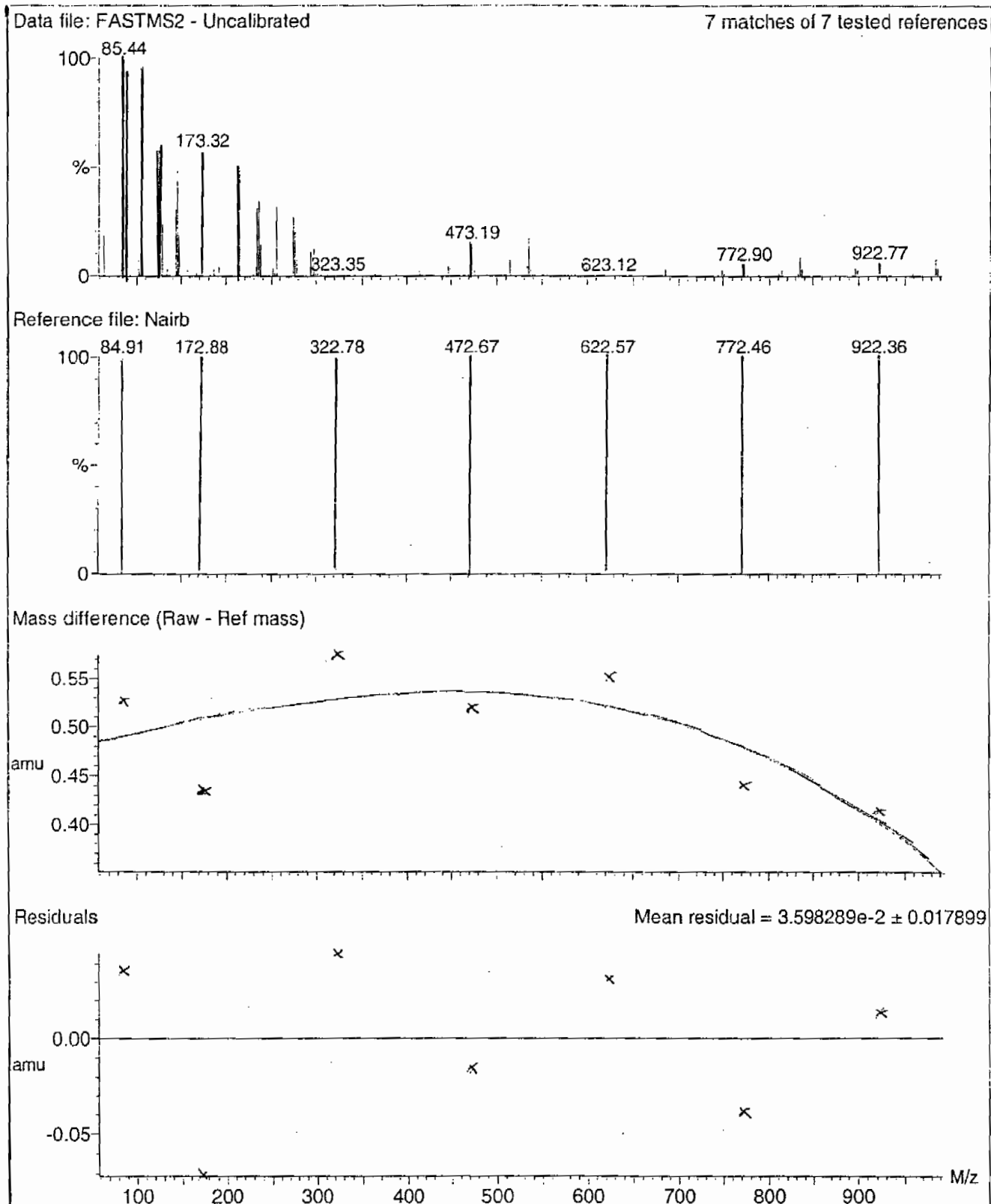
Printed: Tue Jan 08 12:21:04 2008



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

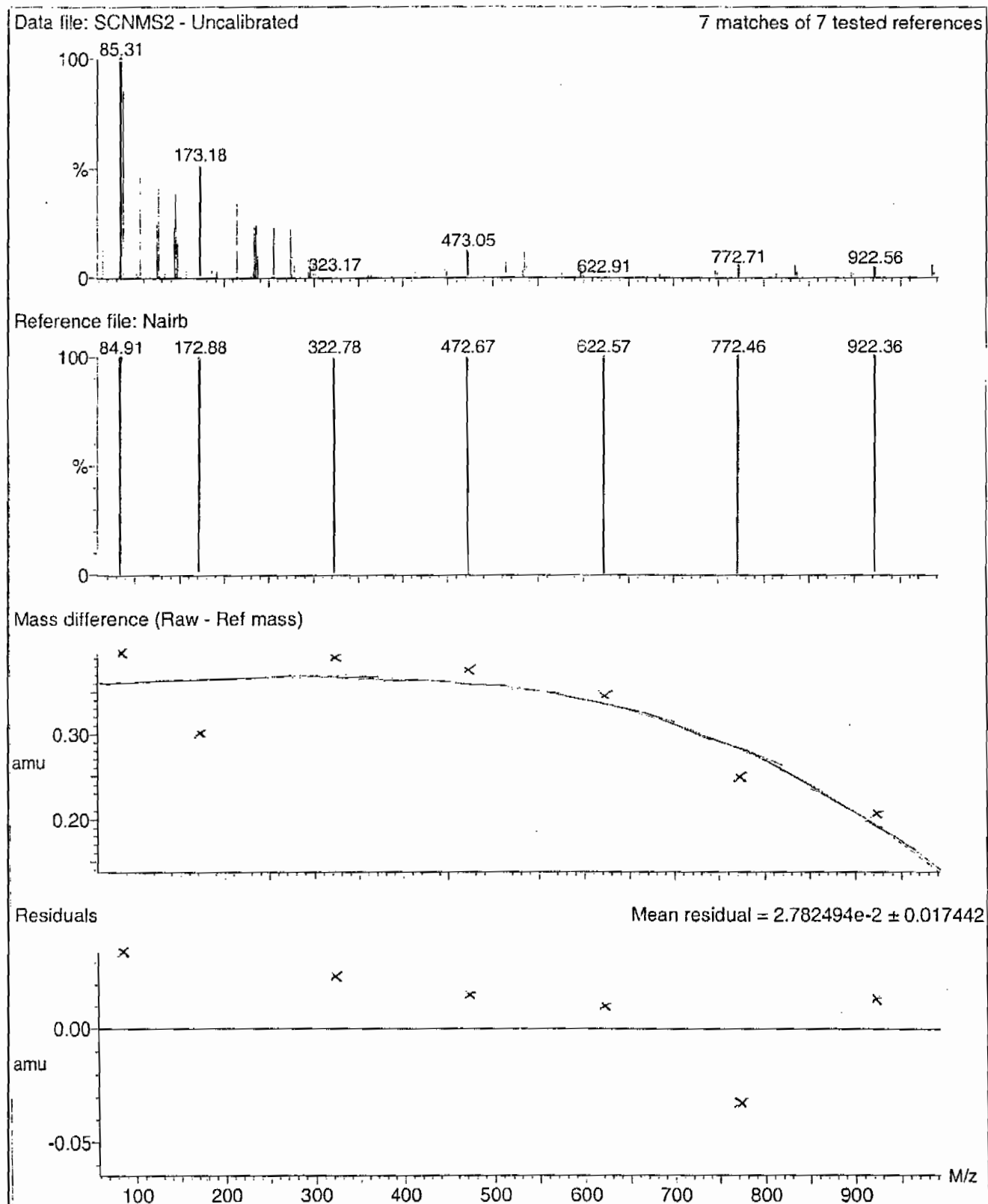
Printed: Tue Jan 08 12:23:51 2008



Calibration Report - MS2 Scanning

Page 1 of 1

Printed: Tue Jan 08 12:22:56 2008



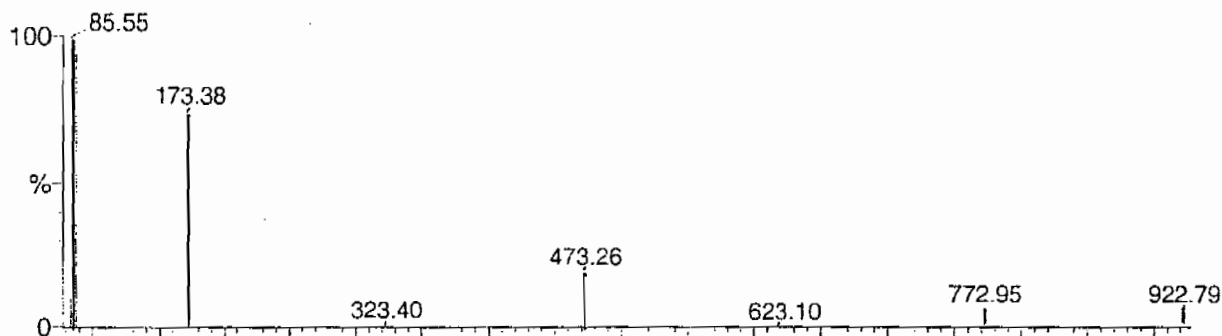
Calibration Report - MS2 Static

Page 1 of 1

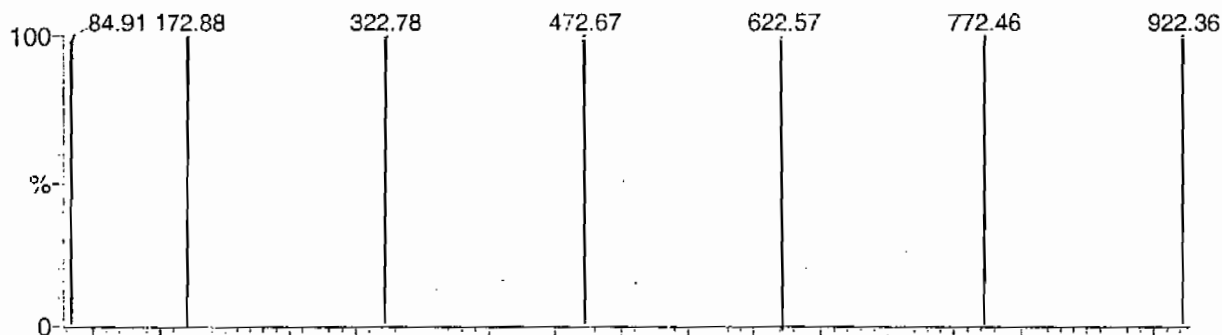
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

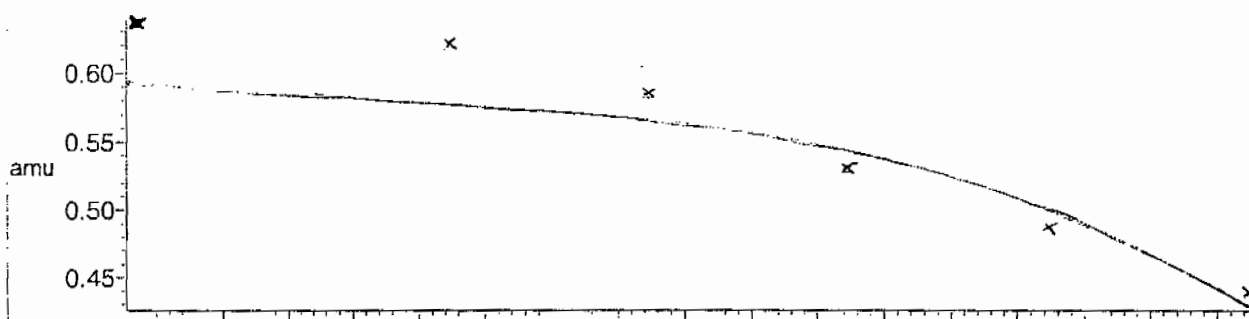
7 matches of 7 tested references



Reference file: Nairb

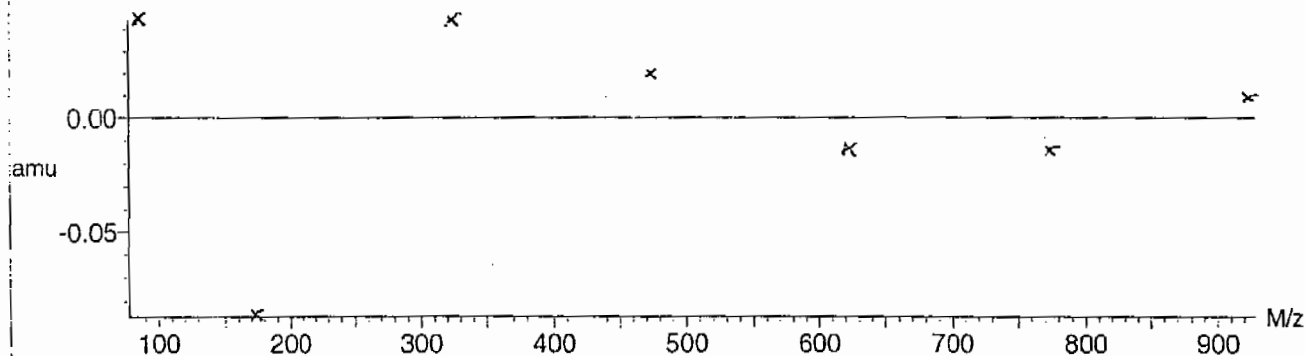


Mass difference (Raw - Ref mass)



Residuals

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



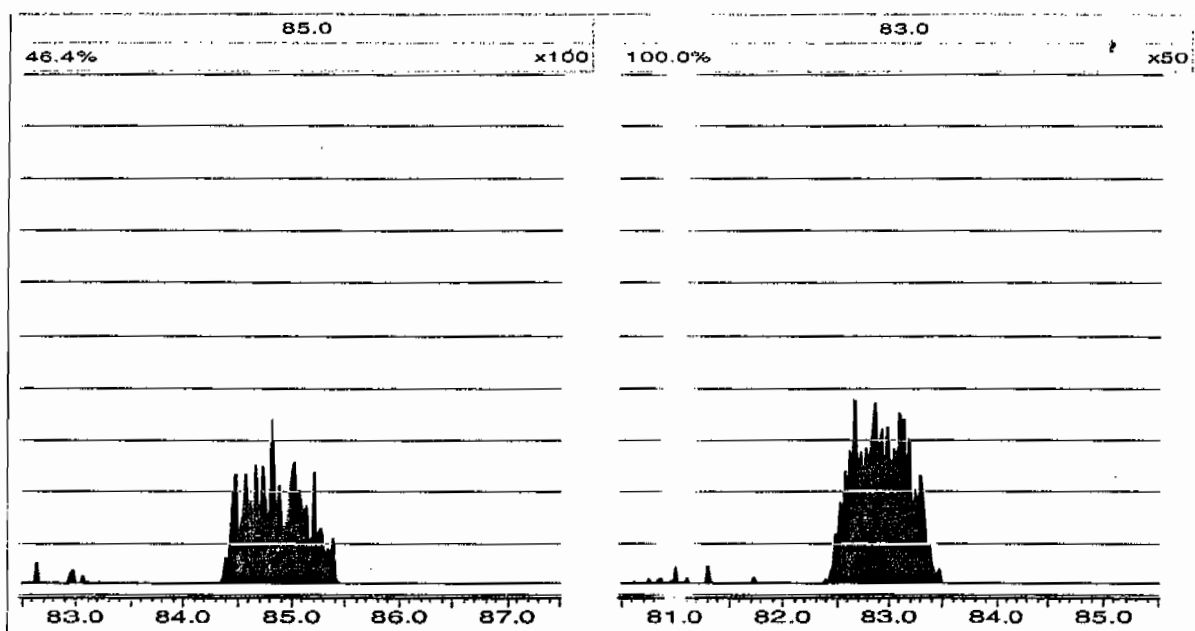
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Wednesday, January 20, 2010 12:39:34 Eastern Standard Time



Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories  
GEL Job No.(SDG): 10-1128

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	per0120006a	20-JAN-10	20191.9				
Lower Area Limit			10095.95				
Upper Area Limit			40383.8				
1202011821	per0120025a	20-JAN-10 17:47	18342.9	2.77	2.78717	1.006	
1202011822	per0120026a	20-JAN-10 17:55	20130.2	2.76	2.77467	1.005	
1202011825	per0120027a	20-JAN-10 18:03	18289	2.63	2.63808	1.003	
244144001	per0120028a	20-JAN-10 18:11	18968.3	2.75	2.76237	1.004	
1202011823	per0120029a	20-JAN-10 18:19	18406.4	2.74	2.75	1.004	
1202011824	per0120030a	20-JAN-10 18:27	19264.2	2.74	2.74987	1.004	
244144002	per0120031a	20-JAN-10 18:35	20142.3	2.73	2.7374	1.003	
244144003	per0120032a	20-JAN-10 18:44	20473.3	2.71	2.72515	1.006	

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories  
GEL Job No.(SDG): 10-1128

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	per0120006a	20-JAN-10	20191.9				
Lower Area Limit			10095.95				
Upper Area Limit			40383.8				
244144004	per0120033a	20-JAN-10 18:52	20463.7	2.71	2.71268	1.001	
244144005	per0120034a	20-JAN-10 19:00	20553.6	2.7	2.72512	1.009	
244144006	per0120038a	20-JAN-10 19:32	20309.1	2.71	2.71248	1.001	
244144007	per0120039a	20-JAN-10 19:40	20805.9	2.7	2.71267	1.005	
244144008	per0120040a	20-JAN-10 19:48	19579.7	2.69	2.70017	1.004	
244144009	per0120041a	20-JAN-10 19:56	20430.1	2.69	2.70018	1.004	
244144010	per0120042a	20-JAN-10 20:04	21220.4	2.69	2.71262	1.008	
244144011	per0120043a	20-JAN-10 20:12	20751.3	2.68	2.6879	1.003	



Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1128

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	per0120006a	20-JAN-10	20191.9				
Lower Area Limit			10095.95				
Upper Area Limit			40383.8				
244144012	per0120044a	20-JAN-10 20:20	20602.1	2.68	2.68785	1.003	
244144013	per0120045a	20-JAN-10 20:28	20363.7	2.66	2.67535	1.006	
244144014	per0120046a	20-JAN-10 20:36	21462.6	2.65	2.67535	1.01	
244144015	per0120047a	20-JAN-10 20:44	20738.9	2.65	2.67535	1.01	
244144016	per0120051a	20-JAN-10 21:16	21173.3	2.64	2.66288	1.009	
244144017	per0120052a	20-JAN-10 21:25	20227.1	2.64	2.63807	.999	
244144018	per0120053a	20-JAN-10 21:33	20700.1	2.63	2.65062	1.008	

# SAMPLE DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 240138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7619  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144001  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 84

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	.597	2.39	0.597	ug/kg	U	1	20-JAN-10 18:11	per0120028a
	Perchlorate Isotope Ratio						1	20-JAN-10 18:11	per0120028a
14797-73-0	Perchlorate-101	.597	2.39	0.597	ug/kg	U	1	20-JAN-10 18:11	per0120028a
	Perchlorate-O(18)			5.62	ug/kg		1	20-JAN-10 18:11	per0120028a

<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: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120028a

Date: 20-Jan-2010

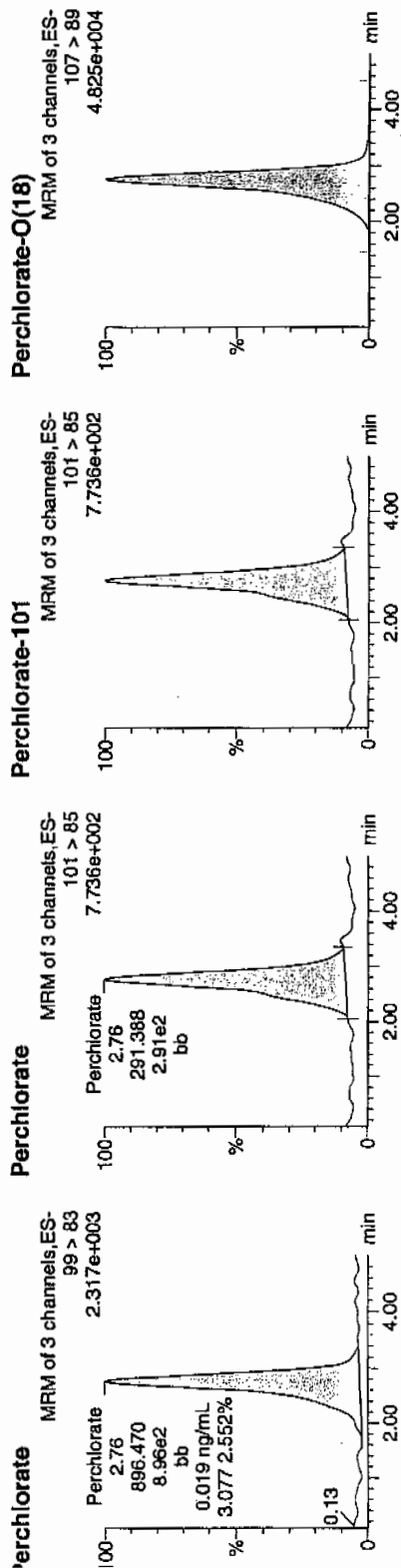
Time: 18:11:51

ID: 244144001

File: 1:5,D

01-21-10

LANC 19401411 5020111



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
44144001	Perchlorate	2.76	896.470	896.470	bb			0.0190	94.22	-5.78	85.307	3.08
44144001	Perchlorate-101	2.76	291.388	291.388	bb			0.0190			58.072	
44144001	Perchlorate-O(18)	2.75	18968.344	18968.344	bb			0.4711			3023.6...	

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC Client Sample No. RE12-10-7618

Lab Code: GEL Date Received: 08-JAN-10

Instrument: LCMSMS GEL Job No (SDG): 10-1128

Method: SW846 6850 Modified GEL Sample ID: 244144002

Matrix: SOIL Date Filtered: 19-JAN-10

Extraction Batch ID: 240138 Injection Volume (uL): 20

Extraction Type: Solid Prep %Solids: 81

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	.617	2.47	0.617	ug/kg	U	1	20-JAN-10 18:35	per0120031a
	Perchlorate Isotope Ratio						1	20-JAN-10 18:35	per0120031a
14797-73-0	Perchlorate-101	.617	2.47	0.617	ug/kg	U	1	20-JAN-10 18:35	per0120031a
	Perchlorate-O(18)			6.17	ug/kg		1	20-JAN-10 18:35	per0120031a

<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: Charliers W. Wilson

atset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

ast Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
rinted: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

ame: per0120031a

ate: 20-Jan-2010

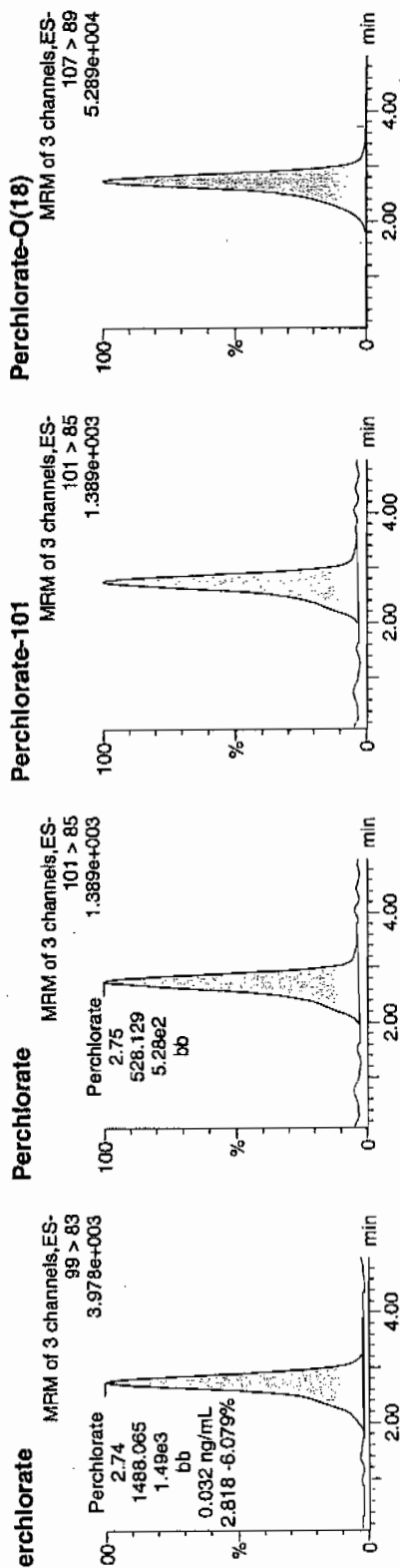
ime: 18:35:57

y: 244144002

ial: 1:6,A

523  
01-21-10

14444 | 940141 | 3000 | 1 |



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
44144002	Perchlorate	99 > 83	2.74	1488.065	bb			0.0316			171.954	2.82
44144002	Perchlorate-101	101 > 85	2.75	528.129	bb			0.0344			43.012	
44144002	Perchlorate-O(18)	107 > 89	2.73	20142.334	bb			0.5002	100.05	0.05	889.085	

iEL 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: 240138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7623  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144003  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 85

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	.591	2.36	1.17	ug/kg	J	1	20-JAN-10 18:44	per0120032a
	Perchlorate Isotope Ratio			3.01			1	20-JAN-10 18:44	per0120032a
14797-73-0	Perchlorate-101	.591	2.36	1.19	ug/kg	J	1	20-JAN-10 18:44	per0120032a
	Perchlorate-O(18)			6.01	ug/kg		1	20-JAN-10 18:44	per0120032a

<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\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120032a

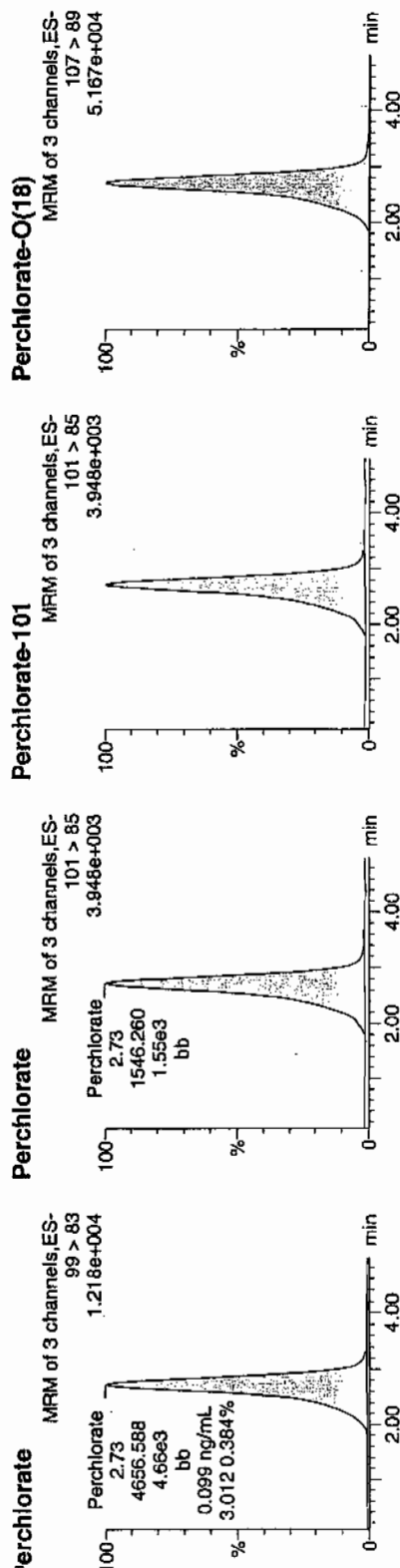
Sample Date: 20-Jan-2010

Sample Time: 18:44:01

Sample ID: 244144003

Sample File: 1:6.B

19401411 302011  
01-21-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83	2.73	4656.588	4656.588	bb			0.0988			1058.5...	3.01
Perchlorate-101	101 > 85	2.73	1546.260	1546.260	bb			0.1007			487.300	
Perchlorate-O(18)	107 > 89	2.71	20473.268	20473.268	bb			0.5085	101.69	1.69	4986.0...	



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: 240138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7622

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144004

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 91

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.549	2.2	0.549	ug/kg	U	1	20-JAN-10 18:52	per0120033a
	Perchlorate Isotope Ratio						1	20-JAN-10 18:52	per0120033a
14797-73-0	Perchlorate-101	.549	2.2	0.549	ug/kg	U	1	20-JAN-10 18:52	per0120033a
	Perchlorate-O(18)			5.58	ug/kg		1	20-JAN-10 18:52	per0120033a

<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: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120033a

Date: 20-Jan-2010

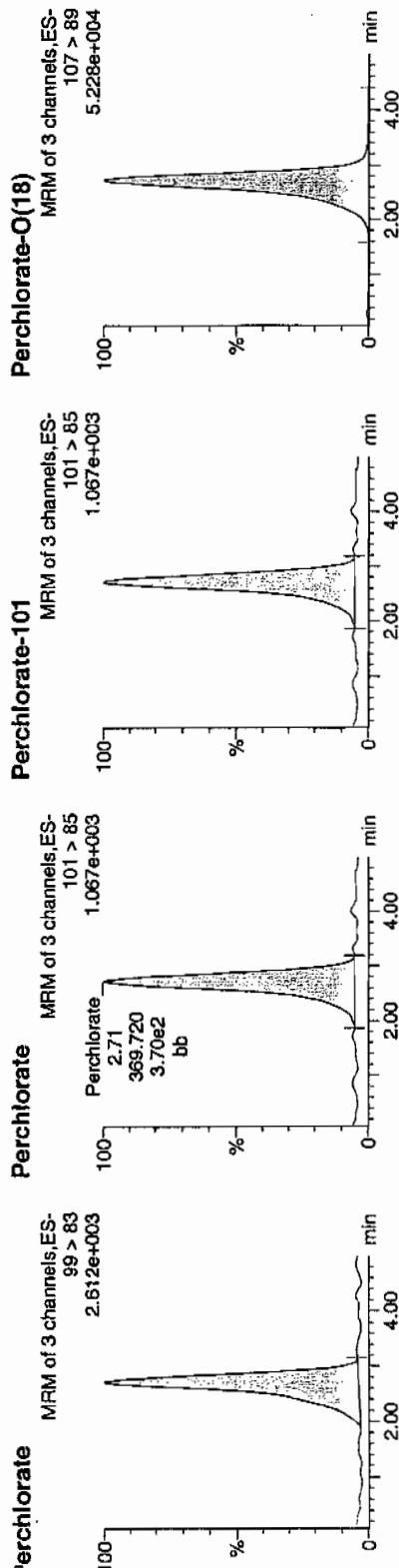
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ID: 244144004

File: 1:6.C

01-21-10

144144004 | 369.720 | 11



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
144144004	Perchlorate	99 > 83	2.71	959.196	959.196	bb			0.0204			191.723	2.59
144144004	Perchlorate-101	101 > 85	2.71	369.720	369.720	bb			0.0241			117.337	
144144004	Perchlorate-O(18)	107 > 89	2.71	20463.699	20463.699	bb			0.5082	101.64	1.64	1506.5...	

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: 240138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7621

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144005

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 22.4

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	0.541	ug/kg	U	1	20-JAN-10 19:00	per0120034a
	Perchlorate Isotope Ratio						1	20-JAN-10 19:00	per0120034a
14797-73-0	Perchlorate-101	.541	2.16	0.541	ug/kg	U	1	20-JAN-10 19:00	per0120034a
	Perchlorate-O(18)			5.52	ug/kg		1	20-JAN-10 19:00	per0120034a

<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  $\frac{1}{\% \text{Solids}}$

uantify Sample Report MassLynx 4.0 SP4  
he GEL Group, LLC Analyst: Charlers W. Wilson

atasset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

ast Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
rinted: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

ame: per0120034a

ate: 20-Jan-2010

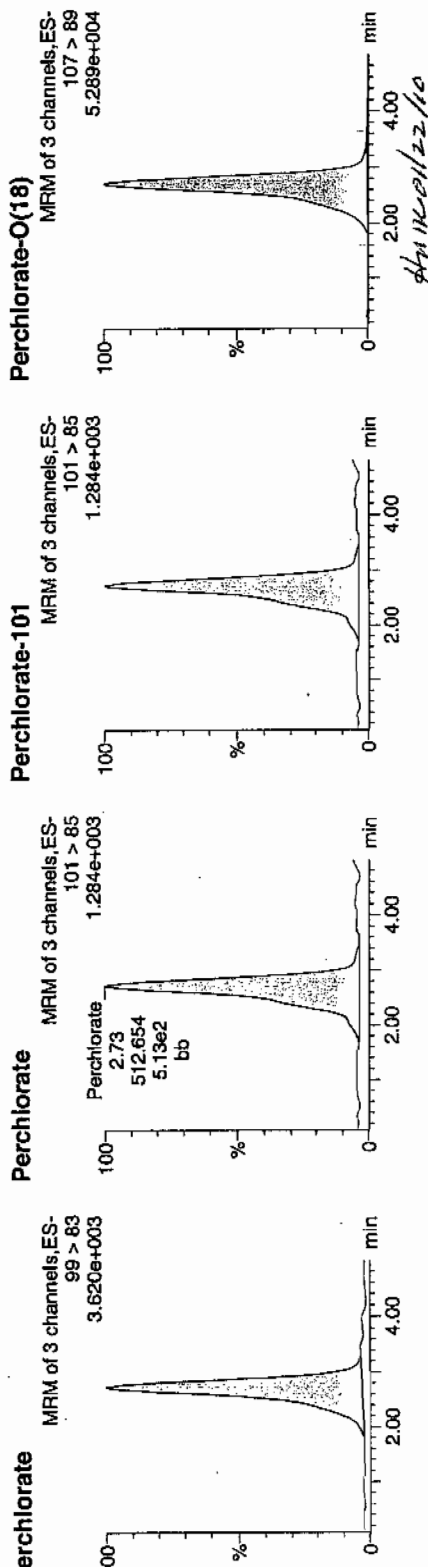
ime: 19:00:08

>: 244144005

ial: 1:6,D

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9-1-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
44144005	Perchlorate	99 > 83	2.73	1367.607	bb			0.0290			155.041	2.67
44144005	Perchlorate-101	101 > 85	2.73	512.654	bb			0.0334			166.644	
44144005	Perchlorate-O(18)	107 > 89	2.70	20553.631	bb			0.5104	102.09	2.09	2422.9...	

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: 240138  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE12-10-7617  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144006  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 90.8

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.909	ug/kg	J	1	20-JAN-10 19:32	per0120038a
	Perchlorate Isotope Ratio			2.85			1	20-JAN-10 19:32	per0120038a
14797-73-0	Perchlorate-101	.551	2.2	0.979	ug/kg	J	1	20-JAN-10 19:32	per0120038a
	Perchlorate-O(18)			5.56	ug/kg		1	20-JAN-10 19:32	per0120038a

<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\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120038a

Date: 20-Jan-2010

Time: 19:32:19

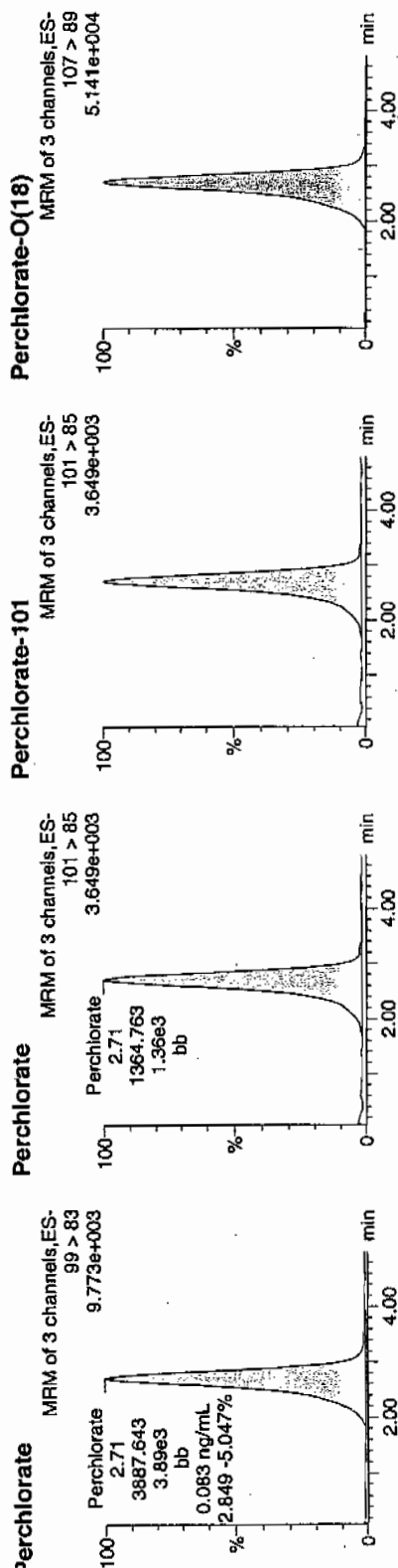
D: 244144006

Fial: 1:6,E

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LAN 1940141 | 3020 | 11



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
244144006	Perchlorate	99 > 83	2.71	3887.643	3887.643	bb			0.0825			528.288	2.85
244144006	Perchlorate-101	101 > 85	2.71	1364.763	1364.763	bb			0.0889			228.394	
244144006	Perchlorate-O(18)	107 > 89	2.71	20309.121	20309.121	bb			0.5044	100.88	0.88	2446.8...	

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 940138  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE12-10-7620  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 24414007  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 89

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.563	2.25	0.563	ug/kg	U	1	20-JAN-10 19:40	per0120039a
	Perchlorate Isotope Ratio						1	20-JAN-10 19:40	per0120039a
14797-73-0	Perchlorate-101	.563	2.25	0.563	ug/kg	U	1	20-JAN-10 19:40	per0120039a
	Perchlorate-O(18)			5.82	ug/kg		1	20-JAN-10 19:40	per0120039a

<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: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120039a

Date: 20-Jan-2010

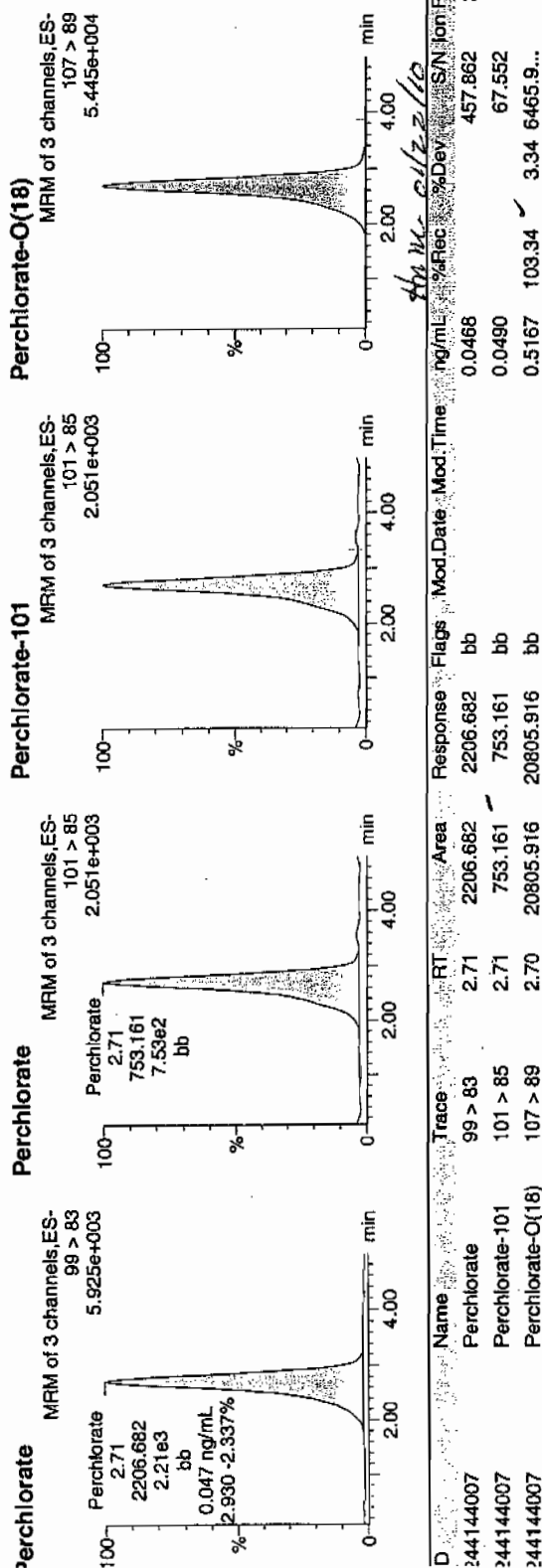
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ID: 244144007

File: 1:6.F

01-21-10

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DEL 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 8850 Modified

Matrix: SOIL

Extraction Batch ID: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7624

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144008

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 21.6

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.546	2.18	0.546	ug/kg	J	1	20-JAN-10 19:48	per0120040a
	Perchlorate Isotope Ratio			2.84			1	20-JAN-10 19:48	per0120040a
14797-73-0	Perchlorate-101	.546	2.18	0.590	ug/kg	J	1	20-JAN-10 19:48	per0120040a
	Perchlorate-O(18)			5.31	ug/kg		1	20-JAN-10 19:48	per0120040a

<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

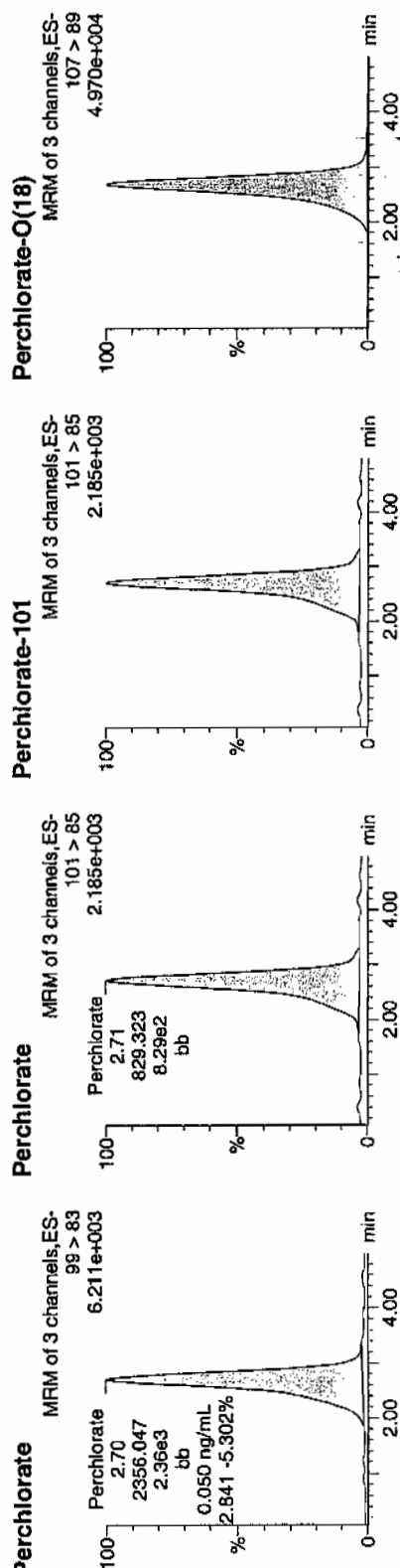
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Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120040a  
Date: 20-Jan-2010  
Time: 19:48:23  
ID: 244144008  
File: 1:7,A

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01-21-10

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D	Name	Trace	RT	Area	Response	Flags	Mod. Date	Mod. Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
244144008	Perchlorate	99 > 83	2.70	2356.047	2356.047	bb			0.0500			701.330	2.84
244144008	Perchlorate-101	101 > 85	2.71	829.323	829.323	bb			0.0540			332.758	
244144008	Perchlorate-O(18)	107 > 89	2.69	19579.719	19579.719	bb			0.4863	97.25	-2.75	4067.2...	

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: 240138  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE12-10-7630  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 24414009  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 88

CAS No.	Analyte <sup>a</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.571	2.28	0.571	ug/kg	U	1	20-JAN-10 19:56	per0120041a
	Perchlorate Isotope Ratio						1	20-JAN-10 19:56	per0120041a
14797-73-0	Perchlorate-101	.571	2.28	0.571	ug/kg	U	1	20-JAN-10 19:56	per0120041a
	Perchlorate-O(18)			5.79	ug/kg		1	20-JAN-10 19:56	per0120041a

<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

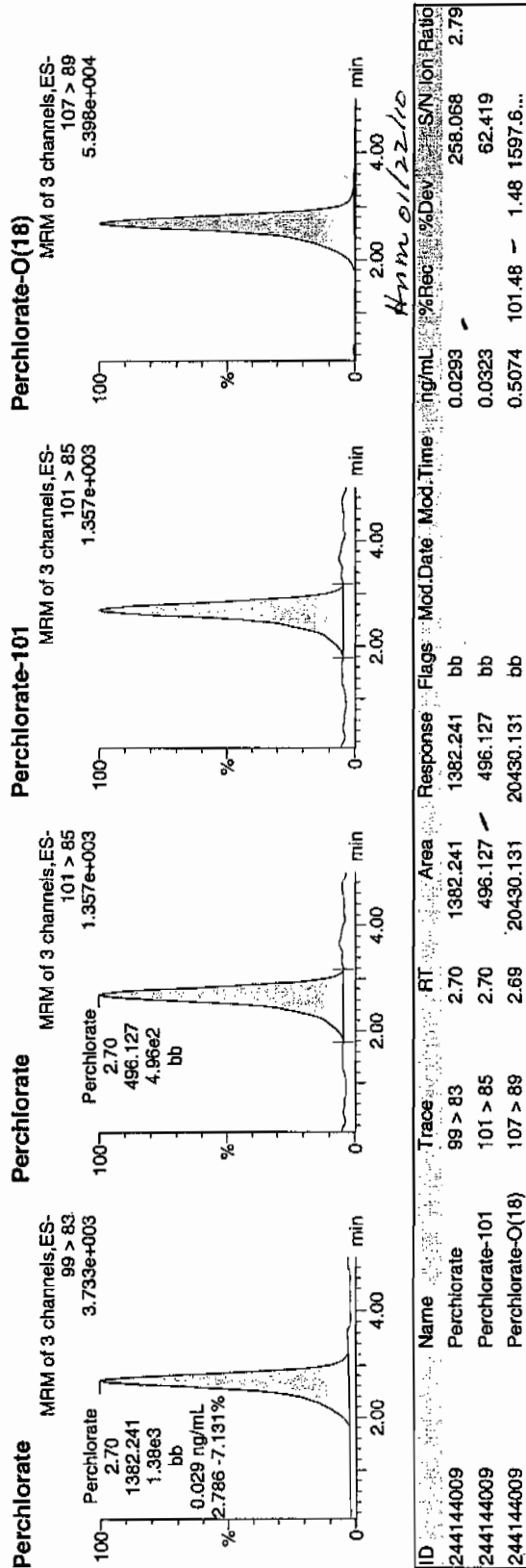
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
 Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120041a  
 Date: 20-Jan-2010  
 Time: 19:56:27  
 ID: 244144009  
 Vial: 1:7,B

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 01-21-10



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: 940138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7628  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144010  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 90

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	.558	2.23	0.558	ug/kg	U	1	20-JAN-10 20:04	per0120042a
	Perchlorate Isotope Ratio						1	20-JAN-10 20:04	per0120042a
14797-73-0	Perchlorate-101	.558	2.23	0.558	ug/kg	U	1	20-JAN-10 20:04	per0120042a
	Perchlorate-O(18)			5.88	ug/kg		1	20-JAN-10 20:04	per0120042a

<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\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

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Date: 20-Jan-2010

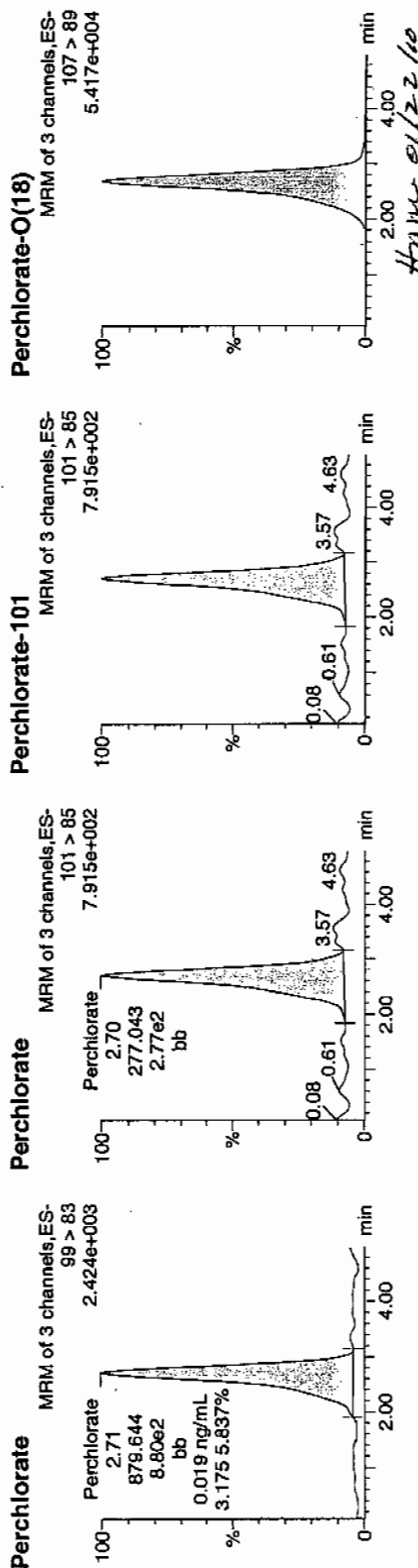
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Vial: 1:7,C

01-21-10

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ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
244144010	Perchlorate	99 > 83	2.71	879.644	879.644	bb			0.0187			132.219	3.18
244144010	Perchlorate-101	101 > 85	2.70	277.043	277.043	bb			0.0180			175.996	
244144010	Perchlorate-O(18)	107 > 89	2.69	21220.398	21220.398	bb			0.5270	105.40	5.40	5131.4...	

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: 940138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7632  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144011  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 90.8

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	.551	2.2	0.551	ug/kg	U	1	20-JAN-10 20:12	per0120043a
	Perchlorate Isotope Ratio						1	20-JAN-10 20:12	per0120043a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	20-JAN-10 20:12	per0120043a
	Perchlorate-O(18)			5.68	ug/kg		1	20-JAN-10 20:12	per0120043a

<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  $\frac{1}{\% \text{Solids}}$

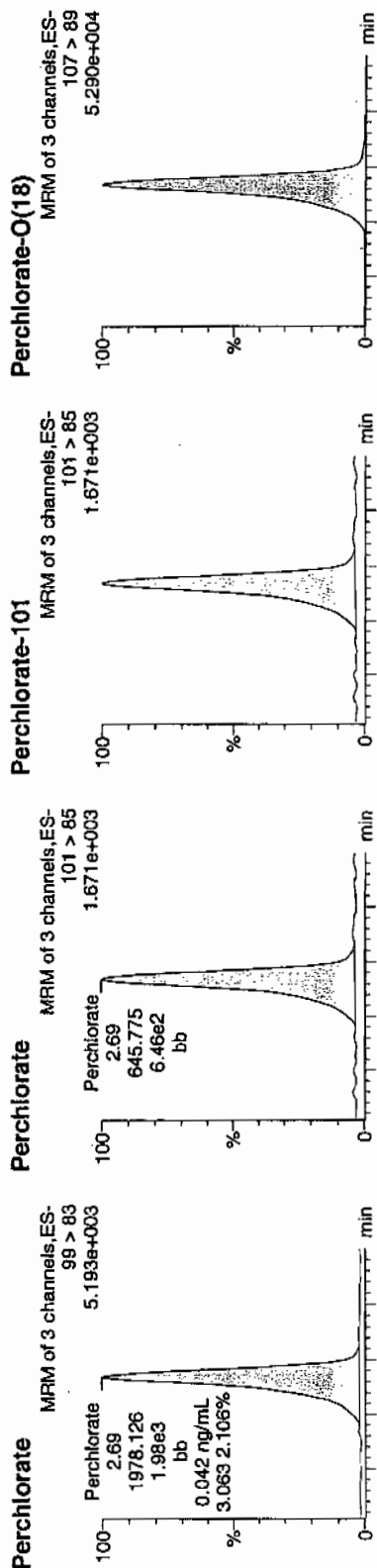
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120043a  
Date: 20-Jan-2010  
Time: 20:12:34  
ID: 244144011  
Vial: 1:7,D

LANC | 940141 | 50720 | 11  
01-21-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
244144011	Perchlorate	99 > 83	2.69	1978.126	1978.126	bb			0.0420			127.270	3.06
244144011	Perchlorate-101	101 > 85	2.69	645.775	645.775	bb			0.0421			24.998	
244144011	Perchlorate-O(18)	107 > 89	2.68	20751.277	20751.277	bb			0.5154	103.07	-3.07	4818.6...	



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: 940138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7629  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144012  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 82

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	.612	2.45	0.738	ug/kg	J	1	20-JAN-10 20:20	per0120044a
	Perchlorate Isotope Ratio			2.82			1	20-JAN-10 20:20	per0120044a
14797-73-0	Perchlorate-101	.612	2.45	0.803	ug/kg	J	1	20-JAN-10 20:20	per0120044a
	Perchlorate-O(18)			6.26	ug/kg		1	20-JAN-10 20:20	per0120044a

<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\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120044a

Date: 20-Jan-2010

Time: 20:20:38

ID: 244144012

Vial: 1:7,E

01-21-10

1 LANE | 940141 | 5020 | 11

Perchlorate

MRM of 3 channels, ES-

99 > 83

7.545e+003

Perchlorate

2.69

2843.568

2.84e3

bb

0.060 ng/mL

2.822 - 5.936%

Perchlorate

MRM of 3 channels, ES-

101 > 85

2.831e+003

Perchlorate

2.68

1007.670

1.01e3

bb

Perchlorate-101

MRM of 3 channels, ES-

101 > 85

2.831e+003

Perchlorate-O(18)

MRM of 3 channels, ES-

107 > 89

5.341e+004

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
244144012	Perchlorate	99 > 83	2.69	2843.568	2843.568	bb			0.0604	-		732.234	2.82
244144012	Perchlorate-101	101 > 85	2.68	1007.670	1007.670	bb			0.0656	-		148.965	
244144012	Perchlorate-O(18)	107 > 89	2.68	20602.098	20602.098	bb			0.5117	102.33	2.33	1453.3...	

Handwritten: 01/22/10

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: 940138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7626  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144013  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 90

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	.556	2.22	0.600	ug/kg	J	1	20-JAN-10 20:28	per0120045a
	Perchlorate Isotope Ratio			2.89			1	20-JAN-10 20:28	per0120045a
14797-73-0	Perchlorate-101	.556	2.22	0.637	ug/kg	J	1	20-JAN-10 20:28	per0120045a
	Perchlorate-O(18)			5.62	ug/kg		1	20-JAN-10 20:28	per0120045a

<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

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
 Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120045a

Date: 20-Jan-2010

Time: 20:28:40

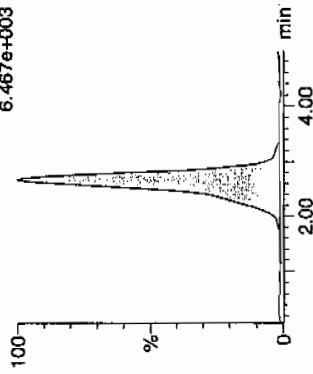
ID: 244144013

Vial: 1:7,F

LANC | 940141 | 5020 | 11  
 Q-24-10

## Perchlorate

MRM of 3 channels, ES-  
 99 > 83  
 6.467e+003



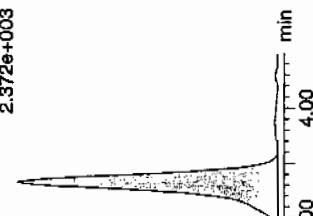
## Perchlorate

MRM of 3 channels, ES-  
 101 > 85  
 2.372e+003



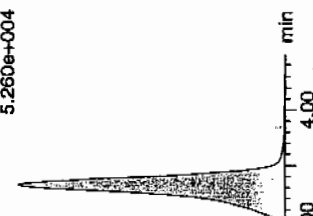
## Perchlorate-101

MRM of 3 channels, ES-  
 101 > 85  
 2.372e+003



## Perchlorate-O(18)

MRM of 3 channels, ES-  
 107 > 89  
 5.260e+004



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
244144013	Perchlorate	99 > 83	2.68	2545.501	2545.501	bb			0.0540			146.775	2.89
244144013	Perchlorate-101	101 > 85	2.68	880.828	880.828	bb			0.0574			218.837	
244144013	Perchlorate-O(18)	107 > 89	2.66	20363.670	20363.670	bb			0.5057	101.15	1.15	377.599	

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: 240138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7631  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144014  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 83

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	.601	2.4	0.601	ug/kg	U	1	20-JAN-10 20:36	per0120046a
	Perchlorate Isotope Ratio						1	20-JAN-10 20:36	per0120046a
14797-73-0	Perchlorate-101	.601	2.4	0.601	ug/kg	U	1	20-JAN-10 20:36	per0120046a
	Perchlorate-O(18)			6.41	ug/kg		1	20-JAN-10 20:36	per0120046a

<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

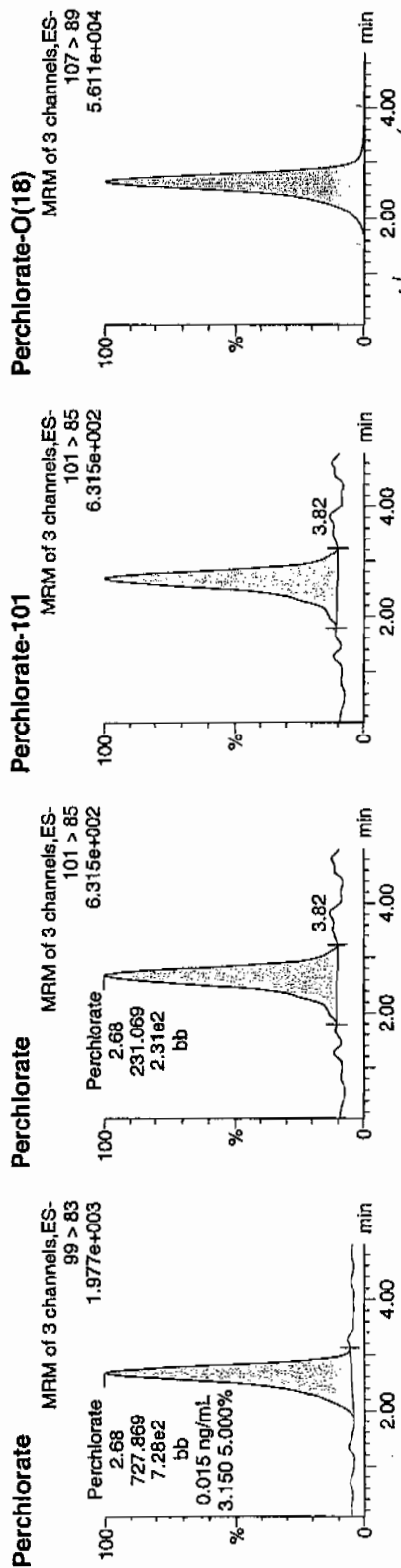
Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120046a  
Date: 20-Jan-2010  
Time: 20:36:43  
ID: 244144014  
Vial: 1:8,A

cus  
01-21-10

Lawrence | 94041 | 5010 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
244144014	Perchlorate	99 > 83	2.68	727.869	727.869	bb			0.0155			173.403	3.15
244144014	Perchlorate-101	101 > 85	2.68	231.069	231.069	bb			0.0150			107.198	
244144014	Perchlorate-O(18)	107 > 89	2.65	21462.584	21462.584	bb			0.5330	106.60	✓	6.60	9048.4...

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: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7627

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144015

Date Filtered: 19-JAN-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	.656	2.62	0.656	ug/kg	U	1	20-JAN-10 20:44	per0120047a
	Perchlorate Isotope Ratio						1	20-JAN-10 20:44	per0120047a
14797-73-0	Perchlorate-101	.656	2.62	0.656	ug/kg	U	1	20-JAN-10 20:44	per0120047a
	Perchlorate-O(18)			6.76	ug/kg		1	20-JAN-10 20:44	per0120047a

<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\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120047a

Date: 20-Jan-2010

Time: 20:44:48

ID: 244144015

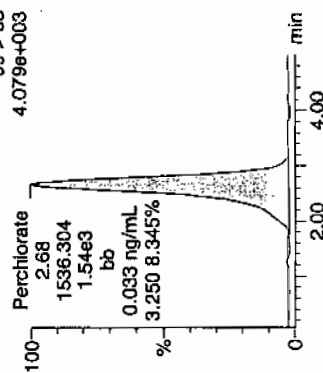
Vial: 1:8,B

3333  
01-21-10

1LAWC | 940141 | 50730111

### Perchlorate

MRM of 3 channels, ES-  
99 > 83  
4.079e+003



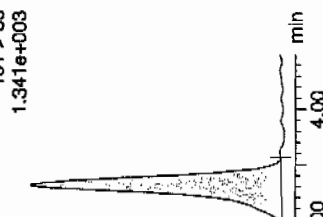
### Perchlorate

MRM of 3 channels, ES-  
101 > 85  
1.341e+003



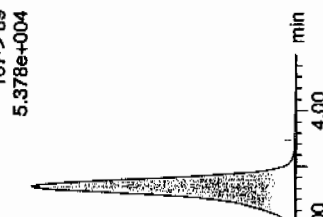
### Perchlorate-101

MRM of 3 channels, ES-  
101 > 85  
1.341e+003



### Perchlorate-O(18)

MRM of 3 channels, ES-  
107 > 89  
5.378e+004



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
244144015	Perchlorate	99 > 83	2.68	1536.304	1536.304	bb			0.0326	-	-	165.601	3.25
244144015	Perchlorate-101	101 > 85	2.65	472.656	472.656	bb			0.0308	-	-	399.241	
244144015	Perchlorate-O(18)	107 > 89	2.65	20738.891	20738.891	bb			0.5151	103.01	3.01	2000.1...	

Time 2/22/10



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: 240138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7625

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144016

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.607	2.43	0.607	ug/kg	U	1	20-JAN-10 21:16	per0120051a
	Perchlorate Isotope Ratio						1	20-JAN-10 21:16	per0120051a
14797-73-0	Perchlorate-101	.607	2.43	0.607	ug/kg	U	1	20-JAN-10 21:16	per0120051a
	Perchlorate-O(18)			6.38	ug/kg		1	20-JAN-10 21:16	per0120051a

<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  $\frac{1}{\% \text{Solids}}$

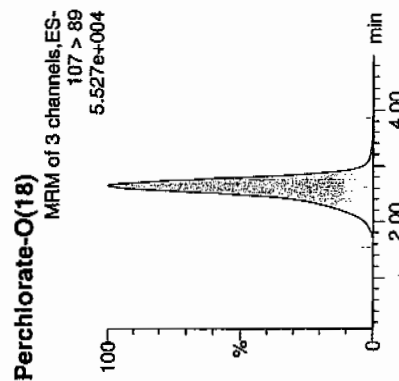
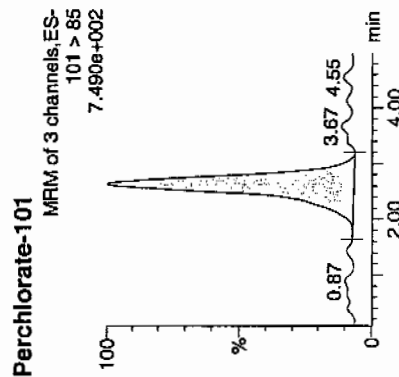
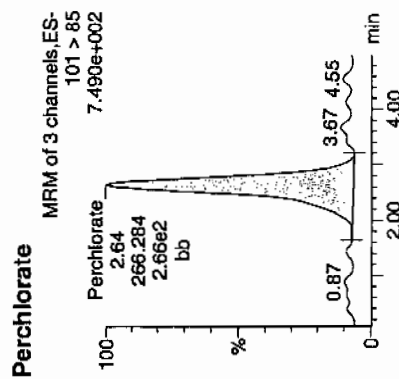
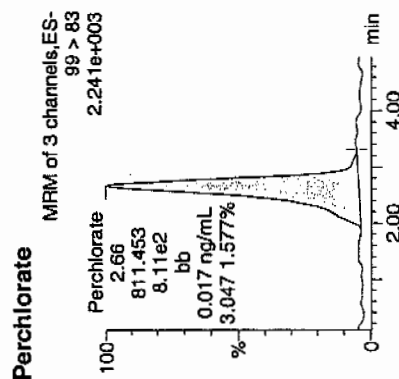
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120051a  
Date: 20-Jan-2010  
Time: 21:16:58  
ID: 244144016  
Vial: 1:8,C

1244144016 | 940141 | 5070 | 1.1  
01-21-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
244144016	Perchlorate	99 > 83	2.66	811.453	811.453	bb			0.0172			18.241	3.05
244144016	Perchlorate-101	101 > 85	2.64	266.284	266.284	bb			0.0173			108.437	
244144016	Perchlorate-O(18)	107 > 89	2.64	21173.252	21173.252	bb			0.5258	105.17	5.17	6064.9...	

Sample 01/22/10

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: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7656

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 244144017

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 92.4

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	0.541	ug/kg	U	1	20-JAN-10 21:25	per0120052a
	Perchlorate Isotope Ratio						1	20-JAN-10 21:25	per0120052a
14797-73-0	Perchlorate-101	.541	2.16	0.541	ug/kg	U	1	20-JAN-10 21:25	per0120052a
	Perchlorate-O(18)			5.44	ug/kg		1	20-JAN-10 21:25	per0120052a

<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  $\frac{1}{\% \text{Solids}}$

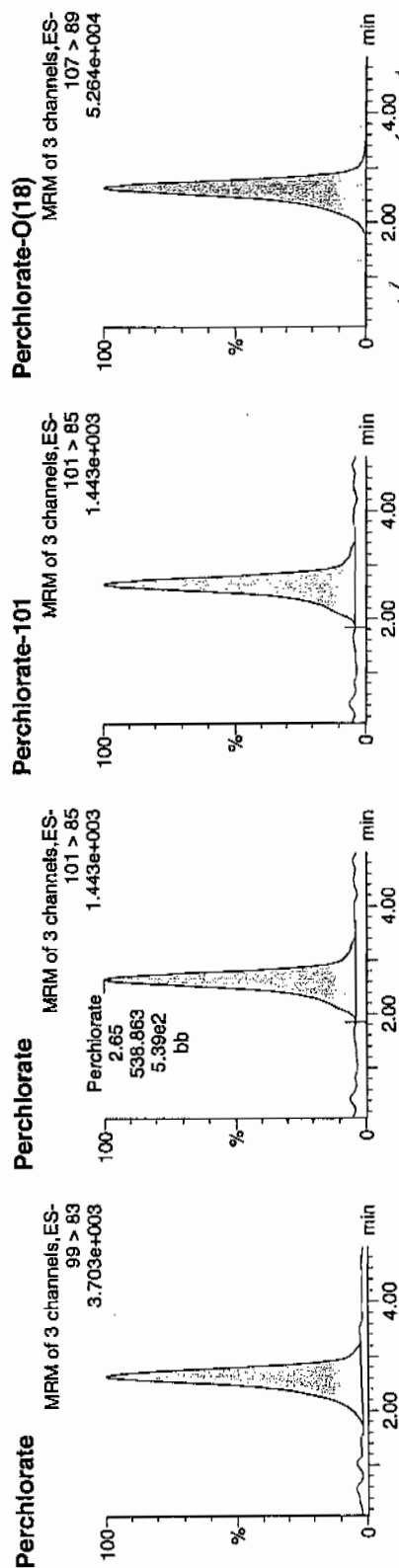
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120052a  
Date: 20-Jan-2010  
Time: 21:25:01  
ID: 244144017  
Vial: 1:8,D

333  
01-21-10  
1940141 | 5070 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
244144017	Perchlorate	99 > 83	2.64	1454.643	1454.643	bb			0.0309			455.675	2.70
244144017	Perchlorate-101	101 > 85	2.65	538.863	538.863	bb			0.0351			58.490	
244144017	Perchlorate-O(18)	107 > 89	2.64	20227.117	20227.117	bb			0.5023	100.47	0.47	1997.1...	

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: 240138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7655  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 244144018  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 90.1

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	.555	2.22	0.599	ug/kg	J	1	20-JAN-10 21:33	per0120053a
	Perchlorate Isotope Ratio			3			1	20-JAN-10 21:33	per0120053a
14797-73-0	Perchlorate-101	.555	2.22	0.612	ug/kg	J	1	20-JAN-10 21:33	per0120053a
	Perchlorate-O(18)			5.71	ug/kg		1	20-JAN-10 21:33	per0120053a

<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

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120053a

Date: 20-Jan-2010

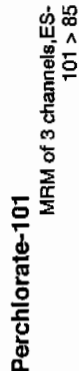
Time: 21:33:05

ID: 244144018

Vial: 1:8,E

15226 1940141 / 5020 / 11

01-21-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
244144018	Perchlorate	99 > 83	2.65	2543.831	2543.831	bb			0.0540			559.656	3.00
244144018	Perchlorate-101	101 > 85	2.63	846.834	846.834	bb			0.0551			121.788	
244144018	Perchlorate-O(18)	107 > 89	2.82	20700.082	20700.082	bb			0.5141	102.82	2.82	438.887	

# STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories  
GEL Job No.(SDG): 10-1128

Lab Code: GEL

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

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

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

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 47107.98

Response Type: External Standard

Curve Type: RF



Perchlorate Initial Calibration

GEL Job No.(SDG): 10-1128

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 20-JAN-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: 15355.26

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\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per012010a.mdb 20 Jan 2010 15:44:00  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per012010a.cdb 21 Jan 2010 07:27:15

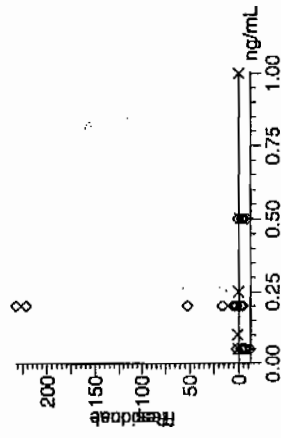
Compound name: Perchlorate

Response Factor: 47108

RF SD: 449.7, % Relative SD: 0.954615

Response type: External Std, Area

Curve type: RF



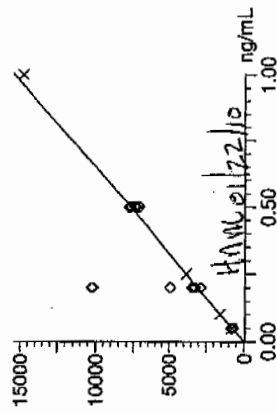
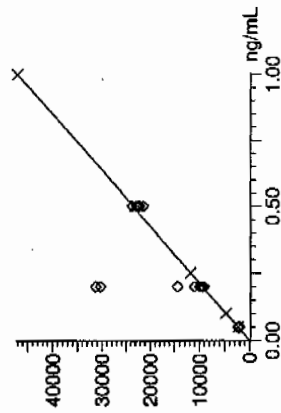
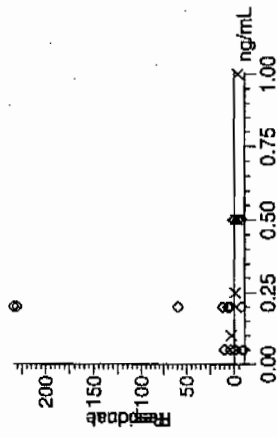
Compound name: Perchlorate-101

Response Factor: 15355.3

RF SD: 507.293, % Relative SD: 3.30371

Response type: External Std, Area

Curve type: RF



01-21-10

Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time

Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

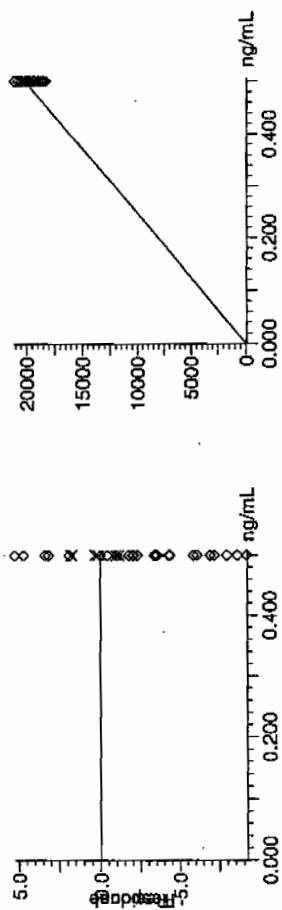
Compound name: Perchlorate-O(18)

Response Factor: 40265.8

RF SD: 468.466, % Relative SD: 1.16343

Response type: External Std, Area

Curve type: RF



Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1128

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	101.03	20-JAN-10 15:39	per0120009a
Perchlorate Isotope Ratio		3.08		20-JAN-10 15:39	per0120009a
Perchlorate-101	.5	.5	100.53	20-JAN-10 15:39	per0120009a

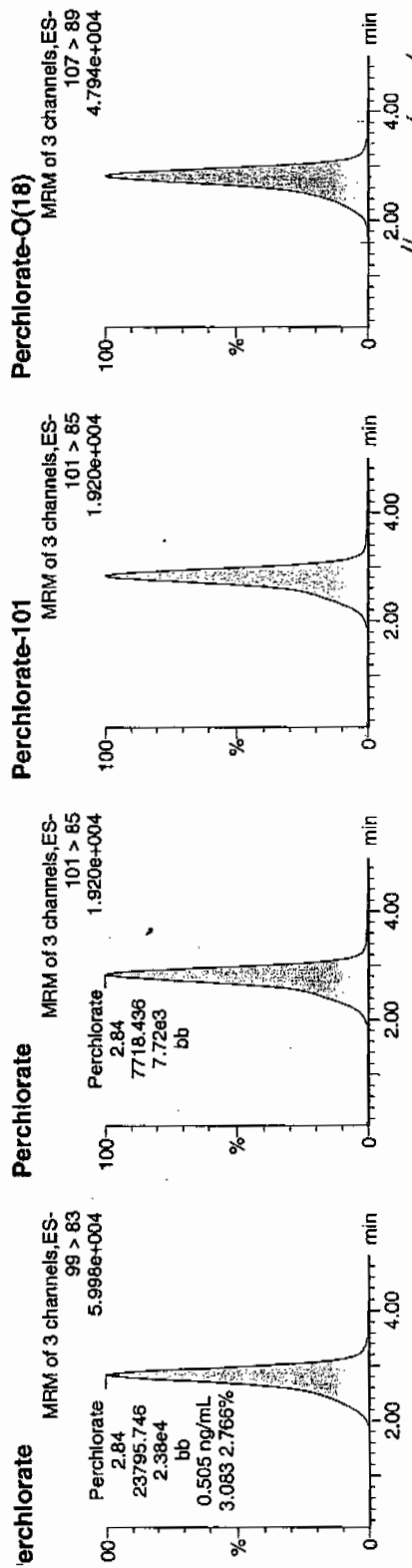
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120009a  
Date: 20-Jan-2010  
Time: 15:39:01  
File: WCL100118-06ICV  
Label: 1:2,A

Pure  
Ours  
01-21-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100118-06ICV	Perchlorate	2.84	23795.746	23795.746	bb			0.5051	101.03	1.03	1346.6...	3.08
/CL100118-06ICV	Perchlorate-101	2.84	7718.436	7718.436	bb			0.5027	100.53	0.53	2043.8...	
/CL100118-06ICV	Perchlorate-Q(18)	2.82	19435.041	19435.041	bb			0.4827	96.53	-3.47	2336.9...	

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1128

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	95.73	20-JAN-10 17:23	per0120022a
Perchlorate Isotope Ratio		3.06		20-JAN-10 17:23	per0120022a
Perchlorate-101	.5	.48	95.89	20-JAN-10 17:23	per0120022a
Perchlorate	.5	.48	95.1	20-JAN-10 19:08	per0120035a
Perchlorate Isotope Ratio		3.08		20-JAN-10 19:08	per0120035a
Perchlorate-101	.5	.47	94.68	20-JAN-10 19:08	per0120035a
Perchlorate	.5	.5	100.4	20-JAN-10 20:52	per0120048a
Perchlorate Isotope Ratio		3.03		20-JAN-10 20:52	per0120048a
Perchlorate-101	.5	.51	101.63	20-JAN-10 20:52	per0120048a
Perchlorate	.5	.46	91.01	20-JAN-10 22:37	per0120061a
Perchlorate Isotope Ratio		3.03		20-JAN-10 22:37	per0120061a
Perchlorate-101	.5	.46	92.21	20-JAN-10 22:37	per0120061a

# Quantify Sample Report MassLynx 4.0 SP4

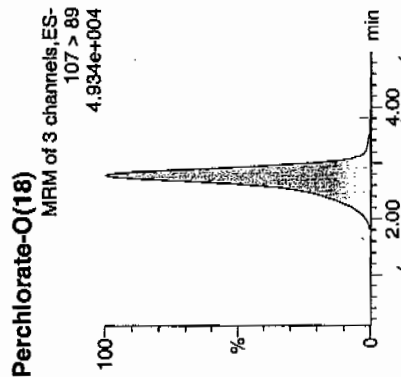
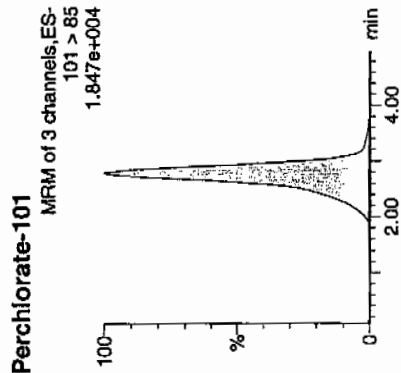
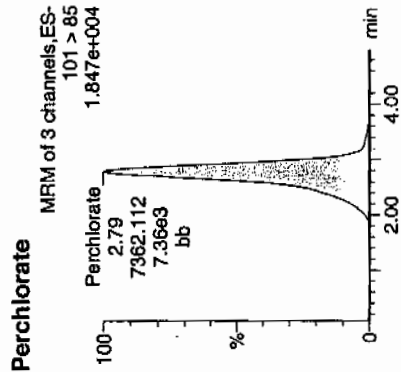
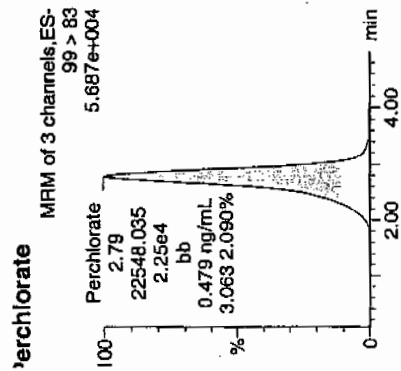
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
 Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120022a  
 Date: 20-Jan-2010  
 Time: 17:23:34  
 D: WCL100118-06CCV  
 /ial: 1:2,A

*Per  
 and  
 01-21-10*



Name	Trace	RT	Area	Response	Flags	Mod.Date	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100118-06CCV	99 > 83	2.79	22548.035	22548.035	bb		0.4786	95.73	-4.27	1355.5...	3.06
/CL100118-06CCV	101 > 85	2.79	7362.112	7362.112	bb		0.4795	95.89	-4.11	270.495	
/CL100118-06CCV	107 > 89	2.77	19245.828	19245.828	bb		0.4780	95.59	-4.41	5036.8...	

*Time 01/22/10*

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

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120035a

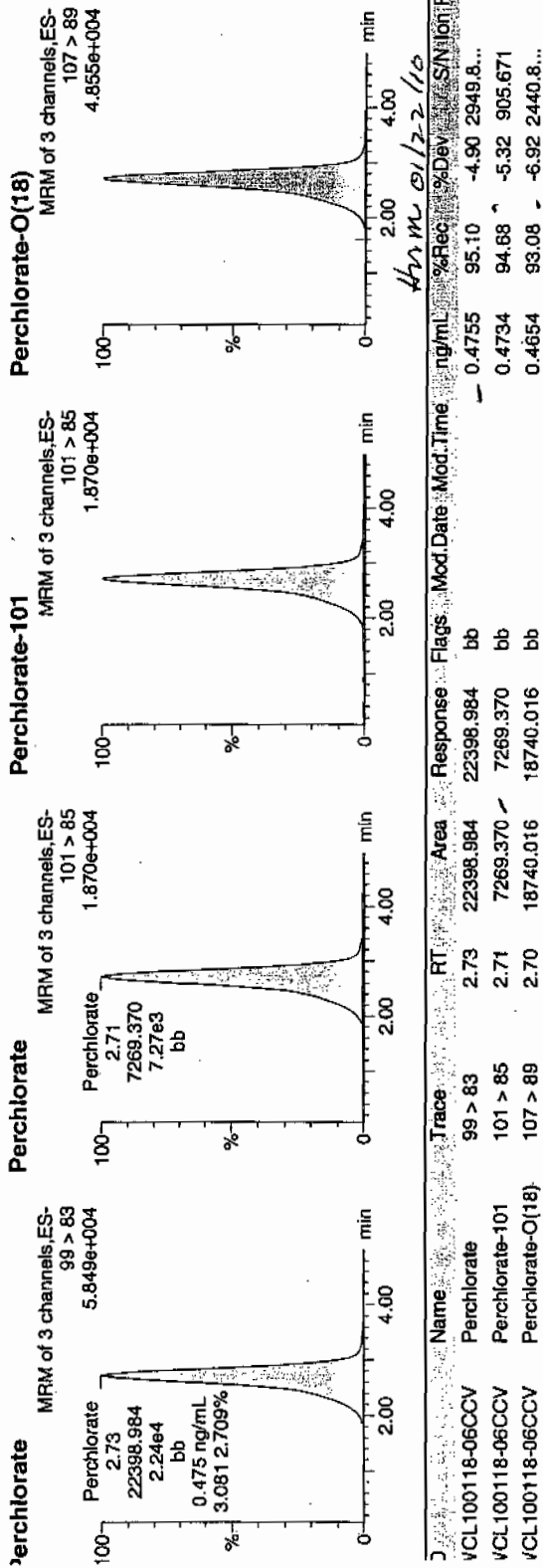
Date: 20-Jan-2010

Time: 19:08:10

D: WCL100118-06CCV

/ial: 1:2,A

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*and*  
*01-21-10*



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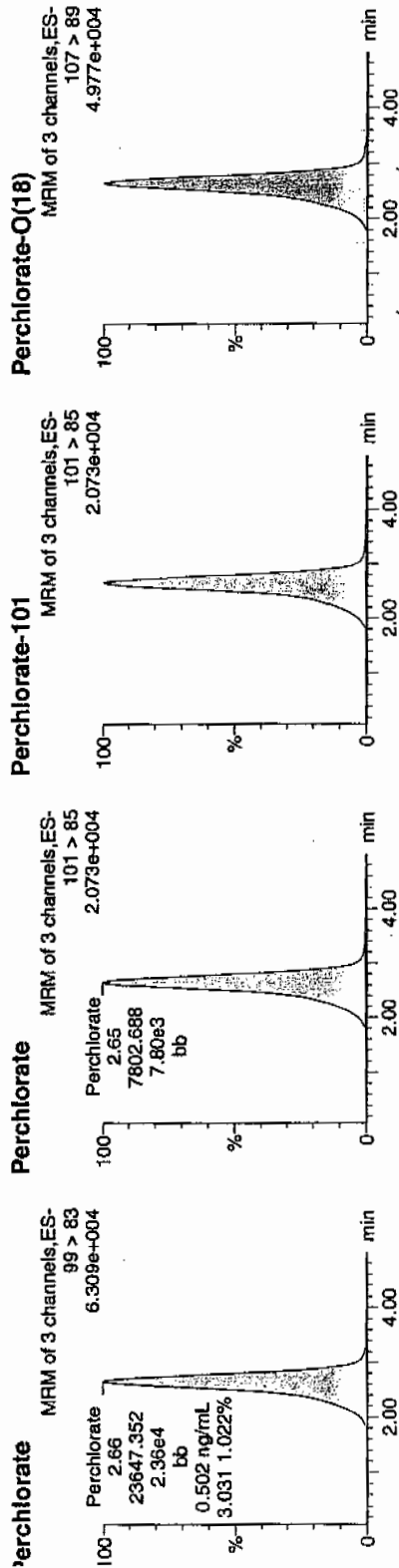
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120048a  
Date: 20-Jan-2010  
Time: 20:52:52  
D: WCL100118-06CCV  
File: 1:2,A

Pure  
Q1-21-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100118-06CCV	Perchlorate	99 > 83	2.66	23647.352	bb			0.5020	100.40	0.40	6920.4...	3.03
/CL100118-06CCV	Perchlorate-101	101 > 85	2.65	7802.688	bb			0.5081	101.63	1.63	952.150	
/CL100118-06CCV	Perchlorate-Q(18)	107 > 89	2.65	19409.467	bb			0.4820	96.41	-3.59	475.335	

Handwritten: 01/22/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120061a

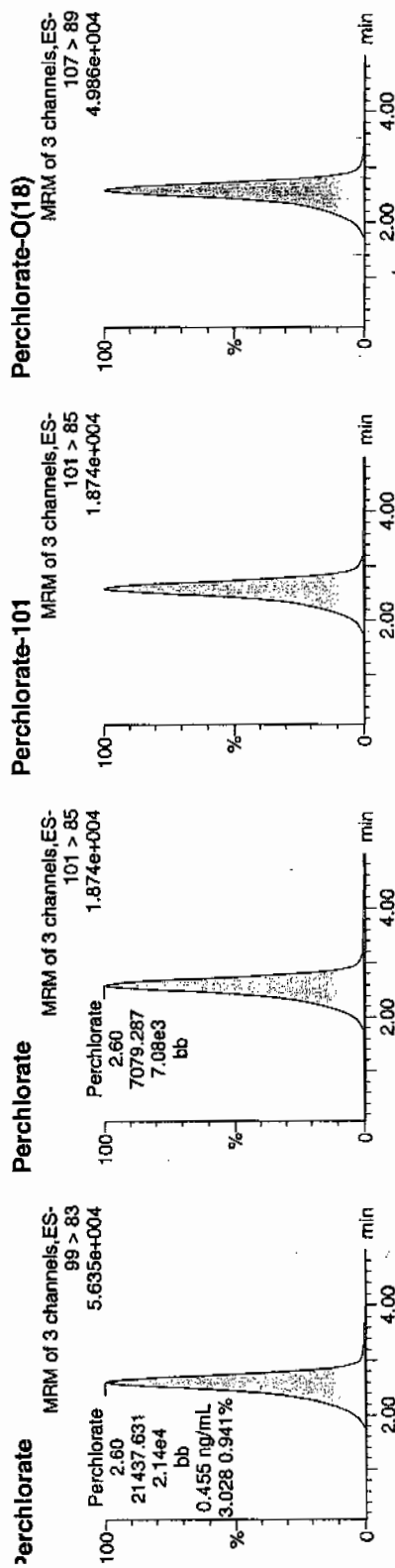
Date: 20-Jan-2010

Time: 22:37:27

D: WCL100118-06CCV

/ial: 1:2,A

Per  
CWS  
01-21-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	SN	Ion Ratio
VCL100118-06CCV	Perchlorate	99 > 83	2.60	21437.631	21437.631	bb			0.4551	91.01	-8.99	3844.5...	3.03
VCL100118-06CCV	Perchlorate-101	101 > 85	2.60	7079.287	7079.287	bb			0.4610	92.21	-7.79	1455.5...	
VCL100118-06CCV	Perchlorate-O(18)	107 > 89	2.59	18528.201	18528.201	bb			0.4601	92.03	-7.97	2179.7...	

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

Perchlorate MDL Verification

GEL Job No.(SDG): 10-1128

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	101.99	20-JAN-10 15:55	per0120011a
Perchlorate Isotope Ratio		2.84		20-JAN-10 15:55	per0120011a
Perchlorate-101	.05	.06	110.26	20-JAN-10 15:55	per0120011a
Perchlorate	.05	.05	96.1	20-JAN-10 17:39	per0120024a
Perchlorate Isotope Ratio		3.27		20-JAN-10 17:39	per0120024a
Perchlorate-101	.05	.05	90.03	20-JAN-10 17:39	per0120024a
Perchlorate	.05	.05	97.72	20-JAN-10 19:24	per0120037a
Perchlorate Isotope Ratio		2.9		20-JAN-10 19:24	per0120037a
Perchlorate-101	.05	.05	103.45	20-JAN-10 19:24	per0120037a
Perchlorate	.05	.05	94	20-JAN-10 21:08	per0120050a
Perchlorate Isotope Ratio		2.93		20-JAN-10 21:08	per0120050a

Form 3

Perchlorate MDL Verification

GEL Job No.(SDG): 10-1128

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	98.56	20-JAN-10 21:08	per0120050a
Perchlorate	.05	.04	88.36	20-JAN-10 22:53	per0120063a
Perchlorate Isotope Ratio		2.93		20-JAN-10 22:53	per0120063a
Perchlorate-101	.05	.05	92.46	20-JAN-10 22:53	per0120063a

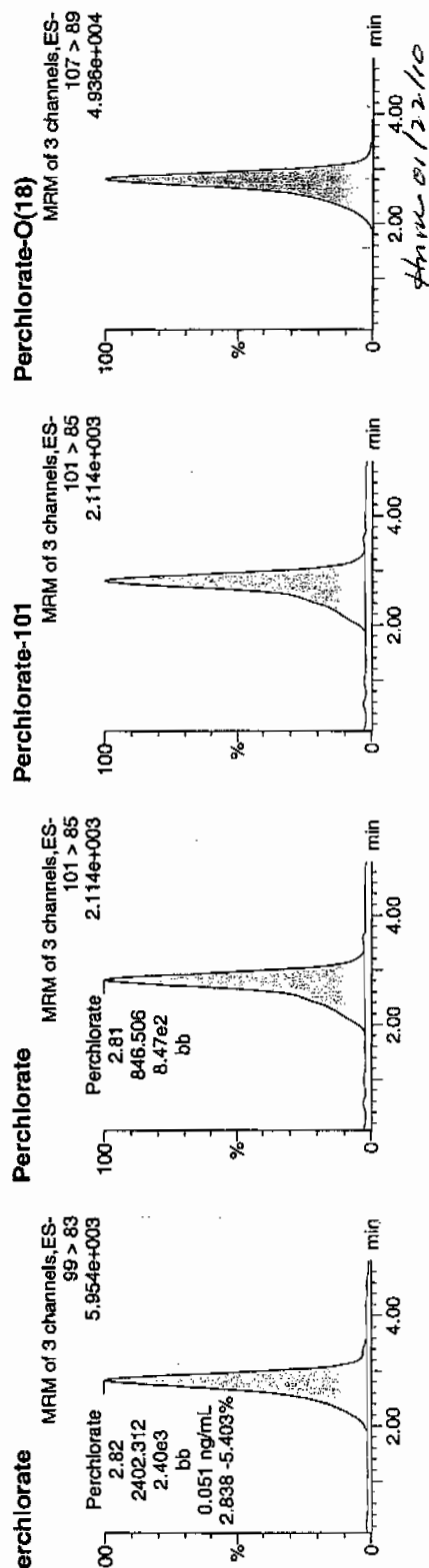
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qtd

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120011a  
Date: 20-Jan-2010  
Time: 15:55:07  
File: WCL100118-07CRI  
Label: 1:2,B

Pure  
CWS  
01-21-10



Name	Trace	RT	Area	Response	Flags	Mod. Date	Mod. Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100118-07CRI	Perchlorate	2.82	2402.312	2402.312	bb			0.0510	101.99	1.99	300.932	2.84
CL100118-07CRI	Perchlorate-101	2.81	846.506	846.506	bb			0.0551	110.26	10.26	139.479	
CL100118-07CRI	Perchlorate-O(18)	2.81	19773.357	19773.357	bb			0.4911	98.21	-1.79	2741.9...	

# Quantify Sample Report MassLynx 4.0 SP4

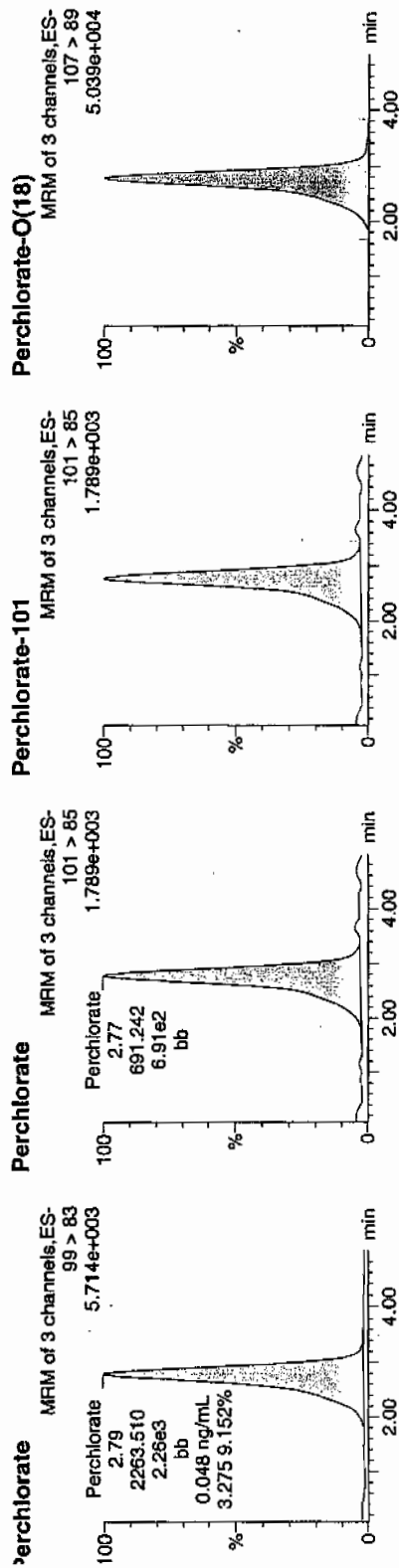
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
 Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120024a  
 Date: 20-Jan-2010  
 Time: 17:39:39  
 D: WCL100118-07CRI  
 /lat: 1:2,B

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Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100118-07CRI	Perchlorate	2.79	2263.510	2263.510	bb			0.0480	96.10	-3.90	150.027	3.27
WCL100118-07CRI	Perchlorate-101	2.77	691.242	691.242	bb			0.0450	90.03	-9.97	111.377	
WCL100118-07CRI	Perchlorate-O(18)	2.77	19458.973	19458.973	bb			0.4833	96.65	-3.35	4555.4...	

Handwritten note: 01/22/10

# Quantify Sample Report MassLynx 4.0 SP4

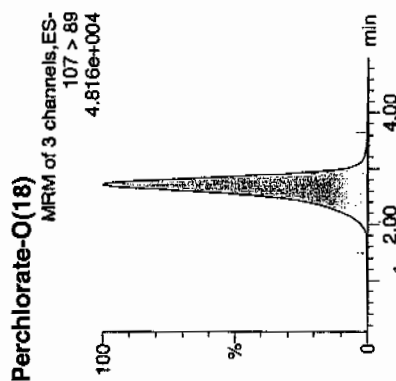
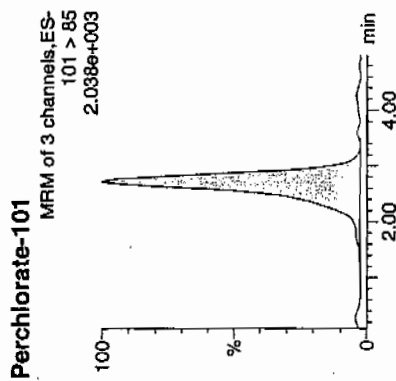
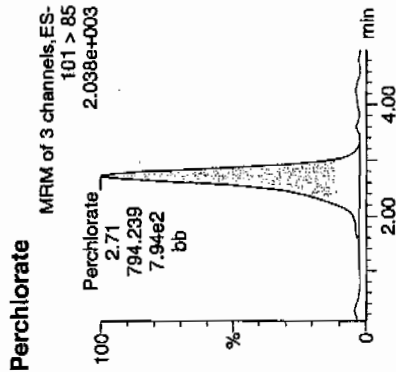
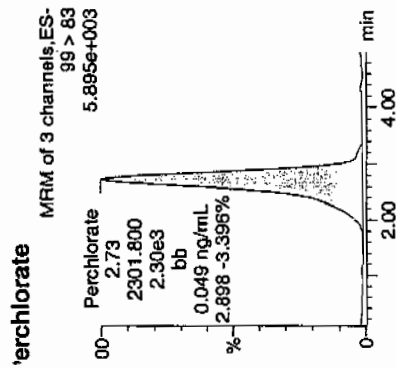
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120037a  
Date: 20-Jan-2010  
Time: 19:24:14  
D: WCL100118-07CRI  
File: 1:2,B

Pure  
conc  
9-11-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
/CL100118-07CRI	Perchlorate	99 > 83	2.73	2301.800	bb			0.0489	97.72	-2.28	892.610	2.90
/CL100118-07CRI	Perchlorate-101	101 > 85	2.71	794.239	bb			0.0517	103.45	3.45	95.490	
/CL100118-07CRI	Perchlorate-O(18)	107 > 89	2.71	18730.771	bb			0.4652	93.04	-6.96	2728.7...	

**Quantify Sample Report** MassLynx 4.0 SP4

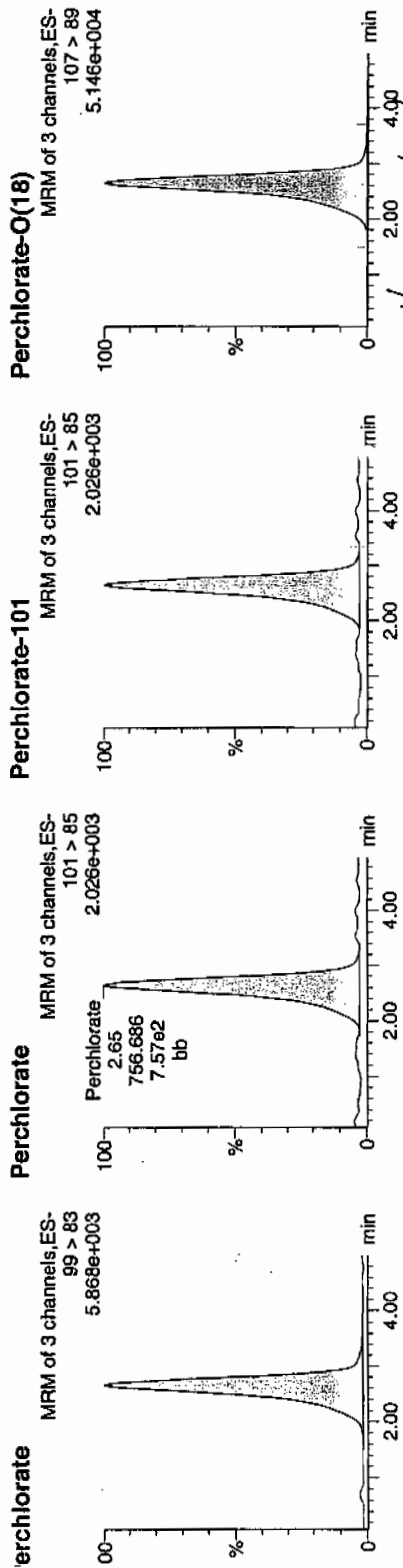
the GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120050a  
Date: 20-Jan-2010  
Time: 21:08:56  
File: WCL100118-07CRI  
Label: 1:2,B

*Pass*  
*and*  
*01-21-10*



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100118-07CRI	Perchlorate	2.65	2214.129	2214.129	bb			0.0470	94.00	-6.00	354.547	2.93
/CL100118-07CRI	Perchlorate-101	2.65	756.686	756.686	bb			0.0493	98.56	-1.44	234.654	
/CL100118-07CRI	Perchlorate-O(18)	2.65	19715.338	19715.338	bb			0.4896	97.93	-2.07	1567.4...	



Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120063a

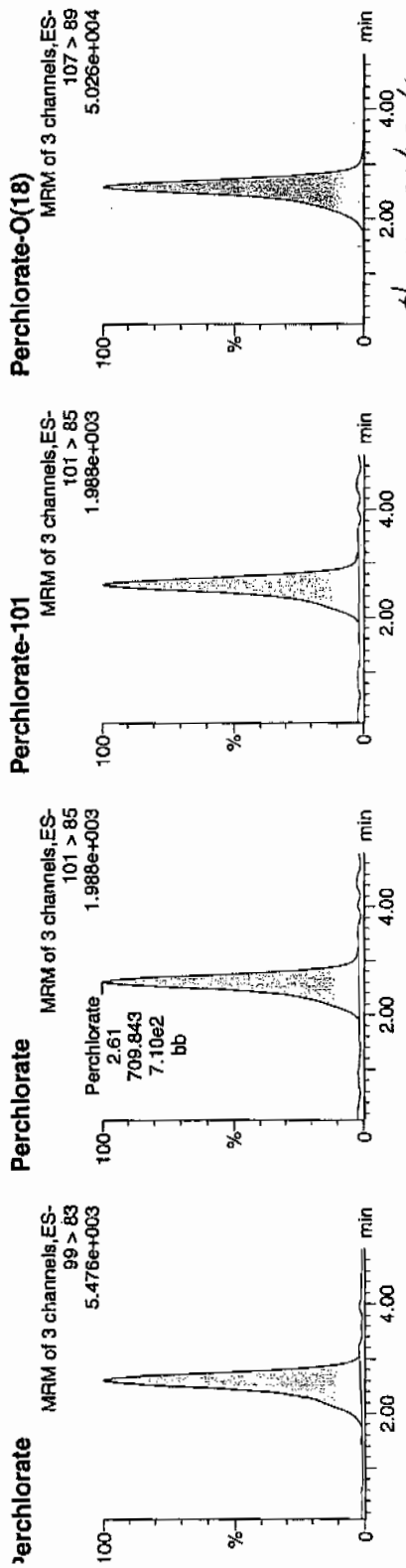
Date: 20-Jan-2010

Time: 22:53:46

D: WCL100118-07CRI

/ial: 1:2,B

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and  
O-2-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	IS/N	Ion Ratio
/CL100118-07CRI	Perchlorate	2.61	2081.118	2081.118	bb			0.0442	88.36	-11.64	99.945	2.93
/CL100118-07CRI	Perchlorate-101	2.61	709.843	709.843	bb			0.0462	92.46	-7.54	77.684	
/CL100118-07CRI	Perchlorate-O(18)	2.59	18903.783	18903.783	bb			0.4695	93.90	-6.10	397.926	

# QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 240138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

MB

Date Received: 19-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 1202011821

Date Filtered: 19-JAN-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	0.500	ug/kg	U	1	20-JAN-10 17:47	per0120025a
	Perchlorate Isotope Ratio						1	20-JAN-10 17:47	per0120025a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	20-JAN-10 17:47	per0120025a
	Perchlorate-O(18)			4.56	ug/kg		1	20-JAN-10 17:47	per0120025a

<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

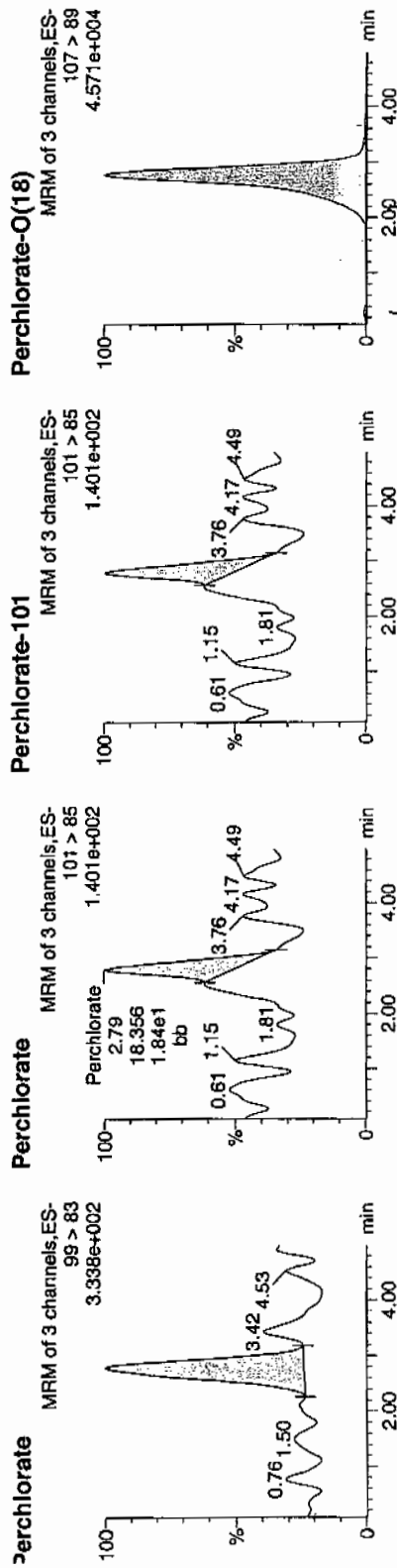
Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120025a  
Date: 20-Jan-2010  
Time: 17:47:41  
D: 1202011821  
Vial: 1:5,A

01-21-10

1000-1940141 | 5020 | 10 | 1 |



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202011821	Perchlorate	99 > 83	2.79	99.577	99.577	bb			0.0021			35.542	5.42
1202011821	Perchlorate-101	101 > 85	2.79	18.356	18.356	bb			0.0012			6.873	
1202011821	Perchlorate-O(18)	107 > 89	2.77	18342.867	18342.867	bb			0.4555	91.11	-8.89	2775.0...	

01-21-10  
40.0500

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 940138

Extraction Type: Solid Prep

Client Sample No.

LCS

Date Received: 19-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 1202011822

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 100

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	.5	2	2.06	ug/kg		1	20-JAN-10 17:55	per0120026a
	Perchlorate Isotope Ratio			2.95			1	20-JAN-10 17:55	per0120026a
14797-73-0	Perchlorate-101	.5	2	2.14	ug/kg		1	20-JAN-10 17:55	per0120026a
	Perchlorate-O(18)			5.00	ug/kg		1	20-JAN-10 17:55	per0120026a

<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: Charders W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120026a

Date: 20-Jan-2010

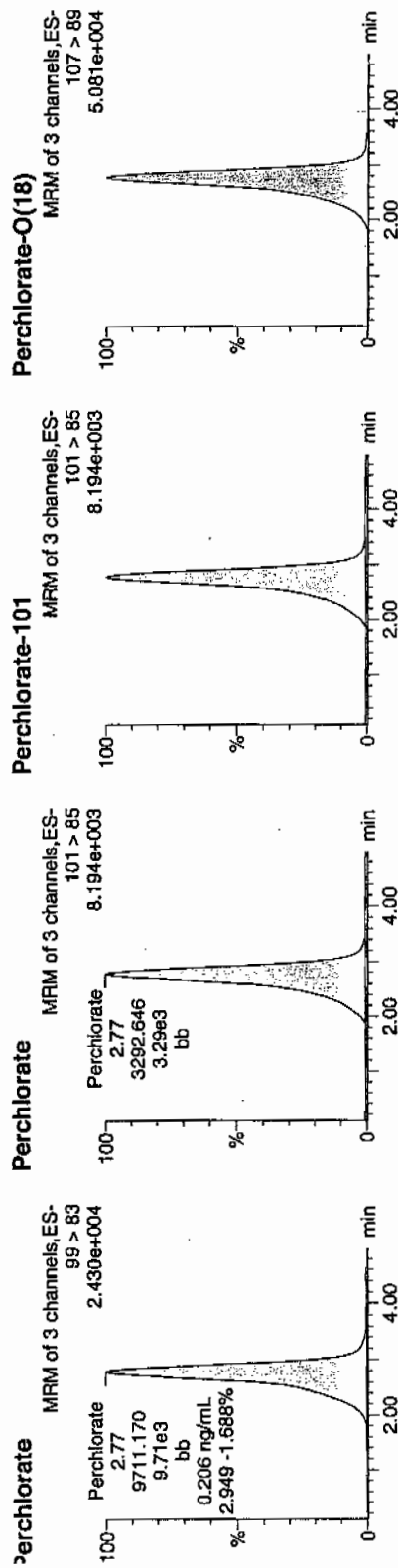
Time: 17:55:45

D: 1202011822

/fil: 1:5,B

WJ  
01-21-10

LAU 1940141 | 5020 | 43 | 11



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202011822	Perchlorate	99 > 83	2.77	9711.170	bb			0.2061	103.07	3.07	299.190	2.95
202011822	Perchlorate-101	101 > 85	2.77	3292.646	bb			0.2144	107.22	7.22	1197.1...	
202011822	Perchlorate-O(18)	107 > 89	2.76	20130.240	bb			0.4999	99.99	-0.01	3964.5...	

$$\frac{9711.170}{47108} = 0.2061$$

HAW 01/22/10

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: 940138  
 Extraction Type: Solid Prep  
 Client Sample No. RE12-10-7619MS  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128  
 GEL Sample ID: 1202011823  
 Date Filtered: 19-JAN-10  
 Injection Volume (uL): 20  
 %Solids: 84

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	.597	2.39	2.51	ug/kg		1	20-JAN-10 18:19	per0120029a
	Perchlorate Isotope Ratio			3.08			1	20-JAN-10 18:19	per0120029a
14797-73-0	Perchlorate-101	.597	2.39	2.50	ug/kg		1	20-JAN-10 18:19	per0120029a
	Perchlorate-O(18)			5.45	ug/kg		1	20-JAN-10 18:19	per0120029a

<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\per012010a.qtd

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Sample Name: per0120029a

Date: 20-Jan-2010

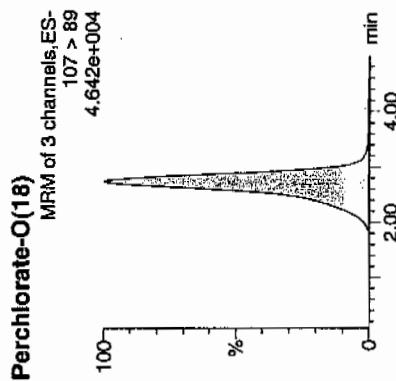
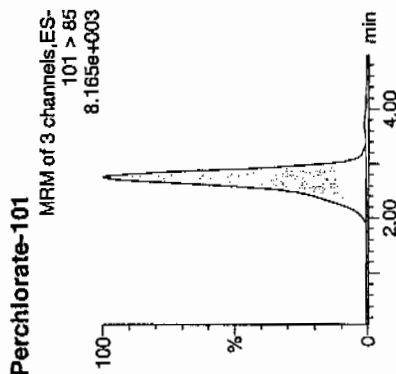
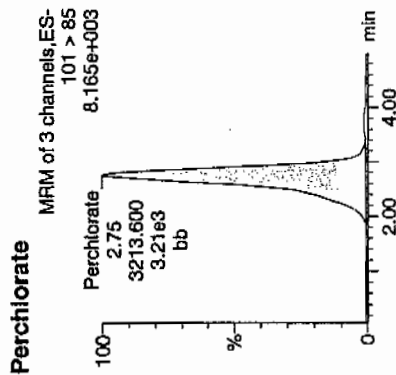
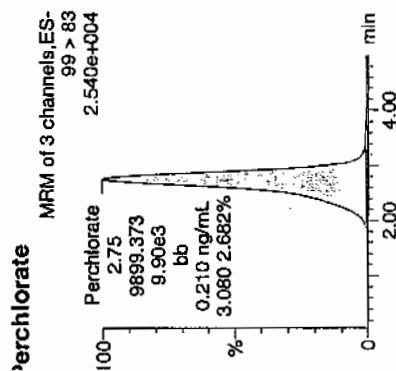
Time: 18:19:53

D: 1202011823

File: 1:5,E

91-21-10

1202011823 | 1202011823 | MS | 11



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202011823	Perchlorate	99 > 83	2.75	9899.373	9899.373	bb			0.2101	105.07	5.07	1572.6...	3.08
202011823	Perchlorate-101	101 > 85	2.75	3213.600	3213.600	bb			0.2083	104.64	4.64	411.332	
202011823	Perchlorate-O(18)	107 > 89	2.74	18406.416	18406.416	bb			0.4571	91.42	-8.58	4021.4...	

iEL 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: 940138

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7619MSD

Date Received: 08-JAN-10

GEL Job No (SDG): 10-1128

GEL Sample ID: 1202011824

Date Filtered: 19-JAN-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.597	2.39	2.53	ug/kg		1	20-JAN-10 18:27	per0120030a
	Perchlorate Isotope Ratio			2.89			1	20-JAN-10 18:27	per0120030a
14797-73-0	Perchlorate-101	.597	2.39	2.69	ug/kg		1	20-JAN-10 18:27	per0120030a
	Perchlorate-O(18)			5.71	ug/kg		1	20-JAN-10 18:27	per0120030a

<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

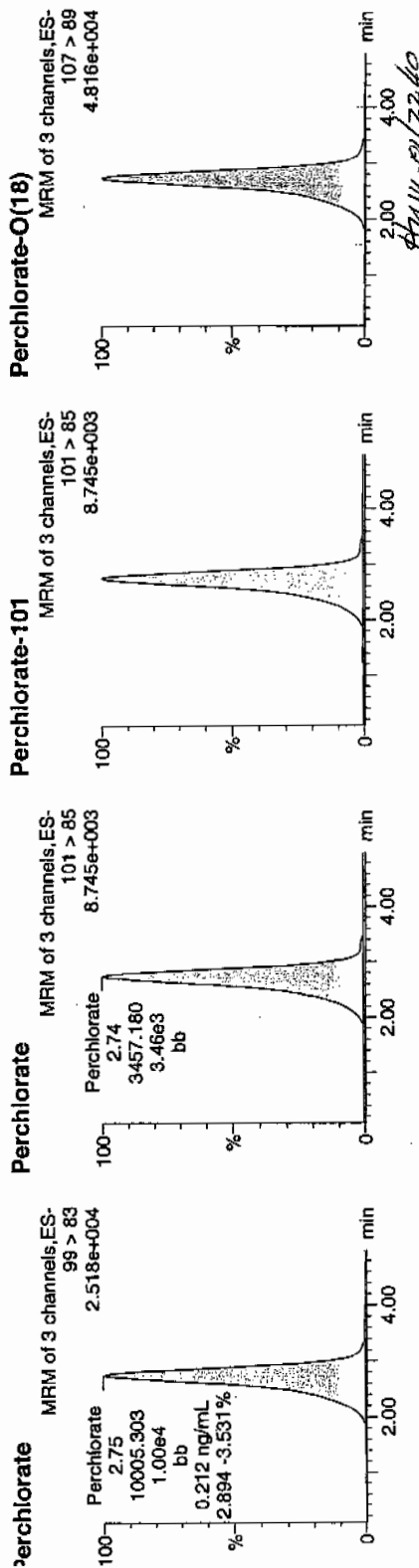
Dataset: C:\MassLynx\Perchlorate.PRO\per012010a.qld

Last Altered: Thursday, January 21, 2010 7:27:16 AM Eastern Standard Time  
Printed: Thursday, January 21, 2010 7:39:47 AM Eastern Standard Time

Name: per0120030a  
Date: 20-Jan-2010  
Time: 18:27:55  
D: 1202011824  
/al: 1:5,F

Q1-Q1-10

LA 20194041 | 3000 | MSD | 11



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202011824	Perchlorate	99 > 83	2.75	10005.303	10005.303	bb			0.2124	106.20	6.20	1322.3...	2.89
202011824	Perchlorate-101	101 > 85	2.74	3457.180	3457.180	bb			0.2251	112.57	12.57	866.820	
202011824	Perchlorate-O(18)	107 > 89	2.74	19264.225	19264.225	bb			0.4784	95.69	-4.31	2744.8...	

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

# 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: 940138 Verified by: \_\_\_\_\_  
 Analyst: Charles Wilson  
 Method: SW846 6850 Modified  
 Lab SOP: GL-OA-E-067 REV# 6  
 Instrument: MicroMass Quattro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202011821 MB	19-JAN-2010 15:44:53	2	20	10
1202011822 LCS	19-JAN-2010 15:44:53	2	20	10
244144001	19-JAN-2010 15:44:53	2	20	10
1202011823 MS (244144001)	19-JAN-2010 15:44:53	2	20	10
1202011824 MSD (244144001)	19-JAN-2010 15:44:53	2	20	10
244144002	19-JAN-2010 15:44:53	2	20	10
244144003	19-JAN-2010 15:44:53	2	20	10
244144004	19-JAN-2010 15:44:53	2	20	10
244144005	19-JAN-2010 15:44:53	2	20	10
244144006	19-JAN-2010 15:44:53	2	20	10
244144007	19-JAN-2010 15:44:53	2	20	10
244144008	19-JAN-2010 15:44:53	2	20	10
244144009	19-JAN-2010 15:44:53	2	20	10
244144010	19-JAN-2010 15:44:53	2	20	10
244144011	19-JAN-2010 15:44:53	2	20	10
244144012	19-JAN-2010 15:44:53	2	20	10
244144013	19-JAN-2010 15:44:53	2	20	10
244144014	19-JAN-2010 15:44:53	2	20	10
244144015	19-JAN-2010 15:44:53	2	20	10
244144016	19-JAN-2010 15:44:53	2	20	10
244144017	19-JAN-2010 15:44:53	2	20	10
244144018	19-JAN-2010 15:44:53	2	20	10
1202011825 ICS	19-JAN-2010 15:44:53	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
ICS	1202011825	10 ug/L ICV/CCV Second Source	UCL091230-01.1	.4	mL	Desalting cartridges used: B101/021609 & B1000311609
LCS	1202011822	10 ug/L ICV/CCV Second Source	UCL091230-01.1	.4	mL	
MS	1202011823	10 ug/L ICV/CCV Second Source	UCL091230-01.1	.4	mL	
MSD	1202011824	10 ug/L ICV/CCV Second Source	UCL091230-01.1	.4	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 01/20/10  
Extr. Injection Volume: 20uL  
Sequence Number: per012010a  
Initial Calibration Date: 01/20/10

Method: EPA 6850-Modified  
Int. Std.: UCL091019-03.2  
Mobile Phase Lot#: 1254342, 1246195  
Standard-Samp Reagent Lot#: 1233976

Reviewed BY: *hmc*  
Date: *01/22/10*  
SOP: GL-OA-E-067 Rev.6  
Alt Check Std. ID: WCL100118-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0120001a	IPB001	CWW	1/20/2010 14:34			1		USE	B
per0120002a	IPB001	CWW	1/20/2010 14:42			1		USE	B
per0120003a	WCLICAL-01	CWW	1/20/2010 14:50			1		USE	I
per0120004a	WCLICAL-02	CWW	1/20/2010 14:58			1		USE	I
per0120005a	WCLICAL-03	CWW	1/20/2010 15:06			1		USE	I
per0120006a	WCLICAL-04	CWW	1/20/2010 15:14			1		USE	I
per0120007a	WCLICAL-05	CWW	1/20/2010 15:23			1		USE	I
per0120008a	IPB002	CWW	1/20/2010 15:31			1		USE	B
per0120009a	WCLICV	CWW	1/20/2010 15:39			1		USE	C
per0120010a	IPB003	CWW	1/20/2010 15:47			1		USE	B
per0120011a	WCLCRI	CWW	1/20/2010 15:55			1		USE	C
per0120012a	1202017417	CWW	1/20/2010 16:03	942411	VARIOUS	1	LANL	DUSE-RE	S
per0120013a	1202017408	CWW	1/20/2010 16:11	942408	VARIOUS	1	LANL	DUSE-RE	S
per0120014a	244510002	CWW	1/20/2010 16:19	942408	10-1189	10	LANL	DUSE-RE	S
per0120015a	1202017409	CWW	1/20/2010 16:27	942408	10-1189	10	LANL	DUSE-RE	S
per0120016a	1202017410	CWW	1/20/2010 16:35	942408	10-1189	10	LANL	DUSE-RE	S
per0120017a	244510004	CWW	1/20/2010 16:43	942408	10-1189	1	LANL	DUSE-RE	S
per0120018a	244521004	CWW	1/20/2010 16:51	942408	10-1193	5	LANL	DUSE-RE	S
per0120019a	244525002	CWW	1/20/2010 16:59	942408	10-1185	5	LANL	DUSE-RE	S
per0120020a	244525004	CWW	1/20/2010 17:07	942408	10-1185	10	LANL	DUSE-RE	S
per0120021a	244844002	CWW	1/20/2010 17:15	942408	10-1252	1	LANL	DUSE-RE	S
per0120022a	WCLCCV	CWW	1/20/2010 17:23			1		USE	C
per0120023a	IPB004	CWW	1/20/2010 17:31			1		USE	B
per0120024a	WCLCRI	CWW	1/20/2010 17:39			1		USE	C
per0120025a	1202011821	CWW	1/20/2010 17:47	940141	10-1128	1	LANL	USE	S
per0120026a	1202011822	CWW	1/20/2010 17:55	940141	10-1128	1	LANL	USE	S
per0120027a	1202011825	CWW	1/20/2010 18:03	940141	10-1128	1	LANL	USE	S
per0120028a	244144001	CWW	1/20/2010 18:11	940141	10-1128	1	LANL	USE	S
per0120029a	1202011823	CWW	1/20/2010 18:19	940141	10-1128	1	LANL	USE	S

per0120030a	1202011824	CWW	1/20/2010 18:27	940141	10-1128	1	LANL	USE	S
per0120031a	244144002	CWW	1/20/2010 18:35	940141	10-1128	1	LANL	USE	S
per0120032a	244144003	CWW	1/20/2010 18:44	940141	10-1128	1	LANL	USE	S
per0120033a	244144004	CWW	1/20/2010 18:52	940141	10-1128	1	LANL	USE	S
per0120034a	244144005	CWW	1/20/2010 19:00	940141	10-1128	1	LANL	USE	S
per0120035a	WCLCCV	CWW	1/20/2010 19:08			1		USE	C
per0120036a	IPB005	CWW	1/20/2010 19:16			1		USE	B
per0120037a	WCLCRI	CWW	1/20/2010 19:24			1		USE	C
per0120038a	244144006	CWW	1/20/2010 19:32	940141	10-1128	1	LANL	USE	S
per0120039a	244144007	CWW	1/20/2010 19:40	940141	10-1128	1	LANL	USE	S
per0120040a	244144008	CWW	1/20/2010 19:48	940141	10-1128	1	LANL	USE	S
per0120041a	244144009	CWW	1/20/2010 19:56	940141	10-1128	1	LANL	USE	S
per0120042a	244144010	CWW	1/20/2010 20:04	940141	10-1128	1	LANL	USE	S
per0120043a	244144011	CWW	1/20/2010 20:12	940141	10-1128	1	LANL	USE	S
per0120044a	244144012	CWW	1/20/2010 20:20	940141	10-1128	1	LANL	USE	S
per0120045a	244144013	CWW	1/20/2010 20:28	940141	10-1128	1	LANL	USE	S
per0120046a	244144014	CWW	1/20/2010 20:36	940141	10-1128	1	LANL	USE	S
per0120047a	244144015	CWW	1/20/2010 20:44	940141	10-1128	1	LANL	USE	S
per0120048a	WCLCCV	CWW	1/20/2010 20:52			1		USE	C
per0120049a	IPB006	CWW	1/20/2010 21:00			1		USE	B
per0120050a	WCLCRI	CWW	1/20/2010 21:08			1		USE	C
per0120051a	244144016	CWW	1/20/2010 21:16	940141	10-1128	1	LANL	USE	S
per0120052a	244144017	CWW	1/20/2010 21:25	940141	10-1128	1	LANL	USE	S
per0120053a	244144018	CWW	1/20/2010 21:33	940141	10-1128	1	LANL	USE	S
per0120054a	IPB007	CWW	1/20/2010 21:41			1		USE	B
per0120055a	1202017247	CWW	1/20/2010 21:49	942312	VARIOUS	1	LANL	USE	S
per0120056a	1202017248	CWW	1/20/2010 21:57	942312	VARIOUS	1	LANL	USE	S
per0120057a	1202017251	CWW	1/20/2010 22:05	942312	VARIOUS	1	LANL	USE	S
per0120058a	244416001	CWW	1/20/2010 22:13	942312	10-1195	1	LANL	USE	S
per0120059a	244416002	CWW	1/20/2010 22:21	942312	10-1195	1	LANL	USE	S
per0120060a	244416003	CWW	1/20/2010 22:29	942312	10-1195	1	LANL	USE	S
per0120061a	WCLCCV	CWW	1/20/2010 22:37			1		USE	C
per0120062a	IPB008	CWW	1/20/2010 22:45			1		USE	B
per0120063a	WCLCRI	CWW	1/20/2010 22:53			1		USE	C
per0120064a	244416004	CWW	1/20/2010 23:01	942312	10-1195	1	LANL	USE	S
per0120065a	244416005	CWW	1/20/2010 23:10	942312	10-1195	1	LANL	USE	S
per0120066a	244416006	CWW	1/20/2010 23:18	942312	10-1195	1	LANL	USE	S

per0120067a	244421001	CWW	1/20/2010 23:26	942312	10-1203	1	LANL	USE	S
per0120068a	244421002	CWW	1/20/2010 23:34	942312	10-1203	1	LANL	USE	S
per0120069a	244421003	CWW	1/20/2010 23:42	942312	10-1203	1	LANL	USE	S
per0120070a	244421004	CWW	1/20/2010 23:50	942312	10-1203	1	LANL	USE	S
per0120071a	244421005	CWW	1/20/2010 23:58	942312	10-1203	1	LANL	USE	S
per0120072a	244519001	CWW	1/21/2010 0:06	942312	10-1183	1	LANL	USE	S
per0120073a	WCLCCV	CWW	1/21/2010 0:14			1		USE	C
per0120074a	IPB009	CWW	1/21/2010 0:22			1		USE	B
per0120075a	WCLCRI	CWW	1/21/2010 0:30			1		USE	C
per0120076a	244519002	CWW	1/21/2010 0:38	942312	10-1183	1	LANL	USE	S
per0120077a	1202017249	CWW	1/21/2010 0:46	942312	10-1183	1	LANL	USE	S
per0120078a	1202017250	CWW	1/21/2010 0:54	942312	10-1183	1	LANL	USE	S
per0120079a	244519003	CWW	1/21/2010 1:02	942312	10-1183	1	LANL	USE	S
per0120080a	244519004	CWW	1/21/2010 1:10	942312	10-1183	1	LANL	USE	S
per0120081a	244519005	CWW	1/21/2010 1:18	942312	10-1183	1	LANL	USE	S
per0120082a	244519006	CWW	1/21/2010 1:26	942312	10-1183	1	LANL	USE	S
per0120083a	244597001	CWW	1/21/2010 1:35	942312	10-1209	1	LANL	USE	S
per0120084a	WCLCCV	CWW	1/21/2010 1:43			1		USE	C
per0120085a	IPB010	CWW	1/21/2010 1:51			1		USE	B
per0120086a	WCLCRI	CWW	1/21/2010 1:59			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 10-1128-1**

**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:** 940158

**Prep Batch Number:** 940153

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
244145001	RE12-10-7662
1202011858	Interference Check Sample (ICS)
1202011852	Method Blank (MB)
1202011853	Laboratory Control Sample (LCS)
1202011854	244226001(RE12-10-7738) Matrix Spike (MS)
1202011855	244226001(RE12-10-7738) 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.

10-1128-1-PERLCMS

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**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 244226001 (RE12-10-7738) from SDG 10-1161 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.

10-1128-1-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 or sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

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

All procedures were performed as stated in the SOP.

#### **Sample Dilutions**

The samples in this SDG did not require dilutions.

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

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

### **Miscellaneous Information**

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

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

#### **Manual Integrations**

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

#### **Method Comments**

The sample in this SDG was not originally analyzed using EPA Method 314.0.

#### **Additional Comments**

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

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

#### **Perchlorate Isotope Ratio**

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

### System Configuration

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

### 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 Mauer Date: 01/21/10

# 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: 240153  
 Extraction Type: Filter/DAI  
 Client Sample No. RE12-10-7662  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128-1  
 GEL Sample ID: 244145001  
 Date Filtered: 13-JAN-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	15-JAN-10 22:09	per0115034a
	Perchlorate Isotope Ratio						1	15-JAN-10 22:09	per0115034a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	15-JAN-10 22:09	per0115034a
	Perchlorate-O(18)			0.489	ug/L		1	15-JAN-10 22:09	per0115034a

<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

# QUALITY CONTROL SUMMARY



Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1128-1

Extract Batch Code: 940153

Date Filtered: 13-JAN-10

Matrix: WATER

Sample ID: 1202011853

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.192	ug/L	95.9		85 - 115
Perchlorate Isotope Ratio		3				-
Perchlorate-101	0.200	.198	ug/L	98.9		85 - 115
Perchlorate-O(18)		.48	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): 10-1128-1

Extract Batch Code: 940153

Date Filtered: 13-JAN-10

Matrix: GROUND WATER

Sample ID: 1202011858

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.202	ug/L	101		70 - 130
Perchlorate Isotope Ratio		3.14				
Perchlorate-101	0.200	.198	ug/L	99.2		70 - 130
Perchlorate-O(18)		.505	ug/L			

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

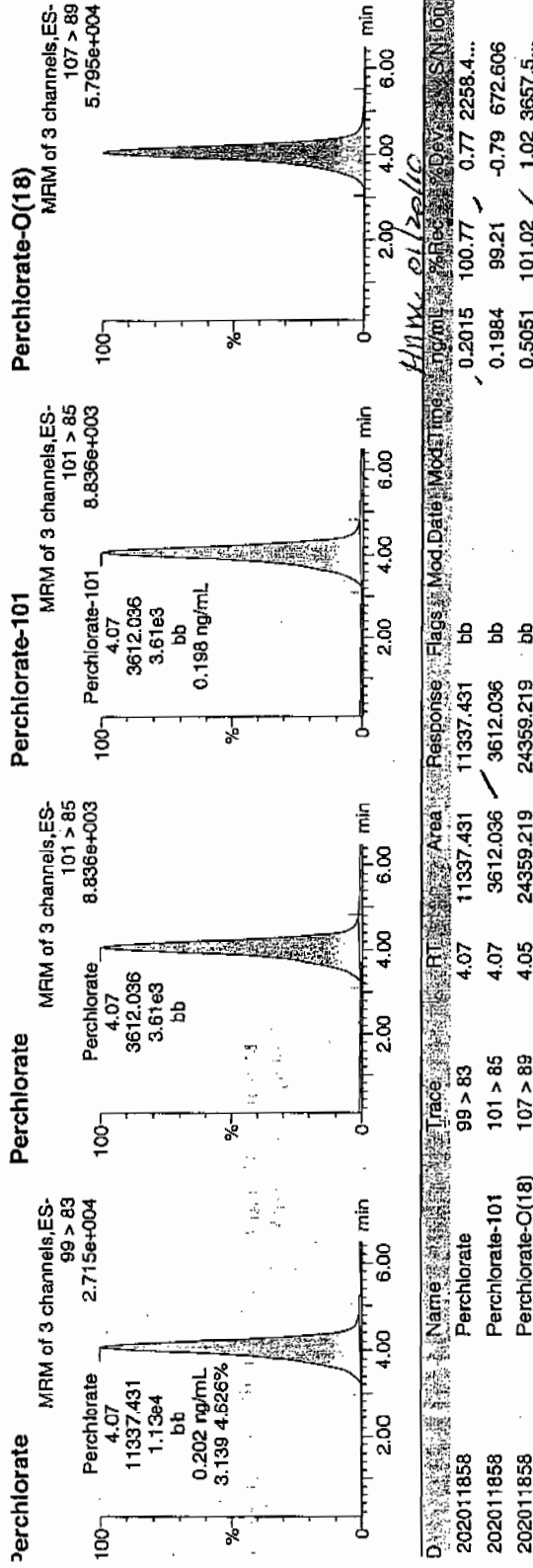
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qid

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Name: per0115030a  
Date: 15-Jan-2010  
Time: 21:31:30  
D: 1202011858  
/ial: 1:5,C

LAU | 940158 | L22 | ICS | 11  
01-18-10



Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1128-1

Extract Batch Code: 940153

Date Extracted: 13-JAN-10

GEL MS/PS ID: 1202011854

Client ID: RE12-10-7738

GEL MSD/PSD ID: 1202011855

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	0.00164	ug/L	0.192	95.1		.198	98.2		3.13		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3			2.96			0			-
Perchlorate-101	0.200	0.000696	ug/L	0.194	96.8		.203	101		4.35		30	75 - 125
Perchlorate-O(18)	0	0.490	ug/L	0.489			.496			1.49			-

<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): 10-1128-1

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	15-JAN-10	per0115001a	IPB001
Perchlorate-101	0.00	0	NA	15-JAN-10	per0115001a	IPB001
Perchlorate	0.00	0	NA	15-JAN-10	per0115002a	IPB001
Perchlorate-101	0.00	0	NA	15-JAN-10	per0115002a	IPB001

Quantify Sample Report MassLynx 4.0 SP4  
 he GEL Group, LLC Analyst: Charters W. Wilson

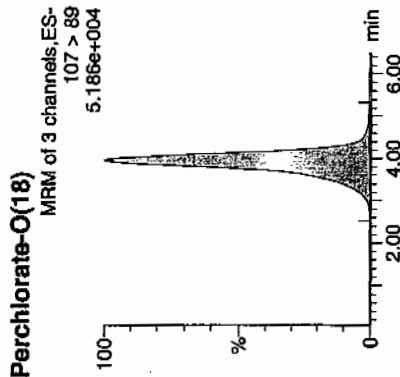
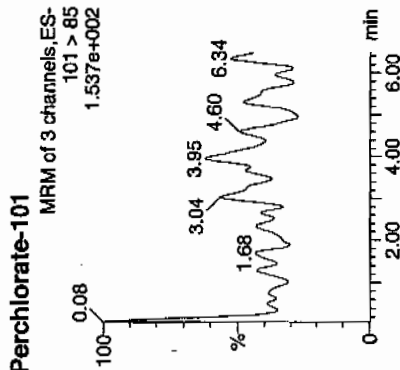
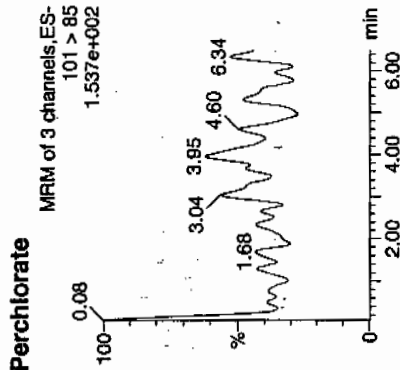
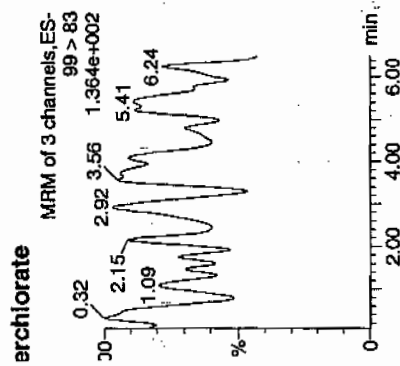
Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Acquired: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
 Processed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per011510a.mdb 18 Jan 2010 08:43:34  
 Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per011510a.cdb 18 Jan 2010 08:43:48

Sample Name: per0115001a  
 Date: 15-Jan-2010  
 Time: 16:54:54  
 ID: IPB001  
 Label: 1:1,A

01-18-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
B001	Perchlorate	99 > 83										
B001	Perchlorate-101	101 > 85										
B001	Perchlorate-O(18)	107 > 89	3.97	24245.881		24245.881	bb	0.5027	100.55	-	0.55	1380.2...

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

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Sample Name: per0115002a

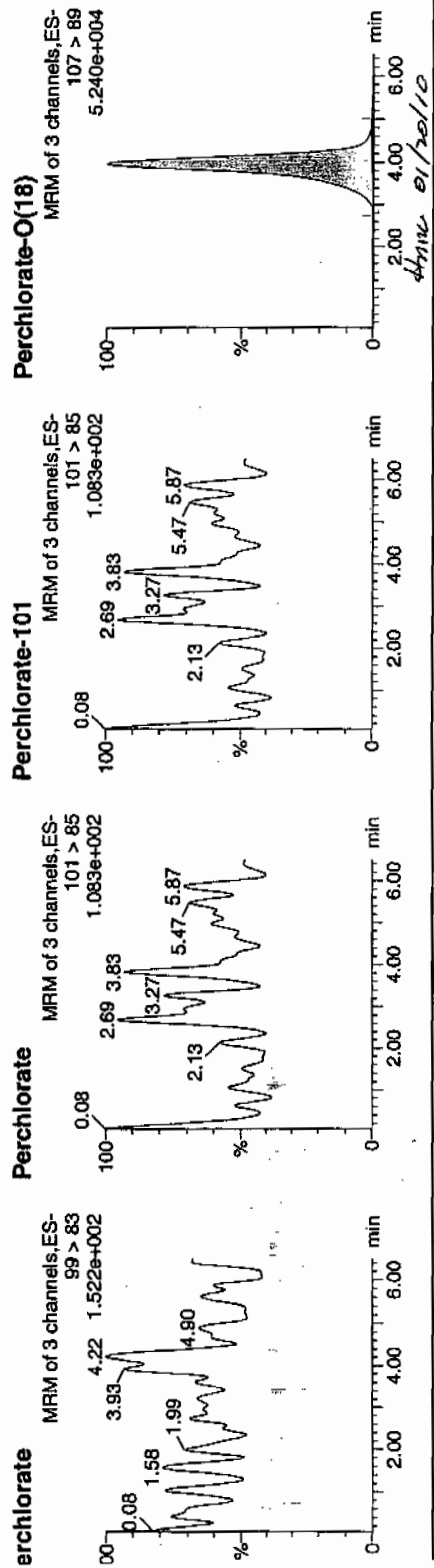
Date: 15-Jan-2010

Time: 17:04:26

Operator: IPB001

Injection: 1:1,A

Q-13-10



Name	Trace	RT	Area	Response	Flags	Mod Time	Mod Date	Conc	%Rec	%Dev	S/N	Ion Ratio
B001	Perchlorate	99 > 83										0.00
B001	Perchlorate-101	101 > 85										
B001	Perchlorate-O(18)	107 > 89	3.98	24126.238	24126.238	bb		0.5002	100.05	0.05	2526.4...	

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1128-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	15-JAN-10	per0115008a	IPB002
Perchlorate-101	0.00	0	NA	15-JAN-10	per0115008a	IPB002
Perchlorate	0.00	0	NA	15-JAN-10	per0115010a	IPB003
Perchlorate-101	0.00	0	NA	15-JAN-10	per0115010a	IPB003
Perchlorate	0.00	0	NA	15-JAN-10	per0115017a	IPB004
Perchlorate-101	0.00	0	NA	15-JAN-10	per0115017a	IPB004
Perchlorate	0.00	0	NA	15-JAN-10	per0115026a	IPB005
Perchlorate-101	0.00	0	NA	15-JAN-10	per0115026a	IPB005
Perchlorate	0.00	0	NA	15-JAN-10	per0115039a	IPB006
Perchlorate-101	0.00	0	NA	15-JAN-10	per0115039a	IPB006



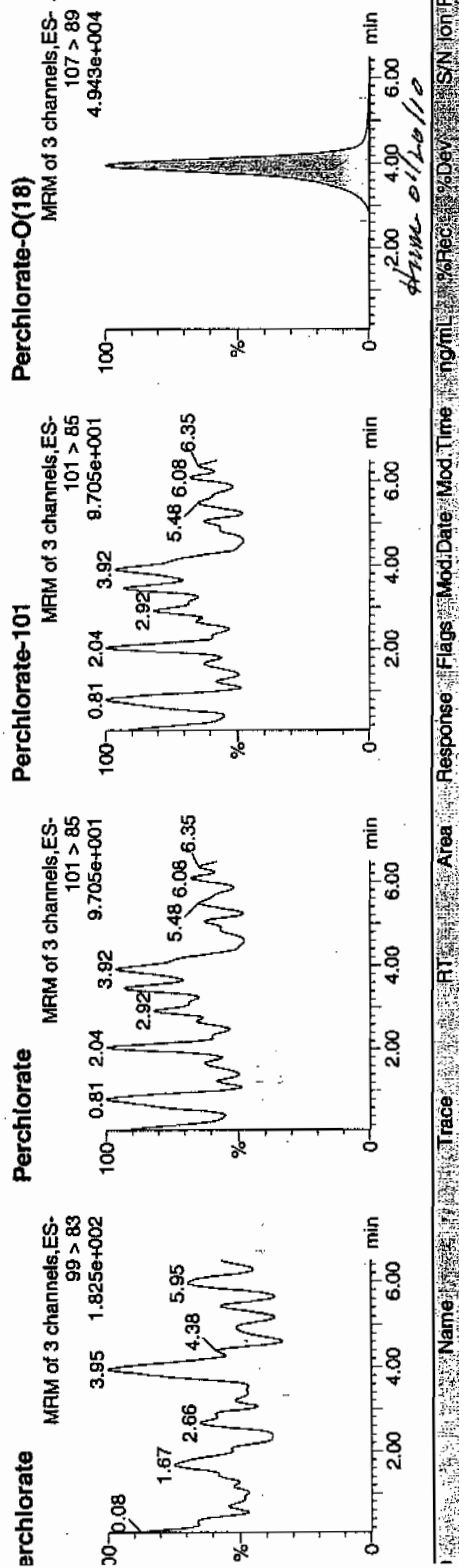
uantify Sample Report MassLynx 4.0 SP4  
ne GEL Group, LLC Analyst: Charlers W. Wilson

atset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

st Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
rinted: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

ame: per0115008a  
ate: 15-Jan-2010  
ime: 18:01:34  
l: IPB002  
al: 1:1,A

01-18-10



Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	Conc	%Rec	%Dev	SN	Ion Ratio
B002	Perchlorate											0.00
B002	Perchlorate-101	99 > 83										
B002	Perchlorate-O(18)	101 > 85										
		107 > 89	3.95	23728.619		23728.619	bb	0.4920	98.40	-1.60	1073.2...	

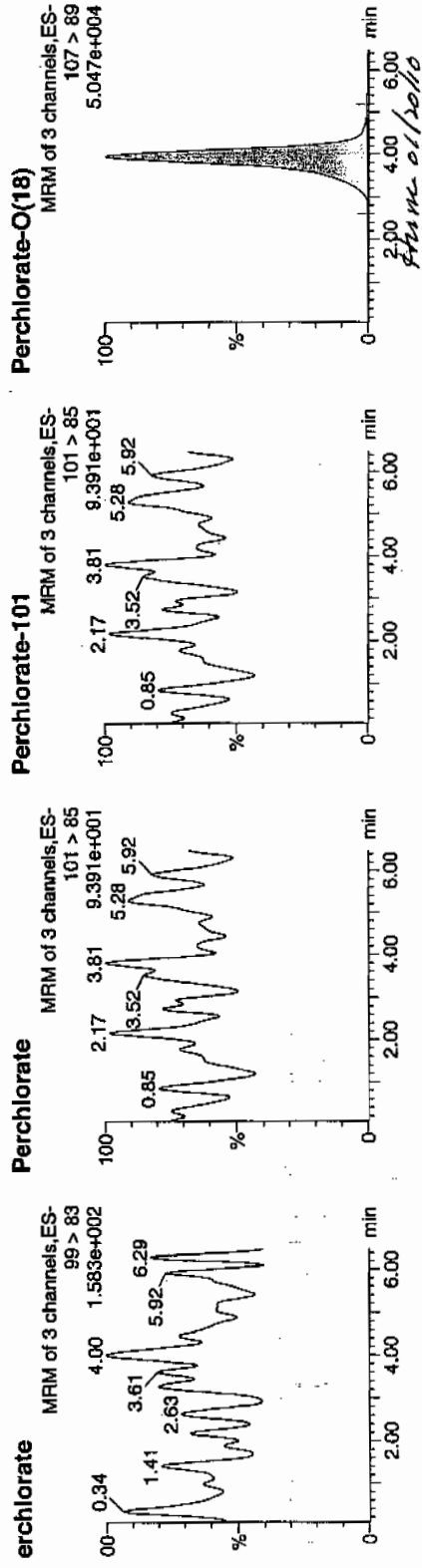
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Sample Name: per011510a  
Date: 15-Jan-2010  
Time: 18:20:39  
ID: IPB003  
Label: 1:1,A

01-18-10



Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
Perchlorate	99 > 83											
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.95	23370.221	23370.221	bb			0.4846	96.91	-3.09	2094.0...	0.00

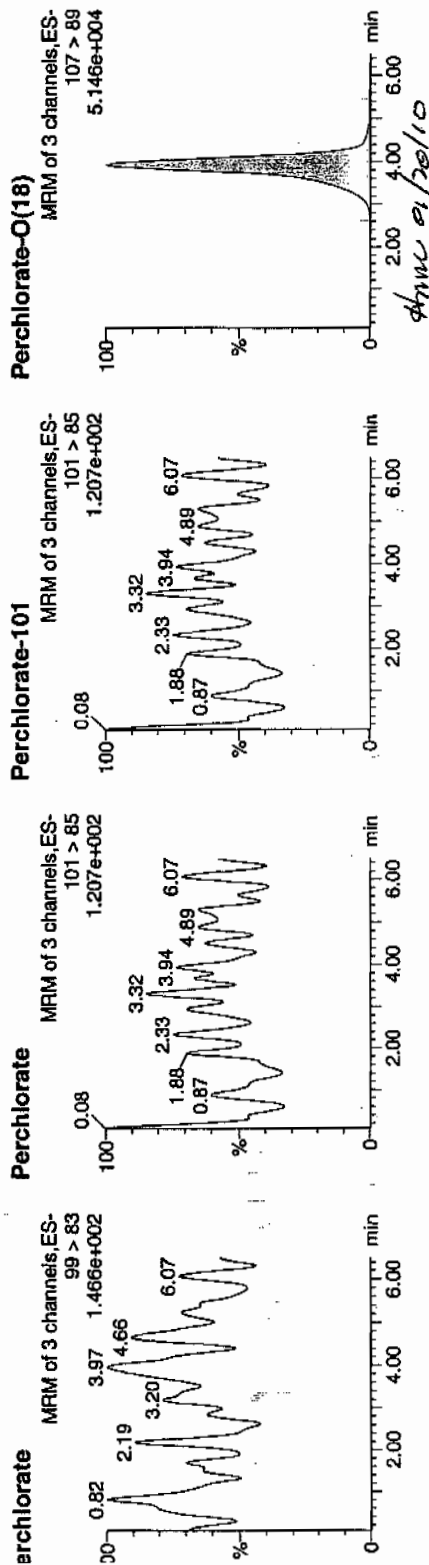
Quantify Sample Report MassLynx 4.0 SP4  
 re GEL Group, LLC Analyst: Charles W. Wilson

atset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

1st Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
 rinted: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

ame: per0115017a  
 ate: 15-Jan-2010  
 ime: 19:27:27  
 i: IPB004  
 ial: 1:1,A

01-18-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B004	Perchlorate	99 > 83										0.00
B004	Perchlorate-101	101 > 85										
B004	Perchlorate-O(18)	107 > 89	3.93	23882.883	bb			0.4952	99.04	-0.96	4428.4...	

# Quantify Sample Report MassLynx 4.0 SP4

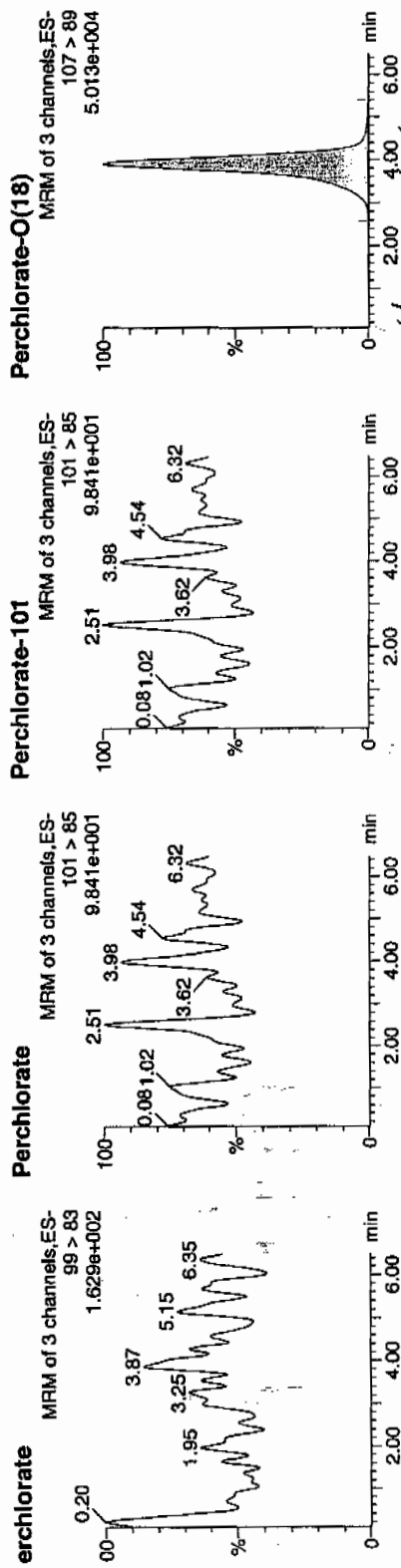
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Sample Name: per0115026a  
Date: 15-Jan-2010  
Time: 20:53:19  
Injection: 1:1,A

Q-18-10



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	3.92	23051.479	23051.479	bb			0.4780	95.59	-4.41	581.734	0.00

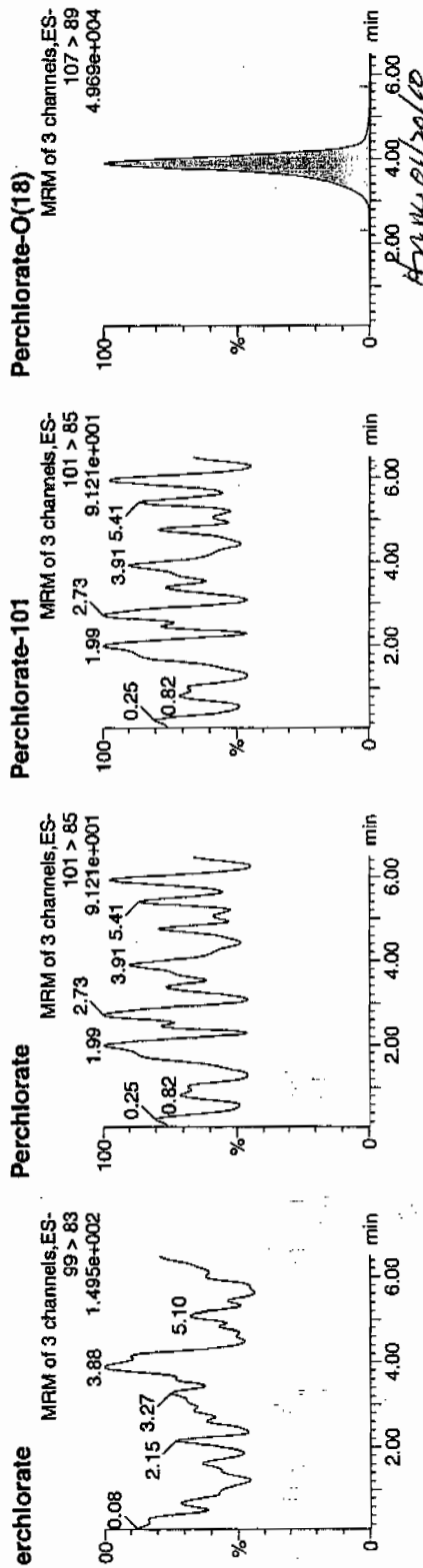
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Sample Name: per0115039a  
Date: 15-Jan-2010  
Time: 22:57:27  
File: IPB006  
Label: 1:1,A

0.18-10



Name	Trace	RT	Area	Response	Flags	Mod	Date	Mod	Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
Perchlorate	99 > 83													
Perchlorate-101	101 > 85													
Perchlorate-O(18)	107 > 89	3.89	22828.760	22828.760	bb					0.4733	94.67	-5.33	3583.8...	

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

QUANTO ULTIMA: nairb 01-08-08.cal

Calibration Report - MS1 Static

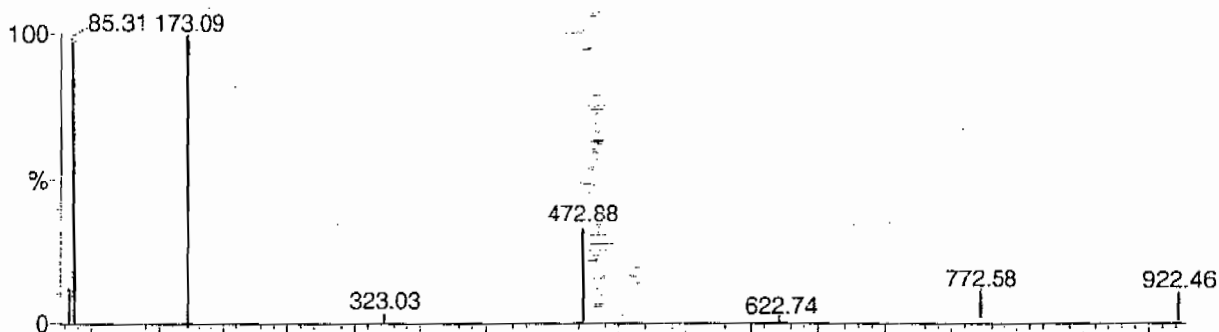
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

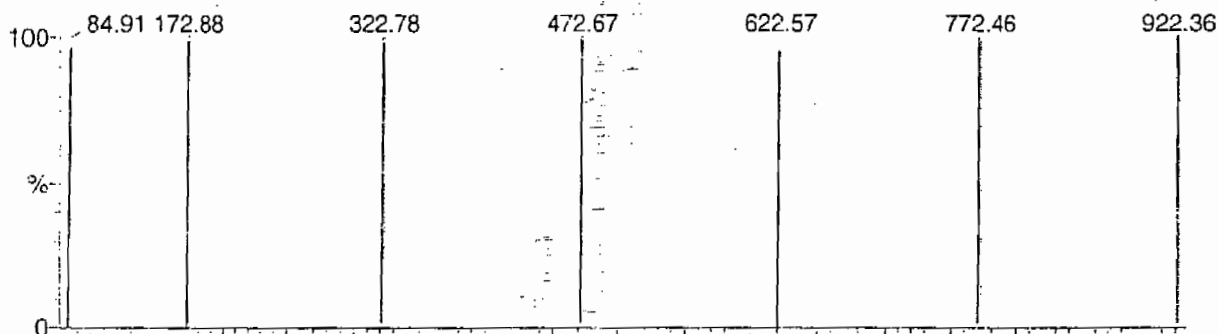
POINTS HIGHLIGHTED BY CURV 01-07-03

Data file: STATMS1 - Uncalibrated

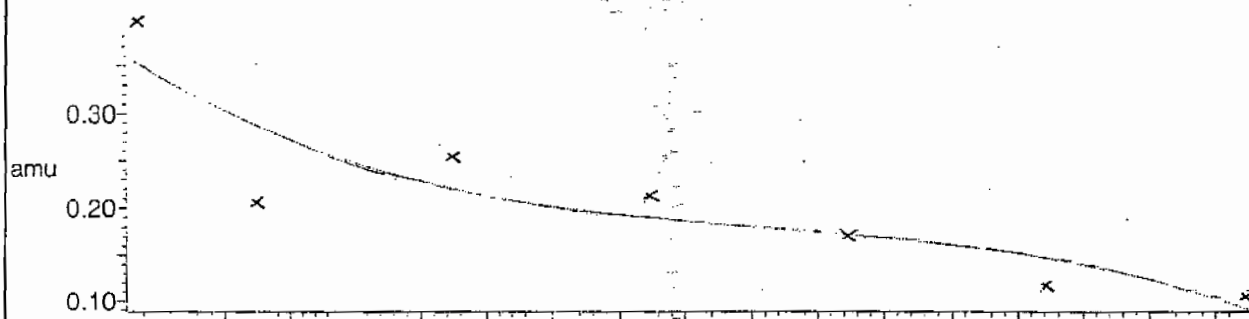
7 matches of 7 tested references



Reference file: Nairb

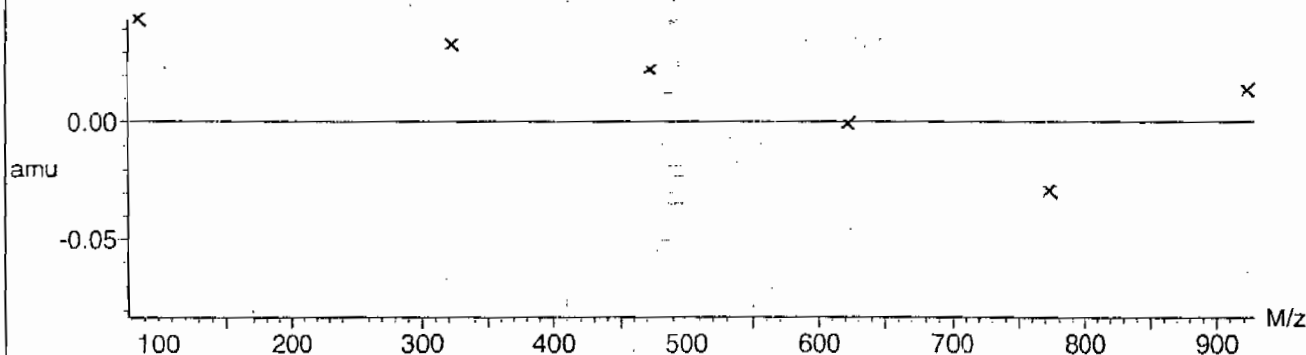


Mass difference (Raw - Ref mass)



Residuals

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



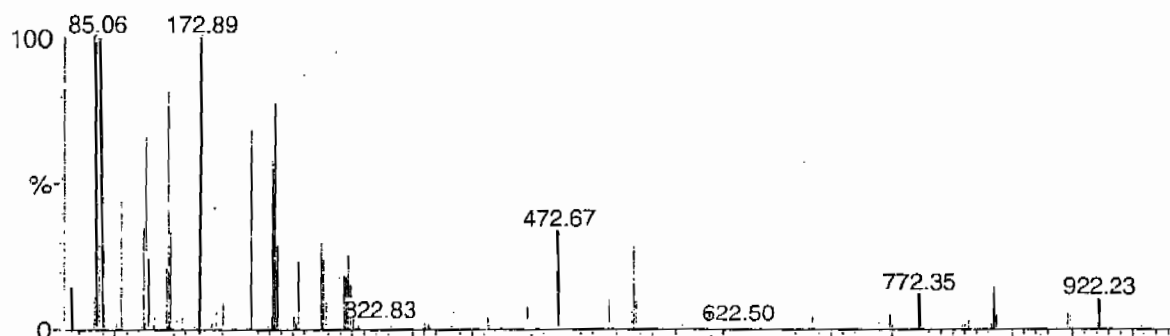
Calibration Report - MS1 Scanning

Page 1 of 1

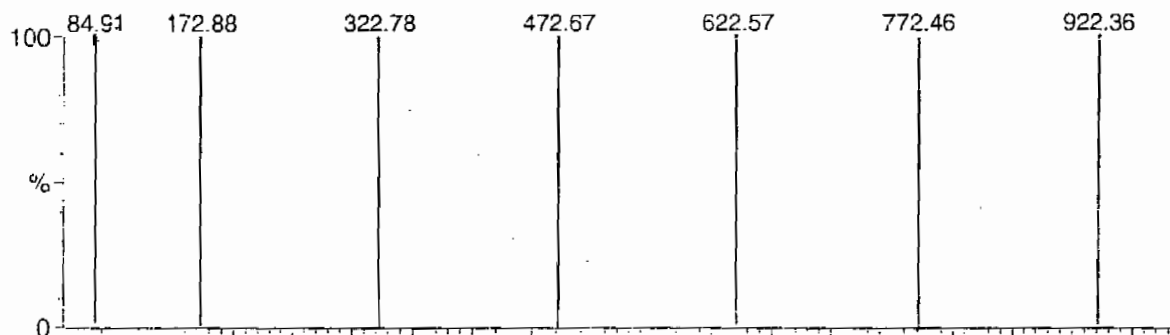
Printed: Tue Jan 08 12:20:09 2008

Data file: SCNMS1 - Uncalibrated

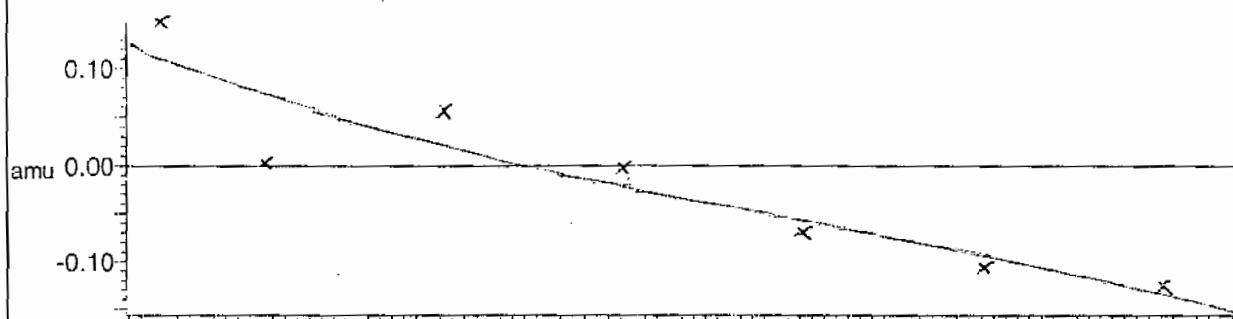
7 matches of 7 tested references



Reference file: Nairb

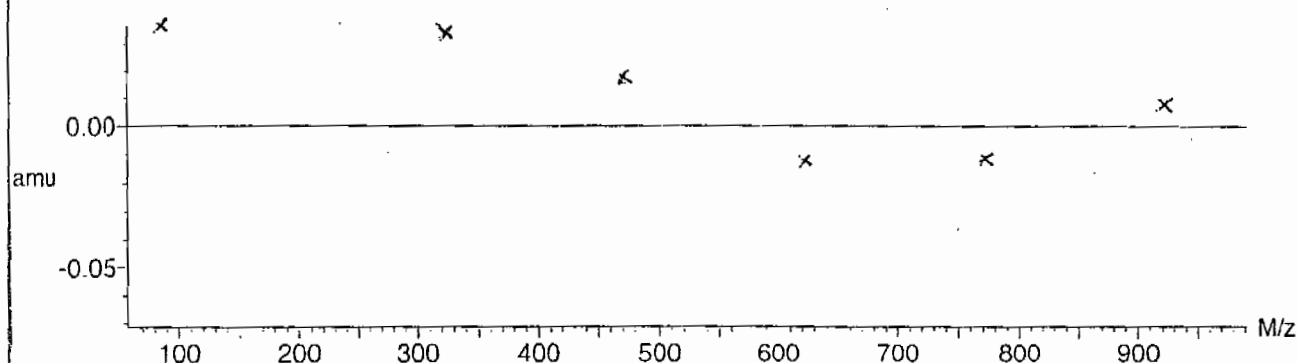


Mass difference (Raw - Ref mass)



Residuals

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

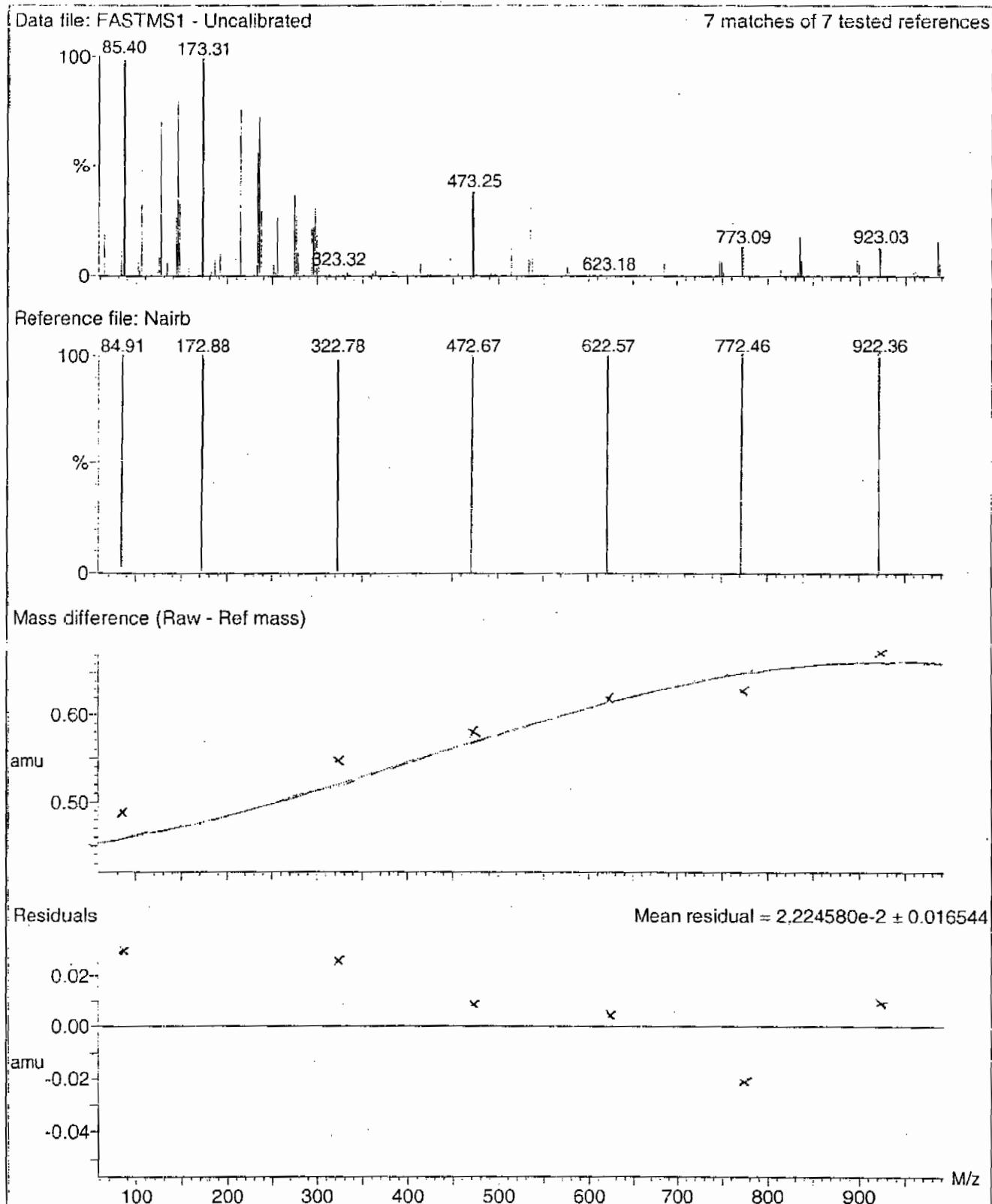




Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:21:04 2008



Calibration Report - MS2 Scan Speed Compensation

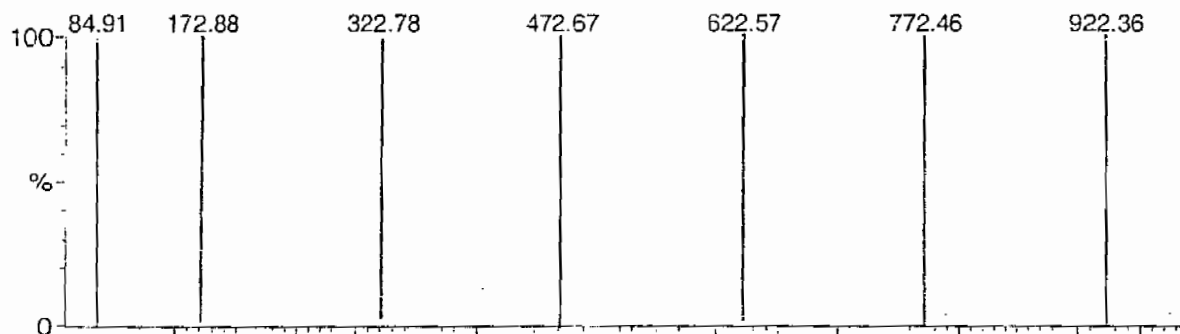
Page 1 of 1

Printed: Tue Jan 08 12:23:51 2008

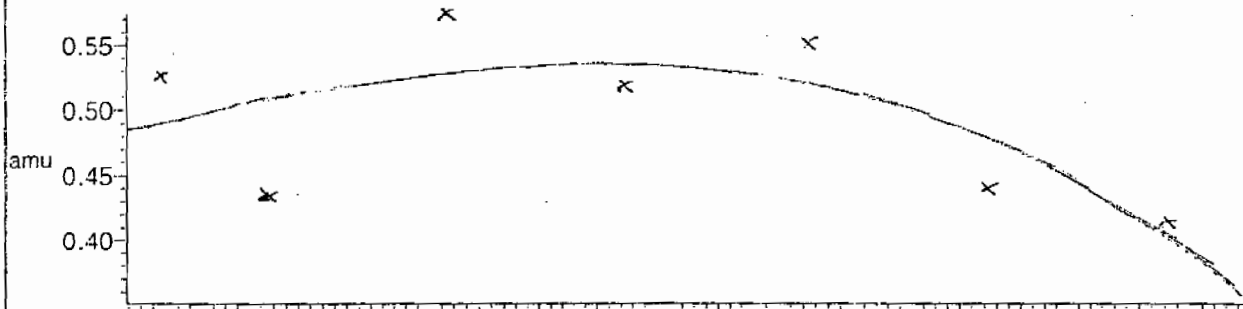
Data file: FASTMS2 - Uncalibrated 7 matches of 7 tested references



Reference file: Nairb

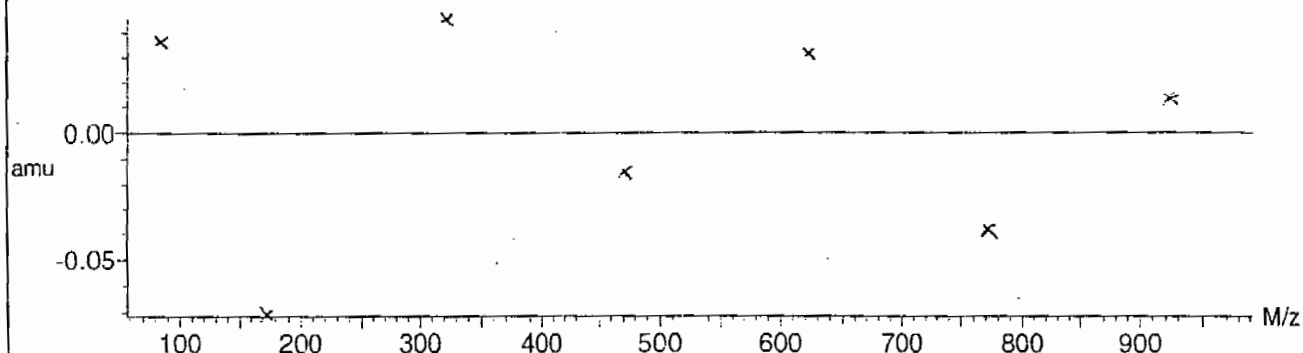


Mass difference (Raw - Ref mass)



Residuals

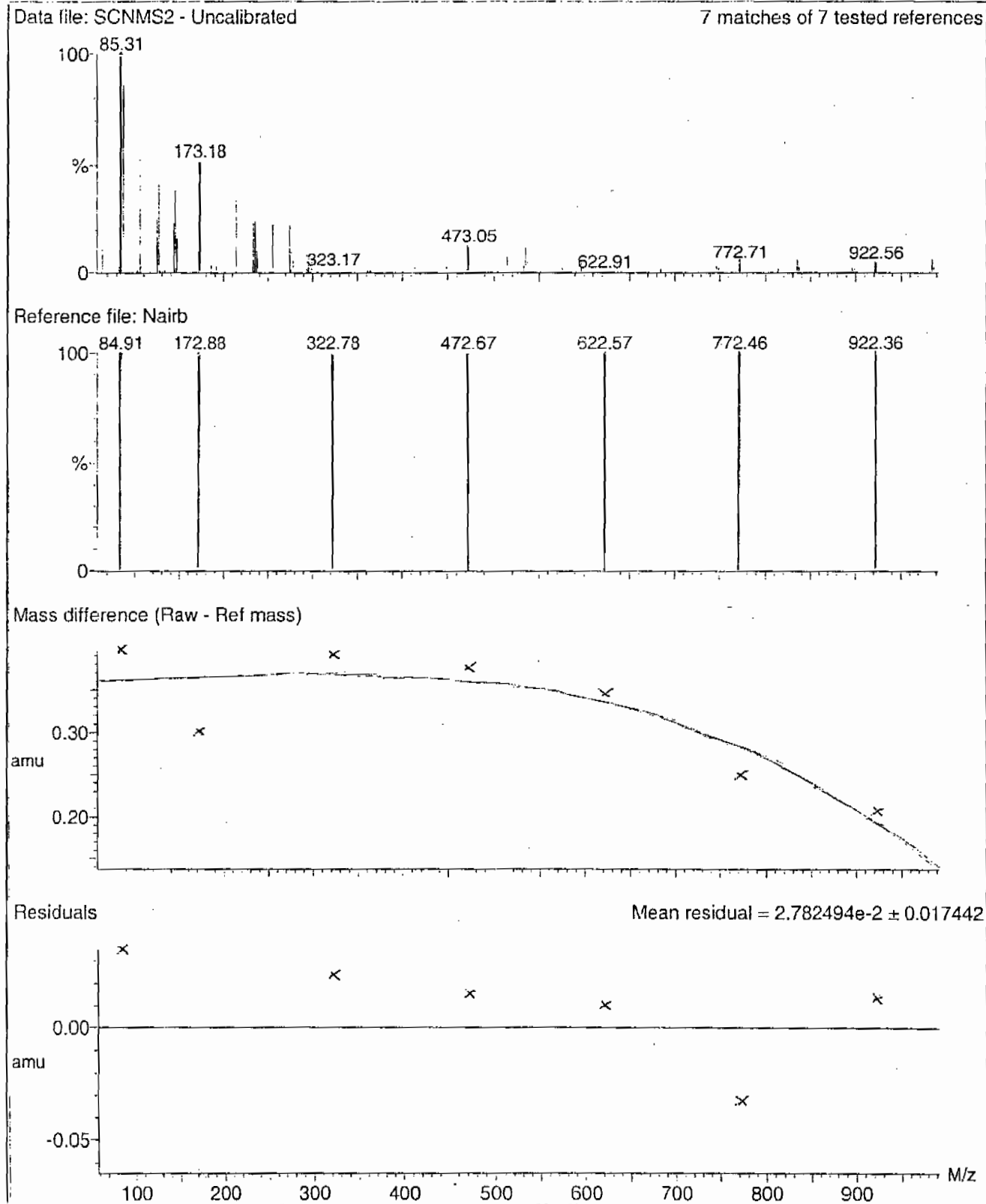
Mean residual =  $3.598289 \times 10^{-2} \pm 0.017899$



Calibration Report - MS2 Scanning

Page 1 of 1

Printed: Tue Jan 08 12:22:56 2008



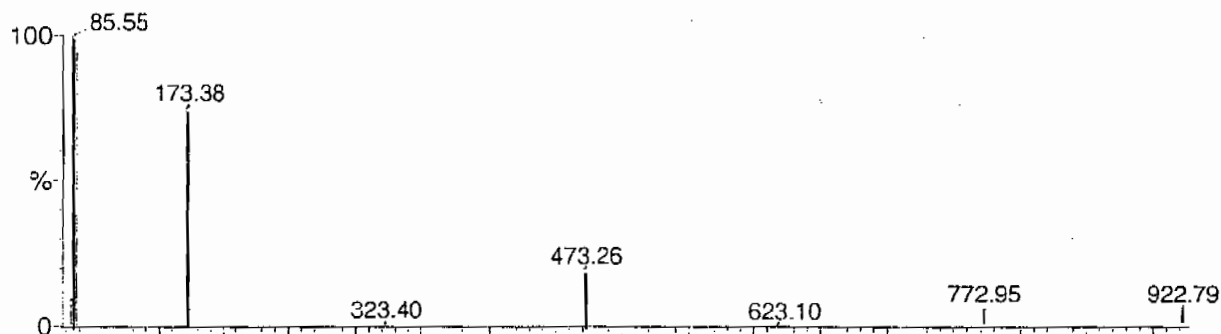
Calibration Report - MS2 Static

Page 1 of 1

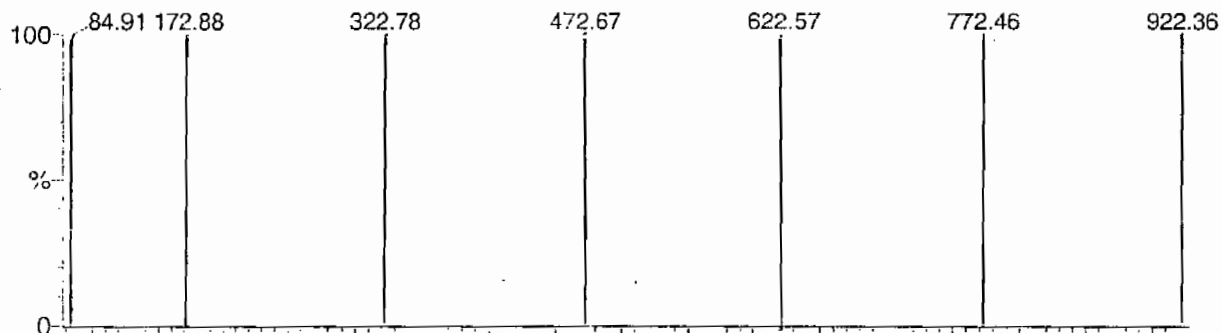
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

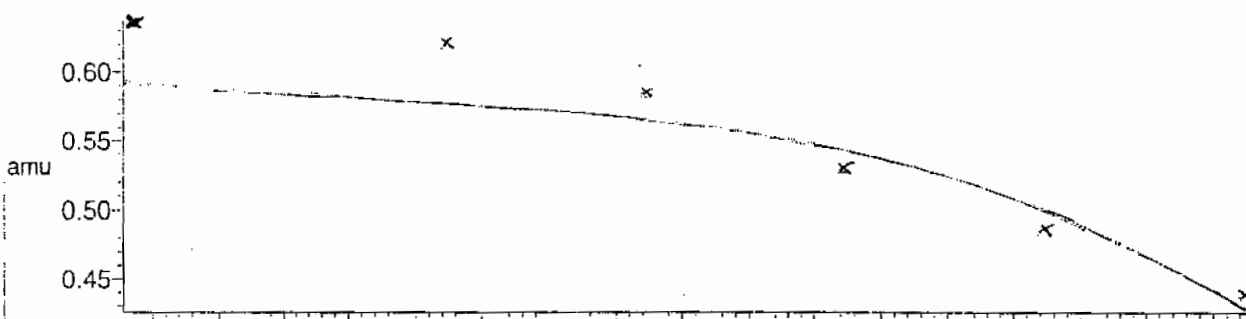
7 matches of 7 tested references



Reference file: Nairb

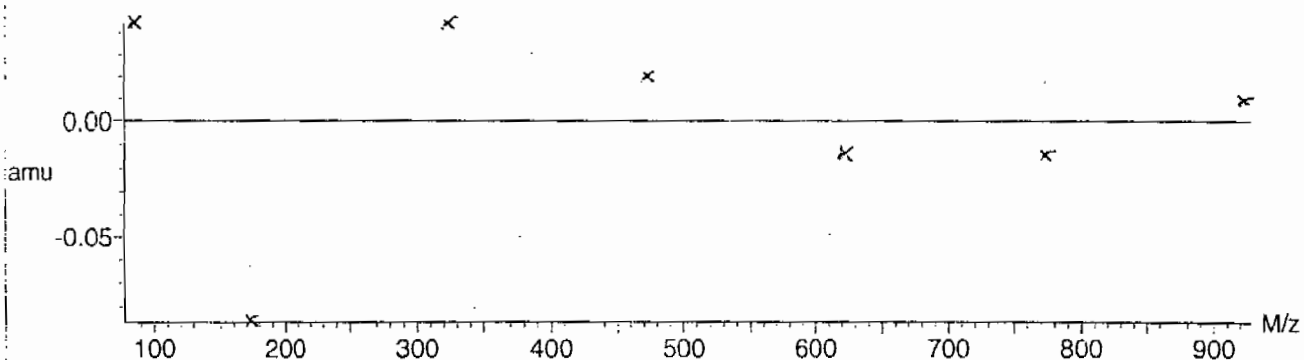


Mass difference (Raw - Ref mass)



Residuals

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



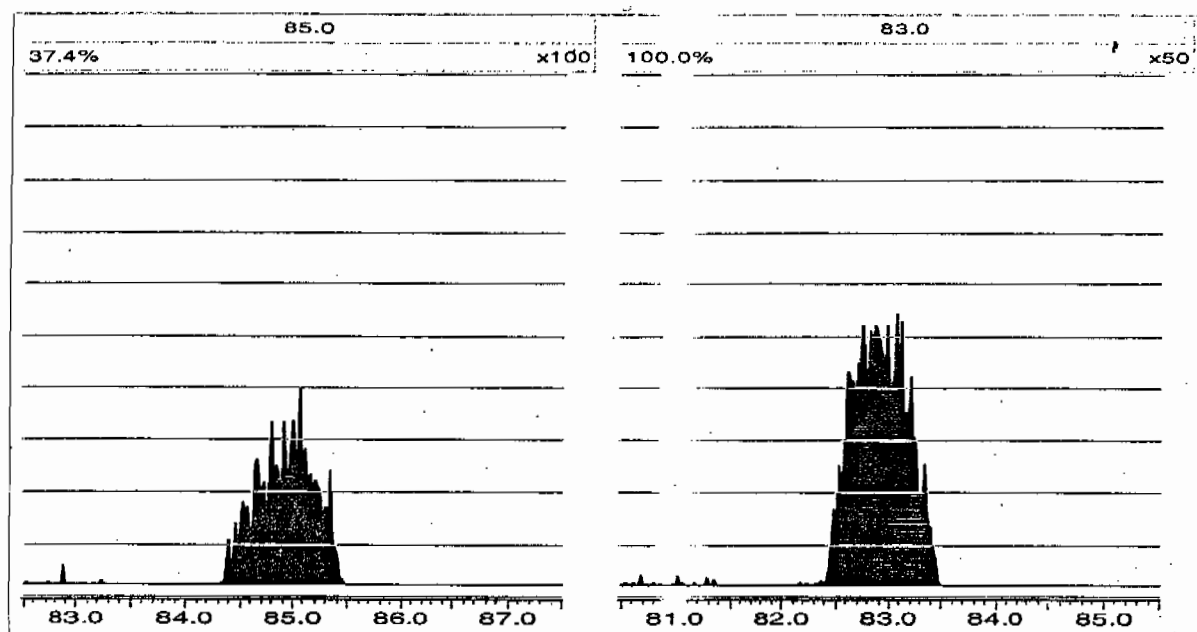
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Friday, January 15, 2010 13:21:37 Eastern Standard Time



Form 8

Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-1128-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

HPPLC 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	per0115006a	15-JAN-10	24342.3				
Lower Area Limit			12171.15				
Upper Area Limit			48684.6				
1202011852	per0115028a	15-JAN-10 21:12	22490.7	3.92	3.99218	1.018	
1202011853	per0115029a	15-JAN-10 21:21	23148.6	3.92	3.94247	1.006	
1202011858	per0115030a	15-JAN-10 21:31	24359.2	4.05	4.0667	1.004	
244145001	per0115034a	15-JAN-10 22:09	23587.6	3.92	3.95492	1.009	

# SAMPLE DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: WATER  
 Extraction Batch ID: 240153  
 Extraction Type: Filter/DAI  
 Client Sample No. RE12-10-7662  
 Date Received: 08-JAN-10  
 GEL Job No (SDG): 10-1128-1  
 GEL Sample ID: 244145001  
 Date Filtered: 13-JAN-10  
 Injection Volume (uL): 20

Sample Volume/Weight: 10.0 mL

%Solids:

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	15-JAN-10 22:09	per0115034a
	Perchlorate Isotope Ratio						1	15-JAN-10 22:09	per0115034a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	15-JAN-10 22:09	per0115034a
	Perchlorate-O(18)			0.489	ug/L		1	15-JAN-10 22:09	per0115034a

<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: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Sample Name: per0115034a

Date: 15-Jan-2010

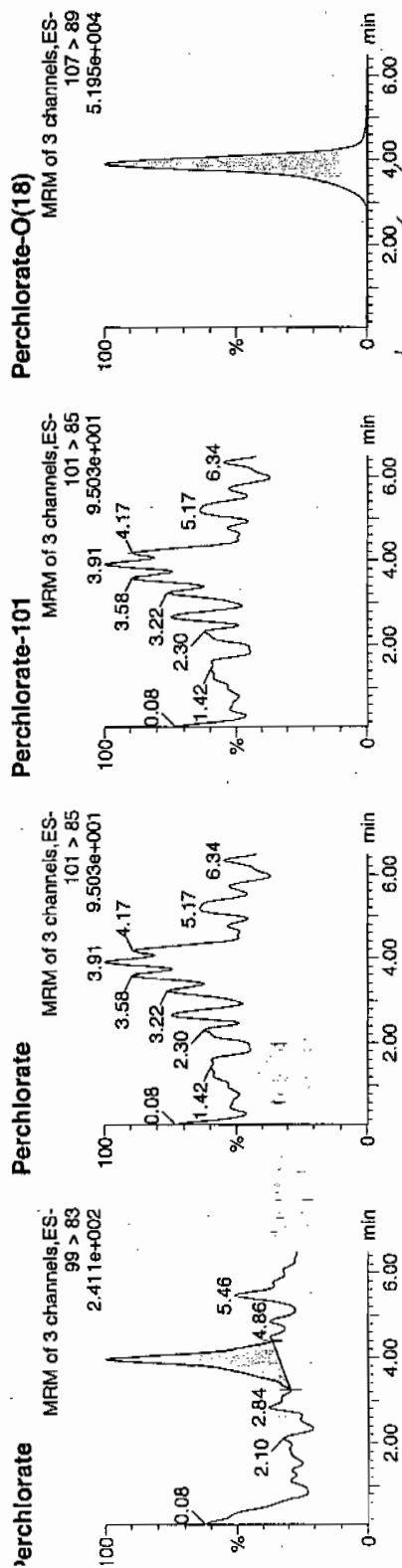
Time: 22:09:40

D: 244145001

File: 1:6,A

01-18-10

15220 | 940153 | 172 | 11



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
44145001	Perchlorate	99 > 83	3.95	61.443	bb			0.0011			28.131	0.00
44145001	Perchlorate-101	101 > 85										
44145001	Perchlorate-O(18)	107 > 89	3.92	23587.555	bb			0.4891	97.82	-2.18	1940.5...	

# STANDARDS DATA

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-1128-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 15-JAN-10

HP/LC 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: 56254

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1128-1

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 15-JAN-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: 18203.38

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\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per011510a.mdb 18 Jan 2010 08:43:34  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per011510a.cdb 18 Jan 2010 08:43:48

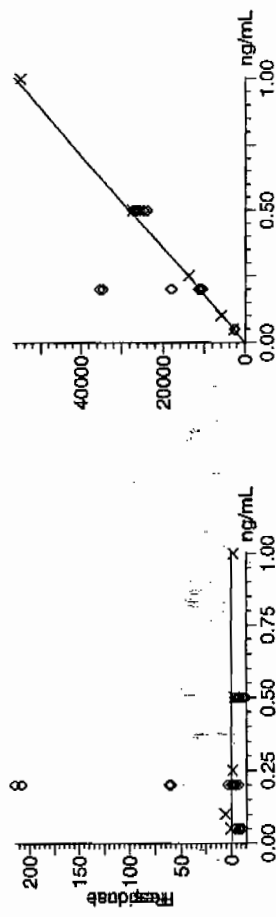
Compound name: Perchlorate

Response Factor: 56254

RF SD: 2113.01, % Relative SD: 3.75619

Response type: External Std, Area

Curve type: RF /



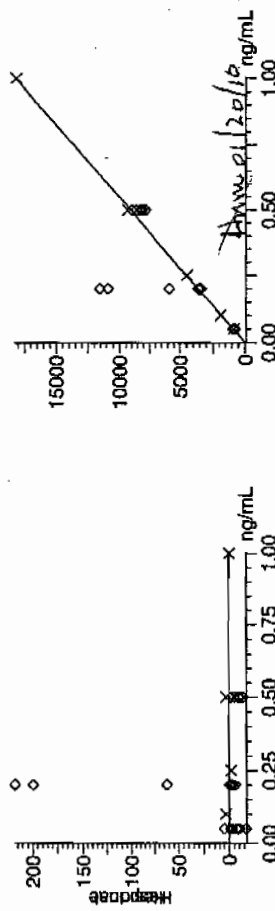
Compound name: Perchlorate-101

Response Factor: 18203.4

RF SD: 580.647, % Relative SD: 3.18977

Response type: External Std, Area

Curve type: RF /



Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

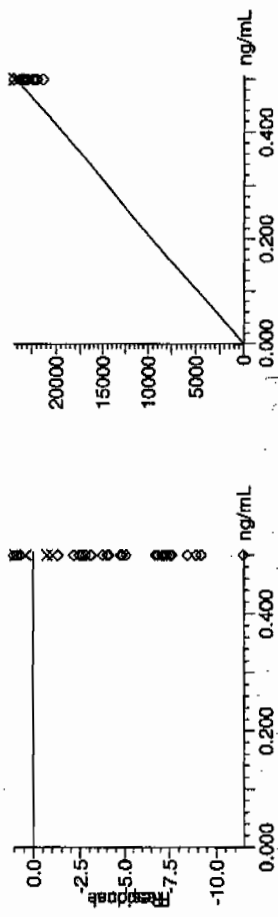
Compound name: Perchlorate-O(18)

Response Factor: 48228.8

RF SD: 404.995, % Relative SD: 0.839737

Response type: External Std, Area

Curve type: RF



Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1128-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	96.93	15-JAN-10 18:11	per0115009a
Perchlorate Isotope Ratio		3.03		15-JAN-10 18:11	per0115009a
Perchlorate-101	.5	.49	98.8	15-JAN-10 18:11	per0115009a

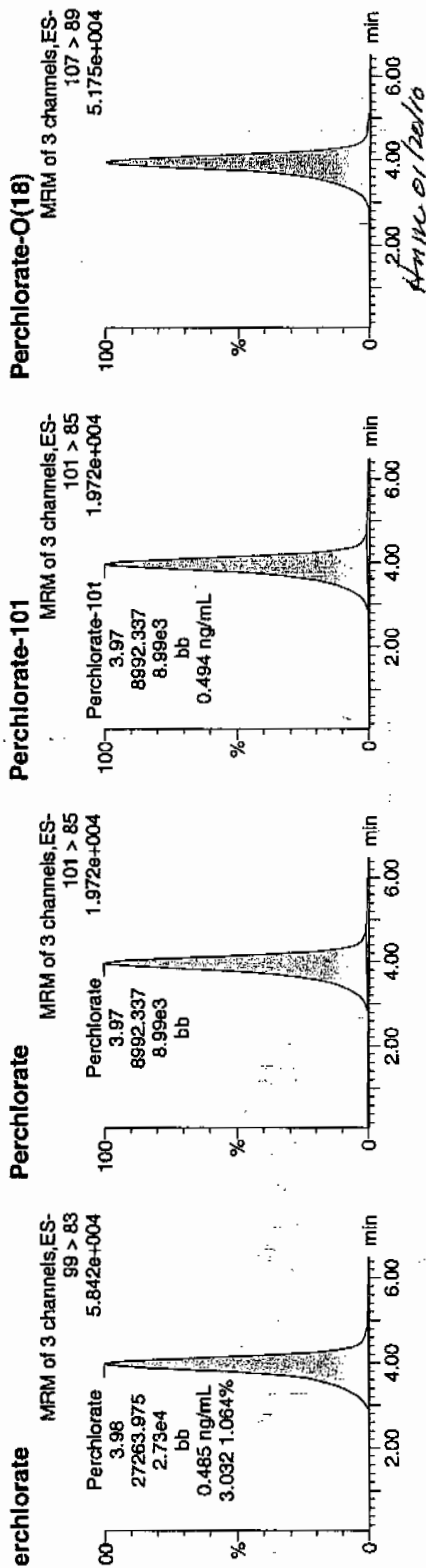
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Sample Name: per0115009a  
Date: 15-Jan-2010  
Time: 18:11:06  
File: WCL100104-06ICV  
Label: 1:2,A

Pass  
Good  
01-18-10



Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
CL100104-06ICV	99 > 83	3.98	27263.975	27263.975	bb			0.4847	96.93	-3.07	1669.1...	3.03
CL100104-06ICV	101 > 85	3.97	8992.337	8992.337	bb			0.4940	98.80	-1.20	430.961	
CL100104-06ICV	107 > 89	3.95	24367.420	24367.420	bb			0.5052	101.05	-1.05	2663.2...	



Form 3

Perchlorate Continuing Calibration Verification

GEL Job No.(SDG): 10-1128-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.47	94.91	15-JAN-10 19:17	per0115016a
Perchlorate Isotope Ratio		3.11		15-JAN-10 19:17	per0115016a
Perchlorate-101	.5	.47	94.42	15-JAN-10 19:17	per0115016a
Perchlorate	.5	.45	90.92	15-JAN-10 20:43	per0115025a
Perchlorate Isotope Ratio		3.13		15-JAN-10 20:43	per0115025a
Perchlorate-101	.5	.45	89.68	15-JAN-10 20:43	per0115025a
Perchlorate	.5	.47	93.21	15-JAN-10 22:47	per0115038a
Perchlorate Isotope Ratio		3.18		15-JAN-10 22:47	per0115038a
Perchlorate-101	.5	.45	90.5	15-JAN-10 22:47	per0115038a

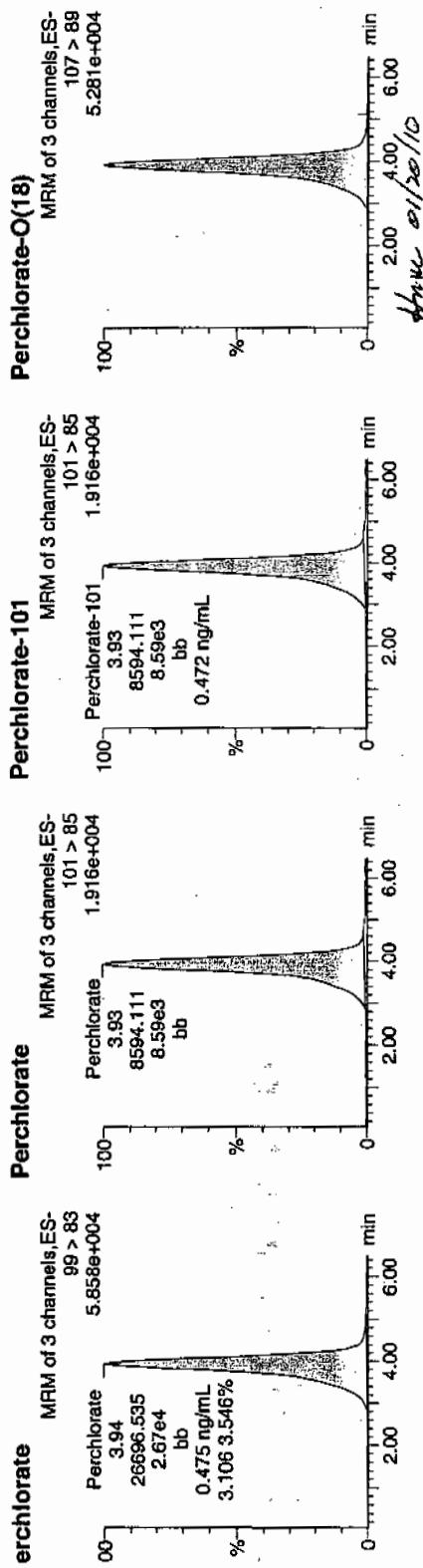
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Sample Name: per0115016a  
Date: 15-Jan-2010  
Time: 19:17:55  
File: WCL100104-06CCV  
Label: 1:2,A

*Pass*  
*01-18-10*



Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100104-06CCV	99 > 83	3.94	26696.535	26696.535	bb			0.4746	94.91	-5.09	3449.1...	3.11
CL100104-06CCV	101 > 85	3.93	8594.111	8594.111	bb			0.4721	94.42	-5.58	579.361	
CL100104-06CCV	107 > 89	3.92	24366.004	24366.004	bb			0.5052	101.04	1.04	6703.9...	

Quantify Sample Report MassLynx 4.0 SP4

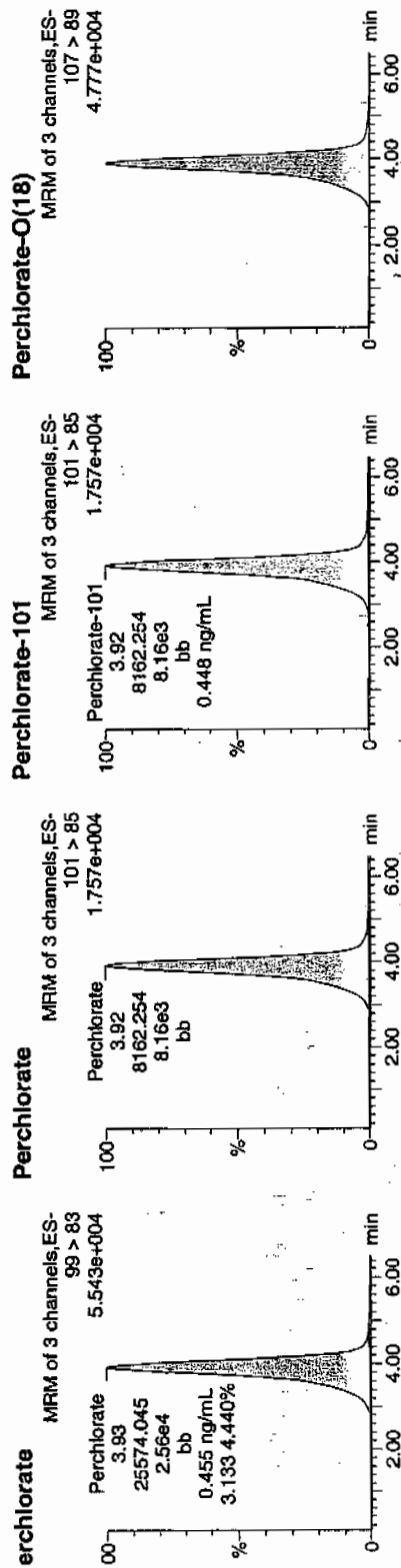
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

ast Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
rinted: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

ame: per0115025a  
ate: 15-Jan-2010  
ime: 20:43:46  
): WCL100104-06CCV  
ial: 1:2,A

Pass  
01-18-10



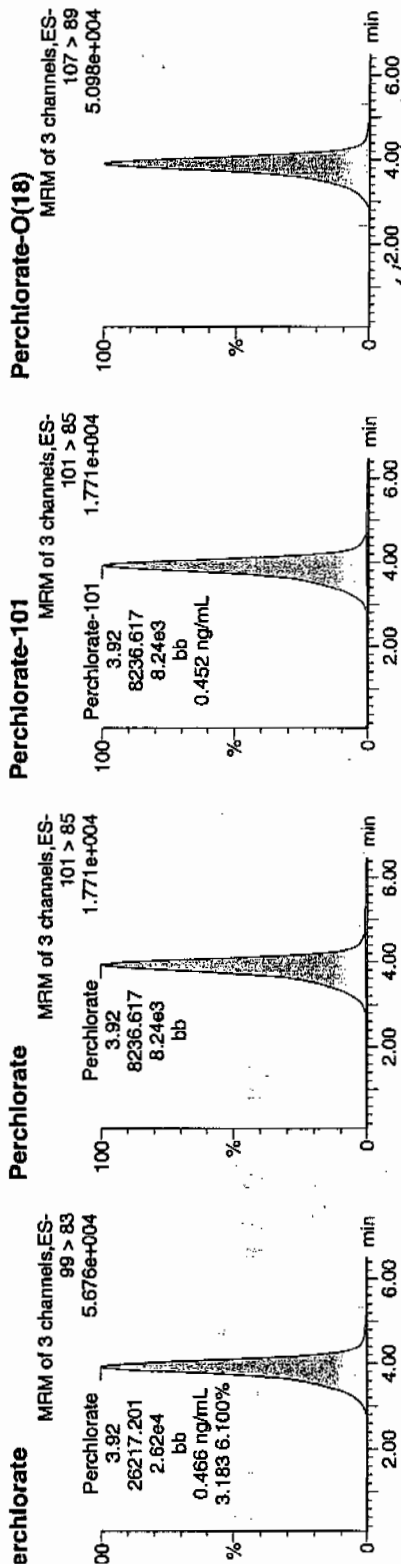
Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
'CL100104-06CCV	Perchlorate	99 > 83	3.93	25574.045	25574.045	bb		0.4546	90.92	-9.08	751.918	3.13
'CL100104-06CCV	Perchlorate-101	101 > 85	3.92	8162.254	8162.254	bb		0.4484	89.68	-10.32	469.738	
'CL100104-06CCV	Perchlorate-O(18)	107 > 89	3.91	22330.109	22330.109	bb		0.4630	92.60	-7.40	1588.6...	

Quantify Sample Report MassLynx 4.0 SP4  
 the GEL Group, LLC Analyst: Charles W. Wilson  
 ataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

ast Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
 rinted: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

ame: per0115038a  
 ate: 15-Jan-2010  
 ime: 22:47:54  
 ): WCL100104-06CCV  
 ial: 1:2,A

Pass  
 02-18-10



Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100104-06CCV	Perchlorate	3.92	26217.201	26217.201	bb			0.4661	93.21	-6.79	2136.7...	3.18
CL100104-06CCV	Perchlorate-101	3.92	8236.617	8236.617	bb			0.4525	90.50	-9.50	361.472	
CL100104-06CCV	Perchlorate-O(18)	3.89	23116.453	23116.453	bb			0.4793	95.86	-4.14	1139.5...	

Perchlorate MDL Verification

GEL Job No.(SDG): 10-1128-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	95.18	15-JAN-10 18:30	per0115011a
Perchlorate Isotope Ratio		2.8		15-JAN-10 18:30	per0115011a
Perchlorate-101	.05	.05	105.09	15-JAN-10 18:30	per0115011a
Perchlorate	.05	.05	96.83	15-JAN-10 19:36	per0115018a
Perchlorate Isotope Ratio		3.23		15-JAN-10 19:36	per0115018a
Perchlorate-101	.05	.05	92.61	15-JAN-10 19:36	per0115018a
Perchlorate	.05	.05	90.97	15-JAN-10 21:02	per0115027a
Perchlorate Isotope Ratio		2.84		15-JAN-10 21:02	per0115027a
Perchlorate-101	.05	.05	98.99	15-JAN-10 21:02	per0115027a
Perchlorate	.05	.04	88.68	15-JAN-10 23:07	per0115040a
Perchlorate Isotope Ratio		2.94		15-JAN-10 23:07	per0115040a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

GEL Job No.(SDG): 10-1128-1

Perchlorate-101	.05	.05	93.11	15-JAN-10 23:07	per0115040a
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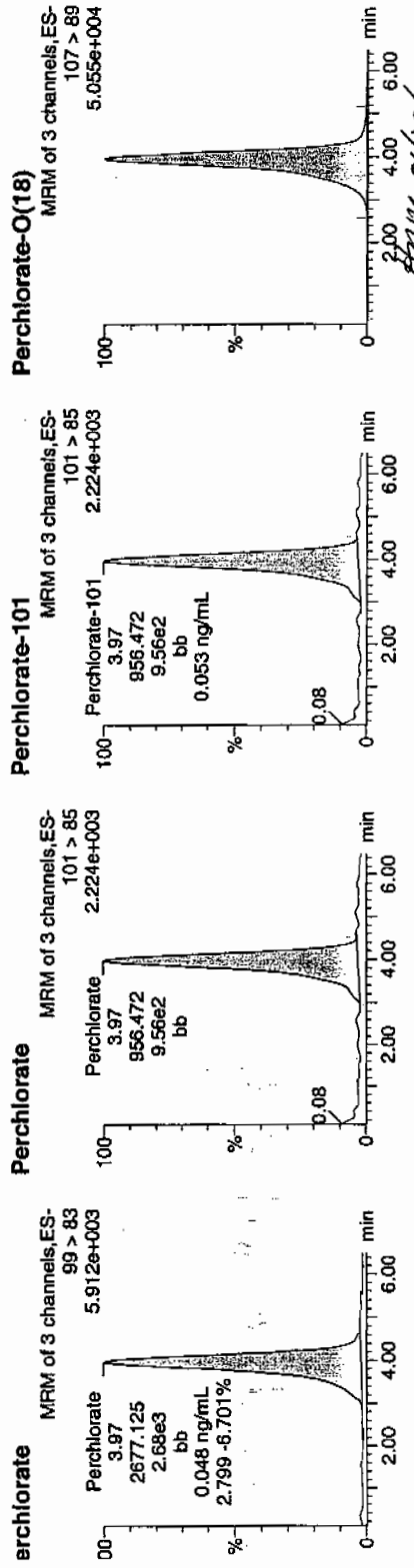
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Acquired: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Sample Name: per0115011a  
Date: 15-Jan-2010  
Time: 18:30:12  
File: WCL100104-07CRI  
Label: 1:2,B

Pure  
and  
01-18-10



Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
CL100104-07CRI	Perchlorate	99 > 83	3.97	2677.125	bb			0.0476	95.18	-4.82	233.778	2.80
CL100104-07CRI	Perchlorate-101	101 > 85	3.97	956.472	bb			0.0525	105.09	5.09	322.926	
CL100104-07CRI	Perchlorate-O(18)	107 > 89	3.95	23597.420	bb			0.4893	97.86	-2.14	3376.5...	

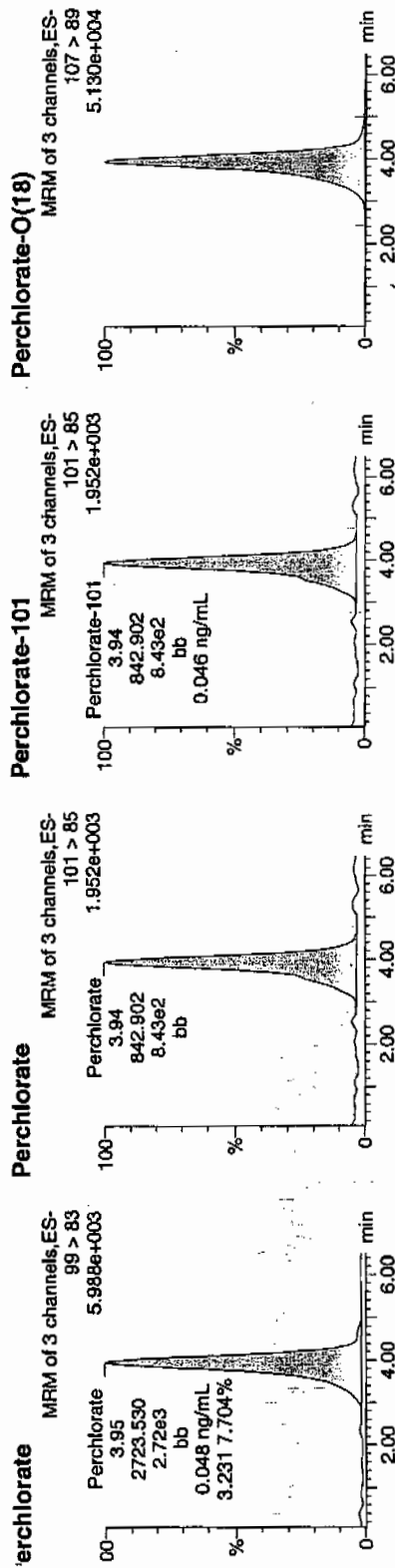
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Sample Name: per0115018a  
Date: 15-Jan-2010  
Time: 19:36:59  
Job: WCL100104-07CRI  
Label: 1:2,B

Pass  
and  
0-18.10



Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100104-07CRI	Perchlorate	3.95	2723.530	2723.530	bb			0.0484	96.83	-3.17	130.049	3.23
/CL100104-07CRI	Perchlorate-101	3.94	842.902	842.902	bb			0.0463	92.61	-7.39	52.552	
/CL100104-07CRI	Perchlorate-O(18)	3.93	23520.729	23520.729	bb			0.4877	97.54	-2.46	3968.1...	



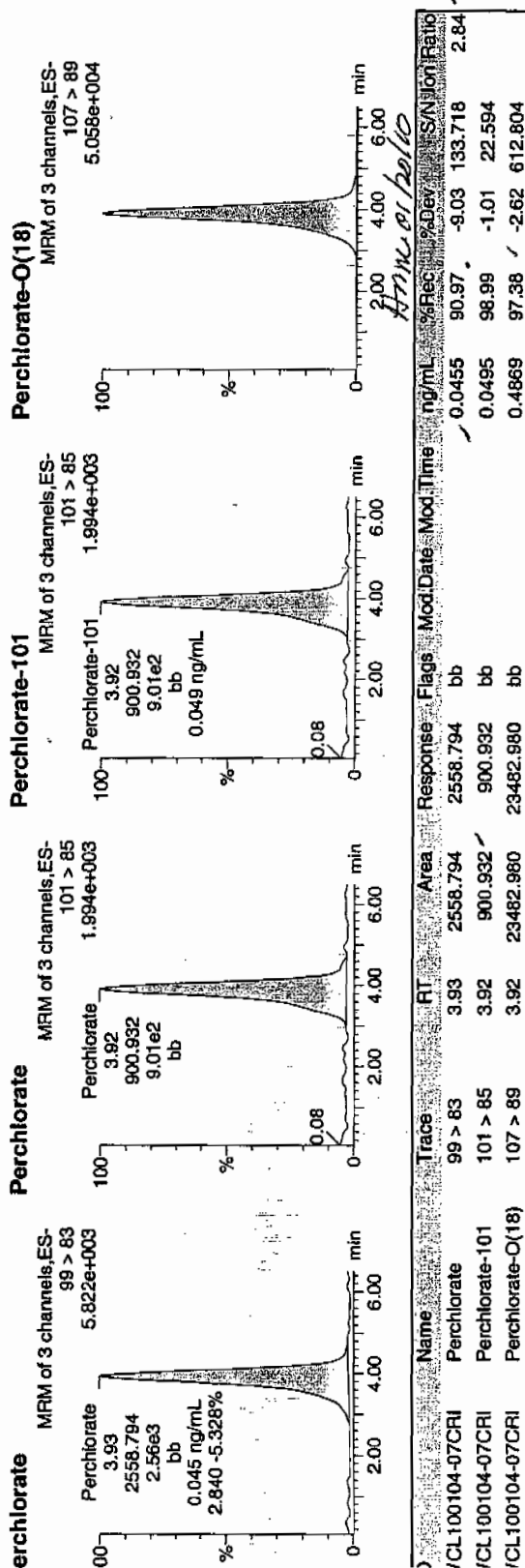
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Sample Name: per0115027a  
Date: 15-Jan-2010  
Time: 21:02:51  
Job: WCL100104-07CRI  
Label: 1:2,B

*Pass and*  
*01-18-10*



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

Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Sample Name: per0115040a

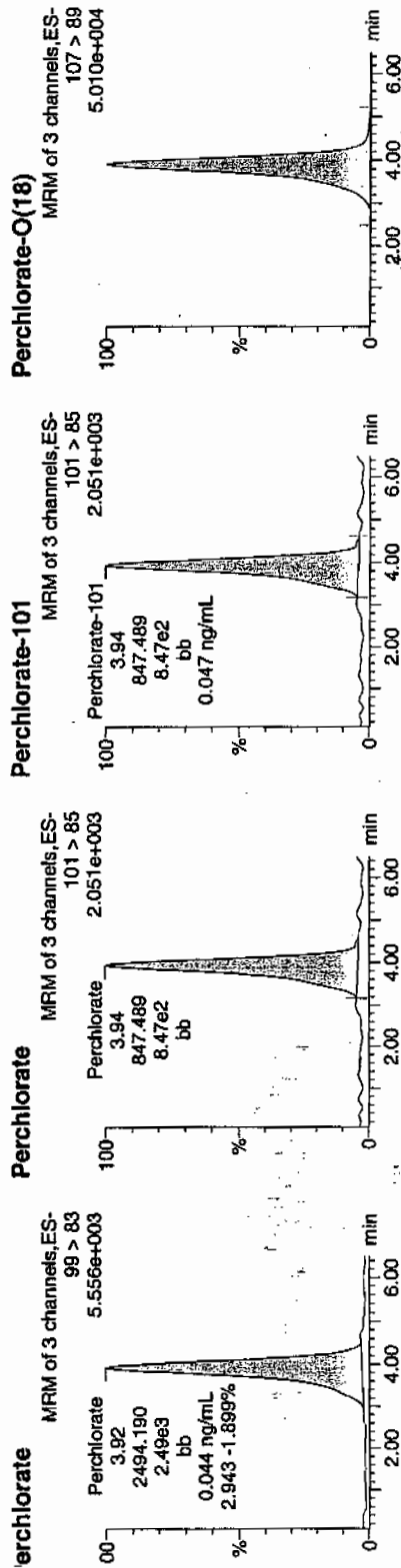
Sample Date: 15-Jan-2010

Sample Time: 23:07:00

Sample ID: WCL100104-07CRI

Sample Label: 1:2,B

Pass  
01-18-10



Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
/CL100104-07CRI	Perchlorate	99 > 83	3.92	2494.190	bb			0.0443	88.68	-11.32	146.232	2.94
/CL100104-07CRI	Perchlorate-101	101 > 85	3.94	847.489	bb			0.0466	93.11	-6.89	50.462	
/CL100104-07CRI	Perchlorate-O(18)	107 > 89	3.89	22963.768	bb			0.4761	95.23	-4.77	771.020	

# QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 940153

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

MB

Date Received: 13-JAN-10

GEL Job No (SDG): 10-1128-1

GEL Sample ID: 1202011852

Date Filtered: 13-JAN-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	15-JAN-10 21:12	per0115028a
	Perchlorate Isotope Ratio						1	15-JAN-10 21:12	per0115028a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	15-JAN-10 21:12	per0115028a
	Perchlorate-O(18)			0.466	ug/L		1	15-JAN-10 21:12	per0115028a

<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\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Name: per0115028a

Date: 15-Jan-2010

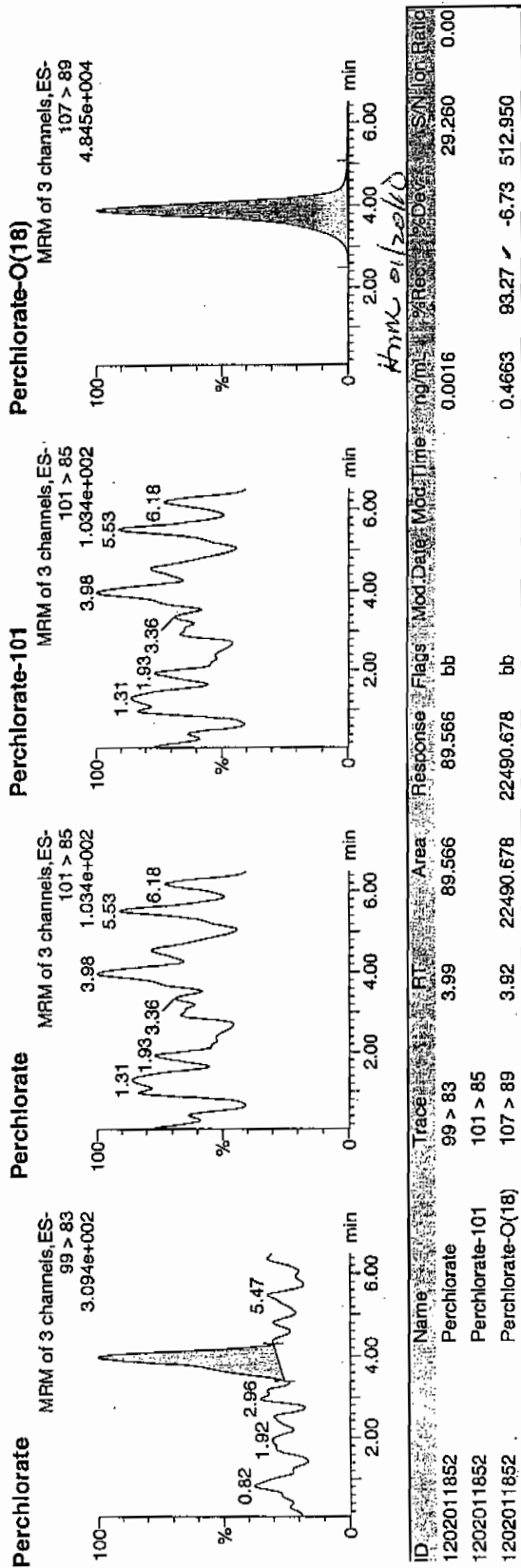
Time: 21:12:23

ID: 1202011852

Vial: 1:5,A

01-18-10

LANC 1940183 / L22 / MS / 11



Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 940153

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

LCS

Date Received: 13-JAN-10

GEL Job No (SDG): 10-1128-1

GEL Sample ID: 1202011853

Date Filtered: 13-JAN-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	0.192	ug/L	J	1	15-JAN-10 21:21	per0115029a
	Perchlorate Isotope Ratio			3			1	15-JAN-10 21:21	per0115029a
14797-73-0	Perchlorate-101	.05	.2	0.198	ug/L	J	1	15-JAN-10 21:21	per0115029a
	Perchlorate-O(18)			0.480	ug/L		1	15-JAN-10 21:21	per0115029a

<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

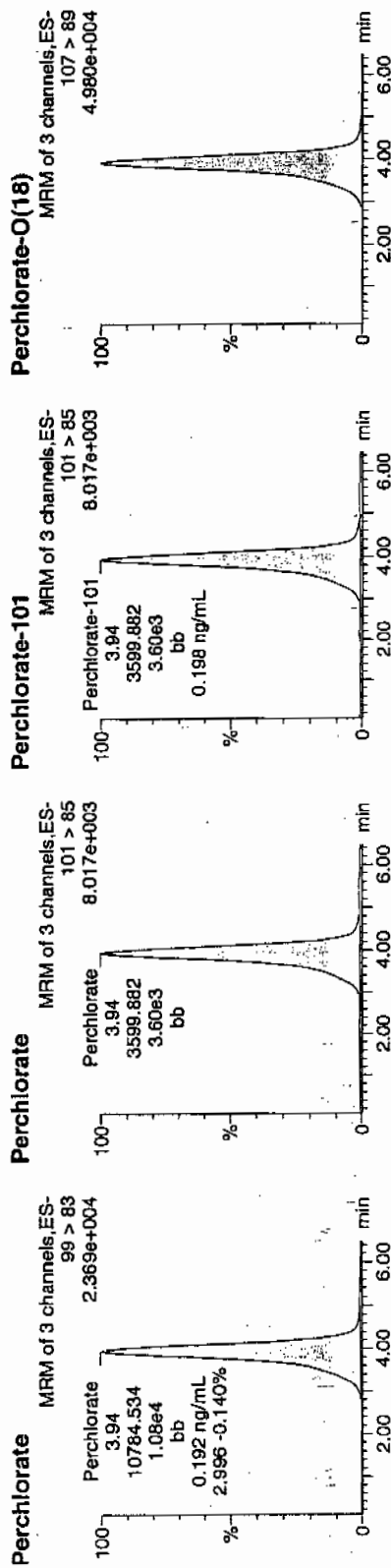
Dataset: C:\MassLynx\Perchlorate.PRO\per011510a.qld

Last Altered: Monday, January 18, 2010 9:03:33 AM Eastern Standard Time  
Printed: Monday, January 18, 2010 9:06:21 AM Eastern Standard Time

Name: per0115029a  
Date: 15-Jan-2010  
Time: 21:21:57  
ID: 1202011853  
Vial: 1:5,B

633  
9-18-10

LANC | 940158 | 1222 | 105 | 11



$$\frac{10784.534}{56254} = 0.1917$$

4/11/2010

# 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: 940153 Verified by: \_\_\_\_\_ Lab SOP: GL-OA-E-067 REV# 6  
 Analyst: Charles Wilson Instrument: MicroMass Quattro Ultima  
 Method: SW846 6850 Modified

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202011852 MB	13-JAN-2010 11:06:01	10	10	1
1202011853 LCS	13-JAN-2010 11:06:01	10	10	1
244129001	13-JAN-2010 11:06:01	10	10	1
244129002	13-JAN-2010 11:06:01	10	10	1
244129003	13-JAN-2010 11:06:01	10	10	1
244145001	13-JAN-2010 11:06:01	10	10	1
244149001	13-JAN-2010 11:06:01	10	10	1
244208001	13-JAN-2010 11:06:01	10	10	1
244208002	13-JAN-2010 11:06:01	10	10	1
244213001	13-JAN-2010 11:06:01	10	10	1
244217001	13-JAN-2010 11:06:01	10	10	1
244217002	13-JAN-2010 11:06:01	10	10	1
244226001	13-JAN-2010 11:06:01	10	10	1
1202011854 MS (244226001)	13-JAN-2010 11:06:01	10	10	1
1202011855 MSD (244226001)	13-JAN-2010 11:06:01	10	10	1
244226002	13-JAN-2010 11:06:01	10	10	1
244236002	13-JAN-2010 11:06:01	10	10	1
244236003	13-JAN-2010 11:06:01	10	10	1
244240001	13-JAN-2010 11:06:01	10	10	1
1202011856 MS (244240001)	13-JAN-2010 11:06:01	10	10	1
1202011857 MSD (244240001)	13-JAN-2010 11:06:01	10	10	1
1202011858 LCS	13-JAN-2010 11:06:01	10	10	1

Comments:

Type	Sample ID	Description	Serial Number	Spike Amt	Units
ICS	1202011858	10 ug/L ICV/CCV Second Source	UCL091230-01.1	.2	mL
LCS	1202011853	10 ug/L ICV/CCV Second Source	UCL091230-01.1	.2	mL
MS	1202011854	10 ug/L ICV/CCV Second Source	UCL091230-01.1	.2	mL
MS	1202011856	10 ug/L ICV/CCV Second Source	UCL091230-01.1	.2	mL
MSD	1202011855	10 ug/L ICV/CCV Second Source	UCL091230-01.1	.2	mL
MSD	1202011857	10 ug/L ICV/CCV Second Source	UCL091230-01.1	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1236492	10	mL
RGNT	All	O2SI HPLC Grade Water	1246195	10	mL

Desalting cartridges used: 091006-1-H & 090810-1-Ba

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 01/15/10  
 Extr. Injection Volume: 20uL  
 Sequence Number: per011510a  
 Initial Calibration Date: 01/15/10

Method: EPA 6850-Modified  
 Int. Std.: UCL091019-03.2  
 Mobile Phase Lot#: 1254342, 1246195  
 Standard-Samp Reagent Lot#: 1233976

Reviewed BY: *dhw*  
 Date: 01/22/10

SOP: GL-OA-E-067 Rev.6  
 Alt Check Std. ID: WCL100104-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0115001a	IPB001	CWW	1/15/2010 16:54			1		USE	B
per0115002a	IPB001	CWW	1/15/2010 17:04			1		USE	B
per0115003a	WCLICAL-01	CWW	1/15/2010 17:13			1		USE	I
per0115004a	WCLICAL-02	CWW	1/15/2010 17:23			1		USE	I
per0115005a	WCLICAL-03	CWW	1/15/2010 17:33			1		USE	I
per0115006a	WCLICAL-04	CWW	1/15/2010 17:42			1		USE	I
per0115007a	WCLICAL-05	CWW	1/15/2010 17:52			1		USE	I
per0115008a	IPB002	CWW	1/15/2010 18:01			1		USE	B
per0115009a	WCLICV	CWW	1/15/2010 18:11			1		USE	C
per0115010a	IPB003	CWW	1/15/2010 18:20			1		USE	B
per0115011a	WCLCRI	CWW	1/15/2010 18:30			1		USE	C
per0115012a	1202016608	CWW	1/15/2010 18:39	942037	WS-162	1	PTQA	USE	S
per0115013a	1202016610	CWW	1/15/2010 18:49	942037	WS-162	1	PTQA	USE	S
per0115014a	244609019	CWW	1/15/2010 18:58	942037	WS-162	10	PTQA	USE	S
per0115015a	1202016609	CWW	1/15/2010 19:08	942037	WS-162	10	PTQA	USE	S
per0115016a	WCLCCV	CWW	1/15/2010 19:17			1		USE	C
per0115017a	IPB004	CWW	1/15/2010 19:27			1		USE	B
per0115018a	WCLCRI	CWW	1/15/2010 19:36			1		USE	C
per0115019a	1202016599	CWW	1/15/2010 19:46	942034	244603	1	EMAX	USE	S
per0115020a	1202016600	CWW	1/15/2010 19:56	942034	244603	1	EMAX	USE	S
per0115021a	1202016603	CWW	1/15/2010 20:05	942034	244603	1	EMAX	USE	S
per0115022a	244603001	CWW	1/15/2010 20:15	942034	244603	1	EMAX	USE	S
per0115023a	1202016601	CWW	1/15/2010 20:24	942034	244603	1	EMAX	USE	S
per0115024a	1202016602	CWW	1/15/2010 20:34	942034	244603	1	EMAX	USE	S
per0115025a	WCLCCV	CWW	1/15/2010 20:43			1		USE	C
per0115026a	IPB005	CWW	1/15/2010 20:53			1		USE	B
per0115027a	WCLCRI	CWW	1/15/2010 21:02			1		USE	C
per0115028a	1202011852	CWW	1/15/2010 21:12	940158	VARIOUS	1	LANL	USE	S
per0115029a	1202011853	CWW	1/15/2010 21:21	940158	VARIOUS	1	LANL	USE	S

per0115030a	1202011858	CWW	1/15/2010 21:31	940158	VARIOUS	1	LANL	USE	S
per0115031a	244129001	CWW	1/15/2010 21:41	940158	10-1132-1	1	LANL	USE	S
per0115032a	244129002	CWW	1/15/2010 21:50	940158	10-1132-1	1	LANL	USE	S
per0115033a	244129003	CWW	1/15/2010 22:00	940158	10-1132-1	1	LANL	USE	S
per0115034a	244145001	CWW	1/15/2010 22:09	940158	10-1128-1	1	LANL	USE	S
per0115035a	244149001	CWW	1/15/2010 22:19	940158	10-1147	1	LANL	USE	S
per0115036a	244208001	CWW	1/15/2010 22:28	940158	10-1159-1	1	LANL	USE	S
per0115037a	244208002	CWW	1/15/2010 22:38	940158	10-1159-1	1	LANL	USE	S
per0115038a	WCLCCV	CWW	1/15/2010 22:47			1		USE	C
per0115039a	IPB006	CWW	1/15/2010 22:57			1		USE	B
per0115040a	WCLCRI	CWW	1/15/2010 23:07			1		USE	C
per0115041a	244213001	CWW	1/15/2010 23:16	940158	10-1154	1	LANL	DUSE-RA	S
per0115042a	244217001	CWW	1/15/2010 23:26	940158	10-1152	1	LANL	DUSE-RA	S
per0115043a	244217002	CWW	1/15/2010 23:35	940158	10-1152	1	LANL	DUSE-RA	S
per0115044a	244226001	CWW	1/15/2010 23:45	940158	10-1161	1	LANL	DUSE-RA	S
per0115045a	1202011854	CWW	1/15/2010 23:54	940158	10-1161	1	LANL	DUSE-RA	S
per0115046a	1202011855	CWW	1/16/2010 0:04	940158	10-1161	1	LANL	DUSE-RA	S
per0115047a	244226002	CWW	1/16/2010 0:13	940158	10-1161	1	LANL	DUSE-RA	S
per0115048a	244236002	CWW	1/16/2010 0:23	940158	10-1169	1	LANL	DUSE-RA	S
per0115049a	244236003	CWW	1/16/2010 0:33	940158	10-1169	1	LANL	DUSE-RA	S
per0115050a	WCLCCV	CWW	1/16/2010 0:42			1		USE	S
per0115051a	IPB007	CWW	1/16/2010 0:52			1		USE	B
per0115052a	WCLCRI	CWW	1/16/2010 1:01			1		USE	C
per0115053a	244240001	CWW	1/16/2010 1:11	940158	10-1172	1	LANL	DUSE-RA	S
per0115054a	1202011856	CWW	1/16/2010 1:20	940158	10-1172	1	LANL	DUSE-RA	S
per0115055a	1202011857	CWW	1/16/2010 1:30	940158	10-1172	1	LANL	DUSE-RA	S
per0115056a	IPB008	CWW	1/16/2010 1:39			1		USE	B
per0115057a	1202011832	CWW	1/16/2010 1:49	940145	VARIOUS	1	LANL	DUSE-RA	S
per0115058a	1202011833	CWW	1/16/2010 1:59	940145	VARIOUS	1	LANL	DUSE-RA	S
per0115059a	1202011836	CWW	1/16/2010 2:08	940145	VARIOUS	1	LANL	DUSE-RA	S
per0115060a	244222001	CWW	1/16/2010 2:18	940145	10-1150	1	LANL	DUSE-RA	S
per0115061a	244222002	CWW	1/16/2010 2:27	940145	10-1150	1	LANL	DUSE-RA	S
per0115062a	244222003	CWW	1/16/2010 2:37	940145	10-1150	1	LANL	DUSE-RA	S
per0115063a	WCLCCV	CWW	1/16/2010 2:46			1		USE	C
per0115064a	IPB009	CWW	1/16/2010 2:56			1		USE	B
per0115065a	WCLCRI	CWW	1/16/2010 3:06			1		USE	C
per0115066a	244222004	CWW	1/16/2010 3:15	940145	10-1150	1	LANL	USE	S

FAIR Share C  
Hinge  
01/20/10

per0115067a	244222005	CWW	1/16/2010 3:25	940145	10-1150	1	LANL	USE	S
per0115068a	244227001	CWW	1/16/2010 3:34	940145	10-1161-1	1	LANL	USE	S
per0115069a	1202011834	CWW	1/16/2010 3:44	940145	10-1161-1	1	LANL	USE	S
per0115070a	1202011835	CWW	1/16/2010 3:53	940145	10-1161-1	1	LANL	USE	S
per0115071a	244227002	CWW	1/16/2010 4:03	940145	10-1161-1	1	LANL	USE	S
per0115072a	244227003	CWW	1/16/2010 4:13	940145	10-1161-1	1	LANL	USE	S
per0115073a	244227004	CWW	1/16/2010 4:22	940145	10-1161-1	1	LANL	USE	S
per0115074a	244227005	CWW	1/16/2010 4:32	940145	10-1161-1	1	LANL	USE	S
per0115075a	244227006	CWW	1/16/2010 4:41	940145	10-1161-1	1	LANL	USE	S
per0115076a	WCLCCV	CWW	1/16/2010 4:51			1		USE	C
per0115077a	IPB010	CWW	1/16/2010 5:00			1		USE	B
per0115078a	WCLCRI	CWW	1/16/2010 5:10			1		USE	C
per0115079a	244227007	CWW	1/16/2010 5:20	940145	10-1161-1	1	LANL	USE	S
per0115080a	244227008	CWW	1/16/2010 5:29	940145	10-1161-1	1	LANL	USE	S
per0115081a	244227009	CWW	1/16/2010 5:39	940145	10-1161-1	1	LANL	USE	S
per0115082a	244227010	CWW	1/16/2010 5:48	940145	10-1161-1	1	LANL	USE	S
per0115083a	244227011	CWW	1/16/2010 5:58	940145	10-1161-1	1	LANL	USE	S
per0115084a	244227012	CWW	1/16/2010 6:07	940145	10-1161-1	1	LANL	USE	S
per0115085a	244227013	CWW	1/16/2010 6:17	940145	10-1161-1	1	LANL	USE	S
per0115086a	244227014	CWW	1/16/2010 6:26	940145	10-1161-1	1	LANL	USE	S
per0115087a	244227015	CWW	1/16/2010 6:36	940145	10-1161-1	1	LANL	USE	S
per0115088a	WCLCCV	CWW	1/16/2010 6:46			1		USE	C
per0115089a	IPB011	CWW	1/16/2010 6:55			1		USE	B
per0115090a	WCLCRI	CWW	1/16/2010 7:05			1		USE	C

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

Dataset: C:\MassLynx\Perchlorate.PRO\per011810a.qld

Last Altered: Tuesday, January 19, 2010 8:07:30 AM Eastern Standard Time  
Printed: Tuesday, January 19, 2010 8:08:48 AM Eastern Standard Time

Name: per0118016a

Date: 18-Jan-2010

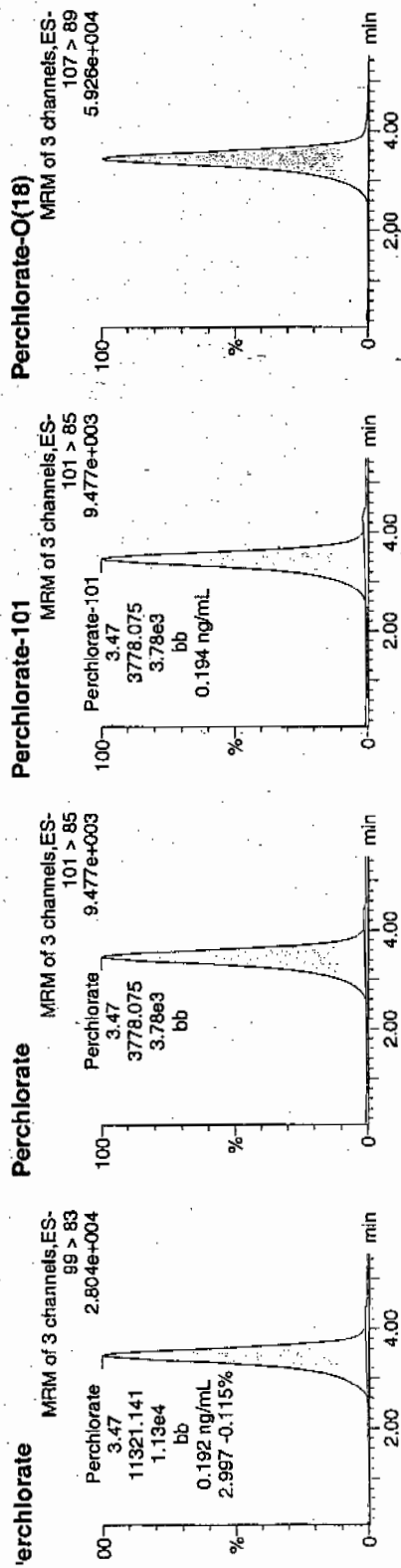
Time: 19:24:05

ID: 1202011854

Ratio: 1:3,E

01-18-10

1202011854 | 1202011854 | 1202011854



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202011854	Perchlorate	99 > 83	3.47	11321.141	11321.141	bb		0.1919	95.93	-4.07	1012.6...	3.00
202011854	Perchlorate-101	101 > 85	3.47	3778.075	3778.075	bb		0.1942	97.10	-2.90	555.456	
202011854	Perchlorate-O(18)	107 > 89	3.45	24482.922	24482.922	bb		0.4890	97.80	-2.20	1301.5...	

Dataset: C:\MassLynx\Perchlorate.PRO\per011810a.qld

Last Altered: Tuesday, January 19, 2010 8:07:30 AM Eastern Standard Time  
 Printed: Tuesday, January 19, 2010 8:08:48 AM Eastern Standard Time

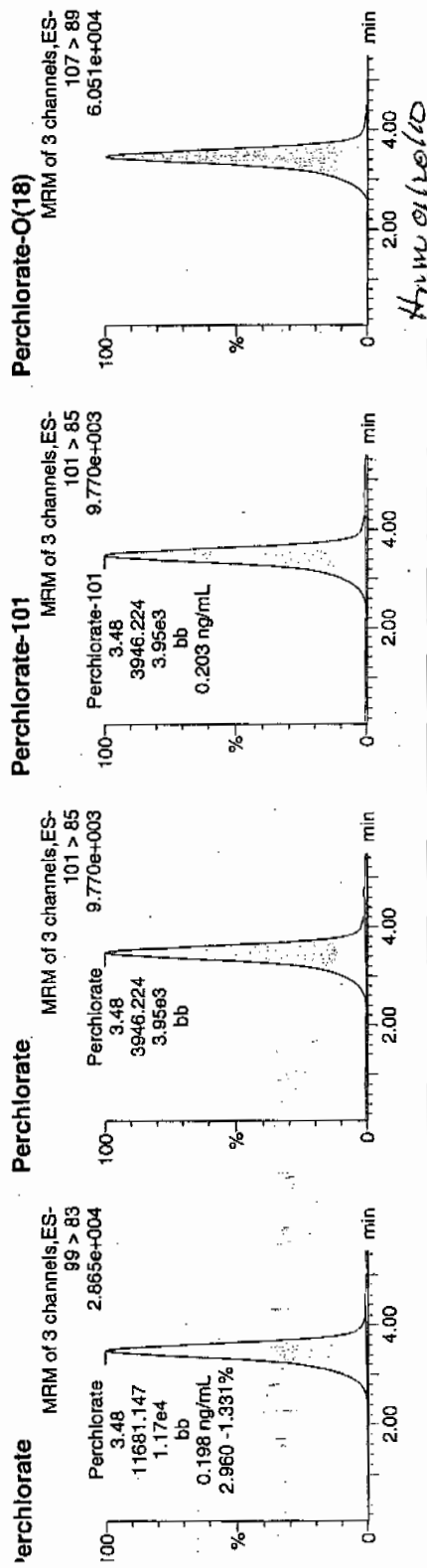
**James: per0118017a**

**Date: 18-Jan-2010**

Time: 19:32:37

**D: 1202011855**

**vial: 1:3,F**



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202011855	Perchlorate	99 > 83	3.48	11681.147	bb			0.1980	98.98	-1.02	573.180	2.96
202011855	Perchlorate-101	101 > 85	3.48	3946.224	bb			0.2028	101.42	1.42	436.014	
202011855	Perchlorate-O(18)	107 > 89	3.47	24850.814	bb			0.4964	99.27	-0.73	6032.6...	

### 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 10-1128**

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
244144001	RE12-10-7619
244144002	RE12-10-7618
244144003	RE12-10-7623
244144004	RE12-10-7622
244144005	RE12-10-7621
244144006	RE12-10-7617
244144007	RE12-10-7620
244144008	RE12-10-7624
244144009	RE12-10-7630
244144010	RE12-10-7628
244144011	RE12-10-7632
244144012	RE12-10-7629
244144013	RE12-10-7626
244144014	RE12-10-7631
244144015	RE12-10-7627
244144016	RE12-10-7625
244144017	RE12-10-7656
244144018	RE12-10-7655
1202011905	Method Blank (MB) ICP
1202011910	Laboratory Control Sample (LCS)
1202011907	244144001(RE12-10-7619L) Serial Dilution (SD)

1202011906	244144001(RE12-10-7619D) Sample Duplicate (DUP)
1202011908	244144001(RE12-10-7619S) Matrix Spike (MS)
1202011909	244144001(RE12-10-7619SD) Matrix Spike Duplicate (MSD)
1202011732	Method Blank (MB) ICP-MS
1202011733	Laboratory Control Sample (LCS)
1202011736	244144001(RE12-10-7619L) Serial Dilution (SD)
1202011734	244144001(RE12-10-7619D) Sample Duplicate (DUP)
1202011735	244144001(RE12-10-7619S) Matrix Spike (MS)
1202011737	244144001(RE12-10-7619SD) Matrix Spike Duplicate (MSD)
1202019667	Method Blank (MB) CVAA
1202019668	Laboratory Control Sample (LCS)
1202019671	244144001(RE12-10-7619L) Serial Dilution (SD)
1202019669	244144001(RE12-10-7619D) Sample Duplicate (DUP)
1202019670	244144001(RE12-10-7619S) Matrix Spike (MS)
1202019672	244144001(RE12-10-7619SD) Matrix Spike Duplicate (MSD)

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

#### **Method/Analysis Information**

<b>Analytical Batch:</b>	940180, 940093 and 943271
<b>Prep Batch :</b>	940178, 940092 and 943270
<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 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis-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-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

### **Calibration Information**

#### **Instrument Calibration**

All initial calibration requirements have been met for this sample delivery group (SDG).

#### **CRDL Requirements**

All CRDL standard(s) met the referenced advisory control limits.

#### **ICSA/ICSAB Statement**

All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

#### **Continuing Calibration Blank (CCB) Requirements**

All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

**Continuing Calibration Verification (CCV) Requirements**

All continuing calibration verification (CCV) bracketing this SDG met the established acceptance criteria for all analytes except: ICP. The samples were reanalyzed because CCV failed for calcium, magnesium and potassium in the first analytical run. ICP.

**Quality Control (QC) Information****Method Blank (MB) Statement**

The MBs analyzed with this SDG met the acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

**Quality Control (QC) Sample Statement**

The following sample was selected as the quality control (QC) sample for this SDG: 244144001.

**Matrix Spike (MS) Recovery Statement**

The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of nickel, antimony, magnesium and potassium, 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 exception of antimony and potassium, 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 exception of chromium, as indicated by the "\*" qualifier.

**Serial Dilution % Difference Statement**

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

## **Technical Information**

### **Holding Time Specifications**

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

### **Sample Dilutions**

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

### **Preparation Information**

The samples in this SDG were prepared exactly according to the cited SOP.

## **Miscellaneous Information**

### **Electronic Packaging Comment**

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

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

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 781366 and 783818. A copy of each NCR is included in the Miscellaneous Data section of this package.

### **Additional Comments**

Additional comments were not required for this SDG.

## **Certification Statement**

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

**Review Validation:**

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

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

Reviewer: Kristen Parson Date: 2/2/10

# **Sample Data Summary**



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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144001

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7619

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13000000	ug/Kg		7890	23200	23200	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-36-0	Antimony	1160	ug/Kg	UN	383	1160	1160	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-38-2	Arsenic	2.45	mg/kg		0.233	1.17	1.17	2	MS	SKJ	01/16/10 01:05	100115-3	940093
7440-39-3	Barium	257000	ug/Kg		116	580	580	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-41-7	Beryllium	1.23	mg/kg		0.0233	0.117	0.117	2	MS	SKJ	01/16/10 01:05	100115-3	940093
7440-43-9	Cadmium	291	ug/Kg	J	116	580	580	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-70-2	Calcium	2270000	ug/Kg		9290	29000	29000	1	P	HSC	01/26/10 13:08	012610C-1	940180
7440-47-3	Chromium	16100	ug/Kg	*	174	580	580	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-48-4	Cobalt	7790	ug/Kg		174	580	580	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-50-8	Copper	7220	ug/Kg		348	1160	1160	1	P	HSC	01/25/10 23:27	012510A-2	940180
7439-89-6	Iron	14600000	ug/Kg		9290	29000	29000	1	P	HSC	01/25/10 23:27	012510A-2	940180
7439-92-1	Lead	17000	ug/Kg		290	1160	1160	1	P	HSC	01/25/10 23:27	012510A-2	940180
7439-95-4	Magnesium	2330000	ug/Kg	N	9870	34800	34800	1	P	HSC	01/26/10 13:08	012610C-1	940180
7439-96-5	Manganese	567000	ug/Kg		232	1160	1160	1	P	HSC	01/25/10 23:27	012510A-2	940180
7439-97-6	Mercury	14.6	ug/kg		4.76	14	14	1	AV	JXL1	01/26/10 10:15	012610S1-5	943271
7440-02-0	Nickel	8.17	mg/kg	N	0.117	0.466	0.466	2	MS	SKJ	01/18/10 16:08	100118-4	940093
7440-09-7	Potassium	2180000	ug/Kg	N	7430	29000	29000	1	P	HSC	01/26/10 13:08	012610C-1	940180
7782-49-2	Selenium	1.17	mg/kg	U	0.583	1.17	1.17	2	MS	SKJ	01/16/10 01:05	100115-3	940093
7440-22-4	Silver	693	ug/Kg		116	580	580	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-23-5	Sodium	61400	ug/Kg		8130	29000	29000	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-28-0	Thallium	0.288	mg/kg		0.0699	0.233	0.233	2	MS	SKJ	01/16/10 01:05	100115-3	940093
7440-61-1	Uranium	1.67	mg/kg		0.0154	0.0466	0.0466	2	MS	SKJ	01/16/10 01:05	100115-3	940093
7440-62-2	Vanadium	30400	ug/Kg		116	580	580	1	P	HSC	01/25/10 23:27	012510A-2	940180
7440-66-6	Zinc	29000	ug/Kg		383	1160	1160	1	P	HSC	01/25/10 23:27	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.512	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.514	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.511	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144002

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7618

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	15900000	ug/Kg		8160	24000	24000	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-36-0	Antimony	1200	ug/Kg	UN	396	1200	1200	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-38-2	Arsenic	2.54	mg/kg		0.247	1.23	1.23	2	MS	SKJ	01/16/10 01:49	100115-3	940093
7440-39-3	Barium	203000	ug/Kg		120	600	600	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-41-7	Beryllium	1.2	mg/kg		0.0247	0.123	0.123	2	MS	SKJ	01/16/10 01:49	100115-3	940093
7440-43-9	Cadmium	167	ug/Kg	J	120	600	600	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-70-2	Calcium	2490000	ug/Kg		9600	30000	30000	1	P	HSC	01/26/10 13:26	012610C-1	940180
7440-47-3	Chromium	14800	ug/Kg	*	180	600	600	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-48-4	Cobalt	6670	ug/Kg		180	600	600	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-50-8	Copper	7260	ug/Kg		360	1200	1200	1	P	HSC	01/26/10 00:02	012510A-2	940180
7439-89-6	Iron	16700000	ug/Kg		9600	30000	30000	1	P	HSC	01/26/10 00:02	012510A-2	940180
7439-92-1	Lead	14700	ug/Kg		300	1200	1200	1	P	HSC	01/26/10 00:02	012510A-2	940180
7439-95-4	Magnesium	2800000	ug/Kg	N	10200	36000	36000	1	P	HSC	01/26/10 13:26	012610C-1	940180
7439-96-5	Manganese	394000	ug/Kg		240	1200	1200	1	P	HSC	01/26/10 00:02	012510A-2	940180
7439-97-6	Mercury	15.1	ug/kg		4.75	14	14	1	AV	JXL1	01/26/10 10:27	012610S1-5	943271
7440-02-0	Nickel	8.25	mg/kg	N	0.123	0.493	0.493	2	MS	SKJ	01/18/10 16:23	100118-4	940093
7440-09-7	Potassium	2360000	ug/Kg	N	7680	30000	30000	1	P	HSC	01/26/10 13:26	012610C-1	940180
7782-49-2	Selenium	1.23	mg/kg	U	0.617	1.23	1.23	2	MS	SKJ	01/16/10 01:49	100115-3	940093
7440-22-4	Silver	645	ug/Kg		120	600	600	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-23-5	Sodium	106000	ug/Kg		8400	30000	30000	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-28-0	Thallium	0.245	mg/kg	J	0.074	0.247	0.247	2	MS	SKJ	01/16/10 01:49	100115-3	940093
7440-61-1	Uranium	0.886	mg/kg		0.0163	0.0493	0.0493	2	MS	SKJ	01/16/10 01:49	100115-3	940093
7440-62-2	Vanadium	30100	ug/Kg		120	600	600	1	P	HSC	01/26/10 00:02	012510A-2	940180
7440-66-6	Zinc	32900	ug/Kg		396	1200	1200	1	P	HSC	01/26/10 00:02	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.5	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.514	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.53	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144003

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7623

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11400000	ug/Kg		7820	23000	23000	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-36-0	Antimony	1150	ug/Kg	UN	379	1150	1150	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-38-2	Arsenic	2	mg/kg		0.233	1.17	1.17	2	MS	SKJ	01/16/10 01:55	100115-3	940093
7440-39-3	Barium	346000	ug/Kg		115	575	575	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-41-7	Beryllium	0.908	mg/kg		0.0233	0.117	0.117	2	MS	SKJ	01/16/10 01:55	100115-3	940093
7440-43-9	Cadmium	241	ug/Kg	J	115	575	575	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-70-2	Calcium	2410000	ug/Kg		9190	28700	28700	1	P	HSC	01/26/10 13:37	012610C-1	940180
7440-47-3	Chromium	20000	ug/Kg	*	172	575	575	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-48-4	Cobalt	6450	ug/Kg		172	575	575	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-50-8	Copper	14300	ug/Kg		345	1150	1150	1	P	HSC	01/26/10 00:24	012510A-2	940180
7439-89-6	Iron	13300000	ug/Kg		9190	28700	28700	1	P	HSC	01/26/10 00:24	012510A-2	940180
7439-92-1	Lead	16300	ug/Kg		287	1150	1150	1	P	HSC	01/26/10 00:24	012510A-2	940180
7439-95-4	Magnesium	1980000	ug/Kg	N	9770	34500	34500	1	P	HSC	01/26/10 13:37	012610C-1	940180
7439-96-5	Manganese	467000	ug/Kg		230	1150	1150	1	P	HSC	01/26/10 00:24	012510A-2	940180
7439-97-6	Mercury	12.5	ug/kg	J	4.49	13.2	13.2	1	AV	JXLI	01/26/10 10:29	012610S1-5	943271
7440-02-0	Nickel	7.79	mg/kg	N	0.117	0.466	0.466	2	MS	SKJ	01/18/10 16:30	100118-4	940093
7440-09-7	Potassium	1940000	ug/Kg	N	7360	28700	28700	1	P	HSC	01/26/10 13:37	012610C-1	940180
7782-49-2	Selenium	1.17	mg/kg	U	0.583	1.17	1.17	2	MS	SKJ	01/16/10 01:55	100115-3	940093
7440-22-4	Silver	682	ug/Kg		115	575	575	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-23-5	Sodium	62700	ug/Kg		8050	28700	28700	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-28-0	Thallium	0.215	mg/kg	J	0.0699	0.233	0.233	2	MS	SKJ	01/16/10 01:55	100115-3	940093
7440-61-1	Uranium	2.5	mg/kg		0.0154	0.0466	0.0466	2	MS	SKJ	01/16/10 01:55	100115-3	940093
7440-62-2	Vanadium	25900	ug/Kg		115	575	575	1	P	HSC	01/26/10 00:24	012510A-2	940180
7440-66-6	Zinc	36400	ug/Kg		379	1150	1150	1	P	HSC	01/26/10 00:24	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.507	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.514	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.537	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144004

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7622

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 91

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	16000000	ug/Kg		7200	21200	21200	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-36-0	Antimony	1060	ug/Kg	UN	349	1060	1060	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-38-2	Arsenic	2.34	mg/kg		0.213	1.06	1.06	2	MS	SKJ	01/16/10 02:01	100115-3	940093
7440-39-3	Barium	210000	ug/Kg		106	529	529	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-41-7	Beryllium	1.04	mg/kg		0.0213	0.106	0.106	2	MS	SKJ	01/16/10 02:01	100115-3	940093
7440-43-9	Cadmium	284	ug/Kg	J	106	529	529	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-70-2	Calcium	2120000	ug/Kg		8470	26500	26500	1	P	HSC	01/26/10 13:41	012610C-1	940180
7440-47-3	Chromium	11900	ug/Kg	*	159	529	529	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-48-4	Cobalt	6090	ug/Kg		159	529	529	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-50-8	Copper	6980	ug/Kg		318	1060	1060	1	P	HSC	01/26/10 00:31	012510A-2	940180
7439-89-6	Iron	14400000	ug/Kg		8470	26500	26500	1	P	HSC	01/26/10 00:31	012510A-2	940180
7439-92-1	Lead	14600	ug/Kg		265	1060	1060	1	P	HSC	01/26/10 00:31	012510A-2	940180
7439-95-4	Magnesium	2380000	ug/Kg	N	9000	31800	31800	1	P	HSC	01/26/10 13:41	012610C-1	940180
7439-96-5	Manganese	372000	ug/Kg		212	1060	1060	1	P	HSC	01/26/10 00:31	012510A-2	940180
7439-97-6	Mercury	15.8	ug/kg		4.3	12.7	12.7	1	AV	JXL1	01/26/10 10:30	012610S1-5	943271
7440-02-0	Nickel	7.27	mg/kg	N	0.106	0.425	0.425	2	MS	SKJ	01/18/10 16:32	100118-4	940093
7440-09-7	Potassium	1950000	ug/Kg	N	6770	26500	26500	1	P	HSC	01/26/10 13:41	012610C-1	940180
7782-49-2	Selenium	1.06	mg/kg	U	0.531	1.06	1.06	2	MS	SKJ	01/16/10 02:01	100115-3	940093
7440-22-4	Silver	312	ug/Kg	J	106	529	529	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-23-5	Sodium	87800	ug/Kg		7410	26500	26500	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-28-0	Thallium	0.208	mg/kg	J	0.0638	0.213	0.213	2	MS	SKJ	01/16/10 02:01	100115-3	940093
7440-61-1	Uranium	0.875	mg/kg		0.014	0.0425	0.0425	2	MS	SKJ	01/16/10 02:01	100115-3	940093
7440-62-2	Vanadium	29800	ug/Kg		106	529	529	1	P	HSC	01/26/10 00:31	012510A-2	940180
7440-66-6	Zinc	27700	ug/Kg		349	1060	1060	1	P	HSC	01/26/10 00:31	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.517	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.519	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.521	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144005

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7621

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 92.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10100000	ug/Kg		7200	21200	21200	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-36-0	Antimony	1060	ug/Kg	UN	349	1060	1060	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-38-2	Arsenic	1.43	mg/kg		0.214	1.07	1.07	2	MS	SKJ	01/16/10 02:20	100115-3	940093
7440-39-3	Barium	503000	ug/Kg		106	529	529	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-41-7	Beryllium	0.728	mg/kg		0.0214	0.107	0.107	2	MS	SKJ	01/16/10 02:20	100115-3	940093
7440-43-9	Cadmium	200	ug/Kg	J	106	529	529	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-70-2	Calcium	1790000	ug/Kg		8470	26500	26500	1	P	HSC	01/26/10 13:45	012610C-1	940180
7440-47-3	Chromium	14200	ug/Kg	*	159	529	529	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-48-4	Cobalt	5200	ug/Kg		159	529	529	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-50-8	Copper	29000	ug/Kg		318	1060	1060	1	P	HSC	01/26/10 00:38	012510A-2	940180
7439-89-6	Iron	12100000	ug/Kg		8470	26500	26500	1	P	HSC	01/26/10 00:38	012510A-2	940180
7439-92-1	Lead	20200	ug/Kg		265	1060	1060	1	P	HSC	01/26/10 00:38	012510A-2	940180
7439-95-4	Magnesium	1640000	ug/Kg	N	9000	31800	31800	1	P	HSC	01/26/10 13:45	012610C-1	940180
7439-96-5	Manganese	386000	ug/Kg		212	1060	1060	1	P	HSC	01/26/10 00:38	012510A-2	940180
7439-97-6	Mercury	6.98	ug/kg	J	4.35	12.8	12.8	1	AV	JXL1	01/26/10 10:32	012610S1-5	943271
7440-02-0	Nickel	6.38	mg/kg	N	0.107	0.428	0.428	2	MS	SKJ	01/18/10 16:35	100118-4	940093
7440-09-7	Potassium	1470000	ug/Kg	N	6770	26500	26500	1	P	HSC	01/26/10 13:45	012610C-1	940180
7782-49-2	Selenium	1.07	mg/kg	U	0.536	1.07	1.07	2	MS	SKJ	01/16/10 02:20	100115-3	940093
7440-22-4	Silver	456	ug/Kg	J	106	529	529	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-23-5	Sodium	72500	ug/Kg		7410	26500	26500	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-28-0	Thallium	0.168	mg/kg	J	0.0643	0.214	0.214	2	MS	SKJ	01/16/10 02:20	100115-3	940093
7440-61-1	Uranium	1.72	mg/kg		0.0141	0.0428	0.0428	2	MS	SKJ	01/16/10 02:20	100115-3	940093
7440-62-2	Vanadium	23600	ug/Kg		106	529	529	1	P	HSC	01/26/10 00:38	012510A-2	940180
7440-66-6	Zinc	30500	ug/Kg		349	1060	1060	1	P	HSC	01/26/10 00:38	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.505	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.511	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.507	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144006

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7617

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 90.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10800000	ug/Kg		7250	21300	21300	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-36-0	Antimony	1070	ug/Kg	UN	352	1070	1070	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-38-2	Arsenic	2.25	mg/kg		0.219	1.1	1.1	2	MS	SKJ	01/16/10 02:26	100115-3	940093
7440-39-3	Barium	197000	ug/Kg		107	533	533	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-41-7	Beryllium	0.940	mg/kg		0.0219	0.11	0.11	2	MS	SKJ	01/16/10 02:26	100115-3	940093
7440-43-9	Cadmium	224	ug/Kg	J	107	533	533	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-70-2	Calcium	2100000	ug/Kg		8520	26600	26600	1	P	HSC	01/26/10 13:48	012610C-1	940180
7440-47-3	Chromium	31300	ug/Kg	*	160	533	533	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-48-4	Cobalt	6180	ug/Kg		160	533	533	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-50-8	Copper	8170	ug/Kg		320	1070	1070	1	P	HSC	01/26/10 00:46	012510A-2	940180
7439-89-6	Iron	12200000	ug/Kg		8520	26600	26600	1	P	HSC	01/26/10 00:46	012510A-2	940180
7439-92-1	Lead	16400	ug/Kg		266	1070	1070	1	P	HSC	01/26/10 00:46	012510A-2	940180
7439-95-4	Magnesium	1910000	ug/Kg	N	9060	32000	32000	1	P	HSC	01/26/10 13:48	012610C-1	940180
7439-96-5	Manganese	475000	ug/Kg		213	1070	1070	1	P	HSC	01/26/10 00:46	012510A-2	940180
7439-97-6	Mercury	11.6	ug/kg	J	4.2	12.4	12.4	1	AV	JXL1	01/26/10 10:34	012610S1-5	943271
7440-02-0	Nickel	9	mg/kg	N	0.11	0.438	0.438	2	MS	SKJ	01/18/10 16:37	100118-4	940093
7440-09-7	Potassium	1790000	ug/Kg	N	6820	26600	26600	1	P	HSC	01/26/10 13:48	012610C-1	940180
7782-49-2	Selenium	1.1	mg/kg	U	0.548	1.1	1.1	2	MS	SKJ	01/16/10 02:26	100115-3	940093
7440-22-4	Silver	482	ug/Kg	J	107	533	533	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-23-5	Sodium	60000	ug/Kg		7460	26600	26600	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-28-0	Thallium	0.20	mg/kg	J	0.0657	0.219	0.219	2	MS	SKJ	01/16/10 02:26	100115-3	940093
7440-61-1	Uranium	2.59	mg/kg		0.0145	0.0438	0.0438	2	MS	SKJ	01/16/10 02:26	100115-3	940093
7440-62-2	Vanadium	25700	ug/Kg		107	533	533	1	P	HSC	01/26/10 00:46	012510A-2	940180
7440-66-6	Zinc	23900	ug/Kg		352	1070	1070	1	P	HSC	01/26/10 00:46	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.503	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.517	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.535	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144007

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7620

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	18500000	ug/Kg		7460	22000	22000	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-36-0	Antimony	1100	ug/Kg	UN	362	1100	1100	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-38-2	Arsenic	2.34	mg/kg		0.225	1.13	1.13	2	MS	SKJ	01/16/10 02:33	100115-3	940093
7440-39-3	Barium	242000	ug/Kg		110	549	549	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-41-7	Beryllium	1.3	mg/kg		0.0225	0.113	0.113	2	MS	SKJ	01/16/10 02:33	100115-3	940093
7440-43-9	Cadmium	262	ug/Kg	J	110	549	549	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-70-2	Calcium	2570000	ug/Kg		8780	27400	27400	1	P	HSC	01/26/10 13:52	012610C-1	940180
7440-47-3	Chromium	12100	ug/Kg	*	165	549	549	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-48-4	Cobalt	6660	ug/Kg		165	549	549	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-50-8	Copper	7590	ug/Kg		329	1100	1100	1	P	HSC	01/26/10 00:53	012510A-2	940180
7439-89-6	Iron	15700000	ug/Kg		8780	27400	27400	1	P	HSC	01/26/10 00:53	012510A-2	940180
7439-92-1	Lead	15600	ug/Kg		274	1100	1100	1	P	HSC	01/26/10 00:53	012510A-2	940180
7439-95-4	Magnesium	2520000	ug/Kg	N	9330	32900	32900	1	P	HSC	01/26/10 13:52	012610C-1	940180
7439-96-5	Manganese	414000	ug/Kg		220	1100	1100	1	P	HSC	01/26/10 00:53	012510A-2	940180
7439-97-6	Mercury	17.1	ug/kg		4.28	12.6	12.6	1	AV	JXL1	01/26/10 10:35	012610S1-5	943271
7440-02-0	Nickel	8.59	mg/kg	N	0.113	0.451	0.451	2	MS	SKJ	01/18/10 16:39	100118-4	940093
7440-09-7	Potassium	2080000	ug/Kg	N	7030	27400	27400	1	P	HSC	01/26/10 13:52	012610C-1	940180
7782-49-2	Selenium	1.13	mg/kg	U	0.563	1.13	1.13	2	MS	SKJ	01/16/10 02:33	100115-3	940093
7440-22-4	Silver	594	ug/Kg		110	549	549	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-23-5	Sodium	97300	ug/Kg		7680	27400	27400	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-28-0	Thallium	0.239	mg/kg		0.0676	0.225	0.225	2	MS	SKJ	01/16/10 02:33	100115-3	940093
7440-61-1	Uranium	1.33	mg/kg		0.0149	0.0451	0.0451	2	MS	SKJ	01/16/10 02:33	100115-3	940093
7440-62-2	Vanadium	30900	ug/Kg		110	549	549	1	P	HSC	01/26/10 00:53	012510A-2	940180
7440-66-6	Zinc	28800	ug/Kg		362	1100	1100	1	P	HSC	01/26/10 00:53	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.5	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.513	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.537	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144008

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7624

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 91.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M+	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13300000	ug/Kg		7320	21500	21500	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-36-0	Antimony	1080	ug/Kg	UN	355	1080	1080	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-38-2	Arsenic	2.13	mg/kg		0.215	1.08	1.08	2	MS	SKJ	01/16/10 02:39	100115-3	940093
7440-39-3	Barium	249000	ug/Kg		108	539	539	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-41-7	Beryllium	0.979	mg/kg		0.0215	0.108	0.108	2	MS	SKJ	01/16/10 02:39	100115-3	940093
7440-43-9	Cadmium	230	ug/Kg	J	108	539	539	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-70-2	Calcium	2810000	ug/Kg		8620	26900	26900	1	P	HSC	01/26/10 13:56	012610C-1	940180
7440-47-3	Chromium	13500	ug/Kg	*	162	539	539	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-48-4	Cobalt	6720	ug/Kg		162	539	539	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-50-8	Copper	7270	ug/Kg		323	1080	1080	1	P	HSC	01/26/10 01:00	012510A-2	940180
7439-89-6	Iron	13800000	ug/Kg		8620	26900	26900	1	P	HSC	01/26/10 01:00	012510A-2	940180
7439-92-1	Lead	14300	ug/Kg		269	1080	1080	1	P	HSC	01/26/10 01:00	012510A-2	940180
7439-95-4	Magnesium	2250000	ug/Kg	N	9160	32300	32300	1	P	HSC	01/26/10 13:56	012610C-1	940180
7439-96-5	Manganese	443000	ug/Kg		215	1080	1080	1	P	HSC	01/26/10 01:00	012510A-2	940180
7439-97-6	Mercury	11.6	ug/kg	J	4.16	12.2	12.2	1	AV	JXL1	01/26/10 10:37	012610S1-5	943271
7440-02-0	Nickel	7.68	mg/kg	N	0.108	0.431	0.431	2	MS	SKJ	01/18/10 16:46	100118-4	940093
7440-09-7	Potassium	1880000	ug/Kg	N	6890	26900	26900	1	P	HSC	01/26/10 13:56	012610C-1	940180
7782-49-2	Selenium	1.08	mg/kg	U	0.539	1.08	1.08	2	MS	SKJ	01/16/10 02:39	100115-3	940093
7440-22-4	Silver	517	ug/Kg	J	108	539	539	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-23-5	Sodium	82900	ug/Kg		7540	26900	26900	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-28-0	Thallium	0.213	mg/kg	J	0.0646	0.215	0.215	2	MS	SKJ	01/16/10 02:39	100115-3	940093
7440-61-1	Uranium	1.53	mg/kg		0.0142	0.0431	0.0431	2	MS	SKJ	01/16/10 02:39	100115-3	940093
7440-62-2	Vanadium	28100	ug/Kg		108	539	539	1	P	HSC	01/26/10 01:00	012510A-2	940180
7440-66-6	Zinc	28500	ug/Kg		355	1080	1080	1	P	HSC	01/26/10 01:00	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.507	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.507	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.536	g	30	mL	01/25/10	TXB3



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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144009

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7630

LEVEL: Low

DATE RECEIVED 08-JAN-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	19400000	ug/Kg		7460	22000	22000	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-36-0	Antimony	1100	ug/Kg	UN	362	1100	1100	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-38-2	Arsenic	2.47	mg/kg		0.227	1.14	1.14	2	MS	SKJ	01/16/10 02:45	100115-3	940093
7440-39-3	Barium	218000	ug/Kg		110	549	549	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-41-7	Beryllium	1.22	mg/kg		0.0227	0.114	0.114	2	MS	SKJ	01/16/10 02:45	100115-3	940093
7440-43-9	Cadmium	152	ug/Kg	J	110	549	549	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-70-2	Calcium	2580000	ug/Kg		8780	27400	27400	1	P	HSC	01/26/10 13:59	012610C-1	940180
7440-47-3	Chromium	11400	ug/Kg	*	165	549	549	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-48-4	Cobalt	4800	ug/Kg		165	549	549	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-50-8	Copper	7570	ug/Kg		329	1100	1100	1	P	HSC	01/26/10 01:07	012510A-2	940180
7439-89-6	Iron	14900000	ug/Kg		8780	27400	27400	1	P	HSC	01/26/10 01:07	012510A-2	940180
7439-92-1	Lead	14000	ug/Kg		274	1100	1100	1	P	HSC	01/26/10 01:07	012510A-2	940180
7439-95-4	Magnesium	2710000	ug/Kg	N	9330	32900	32900	1	P	HSC	01/26/10 13:59	012610C-1	940180
7439-96-5	Manganese	288000	ug/Kg		220	1100	1100	1	P	HSC	01/26/10 01:07	012510A-2	940180
7439-97-6	Mercury	21.9	ug/kg		4.17	12.3	12.3	1	AV	JXL1	01/26/10 10:42	012610S1-5	943271
7440-02-0	Nickel	8.64	mg/kg	N	0.114	0.455	0.455	2	MS	SKJ	01/18/10 16:48	100118-4	940093
7440-09-7	Potassium	2110000	ug/Kg	N	7020	27400	27400	1	P	HSC	01/26/10 13:59	012610C-1	940180
7782-49-2	Selenium	1.14	mg/kg	U	0.568	1.14	1.14	2	MS	SKJ	01/16/10 02:45	100115-3	940093
7440-22-4	Silver	557	ug/Kg		110	549	549	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-23-5	Sodium	133000	ug/Kg		7680	27400	27400	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-28-0	Thallium	0.231	mg/kg		0.0682	0.227	0.227	2	MS	SKJ	01/16/10 02:45	100115-3	940093
7440-61-1	Uranium	0.983	mg/kg		0.015	0.0455	0.0455	2	MS	SKJ	01/16/10 02:45	100115-3	940093
7440-62-2	Vanadium	26300	ug/Kg		110	549	549	1	P	HSC	01/26/10 01:07	012510A-2	940180
7440-66-6	Zinc	29100	ug/Kg		362	1100	1100	1	P	HSC	01/26/10 01:07	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.502	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.52	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.559	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144010

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7628

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	15000000	ug/Kg		7250	21300	21300	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-36-0	Antimony	1070	ug/Kg	UN	352	1070	1070	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-38-2	Arsenic	2.29	mg/kg		0.219	1.09	1.09	2	MS	SKJ	01/16/10 03:04	100115-3	940093
7440-39-3	Barium	228000	ug/Kg		107	533	533	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-41-7	Beryllium	1.1	mg/kg		0.0219	0.109	0.109	2	MS	SKJ	01/16/10 03:04	100115-3	940093
7440-43-9	Cadmium	255	ug/Kg	J	107	533	533	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-70-2	Calcium	2480000	ug/Kg		8530	26700	26700	1	P	HSC	01/26/10 14:03	012610C-1	940180
7440-47-3	Chromium	13100	ug/Kg	*	160	533	533	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-48-4	Cobalt	6910	ug/Kg		160	533	533	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-50-8	Copper	7140	ug/Kg		320	1070	1070	1	P	HSC	01/26/10 01:14	012510A-2	940180
7439-89-6	Iron	15300000	ug/Kg		8530	26700	26700	1	P	HSC	01/26/10 01:14	012510A-2	940180
7439-92-1	Lead	14900	ug/Kg		267	1070	1070	1	P	HSC	01/26/10 01:14	012510A-2	940180
7439-95-4	Magnesium	2480000	ug/Kg	N	9070	32000	32000	1	P	HSC	01/26/10 14:03	012610C-1	940180
7439-96-5	Manganese	433000	ug/Kg		213	1070	1070	1	P	HSC	01/26/10 01:14	012510A-2	940180
7439-97-6	Mercury	9.72	ug/kg	J	4.44	13	13	1	AV	JXL1	01/26/10 10:44	012610S1-5	943271
7440-02-0	Nickel	7.84	mg/kg	N	0.109	0.437	0.437	2	MS	SKJ	01/18/10 16:50	100118-4	940093
7440-09-7	Potassium	2210000	ug/Kg	N	6830	26700	26700	1	P	HSC	01/26/10 14:03	012610C-1	940180
7782-49-2	Selenium	1.09	mg/kg	U	0.547	1.09	1.09	2	MS	SKJ	01/16/10 03:04	100115-3	940093
7440-22-4	Silver	606	ug/Kg		107	533	533	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-23-5	Sodium	74200	ug/Kg		7470	26700	26700	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-28-0	Thallium	0.222	mg/kg		0.0656	0.219	0.219	2	MS	SKJ	01/16/10 03:04	100115-3	940093
7440-61-1	Uranium	1.13	mg/kg		0.0144	0.0437	0.0437	2	MS	SKJ	01/16/10 03:04	100115-3	940093
7440-62-2	Vanadium	31500	ug/Kg		107	533	533	1	P	HSC	01/26/10 01:14	012510A-2	940180
7440-66-6	Zinc	28400	ug/Kg		352	1070	1070	1	P	HSC	01/26/10 01:14	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.51	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.523	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.513	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144011

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7632

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 90.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	14100000	ug/Kg		7330	21600	21600	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-36-0	Antimony	1080	ug/Kg	UN	356	1080	1080	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-38-2	Arsenic	2.25	mg/kg		0.219	1.09	1.09	2	MS	SKJ	01/16/10 03:10	100115-3	940093
7440-39-3	Barium	219000	ug/Kg		108	539	539	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-41-7	Beryllium	1.01	mg/kg		0.0219	0.109	0.109	2	MS	SKJ	01/16/10 03:10	100115-3	940093
7440-43-9	Cadmium	209	ug/Kg	J	108	539	539	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-70-2	Calcium	2230000	ug/Kg		8620	27000	27000	1	P	HSC	01/26/10 14:14	012610C-1	940180
7440-47-3	Chromium	11600	ug/Kg	*	162	539	539	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-48-4	Cobalt	6090	ug/Kg		162	539	539	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-50-8	Copper	7050	ug/Kg		323	1080	1080	1	P	HSC	01/26/10 01:36	012510A-2	940180
7439-89-6	Iron	15200000	ug/Kg		8620	27000	27000	1	P	HSC	01/26/10 01:36	012510A-2	940180
7439-92-1	Lead	13400	ug/Kg		270	1080	1080	1	P	HSC	01/26/10 01:36	012510A-2	940180
7439-95-4	Magnesium	2530000	ug/Kg	N	9160	32300	32300	1	P	HSC	01/26/10 14:14	012610C-1	940180
7439-96-5	Manganese	370000	ug/Kg		216	1080	1080	1	P	HSC	01/26/10 01:36	012510A-2	940180
7439-97-6	Mercury	14.7	ug/kg		4.19	12.3	12.3	1	AV	JXL1	01/26/10 10:45	012610S1-5	943271
7440-02-0	Nickel	7.77	mg/kg	N	0.109	0.437	0.437	2	MS	SKJ	01/18/10 16:53	100118-4	940093
7440-09-7	Potassium	2190000	ug/Kg	N	6900	27000	27000	1	P	HSC	01/26/10 14:14	012610C-1	940180
7782-49-2	Selenium	1.09	mg/kg	U	0.547	1.09	1.09	2	MS	SKJ	01/16/10 03:10	100115-3	940093
7440-22-4	Silver	579	ug/Kg		108	539	539	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-23-5	Sodium	94800	ug/Kg		7550	27000	27000	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-28-0	Thallium	0.210	mg/kg	J	0.0656	0.219	0.219	2	MS	SKJ	01/16/10 03:10	100115-3	940093
7440-61-1	Uranium	0.810	mg/kg		0.0144	0.0437	0.0437	2	MS	SKJ	01/16/10 03:10	100115-3	940093
7440-62-2	Vanadium	29300	ug/Kg		108	539	539	1	P	HSC	01/26/10 01:36	012510A-2	940180
7440-66-6	Zinc	29600	ug/Kg		356	1080	1080	1	P	HSC	01/26/10 01:36	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.504	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.511	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.536	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144012

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7629

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9800000	ug/Kg		8200	24100	24100	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-36-0	Antimony	886	ug/Kg	JN	398	1210	1210	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-38-2	Arsenic	2.12	mg/kg		0.244	1.22	1.22	2	MS	SKJ	01/16/10 03:16	100115-3	940093
7440-39-3	Barium	207000	ug/Kg		121	603	603	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-41-7	Beryllium	0.858	mg/kg		0.0244	0.122	0.122	2	MS	SKJ	01/16/10 03:16	100115-3	940093
7440-43-9	Cadmium	191	ug/Kg	J	121	603	603	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-70-2	Calcium	2140000	ug/Kg		9650	30200	30200	1	P	HSC	01/26/10 14:18	012610C-1	940180
7440-47-3	Chromium	74300	ug/Kg	*	181	603	603	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-48-4	Cobalt	5470	ug/Kg		181	603	603	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-50-8	Copper	9110	ug/Kg		362	1210	1210	1	P	HSC	01/26/10 01:43	012510A-2	940180
7439-89-6	Iron	12000000	ug/Kg		9650	30200	30200	1	P	HSC	01/26/10 01:43	012510A-2	940180
7439-92-1	Lead	13000	ug/Kg		302	1210	1210	1	P	HSC	01/26/10 01:43	012510A-2	940180
7439-95-4	Magnesium	1820000	ug/Kg	N	10300	36200	36200	1	P	HSC	01/26/10 14:18	012610C-1	940180
7439-96-5	Manganese	362000	ug/Kg		241	1210	1210	1	P	HSC	01/26/10 01:43	012510A-2	940180
7439-97-6	Mercury	7.12	ug/kg	J	4.74	14	14	1	AV	JXL1	01/26/10 10:47	012610S1-5	943271
7440-02-0	Nickel	8.87	mg/kg	N	0.122	0.487	0.487	2	MS	SKJ	01/18/10 16:55	100118-4	940093
7440-09-7	Potassium	1920000	ug/Kg	N	7720	30200	30200	1	P	HSC	01/26/10 14:18	012610C-1	940180
7782-49-2	Selenium	1.22	mg/kg	U	0.609	1.22	1.22	2	MS	SKJ	01/16/10 03:16	100115-3	940093
7440-22-4	Silver	594	ug/Kg	J	121	603	603	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-23-5	Sodium	66800	ug/Kg		8450	30200	30200	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-28-0	Thallium	0.166	mg/kg	J	0.0731	0.244	0.244	2	MS	SKJ	01/16/10 03:16	100115-3	940093
7440-61-1	Uranium	3.59	mg/kg		0.0161	0.0487	0.0487	2	MS	SKJ	01/16/10 03:16	100115-3	940093
7440-62-2	Vanadium	23200	ug/Kg		121	603	603	1	P	HSC	01/26/10 01:43	012510A-2	940180
7440-66-6	Zinc	37300	ug/Kg		398	1210	1210	1	P	HSC	01/26/10 01:43	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.502	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.507	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.526	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144013

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7626

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	16700000	ug/Kg		7410	21800	21800	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-36-0	Antimony	1090	ug/Kg	UN	359	1090	1090	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-38-2	Arsenic	2.17	mg/kg		0.218	1.09	1.09	2	MS	SKJ	01/16/10 03:23	100115-3	940093
7440-39-3	Barium	225000	ug/Kg		109	545	545	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-41-7	Beryllium	1.08	mg/kg		0.0218	0.109	0.109	2	MS	SKJ	01/16/10 03:23	100115-3	940093
7440-43-9	Cadmium	255	ug/Kg	J	109	545	545	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-70-2	Calcium	2460000	ug/Kg		8710	27200	27200	1	P	HSC	01/26/10 14:22	012610C-1	940180
7440-47-3	Chromium	12300	ug/Kg	*	163	545	545	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-48-4	Cobalt	6510	ug/Kg		163	545	545	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-50-8	Copper	7120	ug/Kg		327	1090	1090	1	P	HSC	01/26/10 01:50	012510A-2	940180
7439-89-6	Iron	15400000	ug/Kg		8710	27200	27200	1	P	HSC	01/26/10 01:50	012510A-2	940180
7439-92-1	Lead	14700	ug/Kg		272	1090	1090	1	P	HSC	01/26/10 01:50	012510A-2	940180
7439-95-4	Magnesium	2430000	ug/Kg	N	9260	32700	32700	1	P	HSC	01/26/10 14:22	012610C-1	940180
7439-96-5	Manganese	415000	ug/Kg		218	1090	1090	1	P	HSC	01/26/10 01:50	012510A-2	940180
7439-97-6	Mercury	15	ug/kg		4.33	12.7	12.7	1	AV	JXLI	01/26/10 10:49	012610S1-5	943271
7440-02-0	Nickel	8.02	mg/kg	N	0.109	0.436	0.436	2	MS	SKJ	01/18/10 17:02	100118-4	940093
7440-09-7	Potassium	2070000	ug/Kg	N	6970	27200	27200	1	P	HSC	01/26/10 14:22	012610C-1	940180
7782-49-2	Selenium	1.09	mg/kg	U	0.545	1.09	1.09	2	MS	SKJ	01/16/10 03:23	100115-3	940093
7440-22-4	Silver	500	ug/Kg	J	109	545	545	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-23-5	Sodium	84900	ug/Kg		7630	27200	27200	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-28-0	Thallium	0.217	mg/kg	J	0.0654	0.218	0.218	2	MS	SKJ	01/16/10 03:23	100115-3	940093
7440-61-1	Uranium	0.879	mg/kg		0.0144	0.0436	0.0436	2	MS	SKJ	01/16/10 03:23	100115-3	940093
7440-62-2	Vanadium	30200	ug/Kg		109	545	545	1	P	HSC	01/26/10 01:50	012510A-2	940180
7440-66-6	Zinc	29100	ug/Kg		359	1090	1090	1	P	HSC	01/26/10 01:50	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.51	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.51	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.523	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144014

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7631

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Rnn	Analytical Batch
7429-90-5	Aluminum	10500000	ug/Kg		8140	24000	24000	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-36-0	Antimony	955	ug/Kg	JN	395	1200	1200	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-38-2	Arsenic	2.46	mg/kg		0.238	1.19	1.19	2	MS	SKJ	01/16/10 03:29	100115-3	940093
7440-39-3	Barium	200000	ug/Kg		120	599	599	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-41-7	Beryllium	0.915	mg/kg		0.0238	0.119	0.119	2	MS	SKJ	01/16/10 03:29	100115-3	940093
7440-43-9	Cadmium	228	ug/Kg	J	120	599	599	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-70-2	Calcium	2260000	ug/Kg		9580	29900	29900	1	P	HSC	01/26/10 14:25	012610C-1	940180
7440-47-3	Chromium	56800	ug/Kg	*	180	599	599	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-48-4	Cobalt	6570	ug/Kg		180	599	599	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-50-8	Copper	7530	ug/Kg		359	1200	1200	1	P	HSC	01/26/10 01:58	012510A-2	940180
7439-89-6	Iron	13900000	ug/Kg		9580	29900	29900	1	P	HSC	01/26/10 01:58	012510A-2	940180
7439-92-1	Lead	15300	ug/Kg		299	1200	1200	1	P	HSC	01/26/10 01:58	012510A-2	940180
7439-95-4	Magnesium	1930000	ug/Kg	N	10200	35900	35900	1	P	HSC	01/26/10 14:25	012610C-1	940180
7439-96-5	Manganese	465000	ug/Kg		240	1200	1200	1	P	HSC	01/26/10 01:58	012510A-2	940180
7439-97-6	Mercury	12.4	ug/kg	J	4.87	14.3	14.3	1	AV	JXL1	01/26/10 10:50	012610S1-5	943271
7440-02-0	Nickel	11.3	mg/kg	N	0.119	0.476	0.476	2	MS	SKJ	01/18/10 17:04	100118-4	940093
7440-09-7	Potassium	1860000	ug/Kg	N	7660	29900	29900	1	P	HSC	01/26/10 14:25	012610C-1	940180
7782-49-2	Selenium	1.19	mg/kg	U	0.595	1.19	1.19	2	MS	SKJ	01/16/10 03:29	100115-3	940093
7440-22-4	Silver	796	ug/Kg		120	599	599	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-23-5	Sodium	60700	ug/Kg		8380	29900	29900	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-28-0	Thallium	0.201	mg/kg	J	0.0714	0.238	0.238	2	MS	SKJ	01/16/10 03:29	100115-3	940093
7440-61-1	Uranium	1.92	mg/kg		0.0157	0.0476	0.0476	2	MS	SKJ	01/16/10 03:29	100115-3	940093
7440-62-2	Vanadium	28100	ug/Kg		120	599	599	1	P	HSC	01/26/10 01:58	012510A-2	940180
7440-66-6	Zinc	26700	ug/Kg		395	1200	1200	1	P	HSC	01/26/10 01:58	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.505	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.502	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.504	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144015

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7627

LEVEL: Low

DATE RECEIVED 08-JAN-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	9460000	ug/Kg		8830	26000	26000	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-36-0	Antimony	1300	ug/Kg	UN	429	1300	1300	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-38-2	Arsenic	2.21	mg/kg		0.25	1.25	1.25	2	MS	SKJ	01/16/10 03:47	100115-3	940093
7440-39-3	Barium	204000	ug/Kg		130	649	649	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-41-7	Beryllium	0.876	mg/kg		0.025	0.125	0.125	2	MS	SKJ	01/16/10 03:47	100115-3	940093
7440-43-9	Cadmium	275	ug/Kg	J	130	649	649	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-70-2	Calcium	2450000	ug/Kg		10400	32500	32500	1	P	HSC	01/26/10 14:29	012610C-1	940180
7440-47-3	Chromium	21400	ug/Kg	*	195	649	649	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-48-4	Cobalt	5800	ug/Kg		195	649	649	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-50-8	Copper	10700	ug/Kg		390	1300	1300	1	P	HSC	01/26/10 02:05	012510A-2	940180
7439-89-6	Iron	12200000	ug/Kg		10400	32500	32500	1	P	HSC	01/26/10 02:05	012510A-2	940180
7439-92-1	Lead	16000	ug/Kg		325	1300	1300	1	P	HSC	01/26/10 02:05	012510A-2	940180
7439-95-4	Magnesium	1860000	ug/Kg	N	11000	39000	39000	1	P	HSC	01/26/10 14:29	012610C-1	940180
7439-96-5	Manganese	427000	ug/Kg		260	1300	1300	1	P	HSC	01/26/10 02:05	012510A-2	940180
7439-97-6	Mercury	13.9	ug/kg		4.51	13.3	13.3	1	AV	JXL1	01/26/10 10:52	012610S1-5	943271
7440-02-0	Nickel	8.22	mg/kg	N	0.125	0.5	0.5	2	MS	SKJ	01/18/10 17:06	100118-4	940093
7440-09-7	Potassium	1960000	ug/Kg	N	8310	32500	32500	1	P	HSC	01/26/10 14:29	012610C-1	940180
7782-49-2	Selenium	1.25	mg/kg	U	0.625	1.25	1.25	2	MS	SKJ	01/16/10 03:47	100115-3	940093
7440-22-4	Silver	632	ug/Kg	J	130	649	649	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-23-5	Sodium	46500	ug/Kg		9090	32500	32500	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-28-0	Thallium	0.219	mg/kg	J	0.075	0.25	0.25	2	MS	SKJ	01/16/10 03:47	100115-3	940093
7440-61-1	Uranium	2.92	mg/kg		0.0165	0.05	0.05	2	MS	SKJ	01/16/10 03:47	100115-3	940093
7440-62-2	Vanadium	25400	ug/Kg		130	649	649	1	P	HSC	01/26/10 02:05	012510A-2	940180
7440-66-6	Zinc	28700	ug/Kg		429	1300	1300	1	P	HSC	01/26/10 02:05	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.525	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.505	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.593	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144016

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7625

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11000000	ug/Kg		8090	23800	23800	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-36-0	Antimony	1190	ug/Kg	UN	393	1190	1190	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-38-2	Arsenic	2.09	mg/kg		0.238	1.19	1.19	2	MS	SKJ	01/16/10 03:54	100115-3	940093
7440-39-3	Barium	197000	ug/Kg		119	595	595	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-41-7	Beryllium	1.07	mg/kg		0.0238	0.119	0.119	2	MS	SKJ	01/16/10 03:54	100115-3	940093
7440-43-9	Cadmium	281	ug/Kg	J	119	595	595	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-70-2	Calcium	2290000	ug/Kg		9520	29800	29800	1	P	HSC	01/26/10 14:33	012610C-1	940180
7440-47-3	Chromium	27200	ug/Kg	*	179	595	595	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-48-4	Cobalt	5690	ug/Kg		179	595	595	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-50-8	Copper	18500	ug/Kg		357	1190	1190	1	P	HSC	01/26/10 02:12	012510A-2	940180
7439-89-6	Iron	12300000	ug/Kg		9520	29800	29800	1	P	HSC	01/26/10 02:12	012510A-2	940180
7439-92-1	Lead	15600	ug/Kg		298	1190	1190	1	P	HSC	01/26/10 02:12	012510A-2	940180
7439-95-4	Magnesium	1810000	ug/Kg	N	10100	35700	35700	1	P	HSC	01/26/10 14:33	012610C-1	940180
7439-96-5	Manganese	411000	ug/Kg		238	1190	1190	1	P	HSC	01/26/10 02:12	012510A-2	940180
7439-97-6	Mercury	11.8	ug/kg	J	4.82	14.2	14.2	1	AV	JXLI	01/26/10 10:54	012610S1-5	943271
7440-02-0	Nickel	8.47	mg/kg	N	0.119	0.475	0.475	2	MS	SKJ	01/18/10 17:08	100118-4	940093
7440-09-7	Potassium	1820000	ug/Kg	N	7620	29800	29800	1	P	HSC	01/26/10 14:33	012610C-1	940180
7782-49-2	Selenium	1.19	mg/kg	U	0.594	1.19	1.19	2	MS	SKJ	01/16/10 03:54	100115-3	940093
7440-22-4	Silver	589	ug/Kg	J	119	595	595	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-23-5	Sodium	57000	ug/Kg		8330	29800	29800	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-28-0	Thallium	0.203	mg/kg	J	0.0713	0.238	0.238	2	MS	SKJ	01/16/10 03:54	100115-3	940093
7440-61-1	Uranium	1.68	mg/kg		0.0157	0.0475	0.0475	2	MS	SKJ	01/16/10 03:54	100115-3	940093
7440-62-2	Vanadium	24700	ug/Kg		119	595	595	1	P	HSC	01/26/10 02:12	012510A-2	940180
7440-66-6	Zinc	26900	ug/Kg		393	1190	1190	1	P	HSC	01/26/10 02:12	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.511	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.51	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.514	g	30	mL	01/25/10	TXB3



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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144017

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7656

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 92.4

CAS No.	Analyte	Result	Units	Qnal	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8490000	ug/Kg		7010	20600	20600	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-36-0	Antimony	1030	ug/Kg	UN	340	1030	1030	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-38-2	Arsenic	1.47	mg/kg		0.212	1.06	1.06	2	MS	SKJ	01/16/10 04:00	100115-3	940093
7440-39-3	Barium	469000	ug/Kg		103	515	515	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-41-7	Beryllium	0.819	mg/kg		0.0212	0.106	0.106	2	MS	SKJ	01/16/10 04:00	100115-3	940093
7440-43-9	Cadmium	175	ug/Kg	J	103	515	515	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-70-2	Calcium	1740000	ug/Kg		8240	25800	25800	1	P	HSC	01/26/10 14:36	012610C-1	940180
7440-47-3	Chromium	13000	ug/Kg	*	155	515	515	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-48-4	Cobalt	4610	ug/Kg		155	515	515	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-50-8	Copper	18900	ug/Kg		309	1030	1030	1	P	HSC	01/26/10 02:19	012510A-2	940180
7439-89-6	Iron	10900000	ug/Kg		8240	25800	25800	1	P	HSC	01/26/10 02:19	012510A-2	940180
7439-92-1	Lead	21700	ug/Kg		258	1030	1030	1	P	HSC	01/26/10 02:19	012510A-2	940180
7439-95-4	Magnesium	1410000	ug/Kg	N	8760	30900	30900	1	P	HSC	01/26/10 14:36	012610C-1	940180
7439-96-5	Manganese	350000	ug/Kg		206	1030	1030	1	P	HSC	01/26/10 02:19	012510A-2	940180
7439-97-6	Mercury	7.44	ug/kg	J	4.25	12.5	12.5	1	AV	JXL1	01/26/10 10:56	012610S1-5	943271
7440-02-0	Nickel	7.95	mg/kg	N	0.106	0.424	0.424	2	MS	SKJ	01/18/10 17:11	100118-4	940093
7440-09-7	Potassium	1310000	ug/Kg	N	6600	25800	25800	1	P	HSC	01/26/10 14:36	012610C-1	940180
7782-49-2	Selenium	1.06	mg/kg	U	0.53	1.06	1.06	2	MS	SKJ	01/16/10 04:00	100115-3	940093
7440-22-4	Silver	489	ug/Kg	J	103	515	515	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-23-5	Sodium	72800	ug/Kg		7210	25800	25800	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-28-0	Thallium	0.156	mg/kg	J	0.0636	0.212	0.212	2	MS	SKJ	01/16/10 04:00	100115-3	940093
7440-61-1	Uranium	1.56	mg/kg		0.014	0.0424	0.0424	2	MS	SKJ	01/16/10 04:00	100115-3	940093
7440-62-2	Vanadium	20700	ug/Kg		103	515	515	1	P	HSC	01/26/10 02:19	012510A-2	940180
7440-66-6	Zinc	27700	ug/Kg		340	1030	1030	1	P	HSC	01/26/10 02:19	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.51	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.525	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.519	g	30	mL	01/25/10	TXB3

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

SDG No: 10-1128

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244144018

BASIS: Dry Weight

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7655

LEVEL: Low

DATE RECEIVED 08-JAN-10

MATRIX: SOIL

%SOLIDS: 90.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	16600000	ug/Kg		7410	21800	21800	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-36-0	Antimony	1090	ug/Kg	UN	360	1090	1090	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-38-2	Arsenic	2.29	mg/kg		0.217	1.09	1.09	2	MS	SKJ	01/16/10 04:06	100115-3	940093
7440-39-3	Barium	248000	ug/Kg		109	545	545	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-41-7	Beryllium	1.18	mg/kg		0.0217	0.109	0.109	2	MS	SKJ	01/16/10 04:06	100115-3	940093
7440-43-9	Cadmium	286	ug/Kg	J	109	545	545	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-70-2	Calcium	2500000	ug/Kg		8720	27300	27300	1	P	HSC	01/26/10 14:40	012610C-1	940180
7440-47-3	Chromium	12300	ug/Kg	*	164	545	545	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-48-4	Cobalt	6010	ug/Kg		164	545	545	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-50-8	Copper	7020	ug/Kg		327	1090	1090	1	P	HSC	01/26/10 02:26	012510A-2	940180
7439-89-6	Iron	14500000	ug/Kg		8720	27300	27300	1	P	HSC	01/26/10 02:26	012510A-2	940180
7439-92-1	Lead	14700	ug/Kg		273	1090	1090	1	P	HSC	01/26/10 02:26	012510A-2	940180
7439-95-4	Magnesium	2480000	ug/Kg	N	9270	32700	32700	1	P	HSC	01/26/10 14:40	012610C-1	940180
7439-96-5	Manganese	383000	ug/Kg		218	1090	1090	1	P	HSC	01/26/10 02:26	012510A-2	940180
7439-97-6	Mercury	15.2	ug/kg		4.14	12.2	12.2	1	AV	JXL1	01/26/10 10:57	012610S1-5	943271
7440-02-0	Nickel	7.85	mg/kg	N	0.109	0.434	0.434	2	MS	SKJ	01/18/10 17:13	100118-4	940093
7440-09-7	Potassium	2200000	ug/Kg	N	6980	27300	27300	1	P	HSC	01/26/10 14:40	012610C-1	940180
7782-49-2	Selenium	1.09	mg/kg	U	0.543	1.09	1.09	2	MS	SKJ	01/16/10 04:06	100115-3	940093
7440-22-4	Silver	312	ug/Kg	J	109	545	545	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-23-5	Sodium	85600	ug/Kg		7630	27300	27300	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-28-0	Thallium	0.218	mg/kg		0.0652	0.217	0.217	2	MS	SKJ	01/16/10 04:06	100115-3	940093
7440-61-1	Uranium	0.988	mg/kg		0.0143	0.0434	0.0434	2	MS	SKJ	01/16/10 04:06	100115-3	940093
7440-62-2	Vanadium	29000	ug/Kg		109	545	545	1	P	HSC	01/26/10 02:26	012510A-2	940180
7440-66-6	Zinc	28500	ug/Kg		360	1090	1090	1	P	HSC	01/26/10 02:26	012510A-2	940180

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940093	940092	SW846 3050B	0.511	g	50	mL	01/12/10	AXG2
940180	940178	SW846 3050B	0.509	g	50	mL	01/12/10	AXG2
943271	943270	SW846 7471A Prep	0.547	g	30	mL	01/25/10	TXB3

# **Quality Control Summary**

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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										
	Arsenic	49.1	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	15-JAN-10 23:51	100115-3
	Beryllium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	15-JAN-10 23:51	100115-3
	Selenium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	15-JAN-10 23:51	100115-3
	Thallium	49.3	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	15-JAN-10 23:51	100115-3
	Uranium	53.5	ug/L	50	ug/L	107.1	90.0 – 110.0	MS	15-JAN-10 23:51	100115-3
	Nickel	46.9	ug/L	50	ug/L	93.8	90.0 – 110.0	MS	18-JAN-10 15:37	100118-4
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Antimony	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Cadmium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Chromium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Iron	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Lead	495	ug/L	500	ug/L	99	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Manganese	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Silver	258	ug/L	250	ug/L	103.3	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Sodium	2470	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	25-JAN-10 08:16	012510A-2
	Mercury	5.18	ug/L	5	ug/L	103.5	90.0 – 110.0	AV	26-JAN-10 09:13	012610S1-5
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	26-JAN-10 11:18	012610C-1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	26-JAN-10 11:18	012610C-1
	Potassium	2380	ug/L	2500	ug/L	95.2	90.0 – 110.0	P	26-JAN-10 11:18	012610C-1
CCV01										
	Arsenic	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	16-JAN-10 00:22	100115-3
	Beryllium	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	16-JAN-10 00:22	100115-3
	Selenium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	16-JAN-10 00:22	100115-3
	Thallium	48.6	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	16-JAN-10 00:22	100115-3
	Uranium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	16-JAN-10 00:22	100115-3

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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	46	ug/L	50	ug/L	92.1	90.0 – 110.0	MS	18-JAN-10 15:48	100118-4
	Aluminum	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Antimony	520	ug/L	500	ug/L	103.9	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Barium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Cadmium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Chromium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Cobalt	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Lead	505	ug/L	500	ug/L	101	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Manganese	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Silver	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Vanadium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	25-JAN-10 09:02	012510A-2
	Mercury	5.01	ug/L	5	ug/L	100.1	80.0 – 120.0	AV	26-JAN-10 09:18	012610S1-5
	Calcium	5280	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	26-JAN-10 11:41	012610C-1
	Magnesium	5310	ug/L	5000	ug/L	106.2	90.0 – 110.0	P	26-JAN-10 11:41	012610C-1
	Potassium	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	26-JAN-10 11:41	012610C-1
CCV02	Arsenic	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	16-JAN-10 00:40	100115-3
	Beryllium	53.1	ug/L	50	ug/L	106.2	90.0 – 110.0	MS	16-JAN-10 00:40	100115-3
	Selenium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	16-JAN-10 00:40	100115-3
	Thallium	50	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	16-JAN-10 00:40	100115-3
	Uranium	53.8	ug/L	50	ug/L	107.7	90.0 – 110.0	MS	16-JAN-10 00:40	100115-3
	Nickel	45.9	ug/L	50	ug/L	91.7	90.0 – 110.0	MS	18-JAN-10 15:59	100118-4
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Antimony	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Cadmium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Cobalt	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Iron	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Silver	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Sodium	9630	ug/L	10000	ug/L	96.3	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	25-JAN-10 09:29	012510A-2
	Mercury	4.91	ug/L	5	ug/L	98.2	80.0 – 120.0	AV	26-JAN-10 09:38	012610S1-5
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	26-JAN-10 12:50	012610C-1
	Magnesium	5260	ug/L	5000	ug/L	105.3	90.0 – 110.0	P	26-JAN-10 12:50	012610C-1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	26-JAN-10 12:50	012610C-1
CCV03										
	Arsenic	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	16-JAN-10 01:24	100115-3
	Beryllium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	16-JAN-10 01:24	100115-3
	Selenium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	16-JAN-10 01:24	100115-3
	Thallium	48.2	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	16-JAN-10 01:24	100115-3
	Uranium	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	16-JAN-10 01:24	100115-3
	Nickel	45.9	ug/L	50	ug/L	91.7	90.0 – 110.0	MS	18-JAN-10 16:10	100118-4
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Antimony	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Cadmium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Chromium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Cobalt	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Copper	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Iron	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Silver	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Sodium	10400	ug/L	10000	ug/L	104.4	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	25-JAN-10 10:56	012510A-2
	Mercury	4.95	ug/L	5	ug/L	99.1	80.0 – 120.0	AV	26-JAN-10 09:58	012610S1-5
	Calcium	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	26-JAN-10 13:30	012610C-1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	26-JAN-10 13:30	012610C-1
	Potassium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	26-JAN-10 13:30	012610C-1
CCV04	Arsenic	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	16-JAN-10 02:08	100115-3
	Beryllium	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	16-JAN-10 02:08	100115-3
	Selenium	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	16-JAN-10 02:08	100115-3
	Thallium	46.8	ug/L	50	ug/L	93.7	90.0 – 110.0	MS	16-JAN-10 02:08	100115-3
	Uranium	52.9	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	16-JAN-10 02:08	100115-3
	Nickel	46.5	ug/L	50	ug/L	93	90.0 – 110.0	MS	18-JAN-10 16:26	100118-4
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Antimony	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Barium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Cadmium	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Chromium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Cobalt	520	ug/L	500	ug/L	103.9	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Lead	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Manganese	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Vanadium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2
	Zinc	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	25-JAN-10 12:14	012510A-2

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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>
	Mercury	4.99	ug/L	5	ug/L	99.8	80.0 – 120.0	AV	26-JAN-10 10:19	012610S1-5
	Calcium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	26-JAN-10 14:07	012610C-1
	Magnesium	5360	ug/L	5000	ug/L	107.3	90.0 – 110.0	P	26-JAN-10 14:07	012610C-1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	26-JAN-10 14:07	012610C-1
CCV05										
	Arsenic	49.3	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	16-JAN-10 02:51	100115-3
	Beryllium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	16-JAN-10 02:51	100115-3
	Selenium	48.5	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	16-JAN-10 02:51	100115-3
	Thallium	46.3	ug/L	50	ug/L	92.6	90.0 – 110.0	MS	16-JAN-10 02:51	100115-3
	Uranium	52.1	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	16-JAN-10 02:51	100115-3
	Nickel	46.2	ug/L	50	ug/L	92.5	90.0 – 110.0	MS	18-JAN-10 16:41	100118-4
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Antimony	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Chromium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Cobalt	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Copper	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Iron	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Lead	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Manganese	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Sodium	15000	ug/L	10000	ug/L	150.2	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Zinc	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	25-JAN-10 12:43	012510A-2
	Mercury	4.98	ug/L	5	ug/L	99.6	80.0 – 120.0	AV	26-JAN-10 10:39	012610S1-5
	Calcium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	26-JAN-10 14:44	012610C-1
	Magnesium	5280	ug/L	5000	ug/L	105.7	90.0 – 110.0	P	26-JAN-10 14:44	012610C-1
	Potassium	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	26-JAN-10 14:44	012610C-1



**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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>
CCV06										
	Arsenic	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	16-JAN-10 03:35	100115-3
	Beryllium	49.5	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	16-JAN-10 03:35	100115-3
	Selenium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	16-JAN-10 03:35	100115-3
	Thallium	46.2	ug/L	50	ug/L	92.3	90.0 – 110.0	MS	16-JAN-10 03:35	100115-3
	Uranium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	16-JAN-10 03:35	100115-3
	Nickel	46.4	ug/L	50	ug/L	92.7	90.0 – 110.0	MS	18-JAN-10 16:57	100118-4
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Antimony	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Barium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Cadmium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Chromium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Copper	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Lead	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Manganese	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Silver	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Sodium	11800	ug/L	10000	ug/L	117.9	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Zinc	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	25-JAN-10 13:25	012510A-2
	Mercury	4.99	ug/L	5	ug/L	99.7	80.0 – 120.0	AV	26-JAN-10 10:59	012610S1-5
CCV07										
	Arsenic	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	16-JAN-10 04:13	100115-3
	Beryllium	47.5	ug/L	50	ug/L	95	90.0 – 110.0	MS	16-JAN-10 04:13	100115-3
	Selenium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	16-JAN-10 04:13	100115-3
	Thallium	46.1	ug/L	50	ug/L	92.1	90.0 – 110.0	MS	16-JAN-10 04:13	100115-3
	Uranium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	16-JAN-10 04:13	100115-3
	Nickel	46.9	ug/L	50	ug/L	93.7	90.0 – 110.0	MS	18-JAN-10 17:15	100118-4
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Antimony	521	ug/L	500	ug/L	104.1	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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>
CCV08	Barium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Cadmium	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Chromium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Cobalt	525	ug/L	500	ug/L	105	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Iron	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Lead	519	ug/L	500	ug/L	103.7	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Manganese	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Sodium	11700	ug/L	10000	ug/L	117.3	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Vanadium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Zinc	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	25-JAN-10 14:02	012510A-2
	Mercury	4.98	ug/L	5	ug/L	99.6	80.0 – 120.0	AV	26-JAN-10 11:19	012610S1-5
	Aluminum	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Antimony	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Cadmium	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Chromium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Cobalt	519	ug/L	500	ug/L	103.7	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Copper	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Lead	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Silver	495	ug/L	500	ug/L	99	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Sodium	10900	ug/L	10000	ug/L	109.1	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Vanadium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Zinc	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	25-JAN-10 15:12	012510A-2
	Mercury	4.89	ug/L	5	ug/L	97.7	80.0 – 120.0	AV	26-JAN-10 11:39	012610S1-5

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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										
	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Antimony	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Barium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Cadmium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Copper	465	ug/L	500	ug/L	93.1	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Lead	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Manganese	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Silver	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Sodium	10800	ug/L	10000	ug/L	107.6	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Vanadium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Zinc	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	25-JAN-10 15:30	012510A-2
	Mercury	4.84	ug/L	5	ug/L	96.8	80.0 – 120.0	AV	26-JAN-10 11:59	012610S1-5
CCV10										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Antimony	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Barium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Cadmium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Chromium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Cobalt	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Copper	480	ug/L	500	ug/L	96	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Iron	5320	ug/L	5000	ug/L	106.5	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Manganese	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Silver	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Sodium	11800	ug/L	10000	ug/L	117.9	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2
	Zinc	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	25-JAN-10 16:48	012510A-2

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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>
CCV11	Mercury	5.02	ug/L	5	ug/L	100.4	80.0 – 120.0	AV	26-JAN-10 12:26	012610S1-5
	Aluminum	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Antimony	520	ug/L	500	ug/L	104	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Barium	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Cadmium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Chromium	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Cobalt	527	ug/L	500	ug/L	105.3	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Iron	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Lead	515	ug/L	500	ug/L	103	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Manganese	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Sodium	10500	ug/L	10000	ug/L	104.6	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Vanadium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
	Zinc	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	25-JAN-10 18:07	012510A-2
CCV12	Aluminum	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Antimony	543	ug/L	500	ug/L	108.6	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Barium	527	ug/L	500	ug/L	105.3	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Cadmium	530	ug/L	500	ug/L	106	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Chromium	530	ug/L	500	ug/L	105.9	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Cobalt	537	ug/L	500	ug/L	107.5	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Copper	510	ug/L	500	ug/L	102	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Iron	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Lead	530	ug/L	500	ug/L	105.9	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Manganese	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Silver	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Sodium	10400	ug/L	10000	ug/L	103.7	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Vanadium	531	ug/L	500	ug/L	106.2	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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>
CCV13	Zinc	526	ug/L	500	ug/L	105.3	90.0 – 110.0	P	25-JAN-10 19:11	012510A-2
	Aluminum	5420	ug/L	5000	ug/L	108.5	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Antimony	545	ug/L	500	ug/L	109.1	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Barium	539	ug/L	500	ug/L	107.8	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Cadmium	545	ug/L	500	ug/L	108.9	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Chromium	543	ug/L	500	ug/L	108.6	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Cobalt	548	ug/L	500	ug/L	109.7	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Copper	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Iron	5480	ug/L	5000	ug/L	109.6	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Lead	541	ug/L	500	ug/L	108.3	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Manganese	533	ug/L	500	ug/L	106.6	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Silver	527	ug/L	500	ug/L	105.3	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Sodium	10300	ug/L	10000	ug/L	103	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Vanadium	543	ug/L	500	ug/L	108.7	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
	Zinc	539	ug/L	500	ug/L	107.7	90.0 – 110.0	P	25-JAN-10 20:28	012510A-2
CCV14	Aluminum	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Antimony	534	ug/L	500	ug/L	106.7	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Barium	530	ug/L	500	ug/L	106.1	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Cadmium	537	ug/L	500	ug/L	107.4	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Chromium	536	ug/L	500	ug/L	107.1	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Cobalt	540	ug/L	500	ug/L	107.9	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Copper	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Iron	5340	ug/L	5000	ug/L	106.9	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Lead	536	ug/L	500	ug/L	107.2	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Manganese	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Silver	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Vanadium	536	ug/L	500	ug/L	107.1	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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>
CCV15	Zinc	530	ug/L	500	ug/L	106.1	90.0 – 110.0	P	25-JAN-10 21:47	012510A-2
	Aluminum	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Antimony	518	ug/L	500	ug/L	103.7	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Barium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Cadmium	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Chromium	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Cobalt	522	ug/L	500	ug/L	104.3	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Iron	5320	ug/L	5000	ug/L	106.5	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Lead	525	ug/L	500	ug/L	105	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Manganese	510	ug/L	500	ug/L	102	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Silver	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Vanadium	520	ug/L	500	ug/L	104	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
	Zinc	515	ug/L	500	ug/L	103	90.0 – 110.0	P	25-JAN-10 22:59	012510A-2
CCV16	Aluminum	5390	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Antimony	542	ug/L	500	ug/L	108.5	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Barium	542	ug/L	500	ug/L	108.4	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Cadmium	552	ug/L	500	ug/L	110.4	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Chromium	552	ug/L	500	ug/L	110.4	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Cobalt	550	ug/L	500	ug/L	110	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Copper	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Iron	5490	ug/L	5000	ug/L	109.8	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Lead	552	ug/L	500	ug/L	110.4	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Manganese	542	ug/L	500	ug/L	108.3	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Silver	528	ug/L	500	ug/L	105.6	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Sodium	10200	ug/L	10000	ug/L	102.1	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Vanadium	549	ug/L	500	ug/L	109.7	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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>
CCV17	Zinc	544	ug/L	500	ug/L	108.8	90.0 – 110.0	P	26-JAN-10 00:10	012510A-2
	Aluminum	5480	ug/L	5000	ug/L	109.7	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Antimony	533	ug/L	500	ug/L	106.6	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Barium	533	ug/L	500	ug/L	106.6	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Cadmium	543	ug/L	500	ug/L	108.5	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Chromium	541	ug/L	500	ug/L	108.2	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Cobalt	540	ug/L	500	ug/L	108	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Copper	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Iron	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Lead	541	ug/L	500	ug/L	108.1	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Manganese	529	ug/L	500	ug/L	105.9	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Silver	522	ug/L	500	ug/L	104.3	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Sodium	9430	ug/L	10000	ug/L	94.3	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Vanadium	539	ug/L	500	ug/L	107.8	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
CCV18	Zinc	535	ug/L	500	ug/L	106.9	90.0 – 110.0	P	26-JAN-10 01:21	012510A-2
	Aluminum	5330	ug/L	5000	ug/L	106.7	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2
	Antimony	536	ug/L	500	ug/L	107.2	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2
	Barium	536	ug/L	500	ug/L	107.2	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2
	Cadmium	547	ug/L	500	ug/L	109.3	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2
	Chromium	545	ug/L	500	ug/L	109	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2
	Cobalt	543	ug/L	500	ug/L	108.7	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2
	Copper	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2
	Iron	5420	ug/L	5000	ug/L	108.3	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2
	Lead	545	ug/L	500	ug/L	109	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2
	Manganese	533	ug/L	500	ug/L	106.5	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2
	Silver	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2
	Sodium	10200	ug/L	10000	ug/L	102.3	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2
	Vanadium	542	ug/L	500	ug/L	108.3	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1,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>
	Zinc	538	ug/L	500	ug/L	107.5	90.0 – 110.0	P	26-JAN-10 02:33	012510A-2



**METALS**  
**-2b-**  
**CRDL Standard for AA & ICP**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,OPTIMA1,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										
	Thallium	1.14	ug/L	1	ug/L	113.9	70.0 – 130.0	MS	16-JAN-10 00:03	100115-3
	Arsenic	5.57	ug/L	5	ug/L	111.4	70.0 – 130.0	MS	16-JAN-10 00:03	100115-3
	Beryllium	.566	ug/L	.5	ug/L	113.2	70.0 – 130.0	MS	16-JAN-10 00:03	100115-3
	Selenium	4.86	ug/L	5	ug/L	97.3	70.0 – 130.0	MS	16-JAN-10 00:03	100115-3
	Uranium	.225	ug/L	.2	ug/L	112.5	70.0 – 130.0	MS	16-JAN-10 00:03	100115-3
	Nickel	2.05	ug/L	2	ug/L	102.3	70.0 – 130.0	MS	18-JAN-10 15:41	100118-4
	Mercury	.161	ug/L	.2	ug/L	80.5	70.0 – 130.0	AV	26-JAN-10 09:17	012610S1-5
PQL01										
	Aluminum	209	ug/L	200	ug/L	104.5	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Iron	108	ug/L	100	ug/L	108.4	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Lead	9.83	ug/L	10	ug/L	98.3	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Manganese	10.5	ug/L	10	ug/L	104.7	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Silver	5.22	ug/L	5	ug/L	104.5	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Sodium	267	ug/L	300	ug/L	89	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Antimony	13	ug/L	10	ug/L	129.7	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Barium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Cadmium	5.05	ug/L	5	ug/L	101.1	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Chromium	5.01	ug/L	5	ug/L	100.1	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Cobalt	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Copper	9.28	ug/L	10	ug/L	92.8	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Vanadium	5.17	ug/L	5	ug/L	103.3	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Zinc	10.1	ug/L	10	ug/L	100.7	70.0 – 130.0	P	25-JAN-10 08:30	012510A-2
	Magnesium	281	ug/L	300	ug/L	93.7	70.0 – 130.0	P	26-JAN-10 11:25	012610C-1
	Potassium	142	ug/L	150	ug/L	94.5	70.0 – 130.0	P	26-JAN-10 11:25	012610C-1
	Calcium	193	ug/L	200	ug/L	96.4	70.0 – 130.0	P	26-JAN-10 11:25	012610C-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128

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>										
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	15-JAN-10 23:57	100115-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	15-JAN-10 23:57	100115-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	15-JAN-10 23:57	100115-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	15-JAN-10 23:57	100115-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	15-JAN-10 23:57	100115-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	18-JAN-10 15:39	100118-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 08:23	012510A-2
	Antimony	9.49	+/-10	J	3.3	10.0	SOL	P	25-JAN-10 08:23	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 08:23	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 08:23	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 08:23	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 08:23	012510A-2
	Copper	3.68	+/-10	J	3.0	10.0	SOL	P	25-JAN-10 08:23	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 08:23	012510A-2
	Lead	-4.13	+/-10	J	2.5	10.0	SOL	P	25-JAN-10 08:23	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 08:23	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 08:23	012510A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-JAN-10 08:23	012510A-2
	Vanadium	-2.0	+/-5	J	1.0	5.0	SOL	P	25-JAN-10 08:23	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 08:23	012510A-2
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	26-JAN-10 09:15	012610S1-5
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	26-JAN-10 11:22	012610C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	26-JAN-10 11:22	012610C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	26-JAN-10 11:22	012610C-1
<b>CCB01</b>										
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	16-JAN-10 00:28	100115-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	16-JAN-10 00:28	100115-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	16-JAN-10 00:28	100115-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	16-JAN-10 00:28	100115-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	16-JAN-10 00:28	100115-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	18-JAN-10 15:50	100118-4

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 09:09	012510A-2
	Antimony	6.47	+/-10	J	3.3	10.0	SOL	P	25-JAN-10 09:09	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 09:09	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 09:09	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 09:09	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 09:09	012510A-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-JAN-10 09:09	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 09:09	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 09:09	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 09:09	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 09:09	012510A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-JAN-10 09:09	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 09:09	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 09:09	012510A-2
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	26-JAN-10 09:20	012610S1-5
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	26-JAN-10 11:44	012610C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	26-JAN-10 11:44	012610C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	26-JAN-10 11:44	012610C-1
<b>CCB02</b>	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	16-JAN-10 00:46	100115-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	16-JAN-10 00:46	100115-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	16-JAN-10 00:46	100115-3
	Thallium	0.314	+/-1	J	0.3	1.0	SOL	MS	16-JAN-10 00:46	100115-3
	Uranium	0.184	+/-2	J	0.066	0.2	SOL	MS	16-JAN-10 00:46	100115-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	18-JAN-10 16:01	100118-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 09:36	012510A-2
	Antimony	3.44	+/-10	J	3.3	10.0	SOL	P	25-JAN-10 09:36	012510A-2
	Barium	1.22	+/-5	J	1.0	5.0	SOL	P	25-JAN-10 09:36	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 09:36	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 09:36	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 09:36	012510A-2

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128

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>
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-JAN-10 09:36	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 09:36	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 09:36	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 09:36	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 09:36	012510A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-JAN-10 09:36	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 09:36	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 09:36	012510A-2
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	26-JAN-10 09:40	012610S1-5
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	26-JAN-10 12:53	012610C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	26-JAN-10 12:53	012610C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	26-JAN-10 12:53	012610C-1
<b>CCB03</b>	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	16-JAN-10 01:30	100115-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	16-JAN-10 01:30	100115-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	16-JAN-10 01:30	100115-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	16-JAN-10 01:30	100115-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	16-JAN-10 01:30	100115-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	18-JAN-10 16:12	100118-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 11:03	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 11:03	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 11:03	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 11:03	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 11:03	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 11:03	012510A-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-JAN-10 11:03	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 11:03	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 11:03	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 11:03	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 11:03	012510A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-JAN-10 11:03	012510A-2

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128

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>
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 11:03	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 11:03	012510A-2
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	26-JAN-10 10:00	012610S1-5
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	26-JAN-10 13:34	012610C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	26-JAN-10 13:34	012610C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	26-JAN-10 13:34	012610C-1
<b>CCB04</b>	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	16-JAN-10 02:14	100115-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	16-JAN-10 02:14	100115-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	16-JAN-10 02:14	100115-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	16-JAN-10 02:14	100115-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	16-JAN-10 02:14	100115-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	18-JAN-10 16:28	100118-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 12:21	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 12:21	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 12:21	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 12:21	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 12:21	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 12:21	012510A-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-JAN-10 12:21	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 12:21	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 12:21	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 12:21	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 12:21	012510A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-JAN-10 12:21	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 12:21	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 12:21	012510A-2
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	26-JAN-10 10:20	012610S1-5
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	26-JAN-10 14:11	012610C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	26-JAN-10 14:11	012610C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	26-JAN-10 14:11	012610C-1

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128

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	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	16-JAN-10 02:57	100115-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	16-JAN-10 02:57	100115-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	16-JAN-10 02:57	100115-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	16-JAN-10 02:57	100115-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	16-JAN-10 02:57	100115-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	18-JAN-10 16:44	100118-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 12:49	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 12:49	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 12:49	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 12:49	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 12:49	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 12:49	012510A-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-JAN-10 12:49	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 12:49	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 12:49	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 12:49	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 12:49	012510A-2
	Sodium	3654.2	+/-250		70.0	250	SOL	P	25-JAN-10 12:49	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 12:49	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 12:49	012510A-2
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	26-JAN-10 10:40	012610S1-5
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	26-JAN-10 14:47	012610C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	26-JAN-10 14:47	012610C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	26-JAN-10 14:47	012610C-1
CCB06	Arsenic	-1.05	+/-5	J	1.0	5.0	SOL	MS	16-JAN-10 03:41	100115-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	16-JAN-10 03:41	100115-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	16-JAN-10 03:41	100115-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	16-JAN-10 03:41	100115-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	16-JAN-10 03:41	100115-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	18-JAN-10 16:59	100118-4

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 13:32	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 13:32	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 13:32	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 13:32	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 13:32	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 13:32	012510A-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-JAN-10 13:32	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 13:32	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 13:32	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 13:32	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 13:32	012510A-2
	Sodium	1171	+/-250		70.0	250	SOL	P	25-JAN-10 13:32	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 13:32	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 13:32	012510A-2
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	26-JAN-10 11:01	012610S1-5
<b>CCB07</b>	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	16-JAN-10 04:19	100115-3
	Beryllium	0.104	+/-5	J	0.1	0.5	SOL	MS	16-JAN-10 04:19	100115-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	16-JAN-10 04:19	100115-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	16-JAN-10 04:19	100115-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	16-JAN-10 04:19	100115-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	18-JAN-10 17:17	100118-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 14:09	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 14:09	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 14:09	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 14:09	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 14:09	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 14:09	012510A-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-JAN-10 14:09	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 14:09	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 14:09	012510A-2

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128

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>
CCB08	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 14:09	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 14:09	012510A-2
	Sodium	725.38	+/-250		70.0	250	SOL	P	25-JAN-10 14:09	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 14:09	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 14:09	012510A-2
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	26-JAN-10 11:21	012610S1-5
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 15:19	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 15:19	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 15:19	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 15:19	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 15:19	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 15:19	012510A-2
	Copper	-3.46	+/-10	J	3.0	10.0	SOL	P	25-JAN-10 15:19	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 15:19	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 15:19	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 15:19	012510A-2
CCB09	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 15:19	012510A-2
	Sodium	363.25	+/-250		70.0	250	SOL	P	25-JAN-10 15:19	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 15:19	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 15:19	012510A-2
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	26-JAN-10 11:41	012610S1-5
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 15:37	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 15:37	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 15:37	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 15:37	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 15:37	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 15:37	012510A-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-JAN-10 15:37	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 15:37	012510A-2



**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128

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>
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 15:37	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 15:37	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 15:37	012510A-2
	Sodium	303.88	+/-250		70.0	250	SOL	P	25-JAN-10 15:37	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 15:37	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 15:37	012510A-2
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	26-JAN-10 12:01	012610S1-5
CCB10	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 16:55	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 16:55	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 16:55	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 16:55	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 16:55	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 16:55	012510A-2
	Copper	-3.5	+/-10	J	3.0	10.0	SOL	P	25-JAN-10 16:55	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 16:55	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 16:55	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 16:55	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 16:55	012510A-2
	Sodium	315.15	+/-250		70.0	250	SOL	P	25-JAN-10 16:55	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 16:55	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 16:55	012510A-2
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	26-JAN-10 12:27	012610S1-5
CCB11	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 18:14	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 18:14	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 18:14	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 18:14	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 18:14	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 18:14	012510A-2
	Copper	-3.21	+/-10	J	3.0	10.0	SOL	P	25-JAN-10 18:14	012510A-2

**Metals**  
**~3a~**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128

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>
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 18:14	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 18:14	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 18:14	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 18:14	012510A-2
	Sodium	272.95	+/-250		70.0	250	SOL	P	25-JAN-10 18:14	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 18:14	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 18:14	012510A-2
<b>CCB12</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 19:18	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 19:18	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 19:18	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 19:18	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 19:18	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 19:18	012510A-2
	Copper	-3.28	+/-10	J	3.0	10.0	SOL	P	25-JAN-10 19:18	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 19:18	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 19:18	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 19:18	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 19:18	012510A-2
	Sodium	155.25	+/-250	J	70.0	250	SOL	P	25-JAN-10 19:18	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 19:18	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 19:18	012510A-2
<b>CCB13</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 20:35	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 20:35	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 20:35	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 20:35	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 20:35	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 20:35	012510A-2
	Copper	-3.01	+/-10	J	3.0	10.0	SOL	P	25-JAN-10 20:35	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 20:35	012510A-2

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128

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>
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 20:35	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 20:35	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 20:35	012510A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-JAN-10 20:35	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 20:35	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 20:35	012510A-2
<b>CCB14</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 21:54	012510A-2
	Antimony	-4.74	+/-10	J	3.3	10.0	SOL	P	25-JAN-10 21:54	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 21:54	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 21:54	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 21:54	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 21:54	012510A-2
	Copper	-4.01	+/-10	J	3.0	10.0	SOL	P	25-JAN-10 21:54	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 21:54	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 21:54	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 21:54	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 21:54	012510A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-JAN-10 21:54	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 21:54	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 21:54	012510A-2
<b>CCB15</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-JAN-10 23:06	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 23:06	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 23:06	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 23:06	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 23:06	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-JAN-10 23:06	012510A-2
	Copper	-3.63	+/-10	J	3.0	10.0	SOL	P	25-JAN-10 23:06	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-JAN-10 23:06	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	25-JAN-10 23:06	012510A-2

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-JAN-10 23:06	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 23:06	012510A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-JAN-10 23:06	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-JAN-10 23:06	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-JAN-10 23:06	012510A-2
<b>CCB16</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	26-JAN-10 00:17	012510A-2
	Antimony	-5.79	+/-10	J	3.3	10.0	SOL	P	26-JAN-10 00:17	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	26-JAN-10 00:17	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	26-JAN-10 00:17	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	26-JAN-10 00:17	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	26-JAN-10 00:17	012510A-2
	Copper	-3.8	+/-10	J	3.0	10.0	SOL	P	26-JAN-10 00:17	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	26-JAN-10 00:17	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	26-JAN-10 00:17	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	26-JAN-10 00:17	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	26-JAN-10 00:17	012510A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	26-JAN-10 00:17	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	26-JAN-10 00:17	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	26-JAN-10 00:17	012510A-2
<b>CCB17</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	26-JAN-10 01:28	012510A-2
	Antimony	-4.03	+/-10	J	3.3	10.0	SOL	P	26-JAN-10 01:28	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	26-JAN-10 01:28	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	26-JAN-10 01:28	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	26-JAN-10 01:28	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	26-JAN-10 01:28	012510A-2
	Copper	-3.37	+/-10	J	3.0	10.0	SOL	P	26-JAN-10 01:28	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	26-JAN-10 01:28	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	26-JAN-10 01:28	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	26-JAN-10 01:28	012510A-2

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128

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	26-JAN-10 01:28	012510A-2
	Sodium	-83.26	+/-250	J	70.0	250	SOL	P	26-JAN-10 01:28	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	26-JAN-10 01:28	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	26-JAN-10 01:28	012510A-2
CCB18	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	26-JAN-10 02:40	012510A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	26-JAN-10 02:40	012510A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	26-JAN-10 02:40	012510A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	26-JAN-10 02:40	012510A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	26-JAN-10 02:40	012510A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	26-JAN-10 02:40	012510A-2
	Copper	-3.9	+/-10	J	3.0	10.0	SOL	P	26-JAN-10 02:40	012510A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	26-JAN-10 02:40	012510A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	26-JAN-10 02:40	012510A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	26-JAN-10 02:40	012510A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	26-JAN-10 02:40	012510A-2
	Sodium	-76.42	+/-250	J	70.0	250	SOL	P	26-JAN-10 02:40	012510A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	26-JAN-10 02:40	012510A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	26-JAN-10 02:40	012510A-2

**METALS**  
**-3b-**  
**PREPARATION BLANK SUMMARY**

**SDG NO.** 10-1128  
**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>
1202011732	Arsenic	0.195	mg/kg	+/-0.975	U	MS	0.195	0.975
	Beryllium	0.0195	mg/kg	+/-0.0975	U	MS	0.0195	0.0975
	Nickel	0.0975	mg/kg	+/-0.39	U	MS	0.0975	0.39
	Uranium	0.0166	mg/kg	+/-0.039	J	MS	0.0129	0.039
	Thallium	0.0585	mg/kg	+/-0.195	U	MS	0.0585	0.195
	Selenium	0.487	mg/kg	+/-0.975	U	MS	0.487	0.975
1202011905	Calcium	7780	ug/Kg	+/-24300	U	P	7780	24300
	Chromium	146	ug/Kg	+/-486	U	P	146	486
	Cobalt	146	ug/Kg	+/-486	U	P	146	486
	Copper	-360	ug/Kg	+/-973	J	P	292	973
	Iron	12400	ug/Kg	+/-24300	J	P	7780	24300
	Lead	243	ug/Kg	+/-973	U	P	243	973
	Magnesium	8270	ug/Kg	+/-29200	U	P	8270	29200
	Cadmium	97.3	ug/Kg	+/-486	U	P	97.3	486
	Barium	97.3	ug/Kg	+/-486	U	P	97.3	486
	Antimony	321	ug/Kg	+/-973	U	P	321	973
	Aluminum	6610	ug/Kg	+/-19500	U	P	6610	19500
	Manganese	195	ug/Kg	+/-973	U	P	195	973
	Potassium	6230	ug/Kg	+/-24300	U	P	6230	24300
	Silver	97.3	ug/Kg	+/-486	U	P	97.3	486
	Sodium	6810	ug/Kg	+/-24300	U	P	6810	24300
	Vanadium	97.3	ug/Kg	+/-486	U	P	97.3	486
	Zinc	462	ug/Kg	+/-973	J	P	321	973
1202019667	Mercury	3.81	ug/kg	+/-11.2	U	AV	3.81	11.2

METALS  
-4-  
Interference Check Sample

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
<b>ICSA01</b>									
	Calcium	505000	ug/L	500000	ug/L	101	80.0 – 120.0	26-JAN-10 11:29	012610C-1
	Magnesium	510000	ug/L	500000	ug/L	102	80.0 – 120.0	26-JAN-10 11:29	012610C-1
	Potassium	-88.9	ug/L					26-JAN-10 11:29	012610C-1
<b>ICSAB01</b>									
	Calcium	497000	ug/L	500000	ug/L	99.5	80.0 – 120.0	26-JAN-10 11:31	012610C-1
	Magnesium	503000	ug/L	500000	ug/L	101	80.0 – 120.0	26-JAN-10 11:31	012610C-1
	Potassium	5070	ug/L	5000	ug/L	101	80.0 – 120.0	26-JAN-10 11:31	012610C-1

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-1128

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	519000	ug/L	500000	ug/L	104	80.0 – 120.0	25-JAN-10 08:37	012510A-2
	Antimony	0.227	ug/L					25-JAN-10 08:37	012510A-2
	Barium	1.27	ug/L					25-JAN-10 08:37	012510A-2
	Cadmium	1.77	ug/L					25-JAN-10 08:37	012510A-2
	Chromium	1.71	ug/L					25-JAN-10 08:37	012510A-2
	Cobalt	-1.81	ug/L					25-JAN-10 08:37	012510A-2
	Copper	4.36	ug/L					25-JAN-10 08:37	012510A-2
	Iron	190000	ug/L	200000	ug/L	95	80.0 – 120.0	25-JAN-10 08:37	012510A-2
	Lead	3.5	ug/L					25-JAN-10 08:37	012510A-2
	Manganese	-4.75	ug/L					25-JAN-10 08:37	012510A-2
	Silver	5.17	ug/L					25-JAN-10 08:37	012510A-2
	Sodium	4.75	ug/L					25-JAN-10 08:37	012510A-2
	Vanadium	-2.14	ug/L					25-JAN-10 08:37	012510A-2
	Zinc	9.91	ug/L					25-JAN-10 08:37	012510A-2
<b>ICSAB01</b>									
	Aluminum	523000	ug/L	500000	ug/L	105	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Antimony	553	ug/L	500	ug/L	111	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Barium	493	ug/L	500	ug/L	98.6	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Cadmium	453	ug/L	500	ug/L	90.6	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Chromium	475	ug/L	500	ug/L	95	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Cobalt	453	ug/L	500	ug/L	90.6	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Copper	556	ug/L	500	ug/L	111	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Iron	190000	ug/L	200000	ug/L	94.8	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Lead	472	ug/L	500	ug/L	94.5	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Manganese	474	ug/L	500	ug/L	94.8	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Silver	271	ug/L	250	ug/L	109	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Sodium	5590	ug/L	5000	ug/L	112	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Vanadium	493	ug/L	500	ug/L	98.7	80.0 – 120.0	25-JAN-10 08:43	012510A-2
	Zinc	499	ug/L	500	ug/L	99.8	80.0 – 120.0	25-JAN-10 08:43	012510A-2



**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-1128

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>
<b>ICSA01</b>									
	Arsenic	-1.08	ug/L					16-JAN-10 00:09	100115-3
	Beryllium	0.077	ug/L					16-JAN-10 00:09	100115-3
	Selenium	-1.28	ug/L					16-JAN-10 00:09	100115-3
	Thallium	0.022	ug/L					16-JAN-10 00:09	100115-3
	Uranium	-0.009	ug/L					16-JAN-10 00:09	100115-3
<b>ICSAB01</b>									
	Arsenic	19.9	ug/L	20	ug/L	99.4	80.0 - 120.0	16-JAN-10 00:15	100115-3
	Beryllium	19.1	ug/L	20	ug/L	95.5	80.0 - 120.0	16-JAN-10 00:15	100115-3
	Selenium	19.5	ug/L	20	ug/L	97.4	80.0 - 120.0	16-JAN-10 00:15	100115-3
	Thallium	17.8	ug/L	20	ug/L	88.9	80.0 - 120.0	16-JAN-10 00:15	100115-3
	Uranium	20.0	ug/L	20	ug/L	100	80.0 - 120.0	16-JAN-10 00:15	100115-3

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-1128

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS4

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<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	Nickel	3.49	ug/L					18-JAN-10 15:43	100118-4
ICSAB01	Nickel	19.8	ug/L	22.7	ug/L	87.4	80.0 - 120.0	18-JAN-10 15:45	100118-4

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1128

Client ID RE12-10-7619S

Contract: LANL01004

Level: Low

Matrix: SOIL

% Solids: 84

Sample ID: 244144001

Spike ID: 1202011735

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M</u>
Arsenic	mg/kg	75-125	10.5		2.45		9.4	85.7		MS
Beryllium	mg/kg	75-125	6.25		1.23		5.87	85.5		MS
Nickel	mg/kg	75-125	11.9		8.17		5.87	63.3	N	MS
Selenium	mg/kg	75-125	1.87		0.583	U	2.35	79.6		MS
Thallium	mg/kg	75-125	10.2		0.288		11.7	84.6		MS
Uranium	mg/kg	75-125	7.11		1.67		5.87	92.6		MS

## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-1128 Client ID RE12-10-7619SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 84

Sample ID: 244144001 Spike ID: 1202011737

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	11.6		2.45		9.34	97.7		MS
Beryllium	mg/kg	75-125	6.72		1.23		5.84	94		MS
Nickel	mg/kg	75-125	13.7		8.17		5.84	94.5		MS
Selenium	mg/kg	75-125	1.88		0.583	U	2.34	80.5		MS
Thallium	mg/kg	75-125	11		0.288		11.7	91.7		MS
Uranium	mg/kg	75-125	8.02		1.67		5.84	109		MS

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1128

Client ID RE12-10-7619S

Contract: LANL01004

Level: Low

Matrix: SOIL

% Solids: 84

Sample ID: 244144001

Spike ID: 1202011908

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Vanadium	ug/Kg	75-125	90100		30400		58800	101		P
Zinc	ug/Kg	75-125	95200		29000		58800	113		P
Aluminum	ug/Kg		23300000		13000000		588000	1760	N/A	P
Antimony	ug/Kg	75-125	39700		383	U	58800	67.5	N	P
Barium	ug/Kg		328000		257000		58800	122	N/A	P
Cadmium	ug/Kg	75-125	57200		291	J	58800	96.7		P
Calcium	ug/Kg	75-125	2880000		2270000		588000	104		P
Chromium	ug/Kg	75-125	76400		16100		58800	103		P
Cobalt	ug/Kg	75-125	64400		7790		58800	96.3		P
Copper	ug/Kg	75-125	69700		7220		58800	106		P
Iron	ug/Kg		16700000		14600000		588000	367	N/A	P
Lead	ug/Kg	75-125	75200		17000		58800	98.8		P
Magnesium	ug/Kg	75-125	3260000		2330000		588000	158	N	P
Manganese	ug/Kg		517000		567000		58800	-84.4	N/A	P
Potassium	ug/Kg	75-125	3150000		2180000		588000	164	N	P
Silver	ug/Kg	75-125	59800		693		58800	101		P
Sodium	ug/Kg	75-125	627000		61400		588000	96.2		P

## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-1128 Client ID RE12-10-7619SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 84

Sample ID: 244144001 Spike ID: 1202011909

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		21500000		13000000		594000	1430	N/A	P
Antimony	ug/Kg	75-125	39700		383	U	59400	66.7	N	P
Barium	ug/Kg		291000		257000		59400	57.6	N/A	P
Calcium	ug/Kg	75-125	2850000		2270000		594000	97.8		P
Chromium	ug/Kg	75-125	72900		16100		59400	95.6		P
Cobalt	ug/Kg	75-125	61900		7790		59400	91.1		P
Copper	ug/Kg	75-125	67300		7220		59400	101		P
Iron	ug/Kg		15100000		14600000		594000	87.2	N/A	P
Lead	ug/Kg	75-125	70900		17000		59400	90.6		P
Magnesium	ug/Kg	75-125	3050000		2330000		594000	122		P
Manganese	ug/Kg		465000		567000		59400	-171	N/A	P
Potassium	ug/Kg	75-125	2930000		2180000		594000	126	N	P
Silver	ug/Kg	75-125	57900		693		59400	96.3		P
Sodium	ug/Kg	75-125	634000		61400		594000	96.3		P
Vanadium	ug/Kg	75-125	83900		30400		59400	90		P
Zinc	ug/Kg	75-125	88000		29000		59400	99.4		P
Cadmium	ug/Kg	75-125	55300		291	J	59400	92.5		P

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1128

Client ID RE12-10-7619S

Contract: LANL01004

Level: Low

Matrix: SOIL

% Solids: 84

Sample ID: 244144001

Spike ID: 1202019670

<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	144		14.6		127	102		AV

## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-1128 Client ID RE12-10-7619SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 84

Sample ID: 244144001 Spike ID: 1202019672

<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	155		14.6		140	101		AV



Metals  
-6-  
Duplicate Sample Summary

SDG No.: 10-1128

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7619D

Sample ID: 244144001

Duplicate ID: 1202011734

Percent Solids for Dup: 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-1.15	2.45		2.19		11.4		MS
Beryllium	mg/kg	+/-20%	1.23		1.16		6.14		MS
Nickel	mg/kg	+/-20%	8.17		8.13		.438		MS
Selenium	mg/kg		0.583 U		0.574 U				MS
Thallium	mg/kg	+/- .229	0.288		0.248		15		MS
Uranium	mg/kg	+/-20%	1.67		1.57		6.08		MS

Metals  
-6-  
Duplicate Sample Summary

SDG No.: 10-1128

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7619SD

Sample ID: 1202011735

Duplicate ID: 1202011737

Percent Solids for Dup: 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	10.5		11.6		9.68		MS
Beryllium	mg/kg	+/-20	6.25		6.72		7.2		MS
Nickel	mg/kg	+/-20	11.9		13.7		14.1		MS
Selenium	mg/kg	+/-20	1.87		1.88		.548		MS
Thallium	mg/kg	+/-20	10.2		11		7.31		MS
Uranium	mg/kg	+/-20	7.11		8.02		12.1		MS

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-1128

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7619D

Sample ID: 244144001

Duplicate ID: 1202011906

Percent Solids for Dup: 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	13000000		13500000		4.5		P
Antimony	ug/Kg		383 U		386 U				P
Barium	ug/Kg	+/-20%	257000		250000		2.74		P
Cadmium	ug/Kg	+/-585	291 J		218 J		28.8		P
Calcium	ug/Kg	+/-20%	2270000		2220000		2.15		P
Chromium	ug/Kg	+/-20%	16100		21000		26.3	*	P
Cobalt	ug/Kg	+/-20%	7790		6930		11.7		P
Copper	ug/Kg	+/-20%	7220		7750		7.11		P
Iron	ug/Kg	+/-20%	14600000		14200000		2.51		P
Lead	ug/Kg	+/-20%	17000		14500		16.3		P
Magnesium	ug/Kg	+/-20%	2330000		2240000		4.08		P
Manganese	ug/Kg	+/-20%	567000		502000		12.3		P
Potassium	ug/Kg	+/-20%	2180000		2090000		4.38		P
Silver	ug/Kg	+/-585	693		834		18.6		P
Sodium	ug/Kg	+/-29200	61400		67800		9.9		P
Vanadium	ug/Kg	+/-20%	30400		27600		9.56		P
Zinc	ug/Kg	+/-20%	29000		30300		4.49		P

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-1128

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7619SD

Sample ID: 1202011908

Duplicate ID: 1202011909

Percent Solids for Dup: 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	23300000		21500000		8.32		P
Antimony	ug/Kg	+/-20	39700		39700		.189		P
Barium	ug/Kg	+/-20	328000		291000		12.1		P
Cadmium	ug/Kg	+/-20	57200		55300		3.43		P
Calcium	ug/Kg	+/-20	2880000		2850000		1.02		P
Chromium	ug/Kg	+/-20	76400		72900		4.75		P
Cobalt	ug/Kg	+/-20	64400		61900		4		P
Copper	ug/Kg	+/-20	69700		67300		3.51		P
Iron	ug/Kg	+/-20	16700000		15100000		10.3		P
Lead	ug/Kg	+/-20	75200		70900		5.89		P
Magnesium	ug/Kg	+/-20	3260000		3050000		6.56		P
Manganese	ug/Kg	+/-20	517000		465000		10.6		P
Potassium	ug/Kg	+/-20	3150000		2930000		7.27		P
Silver	ug/Kg	+/-20	59800		57900		3.28		P
Sodium	ug/Kg	+/-20	627000		634000		1.03		P
Vanadium	ug/Kg	+/-20	90100		83900		7.12		P
Zinc	ug/Kg	+/-20	95200		88000		7.79		P

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-1128

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7619D

Sample ID: 244144001

Duplicate ID: 1202019669

Percent Solids for Dup: 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-12.5	14.6		15.1		3.45		AV

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Metals  
-6-  
Duplicate Sample Summary

SDG No.: 10-1128

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7619SD

Sample ID: 1202019670

Duplicate ID: 1202019672

Percent Solids for Dup: 84

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Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	144		155		7.38		AV

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## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1128

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>
1202011733								
	Selenium	mg/kg	286	323		113	80.2-125.9	MS
	Thallium	mg/kg	121	134		111	78-123.2	MS
	Uranium	mg/kg	2.13	1.92		90.2	61.9-130.7	MS
	Arsenic	mg/kg	104	116		111	83-120	MS
	Beryllium	mg/kg	77.6	90.9		117	81.2-126.8	MS
	Nickel	mg/kg	134	147		109	83.3-121.4	MS

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1128

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>
1202011910								
	Aluminum	ug/Kg	10500000	9050000		86.2	56-144	P
	Antimony	ug/Kg	173000	131000		75.7	71-130	P
	Barium	ug/Kg	198000	196000		98.8	80-120	P
	Cadmium	ug/Kg	60700	60200		99.1	81-120	P
	Calcium	ug/Kg	9870000	10800000		110	83-117	P
	Chromium	ug/Kg	236000	237000		100	80-120	P
	Cobalt	ug/Kg	91200	92300		101	81-120	P
	Copper	ug/Kg	174000	181000		104	81-118	P
	Iron	ug/Kg	18000000	17000000		94.4	51-149	P
	Lead	ug/Kg	86000	81600		94.9	79-121	P
	Magnesium	ug/Kg	4000000	4160000		104	79-122	P
	Manganese	ug/Kg	558000	511000		91.5	81-119	P
	Potassium	ug/Kg	4300000	4260000		99	74-127	P
	Silver	ug/Kg	30100	30000		99.8	66-134	P
	Sodium	ug/Kg	1020000	932000		91.4	74-127	P
	Vanadium	ug/Kg	115000	117000		102	79-121	P
	Zinc	ug/Kg	594000	576000		97	80-121	P



## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1128

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

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<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>
1202019668	Mercury	ug/kg	5150	5590		109	71.6-128.3	AV

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## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1128

Client ID: RE12-10-7619L

Contract: LANL01004

Matrix: SOLID

Level: Low

Sample ID: 244144001

Serial Dilution ID: 1202011736

<u>Analyte</u>	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Arsenic	10.5		7.15	J	31.9			MS
Beryllium	5.28		5.15		2.46			MS
Nickel	35		40.5		15.6			MS
Selenium	2.5	U	12.5	U				MS
Thallium	1.24		2.24	J	80.2			MS
Uranium	7.17		7.4		3.21		10	MS

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1128

Client ID: RE12-10-7619L

Contract: LANL01004

Matrix: SOLID

Level: Low

Sample ID: 244144001

Serial Dilution ID: 1202011907

<u>Analyte</u>	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Aluminum	112000		114000		1.79		10	P
Antimony	3.3	U	16.5	U				P
Barium	2210		2360		6.79		10	P
Cadmium	2.51	J	5	U	100			P
Calcium	19600		19800		.765		10	P
Chromium	139		153		9.71		10	P
Cobalt	67.1		73		8.79			P
Copper	62.2		49.3	J	20.8			P
Iron	126000		136000		7.54		10	P
Lead	147		152		3.06		10	P
Magnesium	20100		20500		1.99		10	P
Manganese	4890		5300		8.38		10	P
Potassium	18800		19100		1.6		10	P
Silver	5.97		7.15	J	19.8			P
Sodium	529		350	U	100			P
Vanadium	262		280		6.87		10	P
Zinc	250		275		10		10	P

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1128 Client ID RE12-10-7619L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 244144001 Serial Dilution ID: 1202019671

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.208		.34	U	100			AV

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1128

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	940178						
1202011905	MB for batch 940178	MB	S	12-JAN-10	.514g	50mL	
1202011910	LCS for batch 940178	LCS	S	12-JAN-10	.506g	50mL	
1202011908	RE12-10-7619S	MS	S	12-JAN-10	.507g	50mL	
1202011909	RE12-10-7619SD	MSD	S	12-JAN-10	.502g	50mL	
1202011906	RE12-10-7619D	DUP	S	12-JAN-10	.51g	50mL	
244144001	RE12-10-7619	SAMPLE	S	12-JAN-10	.514g	50mL	
244144002	RE12-10-7618	SAMPLE	S	12-JAN-10	.514g	50mL	
244144003	RE12-10-7623	SAMPLE	S	12-JAN-10	.514g	50mL	
244144004	RE12-10-7622	SAMPLE	S	12-JAN-10	.519g	50mL	
244144005	RE12-10-7621	SAMPLE	S	12-JAN-10	.511g	50mL	
244144006	RE12-10-7617	SAMPLE	S	12-JAN-10	.517g	50mL	
244144007	RE12-10-7620	SAMPLE	S	12-JAN-10	.513g	50mL	
244144008	RE12-10-7624	SAMPLE	S	12-JAN-10	.507g	50mL	
244144009	RE12-10-7630	SAMPLE	S	12-JAN-10	.52g	50mL	
244144010	RE12-10-7628	SAMPLE	S	12-JAN-10	.523g	50mL	
244144011	RE12-10-7632	SAMPLE	S	12-JAN-10	.511g	50mL	
244144012	RE12-10-7629	SAMPLE	S	12-JAN-10	.507g	50mL	
244144013	RE12-10-7626	SAMPLE	S	12-JAN-10	.51g	50mL	
244144014	RE12-10-7631	SAMPLE	S	12-JAN-10	.502g	50mL	

SW846

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1128

Method Type: P

Contract:

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>
244144015	RE12-10-7627	SAMPLE	S	12-JAN-10	.505g	50mL	
244144016	RE12-10-7625	SAMPLE	S	12-JAN-10	.51g	50mL	
244144017	RE12-10-7656	SAMPLE	S	12-JAN-10	.525g	50mL	
244144018	RE12-10-7655	SAMPLE	S	12-JAN-10	.509g	50mL	

SW846

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1128

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	940092						
1202011732	MB for batch 940092	MB	S	12-JAN-10	.513g	50mL	
1202011733	LCS for batch 940092	LCS	S	12-JAN-10	.511g	50mL	
1202011735	RE12-10-7619S	MS	S	12-JAN-10	.508g	50mL	
1202011737	RE12-10-7619SD	MSD	S	12-JAN-10	.511g	50mL	
1202011734	RE12-10-7619D	DUP	S	12-JAN-10	.52g	50mL	
244144001	RE12-10-7619	SAMPLE	S	12-JAN-10	.512g	50mL	
244144002	RE12-10-7618	SAMPLE	S	12-JAN-10	.5g	50mL	
244144003	RE12-10-7623	SAMPLE	S	12-JAN-10	.507g	50mL	
244144004	RE12-10-7622	SAMPLE	S	12-JAN-10	.517g	50mL	
244144005	RE12-10-7621	SAMPLE	S	12-JAN-10	.505g	50mL	
244144006	RE12-10-7617	SAMPLE	S	12-JAN-10	.503g	50mL	
244144007	RE12-10-7620	SAMPLE	S	12-JAN-10	.5g	50mL	
244144008	RE12-10-7624	SAMPLE	S	12-JAN-10	.507g	50mL	
244144009	RE12-10-7630	SAMPLE	S	12-JAN-10	.502g	50mL	
244144010	RE12-10-7628	SAMPLE	S	12-JAN-10	.51g	50mL	
244144011	RE12-10-7632	SAMPLE	S	12-JAN-10	.504g	50mL	
244144012	RE12-10-7629	SAMPLE	S	12-JAN-10	.502g	50mL	
244144013	RE12-10-7626	SAMPLE	S	12-JAN-10	.51g	50mL	
244144014	RE12-10-7631	SAMPLE	S	12-JAN-10	.505g	50mL	

SW846

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METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1128

Method Type: MS

Contract:

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>
244144015	RE12-10-7627	SAMPLE	S	12-JAN-10	.525g	50mL	
244144016	RE12-10-7625	SAMPLE	S	12-JAN-10	.511g	50mL	
244144017	RE12-10-7656	SAMPLE	S	12-JAN-10	.51g	50mL	
244144018	RE12-10-7655	SAMPLE	S	12-JAN-10	.511g	50mL	

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SW846



METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1128

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 943270							
1202019667	MB for batch 943270	MB	S	25-JAN-10	.536g	30mL	
1202019668	LCS for batch 943270	LCS	S	25-JAN-10	.208g	30mL	
1202019670	RE12-10-7619S	MS	S	25-JAN-10	.565g	30mL	
1202019672	RE12-10-7619SD	MSD	S	25-JAN-10	.513g	30mL	
1202019669	RE12-10-7619D	DUP	S	25-JAN-10	.572g	30mL	
244144001	RE12-10-7619	SAMPLE	S	25-JAN-10	.511g	30mL	
244144002	RE12-10-7618	SAMPLE	S	25-JAN-10	.53g	30mL	
244144003	RE12-10-7623	SAMPLE	S	25-JAN-10	.537g	30mL	
244144004	RE12-10-7622	SAMPLE	S	25-JAN-10	.521g	30mL	
244144005	RE12-10-7621	SAMPLE	S	25-JAN-10	.507g	30mL	
244144006	RE12-10-7617	SAMPLE	S	25-JAN-10	.535g	30mL	
244144007	RE12-10-7620	SAMPLE	S	25-JAN-10	.537g	30mL	
244144008	RE12-10-7624	SAMPLE	S	25-JAN-10	.536g	30mL	
244144009	RE12-10-7630	SAMPLE	S	25-JAN-10	.559g	30mL	
244144010	RE12-10-7628	SAMPLE	S	25-JAN-10	.513g	30mL	
244144011	RE12-10-7632	SAMPLE	S	25-JAN-10	.536g	30mL	
244144012	RE12-10-7629	SAMPLE	S	25-JAN-10	.526g	30mL	
244144013	RE12-10-7626	SAMPLE	S	25-JAN-10	.523g	30mL	
244144014	RE12-10-7631	SAMPLE	S	25-JAN-10	.504g	30mL	

SW846

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1128

Method Type: AV

Contract:

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>
244144015	RE12-10-7627	SAMPLE	S	25-JAN-10	.593g	30mL	
244144016	RE12-10-7625	SAMPLE	S	25-JAN-10	.514g	30mL	
244144017	RE12-10-7656	SAMPLE	S	25-JAN-10	.519g	30mL	
244144018	RE12-10-7655	SAMPLE	S	25-JAN-10	.547g	30mL	

SW846

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA3

Start Date: 25-JAN-10

End Date: 26-JAN-10

Client Sdg: 10-1128

Method P

Data File: 012510A-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	07:43	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
S0.1	1	07:51		X		X		X	X	X	X		X		X						X				X	X
S0.5	1	07:56	X	X		X		X	X	X	X		X		X						X				X	X
SCAL	1	08:03	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
S10	1	08:11	X										X									X				
ICV01	1	08:16	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
ICB01	1	08:23	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
PQL01	1	08:30	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
ICSA01	1	08:37	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
ICSAB01	1	08:43	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
LR01	1	08:49	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
LR02	1	08:55	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
CCV01	1	09:02	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
CCB01	1	09:09	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
LR03	1	09:16	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
LR04	1	09:22	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
CCV02	1	09:29	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
CCB02	1	09:36	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
ZZZZZZ	1	09:59																								
ZZZZZZ	1	10:07																								
ZZZZZZ	1	10:14																								
ZZZZZZ	1	10:21																								
ZZZZZZ	1	10:28																								
ZZZZZZ	1	10:35																								
ZZZZZZ	1	10:42																								
ZZZZZZ	5	10:49																								
CCV03	1	10:56	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
CCB03	1	11:03	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
ZZZZZZ	1	11:12																								
ZZZZZZ	1	11:19																								
ZZZZZZ	1	11:25																								
ZZZZZZ	1	11:32																								
ZZZZZZ	1	11:39																								
ZZZZZZ	1	11:46																								
ZZZZZZ	5	11:53																								
ZZZZZZ	1	12:00																								
ZZZZZZ	5	12:07																								
CCV04	1	12:14	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
CCB04	1	12:21	X	X		X		X	X	X	X	X	X	X	X						X	X			X	X
ZZZZZZ	1	12:28																								

[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	17:46																								
ZZZZZZ	1	17:52																								
ZZZZZZ	1	17:59																								
CCV11	1	18:07	X	X		X		X		X	X	X	X	X		X					X	X			X	X
CCB11	1	18:14	X	X		X		X		X	X	X	X	X		X					X	X			X	X
ZZZZZZ	1	18:22																								
ZZZZZZ	1	18:29																								
ZZZZZZ	1	18:36																								
ZZZZZZ	1	18:43																								
ZZZZZZ	1	18:50																								
ZZZZZZ	5	18:57																								
ZZZZZZ	1	19:03																								
CCV12	1	19:11	X	X		X		X		X	X	X	X	X		X					X	X			X	X
CCB12	1	19:18	X	X		X		X		X	X	X	X	X		X					X	X			X	X
ZZZZZZ	1	19:25																								
ZZZZZZ	1	19:32																								
ZZZZZZ	1	19:38																								
ZZZZZZ	1	19:46																								
ZZZZZZ	1	19:53																								
ZZZZZZ	1	20:00																								
ZZZZZZ	5	20:07																								
ZZZZZZ	1	20:14																								
ZZZZZZ	1	20:21																								
CCV13	1	20:28	X	X		X		X		X	X	X	X	X		X					X	X			X	X
CCB13	1	20:35	X	X		X		X		X	X	X	X	X		X					X	X			X	X
ZZZZZZ	1	20:43																								
ZZZZZZ	1	20:50																								
ZZZZZZ	1	20:57																								
ZZZZZZ	1	21:04																								
ZZZZZZ	1	21:11																								
ZZZZZZ	1	21:19																								
ZZZZZZ	1	21:26																								
ZZZZZZ	1	21:33																								
ZZZZZZ	1	21:40																								
CCV14	1	21:47	X	X		X		X		X	X	X	X	X		X					X	X			X	X
CCB14	1	21:54	X	X		X		X		X	X	X	X	X		X					X	X			X	X
ZZZZZZ	1	22:01																								
ZZZZZZ	1	22:08																								
ZZZZZZ	1	22:16																								
ZZZZZZ	1	22:23																								

**Metals**  
**-14-**  
**Analysis Run Log**

Samp No.	D/F	Run Time																		
ZZZZZZ	1	22:30																		
ZZZZZZ	1	22:37																		
ZZZZZZ	1	22:44																		
ZZZZZZ	1	22:51																		
CCV15	1	22:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB15	1	23:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1202011905	1	23:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1202011910	1	23:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144001	1	23:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1202011906	1	23:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1202011908	1	23:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1202011909	1	23:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1202011907	5	23:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144002	1	00:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV16	1	00:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB16	1	00:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144003	1	00:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144004	1	00:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144005	1	00:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144006	1	00:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144007	1	00:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144008	1	01:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144009	1	01:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144010	1	01:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV17	1	01:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB17	1	01:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144011	1	01:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144012	1	01:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144013	1	01:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144014	1	01:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144015	1	02:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144016	1	02:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144017	1	02:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
244144018	1	02:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV18	1	02:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB18	1	02:40	X	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: 26-JAN-10

End Date: 26-JAN-10

Client Sdg: 10-1128

Method: AV

Data File: 012610S1-5

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	09:03															X									
S0.2	1	09:05															X									
S0.5	1	09:07															X									
S2.0	1	09:08															X									
S5.0	1	09:10															X									
S10.0	1	09:12															X									
ICV01	1	09:13															X									
ICB01	1	09:15															X									
CRDL01	1	09:17															X									
CCV01	1	09:18															X									
CCB01	1	09:20															X									
ZZZZZZ	1	09:22																								
ZZZZZZ	10	09:23																								
ZZZZZZ	1	09:25																								
ZZZZZZ	1	09:27																								
ZZZZZZ	1	09:28																								
ZZZZZZ	1	09:30																								
ZZZZZZ	1	09:32																								
ZZZZZZ	1	09:33																								
ZZZZZZ	1	09:35																								
ZZZZZZ	1	09:37																								
CCV02	1	09:38															X									
CCB02	1	09:40															X									
ZZZZZZ	1	09:42																								
ZZZZZZ	1	09:43																								
ZZZZZZ	1	09:45																								
ZZZZZZ	1	09:47																								
ZZZZZZ	1	09:49																								
ZZZZZZ	1	09:50																								
ZZZZZZ	1	09:52																								
ZZZZZZ	1	09:54																								
ZZZZZZ	5	09:55																								
ZZZZZZ	1	09:57																								
CCV03	1	09:58															X									
CCB03	1	10:00															X									
ZZZZZZ	1	10:02																								
ZZZZZZ	1	10:03																								
ZZZZZZ	1	10:05																								
ZZZZZZ	1	10:07																								
ZZZZZZ	1	10:09																								

**Metals**  
**-14-**  
**Analysis Run Log**

Samp No.	D/F	Run Time
ZZZZZZ	1	10:10
1202019667	1	10:12
1202019668	10	10:14
244144001	1	10:15
1202019669	1	10:17
CCV04	1	10:19
CCB04	1	10:20
1202019670	1	10:22
1202019672	1	10:24
ZZZZZZ	5	10:25
244144002	1	10:27
244144003	1	10:29
244144004	1	10:30
244144005	1	10:32
244144006	1	10:34
244144007	1	10:35
244144008	1	10:37
CCV05	1	10:39
CCB05	1	10:40
244144009	1	10:42
244144010	1	10:44
244144011	1	10:45
244144012	1	10:47
244144013	1	10:49
244144014	1	10:50
244144015	1	10:52
244144016	1	10:54
244144017	1	10:56
244144018	1	10:57
CCV06	1	10:59
CCB06	1	11:01
ZZZZZZ	1	11:02
ZZZZZZ	1	11:04
ZZZZZZ	1	11:06
ZZZZZZ	10	11:07
ZZZZZZ	1	11:09
ZZZZZZ	1	11:11
ZZZZZZ	1	11:12
ZZZZZZ	1	11:14
ZZZZZZ	5	11:16



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	11:17																								
CCV07	1	11:19															X									
CCB07	1	11:21															X									
ZZZZZZ	1	11:22																								
ZZZZZZ	1	11:24																								
ZZZZZZ	1	11:26																								
ZZZZZZ	1	11:27																								
ZZZZZZ	1	11:29																								
ZZZZZZ	1	11:31																								
ZZZZZZ	5	11:33																								
ZZZZZZ	1	11:34																								
ZZZZZZ	1	11:36																								
ZZZZZZ	1	11:38																								
CCV08	1	11:39															X									
CCB08	1	11:41															X									
ZZZZZZ	1	11:43																								
ZZZZZZ	1	11:44																								
ZZZZZZ	5	11:46																								
ZZZZZZ	1	11:48																								
ZZZZZZ	1	11:49																								
ZZZZZZ	100	11:51																								
ZZZZZZ	100	11:53																								
ZZZZZZ	100	11:54																								
ZZZZZZ	100	11:56																								
ZZZZZZ	500	11:58																								
CCV09	1	11:59															X									
CCB09	1	12:01															X									
1202019671	5	12:15															X									
ZZZZZZ	1	12:17																								
ZZZZZZ	1	12:19																								
ZZZZZZ	1	12:21																								
ZZZZZZ	1	12:22																								
ZZZZZZ	5	12:24																								
CCV10	1	12:26															X									
CCB10	1	12:27															X									

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS4

Start Date: 15-JAN-10

Client Sdg: 10-1128

Method MS

Data File: 100115-3

End Date: 16-JAN-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	23:32			X		X													X			X	X		
S10	1	23:38			X		X													X			X	X		
S100	1	23:45			X		X													X			X	X		
ICV01	1	23:51			X		X													X			X	X		
ICB01	1	23:57			X		X													X			X	X		
CRDL01	1	00:03			X		X													X			X	X		
ICSA01	1	00:09			X		X													X			X	X		
ICSAB01	1	00:15			X		X													X			X	X		
CCV01	1	00:22			X		X													X			X	X		
CCB01	1	00:28			X		X													X			X	X		
LR01	1	00:34			X		X													X			X	X		
CCV02	1	00:40			X		X													X			X	X		
CCB02	1	00:46			X		X													X			X	X		
1202011732	2	00:53			X		X													X			X	X		
1202011733	40	00:59			X		X													X			X	X		
244144001	2	01:05			X		X													X			X	X		
1202011734	2	01:11			X		X													X			X	X		
1202011735	2	01:18			X		X													X			X	X		
CCV03	1	01:24			X		X													X			X	X		
CCB03	1	01:30			X		X													X			X	X		
1202011737	2	01:36			X		X													X			X	X		
1202011736	10	01:43			X		X													X			X	X		
244144002	2	01:49			X		X													X			X	X		
244144003	2	01:55			X		X													X			X	X		
244144004	2	02:01			X		X													X			X	X		
CCV04	1	02:08			X		X													X			X	X		
CCB04	1	02:14			X		X													X			X	X		
244144005	2	02:20			X		X													X			X	X		
244144006	2	02:26			X		X													X			X	X		
244144007	2	02:33			X		X													X			X	X		
244144008	2	02:39			X		X													X			X	X		
244144009	2	02:45			X		X													X			X	X		
CCV05	1	02:51			X		X													X			X	X		
CCB05	1	02:57			X		X													X			X	X		
244144010	2	03:04			X		X													X			X	X		
244144011	2	03:10			X		X													X			X	X		
244144012	2	03:16			X		X													X			X	X		
244144013	2	03:23			X		X													X			X	X		
244144014	2	03:29			X		X													X			X	X		
CCV06	1	03:35			X		X													X			X	X		

**Metals**  
**-14-**  
**Analysis Run Log**

Samp No.	D/F	Run Time			X	X											X			X	X	
CCB06	1	03:41			X	X											X			X	X	
244144015	2	03:47			X	X											X			X	X	
244144016	2	03:54			X	X											X			X	X	
244144017	2	04:00			X	X											X			X	X	
244144018	2	04:06			X	X											X			X	X	
CCV07	1	04:13			X	X											X			X	X	
CCB07	1	04:19			X	X											X			X	X	

**Metals**  
**-14-**  
**Analysis Run Log**

**Contract:** LANL01004**Lab Code:** GEL**Inst Name:** ICPMS4**Start Date:** 18-JAN-10**End Date:** 18-JAN-10**Client Sdg:** 10-1128**Method:** MS**Data File:** 100118-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	15:30																X								
S10	1	15:32																X								
S100	1	15:34																X								
ICV01	1	15:37																X								
ICB01	1	15:39																X								
CRDL01	1	15:41																X								
ICSA01	1	15:43																X								
ICSAB01	1	15:45																X								
CCV01	1	15:48																X								
CCB01	1	15:50																X								
ZZZZZ	2	15:52																								
ZZZZZ	40	15:54																								
ZZZZZ	2	15:57																								
CCV02	1	15:59																X								
CCB02	1	16:01																X								
1202011732	2	16:03																X								
1202011733	40	16:06																X								
244144001	2	16:08																X								
CCV03	1	16:10																X								
CCB03	1	16:12																X								
1202011734	2	16:15																X								
1202011735	2	16:17																X								
1202011737	2	16:19																X								
1202011736	10	16:21																X								
244144002	2	16:23																X								
CCV04	1	16:26																X								
CCB04	1	16:28																X								
244144003	2	16:30																X								
244144004	2	16:32																X								
244144005	2	16:35																X								
244144006	2	16:37																X								
244144007	2	16:39																X								
CCV05	1	16:41																X								
CCB05	1	16:44																X								
244144008	2	16:46																X								
244144009	2	16:48																X								
244144010	2	16:50																X								
244144011	2	16:53																X								
244144012	2	16:55																X								
CCV06	1	16:57																X								

Samp No.	D/F	Run Time
CCB06	1	16:59
244144013	2	17:02
244144014	2	17:04
244144015	2	17:06
244144016	2	17:08
244144017	2	17:11
244144018	2	17:13
CCV07	1	17:15
CCB07	1	17:17

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA1

Start Date: 26-JAN-10

End Date: 26-JAN-10

Client Sdg: 10-1128

Method P

Data File: 012610C-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	11:02						X							X				X							
S0.1	1	11:06																	X							
S0.5	1	11:08						X							X				X							
SCAL	1	11:12						X							X				X							
S10	1	11:16						X							X											
ICV01	1	11:18						X							X				X							
ICB01	1	11:22						X							X				X							
PQL01	1	11:25						X							X				X							
ICSA01	1	11:29						X							X				X							
ICSAB01	1	11:31						X							X				X							
LR01	1	11:34						X							X				X							
LR02	1	11:37						X							X				X							
CCV01	1	11:41						X							X				X							
CCB01	1	11:44						X							X				X							
CCV02	1	12:50						X							X				X							
CCB02	1	12:53						X							X				X							
1202011905	1	13:01						X							X				X							
1202011910	1	13:05						X							X				X							
244144001	1	13:08						X							X				X							
1202011906	1	13:11						X							X				X							
1202011908	1	13:15						X							X				X							
1202011909	1	13:19						X							X				X							
1202011907	5	13:22						X							X				X							
244144002	1	13:26						X							X				X							
CCV03	1	13:30						X							X				X							
CCB03	1	13:34						X							X				X							
244144003	1	13:37						X							X				X							
244144004	1	13:41						X							X				X							
244144005	1	13:45						X							X				X							
244144006	1	13:48						X							X				X							
244144007	1	13:52						X							X				X							
244144008	1	13:56						X							X				X							
244144009	1	13:59						X							X				X							
244144010	1	14:03						X							X				X							
CCV04	1	14:07						X							X				X							
CCB04	1	14:11						X							X				X							
244144011	1	14:14						X							X				X							
244144012	1	14:18						X							X				X							
244144013	1	14:22						X							X				X							
244144014	1	14:25						X							X				X							

Samp No.	D/F	Run Time						X				X			X				
244144015	1	14:29						X				X			X				
244144016	1	14:33						X				X			X				
244144017	1	14:36						X				X			X				
244144018	1	14:40						X				X			X				
CCV05	1	14:44						X				X			X				
CCB05	1	14:47						X				X			X				

# Standards



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METALS  
-10-  
Instrument Detection Limits

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SDG NO. 10-1128

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

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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

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METALS  
-10-  
Instrument Detection Limits

SDG NO. 10-1128

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 15-JUN-09

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	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u> <u>ug/L</u>	<u>RDL</u> <u>ug/L</u>
MERCURY				
SOLID	Mercury		0.068	.2

METALS  
-10-  
Instrument Detection Limits

SDG NO. 10-1128

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-1128**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-NOV-09**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Aluminum	Antimony	Arsenic	Barium	Beryllium
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	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	-0.44940	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	-0.22121	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	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	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	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	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: 10-1128

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-NOV-09

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Boron	Cadmium	Chromium	Cobalt	Copper
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	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	2.54031	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	0.38952	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	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
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	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-1128**

Contract: LANL01004

Instrument: **OPTIMA3**Effective Dates: **01-NOV-09**

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	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-1128**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-NOV-09**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
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	-0.64279	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	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	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	6.38465	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No:

10-1128

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-NOV-09

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
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	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
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: **10-1128**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-NOV-09**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Titanium	Uranium	Vanadium	Zinc
<b>Parname</b>	<b>Wavelength</b>				
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1128

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: 01-NOV-09

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.08714	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	-0.36980	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02864	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-**  
**Interement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1128

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: 01-NOV-09

Interement Correction Factors (apparent ppb analyte/ppm interferent)

		Boron	Cadmium	Chromium	Cobalt	Copper
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	4.75140	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	-33.0980	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.36057
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	0.03970	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	122.96
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.07230	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	1.45160

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-1128**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-NOV-09**

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	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	1.47380
Arsenic	188.979	-0.82061	0.00000	0.00000	0.00000	1.83900
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	0.31446	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.07749	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	-2.33110
Copper	324.752	-0.24488	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.01248	0.00000	0.00000	0.00000	-2.95230
Magnesium	279.077	1.47510	0.00000	0.00000	0.00000	-24.9658
Manganese	257.61	-0.12666	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	-0.03930	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	1.17810	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.61937	0.00000	0.41160	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.0660
Silver	328.068	-0.07890	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.14830	0.00000	0.14260	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.63400	0.00000
Tin	189.927	-0.09214	0.00000	-0.16050	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.18670	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.08158	0.00000	0.00000	0.00000	-6.97050
Zinc	213.857	0.06940	0.00000	0.02727	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1128

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: 01-NOV-09

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Nickel	Phosphorous	Selenium	Silicon	Silver
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-1.09390	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	5.19130	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-1128**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-NOV-09**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-3.74360	-0.55870
Arsenic	188.979	0.00000	0.00000	0.00000	-2.71110	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.37024	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	-0.71290
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08900	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	0.84100
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	-21.8313	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	38.5869	36.0710	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-7.24690	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	-1.61770
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1128

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: 01-NOV-09

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-2.10080	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-2.34600	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.85200	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-1128

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-NOV-09
Antimony	20	10000	ug/L	01-NOV-09
Arsenic	20	10000	ug/L	01-NOV-09
Barium	20	15000	ug/L	01-NOV-09
Beryllium	20	3000	ug/L	01-NOV-09
Cadmium	20	10000	ug/L	01-NOV-09
Calcium	20	500000	ug/L	01-NOV-09
Cobalt	20	10000	ug/L	01-NOV-09
Copper	20	20000	ug/L	01-NOV-09
Iron	20	500000	ug/L	01-NOV-09
Lead	20	25000	ug/L	01-NOV-09
Magnesium	20	500000	ug/L	01-NOV-09
Manganese	20	10000	ug/L	01-NOV-09
Nickel	20	10000	ug/L	01-NOV-09
Potassium	20	300000	ug/L	01-NOV-09
Selenium	20	10000	ug/L	01-NOV-09
Silver	20	1000	ug/L	01-NOV-09
Sodium	20	500000	ug/L	01-NOV-09
Thallium	20	10000	ug/L	01-NOV-09
Uranium	20	15000	ug/L	01-NOV-09
Vanadium	20	10000	ug/L	01-NOV-09
Zinc	20	15000	ug/L	01-NOV-09
Chromium	20	25000	ug/L	01-NOV-09



**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-1128

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>
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Aluminum	1	50000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09

METALS  
-12-  
Linear Ranges

SDG NO. 10-1128

Contract: LANL01004

Lab Code: GEL

Instrument ID OPTIMA1

<u>Analyte</u>	<u>Integration Time (sec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	20	500000	ug/L	01-NOV-09
Antimony	20	10000	ug/L	01-NOV-09
Arsenic	20	10000	ug/L	01-NOV-09
Barium	20	15000	ug/L	01-NOV-09
Beryllium	20	3000	ug/L	01-NOV-09
Cadmium	20	10000	ug/L	01-NOV-09
Calcium	20	500000	ug/L	01-NOV-09
Chromium	20	25000	ug/L	01-NOV-09
Cobalt	20	10000	ug/L	01-NOV-09
Copper	20	20000	ug/L	01-NOV-09
Iron	20	500000	ug/L	01-NOV-09
Lead	20	25000	ug/L	01-NOV-09
Magnesium	20	500000	ug/L	01-NOV-09
Manganese	20	10000	ug/L	01-NOV-09
Nickel	20	10000	ug/L	01-NOV-09
Potassium	20	300000	ug/L	01-NOV-09
Selenium	20	10000	ug/L	01-NOV-09
Silver	20	1000	ug/L	01-NOV-09
Sodium	20	500000	ug/L	01-NOV-09
Thallium	20	10000	ug/L	01-NOV-09
Uranium	20	15000	ug/L	01-NOV-09
Vanadium	20	10000	ug/L	01-NOV-09
Zinc	20	15000	ug/L	01-NOV-09

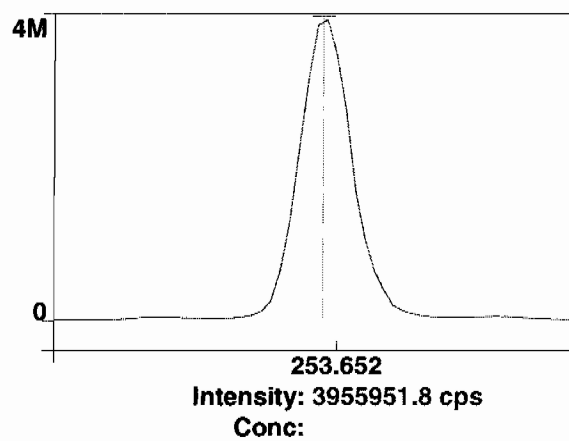
# Raw Data

Method: Hg\_ReAlign  
Result: 012810

Sample ID: Hg\_ReAlign

Hg 253.652

Rep: 1



1

## =====

Reprocessing Begun

Logged In Analyst: optima

Technique: ICP Continuous

Results Data Set (original): 012610B

Results Library (original): c:\pe\optimal\Results\Results.mdb

Results Data Set (reprocessed): 012610C

Results Library (reprocessed): c:\pe\optimal\Results\Results.mdb

## =====

Method Loaded

Method Name: Gen Eng fast\_new Si

IEC File: 011510.iec

Method Description:

Method Last Saved: 1/26/2010 12:34:08

MSF File:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

=====

Sequence No.: 1

Sample ID: S0

Analyst:

Logged In Analyst (Original) : optima

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/26/2010 11:02:29

Data Type: Reprocessed on 1/26/2010 12:37:14

Initial Sample Vol:

Sample Prep Vol:

=====

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	1847533.0	1847533.0	100.19 %	11:04:37
1	Sc RADIAL	74341.3	74341.3	100 %	11:03:14
1	Y 371.029	1173184.4	1173184.4	100.17 %	11:04:37
1	Ag 328.068†	35.9	35.8	[0.00] µg/L	11:04:42
1	Al 396.153Radial†	-36.2	-36.0	[0.00] µg/L	11:03:14
1	As 188.979†	-2.3	-2.3	[0.00] µg/L	11:05:03

1	B 249.677†	114.7	114.4	[0.00]	µg/L	11:05:03
1	Ba 233.527†	-5.7	-5.7	[0.00]	µg/L	11:05:03
1	Be 313.107†	4410.3	4401.8	[0.00]	µg/L	11:04:42
1	Ca 317.933Radial†	247.6	246.6	[0.00]	µg/L	11:03:35
1	Cd 226.502†	-101.4	-101.3	[0.00]	µg/L	11:05:03
1	Co 228.616†	-31.8	-31.8	[0.00]	µg/L	11:05:03
1	Cr 267.716†	-49.1	-49.0	[0.00]	µg/L	11:05:03
1	Cu 324.752†	3842.9	3835.4	[0.00]	µg/L	11:04:42
1	Fe 238.204 Radial†	16.8	16.7	[0.00]	µg/L	11:03:35
1	K 766.490 Radial†	422.7	421.1	[0.00]	µg/L	11:03:14
1	Mg 279.077 IEC†	12.5	12.5	[0.00]	µg/L	11:03:35
1	Mn 257.610†	-44.0	-43.9	[0.00]	µg/L	11:05:03
1	Mo 202.031†	15.4	15.3	[0.00]	µg/L	11:05:03
1	Na 589.592 Radial†	921.1	917.6	[0.00]	µg/L	11:03:14
1	Ni 231.604†	334.8	334.2	[0.00]	µg/L	11:05:03
1	P 214.914†	203.3	202.9	[0.00]	µg/L	11:05:03
1	Pb 220.353†	69.0	68.8	[0.00]	µg/L	11:05:03
1	S 181.975 Axial†	22.8	22.8	[0.00]	µg/L	11:05:03
1	Sb 206.836†	24.9	24.9	[0.00]	µg/L	11:05:03
1	Se 196.026†	11.8	11.8	[0.00]	µg/L	11:05:03
1	SiO2†	2327.6	2323.1	[0.00]	µg/L	11:04:42
1	Si 251.611†	314.3	313.7	[0.00]	µg/L	11:05:03
1	Sn 189.927†	22.1	22.0	[0.00]	µg/L	11:05:03
1	Sr 421.552†	587.3	585.1	[0.00]	µg/L	11:03:14
1	Ti 334.940†	969.2	967.3	[0.00]	µg/L	11:04:42
1	Tl 190.801†	-18.1	-18.1	[0.00]	µg/L	11:05:03
1	U 409.014†	-128.6	-128.4	[0.00]	µg/L	11:04:42
1	V 292.402†	-92.8	-92.6	[0.00]	µg/L	11:04:42
1	Zn 213.857†	668.3	667.0	[0.00]	µg/L	11:05:03
2	Sc 361.383	1844096.0	1844096.0	100.01	%	11:05:09
2	Sc RADIAL	74416.6	74416.6	100	%	11:03:40
2	Y 371.029	1170904.9	1170904.9	99.978	%	11:05:09
2	Ag 328.068†	-10.7	-10.7	[0.00]	µg/L	11:05:14
2	Al 396.153Radial†	-1.1	-1.1	[0.00]	µg/L	11:03:40
2	As 188.979†	-2.0	-2.0	[0.00]	µg/L	11:05:35
2	B 249.677†	107.7	107.7	[0.00]	µg/L	11:05:35
2	Ba 233.527†	-1.2	-1.2	[0.00]	µg/L	11:05:35
2	Be 313.107†	4438.9	4438.5	[0.00]	µg/L	11:05:14
2	Ca 317.933Radial†	266.9	265.6	[0.00]	µg/L	11:04:01
2	Cd 226.502†	-109.7	-109.7	[0.00]	µg/L	11:05:35
2	Co 228.616†	-38.8	-38.7	[0.00]	µg/L	11:05:35
2	Cr 267.716†	-53.3	-53.3	[0.00]	µg/L	11:05:35
2	Cu 324.752†	3852.1	3851.8	[0.00]	µg/L	11:05:14
2	Fe 238.204 Radial†	18.0	17.9	[0.00]	µg/L	11:04:01
2	K 766.490 Radial†	402.7	400.7	[0.00]	µg/L	11:03:40
2	Mg 279.077 IEC†	10.7	10.7	[0.00]	µg/L	11:04:01
2	Mn 257.610†	-48.2	-48.2	[0.00]	µg/L	11:05:35
2	Mo 202.031†	16.7	16.7	[0.00]	µg/L	11:05:35
2	Na 589.592 Radial†	911.1	906.7	[0.00]	µg/L	11:03:40
2	Ni 231.604†	333.3	333.3	[0.00]	µg/L	11:05:35
2	P 214.914†	194.8	194.8	[0.00]	µg/L	11:05:35
2	Pb 220.353†	69.8	69.8	[0.00]	µg/L	11:05:35
2	S 181.975 Axial†	23.9	23.9	[0.00]	µg/L	11:05:35
2	Sb 206.836†	25.6	25.6	[0.00]	µg/L	11:05:35
2	Se 196.026†	7.7	7.7	[0.00]	µg/L	11:05:35
2	SiO2†	2292.3	2292.1	[0.00]	µg/L	11:05:14
2	Si 251.611†	315.9	315.9	[0.00]	µg/L	11:05:35
2	Sn 189.927†	21.0	21.0	[0.00]	µg/L	11:05:35
2	Sr 421.552†	593.0	590.1	[0.00]	µg/L	11:03:40
2	Ti 334.940†	968.8	968.7	[0.00]	µg/L	11:05:14
2	Tl 190.801†	-23.5	-23.5	[0.00]	µg/L	11:05:35
2	U 409.014†	-130.6	-130.6	[0.00]	µg/L	11:05:14
2	V 292.402†	-112.4	-112.4	[0.00]	µg/L	11:05:14
2	Zn 213.857†	664.4	664.4	[0.00]	µg/L	11:05:35
3	Sc 361.383	1840242.9	1840242.9	99.799	%	11:05:41
3	Sc RADIAL	73412.0	73412.0	99.1	%	11:04:06
3	Y 371.029	1169414.2	1169414.2	99.850	%	11:05:41
3	Ag 328.068†	2.6	2.6	[0.00]	µg/L	11:05:46
3	Al 396.153Radial†	-25.2	-25.4	[0.00]	µg/L	11:04:06
3	As 188.979†	0.5	0.5	[0.00]	µg/L	11:06:07
3	B 249.677†	120.0	120.3	[0.00]	µg/L	11:06:07

3	Ba 233.527†	-9.5	-9.5	[0.00]	µg/L	11:06:07
3	Be 313.107†	4355.5	4364.2	[0.00]	µg/L	11:05:46
3	Ca 317.933Radial†	260.4	262.7	[0.00]	µg/L	11:04:27
3	Cd 226.502†	-111.2	-111.4	[0.00]	µg/L	11:06:07
3	Co 228.616†	-36.7	-36.8	[0.00]	µg/L	11:06:07
3	Cr 267.716†	-49.7	-49.8	[0.00]	µg/L	11:06:07
3	Cu 324.752†	3808.1	3815.7	[0.00]	µg/L	11:05:46
3	Fe 238.204 Radial†	15.1	15.2	[0.00]	µg/L	11:04:27
3	K 766.490 Radial†	404.6	408.2	[0.00]	µg/L	11:04:06
3	Mg 279.077 IEC†	11.8	11.9	[0.00]	µg/L	11:04:27
3	Mn 257.610†	-74.2	-74.4	[0.00]	µg/L	11:06:07
3	Mo 202.031†	16.8	16.8	[0.00]	µg/L	11:06:07
3	Na 589.592 Radial†	890.7	898.6	[0.00]	µg/L	11:04:06
3	Ni 231.604†	330.2	330.9	[0.00]	µg/L	11:06:07
3	P 214.914†	204.9	205.3	[0.00]	µg/L	11:06:07
3	Pb 220.353†	57.7	57.8	[0.00]	µg/L	11:06:07
3	S 181.975 Axial†	25.7	25.8	[0.00]	µg/L	11:06:07
3	Sb 206.836†	15.8	15.9	[0.00]	µg/L	11:06:07
3	Se 196.026†	10.2	10.2	[0.00]	µg/L	11:06:07
3	SiO2†	2282.5	2287.1	[0.00]	µg/L	11:05:46
3	Si 251.611†	325.1	325.8	[0.00]	µg/L	11:06:07
3	Sn 189.927†	23.1	23.2	[0.00]	µg/L	11:06:07
3	Sr 421.552†	590.1	595.3	[0.00]	µg/L	11:04:06
3	Ti 334.940†	935.9	937.8	[0.00]	µg/L	11:05:46
3	Tl 190.801†	-23.4	-23.5	[0.00]	µg/L	11:06:07
3	U 409.014†	-195.4	-195.8	[0.00]	µg/L	11:05:46
3	V 292.402†	-82.4	-82.6	[0.00]	µg/L	11:05:46
3	Zn 213.857†	668.8	670.1	[0.00]	µg/L	11:06:07

## Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sc 361.383	1843957.3	3647.02	0.20%	100.00	%
Sc RADIAL	74056.6	559.52	0.76%	100	%
Y 371.029	1171167.8	1898.83	0.16%	100.00	%
Ag 328.068†	9.2	23.97	259.39%	[0.00]	µg/L
Al 396.153Radial†	-20.8	17.92	86.07%	[0.00]	µg/L
As 188.979†	-1.3	1.55	122.57%	[0.00]	µg/L
B 249.677†	114.1	6.31	5.53%	[0.00]	µg/L
Ba 233.527†	-5.5	4.17	75.83%	[0.00]	µg/L
Be 313.107†	4401.5	37.14	0.84%	[0.00]	µg/L
Ca 317.933Radial†	258.3	10.24	3.96%	[0.00]	µg/L
Cd 226.502†	-107.5	5.45	5.07%	[0.00]	µg/L
Co 228.616†	-35.8	3.59	10.03%	[0.00]	µg/L
Cr 267.716†	-50.7	2.28	4.50%	[0.00]	µg/L
Cu 324.752†	3834.3	18.07	0.47%	[0.00]	µg/L
Fe 238.204 Radial†	16.6	1.35	8.14%	[0.00]	µg/L
K 766.490 Radial†	410.0	10.30	2.51%	[0.00]	µg/L
Mg 279.077 IEC†	11.7	0.92	7.87%	[0.00]	µg/L
Mn 257.610†	-55.5	16.51	29.75%	[0.00]	µg/L
Mo 202.031†	16.3	0.83	5.07%	[0.00]	µg/L
Na 589.592 Radial†	907.6	9.55	1.05%	[0.00]	µg/L
Ni 231.604†	332.8	1.72	0.52%	[0.00]	µg/L
P 214.914†	201.0	5.50	2.74%	[0.00]	µg/L
Pb 220.353†	65.5	6.70	10.23%	[0.00]	µg/L
S 181.975 Axial†	24.1	1.50	6.23%	[0.00]	µg/L
Sb 206.836†	22.1	5.42	24.51%	[0.00]	µg/L
Se 196.026†	9.9	2.03	20.59%	[0.00]	µg/L
SiO2†	2300.8	19.51	0.85%	[0.00]	µg/L
Si 251.611†	318.4	6.45	2.03%	[0.00]	µg/L
Sn 189.927†	22.0	1.10	4.98%	[0.00]	µg/L
Sr 421.552†	590.2	5.13	0.87%	[0.00]	µg/L
Ti 334.940†	957.9	17.46	1.82%	[0.00]	µg/L
Tl 190.801†	-21.7	3.11	14.34%	[0.00]	µg/L
U 409.014†	-151.6	38.32	25.28%	[0.00]	µg/L
V 292.402†	-95.9	15.17	15.82%	[0.00]	µg/L
Zn 213.857†	667.2	2.88	0.43%	[0.00]	µg/L

Sequence No.: 2  
 Sample ID: S0.1  
 Analyst:  
 Logged In Analyst (Original) : optima  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 1/26/2010 11:06:16  
 Data Type: Reprocessed on 1/26/2010 12:37:52  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	1830290.5	1830290.5	99.259 %	11:07:12
1	Sc RADIAL	75342.5	75342.5	102 %	11:06:51
1	Y 371.029	1160686.2	1160686.2	99.105 %	11:07:12
1	Ag 328.068†	10750.6	10821.6	[100] µg/L	11:07:18
1	As 188.979†	44.4	46.0	[100] µg/L	11:07:38
1	B 249.677†	2151.0	2052.9	[100] µg/L	11:07:18
1	Ba 233.527†	3453.9	3485.2	[100] µg/L	11:07:18
1	Be 313.107†	148024.3	144728.1	[100] µg/L	11:07:12
1	Cd 226.502†	3326.2	3458.5	[100] µg/L	11:07:18
1	Co 228.616†	1759.5	1808.4	[100] µg/L	11:07:38
1	Cr 267.716†	4351.0	4434.2	[100] µg/L	11:07:18
1	Cu 324.752†	17389.3	13684.8	[100] µg/L	11:07:18
1	K 766.490 Radial†	1829.6	1388.4	[1000] µg/L	11:06:51
1	Mn 257.610†	26914.7	27171.2	[100] µg/L	11:07:18
1	Mo 202.031†	827.0	816.9	[100] µg/L	11:07:38
1	Ni 231.604†	1937.3	1619.0	[100] µg/L	11:07:38
1	P 214.914†	417.8	219.9	[500] µg/L	11:07:38
1	Pb 220.353†	404.1	341.6	[100] µg/L	11:07:38
1	S 181.975 Axial†	61.6	37.9	[200] µg/L	11:07:38
1	Sb 206.836†	118.9	97.7	[100] µg/L	11:07:38
1	Se 196.026†	77.7	68.4	[100] µg/L	11:07:38
1	SiO2†	7382.6	5136.9	[1069.5] µg/L	11:07:18
1	Si 251.611†	6324.7	6053.5	[500] µg/L	11:07:18
1	Sn 189.927†	200.3	179.7	[100] µg/L	11:07:38
1	Sr 421.552†	16779.5	15903.0	[100] µg/L	11:06:51
1	Ti 334.940†	40052.0	39393.1	[100] µg/L	11:07:18
1	Tl 190.801†	35.3	57.2	[100] µg/L	11:07:38
1	U 409.014†	1101.4	1261.2	[100] µg/L	11:07:18
1	V 292.402†	8049.0	8205.0	[100] µg/L	11:07:18
1	Zn 213.857†	4171.4	3535.4	[100] µg/L	11:07:18
2	Sc 361.383	1830701.3	1830701.3	99.281 %	11:07:44
2	Sc RADIAL	76229.2	76229.2	103 %	11:06:57
2	Y 371.029	1160645.6	1160645.6	99.102 %	11:07:44
2	Ag 328.068†	10746.2	10814.8	[100] µg/L	11:07:50
2	As 188.979†	44.1	45.7	[100] µg/L	11:08:10
2	B 249.677†	2149.5	2050.9	[100] µg/L	11:07:50
2	Ba 233.527†	3451.7	3482.2	[100] µg/L	11:07:50
2	Be 313.107†	145217.3	141867.3	[100] µg/L	11:07:44
2	Cd 226.502†	3315.3	3446.8	[100] µg/L	11:07:50
2	Co 228.616†	1763.6	1812.1	[100] µg/L	11:08:10
2	Cr 267.716†	4303.1	4384.9	[100] µg/L	11:07:50
2	Cu 324.752†	17375.1	13666.5	[100] µg/L	11:07:50
2	K 766.490 Radial†	1864.9	1401.7	[1000] µg/L	11:06:57
2	Mn 257.610†	26833.8	27083.6	[100] µg/L	11:07:50
2	Mo 202.031†	820.9	810.6	[100] µg/L	11:08:10
2	Ni 231.604†	1936.1	1617.3	[100] µg/L	11:08:10
2	P 214.914†	409.7	211.7	[500] µg/L	11:08:10
2	Pb 220.353†	404.5	341.9	[100] µg/L	11:08:10
2	S 181.975 Axial†	55.1	31.3	[200] µg/L	11:08:10
2	Sb 206.836†	112.1	90.8	[100] µg/L	11:08:10
2	Se 196.026†	80.6	71.3	[100] µg/L	11:08:10
2	SiO2†	7380.4	5133.0	[1069.5] µg/L	11:07:50
2	Si 251.611†	6280.3	6007.3	[500] µg/L	11:07:50
2	Sn 189.927†	197.5	176.9	[100] µg/L	11:08:10
2	Sr 421.552†	16980.5	15906.4	[100] µg/L	11:06:57
2	Ti 334.940†	39849.2	39179.9	[100] µg/L	11:07:50
2	Tl 190.801†	40.8	62.8	[100] µg/L	11:08:10
2	U 409.014†	1007.1	1166.0	[100] µg/L	11:07:50



2	V 292.402†	8026.2	8180.2	[100] µg/L	11:07:50
2	Zn 213.857†	4155.3	3518.2	[100] µg/L	11:07:50
3	Sc 361.383	1847763.9	1847763.9	100.21 %	11:08:16
3	Sc RADIAL	75581.3	75581.3	102 %	11:07:02
3	Y 371.029	1171817.1	1171817.1	100.06 %	11:08:16
3	Ag 328.068†	10753.9	10722.5	[100] µg/L	11:08:22
3	As 188.979†	42.9	44.1	[100] µg/L	11:08:42
3	B 249.677†	2144.2	2025.7	[100] µg/L	11:08:22
3	Ba 233.527†	3449.1	3447.5	[100] µg/L	11:08:22
3	Be 313.107†	147512.0	142806.6	[100] µg/L	11:08:16
3	Cd 226.502†	3296.3	3397.0	[100] µg/L	11:08:22
3	Co 228.616†	1752.1	1784.3	[100] µg/L	11:08:42
3	Cr 267.716†	4311.4	4353.2	[100] µg/L	11:08:22
3	Cu 324.752†	17391.3	13521.1	[100] µg/L	11:08:22
3	K 766.490 Radial†	1827.6	1380.7	[1000] µg/L	11:07:02
3	Mn 257.610†	26925.2	26925.2	[100] µg/L	11:08:22
3	Mo 202.031†	821.8	803.8	[100] µg/L	11:08:42
3	Ni 231.604†	1928.4	1591.6	[100] µg/L	11:08:42
3	P 214.914†	414.9	213.0	[500] µg/L	11:08:42
3	Pb 220.353†	411.3	345.0	[100] µg/L	11:08:42
3	S 181.975 Axial†	61.0	36.7	[200] µg/L	11:08:42
3	Sb 206.836†	119.6	97.3	[100] µg/L	11:08:42
3	Se 196.026†	67.6	57.6	[100] µg/L	11:08:42
3	SiO2†	7405.8	5089.7	[1069.5] µg/L	11:08:22
3	Si 251.611†	6324.5	5993.0	[500] µg/L	11:08:22
3	Sn 189.927†	200.1	177.7	[100] µg/L	11:08:42
3	Sr 421.552†	16862.2	15931.9	[100] µg/L	11:07:02
3	Ti 334.940†	40002.4	38962.1	[100] µg/L	11:08:22
3	Tl 190.801†	40.3	61.9	[100] µg/L	11:08:42
3	U 409.014†	1075.1	1224.4	[100] µg/L	11:08:22
3	V 292.402†	8003.6	8083.0	[100] µg/L	11:08:22
3	Zn 213.857†	4149.1	3473.3	[100] µg/L	11:08:22

## Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1836251.9	9971.80	0.54%	99.582 %	
Sc RADIAL	75717.7	458.82	0.61%	102 %	
Y 371.029	1164383.0	6438.19	0.55%	99.421 %	
Ag 328.068†	10786.3	55.36	0.51%	[100] µg/L	
As 188.979†	45.3	1.03	2.27%	[100] µg/L	
B 249.677†	2043.2	15.19	0.74%	[100] µg/L	
Ba 233.527†	3471.6	20.93	0.60%	[100] µg/L	
Be 313.107†	143134.0	1458.21	1.02%	[100] µg/L	
Cd 226.502†	3434.1	32.67	0.95%	[100] µg/L	
Co 228.616†	1801.6	15.08	0.84%	[100] µg/L	
Cr 267.716†	4390.8	40.82	0.93%	[100] µg/L	
Cu 324.752†	13624.2	89.69	0.66%	[100] µg/L	
K 766.490 Radial†	1390.3	10.62	0.76%	[1000] µg/L	
Mn 257.610†	27060.0	124.68	0.46%	[100] µg/L	
Mo 202.031†	810.4	6.53	0.81%	[100] µg/L	
Ni 231.604†	1609.3	15.35	0.95%	[100] µg/L	
P 214.914†	214.9	4.40	2.05%	[500] µg/L	
Pb 220.353†	342.8	1.86	0.54%	[100] µg/L	
S 181.975 Axial†	35.3	3.50	9.90%	[200] µg/L	
Sb 206.836†	95.3	3.86	4.05%	[100] µg/L	
Se 196.026†	65.8	7.21	10.96%	[100] µg/L	
SiO2†	5119.9	26.19	0.51%	[1069.5] µg/L	
Si 251.611†	6017.9	31.61	0.53%	[500] µg/L	
Sn 189.927†	178.1	1.44	0.81%	[100] µg/L	
Sr 421.552†	15913.7	15.83	0.10%	[100] µg/L	
Ti 334.940†	39178.4	215.54	0.55%	[100] µg/L	
Tl 190.801†	60.6	2.98	4.92%	[100] µg/L	
U 409.014†	1217.2	48.00	3.94%	[100] µg/L	
V 292.402†	8156.1	64.46	0.79%	[100] µg/L	
Zn 213.857†	3509.0	32.03	0.91%	[100] µg/L	

Sequence No.: 3  
 Sample ID: S0.5  
 Analyst:  
 Logged In Analyst (Original) : optima  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 1/26/2010 11:08:51  
 Data Type: Reprocessed on 1/26/2010 12:38:30  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	1836871.7	1836871.7	99.616 %	11:10:48
1	Sc RADIAL	75750.6	75750.6	102 %	11:09:24
1	Y 371.029	1163236.2	1163236.2	99.323 %	11:10:48
1	Ag 328.068†	54950.5	55153.2	[500] µg/L	11:10:53
1	Al 396.153Radial†	7634.6	7484.7	[5000] µg/L	11:09:24
1	As 188.979†	232.2	234.4	[500] µg/L	11:11:14
1	B 249.677†	10570.6	10497.2	[500] µg/L	11:10:53
1	Ba 233.527†	17497.4	17570.4	[500] µg/L	11:10:53
1	Be 313.107†	735854.3	734291.3	[500] µg/L	11:10:48
1	Ca 317.933Radial†	6824.5	6413.6	[5000] µg/L	11:09:45
1	Cd 226.502†	17142.0	17315.5	[500] µg/L	11:10:53
1	Co 228.616†	9253.4	9324.8	[500] µg/L	11:10:53
1	Cr 267.716†	22118.2	22254.2	[500] µg/L	11:10:53
1	Cu 324.752†	73066.3	69513.8	[500] µg/L	11:10:53
1	K 766.490 Radial†	8194.4	7601.2	[5000] µg/L	11:09:24
1	Mg 279.077 IEC†	505.8	482.8	[5000] µg/L	11:09:45
1	Mn 257.610†	136147.5	136728.1	[500] µg/L	11:10:53
1	Mo 202.031†	4106.7	4106.3	[500] µg/L	11:11:14
1	Ni 231.604†	8458.3	8158.2	[500] µg/L	11:10:53
1	P 214.914†	1308.4	1112.5	[2500] µg/L	11:11:14
1	Pb 220.353†	1845.5	1787.2	[500] µg/L	11:11:14
1	S 181.975 Axial†	207.7	184.4	[1000] µg/L	11:11:14
1	Sb 206.836†	497.1	476.9	[500] µg/L	11:11:14
1	Se 196.026†	339.3	330.8	[500] µg/L	11:11:14
1	SiO2†	28446.6	26255.6	[5347.5] µg/L	11:10:53
1	Si 251.611†	31042.6	30843.9	[2500] µg/L	11:10:53
1	Sn 189.927†	918.9	900.4	[500] µg/L	11:11:14
1	Sr 421.552†	82873.9	80430.5	[500] µg/L	11:09:24
1	Ti 334.940†	205586.0	205421.1	[500] µg/L	11:10:48
1	Tl 190.801†	276.4	299.2	[500] µg/L	11:11:14
1	U 409.014†	5400.8	5573.2	[500] µg/L	11:10:53
1	V 292.402†	41304.0	41559.2	[500] µg/L	11:10:53
1	Zn 213.857†	18388.5	17792.3	[500] µg/L	11:10:53
2	Sc 361.383	1861798.9	1861798.9	100.97 %	11:11:21
2	Sc RADIAL	75565.7	75565.7	102 %	11:09:50
2	Y 371.029	1177246.6	1177246.6	100.52 %	11:11:21
2	Ag 328.068†	55236.8	54698.2	[500] µg/L	11:11:26
2	Al 396.153Radial†	7647.8	7515.9	[5000] µg/L	11:09:50
2	As 188.979†	226.2	225.3	[500] µg/L	11:11:47
2	B 249.677†	10593.6	10378.0	[500] µg/L	11:11:26
2	Ba 233.527†	17554.8	17392.1	[500] µg/L	11:11:26
2	Be 313.107†	740623.8	729124.8	[500] µg/L	11:11:21
2	Ca 317.933Radial†	6799.9	6405.8	[5000] µg/L	11:10:11
2	Cd 226.502†	17151.2	17094.3	[500] µg/L	11:11:26
2	Co 228.616†	9239.7	9186.9	[500] µg/L	11:11:26
2	Cr 267.716†	22120.5	21959.2	[500] µg/L	11:11:26
2	Cu 324.752†	73282.3	68745.7	[500] µg/L	11:11:26
2	K 766.490 Radial†	8275.6	7700.3	[5000] µg/L	11:09:50
2	Mg 279.077 IEC†	501.2	479.5	[5000] µg/L	11:10:11
2	Mn 257.610†	136498.8	135246.2	[500] µg/L	11:11:26
2	Mo 202.031†	4062.3	4007.1	[500] µg/L	11:11:47
2	Ni 231.604†	8453.0	8039.3	[500] µg/L	11:11:26
2	P 214.914†	1285.7	1072.3	[2500] µg/L	11:11:47
2	Pb 220.353†	1841.3	1758.2	[500] µg/L	11:11:47
2	S 181.975 Axial†	203.1	177.1	[1000] µg/L	11:11:47
2	Sb 206.836†	495.0	468.2	[500] µg/L	11:11:47
2	Se 196.026†	346.1	332.9	[500] µg/L	11:11:47
2	SiO2†	28468.7	25895.1	[5347.5] µg/L	11:11:26

2	Si 251.611†	31151.5	30534.6	[2500]	µg/L	11:11:26
2	Sn 189.927†	907.2	876.4	[500]	µg/L	11:11:47
2	Sr 421.552†	83135.0	80884.6	[500]	µg/L	11:09:50
2	Ti 334.940†	206908.1	203967.4	[500]	µg/L	11:11:21
2	Tl 190.801†	273.8	292.8	[500]	µg/L	11:11:47
2	U 409.014†	5411.0	5510.7	[500]	µg/L	11:11:26
2	V 292.402†	41412.6	41111.6	[500]	µg/L	11:11:26
2	Zn 213.857†	18424.3	17580.5	[500]	µg/L	11:11:26
3	Sc 361.383	1836514.6	1836514.6	99.596	%	11:11:53
3	Sc RADIAL	75378.7	75378.7	102	%	11:10:16
3	Y 371.029	1162384.1	1162384.1	99.250	%	11:11:53
3	Ag 328.068†	53450.8	53658.1	[500]	µg/L	11:11:59
3	Al 396.153Radial†	7659.4	7545.9	[5000]	µg/L	11:10:16
3	As 188.979†	201.8	203.9	[500]	µg/L	11:12:20
3	B 249.677†	10194.5	10121.7	[500]	µg/L	11:11:59
3	Ba 233.527†	16547.5	16620.1	[500]	µg/L	11:11:59
3	Be 313.107†	702434.4	700879.5	[500]	µg/L	11:11:53
3	Ca 317.933Radial†	6815.4	6437.6	[5000]	µg/L	11:10:37
3	Cd 226.502†	16170.1	16343.1	[500]	µg/L	11:11:59
3	Co 228.616†	8627.4	8698.1	[500]	µg/L	11:11:59
3	Cr 267.716†	20242.2	20374.9	[500]	µg/L	11:11:59
3	Cu 324.752†	68761.5	65205.8	[500]	µg/L	11:11:59
3	K 766.490 Radial†	8283.6	7728.3	[5000]	µg/L	11:10:16
3	Mg 279.077 IEC†	501.7	481.2	[5000]	µg/L	11:10:37
3	Mn 257.610†	127308.0	127879.4	[500]	µg/L	11:11:59
3	Mo 202.031†	3496.9	3494.8	[500]	µg/L	11:12:20
3	Ni 231.604†	7939.6	7639.0	[500]	µg/L	11:11:59
3	P 214.914†	1155.7	959.4	[2500]	µg/L	11:12:20
3	Pb 220.353†	1633.8	1575.0	[500]	µg/L	11:12:20
3	S 181.975 Axial†	189.8	166.4	[1000]	µg/L	11:12:20
3	Sb 206.836†	435.9	415.6	[500]	µg/L	11:12:20
3	Se 196.026†	315.5	306.9	[500]	µg/L	11:12:20
3	SiO2†	27301.2	25111.1	[5347.5]	µg/L	11:11:59
3	Si 251.611†	29665.6	29467.4	[2500]	µg/L	11:11:59
3	Sn 189.927†	771.3	752.4	[500]	µg/L	11:12:20
3	Sr 421.552†	83323.2	81271.7	[500]	µg/L	11:10:16
3	Ti 334.940†	195361.9	195195.7	[500]	µg/L	11:11:53
3	Tl 190.801†	255.4	278.2	[500]	µg/L	11:12:20
3	U 409.014†	4954.0	5125.7	[500]	µg/L	11:11:59
3	V 292.402†	38535.9	38787.9	[500]	µg/L	11:11:59
3	Zn 213.857†	17241.0	16643.7	[500]	µg/L	11:11:59

## Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1845061.7	14495.94	0.79%	100.06	%
Sc RADIAL	75565.0	185.94	0.25%	102	%
Y 371.029	1167622.3	8345.74	0.71%	99.697	%
Ag 328.068†	54503.2	766.39	1.41%	[500]	µg/L
Al 396.153Radial†	7515.5	30.58	0.41%	[5000]	µg/L
As 188.979†	221.2	15.68	7.09%	[500]	µg/L
B 249.677†	10332.3	191.90	1.86%	[500]	µg/L
Ba 233.527†	17194.2	505.15	2.94%	[500]	µg/L
Be 313.107†	721431.9	17985.35	2.49%	[500]	µg/L
Ca 317.933Radial†	6419.0	16.55	0.26%	[5000]	µg/L
Cd 226.502†	16917.7	509.70	3.01%	[500]	µg/L
Co 228.616†	9070.0	329.33	3.63%	[500]	µg/L
Cr 267.716†	21529.5	1010.69	4.69%	[500]	µg/L
Cu 324.752†	67821.8	2297.82	3.39%	[500]	µg/L
K 766.490 Radial†	7676.6	66.80	0.87%	[5000]	µg/L
Mg 279.077 IEC†	481.2	1.64	0.34%	[5000]	µg/L
Mn 257.610†	133284.6	4739.29	3.56%	[500]	µg/L
Mo 202.031†	3869.4	328.17	8.48%	[500]	µg/L
Ni 231.604†	7945.5	271.97	3.42%	[500]	µg/L
P 214.914†	1048.1	79.36	7.57%	[2500]	µg/L
Pb 220.353†	1706.8	115.06	6.74%	[500]	µg/L
S 181.975 Axial†	176.0	9.04	5.14%	[1000]	µg/L
Sb 206.836†	453.6	33.18	7.32%	[500]	µg/L
Se 196.026†	323.5	14.46	4.47%	[500]	µg/L
SiO2†	25753.9	585.17	2.27%	[5347.5]	µg/L

Si 251.611†	30282.0	722.18	2.38%	[2500] µg/L
Sn 189.927†	843.1	79.46	9.42%	[500] µg/L
Sr 421.552†	80862.3	421.03	0.52%	[500] µg/L
Ti 334.940†	201528.1	5531.95	2.75%	[500] µg/L
Tl 190.801†	290.1	10.79	3.72%	[500] µg/L
U 409.014†	5403.2	242.35	4.49%	[500] µg/L
V 292.402†	40486.2	1487.71	3.67%	[500] µg/L
Zn 213.857†	17338.8	611.26	3.53%	[500] µg/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Logged In Analyst (Original) : optima

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 1/26/2010 11:12:29

Data Type: Reprocessed on 1/26/2010 12:39:11

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Analysis Time
1	Sc 361.383	1844789.1	1844789.1	100.05 %	11:14:27
1	Sc RADIAL	76105.5	76105.5	103 %	11:13:02
1	Y 371.029	1165383.0	1165383.0	99.506 %	11:14:27
1	Ag 328.068†	109851.3	109792.5	[1000] µg/L	11:14:33
1	Al 396.153Radial†	15275.6	14885.2	[10000] µg/L	11:13:02
1	As 188.979†	450.3	451.4	[1000] µg/L	11:14:53
1	B 249.677†	21142.6	21018.9	[1000] µg/L	11:14:33
1	Ba 233.527†	34977.4	34967.1	[1000] µg/L	11:14:33
1	Be 313.107†	1464555.9	1459494.0	[1000] µg/L	11:14:27
1	Ca 317.933Radial†	13507.1	12885.2	[10000] µg/L	11:13:02
1	Cd 226.502†	34172.4	34264.5	[1000] µg/L	11:14:33
1	Co 228.616†	18385.5	18413.0	[1000] µg/L	11:14:33
1	Cr 267.716†	44361.4	44392.1	[1000] µg/L	11:14:33
1	Cu 324.752†	145441.0	141541.1	[1000] µg/L	11:14:27
1	Fe 238.204 Radial†	735.3	698.9	[10000] µg/L	11:13:23
1	K 766.490 Radial†	16243.6	15396.3	[10000] µg/L	11:13:02
1	Mg 279.077 IEC†	979.6	941.6	[10000] µg/L	11:13:23
1	Mn 257.610†	276011.9	275942.9	[1000] µg/L	11:14:27
1	Mo 202.031†	8245.6	8225.6	[1000] µg/L	11:14:33
1	Na 589.592 Radial†	37727.9	35804.6	[10000] µg/L	11:13:02
1	Ni 231.604†	16501.5	16161.3	[1000] µg/L	11:14:33
1	P 214.914†	2370.1	2168.1	[5000] µg/L	11:14:53
1	Pb 220.353†	3569.8	3502.7	[1000] µg/L	11:14:53
1	S 181.975 Axial†	386.4	362.1	[2000] µg/L	11:14:53
1	Sb 206.836†	964.3	941.8	[1000] µg/L	11:14:53
1	Se 196.026†	676.0	665.8	[1000] µg/L	11:14:53
1	SiO2†	54026.9	51701.8	[10695] µg/L	11:14:33
1	Si 251.611†	61194.2	60848.1	[5000] µg/L	11:14:33
1	Sn 189.927†	1801.2	1778.4	[1000] µg/L	11:14:53
1	Sr 421.552†	164510.2	159491.2	[1000] µg/L	11:13:02
1	Ti 334.940†	411834.2	410690.6	[1000] µg/L	11:14:27
1	Tl 190.801†	566.4	587.9	[1000] µg/L	11:14:53
1	U 409.014†	10839.9	10986.6	[1000] µg/L	11:14:33
1	V 292.402†	82673.0	82731.6	[1000] µg/L	11:14:33
1	Zn 213.857†	35834.4	35151.1	[1000] µg/L	11:14:33
2	Sc 361.383	1845631.5	1845631.5	100.09 %	11:15:00
2	Sc RADIAL	76086.6	76086.6	103 %	11:13:28
2	Y 371.029	1165831.7	1165831.7	99.544 %	11:15:00
2	Ag 328.068†	109681.1	109572.4	[1000] µg/L	11:15:06
2	Al 396.153Radial†	15340.0	14951.6	[10000] µg/L	11:13:28
2	As 188.979†	447.4	448.3	[1000] µg/L	11:15:27
2	B 249.677†	21157.2	21023.9	[1000] µg/L	11:15:06
2	Ba 233.527†	34921.0	34894.9	[1000] µg/L	11:15:06
2	Be 313.107†	1443209.9	1437499.2	[1000] µg/L	11:15:00
2	Ca 317.933Radial†	13569.8	12949.5	[10000] µg/L	11:13:28
2	Cd 226.502†	34157.8	34234.2	[1000] µg/L	11:15:06
2	Co 228.616†	18297.7	18316.8	[1000] µg/L	11:15:06
2	Cr 267.716†	44206.2	44216.8	[1000] µg/L	11:15:06
2	Cu 324.752†	143783.0	139818.2	[1000] µg/L	11:15:00
2	Fe 238.204 Radial†	733.2	697.0	[10000] µg/L	11:13:49
2	K 766.490 Radial†	16309.4	15464.3	[10000] µg/L	11:13:28
2	Mg 279.077 IEC†	976.5	938.7	[10000] µg/L	11:13:49
2	Mn 257.610†	271912.7	271721.5	[1000] µg/L	11:15:00
2	Mo 202.031†	8189.5	8165.8	[1000] µg/L	11:15:06
2	Na 589.592 Radial†	37809.0	35892.6	[10000] µg/L	11:13:28
2	Ni 231.604†	16433.2	16085.6	[1000] µg/L	11:15:06
2	P 214.914†	2354.0	2150.8	[5000] µg/L	11:15:27
2	Pb 220.353†	3570.7	3501.9	[1000] µg/L	11:15:27

2	S 181.975 Axial†	386.1	361.6	[2000]	µg/L	11:15:27
2	Sb 206.836†	964.7	941.8	[1000]	µg/L	11:15:27
2	Se 196.026†	664.4	654.0	[1000]	µg/L	11:15:27
2	SiO2†	53923.0	51573.3	[10695]	µg/L	11:15:06
2	Si 251.611†	60987.6	60613.8	[5000]	µg/L	11:15:06
2	Sn 189.927†	1790.3	1766.6	[1000]	µg/L	11:15:27
2	Sr 421.552†	165372.9	160370.6	[1000]	µg/L	11:13:28
2	Ti 334.940†	405851.0	404524.9	[1000]	µg/L	11:15:00
2	Tl 190.801†	569.2	590.4	[1000]	µg/L	11:15:27
2	U 409.014†	10757.9	10899.7	[1000]	µg/L	11:15:06
2	V 292.402†	82493.8	82514.8	[1000]	µg/L	11:15:06
2	Zn 213.857†	35785.3	35085.7	[1000]	µg/L	11:15:06
3	Sc 361.383	1846974.0	1846974.0	100.16	%	11:15:34
3	Sc RADIAL	76047.5	76047.5	103	%	11:13:54
3	Y 371.029	1166395.3	1166395.3	99.592	%	11:15:34
3	Ag 328.068†	105207.2	105026.1	[1000]	µg/L	11:15:40
3	Al 396.153Radial†	15344.5	14963.6	[10000]	µg/L	11:13:54
3	As 188.979†	397.8	398.4	[1000]	µg/L	11:16:00
3	B 249.677†	20079.9	19933.0	[1000]	µg/L	11:15:40
3	Ba 233.527†	32592.4	32544.6	[1000]	µg/L	11:15:40
3	Be 313.107†	1383933.1	1377271.1	[1000]	µg/L	11:15:34
3	Ca 317.933Radial†	13652.3	13036.6	[10000]	µg/L	11:13:54
3	Cd 226.502†	31790.7	31846.2	[1000]	µg/L	11:15:40
3	Co 228.616†	16912.4	16920.5	[1000]	µg/L	11:15:40
3	Cr 267.716†	39931.9	39917.3	[1000]	µg/L	11:15:40
3	Cu 324.752†	138260.3	134200.1	[1000]	µg/L	11:15:34
3	Fe 238.204 Radial†	741.4	705.4	[10000]	µg/L	11:14:15
3	K 766.490 Radial†	16276.8	15440.7	[10000]	µg/L	11:13:54
3	Mg 279.077 IEC†	984.3	946.8	[10000]	µg/L	11:14:15
3	Mn 257.610†	260909.1	260538.4	[1000]	µg/L	11:15:34
3	Mo 202.031†	7589.7	7561.1	[1000]	µg/L	11:15:40
3	Na 589.592 Radial†	37882.1	35982.8	[10000]	µg/L	11:13:54
3	Ni 231.604†	15203.4	14845.8	[1000]	µg/L	11:15:40
3	P 214.914†	2101.2	1896.8	[5000]	µg/L	11:16:00
3	Pb 220.353†	3182.5	3111.8	[1000]	µg/L	11:16:00
3	S 181.975 Axial†	349.8	325.1	[2000]	µg/L	11:16:00
3	Sb 206.836†	852.2	828.7	[1000]	µg/L	11:16:00
3	Se 196.026†	605.7	594.9	[1000]	µg/L	11:16:00
3	SiO2†	50955.4	48571.3	[10695]	µg/L	11:15:40
3	Si 251.611†	57556.7	57144.2	[5000]	µg/L	11:15:40
3	Sn 189.927†	1524.0	1499.4	[1000]	µg/L	11:16:00
3	Sr 421.552†	165846.4	160914.4	[1000]	µg/L	11:13:54
3	Ti 334.940†	387482.7	385891.9	[1000]	µg/L	11:15:34
3	Tl 190.801†	525.7	546.5	[1000]	µg/L	11:16:00
3	U 409.014†	9862.7	9998.2	[1000]	µg/L	11:15:40
3	V 292.402†	75904.3	75876.2	[1000]	µg/L	11:15:40
3	Zn 213.857†	33055.5	32334.4	[1000]	µg/L	11:15:40

## Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1845798.2	1101.99	0.06%	100.10	%
Sc RADIAL	76079.9	29.56	0.04%	103	%
Y 371.029	1165870.0	507.23	0.04%	99.548	%
Ag 328.068†	108130.3	2690.58	2.49%	[1000]	µg/L
Al 396.153Radial†	14933.5	42.22	0.28%	[10000]	µg/L
As 188.979†	432.7	29.73	6.87%	[1000]	µg/L
B 249.677†	20658.6	628.41	3.04%	[1000]	µg/L
Ba 233.527†	34135.5	1378.24	4.04%	[1000]	µg/L
Be 313.107†	1424754.8	42567.22	2.99%	[1000]	µg/L
Ca 317.933Radial†	12957.1	76.01	0.59%	[10000]	µg/L
Cd 226.502†	33448.3	1387.55	4.15%	[1000]	µg/L
Co 228.616†	17883.5	835.32	4.67%	[1000]	µg/L
Cr 267.716†	42842.1	2534.40	5.92%	[1000]	µg/L
Cu 324.752†	138519.8	3838.84	2.77%	[1000]	µg/L
Fe 238.204 Radial†	700.4	4.39	0.63%	[10000]	µg/L
K 766.490 Radial†	15433.8	34.51	0.22%	[10000]	µg/L
Mg 279.077 IEC†	942.4	4.12	0.44%	[10000]	µg/L
Mn 257.610†	269400.9	7960.14	2.95%	[1000]	µg/L
Mo 202.031†	7984.2	367.63	4.60%	[1000]	µg/L

Na 589.592 Radial†	35893.3	89.08	0.25%	[10000]	µg/L
Ni 231.604†	15697.6	738.59	4.71%	[1000]	µg/L
P 214.914†	2071.9	151.91	7.33%	[5000]	µg/L
Pb 220.353†	3372.2	225.44	6.69%	[1000]	µg/L
S 181.975 Axial†	349.6	21.21	6.07%	[2000]	µg/L
Sb 206.836†	904.1	65.30	7.22%	[1000]	µg/L
Se 196.026†	638.2	37.99	5.95%	[1000]	µg/L
SiO2†	50615.5	1771.44	3.50%	[10695]	µg/L
Si 251.611†	59535.4	2074.13	3.48%	[5000]	µg/L
Sn 189.927†	1681.5	157.77	9.38%	[1000]	µg/L
Sr 421.552†	160258.7	718.20	0.45%	[1000]	µg/L
Ti 334.940†	400369.2	12911.09	3.22%	[1000]	µg/L
Tl 190.801†	574.9	24.65	4.29%	[1000]	µg/L
U 409.014†	10628.2	547.32	5.15%	[1000]	µg/L
V 292.402†	80374.2	3896.90	4.85%	[1000]	µg/L
Zn 213.857†	34190.4	1607.70	4.70%	[1000]	µg/L

Sequence No.: 5

Sample ID: S10

Analyst:

Logged In Analyst (Original) : optima

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 1/26/2010 11:16:09

Data Type: Reprocessed on 1/26/2010 12:39:25

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc 361.383	1866663.2	1866663.2	101.23 %		11:18:05
1	Sc RADIAL	75510.9	75510.9	102 %		11:16:42
1	Y 371.029	1172258.3	1172258.3	100.09 %		11:18:05
1	Al 396.153Radial†	74194.9	72786.8	[50000] µg/L		11:16:42
1	Ca 317.933Radial†	64539.2	63037.9	[50000] µg/L		11:16:42
1	Fe 238.204 Radial†	1429.7	1385.5	[20000] µg/L		11:17:02
1	Mg 279.077 IEC†	4713.4	4611.0	[50000] µg/L		11:17:02
1	Na 589.592 Radial†	73285.7	70966.6	[20000] µg/L		11:16:42
2	Sc 361.383	1863655.6	1863655.6	101.07 %		11:18:13
2	Sc RADIAL	76654.5	76654.5	104 %		11:17:07
2	Y 371.029	1170839.4	1170839.4	99.972 %		11:18:13
2	Al 396.153Radial†	74345.0	71846.3	[50000] µg/L		11:17:07
2	Ca 317.933Radial†	64757.3	62304.3	[50000] µg/L		11:17:07
2	Fe 238.204 Radial†	1433.2	1368.1	[20000] µg/L		11:17:28
2	Mg 279.077 IEC†	4713.7	4542.2	[50000] µg/L		11:17:28
2	Na 589.592 Radial†	73316.8	69924.5	[20000] µg/L		11:17:07
3	Sc 361.383	1869764.8	1869764.8	101.40 %		11:18:21
3	Sc RADIAL	76584.3	76584.3	103 %		11:17:33
3	Y 371.029	1174728.6	1174728.6	100.30 %		11:18:21
3	Al 396.153Radial†	74380.0	71945.9	[50000] µg/L		11:17:33
3	Ca 317.933Radial†	64783.5	62387.0	[50000] µg/L		11:17:33
3	Fe 238.204 Radial†	1423.0	1359.4	[20000] µg/L		11:17:54
3	Mg 279.077 IEC†	4694.5	4527.8	[50000] µg/L		11:17:54
3	Na 589.592 Radial†	73431.3	70100.1	[20000] µg/L		11:17:33

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 361.383	1866694.5	3054.70	0.16%	101.23 %	
Sc RADIAL	76249.9	640.96	0.84%	103 %	
Y 371.029	1172608.8	1968.12	0.17%	100.12 %	
Al 396.153Radial†	72193.0	516.67	0.72%	[50000] µg/L	
Ca 317.933Radial†	62576.4	401.81	0.64%	[50000] µg/L	
Fe 238.204 Radial†	1371.0	13.32	0.97%	[20000] µg/L	
Mg 279.077 IEC†	4560.3	44.43	0.97%	[50000] µg/L	
Na 589.592 Radial†	70330.4	557.95	0.79%	[20000] µg/L	

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	108.3	0.00000	0.999995	
Al 396.153Radial	3	Lin Thru 0	0.0	1.446	0.00000	0.999971	
As 188.979	3	Lin Thru 0	0.0	0.4348	0.00000	0.999954	
B 249.677	3	Lin Thru 0	0.0	20.66	0.00000	1.000000	
Ba 233.527	3	Lin Thru 0	0.0	34.19	0.00000	0.999995	
Be 313.107	3	Lin Thru 0	0.0	1428	0.00000	0.999987	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.254	0.00000	0.999974	
Cd 226.502	3	Lin Thru 0	0.0	33.53	0.00000	0.999987	
Co 228.616	3	Lin Thru 0	0.0	17.94	0.00000	0.999984	
Cr 267.716	3	Lin Thru 0	0.0	42.89	0.00000	0.999996	
Cu 324.752	3	Lin Thru 0	0.0	137.9	0.00000	0.999965	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0688	0.00000	0.999962	
K 766.490 Radial	3	Lin Thru 0	0.0	1.541	0.00000	0.999960	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0914	0.00000	0.999966	
Mn 257.610	3	Lin Thru 0	0.0	268.8	0.00000	0.999991	
Mo 202.031	3	Lin Thru 0	0.0	7.936	0.00000	0.999922	



Na 589.592 Radia	2	Lin Thru 0	0.0	3.531	0.00000	0.999966
Ni 231.604	3	Lin Thru 0	0.0	15.74	0.00000	0.999986
P 214.914	3	Lin Thru 0	0.0	0.4155	0.00000	0.999984
Pb 220.353	3	Lin Thru 0	0.0	3.381	0.00000	0.999987
S 181.975 Axial	3	Lin Thru 0	0.0	0.1750	0.00000	0.999996
Sb 206.836	3	Lin Thru 0	0.0	0.9051	0.00000	0.999988
Se 196.026	3	Lin Thru 0	0.0	0.6401	0.00000	0.999982
SiO2	3	Lin Thru 0	0.0	4.750	0.00000	0.999975
Si 251.611	3	Lin Thru 0	0.0	11.95	0.00000	0.999976
Sn 189.927	3	Lin Thru 0	0.0	1.683	0.00000	0.999986
Sr 421.552	3	Lin Thru 0	0.0	160.5	0.00000	0.999993
Ti 334.940	3	Lin Thru 0	0.0	400.8	0.00000	0.999994
Tl 190.801	3	Lin Thru 0	0.0	0.5762	0.00000	0.999983
U 409.014	3	Lin Thru 0	0.0	10.68	0.00000	0.999899
V 292.402	3	Lin Thru 0	0.0	80.50	0.00000	0.999995
Zn 213.857	3	Lin Thru 0	0.0	34.29	0.00000	0.999982

Sequence No.: 6  
 Sample ID: ICV  
 Analyst:  
 Logged In Analyst (Original) : optima  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 9  
 Date Collected: 1/26/2010 11:18:31  
 Data Type: Reprocessed on 1/26/2010 12:40:05  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1863525.5	1863525.5	101.06	%		11:20:28
1	Sc RADIAL	76194.1	76194.1	103	%		11:19:04
1	Y 371.029	1179623.4	1179623.4	100.72	%		11:20:28
1	Ag 328.068†	28105.7	27801.3	260.41	µg/L	260.41 ppb	11:20:33
1	Al 396.153Radial†	7536.9	7346.3	5068.3	µg/L	5068.3 ppb	11:19:04
1	As 188.979†	218.0	217.0	498.12	µg/L	498.12 ppb	11:20:54
1	B 249.677†	10883.5	10655.1	513.94	µg/L	513.94 ppb	11:20:33
1	Ba 233.527†	17522.5	17344.0	508.20	µg/L	508.20 ppb	11:20:33
1	Be 313.107†	383370.9	374943.8	262.30	µg/L	262.30 ppb	11:20:28
1	Ca 317.933Radial†	6641.2	6196.6	4943.4	µg/L	4943.4 ppb	11:19:24
1	Cd 226.502†	16920.4	16850.2	502.44	µg/L	502.44 ppb	11:20:33
1	Co 228.616†	9222.8	9161.7	510.26	µg/L	510.26 ppb	11:20:33
1	Cr 267.716†	21357.0	21183.4	494.18	µg/L	494.18 ppb	11:20:33
1	Cu 324.752†	73159.4	68556.8	497.74	µg/L	497.74 ppb	11:20:33
1	Fe 238.204 Radial†	374.6	347.5	5058.6	µg/L	5058.6 ppb	11:19:24
1	K 766.490 Radial†	4226.3	3697.7	2400.2	µg/L	2400.2 ppb	11:19:04
1	Mg 279.077 IEC†	501.0	475.3	5205.1	µg/L	5205.1 ppb	11:19:24
1	Mn 257.610†	137058.5	135674.8	505.11	µg/L	505.11 ppb	11:20:33
1	Mo 202.031†	4353.7	4291.7	540.95	µg/L	540.95 ppb	11:20:54
1	Na 589.592 Radial†	9767.3	8585.7	2431.5	µg/L	2431.5 ppb	11:19:04
1	Ni 231.604†	8360.7	7940.1	503.94	µg/L	503.94 ppb	11:20:33
1	P 214.914†	1289.2	1074.6	2539.9	µg/L	2539.9 ppb	11:20:54
1	Pb 220.353†	1808.4	1724.0	510.22	µg/L	510.22 ppb	11:20:54
1	S 181.975 Axial†	475.0	445.9	2547.4	µg/L	2547.4 ppb	11:20:54
1	Sb 206.836†	494.6	467.4	519.28	µg/L	519.28 ppb	11:20:54
1	Se 196.026†	1731.5	1703.4	2678.4	µg/L	2678.4 ppb	11:20:54
1	SiO2†	52146.1	49297.8	10379	µg/L	10379 ppb	11:20:33
1	Si 251.611†	58663.5	57729.0	4831.3	µg/L	4831.3 ppb	11:20:33
1	Sn 189.927†	985.2	952.8	568.64	µg/L	568.64 ppb	11:20:54
1	Sr 421.552†	85228.7	82247.7	512.32	µg/L	512.32 ppb	11:19:04
1	Ti 334.940†	203316.0	200223.2	499.18	µg/L	499.18 ppb	11:20:28
1	Tl 190.801†	290.8	309.5	541.39	µg/L	541.39 ppb	11:20:54
1	U 409.014†	5159.3	5256.7	491.39	µg/L	491.39 ppb	11:20:33
1	V 292.402†	41696.4	41354.4	519.79	µg/L	519.79 ppb	11:20:33
1	Zn 213.857†	18513.5	17651.9	511.16	µg/L	511.16 ppb	11:20:33
2	Sc 361.383	1856365.7	1856365.7	100.67	%		11:21:01
2	Sc RADIAL	76810.5	76810.5	104	%		11:19:30
2	Y 371.029	1174649.8	1174649.8	100.30	%		11:21:01
2	Ag 328.068†	28095.3	27898.3	261.32	µg/L	261.32 ppb	11:21:06
2	Al 396.153Radial†	7613.3	7361.1	5078.5	µg/L	5078.5 ppb	11:19:30
2	As 188.979†	211.4	211.3	484.96	µg/L	484.96 ppb	11:21:27
2	B 249.677†	10923.0	10735.9	517.83	µg/L	517.83 ppb	11:21:06
2	Ba 233.527†	17544.2	17432.4	510.79	µg/L	510.79 ppb	11:21:06
2	Be 313.107†	379302.1	372365.2	260.50	µg/L	260.50 ppb	11:21:01
2	Ca 317.933Radial†	6684.8	6186.9	4935.6	µg/L	4935.6 ppb	11:19:50
2	Cd 226.502†	16867.7	16862.4	502.80	µg/L	502.80 ppb	11:21:06
2	Co 228.616†	9227.8	9201.9	512.51	µg/L	512.51 ppb	11:21:06
2	Cr 267.716†	21362.6	21270.5	496.22	µg/L	496.22 ppb	11:21:06
2	Cu 324.752†	73204.8	68881.2	500.10	µg/L	500.10 ppb	11:21:06
2	Fe 238.204 Radial†	381.8	351.5	5116.1	µg/L	5116.1 ppb	11:19:50
2	K 766.490 Radial†	4219.2	3658.0	2374.4	µg/L	2374.4 ppb	11:19:30
2	Mg 279.077 IEC†	503.5	473.7	5188.2	µg/L	5188.2 ppb	11:19:50
2	Mn 257.610†	137069.0	136208.3	507.11	µg/L	507.11 ppb	11:21:06
2	Mo 202.031†	4329.8	4284.5	540.05	µg/L	540.05 ppb	11:21:27
2	Na 589.592 Radial†	9826.0	8566.1	2425.9	µg/L	2425.9 ppb	11:19:30
2	Ni 231.604†	8360.2	7971.6	505.94	µg/L	505.94 ppb	11:21:06
2	P 214.914†	1284.5	1074.9	2540.1	µg/L	2540.1 ppb	11:21:27
2	Pb 220.353†	1802.5	1725.0	510.53	µg/L	510.53 ppb	11:21:27

2	S 181.975 Axial†	467.5	440.2	2514.8 µg/L	2514.8 ppb	11:21:27
2	Sb 206.836†	494.9	469.5	521.63 µg/L	521.63 ppb	11:21:27
2	Se 196.026†	1716.2	1694.8	2665.2 µg/L	2665.2 ppb	11:21:27
2	SiO2†	52237.0	49587.0	10440 µg/L	10440 ppb	11:21:06
2	Si 251.611†	58789.1	58077.7	4860.5 µg/L	4860.5 ppb	11:21:06
2	Sn 189.927†	974.6	946.0	564.58 µg/L	564.58 ppb	11:21:27
2	Sr 421.552†	86234.0	82552.1	514.21 µg/L	514.21 ppb	11:19:30
2	Ti 334.940†	201434.1	199129.8	496.46 µg/L	496.46 ppb	11:21:01
2	Tl 190.801†	287.8	307.6	538.05 µg/L	538.05 ppb	11:21:27
2	U 409.014†	5064.5	5182.3	484.41 µg/L	484.41 ppb	11:21:06
2	V 292.402†	41669.8	41487.2	521.44 µg/L	521.44 ppb	11:21:06
2	Zn 213.857†	18505.8	17714.9	512.98 µg/L	512.98 ppb	11:21:06
3	Sc 361.383	1866230.9	1866230.9	101.21 %		11:21:33
3	Sc RADIAL	76574.8	76574.8	103 %		11:19:56
3	Y 371.029	1181107.5	1181107.5	100.85 %		11:21:33
3	Ag 328.068†	27003.9	26672.4	249.71 µg/L	249.71 ppb	11:21:39
3	Al 396.153Radial†	7615.7	7386.1	5097.4 µg/L	5097.4 ppb	11:19:56
3	As 188.979†	188.5	187.5	430.45 µg/L	430.45 ppb	11:22:00
3	B 249.677†	10347.9	10110.3	487.49 µg/L	487.49 ppb	11:21:39
3	Ba 233.527†	16379.4	16189.4	474.36 µg/L	474.36 ppb	11:21:39
3	Be 313.107†	365197.3	356437.1	249.36 µg/L	249.36 ppb	11:21:33
3	Ca 317.933Radial†	6624.6	6148.4	4904.9 µg/L	4904.9 ppb	11:20:16
3	Cd 226.502†	15722.1	15641.9	466.37 µg/L	466.37 ppb	11:21:39
3	Co 228.616†	8533.4	8467.3	471.53 µg/L	471.53 ppb	11:21:39
3	Cr 267.716†	19332.2	19152.2	446.80 µg/L	446.80 ppb	11:21:39
3	Cu 324.752†	68030.8	63384.5	460.24 µg/L	460.24 ppb	11:21:39
3	Fe 238.204 Radial†	376.6	347.6	5059.4 µg/L	5059.4 ppb	11:20:16
3	K 766.490 Radial†	4191.6	3643.7	2365.2 µg/L	2365.2 ppb	11:19:56
3	Mg 279.077 IEC†	500.6	472.5	5173.0 µg/L	5173.0 ppb	11:20:16
3	Mn 257.610†	126818.4	125360.3	466.75 µg/L	466.75 ppb	11:21:39
3	Mo 202.031†	3700.4	3639.9	458.83 µg/L	458.83 ppb	11:22:00
3	Na 589.592 Radial†	9817.4	8587.0	2431.8 µg/L	2431.8 ppb	11:19:56
3	Ni 231.604†	7761.3	7335.9	465.60 µg/L	465.60 ppb	11:21:39
3	P 214.914†	1155.5	940.8	2220.2 µg/L	2220.2 ppb	11:22:00
3	Pb 220.353†	1605.3	1520.7	449.96 µg/L	449.96 ppb	11:22:00
3	S 181.975 Axial†	430.0	400.7	2289.1 µg/L	2289.1 ppb	11:22:00
3	Sb 206.836†	441.6	414.2	459.78 µg/L	459.78 ppb	11:22:00
3	Se 196.026†	1542.4	1514.1	2382.7 µg/L	2382.7 ppb	11:22:00
3	SiO2†	49386.9	46496.7	9789.6 µg/L	9789.6 ppb	11:21:39
3	Si 251.611†	55504.0	54523.1	4563.0 µg/L	4563.0 ppb	11:21:39
3	Sn 189.927†	821.0	789.1	471.37 µg/L	471.37 ppb	11:22:00
3	Sr 421.552†	85996.1	82578.0	514.37 µg/L	514.37 ppb	11:19:56
3	Ti 334.940†	192898.7	189638.6	472.78 µg/L	472.78 ppb	11:21:33
3	Tl 190.801†	270.2	288.7	504.99 µg/L	504.99 ppb	11:22:00
3	U 409.014†	4719.4	4814.6	449.98 µg/L	449.98 ppb	11:21:39
3	V 292.402†	38382.3	38020.0	477.59 µg/L	477.59 ppb	11:21:39
3	Zn 213.857†	17195.1	16322.7	472.63 µg/L	472.63 ppb	11:21:39

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1862040.7	100.98 %	0.276			0.27%
Sc RADIAL	76526.4	103 %	0.4			0.41%
Y 371.029	1178460.3	100.62 %	0.289			0.29%
Ag 328.068†	27457.3	257.15 µg/L	6.455	257.15 ppb	6.455	2.51%
QC value within limits for Ag 328.068 Recovery = 102.86%						
Al 396.153Radial†	7364.5	5081.4 µg/L	14.80	5081.4 ppb	14.80	0.29%
QC value within limits for Al 396.153Radial Recovery = 101.63%						
As 188.979†	205.3	471.18 µg/L	35.882	471.18 ppb	35.882	7.62%
QC value within limits for As 188.979 Recovery = 94.24%						
B 249.677†	10500.4	506.42 µg/L	16.507	506.42 ppb	16.507	3.26%
QC value within limits for B 249.677 Recovery = 101.28%						
Ba 233.527†	16988.6	497.79 µg/L	20.328	497.79 ppb	20.328	4.08%
QC value within limits for Ba 233.527 Recovery = 99.56%						
Be 313.107†	367915.4	257.39 µg/L	7.012	257.39 ppb	7.012	2.72%
QC value within limits for Be 313.107 Recovery = 102.95%						
Ca 317.933Radial†	6177.3	4928.0 µg/L	20.33	4928.0 ppb	20.33	0.41%
QC value within limits for Ca 317.933Radial Recovery = 98.56%						
Cd 226.502†	16451.5	490.54 µg/L	20.930	490.54 ppb	20.930	4.27%
QC value within limits for Cd 226.502 Recovery = 98.11%						

Co 228.616†	8943.6	498.10 µg/L	23.039	498.10 ppb	23.039	4.63%
QC value within limits for Co 228.616 Recovery = 99.62%						
Cr 267.716†	20535.4	479.07 µg/L	27.960	479.07 ppb	27.960	5.84%
QC value within limits for Cr 267.716 Recovery = 95.81%						
Cu 324.752†	66940.8	486.03 µg/L	22.362	486.03 ppb	22.362	4.60%
QC value within limits for Cu 324.752 Recovery = 97.21%						
Fe 238.204 Radial†	348.9	5078.0 µg/L	32.94	5078.0 ppb	32.94	0.65%
QC value within limits for Fe 238.204 Radial Recovery = 101.56%						
K 766.490 Radial†	3666.5	2380.0 µg/L	18.16	2380.0 ppb	18.16	0.76%
QC value within limits for K 766.490 Radial Recovery = 95.20%						
Mg 279.077 IEC†	473.8	5188.8 µg/L	16.04	5188.8 ppb	16.04	0.31%
QC value within limits for Mg 279.077 IEC Recovery = 103.78%						
Mn 257.610†	132414.5	492.99 µg/L	22.747	492.99 ppb	22.747	4.61%
QC value within limits for Mn 257.610 Recovery = 98.60%						
Mo 202.031†	4072.1	513.28 µg/L	47.157	513.28 ppb	47.157	9.19%
QC value within limits for Mo 202.031 Recovery = 102.66%						
Na 589.592 Radial†	8579.6	2429.7 µg/L	3.31	2429.7 ppb	3.31	0.14%
QC value within limits for Na 589.592 Radial Recovery = 97.19%						
Ni 231.604†	7749.2	491.83 µg/L	22.736	491.83 ppb	22.736	4.62%
QC value within limits for Ni 231.604 Recovery = 98.37%						
P 214.914†	1030.1	2433.4 µg/L	184.67	2433.4 ppb	184.67	7.59%
QC value within limits for P 214.914 Recovery = 97.34%						
Pb 220.353†	1656.6	490.24 µg/L	34.877	490.24 ppb	34.877	7.11%
QC value within limits for Pb 220.353 Recovery = 98.05%						
S 181.975 Axial†	428.9	2450.4 µg/L	140.67	2450.4 ppb	140.67	5.74%
QC value within limits for S 181.975 Axial Recovery = 98.02%						
Sb 206.836†	450.4	500.23 µg/L	35.047	500.23 ppb	35.047	7.01%
QC value within limits for Sb 206.836 Recovery = 100.05%						
Se 196.026†	1637.4	2575.5 µg/L	167.08	2575.5 ppb	167.08	6.49%
QC value within limits for Se 196.026 Recovery = 103.02%						
SiO2†	48460.5	10203 µg/L	359.4	10203 ppb	359.4	3.52%
QC value within limits for SiO2 Recovery = 95.40%						
Si 251.611†	56776.6	4751.6 µg/L	163.98	4751.6 ppb	163.98	3.45%
QC value within limits for Si 251.611 Recovery = 95.03%						
Sn 189.927†	896.0	534.86 µg/L	55.023	534.86 ppb	55.023	10.29%
QC value within limits for Sn 189.927 Recovery = 106.97%						
Sr 421.552†	82459.3	513.63 µg/L	1.144	513.63 ppb	1.144	0.22%
QC value within limits for Sr 421.552 Recovery = 102.73%						
Ti 334.940†	196330.5	489.47 µg/L	14.522	489.47 ppb	14.522	2.97%
QC value within limits for Ti 334.940 Recovery = 97.89%						
Tl 190.801†	301.9	528.14 µg/L	20.119	528.14 ppb	20.119	3.81%
QC value within limits for Tl 190.801 Recovery = 105.63%						
U 409.014†	5084.5	475.26 µg/L	22.168	475.26 ppb	22.168	4.66%
QC value within limits for U 409.014 Recovery = 95.05%						
V 292.402†	40287.2	506.27 µg/L	24.855	506.27 ppb	24.855	4.91%
QC value within limits for V 292.402 Recovery = 101.25%						
Zn 213.857†	17229.9	498.92 µg/L	22.788	498.92 ppb	22.788	4.57%
QC value within limits for Zn 213.857 Recovery = 99.78%						
All analyte(s) passed QC.						

Sequence No.: 7

Sample ID: ICB

Analyst:

Logged In Analyst (Original) : optima

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 1/26/2010 11:22:09

Data Type: Reprocessed on 1/26/2010 12:40:50

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 361.383	1853549.1	1853549.1	100.52 %		11:24:04
1	Sc RADIAL	74187.1	74187.1	100 %		11:22:42
1	Y 371.029	1176573.2	1176573.2	100.46 %		11:24:04
1	Ag 328.068†	-61.3	-70.2	-0.6480 µg/L	-0.6480 ppb	11:24:10
1	Al 396.153Radial†	-20.6	0.2	0.1754 µg/L	0.1754 ppb	11:22:42
1	As 188.979†	1.1	2.4	5.4571 µg/L	5.4571 ppb	11:24:31
1	B 249.677†	142.2	27.3	1.3252 µg/L	1.3252 ppb	11:24:31
1	Ba 233.527†	-22.5	-16.9	-0.4932 µg/L	-0.4932 ppb	11:24:31
1	Be 313.107†	3803.8	-617.4	-0.4319 µg/L	-0.4319 ppb	11:24:10
1	Ca 317.933Radial†	238.0	-20.8	-16.560 µg/L	-16.560 ppb	11:23:03
1	Cd 226.502†	-120.3	-12.2	-0.3649 µg/L	-0.3649 ppb	11:24:31
1	Co 228.616†	-41.3	-5.3	-0.2964 µg/L	-0.2964 ppb	11:24:31
1	Cr 267.716†	-75.1	-24.1	-0.5609 µg/L	-0.5609 ppb	11:24:31
1	Cu 324.752†	3726.9	-126.7	-0.9196 µg/L	-0.9196 ppb	11:24:10
1	Fe 238.204 Radial†	16.3	-0.3	-4.8778 µg/L	-4.8778 ppb	11:23:03
1	K 766.490 Radial†	379.2	-31.4	-20.394 µg/L	-20.394 ppb	11:22:42
1	Mg 279.077 IEC†	10.6	-1.1	-12.391 µg/L	-12.391 ppb	11:23:03
1	Mn 257.610†	-176.2	-119.8	-0.4458 µg/L	-0.4458 ppb	11:24:31
1	Mo 202.031†	13.1	-3.3	-0.4142 µg/L	-0.4142 ppb	11:24:31
1	Na 589.592 Radial†	880.8	-28.4	-8.0404 µg/L	-8.0404 ppb	11:22:42
1	Ni 231.604†	324.8	-9.6	-0.6126 µg/L	-0.6126 ppb	11:24:31
1	P 214.914†	205.2	3.1	7.6032 µg/L	7.6032 ppb	11:24:31
1	Pb 220.353†	53.0	-12.8	-3.7721 µg/L	-3.7721 ppb	11:24:31
1	S 181.975 Axial†	23.0	-1.3	-7.1592 µg/L	-7.1592 ppb	11:24:31
1	Sb 206.836†	25.9	3.7	4.1113 µg/L	4.1113 ppb	11:24:31
1	Se 196.026†	9.2	-0.7	-1.1333 µg/L	-1.1333 ppb	11:24:31
1	SiO2†	2282.7	-29.9	-6.2950 µg/L	-6.2950 ppb	11:24:10
1	Si 251.611†	293.4	-26.6	-2.2248 µg/L	-2.2248 ppb	11:24:31
1	Sn 189.927†	19.0	-3.2	-1.9011 µg/L	-1.9011 ppb	11:24:31
1	Sr 421.552†	502.6	-88.4	-0.5507 µg/L	-0.5507 ppb	11:22:42
1	Ti 334.940†	648.2	-313.1	-0.7804 µg/L	-0.7804 ppb	11:24:10
1	Tl 190.801†	-21.3	0.5	0.9066 µg/L	0.9066 ppb	11:24:31
1	U 409.014†	-201.7	-49.1	-4.5963 µg/L	-4.5963 ppb	11:24:10
1	V 292.402†	-88.8	7.5	0.0839 µg/L	0.0839 ppb	11:24:10
1	Zn 213.857†	667.1	-3.5	-0.0977 µg/L	-0.0977 ppb	11:24:31
2	Sc 361.383	1856617.1	1856617.1	100.69 %		11:24:37
2	Sc RADIAL	73927.5	73927.5	99.8 %		11:23:08
2	Y 371.029	1178325.8	1178325.8	100.61 %		11:24:37
2	Ag 328.068†	-40.6	-49.6	-0.4571 µg/L	-0.4571 ppb	11:24:42
2	Al 396.153Radial†	-36.2	-15.4	-10.658 µg/L	-10.658 ppb	11:23:08
2	As 188.979†	2.6	3.9	8.9280 µg/L	8.9280 ppb	11:25:03
2	B 249.677†	129.1	14.1	0.6745 µg/L	0.6745 ppb	11:25:03
2	Ba 233.527†	-16.5	-10.9	-0.3192 µg/L	-0.3192 ppb	11:25:03
2	Be 313.107†	3801.9	-625.5	-0.4377 µg/L	-0.4377 ppb	11:24:42
2	Ca 317.933Radial†	239.8	-18.1	-14.416 µg/L	-14.416 ppb	11:23:28
2	Cd 226.502†	-116.7	-8.4	-0.2520 µg/L	-0.2520 ppb	11:25:03
2	Co 228.616†	-48.8	-12.7	-0.7089 µg/L	-0.7089 ppb	11:25:03
2	Cr 267.716†	-73.2	-22.1	-0.5143 µg/L	-0.5143 ppb	11:25:03
2	Cu 324.752†	3772.9	-87.2	-0.6305 µg/L	-0.6305 ppb	11:24:42
2	Fe 238.204 Radial†	17.4	0.8	11.508 µg/L	11.508 ppb	11:23:28
2	K 766.490 Radial†	416.4	7.1	4.6207 µg/L	4.6207 ppb	11:23:08
2	Mg 279.077 IEC†	9.3	-2.4	-26.022 µg/L	-26.022 ppb	11:23:28
2	Mn 257.610†	-174.6	-118.0	-0.4362 µg/L	-0.4362 ppb	11:25:03
2	Mo 202.031†	18.2	1.8	0.2209 µg/L	0.2209 ppb	11:25:03
2	Na 589.592 Radial†	843.7	-62.5	-17.697 µg/L	-17.697 ppb	11:23:08
2	Ni 231.604†	329.6	-5.4	-0.3400 µg/L	-0.3400 ppb	11:25:03
2	P 214.914†	208.0	5.5	13.434 µg/L	13.434 ppb	11:25:03
2	Pb 220.353†	52.8	-13.0	-3.8485 µg/L	-3.8485 ppb	11:25:03

2	S 181.975 Axial†	19.3	-5.0	-28.488 µg/L	-28.488 ppb	11:25:03
2	Sb 206.836†	21.9	-0.4	-0.4040 µg/L	-0.4040 ppb	11:25:03
2	Se 196.026†	10.1	0.1	0.2362 µg/L	0.2362 ppb	11:25:03
2	SiO2†	2252.2	-63.9	-13.461 µg/L	-13.461 ppb	11:24:42
2	Si 251.611†	302.6	-17.9	-1.4979 µg/L	-1.4979 ppb	11:25:03
2	Sn 189.927†	25.0	2.8	1.6707 µg/L	1.6707 ppb	11:25:03
2	Sr 421.552†	558.2	-31.0	-0.1931 µg/L	-0.1931 ppb	11:23:08
2	Ti 334.940†	774.6	-188.6	-0.4688 µg/L	-0.4688 ppb	11:24:42
2	Tl 190.801†	-20.7	1.1	1.8853 µg/L	1.8853 ppb	11:25:03
2	U 409.014†	-196.8	-43.9	-4.1087 µg/L	-4.1087 ppb	11:24:42
2	V 292.402†	-98.7	-2.2	-0.0302 µg/L	-0.0302 ppb	11:24:42
2	Zn 213.857†	656.7	-14.9	-0.4311 µg/L	-0.4311 ppb	11:25:03
3	Sc 361.383	1850224.9	1850224.9	100.34 %		11:25:09
3	Sc RADIAL	74628.4	74628.4	101 %		11:23:34
3	Y 371.029	1174475.5	1174475.5	100.28 %		11:25:09
3	Ag 328.068†	-55.0	-64.1	-0.5915 µg/L	-0.5915 ppb	11:25:14
3	Al 396.153Radial†	-39.2	-18.1	-12.498 µg/L	-12.498 ppb	11:23:34
3	As 188.979†	-2.9	-1.7	-3.8325 µg/L	-3.8325 ppb	11:25:35
3	B 249.677†	114.5	0.0	0.0124 µg/L	0.0124 ppb	11:25:35
3	Ba 233.527†	-25.0	-19.4	-0.5662 µg/L	-0.5662 ppb	11:25:35
3	Be 313.107†	3756.4	-657.8	-0.4603 µg/L	-0.4603 ppb	11:25:14
3	Ca 317.933Radial†	239.2	-20.9	-16.706 µg/L	-16.706 ppb	11:23:54
3	Cd 226.502†	-130.6	-22.7	-0.6756 µg/L	-0.6756 ppb	11:25:35
3	Co 228.616†	-43.9	-8.0	-0.4431 µg/L	-0.4431 ppb	11:25:35
3	Cr 267.716†	-55.4	-4.5	-0.1059 µg/L	-0.1059 ppb	11:25:35
3	Cu 324.752†	3760.8	-86.3	-0.6286 µg/L	-0.6286 ppb	11:25:14
3	Fe 238.204 Radial†	15.3	-1.4	-20.530 µg/L	-20.530 ppb	11:23:54
3	K 766.490 Radial†	468.8	55.2	35.834 µg/L	35.834 ppb	11:23:34
3	Mg 279.077 IEC†	8.1	-3.6	-39.735 µg/L	-39.735 ppb	11:23:54
3	Mn 257.610†	-177.1	-121.0	-0.4512 µg/L	-0.4512 ppb	11:25:35
3	Mo 202.031†	11.9	-4.4	-0.5530 µg/L	-0.5530 ppb	11:25:35
3	Na 589.592 Radial†	867.8	-46.5	-13.169 µg/L	-13.169 ppb	11:23:34
3	Ni 231.604†	332.0	-1.9	-0.1176 µg/L	-0.1176 ppb	11:25:35
3	P 214.914†	201.5	-0.2	-0.4220 µg/L	-0.4220 ppb	11:25:35
3	Pb 220.353†	58.7	-7.0	-2.0500 µg/L	-2.0500 ppb	11:25:35
3	S 181.975 Axial†	24.7	0.5	2.7158 µg/L	2.7158 ppb	11:25:35
3	Sb 206.836†	20.2	-2.0	-2.1659 µg/L	-2.1659 ppb	11:25:35
3	Se 196.026†	8.3	-1.6	-2.6285 µg/L	-2.6285 ppb	11:25:35
3	SiO2†	2236.2	-72.2	-15.200 µg/L	-15.200 ppb	11:25:14
3	Si 251.611†	292.6	-26.9	-2.2472 µg/L	-2.2472 ppb	11:25:35
3	Sn 189.927†	23.3	1.2	0.6705 µg/L	0.6705 ppb	11:25:35
3	Sr 421.552†	531.2	-63.0	-0.3927 µg/L	-0.3927 ppb	11:23:34
3	Ti 334.940†	713.0	-247.3	-0.6141 µg/L	-0.6141 ppb	11:25:14
3	Tl 190.801†	-17.4	4.3	7.4956 µg/L	7.4956 ppb	11:25:35
3	U 409.014†	-277.6	-125.1	-11.717 µg/L	-11.717 ppb	11:25:14
3	V 292.402†	-75.6	20.5	0.2372 µg/L	0.2372 ppb	11:25:14
3	Zn 213.857†	661.4	-8.0	-0.2297 µg/L	-0.2297 ppb	11:25:35

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1853463.7	100.52 %	0.173			0.17%
Sc RADIAL	74247.6	100 %	0.5			0.48%
Y 371.029	1176458.2	100.45 %	0.165			0.16%
Ag 328.068†	-61.3	-0.5655 µg/L	0.09804	-0.5655 ppb	0.09804	17.34%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-11.1	-7.6603 µg/L	6.84795	-7.6603 ppb	6.84795	89.40%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.5	3.5175 µg/L	6.59763	3.5175 ppb	6.59763	187.56%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	13.8	0.6707 µg/L	0.65638	0.6707 ppb	0.65638	97.87%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-15.7	-0.4595 µg/L	0.12692	-0.4595 ppb	0.12692	27.62%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-633.6	-0.4433 µg/L	0.01500	-0.4433 ppb	0.01500	3.38%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-19.9	-15.894 µg/L	1.2824	-15.894 ppb	1.2824	8.07%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-14.5	-0.4309 µg/L	0.21936	-0.4309 ppb	0.21936	50.91%
QC value within limits for Cd 226.502 Recovery = Not calculated						

Co 228.616†	-8.7	-0.4828 µg/L	0.20910	-0.4828 ppb	0.20910	43.31%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-16.9	-0.3937 µg/L	0.25037	-0.3937 ppb	0.25037	63.59%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-100.1	-0.7262 µg/L	0.16746	-0.7262 ppb	0.16746	23.06%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.3	-4.6333 µg/L	16.02083	-4.6333 ppb	16.02083	345.78%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	10.3	6.6870 µg/L	28.17089	6.6870 ppb	28.17089	421.28%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-2.4	-26.050 µg/L	13.6721	-26.050 ppb	13.6721	52.48%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-119.6	-0.4444 µg/L	0.00759	-0.4444 ppb	0.00759	1.71%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-2.0	-0.2488 µg/L	0.41264	-0.2488 ppb	0.41264	165.89%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-45.8	-12.969 µg/L	4.8313	-12.969 ppb	4.8313	37.25%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-5.6	-0.3567 µg/L	0.24794	-0.3567 ppb	0.24794	69.50%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	2.8	6.8717 µg/L	6.95683	6.8717 ppb	6.95683	101.24%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-10.9	-3.2235 µg/L	1.01700	-3.2235 ppb	1.01700	31.55%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.9	-10.977 µg/L	15.9486	-10.977 ppb	15.9486	145.29%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	0.5	0.5138 µg/L	3.23767	0.5138 ppb	3.23767	630.11%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-0.7	-1.1752 µg/L	1.43283	-1.1752 ppb	1.43283	121.92%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-55.3	-11.652 µg/L	4.7203	-11.652 ppb	4.7203	40.51%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	-23.8	-1.9900 µg/L	0.42630	-1.9900 ppb	0.42630	21.42%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	0.3	0.1467 µg/L	1.84261	0.1467 ppb	1.84261	>999.9%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-60.8	-0.3789 µg/L	0.17920	-0.3789 ppb	0.17920	47.30%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-249.7	-0.6211 µg/L	0.15590	-0.6211 ppb	0.15590	25.10%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	2.0	3.4292 µg/L	3.55548	3.4292 ppb	3.55548	103.68%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-72.7	-6.8072 µg/L	4.25866	-6.8072 ppb	4.25866	62.56%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	8.6	0.0970 µg/L	0.13420	0.0970 ppb	0.13420	138.39%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-8.8	-0.2528 µg/L	0.16791	-0.2528 ppb	0.16791	66.41%
QC value within limits for Zn 213.857 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 8

Sample ID: PQL

Analyst:

Logged In Analyst (Original) : optima

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 1/26/2010 11:25:44

Data Type: Reprocessed on 1/26/2010 12:41:31

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 361.383	1871195.7	1871195.7	101.48 %		11:27:40
1	Sc RADIAL	74361.8	74361.8	100 %		11:26:17
1	Y 371.029	1188199.8	1188199.8	101.45 %		11:27:40
1	Ag 328.068†	535.6	518.6	4.8283 µg/L	4.8283 ppb	11:27:45
1	Al 396.153Radial†	275.6	295.3	203.98 µg/L	203.98 ppb	11:26:17
1	As 188.979†	13.0	14.1	32.411 µg/L	32.411 ppb	11:28:06
1	B 249.677†	1179.9	1048.6	50.699 µg/L	50.699 ppb	11:27:45
1	Ba 233.527†	162.0	165.1	4.8383 µg/L	4.8383 ppb	11:28:06
1	Be 313.107†	11180.7	6616.5	4.6303 µg/L	4.6303 ppb	11:27:45
1	Ca 317.933Radial†	502.3	242.0	193.02 µg/L	193.02 ppb	11:26:37
1	Cd 226.502†	42.2	149.1	4.4358 µg/L	4.4358 ppb	11:28:06
1	Co 228.616†	48.8	83.8	4.6716 µg/L	4.6716 ppb	11:28:06
1	Cr 267.716†	156.4	204.8	4.7776 µg/L	4.7776 ppb	11:28:06
1	Cu 324.752†	5177.6	1267.9	9.2107 µg/L	9.2107 ppb	11:27:45
1	Fe 238.204 Radial†	25.9	9.2	134.12 µg/L	134.12 ppb	11:26:37
1	K 766.490 Radial†	620.2	207.7	134.79 µg/L	134.79 ppb	11:26:17
1	Mg 279.077 IEC†	36.7	24.9	272.04 µg/L	272.04 ppb	11:26:37
1	Mn 257.610†	2676.2	2692.7	10.023 µg/L	10.023 ppb	11:27:45
1	Mo 202.031†	87.3	69.7	8.7910 µg/L	8.7910 ppb	11:28:06
1	Na 589.592 Radial†	1988.5	1072.7	303.78 µg/L	303.78 ppb	11:26:17
1	Ni 231.604†	410.2	71.5	4.5365 µg/L	4.5365 ppb	11:28:06
1	P 214.914†	271.3	66.3	158.79 µg/L	158.79 ppb	11:28:06
1	Pb 220.353†	88.9	22.1	6.5041 µg/L	6.5041 ppb	11:28:06
1	S 181.975 Axial†	44.1	19.3	110.26 µg/L	110.26 ppb	11:28:06
1	Sb 206.836†	29.5	6.9	7.7398 µg/L	7.7398 ppb	11:28:06
1	Se 196.026†	29.6	19.3	30.544 µg/L	30.544 ppb	11:28:06
1	SiO2†	3276.5	928.0	195.39 µg/L	195.39 ppb	11:27:45
1	Si 251.611†	1497.8	1157.5	96.875 µg/L	96.875 ppb	11:28:06
1	Sn 189.927†	41.3	18.7	11.197 µg/L	11.197 ppb	11:28:06
1	Sr 421.552†	1301.8	706.3	4.3994 µg/L	4.3994 ppb	11:26:17
1	Ti 334.940†	2880.0	1880.2	4.6723 µg/L	4.6723 ppb	11:27:45
1	Tl 190.801†	-10.6	11.2	19.573 µg/L	19.573 ppb	11:28:06
1	U 409.014†	428.6	573.9	53.729 µg/L	53.729 ppb	11:27:45
1	V 292.402†	291.7	383.3	4.9030 µg/L	4.9030 ppb	11:27:45
1	Zn 213.857†	991.2	309.6	8.9711 µg/L	8.9711 ppb	11:28:06
2	Sc 361.383	1860087.8	1860087.8	100.87 %		11:28:12
2	Sc RADIAL	73918.8	73918.8	99.8 %		11:26:43
2	Y 371.029	1180962.1	1180962.1	100.84 %		11:28:12
2	Ag 328.068†	511.5	497.8	4.6347 µg/L	4.6347 ppb	11:28:17
2	Al 396.153Radial†	272.9	294.3	203.26 µg/L	203.26 ppb	11:26:43
2	As 188.979†	11.4	12.6	28.945 µg/L	28.945 ppb	11:28:38
2	B 249.677†	1178.0	1053.7	50.944 µg/L	50.944 ppb	11:28:17
2	Ba 233.527†	157.5	161.6	4.7350 µg/L	4.7350 ppb	11:28:38
2	Be 313.107†	11074.3	6576.7	4.6025 µg/L	4.6025 ppb	11:28:17
2	Ca 317.933Radial†	500.9	243.6	194.32 µg/L	194.32 ppb	11:27:03
2	Cd 226.502†	51.4	158.4	4.7132 µg/L	4.7132 ppb	11:28:38
2	Co 228.616†	50.7	86.1	4.7979 µg/L	4.7979 ppb	11:28:38
2	Cr 267.716†	154.8	204.1	4.7611 µg/L	4.7611 ppb	11:28:38
2	Cu 324.752†	5128.6	1249.8	9.0792 µg/L	9.0792 ppb	11:28:17
2	Fe 238.204 Radial†	25.6	9.1	131.91 µg/L	131.91 ppb	11:27:03
2	K 766.490 Radial†	630.0	221.2	143.56 µg/L	143.56 ppb	11:26:43
2	Mg 279.077 IEC†	36.1	24.5	267.98 µg/L	267.98 ppb	11:27:03
2	Mn 257.610†	2669.6	2702.0	10.057 µg/L	10.057 ppb	11:28:17
2	Mo 202.031†	94.7	77.6	9.7866 µg/L	9.7866 ppb	11:28:38
2	Na 589.592 Radial†	1948.3	1044.3	295.75 µg/L	295.75 ppb	11:26:43
2	Ni 231.604†	408.4	72.1	4.5788 µg/L	4.5788 ppb	11:28:38
2	P 214.914†	275.3	71.9	172.22 µg/L	172.22 ppb	11:28:38
2	Pb 220.353†	91.0	24.8	7.2773 µg/L	7.2773 ppb	11:28:38



2	S 181.975 Axial†	43.9	19.3	110.47 µg/L	110.47 ppb	11:28:38
2	Sb 206.836†	38.0	15.6	17.336 µg/L	17.336 ppb	11:28:38
2	Se 196.026†	33.2	23.0	36.354 µg/L	36.354 ppb	11:28:38
2	SiO2†	3306.2	976.8	205.65 µg/L	205.65 ppb	11:28:17
2	Si 251.611†	1510.0	1178.4	98.621 µg/L	98.621 ppb	11:28:38
2	Sn 189.927†	41.7	19.3	11.553 µg/L	11.553 ppb	11:28:38
2	Sr 421.552†	1397.3	809.7	5.0436 µg/L	5.0436 ppb	11:26:43
2	Ti 334.940†	2795.8	1813.6	4.5065 µg/L	4.5065 ppb	11:28:17
2	Tl 190.801†	-6.6	15.1	26.313 µg/L	26.313 ppb	11:28:38
2	U 409.014†	520.2	667.3	62.475 µg/L	62.475 ppb	11:28:17
2	V 292.402†	274.5	368.0	4.7299 µg/L	4.7299 ppb	11:28:17
2	Zn 213.857†	994.3	318.6	9.2326 µg/L	9.2326 ppb	11:28:38
3	Sc 361.383	1849818.4	1849818.4	100.32 %		11:28:44
3	Sc RADIAL	74208.7	74208.7	100 %		11:27:09
3	Y 371.029	1174567.9	1174567.9	100.29 %		11:28:44
3	Ag 328.068†	505.2	494.3	4.6011 µg/L	4.6011 ppb	11:28:49
3	Al 396.153Radial†	304.3	324.5	224.20 µg/L	224.20 ppb	11:27:09
3	As 188.979†	13.6	14.8	33.970 µg/L	33.970 ppb	11:29:10
3	B 249.677†	1159.3	1041.5	50.383 µg/L	50.383 ppb	11:28:49
3	Ba 233.527†	135.5	140.6	4.1212 µg/L	4.1212 ppb	11:29:10
3	Be 313.107†	10670.3	6234.9	4.3633 µg/L	4.3633 ppb	11:28:49
3	Ca 317.933Radial†	499.1	239.8	191.26 µg/L	191.26 ppb	11:27:29
3	Cd 226.502†	21.0	128.4	3.8233 µg/L	3.8233 ppb	11:29:10
3	Co 228.616†	29.0	64.6	3.6029 µg/L	3.6029 ppb	11:29:10
3	Cr 267.716†	109.8	160.1	3.7361 µg/L	3.7361 ppb	11:29:10
3	Cu 324.752†	5121.0	1270.4	9.2215 µg/L	9.2215 ppb	11:28:49
3	Fe 238.204 Radial†	22.1	5.4	78.533 µg/L	78.533 ppb	11:27:29
3	K 766.490 Radial†	637.6	226.3	146.92 µg/L	146.92 ppb	11:27:09
3	Mg 279.077 IEC†	39.5	27.7	303.67 µg/L	303.67 ppb	11:27:29
3	Mn 257.610†	2521.1	2568.6	9.5524 µg/L	9.5524 ppb	11:28:49
3	Mo 202.031†	86.9	70.4	8.8721 µg/L	8.8721 ppb	11:29:10
3	Na 589.592 Radial†	1917.5	1006.0	284.90 µg/L	284.90 ppb	11:27:09
3	Ni 231.604†	404.4	70.4	4.4699 µg/L	4.4699 ppb	11:29:10
3	P 214.914†	272.6	70.7	169.41 µg/L	169.41 ppb	11:29:10
3	Pb 220.353†	87.1	21.4	6.2879 µg/L	6.2879 ppb	11:29:10
3	S 181.975 Axial†	37.3	13.0	74.321 µg/L	74.321 ppb	11:29:10
3	Sb 206.836†	28.3	6.1	6.8422 µg/L	6.8422 ppb	11:29:10
3	Se 196.026†	27.0	17.1	26.856 µg/L	26.856 ppb	11:29:10
3	SiO2†	3279.3	968.1	203.82 µg/L	203.82 ppb	11:28:49
3	Si 251.611†	1383.1	1060.3	88.733 µg/L	88.733 ppb	11:29:10
3	Sn 189.927†	39.3	17.1	10.278 µg/L	10.278 ppb	11:29:10
3	Sr 421.552†	1372.5	779.5	4.8557 µg/L	4.8557 ppb	11:27:09
3	Ti 334.940†	2692.9	1726.4	4.2861 µg/L	4.2861 ppb	11:28:49
3	Tl 190.801†	-6.4	15.3	26.670 µg/L	26.670 ppb	11:29:10
3	U 409.014†	362.0	512.4	47.974 µg/L	47.974 ppb	11:28:49
3	V 292.402†	293.6	388.5	4.9573 µg/L	4.9573 ppb	11:28:49
3	Zn 213.857†	941.5	271.3	7.8557 µg/L	7.8557 ppb	11:29:10

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1860367.3	100.89 %	0.580			0.57%
Sc RADIAL	74163.1	100 %	0.3			0.30%
Y 371.029	1181243.3	100.86 %	0.582			0.58%
Ag 328.068†	503.6	4.6880 µg/L	0.12266	4.6880 ppb	0.12266	2.62%
QC value within limits for Ag 328.068 Recovery = 93.76%						
Al 396.153Radial†	304.7	210.48 µg/L	11.886	210.48 ppb	11.886	5.65%
QC value within limits for Al 396.153Radial Recovery = 105.24%						
As 188.979†	13.8	31.775 µg/L	2.5724	31.775 ppb	2.5724	8.10%
QC value within limits for As 188.979 Recovery = 105.92%						
B 249.677†	1047.9	50.675 µg/L	0.2812	50.675 ppb	0.2812	0.55%
QC value within limits for B 249.677 Recovery = 101.35%						
Ba 233.527†	155.8	4.5649 µg/L	0.38764	4.5649 ppb	0.38764	8.49%
QC value within limits for Ba 233.527 Recovery = 91.30%						
Be 313.107†	6476.0	4.5321 µg/L	0.14678	4.5321 ppb	0.14678	3.24%
QC value within limits for Be 313.107 Recovery = 90.64%						
Ca 317.933Radial†	241.8	192.87 µg/L	1.533	192.87 ppb	1.533	0.80%
QC value within limits for Ca 317.933Radial Recovery = 96.43%						
Cd 226.502†	145.3	4.3241 µg/L	0.45532	4.3241 ppb	0.45532	10.53%
QC value within limits for Cd 226.502 Recovery = 86.48%						

Co 228.616†	78.2	4.3575 µg/L	0.65647	4.3575 ppb	0.65647	15.07%
QC value within limits for Co 228.616 Recovery = 87.15%						
Cr 267.716†	189.7	4.4249 µg/L	0.59662	4.4249 ppb	0.59662	13.48%
QC value within limits for Cr 267.716 Recovery = 88.50%						
Cu 324.752†	1262.7	9.1705 µg/L	0.07920	9.1705 ppb	0.07920	0.86%
QC value within limits for Cu 324.752 Recovery = 91.70%						
Fe 238.204 Radial†	7.9	114.86 µg/L	31.476	114.86 ppb	31.476	27.40%
QC value within limits for Fe 238.204 Radial Recovery = 114.86%						
K 766.490 Radial†	218.4	141.76 µg/L	6.259	141.76 ppb	6.259	4.42%
QC value within limits for K 766.490 Radial Recovery = 94.50%						
Mg 279.077 IEC†	25.7	281.23 µg/L	19.537	281.23 ppb	19.537	6.95%
QC value within limits for Mg 279.077 IEC Recovery = 93.74%						
Mn 257.610†	2654.4	9.8773 µg/L	0.28194	9.8773 ppb	0.28194	2.85%
QC value within limits for Mn 257.610 Recovery = 98.77%						
Mo 202.031†	72.6	9.1499 µg/L	0.55287	9.1499 ppb	0.55287	6.04%
QC value within limits for Mo 202.031 Recovery = 91.50%						
Na 589.592 Radial†	1041.0	294.81 µg/L	9.477	294.81 ppb	9.477	3.21%
QC value within limits for Na 589.592 Radial Recovery = 98.27%						
Ni 231.604†	71.3	4.5284 µg/L	0.05491	4.5284 ppb	0.05491	1.21%
QC value within limits for Ni 231.604 Recovery = 90.57%						
P 214.914†	69.7	166.81 µg/L	7.083	166.81 ppb	7.083	4.25%
QC value within limits for P 214.914 Recovery = 111.21%						
Pb 220.353†	22.7	6.6898 µg/L	0.52019	6.6898 ppb	0.52019	7.78%
QC value less than the lower limit for Pb 220.353 Recovery = 66.90%						
S 181.975 Axial†	17.2	98.351 µg/L	20.8107	98.351 ppb	20.8107	21.16%
QC value within limits for S 181.975 Axial Recovery = 98.35%						
Sb 206.836†	9.6	10.639 µg/L	5.8170	10.639 ppb	5.8170	54.67%
QC value within limits for Sb 206.836 Recovery = 106.39%						
Se 196.026†	19.8	31.251 µg/L	4.7888	31.251 ppb	4.7888	15.32%
QC value within limits for Se 196.026 Recovery = 104.17%						
SiO2†	957.6	201.62 µg/L	5.477	201.62 ppb	5.477	2.72%
QC value within limits for SiO2 Recovery = 94.66%						
Si 251.611†	1132.1	94.743 µg/L	5.2775	94.743 ppb	5.2775	5.57%
QC value within limits for Si 251.611 Recovery = 94.74%						
Sn 189.927†	18.3	11.009 µg/L	0.6580	11.009 ppb	0.6580	5.98%
QC value within limits for Sn 189.927 Recovery = 110.09%						
Sr 421.552†	765.2	4.7662 µg/L	0.33128	4.7662 ppb	0.33128	6.95%
QC value within limits for Sr 421.552 Recovery = 95.32%						
Ti 334.940†	1806.7	4.4883 µg/L	0.19370	4.4883 ppb	0.19370	4.32%
QC value within limits for Ti 334.940 Recovery = 89.77%						
Tl 190.801†	13.9	24.185 µg/L	3.9983	24.185 ppb	3.9983	16.53%
QC value within limits for Tl 190.801 Recovery = 120.93%						
U 409.014†	584.5	54.726 µg/L	7.3020	54.726 ppb	7.3020	13.34%
QC value within limits for U 409.014 Recovery = 109.45%						
V 292.402†	379.9	4.8634 µg/L	0.11876	4.8634 ppb	0.11876	2.44%
QC value within limits for V 292.402 Recovery = 97.27%						
Zn 213.857†	299.8	8.6865 µg/L	0.73124	8.6865 ppb	0.73124	8.42%
QC value within limits for Zn 213.857 Recovery = 86.86%						
QC Failed. Continue with analysis.						

Sequence No.: 9  
 Sample ID: ICSEA  
 Analyst:  
 Logged In Analyst (Original) : optima  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 103  
 Date Collected: 1/26/2010 11:29:20  
 Data Type: Reprocessed on 1/26/2010 12:42:18  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: ICSEA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1742298.0	1742298.0	94.487 %			11:30:34
1	Sc RADIAL	73571.7	73571.7	99.3 %			11:30:01
1	Y 371.029	1091734.2	1091734.2	93.218 %			11:30:34
1	Ag 328.068†	-1994.6	-2120.3	-7.3732 µg/L		-7.3732 ppb	11:30:34
1	Al 396.153Radial†	759317.2	764342.5	528480 µg/L		528480 ppb	11:29:55
1	As 188.979†	-5.9	-4.9	-26.306 µg/L		-26.306 ppb	11:30:55
1	B 249.677†	2218.3	2233.6	6.5279 µg/L		6.5279 ppb	11:30:34
1	Ba 233.527†	215.2	233.3	6.8055 µg/L		6.8055 ppb	11:30:55
1	Be 313.107†	3022.4	-1202.8	-0.8520 µg/L		-0.8520 ppb	11:30:34
1	Ca 317.933Radial†	629134.3	633022.4	505000 µg/L		505000 ppb	11:29:55
1	Cd 226.502†	657.8	803.6	1.9632 µg/L		1.9632 ppb	11:30:55
1	Co 228.616†	-11.1	24.0	1.2725 µg/L		1.2725 ppb	11:30:55
1	Cr 267.716†	-82.8	-36.9	-0.8667 µg/L		-0.8667 ppb	11:30:55
1	Cu 324.752†	688.2	-3106.0	4.5443 µg/L		4.5443 ppb	11:30:34
1	Fe 238.204 Radial†	13333.2	13404.4	194700 µg/L		194700 ppb	11:30:01
1	K 766.490 Radial†	238.7	-169.7	-110.17 µg/L		-110.17 ppb	11:30:01
1	Mg 279.077 IEC†	46221.6	46514.5	508870 µg/L		508870 ppb	11:30:01
1	Mn 257.610†	-2442.1	-2529.1	-3.8757 µg/L		-3.8757 ppb	11:30:34
1	Mo 202.031†	-75.1	-95.7	-4.6639 µg/L		-4.6639 ppb	11:30:55
1	Na 589.592 Radial†	900.8	-0.8	-0.2377 µg/L		-0.2377 ppb	11:30:01
1	Ni 231.604†	294.6	-21.0	1.1971 µg/L		1.1971 ppb	11:30:55
1	P 214.914†	211.2	22.5	47.572 µg/L		47.572 ppb	11:30:55
1	Pb 220.353†	-40.1	-108.0	-10.325 µg/L		-10.325 ppb	11:30:55
1	S 181.975 Axial†	56.2	35.3	201.61 µg/L		201.61 ppb	11:30:55
1	Sb 206.836†	63.1	44.7	15.833 µg/L		15.833 ppb	11:30:55
1	Se 196.026†	-377.3	-409.2	-49.969 µg/L		-49.969 ppb	11:30:55
1	SiO2†	1994.2	-190.2	-40.044 µg/L		-40.044 ppb	11:30:55
1	Si 251.611†	385.1	89.1	7.4556 µg/L		7.4556 ppb	11:30:55
1	Sn 189.927†	-320.7	-361.5	12.501 µg/L		12.501 ppb	11:30:55
1	Sr 421.552†	1075.0	491.9	3.0642 µg/L		3.0642 ppb	11:30:01
1	Ti 334.940†	10808.2	10481.0	-5.9893 µg/L		-5.9893 ppb	11:30:34
1	Tl 190.801†	18.8	41.6	-16.028 µg/L		-16.028 ppb	11:30:55
1	U 409.014†	433.0	609.9	-0.7421 µg/L		-0.7421 ppb	11:30:34
1	V 292.402†	-802.7	-753.6	0.9216 µg/L		0.9216 ppb	11:30:34
1	Zn 213.857†	1814.7	1253.4	-1.5228 µg/L		-1.5228 ppb	11:30:55
2	Sc 361.383	1730532.6	1730532.6	93.849 %			11:31:01
2	Sc RADIAL	73592.8	73592.8	99.4 %			11:30:12
2	Y 371.029	1084649.2	1084649.2	92.613 %			11:31:01
2	Ag 328.068†	-1915.5	-2050.3	-6.6859 µg/L		-6.6859 ppb	11:31:01
2	Al 396.153Radial†	759126.4	763932.2	528190 µg/L		528190 ppb	11:30:07
2	As 188.979†	-7.1	-6.3	-29.341 µg/L		-29.341 ppb	11:31:22
2	B 249.677†	2205.8	2236.3	6.2743 µg/L		6.2743 ppb	11:31:01
2	Ba 233.527†	205.4	224.4	6.5438 µg/L		6.5438 ppb	11:31:22
2	Be 313.107†	3029.2	-1173.8	-0.8317 µg/L		-0.8317 ppb	11:31:01
2	Ca 317.933Radial†	627959.8	631659.7	503910 µg/L		503910 ppb	11:30:07
2	Cd 226.502†	668.7	819.9	2.3672 µg/L		2.3672 ppb	11:31:22
2	Co 228.616†	1.7	37.6	2.0324 µg/L		2.0324 ppb	11:31:22
2	Cr 267.716†	-96.3	-51.9	-1.2172 µg/L		-1.2172 ppb	11:31:22
2	Cu 324.752†	658.4	-3132.8	4.4521 µg/L		4.4521 ppb	11:31:01
2	Fe 238.204 Radial†	13387.2	13454.9	195430 µg/L		195430 ppb	11:30:12
2	K 766.490 Radial†	284.4	-123.8	-80.392 µg/L		-80.392 ppb	11:30:12
2	Mg 279.077 IEC†	46299.5	46579.7	509580 µg/L		509580 ppb	11:30:12
2	Mn 257.610†	-2415.1	-2517.9	-3.7648 µg/L		-3.7648 ppb	11:31:01
2	Mo 202.031†	-76.0	-97.3	-4.8300 µg/L		-4.8300 ppb	11:31:22
2	Na 589.592 Radial†	887.6	-14.5	-4.0977 µg/L		-4.0977 ppb	11:30:12
2	Ni 231.604†	289.7	-24.1	1.0074 µg/L		1.0074 ppb	11:31:22
2	P 214.914†	227.1	41.0	91.121 µg/L		91.121 ppb	11:31:22
2	Pb 220.353†	-39.2	-107.2	-10.147 µg/L		-10.147 ppb	11:31:22

2	S 181.975 Axial†	62.3	42.2	241.31 µg/L	241.31 ppb	11:31:22
2	Sb 206.836†	47.3	28.3	-2.1467 µg/L	-2.1467 ppb	11:31:22
2	Se 196.026†	-398.0	-433.9	-86.418 µg/L	-86.418 ppb	11:31:22
2	SiO2†	2007.8	-161.4	-33.976 µg/L	-33.976 ppb	11:31:22
2	Si 251.611†	377.6	83.9	7.0254 µg/L	7.0254 ppb	11:31:22
2	Sn 189.927†	-335.5	-379.6	1.7279 µg/L	1.7279 ppb	11:31:22
2	Sr 421.552†	1092.3	509.0	3.1706 µg/L	3.1706 ppb	11:30:12
2	Ti 334.940†	10694.8	10437.8	-6.1706 µg/L	-6.1706 ppb	11:31:01
2	Tl 190.801†	8.1	30.3	-35.529 µg/L	-35.529 ppb	11:31:22
2	U 409.014†	357.8	532.9	-7.9910 µg/L	-7.9910 ppb	11:31:01
2	V 292.402†	-850.4	-810.3	0.2470 µg/L	0.2470 ppb	11:31:01
2	Zn 213.857†	1817.6	1269.6	-1.1234 µg/L	-1.1234 ppb	11:31:22
3	Sc 361.383	1735585.4	1735585.4	94.123 %		11:31:29
3	Sc RADIAL	73238.3	73238.3	98.9 %		11:30:23
3	Y 371.029	1087652.9	1087652.9	92.869 %		11:31:29
3	Ag 328.068†	-1934.6	-2064.6	-6.8153 µg/L	-6.8153 ppb	11:31:29
3	Al 396.153Radial†	759358.9	767864.5	530910 µg/L	530910 ppb	11:30:18
3	As 188.979†	-2.5	-1.4	-18.246 µg/L	-18.246 ppb	11:31:50
3	B 249.677†	2252.2	2278.7	8.3715 µg/L	8.3715 ppb	11:31:29
3	Ba 233.527†	220.9	240.2	7.0094 µg/L	7.0094 ppb	11:31:50
3	Be 313.107†	3041.2	-1170.4	-0.8293 µg/L	-0.8293 ppb	11:31:29
3	Ca 317.933Radial†	628090.5	634850.2	506450 µg/L	506450 ppb	11:30:18
3	Cd 226.502†	655.8	804.2	1.9061 µg/L	1.9061 ppb	11:31:50
3	Co 228.616†	-9.2	26.0	1.3839 µg/L	1.3839 ppb	11:31:50
3	Cr 267.716†	-61.3	-14.5	-0.3430 µg/L	-0.3430 ppb	11:31:50
3	Cu 324.752†	704.3	-3086.0	4.7800 µg/L	4.7800 ppb	11:31:29
3	Fe 238.204 Radial†	13317.3	13449.5	195350 µg/L	195350 ppb	11:30:23
3	K 766.490 Radial†	289.3	-117.4	-76.234 µg/L	-76.234 ppb	11:30:23
3	Mg 279.077 IEC†	46150.1	46654.1	510390 µg/L	510390 ppb	11:30:23
3	Mn 257.610†	-2426.3	-2522.3	-3.8245 µg/L	-3.8245 ppb	11:31:29
3	Mo 202.031†	-77.6	-98.7	-5.0125 µg/L	-5.0125 ppb	11:31:50
3	Na 589.592 Radial†	885.1	-12.6	-3.5708 µg/L	-3.5708 ppb	11:30:23
3	Ni 231.604†	275.2	-40.4	-0.0296 µg/L	-0.0296 ppb	11:31:50
3	P 214.914†	216.2	28.7	62.430 µg/L	62.430 ppb	11:31:50
3	Pb 220.353†	-35.9	-103.6	-8.9332 µg/L	-8.9332 ppb	11:31:50
3	S 181.975 Axial†	65.7	45.7	260.84 µg/L	260.84 ppb	11:31:50
3	Sb 206.836†	60.3	42.0	12.785 µg/L	12.785 ppb	11:31:50
3	Se 196.026†	-382.2	-416.0	-58.584 µg/L	-58.584 ppb	11:31:50
3	SiO2†	2015.4	-159.5	-33.585 µg/L	-33.585 ppb	11:31:50
3	Si 251.611†	367.9	72.5	6.0649 µg/L	6.0649 ppb	11:31:50
3	Sn 189.927†	-328.7	-371.3	7.3445 µg/L	7.3445 ppb	11:31:50
3	Sr 421.552†	1055.5	477.1	2.9718 µg/L	2.9718 ppb	11:30:23
3	Ti 334.940†	10730.9	10443.1	-6.1811 µg/L	-6.1811 ppb	11:31:29
3	Tl 190.801†	23.5	46.6	-7.5005 µg/L	-7.5005 ppb	11:31:50
3	U 409.014†	407.6	584.6	-3.2881 µg/L	-3.2881 ppb	11:31:29
3	V 292.402†	-763.4	-715.2	1.4300 µg/L	1.4300 ppb	11:31:29
3	Zn 213.857†	1816.2	1262.4	-1.3711 µg/L	-1.3711 ppb	11:31:50

## Mean Data: ICSEA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1736138.7	94.153 %	0.3201			0.34%
Sc RADIAL	73467.6	99.2 %	0.27			0.27%
Y 371.029	1088012.1	92.900 %	0.3036			0.33%
Ag 328.068†	-2078.4	-6.9581 µg/L	0.36527	-6.9581 ppb	0.36527	5.25%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	765379.7	529200 µg/L	1494.6	529200 ppb	1494.6	0.28%
QC value within limits for Al 396.153Radial Recovery = 105.84%						
As 188.979†	-4.2	-24.631 µg/L	5.7342	-24.631 ppb	5.7342	23.28%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	2249.5	7.0579 µg/L	1.14466	7.0579 ppb	1.14466	16.22%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	232.6	6.7863 µg/L	0.23342	6.7863 ppb	0.23342	3.44%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-1182.3	-0.8377 µg/L	0.01248	-0.8377 ppb	0.01248	1.49%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	633177.4	505120 µg/L	1277.1	505120 ppb	1277.1	0.25%
QC value within limits for Ca 317.933Radial Recovery = 101.02%						
Cd 226.502†	809.3	2.0788 µg/L	0.25140	2.0788 ppb	0.25140	12.09%
QC value within limits for Cd 226.502 Recovery = Not calculated						

Co 228.616†	29.2	1.5629 µg/L	0.41037	1.5629 ppb	0.41037	26.26%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-34.4	-0.8090 µg/L	0.43994	-0.8090 ppb	0.43994	54.38%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-3108.3	4.5921 µg/L	0.16908	4.5921 ppb	0.16908	3.68%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	13436.3	195160 µg/L	402.7	195160 ppb	402.7	0.21%
QC value within limits for Fe 238.204 Radial Recovery = 97.58%						
K 766.490 Radial†	-137.0	-88.933 µg/L	18.5127	-88.933 ppb	18.5127	20.82%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	46582.8	509610 µg/L	763.9	509610 ppb	763.9	0.15%
QC value within limits for Mg 279.077 IEC Recovery = 101.92%						
Mn 257.610†	-2523.1	-3.8217 µg/L	0.05551	-3.8217 ppb	0.05551	1.45%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-97.2	-4.8355 µg/L	0.17436	-4.8355 ppb	0.17436	3.61%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-9.3	-2.6354 µg/L	2.09311	-2.6354 ppb	2.09311	79.42%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-28.5	0.7250 µg/L	0.66032	0.7250 ppb	0.66032	91.08%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	30.7	67.041 µg/L	22.1379	67.041 ppb	22.1379	33.02%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-106.3	-9.8016 µg/L	0.75731	-9.8016 ppb	0.75731	7.73%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	41.1	234.59 µg/L	30.179	234.59 ppb	30.179	12.86%
QC value greater than the upper limit for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	38.3	8.8236 µg/L	9.62208	8.8236 ppb	9.62208	109.05%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-419.7	-64.990 µg/L	19.0505	-64.990 ppb	19.0505	29.31%
QC value less than the lower limit for Se 196.026 Recovery = Not calculated						
SiO2†	-170.4	-35.868 µg/L	3.6216	-35.868 ppb	3.6216	10.10%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	81.8	6.8487 µg/L	0.71204	6.8487 ppb	0.71204	10.40%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-370.8	7.1913 µg/L	5.38842	7.1913 ppb	5.38842	74.93%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	492.7	3.0689 µg/L	0.09951	3.0689 ppb	0.09951	3.24%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	10454.0	-6.1136 µg/L	0.10786	-6.1136 ppb	0.10786	1.76%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	39.5	-19.686 µg/L	14.3681	-19.686 ppb	14.3681	72.99%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	575.8	-4.0070 µg/L	3.67757	-4.0070 ppb	3.67757	91.78%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-759.7	0.8662 µg/L	0.59348	0.8662 ppb	0.59348	68.51%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	1261.8	-1.3391 µg/L	0.20163	-1.3391 ppb	0.20163	15.06%
QC value within limits for Zn 213.857 Recovery = Not calculated						
QC Failed. Continue with analysis.						

Sequence No.: 10

Sample ID: ICSAB

Analyst:

Logged In Analyst (Original) : optima

Initial Sample Wt:

Dilution:

Autosampler Location: 104

Date Collected: 1/26/2010 11:31:59

Data Type: Reprocessed on 1/26/2010 12:42:59

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 361.383	1755660.9	1755660.9	95.212 %		11:33:13
1	Sc RADIAL	74154.6	74154.6	100 %		11:32:39
1	Y 371.029	1102743.0	1102743.0	94.158 %		11:33:13
1	Ag 328.068†	24695.4	25928.1	254.88 µg/L	254.88 ppb	11:33:13
1	Al 396.153Radial†	754262.6	753286.9	520820 µg/L	520820 ppb	11:32:33
1	As 188.979†	211.7	223.6	498.78 µg/L	498.78 ppb	11:33:34
1	B 249.677†	12273.1	12776.2	518.56 µg/L	518.56 ppb	11:33:13
1	Ba 233.527†	16454.1	17287.1	506.52 µg/L	506.52 ppb	11:33:13
1	Be 313.107†	330549.2	342771.8	239.77 µg/L	239.77 ppb	11:33:13
1	Ca 317.933Radial†	621692.0	620612.4	495100 µg/L	495100 ppb	11:32:33
1	Cd 226.502†	15521.4	16409.5	468.00 µg/L	468.00 ppb	11:33:13
1	Co 228.616†	7584.7	8001.9	445.48 µg/L	445.48 ppb	11:33:34
1	Cr 267.716†	19939.9	20993.5	489.75 µg/L	489.75 ppb	11:33:13
1	Cu 324.752†	71510.4	71272.5	543.55 µg/L	543.55 ppb	11:33:13
1	Fe 238.204 Radial†	13319.1	13284.9	192970 µg/L	192970 ppb	11:32:39
1	K 766.490 Radial†	8214.3	7793.4	5058.8 µg/L	5058.8 ppb	11:32:39
1	Mg 279.077 IEC†	46050.4	45977.9	503000 µg/L	503000 ppb	11:32:39
1	Mn 257.610†	121202.4	127353.5	479.24 µg/L	479.24 ppb	11:33:13
1	Mo 202.031†	3639.4	3806.2	486.91 µg/L	486.91 ppb	11:33:34
1	Na 589.592 Radial†	18994.9	18062.2	5115.2 µg/L	5115.2 ppb	11:32:39
1	Ni 231.604†	6957.2	6974.4	445.10 µg/L	445.10 ppb	11:33:34
1	P 214.914†	1224.8	1085.4	2555.7 µg/L	2555.7 ppb	11:33:34
1	Pb 220.353†	1542.4	1554.4	481.06 µg/L	481.06 ppb	11:33:34
1	S 181.975 Axial†	495.8	496.6	2837.1 µg/L	2837.1 ppb	11:33:34
1	Sb 206.836†	515.4	519.2	543.28 µg/L	543.28 ppb	11:33:34
1	Se 196.026†	1086.2	1130.9	2350.3 µg/L	2350.3 ppb	11:33:34
1	SiO2†	52081.9	52400.4	11033 µg/L	11033 ppb	11:33:13
1	Si 251.611†	59089.6	61742.9	5167.2 µg/L	5167.2 ppb	11:33:13
1	Sn 189.927†	510.1	513.7	528.99 µg/L	528.99 ppb	11:33:34
1	Sr 421.552†	81687.2	80989.1	504.48 µg/L	504.48 ppb	11:32:33
1	Ti 334.940†	203436.8	212710.2	498.84 µg/L	498.84 ppb	11:33:13
1	Tl 190.801†	281.7	317.5	470.02 µg/L	470.02 ppb	11:33:34
1	U 409.014†	5181.2	5593.4	466.91 µg/L	466.91 ppb	11:33:13
1	V 292.402†	38407.8	40435.2	517.89 µg/L	517.89 ppb	11:33:13
1	Zn 213.857†	17303.1	17506.2	469.98 µg/L	469.98 ppb	11:33:13
2	Sc 361.383	1760656.3	1760656.3	95.482 %		11:33:41
2	Sc RADIAL	73878.5	73878.5	99.8 %		11:32:50
2	Y 371.029	1106084.1	1106084.1	94.443 %		11:33:41
2	Ag 328.068†	24757.6	25919.7	254.76 µg/L	254.76 ppb	11:33:41
2	Al 396.153Radial†	757144.2	758990.8	524770 µg/L	524770 ppb	11:32:44
2	As 188.979†	205.7	216.7	482.68 µg/L	482.68 ppb	11:34:02
2	B 249.677†	12276.4	12743.1	517.08 µg/L	517.08 ppb	11:33:41
2	Ba 233.527†	16395.1	17176.3	503.27 µg/L	503.27 ppb	11:33:41
2	Be 313.107†	330603.5	341843.6	239.12 µg/L	239.12 ppb	11:33:41
2	Ca 317.933Radial†	625440.1	626690.0	499940 µg/L	499940 ppb	11:32:44
2	Cd 226.502†	15534.8	16377.3	467.07 µg/L	467.07 ppb	11:33:41
2	Co 228.616†	7586.3	7981.0	444.31 µg/L	444.31 ppb	11:34:02
2	Cr 267.716†	19894.0	20885.9	487.24 µg/L	487.24 ppb	11:33:41
2	Cu 324.752†	71431.7	70976.9	541.37 µg/L	541.37 ppb	11:33:41
2	Fe 238.204 Radial†	13253.4	13268.7	192740 µg/L	192740 ppb	11:32:50
2	K 766.490 Radial†	8167.5	7777.2	5048.3 µg/L	5048.3 ppb	11:32:50
2	Mg 279.077 IEC†	45936.9	46036.0	503640 µg/L	503640 ppb	11:32:50
2	Mn 257.610†	121045.7	126828.2	477.22 µg/L	477.22 ppb	11:33:41
2	Mo 202.031†	3633.5	3789.2	484.76 µg/L	484.76 ppb	11:34:02
2	Na 589.592 Radial†	18925.0	18063.0	5115.4 µg/L	5115.4 ppb	11:32:50
2	Ni 231.604†	6950.6	6946.7	443.34 µg/L	443.34 ppb	11:34:02
2	P 214.914†	1232.2	1089.5	2567.3 µg/L	2567.3 ppb	11:34:02
2	Pb 220.353†	1539.6	1547.0	479.06 µg/L	479.06 ppb	11:34:02

2	S 181.975 Axial†	486.5	485.4	2772.9 µg/L	2772.9 ppb	11:34:02
2	Sb 206.836†	496.1	497.5	518.97 µg/L	518.97 ppb	11:34:02
2	Se 196.026†	1079.9	1121.2	2334.9 µg/L	2334.9 ppb	11:34:02
2	SiO2†	52154.0	52320.8	11016 µg/L	11016 ppb	11:33:41
2	Si 251.611†	59107.4	61585.5	5154.1 µg/L	5154.1 ppb	11:33:41
2	Sn 189.927†	511.9	514.0	530.37 µg/L	530.37 ppb	11:34:02
2	Sr 421.552†	82050.5	81658.2	508.65 µg/L	508.65 ppb	11:32:44
2	Ti 334.940†	203787.9	212471.7	498.27 µg/L	498.27 ppb	11:33:41
2	Tl 190.801†	265.4	299.7	438.25 µg/L	438.25 ppb	11:34:02
2	U 409.014†	5288.3	5690.1	475.70 µg/L	475.70 ppb	11:33:41
2	V 292.402†	38240.5	40145.6	514.26 µg/L	514.26 ppb	11:33:41
2	Zn 213.857†	17286.6	17437.3	467.96 µg/L	467.96 ppb	11:33:41
3	Sc 361.383	1757371.4	1757371.4	95.304 %		11:34:09
3	Sc RADIAL	74243.9	74243.9	100 %		11:33:01
3	Y 371.029	1103793.7	1103793.7	94.247 %		11:34:09
3	Ag 328.068†	24696.3	25903.8	254.64 µg/L	254.64 ppb	11:34:09
3	Al 396.153Radial†	757900.0	756008.8	522710 µg/L	522710 ppb	11:32:56
3	As 188.979†	204.0	215.3	479.69 µg/L	479.69 ppb	11:34:30
3	B 249.677†	12266.5	12756.8	517.66 µg/L	517.66 ppb	11:34:09
3	Ba 233.527†	16429.7	17244.7	505.28 µg/L	505.28 ppb	11:34:09
3	Be 313.107†	330543.7	342428.1	239.53 µg/L	239.53 ppb	11:34:09
3	Ca 317.933Radial†	625226.3	623390.7	497310 µg/L	497310 ppb	11:32:56
3	Cd 226.502†	15491.8	16362.5	466.61 µg/L	466.61 ppb	11:34:09
3	Co 228.616†	7544.9	7952.4	442.71 µg/L	442.71 ppb	11:34:30
3	Cr 267.716†	19956.9	20990.8	489.69 µg/L	489.69 ppb	11:34:09
3	Cu 324.752†	71422.7	71107.3	542.34 µg/L	542.34 ppb	11:34:09
3	Fe 238.204 Radial†	13330.2	13279.9	192900 µg/L	192900 ppb	11:33:01
3	K 766.490 Radial†	8277.2	7846.4	5093.2 µg/L	5093.2 ppb	11:33:01
3	Mg 279.077 IEC†	46141.1	46013.0	503390 µg/L	503390 ppb	11:33:01
3	Mn 257.610†	121055.3	127075.2	478.18 µg/L	478.18 ppb	11:34:09
3	Mo 202.031†	3635.6	3798.4	485.94 µg/L	485.94 ppb	11:34:30
3	Na 589.592 Radial†	19054.7	18099.0	5125.6 µg/L	5125.6 ppb	11:33:01
3	Ni 231.604†	6935.3	6944.3	443.19 µg/L	443.19 ppb	11:34:30
3	P 214.914†	1222.3	1081.5	2547.1 µg/L	2547.1 ppb	11:34:30
3	Pb 220.353†	1535.9	1546.1	478.69 µg/L	478.69 ppb	11:34:30
3	S 181.975 Axial†	486.0	485.8	2775.0 µg/L	2775.0 ppb	11:34:30
3	Sb 206.836†	509.8	512.8	536.01 µg/L	536.01 ppb	11:34:30
3	Se 196.026†	1083.9	1127.4	2344.8 µg/L	2344.8 ppb	11:34:30
3	SiO2†	52134.7	52402.6	11033 µg/L	11033 ppb	11:34:09
3	Si 251.611†	59124.2	61718.8	5165.2 µg/L	5165.2 ppb	11:34:09
3	Sn 189.927†	505.2	508.1	526.22 µg/L	526.22 ppb	11:34:30
3	Sr 421.552†	82173.9	81376.4	506.89 µg/L	506.89 ppb	11:32:56
3	Ti 334.940†	203963.2	213054.6	499.70 µg/L	499.70 ppb	11:34:09
3	Tl 190.801†	271.2	306.3	450.13 µg/L	450.13 ppb	11:34:30
3	U 409.014†	5277.6	5689.2	475.76 µg/L	475.76 ppb	11:34:09
3	V 292.402†	38333.2	40317.7	516.42 µg/L	516.42 ppb	11:34:09
3	Zn 213.857†	17313.0	17498.8	469.76 µg/L	469.76 ppb	11:34:09

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1757896.2	95.333 %	0.1377			0.14%
Sc RADIAL	74092.3	100 %	0.3			0.26%
Y 371.029	1104206.9	94.283 %	0.1459			0.15%
Ag 328.068†	25917.2	254.76 µg/L	0.119	254.76 ppb	0.119	0.05%
QC value within limits for Ag 328.068 Recovery = 101.90%						
Al 396.153Radial†	756095.5	522770 µg/L	1972.6	522770 ppb	1972.6	0.38%
QC value within limits for Al 396.153Radial Recovery = 104.55%						
As 188.979†	218.5	487.05 µg/L	10.268	487.05 ppb	10.268	2.11%
QC value within limits for As 188.979 Recovery = 97.41%						
B 249.677†	12758.7	517.76 µg/L	0.747	517.76 ppb	0.747	0.14%
QC value within limits for B 249.677 Recovery = 103.55%						
Ba 233.527†	17236.0	505.02 µg/L	1.639	505.02 ppb	1.639	0.32%
QC value within limits for Ba 233.527 Recovery = 101.00%						
Be 313.107†	342347.8	239.47 µg/L	0.328	239.47 ppb	0.328	0.14%
QC value within limits for Be 313.107 Recovery = 95.79%						
Ca 317.933Radial†	623564.3	497450 µg/L	2427.2	497450 ppb	2427.2	0.49%
QC value within limits for Ca 317.933Radial Recovery = 99.49%						
Cd 226.502†	16383.1	467.23 µg/L	0.711	467.23 ppb	0.711	0.15%
QC value within limits for Cd 226.502 Recovery = 93.45%						

Co 228.616†	7978.4	444.17 µg/L	1.388	444.17 ppb	1.388	0.31%
QC value within limits for Co 228.616 Recovery = 88.83%						
Cr 267.716†	20956.7	488.89 µg/L	1.432	488.89 ppb	1.432	0.29%
QC value within limits for Cr 267.716 Recovery = 97.78%						
Cu 324.752†	71118.9	542.42 µg/L	1.090	542.42 ppb	1.090	0.20%
QC value within limits for Cu 324.752 Recovery = 108.48%						
Fe 238.204 Radial†	13277.9	192870 µg/L	120.5	192870 ppb	120.5	0.06%
QC value within limits for Fe 238.204 Radial Recovery = 96.43%						
K 766.490 Radial†	7805.7	5066.8 µg/L	23.48	5066.8 ppb	23.48	0.46%
QC value within limits for K 766.490 Radial Recovery = 101.34%						
Mg 279.077 IEC†	46009.0	503340 µg/L	320.7	503340 ppb	320.7	0.06%
QC value within limits for Mg 279.077 IEC Recovery = 100.67%						
Mn 257.610†	127085.6	478.21 µg/L	1.006	478.21 ppb	1.006	0.21%
QC value within limits for Mn 257.610 Recovery = 95.64%						
Mo 202.031†	3797.9	485.87 µg/L	1.077	485.87 ppb	1.077	0.22%
QC value within limits for Mo 202.031 Recovery = 97.17%						
Na 589.592 Radial†	18074.7	5118.7 µg/L	5.96	5118.7 ppb	5.96	0.12%
QC value within limits for Na 589.592 Radial Recovery = 102.37%						
Ni 231.604†	6955.1	443.88 µg/L	1.062	443.88 ppb	1.062	0.24%
QC value within limits for Ni 231.604 Recovery = 88.78%						
P 214.914†	1085.5	2556.7 µg/L	10.16	2556.7 ppb	10.16	0.40%
QC value within limits for P 214.914 Recovery = 102.27%						
Pb 220.353†	1549.2	479.60 µg/L	1.276	479.60 ppb	1.276	0.27%
QC value within limits for Pb 220.353 Recovery = 95.92%						
S 181.975 Axial†	489.3	2795.0 µg/L	36.48	2795.0 ppb	36.48	1.31%
QC value within limits for S 181.975 Axial Recovery = 111.80%						
Sb 206.836†	509.8	532.75 µg/L	12.476	532.75 ppb	12.476	2.34%
QC value within limits for Sb 206.836 Recovery = 106.55%						
Se 196.026†	1126.5	2343.3 µg/L	7.82	2343.3 ppb	7.82	0.33%
QC value within limits for Se 196.026 Recovery = 93.73%						
SiO2†	52374.6	11027 µg/L	9.8	11027 ppb	9.8	0.09%
QC value within limits for SiO2 Recovery = 103.11%						
Si 251.611†	61682.4	5162.2 µg/L	7.10	5162.2 ppb	7.10	0.14%
QC value within limits for Si 251.611 Recovery = 103.24%						
Sn 189.927†	511.9	528.53 µg/L	2.111	528.53 ppb	2.111	0.40%
QC value within limits for Sn 189.927 Recovery = 105.71%						
Sr 421.552†	81341.2	506.67 µg/L	2.093	506.67 ppb	2.093	0.41%
QC value within limits for Sr 421.552 Recovery = 101.33%						
Ti 334.940†	212745.5	498.94 µg/L	0.721	498.94 ppb	0.721	0.14%
QC value within limits for Ti 334.940 Recovery = 99.79%						
Tl 190.801†	307.8	452.80 µg/L	16.049	452.80 ppb	16.049	3.54%
QC value within limits for Tl 190.801 Recovery = 90.56%						
U 409.014†	5657.5	472.79 µg/L	5.095	472.79 ppb	5.095	1.08%
QC value within limits for U 409.014 Recovery = 94.56%						
V 292.402†	40299.5	516.19 µg/L	1.823	516.19 ppb	1.823	0.35%
QC value within limits for V 292.402 Recovery = 103.24%						
Zn 213.857†	17480.8	469.24 µg/L	1.109	469.24 ppb	1.109	0.24%
QC value within limits for Zn 213.857 Recovery = 93.85%						
All analyte(s) passed QC.						



Sequence No.: 11

Sample ID: LR1

Analyst:

Logged In Analyst (Original) : optima

Initial Sample Wt:

Dilution:

Autosampler Location: 105

Date Collected: 1/26/2010 11:34:39

Data Type: Reprocessed on 1/26/2010 12:43:40

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 361.383	1739343.0	1739343.0	94.327 %		11:35:54
1	Sc RADIAL	73856.7	73856.7	99.7 %		11:35:19
1	Y 371.029	1085740.6	1085740.6	92.706 %		11:35:54
1	Ag 328.068†	-3776.4	-4012.7	-8.2094 µg/L	-8.2094 ppb	11:35:54
1	Al 396.153Radial†	730401.5	732399.2	506390 µg/L	506390 ppb	11:35:14
1	As 188.979†	-14.8	-14.5	-31.608 µg/L	-31.608 ppb	11:36:15
1	B 249.677†	5145.4	5340.7	17.417 µg/L	17.417 ppb	11:35:54
1	Ba 233.527†	432.3	463.8	13.492 µg/L	13.492 ppb	11:36:15
1	Be 313.107†	-890.5	-5345.5	-3.7531 µg/L	-3.7531 ppb	11:35:54
1	Ca 317.933Radial†	605744.0	607125.2	484340 µg/L	484340 ppb	11:35:14
1	Cd 226.502†	1697.8	1907.4	4.6625 µg/L	4.6625 ppb	11:35:54
1	Co 228.616†	106.9	149.1	8.2289 µg/L	8.2289 ppb	11:36:15
1	Cr 267.716†	220.1	284.1	6.5967 µg/L	6.5967 ppb	11:36:15
1	Cu 324.752†	-4156.5	-8240.8	4.4861 µg/L	4.4861 ppb	11:35:54
1	Fe 238.204 Radial†	31745.2	31814.5	462100 µg/L	462100 ppb	11:35:19
1	K 766.490 Radial†	253.7	-155.7	-101.03 µg/L	-101.03 ppb	11:35:19
1	Mg 279.077 IEC†	44753.1	44862.6	490500 µg/L	490500 ppb	11:35:19
1	Mn 257.610†	-12556.6	-13256.4	-7.4886 µg/L	-7.4886 ppb	11:35:54
1	Mo 202.031†	-202.7	-231.2	-11.568 µg/L	-11.568 ppb	11:36:15
1	Na 589.592 Radial†	1688425.5	1692087.8	479200 µg/L	479200 ppb	11:35:14
1	Ni 231.604†	271.5	-45.0	3.1406 µg/L	3.1406 ppb	11:36:15
1	P 214.914†	365.1	186.0	221.15 µg/L	221.15 ppb	11:36:15
1	Pb 220.353†	73.4	12.3	-0.7031 µg/L	-0.7031 ppb	11:36:15
1	S 181.975 Axial†	57.8	37.2	212.29 µg/L	212.29 ppb	11:36:15
1	Sb 206.836†	52.7	33.7	4.7658 µg/L	4.7658 ppb	11:36:15
1	Se 196.026†	-1073.3	-1147.7	-209.11 µg/L	-209.11 ppb	11:36:15
1	SiO2†	1791.1	-401.9	-84.623 µg/L	-84.623 ppb	11:36:15
1	Si 251.611†	-29.3	-349.5	-29.254 µg/L	-29.254 ppb	11:36:15
1	Sn 189.927†	-356.5	-400.0	6.1966 µg/L	6.1966 ppb	11:36:15
1	Sr 421.552†	1245.5	658.7	4.1028 µg/L	4.1028 ppb	11:35:19
1	Ti 334.940†	11577.8	11316.3	-2.8076 µg/L	-2.8076 ppb	11:35:54
1	Tl 190.801†	4.8	26.7	-33.563 µg/L	-33.563 ppb	11:36:15
1	U 409.014†	141688.9	150362.5	13991 µg/L	13991 ppb	11:35:54
1	V 292.402†	-3199.9	-3296.5	-2.0332 µg/L	-2.0332 ppb	11:35:54
1	Zn 213.857†	2947.0	2457.1	21.968 µg/L	21.968 ppb	11:36:15
2	Sc 361.383	1738801.3	1738801.3	94.297 %		11:36:22
2	Sc RADIAL	74068.6	74068.6	100 %		11:35:31
2	Y 371.029	1085306.9	1085306.9	92.669 %		11:36:22
2	Ag 328.068†	-3699.6	-3932.6	-7.5709 µg/L	-7.5709 ppb	11:36:22
2	Al 396.153Radial†	737663.4	737565.2	509960 µg/L	509960 ppb	11:35:26
2	As 188.979†	-17.9	-17.7	-39.483 µg/L	-39.483 ppb	11:36:42
2	B 249.677†	5012.1	5201.1	11.550 µg/L	11.550 ppb	11:36:22
2	Ba 233.527†	433.6	465.3	13.537 µg/L	13.537 ppb	11:36:42
2	Be 313.107†	-824.4	-5275.7	-3.7040 µg/L	-3.7040 ppb	11:36:22
2	Ca 317.933Radial†	613864.3	613507.0	489430 µg/L	489430 ppb	11:35:26
2	Cd 226.502†	1672.4	1881.0	4.0681 µg/L	4.0681 ppb	11:36:22
2	Co 228.616†	120.5	163.5	9.0325 µg/L	9.0325 ppb	11:36:42
2	Cr 267.716†	225.1	289.4	6.7224 µg/L	6.7224 ppb	11:36:42
2	Cu 324.752†	-4174.3	-8261.0	4.1024 µg/L	4.1024 ppb	11:36:22
2	Fe 238.204 Radial†	31718.9	31697.2	460400 µg/L	460400 ppb	11:35:31
2	K 766.490 Radial†	244.3	-165.7	-107.55 µg/L	-107.55 ppb	11:35:31
2	Mg 279.077 IEC†	44749.9	44731.0	489060 µg/L	489060 ppb	11:35:31
2	Mn 257.610†	-12567.0	-13271.5	-7.7138 µg/L	-7.7138 ppb	11:36:22
2	Mo 202.031†	-218.4	-247.8	-13.733 µg/L	-13.733 ppb	11:36:42
2	Na 589.592 Radial†	1703057.0	1701874.8	481970 µg/L	481970 ppb	11:35:26
2	Ni 231.604†	256.9	-60.3	2.1401 µg/L	2.1401 ppb	11:36:42
2	P 214.914†	385.4	207.7	275.56 µg/L	275.56 ppb	11:36:42
2	Pb 220.353†	72.7	11.6	-0.5473 µg/L	-0.5473 ppb	11:36:42

2	S 181.975 Axial†	61.0	40.6	231.71 µg/L	231.71 ppb	11:36:42
2	Sb 206.836†	55.8	37.1	8.0850 µg/L	8.0850 ppb	11:36:42
2	Se 196.026†	-1068.9	-1143.5	-207.13 µg/L	-207.13 ppb	11:36:42
2	SiO2†	1552.6	-654.3	-137.77 µg/L	-137.77 ppb	11:36:42
2	Si 251.611†	-280.6	-616.0	-51.556 µg/L	-51.556 ppb	11:36:42
2	Sn 189.927†	-366.8	-411.0	0.3081 µg/L	0.3081 ppb	11:36:42
2	Sr 421.552†	1267.9	677.5	4.2201 µg/L	4.2201 ppb	11:35:31
2	Ti 334.940†	11329.1	11056.3	-3.2609 µg/L	-3.2609 ppb	11:36:22
2	Tl 190.801†	3.6	25.5	-36.516 µg/L	-36.516 ppb	11:36:42
2	U 409.014†	140761.7	149426.0	13903 µg/L	13903 ppb	11:36:22
2	V 292.402†	-3132.1	-3225.6	-1.3505 µg/L	-1.3505 ppb	11:36:22
2	Zn 213.857†	2965.5	2477.7	22.736 µg/L	22.736 ppb	11:36:42
3	Sc 361.383	1738716.3	1738716.3	94.293 %		11:36:49
3	Sc RADIAL	73789.2	73789.2	99.6 %		11:35:43
3	Y 371.029	1084932.8	1084932.8	92.637 %		11:36:49
3	Ag 328.068†	-3810.0	-4049.9	-8.6815 µg/L	-8.6815 ppb	11:36:49
3	Al 396.153Radial†	737813.7	740508.1	512000 µg/L	512000 ppb	11:35:38
3	As 188.979†	-20.3	-20.3	-45.390 µg/L	-45.390 ppb	11:37:10
3	B 249.677†	5111.3	5306.6	16.859 µg/L	16.859 ppb	11:36:49
3	Ba 233.527†	456.6	489.7	14.250 µg/L	14.250 ppb	11:37:10
3	Be 313.107†	-912.1	-5368.8	-3.7692 µg/L	-3.7692 ppb	11:36:49
3	Ca 317.933Radial†	612103.9	614063.7	489870 µg/L	489870 ppb	11:35:38
3	Cd 226.502†	1652.6	1860.1	3.4884 µg/L	3.4884 ppb	11:36:49
3	Co 228.616†	110.7	153.1	8.4538 µg/L	8.4538 ppb	11:37:10
3	Cr 267.716†	224.9	289.2	6.7174 µg/L	6.7174 ppb	11:37:10
3	Cu 324.752†	-4202.7	-8291.4	3.8273 µg/L	3.8273 ppb	11:36:49
3	Fe 238.204 Radial†	31572.3	31670.1	460000 µg/L	460000 ppb	11:35:43
3	K 766.490 Radial†	225.1	-184.1	-119.52 µg/L	-119.52 ppb	11:35:43
3	Mg 279.077 IEC†	44625.3	44775.3	489550 µg/L	489550 ppb	11:35:43
3	Mn 257.610†	-12589.0	-13295.5	-7.8750 µg/L	-7.8750 ppb	11:36:49
3	Mo 202.031†	-203.3	-231.8	-11.732 µg/L	-11.732 ppb	11:37:10
3	Na 589.592 Radial†	1706804.4	1712081.7	484860 µg/L	484860 ppb	11:35:38
3	Ni 231.604†	266.2	-50.4	2.7658 µg/L	2.7658 ppb	11:37:10
3	P 214.914†	392.9	215.6	295.66 µg/L	295.66 ppb	11:37:10
3	Pb 220.353†	53.4	-8.8	-6.6013 µg/L	-6.6013 ppb	11:37:10
3	S 181.975 Axial†	59.2	38.7	220.85 µg/L	220.85 ppb	11:37:10
3	Sb 206.836†	49.7	30.6	0.9644 µg/L	0.9644 ppb	11:37:10
3	Se 196.026†	-1083.9	-1159.3	-233.52 µg/L	-233.52 ppb	11:37:10
3	SiO2†	1559.7	-646.7	-136.16 µg/L	-136.16 ppb	11:37:10
3	Si 251.611†	-296.0	-632.3	-52.918 µg/L	-52.918 ppb	11:37:10
3	Sn 189.927†	-368.5	-412.9	-0.6137 µg/L	-0.6137 ppb	11:37:10
3	Sr 421.552†	1282.9	697.4	4.3442 µg/L	4.3442 ppb	11:35:43
3	Ti 334.940†	11358.3	11087.9	-3.2134 µg/L	-3.2134 ppb	11:36:49
3	Tl 190.801†	14.1	36.7	-17.032 µg/L	-17.032 ppb	11:37:10
3	U 409.014†	141962.4	150706.6	14023 µg/L	14023 ppb	11:36:49
3	V 292.402†	-3165.1	-3260.8	-1.6676 µg/L	-1.6676 ppb	11:36:49
3	Zn 213.857†	2963.0	2475.2	22.650 µg/L	22.650 ppb	11:37:10

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Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1738953.6	94.306 %	0.0184			0.02%
Sc RADIAL	73904.9	99.8 %	0.20			0.20%
Y 371.029	1085326.8	92.670 %	0.0345			0.04%
Ag 328.068†	-3998.4	-8.1539 µg/L	0.55737	-8.1539 ppb	0.55737	6.84%
Al 396.153Radial†	736824.2	509450 µg/L	2838.2	509450 ppb	2838.2	0.56%
QC value within limits for Al 396.153Radial Recovery = 101.89%						
As 188.979†	-17.5	-38.827 µg/L	6.9147	-38.827 ppb	6.9147	17.81%
B 249.677†	5282.8	15.275 µg/L	3.2384	15.275 ppb	3.2384	21.20%
Ba 233.527†	473.0	13.760 µg/L	0.4253	13.760 ppb	0.4253	3.09%
Be 313.107†	-5330.0	-3.7421 µg/L	0.03396	-3.7421 ppb	0.03396	0.91%
Ca 317.933Radial†	611565.3	487880 µg/L	3075.6	487880 ppb	3075.6	0.63%
QC value within limits for Ca 317.933Radial Recovery = 97.58%						
Cd 226.502†	1882.8	4.0730 µg/L	0.58707	4.0730 ppb	0.58707	14.41%
Co 228.616†	155.3	8.5718 µg/L	0.41460	8.5718 ppb	0.41460	4.84%
Cr 267.716†	287.6	6.6788 µg/L	0.07115	6.6788 ppb	0.07115	1.07%
Cu 324.752†	-8264.4	4.1386 µg/L	0.33087	4.1386 ppb	0.33087	7.99%
Fe 238.204 Radial†	31727.3	460830 µg/L	1115.0	460830 ppb	1115.0	0.24%
QC value within limits for Fe 238.204 Radial Recovery = 92.17%						
K 766.490 Radial†	-168.5	-109.37 µg/L	9.376	-109.37 ppb	9.376	8.57%

Mg 279.077 IEC†	44789.6	489700 µg/L	731.8	489700 ppb	731.8	0.15%
QC value within limits for Mg 279.077 IEC Recovery = 97.94%						
Mn 257.610†	-13274.5	-7.6925 µg/L	0.19411	-7.6925 ppb	0.19411	2.52%
Mo 202.031†	-237.0	-12.345 µg/L	1.2054	-12.345 ppb	1.2054	9.76%
Na 589.592 Radial†	1702014.8	482010 µg/L	2831.3	482010 ppb	2831.3	0.59%
QC value within limits for Na 589.592 Radial Recovery = 96.40%						
Ni 231.604†	-51.9	2.6822 µg/L	0.50549	2.6822 ppb	0.50549	18.85%
P 214.914†	203.1	264.12 µg/L	38.552	264.12 ppb	38.552	14.60%
Pb 220.353†	5.0	-2.6172 µg/L	3.45122	-2.6172 ppb	3.45122	131.87%
S 181.975 Axial†	38.8	221.62 µg/L	9.736	221.62 ppb	9.736	4.39%
Sb 206.836†	33.8	4.6051 µg/L	3.56303	4.6051 ppb	3.56303	77.37%
Se 196.026†	-1150.2	-216.59 µg/L	14.696	-216.59 ppb	14.696	6.79%
SiO2†	-567.7	-119.52 µg/L	30.228	-119.52 ppb	30.228	25.29%
Si 251.611†	-532.6	-44.576 µg/L	13.2868	-44.576 ppb	13.2868	29.81%
Sn 189.927†	-408.0	1.9636 µg/L	3.69467	1.9636 ppb	3.69467	188.15%
Sr 421.552†	677.9	4.2224 µg/L	0.12071	4.2224 ppb	0.12071	2.86%
Ti 334.940†	11153.5	-3.0939 µg/L	0.24914	-3.0939 ppb	0.24914	8.05%
Tl 190.801†	29.6	-29.037 µg/L	10.5006	-29.037 ppb	10.5006	36.16%
U 409.014†	150165.1	13972 µg/L	62.1	13972 ppb	62.1	0.44%
QC value within limits for U 409.014 Recovery = 93.15%						
V 292.402†	-3261.0	-1.6838 µg/L	0.34163	-1.6838 ppb	0.34163	20.29%
Zn 213.857†	2470.0	22.451 µg/L	0.4208	22.451 ppb	0.4208	1.87%

All analyte(s) passed QC.

Sequence No.: 12

Sample ID: LR2

Analyst:

Logged In Analyst (Original) : optima

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 1/26/2010 11:37:19

Data Type: Reprocessed on 1/26/2010 12:44:21

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 361.383	1863259.4	1863259.4	101.05 %		11:39:54
1	Sc RADIAL	75949.9	75949.9	103 %		11:38:02
1	Y 371.029	1172449.3	1172449.3	100.11 %		11:39:54
1	Ag 328.068†	-6780.3	-6719.3	4.9891 µg/L	4.9891 ppb	11:39:54
1	Al 396.153Radial†	347.7	359.8	45.560 µg/L	45.560 ppb	11:38:02
1	As 188.979†	4363.0	4319.1	9914.7 µg/L	9914.7 ppb	11:39:59
1	B 249.677†	103247.8	102064.1	4980.6 µg/L	4980.6 ppb	11:39:54
1	Ba 233.527†	496607.0	491468.0	14393 µg/L	14393 ppb	11:39:54
1	Be 313.107†	4187587.1	4139805.1	2894.5 µg/L	2894.5 ppb	11:39:43
1	Ca 317.933Radial†	320.8	54.5	43.478 µg/L	43.478 ppb	11:38:22
1	Cd 226.502†	331429.1	328103.2	9794.7 µg/L	9794.7 ppb	11:39:54
1	Co 228.616†	177053.6	175255.2	9759.9 µg/L	9759.9 ppb	11:39:54
1	Cr 267.716†	1076744.5	1065640.9	24850 µg/L	24850 ppb	11:39:54
1	Cu 324.752†	2803150.6	2770277.5	20084 µg/L	20084 ppb	11:39:54
1	Fe 238.204 Radial†	-16.3	-32.5	-264.38 µg/L	-264.38 ppb	11:38:22
1	K 766.490 Radial†	472763.8	460568.5	298960 µg/L	298960 ppb	11:37:56
1	Mg 279.077 IEC†	-24.6	-35.6	-223.24 µg/L	-223.24 ppb	11:38:22
1	Mn 257.610†	2635016.4	2607774.9	9699.7 µg/L	9699.7 ppb	11:39:54
1	Mo 202.031†	79348.9	78510.6	9892.4 µg/L	9892.4 ppb	11:39:54
1	Na 589.592 Radial†	1984.2	1027.2	290.89 µg/L	290.89 ppb	11:38:02
1	Ni 231.604†	158335.5	156362.5	9923.0 µg/L	9923.0 ppb	11:39:54
1	P 214.914†	7601.9	7322.2	15668 µg/L	15668 ppb	11:39:59
1	Pb 220.353†	87876.5	86900.7	25699 µg/L	25699 ppb	11:39:54
1	S 181.975 Axial†	9180.8	9061.6	51766 µg/L	51766 ppb	11:39:59
1	Sb 206.836†	9456.0	9335.9	10195 µg/L	10195 ppb	11:39:59
1	Se 196.026†	6542.1	6464.5	10097 µg/L	10097 ppb	11:39:59
1	SiO2†	481369.2	474081.7	99815 µg/L	99815 ppb	11:39:54
1	Si 251.611†	561416.2	555281.8	46471 µg/L	46471 ppb	11:39:54
1	Sn 189.927†	18908.8	18690.9	11104 µg/L	11104 ppb	11:39:59
1	Sr 421.552†	1612001.3	1571226.4	9787.1 µg/L	9787.1 ppb	11:37:56
1	Ti 334.940†	3975356.8	3933216.9	9812.6 µg/L	9812.6 ppb	11:39:43
1	Tl 190.801†	5698.0	5660.7	9916.7 µg/L	9916.7 ppb	11:39:59
1	U 409.014†	856.8	999.5	93.687 µg/L	93.687 ppb	11:39:54
1	V 292.402†	826686.7	818218.7	10298 µg/L	10298 ppb	11:39:54
1	Zn 213.857†	513173.4	507190.1	14713 µg/L	14713 ppb	11:39:54
2	Sc 361.383	1870590.6	1870590.6	101.44 %		11:40:19
2	Sc RADIAL	75998.2	75998.2	103 %		11:38:34
2	Y 371.029	1176999.1	1176999.1	100.50 %		11:40:19
2	Ag 328.068†	-6768.3	-6681.1	4.7566 µg/L	4.7566 ppb	11:40:19
2	Al 396.153Radial†	353.4	365.2	50.831 µg/L	50.831 ppb	11:38:34
2	As 188.979†	4314.9	4254.7	9766.8 µg/L	9766.8 ppb	11:40:24
2	B 249.677†	103228.9	101645.0	4960.0 µg/L	4960.0 ppb	11:40:19
2	Ba 233.527†	494680.7	487643.0	14281 µg/L	14281 ppb	11:40:19
2	Be 313.107†	4210035.2	4145691.6	2898.6 µg/L	2898.6 ppb	11:40:08
2	Ca 317.933Radial†	326.9	60.2	48.057 µg/L	48.057 ppb	11:38:54
2	Cd 226.502†	330473.6	325875.8	9728.2 µg/L	9728.2 ppb	11:40:19
2	Co 228.616†	176323.2	173848.5	9681.4 µg/L	9681.4 ppb	11:40:19
2	Cr 267.716†	1069795.9	1054614.9	24593 µg/L	24593 ppb	11:40:19
2	Cu 324.752†	2787240.9	2743722.1	19892 µg/L	19892 ppb	11:40:19
2	Fe 238.204 Radial†	-19.1	-35.3	-306.40 µg/L	-306.40 ppb	11:38:54
2	K 766.490 Radial†	476896.1	464302.7	301380 µg/L	301380 ppb	11:38:28
2	Mg 279.077 IEC†	-23.7	-34.8	-215.15 µg/L	-215.15 ppb	11:38:54
2	Mn 257.610†	2621144.4	2583880.3	9610.9 µg/L	9610.9 ppb	11:40:19
2	Mo 202.031†	79046.6	77904.9	9816.1 µg/L	9816.1 ppb	11:40:19
2	Na 589.592 Radial†	1775.6	822.6	232.96 µg/L	232.96 ppb	11:38:34
2	Ni 231.604†	157585.8	155009.4	9837.1 µg/L	9837.1 ppb	11:40:19
2	P 214.914†	7545.7	7237.3	15481 µg/L	15481 ppb	11:40:24
2	Pb 220.353†	87669.2	86355.5	25537 µg/L	25537 ppb	11:40:19

2	S 181.975 Axial†	9081.0	8927.6	51001 µg/L	51001 ppb	11:40:24
2	Sb 206.836†	9345.7	9190.6	10036 µg/L	10036 ppb	11:40:24
2	Se 196.026†	6495.6	6393.3	9986.0 µg/L	9986.0 ppb	11:40:24
2	SiO2†	480275.9	471137.0	99195 µg/L	99195 ppb	11:40:19
2	Si 251.611†	559930.4	551639.7	46167 µg/L	46167 ppb	11:40:19
2	Sn 189.927†	18550.3	18264.1	10851 µg/L	10851 ppb	11:40:24
2	Sr 421.552†	1629281.7	1587067.8	9885.8 µg/L	9885.8 ppb	11:38:28
2	Ti 334.940†	3994270.5	3936442.5	9820.7 µg/L	9820.7 ppb	11:40:08
2	Tl 190.801†	5691.3	5632.0	9866.8 µg/L	9866.8 ppb	11:40:24
2	U 409.014†	743.4	884.4	82.909 µg/L	82.909 ppb	11:40:19
2	V 292.402†	822727.1	811109.0	10208 µg/L	10208 ppb	11:40:19
2	Zn 213.857†	510890.4	502949.2	14590 µg/L	14590 ppb	11:40:19
3	Sc 361.383	1878484.2	1878484.2	101.87 %		11:40:44
3	Sc RADIAL	75445.1	75445.1	102 %		11:39:06
3	Y 371.029	1182432.4	1182432.4	100.96 %		11:40:44
3	Ag 328.068†	-6220.4	-6115.3	4.7359 µg/L	4.7359 ppb	11:40:44
3	Al 396.153Radial†	340.2	354.8	58.907 µg/L	58.907 ppb	11:39:06
3	As 188.979†	3987.8	3915.7	8988.5 µg/L	8988.5 ppb	11:40:49
3	B 249.677†	98369.3	96447.2	4704.7 µg/L	4704.7 ppb	11:40:44
3	Ba 233.527†	461741.1	453259.7	13274 µg/L	13274 ppb	11:40:44
3	Be 313.107†	4012626.1	3934471.7	2750.9 µg/L	2750.9 ppb	11:40:33
3	Ca 317.933Radial†	335.2	70.8	56.459 µg/L	56.459 ppb	11:39:26
3	Cd 226.502†	308610.0	303045.1	9046.6 µg/L	9046.6 ppb	11:40:44
3	Co 228.616†	163271.0	160305.8	8926.7 µg/L	8926.7 ppb	11:40:44
3	Cr 267.716†	974086.8	956233.6	22299 µg/L	22299 ppb	11:40:44
3	Cu 324.752†	2582014.5	2530722.2	18348 µg/L	18348 ppb	11:40:44
3	Fe 238.204 Radial†	-19.3	-35.5	-326.30 µg/L	-326.30 ppb	11:39:26
3	K 766.490 Radial†	477797.6	468594.5	304170 µg/L	304170 ppb	11:39:00
3	Mg 279.077 IEC†	-14.2	-25.6	-127.44 µg/L	-127.44 ppb	11:39:26
3	Mn 257.610†	2427444.6	2382883.2	8863.2 µg/L	8863.2 ppb	11:40:44
3	Mo 202.031†	73372.8	72007.9	9073.1 µg/L	9073.1 ppb	11:40:44
3	Na 589.592 Radial†	1646.3	708.4	200.61 µg/L	200.61 ppb	11:39:06
3	Ni 231.604†	145947.9	142932.6	9070.7 µg/L	9070.7 ppb	11:40:44
3	P 214.914†	6895.2	6567.5	14015 µg/L	14015 ppb	11:40:49
3	Pb 220.353†	82548.5	80965.7	23944 µg/L	23944 ppb	11:40:44
3	S 181.975 Axial†	8425.1	8246.1	47108 µg/L	47108 ppb	11:40:49
3	Sb 206.836†	8612.2	8431.8	9211.9 µg/L	9211.9 ppb	11:40:49
3	Se 196.026†	6034.3	5913.5	9236.5 µg/L	9236.5 ppb	11:40:49
3	SiO2†	454331.4	443680.0	93414 µg/L	93414 ppb	11:40:44
3	Si 251.611†	529714.2	519659.5	43490 µg/L	43490 ppb	11:40:44
3	Sn 189.927†	16757.0	16427.0	9759.3 µg/L	9759.3 ppb	11:40:49
3	Sr 421.552†	1632669.2	1602032.1	9979.0 µg/L	9979.0 ppb	11:39:00
3	Ti 334.940†	3811114.8	3740107.9	9330.8 µg/L	9330.8 ppb	11:40:33
3	Tl 190.801†	5358.9	5282.1	9254.8 µg/L	9254.8 ppb	11:40:49
3	U 409.014†	798.5	935.4	87.685 µg/L	87.685 ppb	11:40:44
3	V 292.402†	761008.9	747117.3	9402.1 µg/L	9402.1 ppb	11:40:44
3	Zn 213.857†	475256.4	465854.0	13514 µg/L	13514 ppb	11:40:44

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1870778.0	101.45 %	0.413			0.41%
Sc RADIAL	75797.7	102 %	0.4			0.40%
Y 371.029	1177293.6	100.52 %	0.427			0.42%
Ag 328.068†	-6505.3	4.8272 µg/L	0.14061	4.8272 ppb	0.14061	2.91%
Al 396.153Radial†	359.9	51.766 µg/L	6.7222	51.766 ppb	6.7222	12.99%
As 188.979†	4163.2	9556.7 µg/L	497.54	9556.7 ppb	497.54	5.21%
QC value within limits for As 188.979 Recovery = 95.57%						
B 249.677†	100052.1	4881.8 µg/L	153.70	4881.8 ppb	153.70	3.15%
QC value within limits for B 249.677 Recovery = 97.64%						
Ba 233.527†	477456.9	13982 µg/L	616.3	13982 ppb	616.3	4.41%
QC value within limits for Ba 233.527 Recovery = 93.22%						
Be 313.107†	4073322.8	2848.0 µg/L	84.10	2848.0 ppb	84.10	2.95%
QC value within limits for Be 313.107 Recovery = 94.93%						
Ca 317.933Radial†	61.8	49.331 µg/L	6.5837	49.331 ppb	6.5837	13.35%
Cd 226.502†	319008.0	9523.2 µg/L	414.07	9523.2 ppb	414.07	4.35%
QC value within limits for Cd 226.502 Recovery = 95.23%						
Co 228.616†	169803.2	9456.0 µg/L	460.09	9456.0 ppb	460.09	4.87%
QC value within limits for Co 228.616 Recovery = 94.56%						
Cr 267.716†	1025496.4	23914 µg/L	1404.6	23914 ppb	1404.6	5.87%

QC value within limits for Cr 267.716 Recovery = 95.66%							
Cu 324.752†	2681574.0	19441 µg/L	952.0	19441 ppb	952.0	4.90%	
QC value within limits for Cu 324.752 Recovery = 97.21%							
Fe 238.204 Radial†	-34.4	-299.03 µg/L	31.610	-299.03 ppb	31.610	10.57%	
K 766.490 Radial†	464488.6	301510 µg/L	2607.0	301510 ppb	2607.0	0.86%	
QC value within limits for K 766.490 Radial Recovery = 100.50%							
Mg 279.077 IEC†	-32.0	-188.61 µg/L	53.129	-188.61 ppb	53.129	28.17%	
Mn 257.610†	2524846.1	9391.3 µg/L	459.46	9391.3 ppb	459.46	4.89%	
QC value within limits for Mn 257.610 Recovery = 93.91%							
Mo 202.031†	76141.1	9593.9 µg/L	452.63	9593.9 ppb	452.63	4.72%	
QC value within limits for Mo 202.031 Recovery = 95.94%							
Na 589.592 Radial†	852.7	241.49 µg/L	45.739	241.49 ppb	45.739	18.94%	
Ni 231.604†	151434.8	9610.3 µg/L	469.25	9610.3 ppb	469.25	4.88%	
QC value within limits for Ni 231.604 Recovery = 96.10%							
P 214.914†	7042.3	15055 µg/L	905.1	15055 ppb	905.1	6.01%	
QC value within limits for P 214.914 Recovery = 100.37%							
Pb 220.353†	84740.6	25060 µg/L	970.0	25060 ppb	970.0	3.87%	
QC value within limits for Pb 220.353 Recovery = 100.24%							
S 181.975 Axial†	8745.1	49958 µg/L	2498.1	49958 ppb	2498.1	5.00%	
QC value within limits for S 181.975 Axial Recovery = 99.92%							
Sb 206.836†	8986.1	9814.5 µg/L	527.91	9814.5 ppb	527.91	5.38%	
QC value within limits for Sb 206.836 Recovery = 98.15%							
Se 196.026†	6257.1	9773.3 µg/L	468.25	9773.3 ppb	468.25	4.79%	
QC value within limits for Se 196.026 Recovery = 97.73%							
SiO2†	462966.2	97474 µg/L	3530.2	97474 ppb	3530.2	3.62%	
QC value within limits for SiO2 Recovery = 91.10%							
Si 251.611†	542193.7	45376 µg/L	1640.3	45376 ppb	1640.3	3.61%	
QC value within limits for Si 251.611 Recovery = 90.75%							
Sn 189.927†	17794.0	10571 µg/L	714.7	10571 ppb	714.7	6.76%	
QC value within limits for Sn 189.927 Recovery = 105.71%							
Sr 421.552†	1586775.4	9883.9 µg/L	95.96	9883.9 ppb	95.96	0.97%	
QC value within limits for Sr 421.552 Recovery = 98.84%							
Ti 334.940†	3869922.4	9654.7 µg/L	280.51	9654.7 ppb	280.51	2.91%	
QC value within limits for Ti 334.940 Recovery = 96.55%							
Tl 190.801†	5524.9	9679.4 µg/L	368.57	9679.4 ppb	368.57	3.81%	
QC value within limits for Tl 190.801 Recovery = 96.79%							
U 409.014†	939.8	88.094 µg/L	5.4005	88.094 ppb	5.4005	6.13%	
V 292.402†	792148.3	9969.2 µg/L	493.17	9969.2 ppb	493.17	4.95%	
QC value within limits for V 292.402 Recovery = 99.69%							
Zn 213.857†	491997.8	14273 µg/L	659.5	14273 ppb	659.5	4.62%	
QC value within limits for Zn 213.857 Recovery = 95.15%							
All analyte(s) passed QC.							

Sequence No.: 13

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : optima

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/26/2010 11:41:00

Data Type: Reprocessed on 1/26/2010 12:45:06

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 361.383	1876665.1	1876665.1	101.77 %		11:43:01
1	Sc RADIAL	76452.5	76452.5	103 %		11:41:38
1	Y 371.029	1180067.6	1180067.6	100.76 %		11:43:01
1	Ag 328.068†	56289.1	55298.8	514.35 µg/L	514.35 ppb	11:43:06
1	Al 396.153Radial†	7771.9	7549.2	5209.0 µg/L	5209.0 ppb	11:41:38
1	As 188.979†	236.2	233.4	535.80 µg/L	535.80 ppb	11:43:27
1	B 249.677†	10959.4	10654.3	513.84 µg/L	513.84 ppb	11:43:06
1	Ba 233.527†	17997.4	17689.3	518.31 µg/L	518.31 ppb	11:43:06
1	Be 313.107†	747111.2	729688.5	510.65 µg/L	510.65 ppb	11:43:01
1	Ca 317.933Radial†	7043.0	6563.9	5236.4 µg/L	5236.4 ppb	11:41:38
1	Cd 226.502†	17634.8	17434.9	519.87 µg/L	519.87 ppb	11:43:06
1	Co 228.616†	9473.0	9343.7	520.37 µg/L	520.37 ppb	11:43:06
1	Cr 267.716†	22771.7	22425.5	523.14 µg/L	523.14 ppb	11:43:06
1	Cu 324.752†	75501.8	70351.5	510.78 µg/L	510.78 ppb	11:43:06
1	Fe 238.204 Radial†	390.3	361.5	5261.9 µg/L	5261.9 ppb	11:41:58
1	K 766.490 Radial†	8604.8	7925.2	5144.3 µg/L	5144.3 ppb	11:41:38
1	Mg 279.077 IEC†	508.9	481.3	5270.8 µg/L	5270.8 ppb	11:41:58
1	Mn 257.610†	139985.6	137601.3	512.30 µg/L	512.30 ppb	11:43:06
1	Mo 202.031†	4197.2	4107.8	517.78 µg/L	517.78 ppb	11:43:27
1	Na 589.592 Radial†	38317.7	36209.3	10254 µg/L	10254 ppb	11:41:38
1	Ni 231.604†	8674.0	8190.1	519.81 µg/L	519.81 ppb	11:43:06
1	P 214.914†	1328.5	1104.3	2609.4 µg/L	2609.4 ppb	11:43:27
1	Pb 220.353†	1899.6	1801.0	532.89 µg/L	532.89 ppb	11:43:27
1	S 181.975 Axial†	206.4	178.7	1020.6 µg/L	1020.6 ppb	11:43:27
1	Sb 206.836†	519.6	488.5	541.89 µg/L	541.89 ppb	11:43:27
1	Se 196.026†	356.3	340.2	549.63 µg/L	549.63 ppb	11:43:27
1	SiO2†	29228.2	26418.0	5562.1 µg/L	5562.1 ppb	11:43:06
1	Si 251.611†	31946.7	31071.4	2600.4 µg/L	2600.4 ppb	11:43:06
1	Sn 189.927†	950.4	911.8	544.35 µg/L	544.35 ppb	11:43:27
1	Sr 421.552†	83940.8	80720.1	502.80 µg/L	502.80 ppb	11:41:38
1	Ti 334.940†	209371.2	204764.2	510.51 µg/L	510.51 ppb	11:43:01
1	Tl 190.801†	287.5	304.1	532.22 µg/L	532.22 ppb	11:43:27
1	U 409.014†	5467.0	5523.3	516.31 µg/L	516.31 ppb	11:43:06
1	V 292.402†	42398.8	41755.7	524.70 µg/L	524.70 ppb	11:43:06
1	Zn 213.857†	18915.8	17919.0	518.84 µg/L	518.84 ppb	11:43:06
2	Sc 361.383	1858512.6	1858512.6	100.79 %		11:43:33
2	Sc RADIAL	76662.2	76662.2	104 %		11:42:04
2	Y 371.029	1174404.9	1174404.9	100.28 %		11:43:33
2	Ag 328.068†	56000.5	55552.7	516.71 µg/L	516.71 ppb	11:43:39
2	Al 396.153Radial†	7884.8	7637.7	5270.1 µg/L	5270.1 ppb	11:42:04
2	As 188.979†	236.4	235.8	541.40 µg/L	541.40 ppb	11:43:59
2	B 249.677†	10877.0	10677.7	514.99 µg/L	514.99 ppb	11:43:39
2	Ba 233.527†	17922.6	17787.7	521.20 µg/L	521.20 ppb	11:43:39
2	Be 313.107†	748915.9	738649.1	516.92 µg/L	516.92 ppb	11:43:33
2	Ca 317.933Radial†	7165.3	6663.5	5315.8 µg/L	5315.8 ppb	11:42:04
2	Cd 226.502†	17495.6	17466.1	520.81 µg/L	520.81 ppb	11:43:39
2	Co 228.616†	9401.7	9363.8	521.48 µg/L	521.48 ppb	11:43:39
2	Cr 267.716†	22606.9	22480.5	524.43 µg/L	524.43 ppb	11:43:39
2	Cu 324.752†	75126.2	70703.5	513.33 µg/L	513.33 ppb	11:43:39
2	Fe 238.204 Radial†	390.5	360.6	5249.1 µg/L	5249.1 ppb	11:42:24
2	K 766.490 Radial†	8575.8	7874.3	5111.3 µg/L	5111.3 ppb	11:42:04
2	Mg 279.077 IEC†	516.0	486.8	5330.6 µg/L	5330.6 ppb	11:42:24
2	Mn 257.610†	139129.9	138095.8	514.14 µg/L	514.14 ppb	11:43:39
2	Mo 202.031†	4171.0	4122.0	519.58 µg/L	519.58 ppb	11:43:59
2	Na 589.592 Radial†	38795.2	36569.0	10356 µg/L	10356 ppb	11:42:04
2	Ni 231.604†	8650.5	8250.0	523.62 µg/L	523.62 ppb	11:43:39
2	P 214.914†	1317.4	1106.1	2613.5 µg/L	2613.5 ppb	11:43:59
2	Pb 220.353†	1874.6	1794.4	530.94 µg/L	530.94 ppb	11:43:59

2	S 181.975 Axial†	212.0	186.2	1064.0 µg/L	1064.0 ppb	11:43:59
2	Sb 206.836†	510.2	484.1	537.09 µg/L	537.09 ppb	11:43:59
2	Se 196.026†	350.1	337.5	545.21 µg/L	545.21 ppb	11:43:59
2	SiO2†	29082.1	26553.5	5590.7 µg/L	5590.7 ppb	11:43:39
2	Si 251.611†	31793.3	31225.9	2613.3 µg/L	2613.3 ppb	11:43:39
2	Sn 189.927†	945.7	916.3	547.04 µg/L	547.04 ppb	11:43:59
2	Sr 421.552†	85127.5	81644.0	508.56 µg/L	508.56 ppb	11:42:04
2	Ti 334.940†	209911.1	207309.3	516.86 µg/L	516.86 ppb	11:43:33
2	Tl 190.801†	281.1	300.5	526.00 µg/L	526.00 ppb	11:43:59
2	U 409.014†	5446.4	5555.3	519.31 µg/L	519.31 ppb	11:43:39
2	V 292.402†	42168.9	41934.5	526.94 µg/L	526.94 ppb	11:43:39
2	Zn 213.857†	18793.6	17979.3	520.57 µg/L	520.57 ppb	11:43:39
3	Sc 361.383	1864209.0	1864209.0	101.10 %		11:44:05
3	Sc RADIAL	75922.5	75922.5	103 %		11:42:30
3	Y 371.029	1178073.6	1178073.6	100.59 %		11:44:05
3	Ag 328.068†	54365.3	53765.5	499.98 µg/L	499.98 ppb	11:44:11
3	Al 396.153Radial†	7783.9	7613.5	5254.8 µg/L	5254.8 ppb	11:42:30
3	As 188.979†	210.0	209.0	479.76 µg/L	479.76 ppb	11:44:31
3	B 249.677†	10521.9	10293.5	496.30 µg/L	496.30 ppb	11:44:11
3	Ba 233.527†	16959.0	16780.2	491.67 µg/L	491.67 ppb	11:44:11
3	Be 313.107†	724895.7	712619.3	498.70 µg/L	498.70 ppb	11:44:05
3	Ca 317.933Radial†	7045.0	6613.6	5276.0 µg/L	5276.0 ppb	11:42:30
3	Cd 226.502†	16564.4	16491.9	491.72 µg/L	491.72 ppb	11:44:11
3	Co 228.616†	8838.1	8777.8	488.78 µg/L	488.78 ppb	11:44:11
3	Cr 267.716†	20851.3	20675.5	482.32 µg/L	482.32 ppb	11:44:11
3	Cu 324.752†	70888.5	66284.0	481.29 µg/L	481.29 ppb	11:44:11
3	Fe 238.204 Radial†	389.7	363.6	5291.0 µg/L	5291.0 ppb	11:42:50
3	K 766.490 Radial†	8599.5	7978.2	5178.7 µg/L	5178.7 ppb	11:42:30
3	Mg 279.077 IEC†	511.4	487.2	5333.9 µg/L	5333.9 ppb	11:42:50
3	Mn 257.610†	130450.9	129089.3	480.64 µg/L	480.64 ppb	11:44:11
3	Mo 202.031†	3644.0	3588.1	452.31 µg/L	452.31 ppb	11:44:31
3	Na 589.592 Radial†	38474.7	36621.5	10371 µg/L	10371 ppb	11:42:30
3	Ni 231.604†	8107.9	7687.1	487.89 µg/L	487.89 ppb	11:44:11
3	P 214.914†	1196.6	982.6	2318.6 µg/L	2318.6 ppb	11:44:31
3	Pb 220.353†	1702.2	1618.2	478.72 µg/L	478.72 ppb	11:44:31
3	S 181.975 Axial†	198.0	171.7	980.67 µg/L	980.67 ppb	11:44:31
3	Sb 206.836†	446.5	419.5	465.11 µg/L	465.11 ppb	11:44:31
3	Se 196.026†	322.0	308.7	500.38 µg/L	500.38 ppb	11:44:31
3	SiO2†	27875.7	25272.1	5320.9 µg/L	5320.9 ppb	11:44:11
3	Si 251.611†	30356.9	29708.7	2486.3 µg/L	2486.3 ppb	11:44:11
3	Sn 189.927†	820.0	789.0	471.46 µg/L	471.46 ppb	11:44:31
3	Sr 421.552†	84564.1	81895.7	510.12 µg/L	510.12 ppb	11:42:30
3	Ti 334.940†	202329.1	199173.2	496.56 µg/L	496.56 ppb	11:44:05
3	Tl 190.801†	270.8	289.6	506.73 µg/L	506.73 ppb	11:44:31
3	U 409.014†	4993.9	5091.3	475.84 µg/L	475.84 ppb	11:44:11
3	V 292.402†	39471.1	39138.2	491.55 µg/L	491.55 ppb	11:44:11
3	Zn 213.857†	17736.9	16877.1	488.64 µg/L	488.64 ppb	11:44:11

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Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1866462.3	101.22 %	0.503			0.50%
Sc RADIAL	76345.7	103 %	0.5			0.50%
Y 371.029	1177515.3	100.54 %	0.245			0.24%
Ag 328.068†	54872.3	510.35 µg/L	9.055	510.35 ppb	9.055	1.77%
QC value within limits for Ag 328.068 Recovery = 102.07%						
Al 396.153Radial†	7600.1	5244.6 µg/L	31.80	5244.6 ppb	31.80	0.61%
QC value within limits for Al 396.153Radial Recovery = 104.89%						
As 188.979†	226.1	518.99 µg/L	34.089	518.99 ppb	34.089	6.57%
QC value within limits for As 188.979 Recovery = 103.80%						
B 249.677†	10541.8	508.37 µg/L	10.475	508.37 ppb	10.475	2.06%
QC value within limits for B 249.677 Recovery = 101.67%						
Ba 233.527†	17419.1	510.39 µg/L	16.281	510.39 ppb	16.281	3.19%
QC value within limits for Ba 233.527 Recovery = 102.08%						
Be 313.107†	726985.6	508.76 µg/L	9.254	508.76 ppb	9.254	1.82%
QC value within limits for Be 313.107 Recovery = 101.75%						
Ca 317.933Radial†	6613.7	5276.1 µg/L	39.71	5276.1 ppb	39.71	0.75%
QC value within limits for Ca 317.933Radial Recovery = 105.52%						
Cd 226.502†	17131.0	510.80 µg/L	16.532	510.80 ppb	16.532	3.24%
QC value within limits for Cd 226.502 Recovery = 102.16%						



Co 228.616†	9161.8	510.21 µg/L	18.563	510.21 ppb	18.563	3.64%
QC value within limits for Co 228.616 Recovery = 102.04%						
Cr 267.716†	21860.5	509.97 µg/L	23.946	509.97 ppb	23.946	4.70%
QC value within limits for Cr 267.716 Recovery = 101.99%						
Cu 324.752†	69113.0	501.80 µg/L	17.805	501.80 ppb	17.805	3.55%
QC value within limits for Cu 324.752 Recovery = 100.36%						
Fe 238.204 Radial†	361.9	5267.3 µg/L	21.48	5267.3 ppb	21.48	0.41%
QC value within limits for Fe 238.204 Radial Recovery = 105.35%						
K 766.490 Radial†	7925.9	5144.8 µg/L	33.71	5144.8 ppb	33.71	0.66%
QC value within limits for K 766.490 Radial Recovery = 102.90%						
Mg 279.077 IEC†	485.1	5311.8 µg/L	35.54	5311.8 ppb	35.54	0.67%
QC value within limits for Mg 279.077 IEC Recovery = 106.24%						
Mn 257.610†	134928.8	502.36 µg/L	18.831	502.36 ppb	18.831	3.75%
QC value within limits for Mn 257.610 Recovery = 100.47%						
Mo 202.031†	3939.3	496.56 µg/L	38.332	496.56 ppb	38.332	7.72%
QC value within limits for Mo 202.031 Recovery = 99.31%						
Na 589.592 Radial†	36466.6	10327 µg/L	63.5	10327 ppb	63.5	0.62%
QC value within limits for Na 589.592 Radial Recovery = 103.27%						
Ni 231.604†	8042.4	510.44 µg/L	19.619	510.44 ppb	19.619	3.84%
QC value within limits for Ni 231.604 Recovery = 102.09%						
P 214.914†	1064.3	2513.8 µg/L	169.12	2513.8 ppb	169.12	6.73%
QC value within limits for P 214.914 Recovery = 100.55%						
Pb 220.353†	1737.9	514.18 µg/L	30.726	514.18 ppb	30.726	5.98%
QC value within limits for Pb 220.353 Recovery = 102.84%						
S 181.975 Axial†	178.9	1021.8 µg/L	41.65	1021.8 ppb	41.65	4.08%
QC value within limits for S 181.975 Axial Recovery = 102.18%						
Sb 206.836†	464.0	514.70 µg/L	43.013	514.70 ppb	43.013	8.36%
QC value within limits for Sb 206.836 Recovery = 102.94%						
Se 196.026†	328.8	531.74 µg/L	27.246	531.74 ppb	27.246	5.12%
QC value within limits for Se 196.026 Recovery = 106.35%						
SiO2†	26081.2	5491.2 µg/L	148.22	5491.2 ppb	148.22	2.70%
QC value within limits for SiO2 Recovery = 102.69%						
Si 251.611†	30668.7	2566.6 µg/L	69.88	2566.6 ppb	69.88	2.72%
QC value within limits for Si 251.611 Recovery = 102.67%						
Sn 189.927†	872.4	520.95 µg/L	42.880	520.95 ppb	42.880	8.23%
QC value within limits for Sn 189.927 Recovery = 104.19%						
Sr 421.552†	81419.9	507.16 µg/L	3.856	507.16 ppb	3.856	0.76%
QC value within limits for Sr 421.552 Recovery = 101.43%						
Ti 334.940†	203748.9	507.98 µg/L	10.384	507.98 ppb	10.384	2.04%
QC value within limits for Ti 334.940 Recovery = 101.60%						
Tl 190.801†	298.1	521.65 µg/L	13.290	521.65 ppb	13.290	2.55%
QC value within limits for Tl 190.801 Recovery = 104.33%						
U 409.014†	5389.9	503.82 µg/L	24.277	503.82 ppb	24.277	4.82%
QC value within limits for U 409.014 Recovery = 100.76%						
V 292.402†	40942.8	514.40 µg/L	19.820	514.40 ppb	19.820	3.85%
QC value within limits for V 292.402 Recovery = 102.88%						
Zn 213.857†	17591.8	509.35 µg/L	17.956	509.35 ppb	17.956	3.53%
QC value within limits for Zn 213.857 Recovery = 101.87%						
All analyte(s) passed QC.						

Sequence No.: 14  
 Sample ID: CCB  
 Analyst:  
 Logged In Analyst (Original) : optima  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 1/26/2010 11:44:40  
 Data Type: Reprocessed on 1/26/2010 12:45:51  
 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 361.383	1886618.0	1886618.0	102.31 %		11:46:35
1	Sc RADIAL	74838.4	74838.4	101 %		11:45:13
1	Y 371.029	1198181.8	1198181.8	102.31 %		11:46:35
1	Ag 328.068†	-36.3	-44.7	-0.4071 µg/L	-0.4071 ppb	11:46:41
1	Al 396.153Radial†	15.1	35.7	24.695 µg/L	24.695 ppb	11:45:13
1	As 188.979†	1.9	3.1	7.1930 µg/L	7.1930 ppb	11:47:01
1	B 249.677†	190.3	71.9	3.4590 µg/L	3.4590 ppb	11:47:01
1	Ba 233.527†	8.9	14.2	0.4158 µg/L	0.4158 ppb	11:47:01
1	Be 313.107†	4470.3	-32.3	-0.0227 µg/L	-0.0227 ppb	11:46:41
1	Ca 317.933Radial†	300.4	38.9	31.051 µg/L	31.051 ppb	11:45:33
1	Cd 226.502†	-104.6	5.3	0.1524 µg/L	0.1524 ppb	11:47:01
1	Co 228.616†	-26.3	10.1	0.5611 µg/L	0.5611 ppb	11:47:01
1	Cr 267.716†	-32.8	18.6	0.4348 µg/L	0.4348 ppb	11:47:01
1	Cu 324.752†	4540.0	603.0	4.3774 µg/L	4.3774 ppb	11:46:41
1	Fe 238.204 Radial†	19.6	2.8	40.600 µg/L	40.600 ppb	11:45:33
1	K 766.490 Radial†	473.9	59.0	38.268 µg/L	38.268 ppb	11:45:13
1	Mg 279.077 IEC†	12.0	0.2	1.9298 µg/L	1.9298 ppb	11:45:33
1	Mn 257.610†	6.5	61.8	0.2353 µg/L	0.2353 ppb	11:47:01
1	Mo 202.031†	18.0	1.3	0.1699 µg/L	0.1699 ppb	11:47:01
1	Na 589.592 Radial†	972.8	55.0	15.573 µg/L	15.573 ppb	11:45:13
1	Ni 231.604†	341.3	0.8	0.0531 µg/L	0.0531 ppb	11:47:01
1	P 214.914†	212.4	6.6	15.382 µg/L	15.382 ppb	11:47:01
1	Pb 220.353†	60.0	-6.8	-2.0232 µg/L	-2.0232 ppb	11:47:01
1	S 181.975 Axial†	24.1	-0.6	-3.1909 µg/L	-3.1909 ppb	11:47:01
1	Sb 206.836†	26.5	3.8	4.2167 µg/L	4.2167 ppb	11:47:01
1	Se 196.026†	12.5	2.4	3.8768 µg/L	3.8768 ppb	11:47:01
1	SiO2†	2321.7	-31.6	-6.6594 µg/L	-6.6594 ppb	11:46:41
1	Si 251.611†	354.9	28.5	2.3812 µg/L	2.3812 ppb	11:47:01
1	Sn 189.927†	31.0	8.3	4.9155 µg/L	4.9155 ppb	11:47:01
1	Sr 421.552†	655.4	58.4	0.3636 µg/L	0.3636 ppb	11:45:13
1	Ti 334.940†	1046.8	65.2	0.1631 µg/L	0.1631 ppb	11:46:41
1	Tl 190.801†	-18.0	4.1	7.1702 µg/L	7.1702 ppb	11:47:01
1	U 409.014†	-115.0	39.1	3.6595 µg/L	3.6595 ppb	11:46:41
1	V 292.402†	-55.5	41.6	0.5251 µg/L	0.5251 ppb	11:46:41
1	Zn 213.857†	707.0	23.8	0.6859 µg/L	0.6859 ppb	11:47:01
2	Sc 361.383	1874866.4	1874866.4	101.68 %		11:47:07
2	Sc RADIAL	74851.9	74851.9	101 %		11:45:39
2	Y 371.029	1191713.5	1191713.5	101.75 %		11:47:07
2	Ag 328.068†	-58.7	-67.0	-0.6123 µg/L	-0.6123 ppb	11:47:13
2	Al 396.153Radial†	4.1	24.9	17.225 µg/L	17.225 ppb	11:45:39
2	As 188.979†	1.0	2.3	5.2565 µg/L	5.2565 ppb	11:47:33
2	B 249.677†	179.2	62.2	2.9867 µg/L	2.9867 ppb	11:47:33
2	Ba 233.527†	12.1	17.4	0.5106 µg/L	0.5106 ppb	11:47:33
2	Be 313.107†	4520.3	44.3	0.0309 µg/L	0.0309 ppb	11:47:13
2	Ca 317.933Radial†	292.5	31.1	24.786 µg/L	24.786 ppb	11:45:59
2	Cd 226.502†	-94.9	14.2	0.4184 µg/L	0.4184 ppb	11:47:33
2	Co 228.616†	-41.5	-5.0	-0.2808 µg/L	-0.2808 ppb	11:47:33
2	Cr 267.716†	-48.3	3.2	0.0754 µg/L	0.0754 ppb	11:47:33
2	Cu 324.752†	4613.2	702.8	5.1011 µg/L	5.1011 ppb	11:47:13
2	Fe 238.204 Radial†	19.7	2.9	42.136 µg/L	42.136 ppb	11:45:59
2	K 766.490 Radial†	398.3	-15.9	-10.346 µg/L	-10.346 ppb	11:45:39
2	Mg 279.077 IEC†	13.7	1.9	20.392 µg/L	20.392 ppb	11:45:59
2	Mn 257.610†	-9.2	46.4	0.1774 µg/L	0.1774 ppb	11:47:33
2	Mo 202.031†	19.5	2.9	0.3710 µg/L	0.3710 ppb	11:47:33
2	Na 589.592 Radial†	971.4	53.5	15.138 µg/L	15.138 ppb	11:45:39
2	Ni 231.604†	347.5	9.0	0.5742 µg/L	0.5742 ppb	11:47:33
2	P 214.914†	212.1	7.6	17.812 µg/L	17.812 ppb	11:47:33
2	Pb 220.353†	60.2	-6.2	-1.8515 µg/L	-1.8515 ppb	11:47:33

2	S 181.975 Axial†	22.7	-1.9	-10.585 µg/L	-10.585 ppb	11:47:33
2	Sb 206.836†	22.2	-0.3	-0.3198 µg/L	-0.3198 ppb	11:47:33
2	Se 196.026†	9.4	-0.6	-0.8607 µg/L	-0.8607 ppb	11:47:33
2	SiO2†	2355.7	16.0	3.3771 µg/L	3.3771 ppb	11:47:13
2	Si 251.611†	363.3	38.9	3.2572 µg/L	3.2572 ppb	11:47:33
2	Sn 189.927†	26.5	4.1	2.4242 µg/L	2.4242 ppb	11:47:33
2	Sr 421.552†	632.2	35.3	0.2200 µg/L	0.2200 ppb	11:45:39
2	Ti 334.940†	1039.4	64.3	0.1593 µg/L	0.1593 ppb	11:47:13
2	Tl 190.801†	-23.2	-1.1	-1.9093 µg/L	-1.9093 ppb	11:47:33
2	U 409.014†	-157.4	-3.3	-0.3137 µg/L	-0.3137 ppb	11:47:13
2	V 292.402†	-51.6	45.1	0.5650 µg/L	0.5650 ppb	11:47:13
2	Zn 213.857†	709.2	30.4	0.8721 µg/L	0.8721 ppb	11:47:33
3	Sc 361.383	1882668.6	1882668.6	102.10 %		11:47:39
3	Sc RADIAL	75441.3	75441.3	102 %		11:46:05
3	Y 371.029	1195800.2	1195800.2	102.10 %		11:47:39
3	Ag 328.068†	-44.6	-52.9	-0.4852 µg/L	-0.4852 ppb	11:47:45
3	Al 396.153Radial†	32.9	53.1	36.713 µg/L	36.713 ppb	11:46:05
3	As 188.979†	-1.0	0.3	0.6769 µg/L	0.6769 ppb	11:48:05
3	B 249.677†	193.1	75.1	3.6189 µg/L	3.6189 ppb	11:48:05
3	Ba 233.527†	-0.1	5.4	0.1586 µg/L	0.1586 ppb	11:48:05
3	Be 313.107†	4466.5	-26.9	-0.0189 µg/L	-0.0189 ppb	11:47:45
3	Ca 317.933Radial†	293.1	29.4	23.486 µg/L	23.486 ppb	11:46:25
3	Cd 226.502†	-100.7	8.8	0.2600 µg/L	0.2600 ppb	11:48:05
3	Co 228.616†	-25.7	10.6	0.5906 µg/L	0.5906 ppb	11:48:05
3	Cr 267.716†	-38.2	13.2	0.3090 µg/L	0.3090 ppb	11:48:05
3	Cu 324.752†	4582.5	653.9	4.7446 µg/L	4.7446 ppb	11:47:45
3	Fe 238.204 Radial†	18.9	1.9	28.287 µg/L	28.287 ppb	11:46:25
3	K 766.490 Radial†	434.7	16.7	10.829 µg/L	10.829 ppb	11:46:05
3	Mg 279.077 IEC†	13.1	1.2	13.208 µg/L	13.208 ppb	11:46:25
3	Mn 257.610†	-23.9	32.1	0.1227 µg/L	0.1227 ppb	11:48:05
3	Mo 202.031†	22.8	6.1	0.7644 µg/L	0.7644 ppb	11:48:05
3	Na 589.592 Radial†	910.5	-13.8	-3.9040 µg/L	-3.9040 ppb	11:46:05
3	Ni 231.604†	341.6	1.8	0.1130 µg/L	0.1130 ppb	11:48:05
3	P 214.914†	217.9	12.5	29.500 µg/L	29.500 ppb	11:48:05
3	Pb 220.353†	74.6	7.6	2.2456 µg/L	2.2456 ppb	11:48:05
3	S 181.975 Axial†	21.7	-2.9	-16.450 µg/L	-16.450 ppb	11:48:05
3	Sb 206.836†	31.3	8.6	9.4653 µg/L	9.4653 ppb	11:48:05
3	Se 196.026†	9.0	-1.0	-1.5346 µg/L	-1.5346 ppb	11:48:05
3	SiO2†	2307.7	-40.5	-8.5350 µg/L	-8.5350 ppb	11:47:45
3	Si 251.611†	362.2	36.3	3.0353 µg/L	3.0353 ppb	11:48:05
3	Sn 189.927†	25.8	3.2	1.9226 µg/L	1.9226 ppb	11:48:05
3	Sr 421.552†	620.6	19.0	0.1185 µg/L	0.1185 ppb	11:46:05
3	Ti 334.940†	1070.8	90.8	0.2260 µg/L	0.2260 ppb	11:47:45
3	Tl 190.801†	-21.0	1.1	1.9840 µg/L	1.9840 ppb	11:48:05
3	U 409.014†	-159.3	-4.5	-0.4261 µg/L	-0.4261 ppb	11:47:45
3	V 292.402†	-77.2	20.3	0.2594 µg/L	0.2594 ppb	11:47:45
3	Zn 213.857†	704.8	23.2	0.6657 µg/L	0.6657 ppb	11:48:05

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1881384.3	102.03 %	0.324			0.32%
Sc RADIAL	75043.8	101 %	0.5			0.46%
Y 371.029	1195231.8	102.05 %	0.279			0.27%
Ag 328.068†	-54.9	-0.5015 µg/L	0.10359	-0.5015 ppb	0.10359	20.66%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	37.9	26.211 µg/L	9.8320	26.211 ppb	9.8320	37.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.9	4.3755 µg/L	3.34624	4.3755 ppb	3.34624	76.48%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	69.7	3.3549 µg/L	0.32872	3.3549 ppb	0.32872	9.80%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	12.3	0.3617 µg/L	0.18214	0.3617 ppb	0.18214	50.36%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-5.0	-0.0035 µg/L	0.02992	-0.0035 ppb	0.02992	844.73%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	33.1	26.441 µg/L	4.0447	26.441 ppb	4.0447	15.30%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	9.4	0.2769 µg/L	0.13377	0.2769 ppb	0.13377	48.31%
QC value within limits for Cd 226.502 Recovery = Not calculated						

Co 228.616†	5.2	0.2903 µg/L	0.49479	0.2903 ppb	0.49479	170.43%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	11.7	0.2731 µg/L	0.18240	0.2731 ppb	0.18240	66.80%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	653.2	4.7410 µg/L	0.36187	4.7410 ppb	0.36187	7.63%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	2.5	37.008 µg/L	7.5911	37.008 ppb	7.5911	20.51%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	19.9	12.917 µg/L	24.3741	12.917 ppb	24.3741	188.69%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.1	11.843 µg/L	9.3066	11.843 ppb	9.3066	78.58%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	46.8	0.1785 µg/L	0.05635	0.1785 ppb	0.05635	31.57%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	3.4	0.4351 µg/L	0.30241	0.4351 ppb	0.30241	69.50%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	31.6	8.9357 µg/L	11.12165	8.9357 ppb	11.12165	124.46%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	3.9	0.2468 µg/L	0.28511	0.2468 ppb	0.28511	115.54%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	8.9	20.898 µg/L	7.5480	20.898 ppb	7.5480	36.12%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-1.8	-0.5430 µg/L	2.41659	-0.5430 ppb	2.41659	445.02%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.8	-10.075 µg/L	6.6442	-10.075 ppb	6.6442	65.95%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	4.0	4.4541 µg/L	4.89688	4.4541 ppb	4.89688	109.94%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	0.2	0.4938 µg/L	2.94901	0.4938 ppb	2.94901	597.15%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-18.7	-3.9391 µg/L	6.40507	-3.9391 ppb	6.40507	162.60%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	34.5	2.8912 µg/L	0.45541	2.8912 ppb	0.45541	15.75%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	5.2	3.0874 µg/L	1.60289	3.0874 ppb	1.60289	51.92%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	37.6	0.2341 µg/L	0.12316	0.2341 ppb	0.12316	52.62%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	73.5	0.1828 µg/L	0.03745	0.1828 ppb	0.03745	20.49%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	1.4	2.4150 µg/L	4.55504	2.4150 ppb	4.55504	188.62%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	10.5	0.9732 µg/L	2.32704	0.9732 ppb	2.32704	239.11%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	35.7	0.4498 µg/L	0.16608	0.4498 ppb	0.16608	36.92%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	25.8	0.7412 µg/L	0.11381	0.7412 ppb	0.11381	15.35%
QC value within limits for Zn 213.857 Recovery = Not calculated						
All analyte(s) passed QC.						

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Analysis Begun

Start Time: 1/26/2010 12:50:03

Plasma On Time: 1/25/2010 05:31:26

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\012610C.sif

Batch ID:

Results Data Set: 012610C

Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/26/2010 12:50:05

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	76638.8	76638.8	103 %		12:50:39
1	Al 396.153Radial†	7708.9	7470.0	5154.3 µg/L	5154.3 ppb	12:50:39
1	Ca 317.933Radial†	6897.8	6407.1	5111.3 µg/L	5111.3 ppb	12:51:00
1	Fe 238.204 Radial†	389.3	359.6	5233.6 µg/L	5233.6 ppb	12:51:00
1	K 766.490 Radial†	8339.5	7648.5	4964.8 µg/L	4964.8 ppb	12:50:39
1	Mg 279.077 IEC†	504.3	475.6	5208.1 µg/L	5208.1 ppb	12:51:00
1	Na 589.592 Radial†	37634.0	35458.4	10042 µg/L	10042 ppb	12:50:39
1	Sr 421.552†	83721.9	80310.8	500.25 µg/L	500.25 ppb	12:50:39
1	Sc 361.383	1862285.5	1862285.5	100.99 %		12:52:03
1	Y 371.029	1174863.0	1174863.0	100.32 %		12:52:03
1	Ag 328.068†	55546.3	54990.4	511.48 µg/L	511.48 ppb	12:52:09
1	As 188.979†	231.8	230.8	529.79 µg/L	529.79 ppb	12:52:29
1	B 249.677†	10606.1	10387.6	500.94 µg/L	500.94 ppb	12:52:09
1	Ba 233.527†	17698.9	17530.2	513.66 µg/L	513.66 ppb	12:52:09
1	Be 313.107†	744966.8	733233.4	513.13 µg/L	513.13 ppb	12:52:03
1	Cd 226.502†	17346.9	17283.7	515.36 µg/L	515.36 ppb	12:52:09
1	Co 228.616†	9302.0	9246.2	514.93 µg/L	514.93 ppb	12:52:09
1	Cr 267.716†	22374.6	22205.1	518.00 µg/L	518.00 ppb	12:52:09
1	Cu 324.752†	73577.1	69018.6	501.11 µg/L	501.11 ppb	12:52:09
1	Mn 257.610†	138375.2	137068.8	510.32 µg/L	510.32 ppb	12:52:09
1	Mo 202.031†	4147.7	4090.6	515.62 µg/L	515.62 ppb	12:52:29
1	Ni 231.604†	8541.3	8124.5	515.65 µg/L	515.65 ppb	12:52:09
1	P 214.914†	1328.1	1114.1	2633.8 µg/L	2633.8 ppb	12:52:29
1	Pb 220.353†	1858.9	1775.2	525.27 µg/L	525.27 ppb	12:52:29
1	S 181.975 Axial†	210.1	183.9	1050.5 µg/L	1050.5 ppb	12:52:29
1	Sb 206.836†	510.0	482.9	535.81 µg/L	535.81 ppb	12:52:29
1	Se 196.026†	349.1	335.7	542.49 µg/L	542.49 ppb	12:52:29
1	SiO2†	28758.7	26174.9	5511.0 µg/L	5511.0 ppb	12:52:09
1	Si 251.611†	31416.7	30789.1	2576.7 µg/L	2576.7 ppb	12:52:09
1	Sn 189.927†	926.3	895.1	534.40 µg/L	534.40 ppb	12:52:29
1	Ti 334.940†	207907.6	204903.5	510.86 µg/L	510.86 ppb	12:52:03
1	Tl 190.801†	278.2	297.2	520.16 µg/L	520.16 ppb	12:52:29
1	U 409.014†	5331.3	5430.4	507.63 µg/L	507.63 ppb	12:52:09
1	V 292.402†	41793.9	41478.5	521.22 µg/L	521.22 ppb	12:52:09
1	Zn 213.857†	18587.8	17737.7	513.59 µg/L	513.59 ppb	12:52:09
2	Sc RADIAL	76243.2	76243.2	103 %		12:51:05
2	Al 396.153Radial†	7717.4	7516.9	5186.7 µg/L	5186.7 ppb	12:51:05
2	Ca 317.933Radial†	6926.1	6469.2	5160.8 µg/L	5160.8 ppb	12:51:26
2	Fe 238.204 Radial†	390.2	362.4	5275.2 µg/L	5275.2 ppb	12:51:26
2	K 766.490 Radial†	8399.1	7748.2	5029.5 µg/L	5029.5 ppb	12:51:05
2	Mg 279.077 IEC†	506.9	480.7	5264.0 µg/L	5264.0 ppb	12:51:26
2	Na 589.592 Radial†	37669.3	35681.4	10105 µg/L	10105 ppb	12:51:05
2	Sr 421.552†	83734.4	80742.8	502.94 µg/L	502.94 ppb	12:51:05
2	Sc 361.383	1856974.3	1856974.3	100.71 %		12:52:36
2	Y 371.029	1173330.3	1173330.3	100.18 %		12:52:36
2	Ag 328.068†	55706.5	55306.8	514.43 µg/L	514.43 ppb	12:52:42
2	As 188.979†	232.1	231.7	531.96 µg/L	531.96 ppb	12:53:02

2	B 249.677†	10650.7	10462.0	504.52 µg/L	504.52 ppb	12:52:42
2	Ba 233.527†	17807.8	17688.5	518.29 µg/L	518.29 ppb	12:52:42
2	Be 313.107†	744417.3	734797.5	514.22 µg/L	514.22 ppb	12:52:36
2	Cd 226.502†	17377.0	17362.6	517.72 µg/L	517.72 ppb	12:52:42
2	Co 228.616†	9344.4	9314.6	518.74 µg/L	518.74 ppb	12:52:42
2	Cr 267.716†	22461.3	22354.5	521.49 µg/L	521.49 ppb	12:52:42
2	Cu 324.752†	73874.1	69522.0	504.77 µg/L	504.77 ppb	12:52:42
2	Mn 257.610†	138858.4	137940.5	513.57 µg/L	513.57 ppb	12:52:42
2	Mo 202.031†	4149.7	4104.3	517.35 µg/L	517.35 ppb	12:53:02
2	Ni 231.604†	8584.5	8191.5	519.91 µg/L	519.91 ppb	12:52:42
2	P 214.914†	1323.0	1112.8	2630.3 µg/L	2630.3 ppb	12:53:02
2	Pb 220.353†	1872.4	1793.8	530.75 µg/L	530.75 ppb	12:53:02
2	S 181.975 Axial†	213.2	187.6	1071.7 µg/L	1071.7 ppb	12:53:02
2	Sb 206.836†	508.1	482.5	535.26 µg/L	535.26 ppb	12:53:02
2	Se 196.026†	342.3	330.1	533.77 µg/L	533.77 ppb	12:53:02
2	SiO2†	28858.4	26355.3	5548.9 µg/L	5548.9 ppb	12:52:42
2	Si 251.611†	31541.8	31002.3	2594.6 µg/L	2594.6 ppb	12:52:42
2	Sn 189.927†	924.5	896.0	534.97 µg/L	534.97 ppb	12:53:02
2	Ti 334.940†	207898.5	205483.3	512.31 µg/L	512.31 ppb	12:52:36
2	Tl 190.801†	279.7	299.4	524.08 µg/L	524.08 ppb	12:53:02
2	U 409.014†	5471.2	5584.4	522.04 µg/L	522.04 ppb	12:52:42
2	V 292.402†	42024.7	41826.0	525.57 µg/L	525.57 ppb	12:52:42
2	Zn 213.857†	18618.4	17820.7	515.98 µg/L	515.98 ppb	12:52:42
3	Sc RADIAL	76838.1	76838.1	104 %		12:51:31
3	Al 396.153Radial†	7814.1	7552.0	5212.4 µg/L	5212.4 ppb	12:51:31
3	Ca 317.933Radial†	6971.8	6461.1	5154.4 µg/L	5154.4 ppb	12:51:52
3	Fe 238.204 Radial†	394.6	363.7	5293.5 µg/L	5293.5 ppb	12:51:52
3	K 766.490 Radial†	8462.0	7745.7	5027.8 µg/L	5027.8 ppb	12:51:31
3	Mg 279.077 IEC†	516.4	486.0	5320.9 µg/L	5320.9 ppb	12:51:52
3	Na 589.592 Radial†	38208.1	35917.3	10172 µg/L	10172 ppb	12:51:31
3	Sr 421.552†	85197.1	81522.9	507.80 µg/L	507.80 ppb	12:51:31
3	Sc 361.383	1854383.9	1854383.9	100.57 %		12:53:09
3	Y 371.029	1171744.4	1171744.4	100.05 %		12:53:09
3	Ag 328.068†	54184.2	53870.3	500.94 µg/L	500.94 ppb	12:53:14
3	As 188.979†	204.2	204.3	469.15 µg/L	469.15 ppb	12:53:35
3	B 249.677†	10298.3	10126.3	488.20 µg/L	488.20 ppb	12:53:14
3	Ba 233.527†	16883.3	16793.8	492.06 µg/L	492.06 ppb	12:53:14
3	Be 313.107†	720981.1	712525.7	498.64 µg/L	498.64 ppb	12:53:09
3	Cd 226.502†	16479.1	16493.9	491.78 µg/L	491.78 ppb	12:53:14
3	Co 228.616†	8802.1	8788.4	489.38 µg/L	489.38 ppb	12:53:14
3	Cr 267.716†	20693.8	20628.2	481.22 µg/L	481.22 ppb	12:53:14
3	Cu 324.752†	69734.9	65508.4	475.67 µg/L	475.67 ppb	12:53:14
3	Mn 257.610†	130348.2	129670.8	482.81 µg/L	482.81 ppb	12:53:14
3	Mo 202.031†	3600.2	3563.7	449.23 µg/L	449.23 ppb	12:53:35
3	Ni 231.604†	8104.1	7725.7	490.35 µg/L	490.35 ppb	12:53:14
3	P 214.914†	1202.7	995.0	2348.7 µg/L	2348.7 ppb	12:53:35
3	Pb 220.353†	1699.0	1623.9	480.41 µg/L	480.41 ppb	12:53:35
3	S 181.975 Axial†	192.5	167.3	955.56 µg/L	955.56 ppb	12:53:35
3	Sb 206.836†	460.7	436.0	483.28 µg/L	483.28 ppb	12:53:35
3	Se 196.026†	317.2	305.6	495.53 µg/L	495.53 ppb	12:53:35
3	SiO2†	27659.6	25203.3	5306.4 µg/L	5306.4 ppb	12:53:14
3	Si 251.611†	30187.2	29699.1	2485.5 µg/L	2485.5 ppb	12:53:14
3	Sn 189.927†	803.2	776.6	464.03 µg/L	464.03 ppb	12:53:35
3	Ti 334.940†	200401.6	198316.9	494.42 µg/L	494.42 ppb	12:53:09
3	Tl 190.801†	257.2	277.5	485.73 µg/L	485.73 ppb	12:53:35
3	U 409.014†	5002.0	5125.5	479.05 µg/L	479.05 ppb	12:53:14
3	V 292.402†	39201.9	39077.4	490.77 µg/L	490.77 ppb	12:53:14
3	Zn 213.857†	17567.1	16801.2	486.43 µg/L	486.43 ppb	12:53:14

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1857881.3	100.76 %	0.218			0.22%
Sc RADIAL	76573.4	103 %	0.4			0.40%
Y 371.029	1173312.6	100.18 %	0.133			0.13%
Ag 328.068†	54722.5	508.95 µg/L	7.090	508.95 ppb	7.090	1.39%
QC value within limits for Ag 328.068 Recovery = 101.79%						
Al 396.153Radial†	7513.0	5184.4 µg/L	29.12	5184.4 ppb	29.12	0.56%
QC value within limits for Al 396.153Radial Recovery = 103.69%						
As 188.979†	222.3	510.30 µg/L	35.649	510.30 ppb	35.649	6.99%

QC value within limits for As 188.979 Recovery = 102.06%						
B 249.677†	10325.3	497.89 µg/L	8.578	497.89 ppb	8.578	1.72%
QC value within limits for B 249.677 Recovery = 99.58%						
Ba 233.527†	17337.5	508.00 µg/L	13.998	508.00 ppb	13.998	2.76%
QC value within limits for Ba 233.527 Recovery = 101.60%						
Be 313.107†	726852.2	508.66 µg/L	8.699	508.66 ppb	8.699	1.71%
QC value within limits for Be 313.107 Recovery = 101.73%						
Ca 317.933Radial†	6445.8	5142.2 µg/L	26.94	5142.2 ppb	26.94	0.52%
QC value within limits for Ca 317.933Radial Recovery = 102.84%						
Cd 226.502†	17046.7	508.28 µg/L	14.345	508.28 ppb	14.345	2.82%
QC value within limits for Cd 226.502 Recovery = 101.66%						
Co 228.616†	9116.4	507.68 µg/L	15.968	507.68 ppb	15.968	3.15%
QC value within limits for Co 228.616 Recovery = 101.54%						
Cr 267.716†	21729.3	506.90 µg/L	22.311	506.90 ppb	22.311	4.40%
QC value within limits for Cr 267.716 Recovery = 101.38%						
Cu 324.752†	68016.3	493.85 µg/L	15.849	493.85 ppb	15.849	3.21%
QC value within limits for Cu 324.752 Recovery = 98.77%						
Fe 238.204 Radial†	361.9	5267.4 µg/L	30.68	5267.4 ppb	30.68	0.58%
QC value within limits for Fe 238.204 Radial Recovery = 105.35%						
K 766.490 Radial†	7714.2	5007.4 µg/L	36.90	5007.4 ppb	36.90	0.74%
QC value within limits for K 766.490 Radial Recovery = 100.15%						
Mg 279.077 IEC†	480.8	5264.3 µg/L	56.42	5264.3 ppb	56.42	1.07%
QC value within limits for Mg 279.077 IEC Recovery = 105.29%						
Mn 257.610†	134893.3	502.23 µg/L	16.900	502.23 ppb	16.900	3.37%
QC value within limits for Mn 257.610 Recovery = 100.45%						
Mo 202.031†	3919.5	494.07 µg/L	38.837	494.07 ppb	38.837	7.86%
QC value within limits for Mo 202.031 Recovery = 98.81%						
Na 589.592 Radial†	35685.7	10106 µg/L	65.0	10106 ppb	65.0	0.64%
QC value within limits for Na 589.592 Radial Recovery = 101.06%						
Ni 231.604†	8013.9	508.64 µg/L	15.980	508.64 ppb	15.980	3.14%
QC value within limits for Ni 231.604 Recovery = 101.73%						
P 214.914†	1073.9	2537.6 µg/L	163.57	2537.6 ppb	163.57	6.45%
QC value within limits for P 214.914 Recovery = 101.50%						
Pb 220.353†	1731.0	512.14 µg/L	27.616	512.14 ppb	27.616	5.39%
QC value within limits for Pb 220.353 Recovery = 102.43%						
S 181.975 Axial†	179.6	1025.9 µg/L	61.85	1025.9 ppb	61.85	6.03%
QC value within limits for S 181.975 Axial Recovery = 102.59%						
Sb 206.836†	467.1	518.11 µg/L	30.169	518.11 ppb	30.169	5.82%
QC value within limits for Sb 206.836 Recovery = 103.62%						
Se 196.026†	323.8	523.93 µg/L	24.980	523.93 ppb	24.980	4.77%
QC value within limits for Se 196.026 Recovery = 104.79%						
SiO2†	25911.2	5455.4 µg/L	130.46	5455.4 ppb	130.46	2.39%
QC value within limits for SiO2 Recovery = 102.02%						
Si 251.611†	30496.8	2552.3 µg/L	58.50	2552.3 ppb	58.50	2.29%
QC value within limits for Si 251.611 Recovery = 102.09%						
Sn 189.927†	855.9	511.13 µg/L	40.794	511.13 ppb	40.794	7.98%
QC value within limits for Sn 189.927 Recovery = 102.23%						
Sr 421.552†	80858.8	503.67 µg/L	3.826	503.67 ppb	3.826	0.76%
QC value within limits for Sr 421.552 Recovery = 100.73%						
Ti 334.940†	202901.2	505.86 µg/L	9.935	505.86 ppb	9.935	1.96%
QC value within limits for Ti 334.940 Recovery = 101.17%						
Tl 190.801†	291.4	509.99 µg/L	21.101	509.99 ppb	21.101	4.14%
QC value within limits for Tl 190.801 Recovery = 102.00%						
U 409.014†	5380.1	502.91 µg/L	21.880	502.91 ppb	21.880	4.35%
QC value within limits for U 409.014 Recovery = 100.58%						
V 292.402†	40793.9	512.52 µg/L	18.963	512.52 ppb	18.963	3.70%
QC value within limits for V 292.402 Recovery = 102.50%						
Zn 213.857†	17453.2	505.33 µg/L	16.417	505.33 ppb	16.417	3.25%
QC value within limits for Zn 213.857 Recovery = 101.07%						
All analyte(s) passed QC.						

Sequence No.: 2  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 1/26/2010 12:53:44  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	74363.6	74363.6	100 %			12:54:17
1	Al 396.153Radial†	-28.4	-7.4	-5.1430 µg/L	-5.1430 ppb		12:54:17
1	Ca 317.933Radial†	254.8	-4.6	-3.6692 µg/L	-3.6692 ppb		12:54:37
1	Fe 238.204 Radial†	18.2	1.5	21.455 µg/L	21.455 ppb		12:54:37
1	K 766.490 Radial†	405.9	-5.8	-3.7485 µg/L	-3.7485 ppb		12:54:17
1	Mg 279.077 IEC†	4.5	-7.2	-78.836 µg/L	-78.836 ppb		12:54:37
1	Na 589.592 Radial†	715.4	-195.2	-55.286 µg/L	-55.286 ppb		12:54:17
1	Sr 421.552†	599.6	6.9	0.0430 µg/L	0.0430 ppb		12:54:17
1	Sc 361.383	1849323.2	1849323.2	100.29 %			12:55:39
1	Y 371.029	1172932.4	1172932.4	100.15 %			12:55:39
1	Ag 328.068†	-94.9	-103.9	-0.9567 µg/L	-0.9567 ppb		12:55:45
1	As 188.979†	-2.9	-1.6	-3.6534 µg/L	-3.6534 ppb		12:56:05
1	B 249.677†	133.7	19.2	0.9173 µg/L	0.9173 ppb		12:56:05
1	Ba 233.527†	-9.6	-4.1	-0.1202 µg/L	-0.1202 ppb		12:56:05
1	Be 313.107†	4156.2	-257.4	-0.1800 µg/L	-0.1800 ppb		12:55:45
1	Cd 226.502†	-116.8	-9.0	-0.2700 µg/L	-0.2700 ppb		12:56:05
1	Co 228.616†	-37.4	-1.5	-0.0845 µg/L	-0.0845 ppb		12:56:05
1	Cr 267.716†	-54.8	-4.0	-0.0925 µg/L	-0.0925 ppb		12:56:05
1	Cu 324.752†	3820.8	-24.7	-0.1759 µg/L	-0.1759 ppb		12:55:45
1	Mn 257.610†	-89.5	-33.8	-0.1197 µg/L	-0.1197 ppb		12:56:05
1	Mo 202.031†	18.4	2.1	0.2645 µg/L	0.2645 ppb		12:56:05
1	Ni 231.604†	339.4	5.6	0.3572 µg/L	0.3572 ppb		12:56:05
1	P 214.914†	211.4	9.8	23.595 µg/L	23.595 ppb		12:56:05
1	Pb 220.353†	62.5	-3.1	-0.9290 µg/L	-0.9290 ppb		12:56:05
1	S 181.975 Axial†	26.0	1.7	9.9867 µg/L	9.9867 ppb		12:56:05
1	Sb 206.836†	26.2	4.0	4.4113 µg/L	4.4113 ppb		12:56:05
1	Se 196.026†	6.0	-3.9	-5.9810 µg/L	-5.9810 ppb		12:56:05
1	SiO2†	2302.9	-4.6	-0.9700 µg/L	-0.9700 ppb		12:55:45
1	Si 251.611†	302.7	-16.6	-1.3909 µg/L	-1.3909 ppb		12:56:05
1	Sn 189.927†	20.9	-1.2	-0.7221 µg/L	-0.7221 ppb		12:56:05
1	Ti 334.940†	795.8	-164.4	-0.4040 µg/L	-0.4040 ppb		12:55:45
1	Tl 190.801†	-24.3	-2.6	-4.4943 µg/L	-4.4943 ppb		12:56:05
1	U 409.014†	-105.7	46.1	4.3191 µg/L	4.3191 ppb		12:55:45
1	V 292.402†	-85.3	10.8	0.1415 µg/L	0.1415 ppb		12:55:45
1	Zn 213.857†	648.6	-20.5	-0.5951 µg/L	-0.5951 ppb		12:56:05
2	Sc RADIAL	74481.5	74481.5	101 %			12:54:43
2	Al 396.153Radial†	-28.7	-7.7	-5.3366 µg/L	-5.3366 ppb		12:54:43
2	Ca 317.933Radial†	259.6	-0.2	-0.1547 µg/L	-0.1547 ppb		12:55:03
2	Fe 238.204 Radial†	17.0	0.3	4.9507 µg/L	4.9507 ppb		12:55:03
2	K 766.490 Radial†	418.4	6.0	3.9049 µg/L	3.9049 ppb		12:54:43
2	Mg 279.077 IEC†	8.8	-3.0	-32.606 µg/L	-32.606 ppb		12:55:03
2	Na 589.592 Radial†	677.2	-234.3	-66.346 µg/L	-66.346 ppb		12:54:43
2	Sr 421.552†	595.8	2.2	0.0139 µg/L	0.0139 ppb		12:54:43
2	Sc 361.383	1835544.8	1835544.8	99.544 %			12:56:11
2	Y 371.029	1163339.0	1163339.0	99.332 %			12:56:11
2	Ag 328.068†	-61.1	-70.6	-0.6499 µg/L	-0.6499 ppb		12:56:17
2	As 188.979†	-2.0	-0.8	-1.7325 µg/L	-1.7325 ppb		12:56:38
2	B 249.677†	110.6	-3.0	-0.1493 µg/L	-0.1493 ppb		12:56:38
2	Ba 233.527†	-12.7	-7.3	-0.2122 µg/L	-0.2122 ppb		12:56:38
2	Be 313.107†	4174.5	-207.9	-0.1454 µg/L	-0.1454 ppb		12:56:17
2	Cd 226.502†	-112.0	-5.0	-0.1505 µg/L	-0.1505 ppb		12:56:38
2	Co 228.616†	-39.8	-4.2	-0.2337 µg/L	-0.2337 ppb		12:56:38
2	Cr 267.716†	-54.2	-3.8	-0.0876 µg/L	-0.0876 ppb		12:56:38
2	Cu 324.752†	3811.2	-5.7	-0.0407 µg/L	-0.0407 ppb		12:56:17
2	Mn 257.610†	-86.5	-31.4	-0.1149 µg/L	-0.1149 ppb		12:56:38
2	Mo 202.031†	12.1	-4.2	-0.5253 µg/L	-0.5253 ppb		12:56:38
2	Ni 231.604†	319.7	-11.6	-0.7341 µg/L	-0.7341 ppb		12:56:38
2	P 214.914†	217.2	17.2	41.486 µg/L	41.486 ppb		12:56:38
2	Pb 220.353†	62.0	-3.2	-0.9386 µg/L	-0.9386 ppb		12:56:38



2	S 181.975 Axial†	23.5	-0.6	-3.2954 µg/L	-3.2954 ppb	12:56:38
2	Sb 206.836†	25.7	3.7	4.0851 µg/L	4.0851 ppb	12:56:38
2	Se 196.026†	10.6	0.7	1.2027 µg/L	1.2027 ppb	12:56:38
2	SiO2†	2267.2	-23.2	-4.8762 µg/L	-4.8762 ppb	12:56:17
2	Si 251.611†	292.5	-24.6	-2.0626 µg/L	-2.0626 ppb	12:56:38
2	Sn 189.927†	26.2	4.2	2.5103 µg/L	2.5103 ppb	12:56:38
2	Ti 334.940†	839.1	-115.0	-0.2843 µg/L	-0.2843 ppb	12:56:17
2	Tl 190.801†	-14.4	7.3	12.612 µg/L	12.612 ppb	12:56:38
2	U 409.014†	-120.1	30.9	2.8979 µg/L	2.8979 ppb	12:56:17
2	V 292.402†	-71.4	24.1	0.2987 µg/L	0.2987 ppb	12:56:17
2	Zn 213.857†	651.2	-12.9	-0.3724 µg/L	-0.3724 ppb	12:56:38
3	Sc RADIAL	74516.2	74516.2	101 %		12:55:09
3	Al 396.153Radial†	-18.4	2.5	1.7581 µg/L	1.7581 ppb	12:55:09
3	Ca 317.933Radial†	255.4	-4.5	-3.5779 µg/L	-3.5779 ppb	12:55:29
3	Fe 238.204 Radial†	15.9	-0.8	-12.267 µg/L	-12.267 ppb	12:55:29
3	K 766.490 Radial†	432.1	19.5	12.646 µg/L	12.646 ppb	12:55:09
3	Mg 279.077 IEC†	9.3	-2.5	-26.869 µg/L	-26.869 ppb	12:55:29
3	Na 589.592 Radial†	676.8	-235.0	-66.546 µg/L	-66.546 ppb	12:55:09
3	Sr 421.552†	599.9	6.0	0.0375 µg/L	0.0375 ppb	12:55:09
3	Sc 361.383	1831332.3	1831332.3	99.315 %		12:56:43
3	Y 371.029	1161147.5	1161147.5	99.144 %		12:56:43
3	Ag 328.068†	-75.5	-85.3	-0.7889 µg/L	-0.7889 ppb	12:56:49
3	As 188.979†	-1.3	-0.1	-0.1394 µg/L	-0.1394 ppb	12:57:10
3	B 249.677†	113.3	-0.1	0.0019 µg/L	0.0019 ppb	12:57:10
3	Ba 233.527†	-14.9	-9.5	-0.2782 µg/L	-0.2782 ppb	12:57:10
3	Be 313.107†	4180.4	-192.3	-0.1345 µg/L	-0.1345 ppb	12:56:49
3	Cd 226.502†	-114.1	-7.4	-0.2204 µg/L	-0.2204 ppb	12:57:10
3	Co 228.616†	-42.9	-7.5	-0.4152 µg/L	-0.4152 ppb	12:57:10
3	Cr 267.716†	-57.7	-7.4	-0.1730 µg/L	-0.1730 ppb	12:57:10
3	Cu 324.752†	3813.6	5.6	0.0386 µg/L	0.0386 ppb	12:56:49
3	Mn 257.610†	-111.7	-57.0	-0.2125 µg/L	-0.2125 ppb	12:57:10
3	Mo 202.031†	15.8	-0.3	-0.0413 µg/L	-0.0413 ppb	12:57:10
3	Ni 231.604†	329.7	-0.8	-0.0497 µg/L	-0.0497 ppb	12:57:10
3	P 214.914†	215.7	16.2	39.025 µg/L	39.025 ppb	12:57:10
3	Pb 220.353†	68.1	3.1	0.9089 µg/L	0.9089 ppb	12:57:10
3	S 181.975 Axial†	22.6	-1.4	-7.9948 µg/L	-7.9948 ppb	12:57:10
3	Sb 206.836†	25.3	3.4	3.7856 µg/L	3.7856 ppb	12:57:10
3	Se 196.026†	11.8	2.0	3.0696 µg/L	3.0696 ppb	12:57:10
3	SiO2†	2272.1	-13.0	-2.7390 µg/L	-2.7390 ppb	12:56:49
3	Si 251.611†	305.2	-11.1	-0.9294 µg/L	-0.9294 ppb	12:57:10
3	Sn 189.927†	25.9	4.1	2.4054 µg/L	2.4054 ppb	12:57:10
3	Ti 334.940†	817.8	-134.5	-0.3334 µg/L	-0.3334 ppb	12:56:49
3	Tl 190.801†	-19.5	2.1	3.5719 µg/L	3.5719 ppb	12:57:10
3	U 409.014†	-107.2	43.7	4.0909 µg/L	4.0909 ppb	12:56:49
3	V 292.402†	-102.4	-7.3	-0.0877 µg/L	-0.0877 ppb	12:56:49
3	Zn 213.857†	645.8	-16.9	-0.4907 µg/L	-0.4907 ppb	12:57:10

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1838733.4	99.717 %	0.5103			0.51%
Sc RADIAL	74453.8	101 %	0.1			0.11%
Y 371.029	1165806.3	99.542 %	0.5352			0.54%
Ag 328.068†	-86.6	-0.7985 µg/L	0.15360	-0.7985 ppb	0.15360	19.24%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-4.2	-2.9072 µg/L	4.04140	-2.9072 ppb	4.04140	139.01%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.8	-1.8418 µg/L	1.75950	-1.8418 ppb	1.75950	95.53%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	5.4	0.2567 µg/L	0.57713	0.2567 ppb	0.57713	224.86%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-7.0	-0.2035 µg/L	0.07936	-0.2035 ppb	0.07936	39.00%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-219.2	-0.1533 µg/L	0.02376	-0.1533 ppb	0.02376	15.50%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-3.1	-2.4673 µg/L	2.00326	-2.4673 ppb	2.00326	81.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-7.1	-0.2136 µg/L	0.06006	-0.2136 ppb	0.06006	28.11%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-4.4	-0.2445 µg/L	0.16562	-0.2445 ppb	0.16562	67.74%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-5.1	-0.1177 µg/L	0.04793	-0.1177 ppb	0.04793	40.72%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-8.3	-0.0593 µg/L	0.10843	-0.0593 ppb	0.10843	182.81%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.3	4.7129 µg/L	16.86241	4.7129 ppb	16.86241	357.80%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	6.6	4.2674 µg/L	8.20323	4.2674 ppb	8.20323	192.23%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-4.2	-46.104 µg/L	28.4916	-46.104 ppb	28.4916	61.80%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-40.7	-0.1490 µg/L	0.05499	-0.1490 ppb	0.05499	36.90%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-0.8	-0.1007 µg/L	0.39826	-0.1007 ppb	0.39826	395.54%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-221.5	-62.726 µg/L	6.4441	-62.726 ppb	6.4441	10.27%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-2.2	-0.1422 µg/L	0.55150	-0.1422 ppb	0.55150	387.88%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	14.4	34.702 µg/L	9.6975	34.702 ppb	9.6975	27.94%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-1.1	-0.3196 µg/L	1.06392	-0.3196 ppb	1.06392	332.93%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-0.1	-0.4345 µg/L	9.32591	-0.4345 ppb	9.32591	>999.9%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	3.7	4.0940 µg/L	0.31295	4.0940 ppb	0.31295	7.64%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-0.4	-0.5696 µg/L	4.77853	-0.5696 ppb	4.77853	838.97%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-13.6	-2.8617 µg/L	1.95598	-2.8617 ppb	1.95598	68.35%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-17.5	-1.4610 µg/L	0.56984	-1.4610 ppb	0.56984	39.00%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	2.4	1.3979 µg/L	1.83665	1.3979 ppb	1.83665	131.39%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	5.1	0.0315 µg/L	0.01543	0.0315 ppb	0.01543	49.03%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-138.0	-0.3406 µg/L	0.06018	-0.3406 ppb	0.06018	17.67%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	2.2	3.8964 µg/L	8.55756	3.8964 ppb	8.55756	219.63%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	40.2	3.7693 µg/L	0.76322	3.7693 ppb	0.76322	20.25%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	9.2	0.1175 µg/L	0.19427	0.1175 ppb	0.19427	165.33%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-16.8	-0.4861 µg/L	0.11140	-0.4861 ppb	0.11140	22.92%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
All analyte(s) passed QC.							

=====  
Analysis Begun

Start Time: 1/26/2010 13:01:28

Plasma On Time: 1/25/2010 05:31:26

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\012610D.sif

Batch ID:

Results Data Set: 012610C

Results Library: c:\pe\optima1\Results\Results.mdb

=====  
Sequence No.: 1

Autosampler Location: 301

Sample ID: 1202011905|940180|1

Date Collected: 1/26/2010 13:01:30

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Replicate Data: 1202011905|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	74135.0	74135.0	100 %		13:02:07
1	Al 396.153Radial†	1.5	22.3	15.465 µg/L	15.465 ppb	13:02:07
1	Ca 317.933Radial†	265.3	6.7	5.3531 µg/L	5.3531 ppb	13:02:27
1	Fe 238.204 Radial†	25.2	8.5	123.83 µg/L	123.83 ppb	13:02:27
1	K 766.490 Radial†	385.6	-24.8	-16.092 µg/L	-16.092 ppb	13:02:07
1	Mg 279.077 IEC†	10.6	-1.1	-12.654 µg/L	-12.654 ppb	13:02:27
1	Na 589.592 Radial†	894.8	-13.7	-3.8879 µg/L	-3.8879 ppb	13:02:07
1	Sr 421.552†	552.3	-38.5	-0.2396 µg/L	-0.2396 ppb	13:02:07
1	Sc 361.383	1820964.9	1820964.9	98.753 %		13:03:28
1	Y 371.029	1152494.3	1152494.3	98.406 %		13:03:28
1	Ag 328.068†	-116.4	-127.1	-1.1655 µg/L	-1.1655 ppb	13:03:34
1	As 188.979†	-1.0	0.2	0.5391 µg/L	0.5391 ppb	13:03:54
1	B 249.677†	125.3	12.7	0.5517 µg/L	0.5517 ppb	13:03:54
1	Ba 233.527†	0.6	6.1	0.1798 µg/L	0.1798 ppb	13:03:54
1	Be 313.107†	3735.7	-618.6	-0.4330 µg/L	-0.4330 ppb	13:03:34
1	Cd 226.502†	-107.5	-1.4	-0.0574 µg/L	-0.0574 ppb	13:03:54
1	Co 228.616†	-44.9	-9.7	-0.5412 µg/L	-0.5412 ppb	13:03:54
1	Cr 267.716†	-60.9	-11.0	-0.2555 µg/L	-0.2555 ppb	13:03:54
1	Cu 324.752†	3804.5	18.2	0.1490 µg/L	0.1490 ppb	13:03:34
1	Mn 257.610†	105.6	162.4	0.6210 µg/L	0.6210 ppb	13:03:54
1	Mo 202.031†	9.8	-6.4	-0.8022 µg/L	-0.8022 ppb	13:03:54
1	Ni 231.604†	318.0	-10.8	-0.6815 µg/L	-0.6815 ppb	13:03:54
1	P 214.914†	214.1	15.8	37.979 µg/L	37.979 ppb	13:03:54
1	Pb 220.353†	73.5	8.9	2.6342 µg/L	2.6342 ppb	13:03:54
1	S 181.975 Axial†	23.1	-0.8	-4.5517 µg/L	-4.5517 ppb	13:03:54
1	Sb 206.836†	21.4	-0.4	-0.4582 µg/L	-0.4582 ppb	13:03:54
1	Se 196.026†	2.6	-7.3	-10.872 µg/L	-10.872 ppb	13:03:54
1	SiO2†	2418.5	148.2	31.211 µg/L	31.211 ppb	13:03:34
1	Si 251.611†	421.2	108.1	9.0435 µg/L	9.0435 ppb	13:03:54
1	Sn 189.927†	25.3	3.6	2.1213 µg/L	2.1213 ppb	13:03:54
1	Ti 334.940†	873.8	-73.1	-0.1814 µg/L	-0.1814 ppb	13:03:34
1	Tl 190.801†	-24.9	-3.5	-6.0914 µg/L	-6.0914 ppb	13:03:54
1	U 409.014†	-90.4	60.1	5.6103 µg/L	5.6103 ppb	13:03:34
1	V 292.402†	-91.8	2.9	0.0421 µg/L	0.0421 ppb	13:03:34
1	Zn 213.857†	788.2	131.0	3.8172 µg/L	3.8172 ppb	13:03:54
2	Sc RADIAL	74782.3	74782.3	101 %		13:02:32
2	Al 396.153Radial†	-11.5	9.4	6.5028 µg/L	6.5028 ppb	13:02:32
2	Ca 317.933Radial†	274.0	13.0	10.387 µg/L	10.387 ppb	13:02:53
2	Fe 238.204 Radial†	25.6	8.7	126.63 µg/L	126.63 ppb	13:02:53
2	K 766.490 Radial†	374.0	-39.6	-25.719 µg/L	-25.719 ppb	13:02:32
2	Mg 279.077 IEC†	7.3	-4.5	-49.145 µg/L	-49.145 ppb	13:02:53
2	Na 589.592 Radial†	834.8	-81.0	-22.929 µg/L	-22.929 ppb	13:02:32
2	Sr 421.552†	563.6	-32.0	-0.1995 µg/L	-0.1995 ppb	13:02:32
2	Sc 361.383	1826147.3	1826147.3	99.034 %		13:04:00
2	Y 371.029	1153403.1	1153403.1	98.483 %		13:04:00
2	Ag 328.068†	-102.3	-112.5	-1.0309 µg/L	-1.0309 ppb	13:04:06
2	As 188.979†	-3.1	-1.9	-4.3387 µg/L	-4.3387 ppb	13:04:26

2	B 249.677†	114.5	1.5	0.0043 µg/L	0.0043 ppb	13:04:26
2	Ba 233.527†	-5.4	0.1	0.0019 µg/L	0.0019 ppb	13:04:26
2	Be 313.107†	3767.3	-597.4	-0.4182 µg/L	-0.4182 ppb	13:04:06
2	Cd 226.502†	-123.6	-17.3	-0.5312 µg/L	-0.5312 ppb	13:04:26
2	Co 228.616†	-41.4	-6.0	-0.3367 µg/L	-0.3367 ppb	13:04:26
2	Cr 267.716†	-53.5	-3.4	-0.0781 µg/L	-0.0781 ppb	13:04:26
2	Cu 324.752†	3815.4	18.3	0.1504 µg/L	0.1504 ppb	13:04:06
2	Mn 257.610†	98.5	154.9	0.5950 µg/L	0.5950 ppb	13:04:26
2	Mo 202.031†	12.4	-3.7	-0.4623 µg/L	-0.4623 ppb	13:04:26
2	Ni 231.604†	327.1	-2.5	-0.1544 µg/L	-0.1544 ppb	13:04:26
2	P 214.914†	221.8	22.9	55.103 µg/L	55.103 ppb	13:04:26
2	Pb 220.353†	67.4	2.5	0.7398 µg/L	0.7398 ppb	13:04:26
2	S 181.975 Axial†	23.0	-0.9	-5.3875 µg/L	-5.3875 ppb	13:04:26
2	Sb 206.836†	22.2	0.3	0.2934 µg/L	0.2934 ppb	13:04:26
2	Se 196.026†	7.5	-2.3	-3.0745 µg/L	-3.0745 ppb	13:04:26
2	SiO2†	2413.7	136.5	28.730 µg/L	28.730 ppb	13:04:06
2	Si 251.611†	429.8	115.6	9.6745 µg/L	9.6745 ppb	13:04:26
2	Sn 189.927†	25.5	3.7	2.1922 µg/L	2.1922 ppb	13:04:26
2	Ti 334.940†	933.0	-15.8	-0.0354 µg/L	-0.0354 ppb	13:04:06
2	Tl 190.801†	-23.5	-2.0	-3.4745 µg/L	-3.4745 ppb	13:04:26
2	U 409.014†	-87.3	63.4	5.9201 µg/L	5.9201 ppb	13:04:06
2	V 292.402†	-90.6	4.4	0.0640 µg/L	0.0640 ppb	13:04:06
2	Zn 213.857†	791.3	131.9	3.8432 µg/L	3.8432 ppb	13:04:26
3	Sc RADIAL	73855.9	73855.9	99.7 %		13:02:58
3	Al 396.153Radial†	-27.6	-6.9	-4.7330 µg/L	-4.7330 ppb	13:02:58
3	Ca 317.933Radial†	268.6	11.0	8.7814 µg/L	8.7814 ppb	13:03:18
3	Fe 238.204 Radial†	25.0	8.5	123.30 µg/L	123.30 ppb	13:03:18
3	K 766.490 Radial†	392.8	-16.1	-10.461 µg/L	-10.461 ppb	13:02:58
3	Mg 279.077 IEC†	12.8	1.1	12.159 µg/L	12.159 ppb	13:03:18
3	Na 589.592 Radial†	818.1	-87.3	-24.726 µg/L	-24.726 ppb	13:02:58
3	Sr 421.552†	537.9	-50.8	-0.3166 µg/L	-0.3166 ppb	13:02:58
3	Sc 361.383	1816344.8	1816344.8	98.503 %		13:04:32
3	Y 371.029	1149474.5	1149474.5	98.148 %		13:04:32
3	Ag 328.068†	-87.7	-98.3	-0.9021 µg/L	-0.9021 ppb	13:04:37
3	As 188.979†	-2.2	-0.9	-2.1712 µg/L	-2.1712 ppb	13:04:58
3	B 249.677†	105.5	-7.0	-0.4034 µg/L	-0.4034 ppb	13:04:58
3	Ba 233.527†	-10.1	-4.7	-0.1388 µg/L	-0.1388 ppb	13:04:58
3	Be 313.107†	3767.1	-577.2	-0.4040 µg/L	-0.4040 ppb	13:04:37
3	Cd 226.502†	-110.1	-4.3	-0.1408 µg/L	-0.1408 ppb	13:04:58
3	Co 228.616†	-52.4	-17.4	-0.9706 µg/L	-0.9706 ppb	13:04:58
3	Cr 267.716†	-45.5	4.5	0.1054 µg/L	0.1054 ppb	13:04:58
3	Cu 324.752†	3796.5	19.8	0.1610 µg/L	0.1610 ppb	13:04:37
3	Mn 257.610†	88.5	145.3	0.5563 µg/L	0.5563 ppb	13:04:58
3	Mo 202.031†	14.4	-1.6	-0.2008 µg/L	-0.2008 ppb	13:04:58
3	Ni 231.604†	329.8	2.1	0.1349 µg/L	0.1349 ppb	13:04:58
3	P 214.914†	219.0	21.3	51.200 µg/L	51.200 ppb	13:04:58
3	Pb 220.353†	63.2	-1.3	-0.4028 µg/L	-0.4028 ppb	13:04:58
3	S 181.975 Axial†	18.4	-5.5	-31.139 µg/L	-31.139 ppb	13:04:58
3	Sb 206.836†	23.7	1.9	2.1416 µg/L	2.1416 ppb	13:04:58
3	Se 196.026†	9.7	-0.0	0.4047 µg/L	0.4047 ppb	13:04:58
3	SiO2†	2397.8	133.4	28.094 µg/L	28.094 ppb	13:04:37
3	Si 251.611†	436.0	124.2	10.397 µg/L	10.397 ppb	13:04:58
3	Sn 189.927†	22.6	0.9	0.5355 µg/L	0.5355 ppb	13:04:58
3	Ti 334.940†	842.3	-102.8	-0.2573 µg/L	-0.2573 ppb	13:04:37
3	Tl 190.801†	-20.1	1.3	2.2446 µg/L	2.2446 ppb	13:04:58
3	U 409.014†	-39.3	111.7	10.443 µg/L	10.443 ppb	13:04:37
3	V 292.402†	-118.5	-24.5	-0.2880 µg/L	-0.2880 ppb	13:04:37
3	Zn 213.857†	781.6	126.3	3.6754 µg/L	3.6754 ppb	13:04:58

Mean Data: 1202011905|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	1821152.3	98.763 %		0.2659			0.27%
Sc RADIAL	74257.7	100 %		0.6			0.64%
Y 371.029	1151790.6	98.345 %		0.1756			0.18%
Ag 328.068†	-112.7	-1.0328 µg/L		0.13171	-1.0328 ppb	0.13171	12.75%
Al 396.153Radial†	8.3	5.7448 µg/L		10.12012	5.7448 ppb	10.12012	176.16%
As 188.979†	-0.9	-1.9903 µg/L		2.44390	-1.9903 ppb	2.44390	122.79%
B 249.677†	2.4	0.0509 µg/L		0.47923	0.0509 ppb	0.47923	942.41%
Ba 233.527†	0.5	0.0143 µg/L		0.15967	0.0143 ppb	0.15967	>999.9%

Be 313.107†	-597.7	-0.4184 µg/L	0.01452	-0.4184 ppb	0.01452	3.47%
Ca 317.933 Radial†	10.2	8.1738 µg/L	2.57123	8.1738 ppb	2.57123	31.46%
Cd 226.502†	-7.7	-0.2431 µg/L	0.25295	-0.2431 ppb	0.25295	104.03%
Co 228.616†	-11.0	-0.6162 µg/L	0.32353	-0.6162 ppb	0.32353	52.51%
Cr 267.716†	-3.3	-0.0761 µg/L	0.18046	-0.0761 ppb	0.18046	237.19%
Cu 324.752†	18.8	0.1535 µg/L	0.00659	0.1535 ppb	0.00659	4.30%
Fe 238.204 Radial†	8.6	124.59 µg/L	1.789	124.59 ppb	1.789	1.44%
K 766.490 Radial†	-26.8	-17.424 µg/L	7.7158	-17.424 ppb	7.7158	44.28%
Mg 279.077 IEC†	-1.5	-16.547 µg/L	30.8368	-16.547 ppb	30.8368	186.36%
Mn 257.610†	154.2	0.5908 µg/L	0.03255	0.5908 ppb	0.03255	5.51%
Mo 202.031†	-3.9	-0.4884 µg/L	0.30151	-0.4884 ppb	0.30151	61.73%
Na 589.592 Radial†	-60.7	-17.181 µg/L	11.5473	-17.181 ppb	11.5473	67.21%
Ni 231.604†	-3.7	-0.2337 µg/L	0.41392	-0.2337 ppb	0.41392	177.12%
P 214.914†	20.0	48.094 µg/L	8.9746	48.094 ppb	8.9746	18.66%
Pb 220.353†	3.4	0.9904 µg/L	1.53393	0.9904 ppb	1.53393	154.88%
S 181.975 Axial†	-2.4	-13.693 µg/L	15.1145	-13.693 ppb	15.1145	110.38%
Sb 206.836†	0.6	0.6589 µg/L	1.33791	0.6589 ppb	1.33791	203.05%
Se 196.026†	-3.2	-4.5139 µg/L	5.77436	-4.5139 ppb	5.77436	127.92%
SiO2†	139.4	29.345 µg/L	1.6470	29.345 ppb	1.6470	5.61%
Si 251.611†	116.0	9.7050 µg/L	0.67732	9.7050 ppb	0.67732	6.98%
Sn 189.927†	2.7	1.6163 µg/L	0.93671	1.6163 ppb	0.93671	57.95%
Sr 421.552†	-40.4	-0.2519 µg/L	0.05952	-0.2519 ppb	0.05952	23.63%
Ti 334.940†	-63.9	-0.1580 µg/L	0.11273	-0.1580 ppb	0.11273	71.34%
Tl 190.801†	-1.4	-2.4404 µg/L	4.26308	-2.4404 ppb	4.26308	174.69%
U 409.014†	78.4	7.3243 µg/L	2.70492	7.3243 ppb	2.70492	36.93%
V 292.402†	-5.7	-0.0606 µg/L	0.19723	-0.0606 ppb	0.19723	325.24%
Zn 213.857†	129.7	3.7786 µg/L	0.09033	3.7786 ppb	0.09033	2.39%

Sequence No.: 2

Sample ID: 1202011910|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 302

Date Collected: 1/26/2010 13:05:07

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011910|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Conc. Units	Sample Units	Analysis Time
1	Sc RADIAL	75997.0	75997.0	103 %				13:05:46
1	Al 396.153Radial†	141128.8	137546.3	95091 µg/L		95091 ppb		13:05:41
1	Ca 317.933Radial†	139868.8	136039.4	108530 µg/L		108530 ppb		13:05:41
1	Fe 238.204 Radial†	14181.5	13802.8	200500 µg/L		200500 ppb		13:05:46
1	K 766.490 Radial†	67913.3	65769.3	42692 µg/L		42692 ppb		13:05:41
1	Mg 279.077 IEC†	3983.3	3869.9	42148 µg/L		42148 ppb		13:05:46
1	Na 589.592 Radial†	39443.2	37528.5	10628 µg/L		10628 ppb		13:05:41
1	Sr 421.552†	403194.5	392309.9	2443.7 µg/L		2443.7 ppb		13:05:41
1	Sc 361.383	1863912.3	1863912.3	101.08 %				13:06:23
1	Y 371.029	1201578.5	1201578.5	102.60 %				13:06:23
1	Ag 328.068†	32376.4	32020.5	316.57 µg/L		316.57 ppb		13:06:29
1	As 188.979†	496.1	492.1	1136.7 µg/L		1136.7 ppb		13:06:49
1	B 249.677†	34915.1	34427.2	1566.0 µg/L		1566.0 ppb		13:06:29
1	Ba 233.527†	72590.7	71819.1	2102.8 µg/L		2102.8 ppb		13:06:29
1	Be 313.107†	1224074.5	1206568.0	842.49 µg/L		842.49 ppb		13:06:23
1	Cd 226.502†	22567.1	22433.0	647.80 µg/L		647.80 ppb		13:06:29
1	Co 228.616†	18053.4	17895.9	986.17 µg/L		986.17 ppb		13:06:29
1	Cr 267.716†	110586.2	109452.9	2552.5 µg/L		2552.5 ppb		13:06:29
1	Cu 324.752†	266643.5	259954.5	1912.5 µg/L		1912.5 ppb		13:06:29
1	Mn 257.610†	1523248.3	1506996.0	5630.3 µg/L		5630.3 ppb		13:06:23
1	Mo 202.031†	4260.4	4198.5	536.64 µg/L		536.64 ppb		13:06:49
1	Ni 231.604†	23590.3	23005.0	1463.1 µg/L		1463.1 ppb		13:06:29
1	P 214.914†	3989.9	3746.2	8697.9 µg/L		8697.9 ppb		13:06:49
1	Pb 220.353†	3156.8	3057.6	900.43 µg/L		900.43 ppb		13:06:49
1	S 181.975 Axial†	781.1	748.6	4276.5 µg/L		4276.5 ppb		13:06:49
1	Sb 206.836†	1220.9	1185.8	1282.7 µg/L		1282.7 ppb		13:06:49
1	Se 196.026†	1655.7	1628.1	3288.0 µg/L		3288.0 ppb		13:06:49
1	SiO2†	432760.7	425826.8	89655 µg/L		89655 ppb		13:06:23
1	Si 251.611†	500800.3	495120.3	41436 µg/L		41436 ppb		13:06:23
1	Sn 189.927†	1787.2	1746.0	1087.6 µg/L		1087.6 ppb		13:06:49
1	Ti 334.940†	2351780.7	2325644.7	5800.4 µg/L		5800.4 ppb		13:06:23
1	Tl 190.801†	734.7	748.5	1342.7 µg/L		1342.7 ppb		13:06:49
1	U 409.014†	-1058.7	-895.8	-118.40 µg/L		-118.40 ppb		13:06:29
1	V 292.402†	101989.7	100993.7	1275.0 µg/L		1275.0 ppb		13:06:29
1	Zn 213.857†	213792.2	210836.2	6126.4 µg/L		6126.4 ppb		13:06:29
2	Sc RADIAL	75569.2	75569.2	102 %				13:05:58
2	Al 396.153Radial†	143043.9	140201.6	96927 µg/L		96927 ppb		13:05:52
2	Ca 317.933Radial†	142065.4	138963.6	110860 µg/L		110860 ppb		13:05:52
2	Fe 238.204 Radial†	14114.7	13815.6	200690 µg/L		200690 ppb		13:05:58
2	K 766.490 Radial†	68656.1	66871.9	43407 µg/L		43407 ppb		13:05:52
2	Mg 279.077 IEC†	3954.3	3863.4	42077 µg/L		42077 ppb		13:05:58
2	Na 589.592 Radial†	39868.8	38163.2	10808 µg/L		10808 ppb		13:05:52
2	Sr 421.552†	408692.7	399922.2	2491.1 µg/L		2491.1 ppb		13:05:52
2	Sc 361.383	1861993.5	1861993.5	100.98 %				13:06:57
2	Y 371.029	1200370.9	1200370.9	102.49 %				13:06:57
2	Ag 328.068†	32083.6	31763.6	314.13 µg/L		314.13 ppb		13:07:03
2	As 188.979†	489.9	486.4	1123.5 µg/L		1123.5 ppb		13:07:23
2	B 249.677†	34742.1	34291.5	1559.3 µg/L		1559.3 ppb		13:07:03
2	Ba 233.527†	71936.7	71245.4	2086.0 µg/L		2086.0 ppb		13:07:03
2	Be 313.107†	1209178.6	1193064.3	833.06 µg/L		833.06 ppb		13:06:57
2	Cd 226.502†	22377.6	22268.3	642.86 µg/L		642.86 ppb		13:07:03
2	Co 228.616†	17940.8	17802.8	981.11 µg/L		981.11 ppb		13:07:03
2	Cr 267.716†	109551.1	108540.6	2531.2 µg/L		2531.2 ppb		13:07:03
2	Cu 324.752†	263850.5	257460.4	1894.5 µg/L		1894.5 ppb		13:07:03
2	Mn 257.610†	1505130.3	1490606.3	5569.4 µg/L		5569.4 ppb		13:06:57
2	Mo 202.031†	4219.4	4162.3	532.08 µg/L		532.08 ppb		13:07:23
2	Ni 231.604†	23348.8	22789.9	1449.4 µg/L		1449.4 ppb		13:07:03
2	P 214.914†	3965.1	3725.7	8650.9 µg/L		8650.9 ppb		13:07:23
2	Pb 220.353†	3138.2	3042.3	896.04 µg/L		896.04 ppb		13:07:23

2	S 181.975 Axial†	777.6	745.9	4261.2 µg/L	4261.2 ppb	13:07:23
2	Sb 206.836†	1219.6	1185.7	1282.7 µg/L	1282.7 ppb	13:07:23
2	Se 196.026†	1646.1	1620.3	3276.9 µg/L	3276.9 ppb	13:07:23
2	SiO2†	427681.9	421238.4	88689 µg/L	88689 ppb	13:06:57
2	Si 251.611†	494791.6	489680.4	40981 µg/L	40981 ppb	13:06:57
2	Sn 189.927†	1781.9	1742.6	1086.1 µg/L	1086.1 ppb	13:07:23
2	Ti 334.940†	2322689.9	2299233.2	5734.6 µg/L	5734.6 ppb	13:06:57
2	Tl 190.801†	735.5	750.1	1344.2 µg/L	1344.2 ppb	13:07:23
2	U 409.014†	-1039.7	-878.1	-116.91 µg/L	-116.91 ppb	13:07:03
2	V 292.402†	100955.2	100073.1	1263.5 µg/L	1263.5 ppb	13:07:03
2	Zn 213.857†	211720.3	209002.4	6073.1 µg/L	6073.1 ppb	13:07:03
3	Sc RADIAL	75789.5	75789.5	102 %		13:06:09
3	Al 396.153Radial†	142565.4	139326.7	96322 µg/L	96322 ppb	13:06:04
3	Ca 317.933Radial†	141300.8	137811.8	109940 µg/L	109940 ppb	13:06:04
3	Fe 238.204 Radial†	14190.4	13849.3	201180 µg/L	201180 ppb	13:06:09
3	K 766.490 Radial†	68486.7	66510.8	43173 µg/L	43173 ppb	13:06:04
3	Mg 279.077 IEC†	3956.7	3854.5	41979 µg/L	41979 ppb	13:06:09
3	Na 589.592 Radial†	39850.2	38031.4	10770 µg/L	10770 ppb	13:06:04
3	Sr 421.552†	407700.3	397788.6	2477.8 µg/L	2477.8 ppb	13:06:04
3	Sc 361.383	1872686.0	1872686.0	101.56 %		13:07:31
3	Y 371.029	1207662.6	1207662.6	103.12 %		13:07:31
3	Ag 328.068†	32344.3	31838.9	314.86 µg/L	314.86 ppb	13:07:37
3	As 188.979†	495.5	489.1	1130.0 µg/L	1130.0 ppb	13:07:57
3	B 249.677†	34912.3	34262.5	1557.6 µg/L	1557.6 ppb	13:07:37
3	Ba 233.527†	72378.2	71273.3	2086.9 µg/L	2086.9 ppb	13:07:37
3	Be 313.107†	1219661.2	1196549.0	835.50 µg/L	835.50 ppb	13:07:31
3	Cd 226.502†	22520.4	22282.4	643.23 µg/L	643.23 ppb	13:07:37
3	Co 228.616†	18014.3	17773.7	979.46 µg/L	979.46 ppb	13:07:37
3	Cr 267.716†	110089.3	108451.1	2529.2 µg/L	2529.2 ppb	13:07:37
3	Cu 324.752†	265141.4	257239.5	1892.9 µg/L	1892.9 ppb	13:07:37
3	Mn 257.610†	1517770.6	1494542.2	5584.1 µg/L	5584.1 ppb	13:07:31
3	Mo 202.031†	4240.0	4158.7	531.64 µg/L	531.64 ppb	13:07:57
3	Ni 231.604†	23533.1	22839.3	1452.6 µg/L	1452.6 ppb	13:07:37
3	P 214.914†	3969.9	3708.0	8607.7 µg/L	8607.7 ppb	13:07:57
3	Pb 220.353†	3142.0	3028.4	891.85 µg/L	891.85 ppb	13:07:57
3	S 181.975 Axial†	779.5	743.4	4246.9 µg/L	4246.9 ppb	13:07:57
3	Sb 206.836†	1219.8	1179.0	1275.3 µg/L	1275.3 ppb	13:07:57
3	Se 196.026†	1644.5	1609.4	3261.6 µg/L	3261.6 ppb	13:07:57
3	SiO2†	430853.8	421943.3	88837 µg/L	88837 ppb	13:07:31
3	Si 251.611†	499106.0	491130.8	41103 µg/L	41103 ppb	13:07:31
3	Sn 189.927†	1784.7	1735.3	1081.6 µg/L	1081.6 ppb	13:07:57
3	Ti 334.940†	2340577.8	2303713.4	5745.7 µg/L	5745.7 ppb	13:07:31
3	Tl 190.801†	729.1	739.6	1326.3 µg/L	1326.3 ppb	13:07:57
3	U 409.014†	-1056.5	-888.7	-117.91 µg/L	-117.91 ppb	13:07:37
3	V 292.402†	101628.4	100165.2	1264.7 µg/L	1264.7 ppb	13:07:37
3	Zn 213.857†	213236.1	209297.7	6081.6 µg/L	6081.6 ppb	13:07:37

Mean Data: 1202011910|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1866197.2	101.21 %	%	0.309			0.31%
Sc RADIAL	75785.2	102 %	%	0.3			0.28%
Y 371.029	1203204.0	102.74 %	%	0.334			0.32%
Ag 328.068†	31874.3	315.19 µg/L	µg/L	1.250	315.19 ppb	1.250	0.40%
Al 396.153Radial†	139024.9	96113 µg/L	µg/L	935.6	96113 ppb	935.6	0.97%
As 188.979†	489.2	1130.1 µg/L	µg/L	6.60	1130.1 ppb	6.60	0.58%
B 249.677†	34327.1	1561.0 µg/L	µg/L	4.43	1561.0 ppb	4.43	0.28%
Ba 233.527†	71445.9	2091.9 µg/L	µg/L	9.47	2091.9 ppb	9.47	0.45%
Be 313.107†	1198727.1	837.01 µg/L	µg/L	4.894	837.01 ppb	4.894	0.58%
Ca 317.933Radial†	137604.9	109770 µg/L	µg/L	1175.1	109770 ppb	1175.1	1.07%
Cd 226.502†	22327.9	644.63 µg/L	µg/L	2.755	644.63 ppb	2.755	0.43%
Co 228.616†	17824.1	982.25 µg/L	µg/L	3.493	982.25 ppb	3.493	0.36%
Cr 267.716†	108814.9	2537.6 µg/L	µg/L	12.93	2537.6 ppb	12.93	0.51%
Cu 324.752†	258218.1	1900.0 µg/L	µg/L	10.89	1900.0 ppb	10.89	0.57%
Fe 238.204 Radial†	13822.6	200790 µg/L	µg/L	348.7	200790 ppb	348.7	0.17%
K 766.490 Radial†	66384.0	43091 µg/L	µg/L	364.9	43091 ppb	364.9	0.85%
Mg 279.077 IEC†	3862.6	42068 µg/L	µg/L	84.8	42068 ppb	84.8	0.20%
Mn 257.610†	1497381.5	5594.6 µg/L	µg/L	31.80	5594.6 ppb	31.80	0.57%
Mo 202.031†	4173.2	533.45 µg/L	µg/L	2.767	533.45 ppb	2.767	0.52%
Na 589.592 Radial†	37907.7	10735 µg/L	µg/L	94.9	10735 ppb	94.9	0.88%

Ni 231.604†	22878.0	1455.0 µg/L	7.15	1455.0 ppb	7.15	0.49%
P 214.914†	3726.6	8652.2 µg/L	45.11	8652.2 ppb	45.11	0.52%
Pb 220.353†	3042.8	896.11 µg/L	4.291	896.11 ppb	4.291	0.48%
S 181.975 Axial†	746.0	4261.5 µg/L	14.81	4261.5 ppb	14.81	0.35%
Sb 206.836†	1183.5	1280.2 µg/L	4.26	1280.2 ppb	4.26	0.33%
Se 196.026†	1619.3	3275.5 µg/L	13.26	3275.5 ppb	13.26	0.40%
SiO2†	423002.8	89060 µg/L	520.2	89060 ppb	520.2	0.58%
Si 251.611†	491977.1	41173 µg/L	235.8	41173 ppb	235.8	0.57%
Sn 189.927†	1741.3	1085.1 µg/L	3.15	1085.1 ppb	3.15	0.29%
Sr 421.552†	396673.5	2470.9 µg/L	24.46	2470.9 ppb	24.46	0.99%
Ti 334.940†	2309530.4	5760.2 µg/L	35.24	5760.2 ppb	35.24	0.61%
Tl 190.801†	746.1	1337.7 µg/L	9.96	1337.7 ppb	9.96	0.74%
U 409.014†	-887.5	-117.74 µg/L	0.760	-117.74 ppb	0.760	0.65%
V 292.402†	100410.7	1267.8 µg/L	6.34	1267.8 ppb	6.34	0.50%
Zn 213.857†	209712.1	6093.7 µg/L	28.67	6093.7 ppb	28.67	0.47%



Sequence No.: 3

Sample ID: 244144001|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 303

Date Collected: 1/26/2010 13:08:06

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144001|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77213.4	77213.4	104	%		13:08:39
1	Al 396.153Radial†	167547.6	160718.4	111120	µg/L	111120 ppb	13:08:39
1	Ca 317.933Radial†	25798.6	24485.6	19533	µg/L	19533 ppb	13:08:59
1	Fe 238.204 Radial†	10019.1	9592.8	139340	µg/L	139340 ppb	13:08:59
1	K 766.490 Radial†	30591.4	28930.7	18779	µg/L	18779 ppb	13:08:39
1	Mg 279.077 IEC†	1934.8	1844.0	20032	µg/L	20032 ppb	13:08:59
1	Na 589.592 Radial†	3035.0	2003.3	567.34	µg/L	567.34 ppb	13:08:59
1	Sr 421.552†	42781.3	40442.1	251.91	µg/L	251.91 ppb	13:08:39
1	Sc 361.383	1871971.5	1871971.5	101.52	%		13:10:05
1	Y 371.029	1215121.9	1215121.9	103.75	%		13:10:05
1	Ag 328.068†	-1445.6	-1433.2	2.6500	µg/L	-2.6500 ppb	13:10:11
1	As 188.979†	8.0	9.2	28.202	µg/L	28.202 ppb	13:10:31
1	B 249.677†	2251.0	2103.2	29.334	µg/L	29.334 ppb	13:10:11
1	Ba 233.527†	77730.8	76573.0	2240.1	µg/L	2240.1 ppb	13:10:11
1	Be 313.107†	22974.5	18229.2	10.665	µg/L	10.665 ppb	13:10:11
1	Cd 226.502†	456.4	557.1	0.9629	µg/L	0.9629 ppb	13:10:31
1	Co 228.616†	1390.8	1405.7	66.890	µg/L	66.890 ppb	13:10:31
1	Cr 267.716†	6137.7	6096.5	142.30	µg/L	142.30 ppb	13:10:11
1	Cu 324.752†	11127.2	7126.3	71.033	µg/L	71.033 ppb	13:10:11
1	Mn 257.610†	1401426.1	1380509.1	5152.6	µg/L	5152.6 ppb	13:10:05
1	Mo 202.031†	-2.7	-18.9	2.9075	µg/L	2.9075 ppb	13:10:31
1	Ni 231.604†	1850.1	1489.6	96.363	µg/L	96.363 ppb	13:10:31
1	P 214.914†	690.0	478.7	1064.6	µg/L	1064.6 ppb	13:10:31
1	Pb 220.353†	606.9	532.3	158.21	µg/L	158.21 ppb	13:10:31
1	S 181.975 Axial†	164.7	138.1	789.12	µg/L	789.12 ppb	13:10:31
1	Sb 206.836†	30.8	8.2	6.1200	µg/L	6.1200 ppb	13:10:31
1	Se 196.026†	-309.4	-314.6	19.250	µg/L	19.250 ppb	13:10:31
1	SiO2†	469586.3	460258.1	96904	µg/L	96904 ppb	13:10:05
1	Si 251.611†	542766.8	534325.8	44718	µg/L	44718 ppb	13:10:05
1	Sn 189.927†	-91.6	-112.2	-45.666	µg/L	-45.666 ppb	13:10:31
1	Ti 334.940†	2240354.5	2205869.4	5501.9	µg/L	5501.9 ppb	13:10:05
1	Tl 190.801†	-52.2	-29.8	9.0394	µg/L	9.0394 ppb	13:10:31
1	U 409.014†	-559.0	-399.1	-57.942	µg/L	-57.942 ppb	13:10:05
1	V 292.402†	22269.1	22031.7	281.33	µg/L	281.33 ppb	13:10:11
1	Zn 213.857†	10361.6	9539.4	269.90	µg/L	269.90 ppb	13:10:11
2	Sc RADIAL	77408.4	77408.4	105	%		13:09:05
2	Al 396.153Radial†	168512.9	161237.2	111480	µg/L	111480 ppb	13:09:05
2	Ca 317.933Radial†	25783.5	24408.7	19472	µg/L	19472 ppb	13:09:26
2	Fe 238.204 Radial†	10013.1	9562.9	138900	µg/L	138900 ppb	13:09:26
2	K 766.490 Radial†	30640.9	28904.1	18762	µg/L	18762 ppb	13:09:05
2	Mg 279.077 IEC†	1936.2	1840.6	19996	µg/L	19996 ppb	13:09:26
2	Na 589.592 Radial†	3011.9	1973.9	559.00	µg/L	559.00 ppb	13:09:26
2	Sr 421.552†	43052.0	40597.7	252.88	µg/L	252.88 ppb	13:09:05
2	Sc 361.383	1877309.2	1877309.2	101.81	%		13:10:39
2	Y 371.029	1219197.4	1219197.4	104.10	%		13:10:39
2	Ag 328.068†	-1367.7	-1352.6	-1.9281	µg/L	-1.9281 ppb	13:10:44
2	As 188.979†	14.7	15.7	43.187	µg/L	43.187 ppb	13:11:05
2	B 249.677†	2205.4	2052.1	27.086	µg/L	27.086 ppb	13:10:44
2	Ba 233.527†	78081.4	76699.7	2243.8	µg/L	2243.8 ppb	13:10:44
2	Be 313.107†	23120.8	18308.6	10.724	µg/L	10.724 ppb	13:10:44
2	Cd 226.502†	447.7	547.2	0.7168	µg/L	0.7168 ppb	13:11:05
2	Co 228.616†	1393.3	1404.4	66.831	µg/L	66.831 ppb	13:11:05
2	Cr 267.716†	6174.3	6115.3	142.74	µg/L	142.74 ppb	13:10:44
2	Cu 324.752†	11071.2	7040.2	70.348	µg/L	70.348 ppb	13:10:44
2	Mn 257.610†	1403794.8	1378910.7	5146.6	µg/L	5146.6 ppb	13:10:39
2	Mo 202.031†	-13.3	-29.3	1.5860	µg/L	1.5860 ppb	13:11:05
2	Ni 231.604†	1844.6	1479.1	95.686	µg/L	95.686 ppb	13:11:05
2	P 214.914†	685.6	472.4	1050.1	µg/L	1050.1 ppb	13:11:05
2	Pb 220.353†	597.6	521.5	155.04	µg/L	155.04 ppb	13:11:05

2	S 181.975 Axial†	159.9	132.9	759.39 µg/L	759.39 ppb	13:11:05
2	Sb 206.836†	26.8	4.2	1.7071 µg/L	1.7071 ppb	13:11:05
2	Se 196.026†	-301.5	-306.0	31.090 µg/L	31.090 ppb	13:11:05
2	SiO2†	470087.6	459435.3	96731 µg/L	96731 ppb	13:10:39
2	Si 251.611†	543547.7	533572.7	44654 µg/L	44654 ppb	13:10:39
2	Sn 189.927†	-94.0	-114.4	-46.999 µg/L	-46.999 ppb	13:11:05
2	Ti 334.940†	2243103.4	2202294.9	5493.0 µg/L	5493.0 ppb	13:10:39
2	Tl 190.801†	-56.8	-34.1	1.4236 µg/L	1.4236 ppb	13:11:05
2	U 409.014†	-510.9	-350.3	-53.305 µg/L	-53.305 ppb	13:10:39
2	V 292.402†	22392.5	22090.5	282.04 µg/L	282.04 ppb	13:10:44
2	Zn 213.857†	10379.0	9527.5	269.58 µg/L	269.58 ppb	13:10:44
3	Sc RADIAL	76489.1	76489.1	103 %		13:09:31
3	Al 396.153Radial†	167810.3	162494.5	112350 µg/L	112350 ppb	13:09:31
3	Ca 317.933Radial†	25738.2	24661.4	19674 µg/L	19674 ppb	13:09:52
3	Fe 238.204 Radial†	9994.4	9660.0	140310 µg/L	140310 ppb	13:09:52
3	K 766.490 Radial†	30520.8	29140.2	18915 µg/L	18915 ppb	13:09:31
3	Mg 279.077 IEC†	1933.0	1859.8	20204 µg/L	20204 ppb	13:09:52
3	Na 589.592 Radial†	2991.5	1988.8	563.22 µg/L	563.22 ppb	13:09:52
3	Sr 421.552†	42743.1	40793.7	254.10 µg/L	254.10 ppb	13:09:31
3	Sc 361.383	1875562.3	1875562.3	101.71 %		13:11:13
3	Y 371.029	1217265.2	1217265.2	103.94 %		13:11:13
3	Ag 328.068†	-1308.4	-1295.5	-1.3681 µg/L	-1.3681 ppb	13:11:18
3	As 188.979†	8.2	9.4	28.644 µg/L	28.644 ppb	13:11:39
3	B 249.677†	2108.7	1959.1	21.840 µg/L	21.840 ppb	13:11:18
3	Ba 233.527†	76155.0	74877.2	2190.5 µg/L	2190.5 ppb	13:11:18
3	Be 313.107†	22507.9	17727.1	10.351 µg/L	10.351 ppb	13:11:18
3	Cd 226.502†	417.2	517.7	-0.3302 µg/L	-0.3302 ppb	13:11:39
3	Co 228.616†	1311.7	1325.4	62.613 µg/L	62.613 ppb	13:11:39
3	Cr 267.716†	5950.5	5900.9	137.74 µg/L	137.74 ppb	13:11:18
3	Cu 324.752†	10929.2	6910.7	69.605 µg/L	69.605 ppb	13:11:18
3	Mn 257.610†	1383242.7	1359989.2	5076.4 µg/L	5076.4 ppb	13:11:13
3	Mo 202.031†	-12.9	-28.9	1.6844 µg/L	1.6844 ppb	13:11:39
3	Ni 231.604†	1737.1	1375.0	89.101 µg/L	89.101 ppb	13:11:39
3	P 214.914†	667.9	455.6	1008.9 µg/L	1008.9 ppb	13:11:39
3	Pb 220.353†	574.5	499.3	148.48 µg/L	148.48 ppb	13:11:39
3	S 181.975 Axial†	159.9	133.1	760.29 µg/L	760.29 ppb	13:11:39
3	Sb 206.836†	25.9	3.4	0.8458 µg/L	0.8458 ppb	13:11:39
3	Se 196.026†	-287.2	-292.2	57.775 µg/L	57.775 ppb	13:11:39
3	SiO2†	465470.9	455326.5	95866 µg/L	95866 ppb	13:11:13
3	Si 251.611†	538305.8	528916.4	44265 µg/L	44265 ppb	13:11:13
3	Sn 189.927†	-81.7	-102.4	-39.672 µg/L	-39.672 ppb	13:11:39
3	Ti 334.940†	2204496.4	2166390.7	5403.4 µg/L	5403.4 ppb	13:11:13
3	Tl 190.801†	-45.4	-23.0	19.562 µg/L	19.562 ppb	13:11:39
3	U 409.014†	-572.2	-411.0	-59.200 µg/L	-59.200 ppb	13:11:13
3	V 292.402†	21679.1	21409.7	273.64 µg/L	273.64 ppb	13:11:18
3	Zn 213.857†	10168.6	9330.1	263.77 µg/L	263.77 ppb	13:11:18

Mean Data: 244144001|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1874947.7	101.68 %	0.148			0.15%
Sc RADIAL	77037.0	104 %	0.7			0.63%
Y 371.029	1217194.9	103.93 %	0.174			0.17%
Ag 328.068†	-1360.5	-1.9821 µg/L	0.64263	-1.9821 ppb	0.64263	32.42%
Al 396.153Radial†	161483.4	111650 µg/L	631.5	111650 ppb	631.5	0.57%
As 188.979†	11.4	33.344 µg/L	8.5267	33.344 ppb	8.5267	25.57%
B 249.677†	2038.1	26.087 µg/L	3.8456	26.087 ppb	3.8456	14.74%
Ba 233.527†	76050.0	2224.8 µg/L	29.77	2224.8 ppb	29.77	1.34%
Be 313.107†	18088.3	10.580 µg/L	0.2005	10.580 ppb	0.2005	1.89%
Ca 317.933Radial†	24518.6	19560 µg/L	103.3	19560 ppb	103.3	0.53%
Cd 226.502†	540.6	0.4498 µg/L	0.68663	0.4498 ppb	0.68663	152.64%
Co 228.616†	1378.5	65.445 µg/L	2.4523	65.445 ppb	2.4523	3.75%
Cr 267.716†	6037.6	140.93 µg/L	2.771	140.93 ppb	2.771	1.97%
Cu 324.752†	7025.7	70.329 µg/L	0.7142	70.329 ppb	0.7142	1.02%
Fe 238.204 Radial†	9605.2	139520 µg/L	722.1	139520 ppb	722.1	0.52%
K 766.490 Radial†	28991.7	18819 µg/L	83.9	18819 ppb	83.9	0.45%
Mg 279.077 IEC†	1848.1	20077 µg/L	111.3	20077 ppb	111.3	0.55%
Mn 257.610†	1373136.4	5125.2 µg/L	42.37	5125.2 ppb	42.37	0.83%
Mo 202.031†	-25.7	2.0593 µg/L	0.73619	2.0593 ppb	0.73619	35.75%
Na 589.592 Radial†	1988.7	563.19 µg/L	4.169	563.19 ppb	4.169	0.74%

Ni 231.604†	1447.9	93.717 µg/L	4.0118	93.717 ppb	4.0118	4.28%
P 214.914†	468.9	1041.2 µg/L	28.87	1041.2 ppb	28.87	2.77%
Pb 220.353†	517.7	153.91 µg/L	4.963	153.91 ppb	4.963	3.22%
S 181.975 Axial†	134.7	769.60 µg/L	16.910	769.60 ppb	16.910	2.20%
Sb 206.836†	5.3	2.8910 µg/L	2.82939	2.8910 ppb	2.82939	97.87%
Se 196.026†	-304.3	36.038 µg/L	19.7336	36.038 ppb	19.7336	54.76%
SiO2†	458340.0	96500 µg/L	556.3	96500 ppb	556.3	0.58%
Si 251.611†	532271.6	44546 µg/L	245.2	44546 ppb	245.2	0.55%
Sn 189.927†	-109.7	-44.113 µg/L	3.9027	-44.113 ppb	3.9027	8.85%
Sr 421.552†	40611.2	252.96 µg/L	1.097	252.96 ppb	1.097	0.43%
Ti 334.940†	2191518.3	5466.1 µg/L	54.48	5466.1 ppb	54.48	1.00%
Tl 190.801†	-28.9	10.008 µg/L	9.1082	10.008 ppb	9.1082	91.00%
U 409.014†	-386.8	-56.816 µg/L	3.1045	-56.816 ppb	3.1045	5.46%
V 292.402†	21844.0	279.00 µg/L	4.660	279.00 ppb	4.660	1.67%
Zn 213.857†	9465.6	267.75 µg/L	3.448	267.75 ppb	3.448	1.29%

Sequence No.: 4

Sample ID: 1202011906|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 304

Date Collected: 1/26/2010 13:11:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011906|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77260.6	77260.6	104 %		13:12:21
1	Al 396.153Radial†	172820.4	165674.3	114550 µg/L	114550 ppb	13:12:21
1	Ca 317.933Radial†	25321.1	24012.7	19156 µg/L	19156 ppb	13:12:41
1	Fe 238.204 Radial†	9523.8	9112.2	132350 µg/L	132350 ppb	13:12:41
1	K 766.490 Radial†	29257.5	27634.2	17938 µg/L	17938 ppb	13:12:21
1	Mg 279.077 IEC†	1856.7	1768.0	19208 µg/L	19208 ppb	13:12:41
1	Na 589.592 Radial†	3083.5	2048.0	580.00 µg/L	580.00 ppb	13:12:41
1	Sr 421.552†	40503.7	38233.8	238.16 µg/L	238.16 ppb	13:12:21
1	Sc 361.383	1877680.6	1877680.6	101.83 %		13:13:47
1	Y 371.029	1213781.7	1213781.7	103.64 %		13:13:47
1	Ag 328.068†	-1301.8	-1287.7	-1.8804 µg/L	-1.8804 ppb	13:13:52
1	As 188.979†	12.3	13.3	37.290 µg/L	37.290 ppb	13:14:13
1	B 249.677†	2145.8	1993.1	27.724 µg/L	27.724 ppb	13:13:52
1	Ba 233.527†	77437.9	76052.6	2224.8 µg/L	2224.8 ppb	13:13:52
1	Be 313.107†	21684.1	16893.1	9.6181 µg/L	9.6181 ppb	13:13:52
1	Cd 226.502†	419.1	519.1	0.6400 µg/L	0.6400 ppb	13:14:13
1	Co 228.616†	1268.6	1281.6	59.358 µg/L	59.358 ppb	13:14:13
1	Cr 267.716†	8243.3	8145.9	190.07 µg/L	190.07 ppb	13:13:52
1	Cu 324.752†	12046.5	7995.8	76.367 µg/L	76.367 ppb	13:13:52
1	Mn 257.610†	1257479.3	1234950.3	4610.3 µg/L	4610.3 ppb	13:13:47
1	Mo 202.031†	25.5	8.8	6.1342 µg/L	6.1342 ppb	13:14:13
1	Ni 231.604†	2194.1	1821.9	117.39 µg/L	117.39 ppb	13:14:13
1	P 214.914†	655.8	443.0	984.66 µg/L	984.66 ppb	13:14:13
1	Pb 220.353†	522.5	447.6	133.61 µg/L	133.61 ppb	13:14:13
1	S 181.975 Axial†	161.2	134.2	766.64 µg/L	766.64 ppb	13:14:13
1	Sb 206.836†	20.9	-1.6	-5.1288 µg/L	-5.1288 ppb	13:14:13
1	Se 196.026†	-293.9	-298.5	18.846 µg/L	18.846 ppb	13:14:13
1	SiO2†	456774.3	446269.8	93959 µg/L	93959 ppb	13:13:47
1	Si 251.611†	528068.3	518265.7	43373 µg/L	43373 ppb	13:13:47
1	Sn 189.927†	-90.8	-111.2	-45.952 µg/L	-45.952 ppb	13:14:13
1	Ti 334.940†	2366896.6	2323428.9	5795.3 µg/L	5795.3 ppb	13:13:47
1	Tl 190.801†	-51.6	-29.0	11.077 µg/L	11.077 ppb	13:14:13
1	U 409.014†	-453.9	-294.1	-47.116 µg/L	-47.116 ppb	13:13:47
1	V 292.402†	20666.9	20391.6	260.74 µg/L	260.74 ppb	13:13:52
1	Zn 213.857†	11053.9	10188.2	289.09 µg/L	289.09 ppb	13:13:52
2	Sc RADIAL	77551.7	77551.7	105 %		13:12:47
2	Al 396.153Radial†	172558.2	164802.2	113950 µg/L	113950 ppb	13:12:47
2	Ca 317.933Radial†	25145.8	23754.3	18950 µg/L	18950 ppb	13:13:07
2	Fe 238.204 Radial†	9466.7	9023.5	131070 µg/L	131070 ppb	13:13:07
2	K 766.490 Radial†	29200.1	27474.1	17834 µg/L	17834 ppb	13:12:47
2	Mg 279.077 IEC†	1856.9	1761.5	19138 µg/L	19138 ppb	13:13:07
2	Na 589.592 Radial†	3086.7	2040.0	577.73 µg/L	577.73 ppb	13:13:07
2	Sr 421.552†	40430.1	38017.9	236.81 µg/L	236.81 ppb	13:12:47
2	Sc 361.383	1877714.0	1877714.0	101.83 %		13:14:21
2	Y 371.029	1214234.4	1214234.4	103.68 %		13:14:21
2	Ag 328.068†	-1310.2	-1295.9	-2.0251 µg/L	-2.0251 ppb	13:14:26
2	As 188.979†	5.2	6.4	21.242 µg/L	21.242 ppb	13:14:47
2	B 249.677†	2184.7	2031.3	30.248 µg/L	30.248 ppb	13:14:26
2	Ba 233.527†	77935.3	76539.7	2239.1 µg/L	2239.1 ppb	13:14:26
2	Be 313.107†	21758.4	16965.7	9.6671 µg/L	9.6671 ppb	13:14:26
2	Cd 226.502†	425.9	525.7	0.9832 µg/L	0.9832 ppb	13:14:47
2	Co 228.616†	1272.9	1285.8	59.583 µg/L	59.583 ppb	13:14:47
2	Cr 267.716†	8286.1	8187.9	191.05 µg/L	191.05 ppb	13:14:26
2	Cu 324.752†	12048.8	7997.9	76.202 µg/L	76.202 ppb	13:14:26
2	Mn 257.610†	1259077.0	1236497.3	4615.9 µg/L	4615.9 ppb	13:14:21
2	Mo 202.031†	22.2	5.5	5.6757 µg/L	5.6757 ppb	13:14:47
2	Ni 231.604†	2183.6	1811.6	116.72 µg/L	116.72 ppb	13:14:47
2	P 214.914†	663.0	450.1	1002.8 µg/L	1002.8 ppb	13:14:47
2	Pb 220.353†	521.2	446.3	133.24 µg/L	133.24 ppb	13:14:47

2	S 181.975 Axial†	155.9	128.9	736.52 µg/L	736.52 ppb	13:14:47
2	Sb 206.836†	32.8	10.1	7.7740 µg/L	7.7740 ppb	13:14:47
2	Se 196.026†	-289.8	-294.4	20.476 µg/L	20.476 ppb	13:14:47
2	SiO2†	457020.8	446503.9	94008 µg/L	94008 ppb	13:14:21
2	Si 251.611†	528497.2	518677.6	43408 µg/L	43408 ppb	13:14:21
2	Sn 189.927†	-77.4	-98.0	-38.280 µg/L	-38.280 ppb	13:14:47
2	Ti 334.940†	2368924.1	2325378.7	5800.1 µg/L	5800.1 ppb	13:14:21
2	Tl 190.801†	-54.8	-32.1	5.8584 µg/L	5.8584 ppb	13:14:47
2	U 409.014†	-463.6	-303.7	-47.820 µg/L	-47.820 ppb	13:14:21
2	V 292.402†	20819.4	20541.0	262.52 µg/L	262.52 ppb	13:14:26
2	Zn 213.857†	11107.6	10240.8	290.69 µg/L	290.69 ppb	13:14:26
3	Sc RADIAL	77840.7	77840.7	105 %		13:13:13
3	Al 396.153Radial†	173226.2	164826.0	113960 µg/L	113960 ppb	13:13:13
3	Ca 317.933Radial†	25144.6	23664.0	18878 µg/L	18878 ppb	13:13:33
3	Fe 238.204 Radial†	9457.0	8980.6	130440 µg/L	130440 ppb	13:13:33
3	K 766.490 Radial†	29331.3	27495.4	17848 µg/L	17848 ppb	13:13:13
3	Mg 279.077 IEC†	1853.0	1751.2	19026 µg/L	19026 ppb	13:13:33
3	Na 589.592 Radial†	3064.8	2008.2	568.72 µg/L	568.72 ppb	13:13:33
3	Sr 421.552†	40575.9	38013.2	236.78 µg/L	236.78 ppb	13:13:13
3	Sc 361.383	1885973.0	1885973.0	102.28 %		13:14:55
3	Y 371.029	1218497.2	1218497.2	104.04 %		13:14:55
3	Ag 328.068†	-1169.1	-1152.3	-0.8124 µg/L	-0.8124 ppb	13:15:00
3	As 188.979†	5.4	6.6	21.715 µg/L	21.715 ppb	13:15:21
3	B 249.677†	2087.9	1927.2	25.521 µg/L	25.521 ppb	13:15:00
3	Ba 233.527†	75431.5	73756.5	2157.7 µg/L	2157.7 ppb	13:15:00
3	Be 313.107†	21045.1	16174.8	9.1577 µg/L	9.1577 ppb	13:15:00
3	Cd 226.502†	386.7	485.5	-0.1517 µg/L	-0.1517 ppb	13:15:21
3	Co 228.616†	1195.9	1205.0	55.322 µg/L	55.322 ppb	13:15:21
3	Cr 267.716†	7981.9	7854.8	183.28 µg/L	183.28 ppb	13:15:00
3	Cu 324.752†	11790.5	7693.5	73.909 µg/L	73.909 ppb	13:15:00
3	Mn 257.610†	1243544.2	1215896.0	4539.2 µg/L	4539.2 ppb	13:14:55
3	Mo 202.031†	19.1	2.4	5.2609 µg/L	5.2609 ppb	13:15:21
3	Ni 231.604†	2089.0	1709.7	110.24 µg/L	110.24 ppb	13:15:21
3	P 214.914†	630.5	415.4	920.17 µg/L	920.17 ppb	13:15:21
3	Pb 220.353†	517.7	440.7	131.60 µg/L	131.60 ppb	13:15:21
3	S 181.975 Axial†	154.8	127.2	726.57 µg/L	726.57 ppb	13:15:21
3	Sb 206.836†	32.5	9.7	7.4144 µg/L	7.4144 ppb	13:15:21
3	Se 196.026†	-267.9	-271.8	53.606 µg/L	53.606 ppb	13:15:21
3	SiO2†	453499.1	441095.2	92870 µg/L	92870 ppb	13:14:55
3	Si 251.611†	524291.3	512292.7	42874 µg/L	42874 ppb	13:14:55
3	Sn 189.927†	-69.1	-89.6	-33.402 µg/L	-33.402 ppb	13:15:21
3	Ti 334.940†	2331653.5	2278751.0	5683.8 µg/L	5683.8 ppb	13:14:55
3	Tl 190.801†	-47.0	-24.2	18.255 µg/L	18.255 ppb	13:15:21
3	U 409.014†	-457.7	-295.9	-47.003 µg/L	-47.003 ppb	13:14:55
3	V 292.402†	19985.2	19635.8	251.23 µg/L	251.23 ppb	13:15:00
3	Zn 213.857†	10783.9	9876.5	280.14 µg/L	280.14 ppb	13:15:00

Mean Data: 1202011906|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1880455.9	101.98 %	0.259			0.25%
Sc RADIAL	77551.0	105 %	0.4			0.37%
Y 371.029	1215504.4	103.79 %	0.222			0.21%
Ag 328.068†	-1245.3	-1.5726 µg/L	0.66236	-1.5726 ppb	0.66236	42.12%
Al 396.153Radial†	165100.9	114150 µg/L	343.5	114150 ppb	343.5	0.30%
As 188.979†	8.7	26.749 µg/L	9.1317	26.749 ppb	9.1317	34.14%
B 249.677†	1983.9	27.831 µg/L	2.3655	27.831 ppb	2.3655	8.50%
Ba 233.527†	75449.6	2207.2 µg/L	43.48	2207.2 ppb	43.48	1.97%
Be 313.107†	16677.9	9.4810 µg/L	0.28104	9.4810 ppb	0.28104	2.96%
Ca 317.933Radial†	23810.3	18995 µg/L	144.4	18995 ppb	144.4	0.76%
Cd 226.502†	510.1	0.4905 µg/L	0.58199	0.4905 ppb	0.58199	118.66%
Co 228.616†	1257.5	58.088 µg/L	2.3975	58.088 ppb	2.3975	4.13%
Cr 267.716†	8062.9	188.13 µg/L	4.233	188.13 ppb	4.233	2.25%
Cu 324.752†	7895.7	75.493 µg/L	1.3740	75.493 ppb	1.3740	1.82%
Fe 238.204 Radial†	9038.8	131290 µg/L	974.7	131290 ppb	974.7	0.74%
K 766.490 Radial†	27534.6	17873 µg/L	56.4	17873 ppb	56.4	0.32%
Mg 279.077 IEC†	1760.3	19124 µg/L	91.8	19124 ppb	91.8	0.48%
Mn 257.610†	1229114.5	4588.5 µg/L	42.77	4588.5 ppb	42.77	0.93%
Mo 202.031†	5.6	5.6903 µg/L	0.43681	5.6903 ppb	0.43681	7.68%
Na 589.592 Radial†	2032.1	575.49 µg/L	5.966	575.49 ppb	5.966	1.04%

Ni 231.604†	1781.0	114.78 µg/L	3.946	114.78 ppb	3.946	3.44%
P 214.914†	436.2	969.21 µg/L	43.438	969.21 ppb	43.438	4.48%
Pb 220.353†	444.9	132.82 µg/L	1.069	132.82 ppb	1.069	0.80%
S 181.975 Axial†	130.1	743.25 µg/L	20.863	743.25 ppb	20.863	2.81%
Sb 206.836†	6.1	3.3532 µg/L	7.34780	3.3532 ppb	7.34780	219.13%
Se 196.026†	-288.2	30.976 µg/L	19.6151	30.976 ppb	19.6151	63.32%
SiO2†	444623.0	93612 µg/L	643.7	93612 ppb	643.7	0.69%
Si 251.611†	516412.0	43218 µg/L	299.1	43218 ppb	299.1	0.69%
Sn 189.927†	-99.6	-39.211 µg/L	6.3267	-39.211 ppb	6.3267	16.13%
Sr 421.552†	38088.3	237.25 µg/L	0.785	237.25 ppb	0.785	0.33%
Ti 334.940†	2309186.2	5759.7 µg/L	65.80	5759.7 ppb	65.80	1.14%
Tl 190.801†	-28.5	11.730 µg/L	6.2239	11.730 ppb	6.2239	53.06%
U 409.014†	-297.9	-47.313 µg/L	0.4429	-47.313 ppb	0.4429	0.94%
V 292.402†	20189.5	258.16 µg/L	6.073	258.16 ppb	6.073	2.35%
Zn 213.857†	10101.8	286.64 µg/L	5.688	286.64 ppb	5.688	1.98%

Sequence No.: 5

Sample ID: 1202011908|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 305

Date Collected: 1/26/2010 13:15:31

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011908|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	76971.0	76971.0	104 %			13:16:04
1	Al 396.153Radial†	304096.0	292602.9	202300 µg/L		202300 ppb	13:16:04
1	Ca 317.933Radial†	32403.5	30918.3	24665 µg/L		24665 ppb	13:16:24
1	Fe 238.204 Radial†	11512.5	11060.0	160660 µg/L		160660 ppb	13:16:24
1	K 766.490 Radial†	43489.0	41432.3	26894 µg/L		26894 ppb	13:16:04
1	Mg 279.077 IEC†	2680.8	2567.6	27937 µg/L		27937 ppb	13:16:24
1	Na 589.592 Radial†	22175.8	20428.5	5785.3 µg/L		5785.3 ppb	13:16:04
1	Sr 421.552†	128961.6	123488.6	769.20 µg/L		769.20 ppb	13:16:04
1	Sc 361.383	1872904.9	1872904.9	101.57 %			13:17:30
1	Y 371.029	1210066.6	1210066.6	103.32 %			13:17:30
1	Ag 328.068†	54916.7	54058.7	514.42 µg/L		514.42 ppb	13:17:36
1	As 188.979†	240.8	238.4	555.39 µg/L		555.39 ppb	13:17:57
1	B 249.677†	12780.5	12468.8	520.81 µg/L		520.81 ppb	13:17:36
1	Ba 233.527†	98322.8	96808.6	2832.9 µg/L		2832.9 ppb	13:17:36
1	Be 313.107†	778170.0	761741.1	530.53 µg/L		530.53 ppb	13:17:30
1	Cd 226.502†	17521.8	17358.4	500.11 µg/L		500.11 ppb	13:17:36
1	Co 228.616†	10230.8	10108.5	548.96 µg/L		548.96 ppb	13:17:57
1	Cr 267.716†	28642.3	28250.3	659.11 µg/L		659.11 ppb	13:17:36
1	Cu 324.752†	86361.8	81192.7	610.98 µg/L		610.98 ppb	13:17:36
1	Mn 257.610†	1237319.9	1218251.4	4551.6 µg/L		4551.6 ppb	13:17:30
1	Mo 202.031†	3731.8	3657.8	466.99 µg/L		466.99 ppb	13:17:57
1	Ni 231.604†	9864.5	9379.3	597.34 µg/L		597.34 ppb	13:17:57
1	P 214.914†	970.8	754.8	1689.2 µg/L		1689.2 ppb	13:17:57
1	Pb 220.353†	2333.4	2231.9	665.08 µg/L		665.08 ppb	13:17:57
1	S 181.975 Axial†	1113.2	1071.9	6123.2 µg/L		6123.2 ppb	13:17:57
1	Sb 206.836†	318.9	291.9	320.93 µg/L		320.93 ppb	13:17:57
1	Se 196.026†	-20.0	-29.5	540.99 µg/L		540.99 ppb	13:17:57
1	SiO2†	492202.6	482294.3	101540 µg/L		101540 ppb	13:17:30
1	Si 251.611†	569830.4	560704.6	46925 µg/L		46925 ppb	13:17:30
1	Sn 189.927†	820.8	786.1	492.65 µg/L		492.65 ppb	13:17:57
1	Ti 334.940†	2938693.9	2892315.5	7213.9 µg/L		7213.9 ppb	13:17:30
1	Tl 190.801†	244.0	262.0	526.14 µg/L		526.14 ppb	13:17:57
1	U 409.014†	4424.7	4507.9	398.42 µg/L		398.42 ppb	13:17:36
1	V 292.402†	63797.9	62907.7	795.47 µg/L		795.47 ppb	13:17:36
1	Zn 213.857†	29880.8	28751.8	825.58 µg/L		825.58 ppb	13:17:36
2	Sc RADIAL	77715.5	77715.5	105 %			13:16:30
2	Al 396.153Radial†	306771.1	292348.9	202130 µg/L		202130 ppb	13:16:30
2	Ca 317.933Radial†	32518.9	30729.6	24515 µg/L		24515 ppb	13:16:50
2	Fe 238.204 Radial†	11548.1	10987.8	159610 µg/L		159610 ppb	13:16:50
2	K 766.490 Radial†	43783.1	41311.8	26816 µg/L		26816 ppb	13:16:30
2	Mg 279.077 IEC†	2692.7	2554.2	27791 µg/L		27791 ppb	13:16:50
2	Na 589.592 Radial†	22292.7	20335.6	5759.0 µg/L		5759.0 ppb	13:16:30
2	Sr 421.552†	130097.6	123382.4	768.54 µg/L		768.54 ppb	13:16:30
2	Sc 361.383	1869701.8	1869701.8	101.40 %			13:18:04
2	Y 371.029	1207777.9	1207777.9	103.13 %			13:18:04
2	Ag 328.068†	55014.7	54247.9	516.12 µg/L		516.12 ppb	13:18:10
2	As 188.979†	237.3	235.3	548.21 µg/L		548.21 ppb	13:18:31
2	B 249.677†	12786.4	12496.3	522.69 µg/L		522.69 ppb	13:18:10
2	Ba 233.527†	98434.8	97084.9	2841.0 µg/L		2841.0 ppb	13:18:10
2	Be 313.107†	772907.9	757864.0	527.83 µg/L		527.83 ppb	13:18:04
2	Cd 226.502†	17594.3	17459.5	503.24 µg/L		503.24 ppb	13:18:10
2	Co 228.616†	10150.6	10046.6	545.58 µg/L		545.58 ppb	13:18:31
2	Cr 267.716†	28623.7	28280.3	659.81 µg/L		659.81 ppb	13:18:10
2	Cu 324.752†	86502.5	81477.1	612.89 µg/L		612.89 ppb	13:18:10
2	Mn 257.610†	1228781.4	1211917.5	4527.9 µg/L		4527.9 ppb	13:18:04
2	Mo 202.031†	3702.4	3635.1	464.10 µg/L		464.10 ppb	13:18:31
2	Ni 231.604†	9824.3	9356.3	595.87 µg/L		595.87 ppb	13:18:31
2	P 214.914†	970.2	755.8	1692.4 µg/L		1692.4 ppb	13:18:31
2	Pb 220.353†	2355.2	2257.3	672.60 µg/L		672.60 ppb	13:18:31

2	S 181.975 Axial†	1109.4	1070.0	6112.4 µg/L	6112.4 ppb	13:18:31
2	Sb 206.836†	315.9	289.4	318.16 µg/L	318.16 ppb	13:18:31
2	Se 196.026†	-12.2	-21.9	549.04 µg/L	549.04 ppb	13:18:31
2	SiO2†	489059.0	480024.3	101070 µg/L	101070 ppb	13:18:04
2	Si 251.611†	565699.1	557591.4	46665 µg/L	46665 ppb	13:18:04
2	Sn 189.927†	819.7	786.4	492.70 µg/L	492.70 ppb	13:18:31
2	Ti 334.940†	2920351.8	2879182.7	7181.2 µg/L	7181.2 ppb	13:18:04
2	Tl 190.801†	242.7	261.0	524.21 µg/L	524.21 ppb	13:18:31
2	U 409.014†	4388.8	4479.9	395.96 µg/L	395.96 ppb	13:18:10
2	V 292.402†	63896.4	63112.5	797.93 µg/L	797.93 ppb	13:18:10
2	Zn 213.857†	29951.7	28872.2	829.15 µg/L	829.15 ppb	13:18:10
3	Sc RADIAL	77990.0	77990.0	105 %		13:16:56
3	Al 396.153Radial†	305241.8	289868.0	200410 µg/L	200410 ppb	13:16:56
3	Ca 317.933Radial†	32300.1	30412.8	24262 µg/L	24262 ppb	13:17:16
3	Fe 238.204 Radial†	11474.5	10879.2	158030 µg/L	158030 ppb	13:17:16
3	K 766.490 Radial†	43649.8	41038.4	26639 µg/L	26639 ppb	13:16:56
3	Mg 279.077 IEC†	2664.1	2518.0	27396 µg/L	27396 ppb	13:17:16
3	Na 589.592 Radial†	22284.1	20252.6	5735.5 µg/L	5735.5 ppb	13:16:56
3	Sr 421.552†	129490.4	122369.5	762.23 µg/L	762.23 ppb	13:16:56
3	Sc 361.383	1876319.6	1876319.6	101.76 %		13:18:38
3	Y 371.029	1211389.4	1211389.4	103.43 %		13:18:38
3	Ag 328.068†	54293.7	53348.0	507.51 µg/L	507.51 ppb	13:18:44
3	As 188.979†	228.0	225.4	525.41 µg/L	525.41 ppb	13:19:04
3	B 249.677†	12496.2	12166.5	507.51 µg/L	507.51 ppb	13:18:44
3	Ba 233.527†	95739.0	94093.2	2753.4 µg/L	2753.4 ppb	13:18:44
3	Be 313.107†	763130.3	745566.5	519.27 µg/L	519.27 ppb	13:18:38
3	Cd 226.502†	17157.7	16969.3	488.76 µg/L	488.76 ppb	13:18:44
3	Co 228.616†	9611.7	9481.7	514.33 µg/L	514.33 ppb	13:19:04
3	Cr 267.716†	27611.2	27185.7	634.27 µg/L	634.27 ppb	13:18:44
3	Cu 324.752†	83756.4	78477.4	590.93 µg/L	590.93 ppb	13:18:44
3	Mn 257.610†	1214829.6	1193932.0	4460.8 µg/L	4460.8 ppb	13:18:38
3	Mo 202.031†	3503.0	3426.3	437.72 µg/L	437.72 ppb	13:19:04
3	Ni 231.604†	9292.7	8799.6	560.52 µg/L	560.52 ppb	13:19:04
3	P 214.914†	936.0	718.8	1606.0 µg/L	1606.0 ppb	13:19:04
3	Pb 220.353†	2255.3	2150.9	641.09 µg/L	641.09 ppb	13:19:04
3	S 181.975 Axial†	1080.2	1037.4	5926.6 µg/L	5926.6 ppb	13:19:04
3	Sb 206.836†	299.8	272.5	299.38 µg/L	299.38 ppb	13:19:04
3	Se 196.026†	-6.9	-16.6	551.57 µg/L	551.57 ppb	13:19:04
3	SiO2†	484782.8	474120.6	99823 µg/L	99823 ppb	13:18:38
3	Si 251.611†	560750.7	550760.5	46093 µg/L	46093 ppb	13:18:38
3	Sn 189.927†	770.4	735.0	461.89 µg/L	461.89 ppb	13:19:04
3	Ti 334.940†	2877504.6	2826916.2	7050.8 µg/L	7050.8 ppb	13:18:38
3	Tl 190.801†	224.4	242.2	490.25 µg/L	490.25 ppb	13:19:04
3	U 409.014†	4190.6	4269.9	376.51 µg/L	376.51 ppb	13:18:44
3	V 292.402†	61636.4	60669.1	767.21 µg/L	767.21 ppb	13:18:44
3	Zn 213.857†	29097.7	27928.7	801.93 µg/L	801.93 ppb	13:18:44

Mean Data: 1202011908|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1872975.4	101.57 %	0.179			0.18%
Sc RADIAL	77558.8	105 %	0.7			0.68%
Y 371.029	1209744.6	103.29 %	0.156			0.15%
Ag 328.068†	53884.9	512.69 µg/L	4.560	512.69 ppb	4.560	0.89%
Al 396.153Radial†	291606.6	201610 µg/L	1044.4	201610 ppb	1044.4	0.52%
As 188.979†	233.0	543.00 µg/L	15.655	543.00 ppb	15.655	2.88%
B 249.677†	12377.2	517.00 µg/L	8.275	517.00 ppb	8.275	1.60%
Ba 233.527†	95995.6	2809.1 µg/L	48.39	2809.1 ppb	48.39	1.72%
Be 313.107†	755057.2	525.88 µg/L	5.879	525.88 ppb	5.879	1.12%
Ca 317.933Radial†	30686.9	24481 µg/L	203.8	24481 ppb	203.8	0.83%
Cd 226.502†	17262.4	497.37 µg/L	7.616	497.37 ppb	7.616	1.53%
Co 228.616†	9878.9	536.29 µg/L	19.093	536.29 ppb	19.093	3.56%
Cr 267.716†	27905.4	651.06 µg/L	14.546	651.06 ppb	14.546	2.23%
Cu 324.752†	80382.4	604.93 µg/L	12.167	604.93 ppb	12.167	2.01%
Fe 238.204 Radial†	10975.6	159430 µg/L	1322.6	159430 ppb	1322.6	0.83%
K 766.490 Radial†	41260.8	26783 µg/L	131.0	26783 ppb	131.0	0.49%
Mg 279.077 IEC†	2546.6	27708 µg/L	279.6	27708 ppb	279.6	1.01%
Mn 257.610†	1208033.6	4513.4 µg/L	47.09	4513.4 ppb	47.09	1.04%
Mo 202.031†	3573.1	456.27 µg/L	16.131	456.27 ppb	16.131	3.54%
Na 589.592 Radial†	20338.9	5760.0 µg/L	24.93	5760.0 ppb	24.93	0.43%



Ni 231.604†	9178.4	584.58 µg/L	20.846	584.58 ppb	20.846	3.57%
P 214.914†	743.1	1662.6 µg/L	49.01	1662.6 ppb	49.01	2.95%
Pb 220.353†	2213.3	659.59 µg/L	16.458	659.59 ppb	16.458	2.50%
S 181.975 Axial†	1059.7	6054.1 µg/L	110.54	6054.1 ppb	110.54	1.83%
Sb 206.836†	284.6	312.83 µg/L	11.724	312.83 ppb	11.724	3.75%
Se 196.026†	-22.7	547.20 µg/L	5.524	547.20 ppb	5.524	1.01%
SiO2†	478813.0	100810 µg/L	888.4	100810 ppb	888.4	0.88%
Si 251.611†	556352.2	46561 µg/L	425.7	46561 ppb	425.7	0.91%
Sn 189.927†	769.2	482.41 µg/L	17.771	482.41 ppb	17.771	3.68%
Sr 421.552†	123080.1	766.66 µg/L	3.848	766.66 ppb	3.848	0.50%
Ti 334.940†	2866138.1	7148.6 µg/L	86.29	7148.6 ppb	86.29	1.21%
Tl 190.801†	255.0	513.54 µg/L	20.187	513.54 ppb	20.187	3.93%
U 409.014†	4419.2	390.30 µg/L	11.998	390.30 ppb	11.998	3.07%
V 292.402†	62229.8	786.87 µg/L	17.068	786.87 ppb	17.068	2.17%
Zn 213.857†	28517.5	818.89 µg/L	14.794	818.89 ppb	14.794	1.81%

Sequence No.: 6

Sample ID: 1202011909|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 306

Date Collected: 1/26/2010 13:19:13

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011909|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77305.5	77305.5	104 %		13:19:47
1	Al 396.153Radial†	277559.0	265915.2	183850 µg/L	183850 ppb	13:19:47
1	Ca 317.933Radial†	31829.7	30233.8	24119 µg/L	24119 ppb	13:20:07
1	Fe 238.204 Radial†	10220.3	9774.2	141980 µg/L	141980 ppb	13:20:07
1	K 766.490 Radial†	40352.5	38246.7	24826 µg/L	24826 ppb	13:19:47
1	Mg 279.077 IEC†	2482.2	2366.2	25752 µg/L	25752 ppb	13:20:07
1	Na 589.592 Radial†	22135.2	20297.4	5748.2 µg/L	5748.2 ppb	13:19:47
1	Sr 421.552†	126003.5	120118.0	748.21 µg/L	748.21 ppb	13:19:47
1	Sc 361.383	1872372.0	1872372.0	101.54 %		13:21:13
1	Y 371.029	1206578.8	1206578.8	103.02 %		13:21:13
1	Ag 328.068†	54119.4	53288.9	505.87 µg/L	505.87 ppb	13:21:19
1	As 188.979†	241.8	239.4	556.64 µg/L	556.64 ppb	13:21:40
1	B 249.677†	12480.9	12177.4	516.42 µg/L	516.42 ppb	13:21:19
1	Ba 233.527†	88194.3	86861.4	2541.9 µg/L	2541.9 ppb	13:21:19
1	Be 313.107†	769504.8	753425.4	525.01 µg/L	525.01 ppb	13:21:13
1	Cd 226.502†	17268.0	17113.4	494.91 µg/L	494.91 ppb	13:21:19
1	Co 228.616†	10138.8	10020.7	545.71 µg/L	545.71 ppb	13:21:19
1	Cr 267.716†	27815.7	27444.3	640.29 µg/L	640.29 ppb	13:21:19
1	Cu 324.752†	84975.9	79852.0	598.66 µg/L	598.66 ppb	13:21:19
1	Mn 257.610†	1139140.5	1121908.6	4190.9 µg/L	4190.9 ppb	13:21:13
1	Mo 202.031†	3725.0	3652.1	465.57 µg/L	465.57 ppb	13:21:40
1	Ni 231.604†	9810.4	9328.8	593.90 µg/L	593.90 ppb	13:21:19
1	P 214.914†	1082.6	865.2	1966.1 µg/L	1966.1 ppb	13:21:40
1	Pb 220.353†	2250.6	2150.9	640.78 µg/L	640.78 ppb	13:21:40
1	S 181.975 Axial†	1103.7	1062.8	6071.4 µg/L	6071.4 ppb	13:21:40
1	Sb 206.836†	336.1	308.9	339.97 µg/L	339.97 ppb	13:21:40
1	Se 196.026†	32.6	22.2	553.49 µg/L	553.49 ppb	13:21:40
1	SiO2†	491246.1	481490.2	101370 µg/L	101370 ppb	13:21:13
1	Si 251.611†	568268.0	559325.7	46810 µg/L	46810 ppb	13:21:13
1	Sn 189.927†	838.6	803.8	500.92 µg/L	500.92 ppb	13:21:40
1	Ti 334.940†	2618363.7	2577670.0	6429.1 µg/L	6429.1 ppb	13:21:13
1	Tl 190.801†	246.7	264.7	523.31 µg/L	523.31 ppb	13:21:40
1	U 409.014†	5125.9	5199.7	465.85 µg/L	465.85 ppb	13:21:13
1	V 292.402†	60433.6	59612.4	753.56 µg/L	753.56 ppb	13:21:19
1	Zn 213.857†	28366.9	27269.2	783.39 µg/L	783.39 ppb	13:21:19
2	Sc RADIAL	77510.6	77510.6	105 %		13:20:13
2	Al 396.153Radial†	276170.1	263884.5	182440 µg/L	182440 ppb	13:20:13
2	Ca 317.933Radial†	31565.4	29900.5	23853 µg/L	23853 ppb	13:20:33
2	Fe 238.204 Radial†	10130.1	9662.1	140350 µg/L	140350 ppb	13:20:33
2	K 766.490 Radial†	40075.5	37879.7	24588 µg/L	24588 ppb	13:20:13
2	Mg 279.077 IEC†	2470.4	2348.7	25562 µg/L	25562 ppb	13:20:33
2	Na 589.592 Radial†	22060.8	20170.2	5712.2 µg/L	5712.2 ppb	13:20:13
2	Sr 421.552†	125212.5	119042.8	741.51 µg/L	741.51 ppb	13:20:13
2	Sc 361.383	1874333.0	1874333.0	101.65 %		13:21:48
2	Y 371.029	1207270.3	1207270.3	103.08 %		13:21:48
2	Ag 328.068†	54678.9	53783.5	510.38 µg/L	510.38 ppb	13:21:53
2	As 188.979†	236.3	233.7	543.63 µg/L	543.63 ppb	13:22:14
2	B 249.677†	12614.6	12296.1	523.03 µg/L	523.03 ppb	13:21:53
2	Ba 233.527†	89189.5	87749.6	2567.9 µg/L	2567.9 ppb	13:21:53
2	Be 313.107†	771834.9	754924.9	526.06 µg/L	526.06 ppb	13:21:48
2	Cd 226.502†	17521.7	17345.2	502.01 µg/L	502.01 ppb	13:21:53
2	Co 228.616†	10222.1	10092.2	549.67 µg/L	549.67 ppb	13:21:53
2	Cr 267.716†	28194.9	27788.7	648.32 µg/L	648.32 ppb	13:21:53
2	Cu 324.752†	85765.2	80541.0	603.43 µg/L	603.43 ppb	13:21:53
2	Mn 257.610†	1142243.8	1123787.9	4197.6 µg/L	4197.6 ppb	13:21:48
2	Mo 202.031†	3714.2	3637.7	463.69 µg/L	463.69 ppb	13:22:14
2	Ni 231.604†	9896.3	9403.2	598.60 µg/L	598.60 ppb	13:21:53
2	P 214.914†	1072.2	853.8	1939.0 µg/L	1939.0 ppb	13:22:14
2	Pb 220.353†	2241.6	2139.8	637.45 µg/L	637.45 ppb	13:22:14

2	S 181.975 Axial†	1110.2	1068.1	6101.7 µg/L	6101.7 ppb	13:22:14
2	Sb 206.836†	329.6	302.2	332.43 µg/L	332.43 ppb	13:22:14
2	Se 196.026†	27.4	17.1	539.48 µg/L	539.48 ppb	13:22:14
2	SiO2†	492840.2	482552.4	101600 µg/L	101600 ppb	13:21:48
2	Si 251.611†	569869.2	560315.4	46893 µg/L	46893 ppb	13:21:48
2	Sn 189.927†	833.6	798.0	497.24 µg/L	497.24 ppb	13:22:14
2	Ti 334.940†	2626633.0	2583107.4	6442.7 µg/L	6442.7 ppb	13:21:48
2	Tl 190.801†	252.4	270.0	532.74 µg/L	532.74 ppb	13:22:14
2	U 409.014†	5226.0	5292.8	474.82 µg/L	474.82 ppb	13:21:48
2	V 292.402†	61057.2	60163.6	760.33 µg/L	760.33 ppb	13:21:53
2	Zn 213.857†	28650.3	27518.8	790.73 µg/L	790.73 ppb	13:21:53
3	Sc RADIAL	77268.9	77268.9	104 %		13:20:39
3	Al 396.153Radial†	274541.1	263148.6	181940 µg/L	181940 ppb	13:20:39
3	Ca 317.933Radial†	31666.0	30091.3	24005 µg/L	24005 ppb	13:20:59
3	Fe 238.204 Radial†	10167.9	9728.6	141320 µg/L	141320 ppb	13:20:59
3	K 766.490 Radial†	39907.6	37838.5	24561 µg/L	24561 ppb	13:20:39
3	Mg 279.077 IEC†	2481.8	2366.9	25760 µg/L	25760 ppb	13:20:59
3	Na 589.592 Radial†	21955.0	20134.7	5702.1 µg/L	5702.1 ppb	13:20:39
3	Sr 421.552†	124604.1	118833.8	740.21 µg/L	740.21 ppb	13:20:39
3	Sc 361.383	1872514.9	1872514.9	101.55 %		13:22:22
3	Y 371.029	1205719.4	1205719.4	102.95 %		13:22:22
3	Ag 328.068†	54016.0	53182.9	504.73 µg/L	504.73 ppb	13:22:28
3	As 188.979†	220.0	217.9	507.26 µg/L	507.26 ppb	13:22:48
3	B 249.677†	12362.2	12059.6	511.04 µg/L	511.04 ppb	13:22:28
3	Ba 233.527†	86650.9	85334.9	2497.2 µg/L	2497.2 ppb	13:22:28
3	Be 313.107†	757949.7	741988.7	517.05 µg/L	517.05 ppb	13:22:22
3	Cd 226.502†	17064.4	16911.7	488.95 µg/L	488.95 ppb	13:22:28
3	Co 228.616†	9892.7	9777.5	532.36 µg/L	532.36 ppb	13:22:28
3	Cr 267.716†	27101.5	26738.8	623.83 µg/L	623.83 ppb	13:22:28
3	Cu 324.752†	83227.9	78124.3	586.04 µg/L	586.04 ppb	13:22:28
3	Mn 257.610†	1122770.8	1105703.0	4130.5 µg/L	4130.5 ppb	13:22:22
3	Mo 202.031†	3477.1	3407.8	434.75 µg/L	434.75 ppb	13:22:48
3	Ni 231.604†	9610.8	9131.5	581.36 µg/L	581.36 ppb	13:22:28
3	P 214.914†	1034.5	817.8	1852.7 µg/L	1852.7 ppb	13:22:48
3	Pb 220.353†	2160.5	2062.0	614.33 µg/L	614.33 ppb	13:22:48
3	S 181.975 Axial†	1060.7	1020.3	5828.9 µg/L	5828.9 ppb	13:22:48
3	Sb 206.836†	308.2	281.4	309.31 µg/L	309.31 ppb	13:22:48
3	Se 196.026†	33.8	23.5	553.00 µg/L	553.00 ppb	13:22:48
3	SiO2†	485060.0	475361.6	100080 µg/L	100080 ppb	13:22:22
3	Si 251.611†	561157.9	552281.3	46220 µg/L	46220 ppb	13:22:22
3	Sn 189.927†	769.0	735.3	460.12 µg/L	460.12 ppb	13:22:48
3	Ti 334.940†	2572542.0	2532350.4	6316.0 µg/L	6316.0 ppb	13:22:22
3	Tl 190.801†	228.4	246.6	490.82 µg/L	490.82 ppb	13:22:48
3	U 409.014†	5145.2	5218.3	467.69 µg/L	467.69 ppb	13:22:22
3	V 292.402†	58966.6	58163.2	735.25 µg/L	735.25 ppb	13:22:28
3	Zn 213.857†	27859.1	26767.0	768.86 µg/L	768.86 ppb	13:22:28

## Mean Data: 1202011909|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1873073.3	101.58 %	0.059			0.06%
Sc RADIAL	77361.6	104 %	0.2			0.17%
Y 371.029	1206522.8	103.02 %	0.066			0.06%
Ag 328.068†	53418.4	506.99 µg/L	2.987	506.99 ppb	2.987	0.59%
Al 396.153Radial†	264316.1	182740 µg/L	990.5	182740 ppb	990.5	0.54%
As 188.979†	230.3	535.85 µg/L	25.595	535.85 ppb	25.595	4.78%
B 249.677†	12177.7	516.83 µg/L	6.006	516.83 ppb	6.006	1.16%
Ba 233.527†	86648.6	2535.6 µg/L	35.74	2535.6 ppb	35.74	1.41%
Be 313.107†	750113.0	522.70 µg/L	4.927	522.70 ppb	4.927	0.94%
Ca 317.933Radial†	30075.2	23993 µg/L	133.4	23993 ppb	133.4	0.56%
Cd 226.502†	17123.4	495.29 µg/L	6.536	495.29 ppb	6.536	1.32%
Co 228.616†	9963.5	542.58 µg/L	9.069	542.58 ppb	9.069	1.67%
Cr 267.716†	27323.9	637.48 µg/L	12.485	637.48 ppb	12.485	1.96%
Cu 324.752†	79505.7	596.04 µg/L	8.984	596.04 ppb	8.984	1.51%
Fe 238.204 Radial†	9721.6	141220 µg/L	819.0	141220 ppb	819.0	0.58%
K 766.490 Radial†	37988.3	24659 µg/L	145.8	24659 ppb	145.8	0.59%
Mg 279.077 IEC†	2360.6	25691 µg/L	112.0	25691 ppb	112.0	0.44%
Mn 257.610†	1117133.1	4173.0 µg/L	36.97	4173.0 ppb	36.97	0.89%
Mo 202.031†	3565.9	454.67 µg/L	17.276	454.67 ppb	17.276	3.80%
Na 589.592 Radial†	20200.7	5720.8 µg/L	24.23	5720.8 ppb	24.23	0.42%

Ni 231.604†	9287.8	591.29 µg/L	8.907	591.29 ppb	8.907	1.51%
P 214.914†	845.6	1919.3 µg/L	59.24	1919.3 ppb	59.24	3.09%
Pb 220.353†	2117.6	630.85 µg/L	14.404	630.85 ppb	14.404	2.28%
S 181.975 Axial†	1050.4	6000.7 µg/L	149.51	6000.7 ppb	149.51	2.49%
Sb 206.836†	297.5	327.24 µg/L	15.975	327.24 ppb	15.975	4.88%
Se 196.026†	20.9	548.66 µg/L	7.949	548.66 ppb	7.949	1.45%
SiO2†	479801.4	101020 µg/L	817.2	101020 ppb	817.2	0.81%
Si 251.611†	557307.4	46641 µg/L	366.6	46641 ppb	366.6	0.79%
Sn 189.927†	779.0	486.09 µg/L	22.568	486.09 ppb	22.568	4.64%
Sr 421.552†	119331.5	743.31 µg/L	4.292	743.31 ppb	4.292	0.58%
Ti 334.940†	2564376.0	6395.9 µg/L	69.53	6395.9 ppb	69.53	1.09%
Tl 190.801†	260.4	515.62 µg/L	21.992	515.62 ppb	21.992	4.27%
U 409.014†	5236.9	469.45 µg/L	4.736	469.45 ppb	4.736	1.01%
V 292.402†	59313.1	749.71 µg/L	12.977	749.71 ppb	12.977	1.73%
Zn 213.857†	27185.0	780.99 µg/L	11.133	780.99 ppb	11.133	1.43%

Sequence No.: 7

Sample ID: 1202011907|940180|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 307

Date Collected: 1/26/2010 13:22:57

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011907|940180|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	75019.1	75019.1	101 %		13:23:30
1	Al 396.153Radial†	33351.1	32944.0	22778 µg/L	22778 ppb	13:23:30
1	Ca 317.933Radial†	5281.7	4955.6	3953.4 µg/L	3953.4 ppb	13:23:50
1	Fe 238.204 Radial†	2031.9	1989.2	28893 µg/L	28893 ppb	13:23:50
1	K 766.490 Radial†	6401.6	5909.5	3835.9 µg/L	3835.9 ppb	13:23:30
1	Mg 279.077 IEC†	396.0	379.2	4119.3 µg/L	4119.3 ppb	13:23:50
1	Na 589.592 Radial†	1000.8	80.4	22.756 µg/L	22.756 ppb	13:23:30
1	Sr 421.552†	8794.8	8091.8	50.403 µg/L	50.403 ppb	13:23:30
1	Sc 361.383	1875510.8	1875510.8	101.71 %		13:24:53
1	Y 371.029	1191828.3	1191828.3	101.76 %		13:24:53
1	Ag 328.068†	-348.6	-352.0	-1.0647 µg/L	-1.0647 ppb	13:24:59
1	As 188.979†	5.2	6.3	16.056 µg/L	16.056 ppb	13:25:19
1	B 249.677†	516.4	393.6	4.0250 µg/L	4.0250 ppb	13:24:59
1	Ba 233.527†	15960.2	15697.2	459.21 µg/L	459.21 ppb	13:24:59
1	Be 313.107†	7619.9	3090.2	1.7320 µg/L	1.7320 ppb	13:24:59
1	Cd 226.502†	-0.2	107.3	-0.0463 µg/L	-0.0463 ppb	13:25:19
1	Co 228.616†	246.3	277.9	13.130 µg/L	13.130 ppb	13:25:19
1	Cr 267.716†	1225.7	1255.8	29.311 µg/L	29.311 ppb	13:24:59
1	Cu 324.752†	5114.1	1193.7	12.670 µg/L	12.670 ppb	13:24:59
1	Mn 257.610†	290734.6	285898.8	1067.1 µg/L	1067.1 ppb	13:24:53
1	Mo 202.031†	12.7	-3.8	0.6244 µg/L	0.6244 ppb	13:25:19
1	Ni 231.604†	642.5	298.9	19.347 µg/L	19.347 ppb	13:25:19
1	P 214.914†	313.9	107.6	240.93 µg/L	240.93 ppb	13:25:19
1	Pb 220.353†	169.5	101.2	30.081 µg/L	30.081 ppb	13:25:19
1	S 181.975 Axial†	43.7	18.8	107.28 µg/L	107.28 ppb	13:25:19
1	Sb 206.836†	22.9	0.4	-0.1472 µg/L	-0.1472 ppb	13:25:19
1	Se 196.026†	-59.7	-68.6	-1.2617 µg/L	-1.2617 ppb	13:25:19
1	SiO2†	95136.0	91234.6	19209 µg/L	19209 ppb	13:24:59
1	Si 251.611†	108646.9	106500.6	8913.0 µg/L	8913.0 ppb	13:24:59
1	Sn 189.927†	0.7	-21.4	-8.3837 µg/L	-8.3837 ppb	13:25:19
1	Ti 334.940†	462575.8	453835.5	1132.0 µg/L	1132.0 ppb	13:24:53
1	Tl 190.801†	-25.2	-3.1	7.1449 µg/L	7.1449 ppb	13:25:19
1	U 409.014†	-291.2	-134.7	-16.876 µg/L	-16.876 ppb	13:24:59
1	V 292.402†	4436.1	4457.4	56.951 µg/L	56.951 ppb	13:24:59
1	Zn 213.857†	2571.3	1860.9	52.556 µg/L	52.556 ppb	13:25:19
2	Sc RADIAL	75655.0	75655.0	102 %		13:23:56
2	Al 396.153Radial†	33538.2	32850.4	22713 µg/L	22713 ppb	13:23:56
2	Ca 317.933Radial†	5307.5	4937.0	3938.5 µg/L	3938.5 ppb	13:24:16
2	Fe 238.204 Radial†	2038.2	1978.5	28738 µg/L	28738 ppb	13:24:16
2	K 766.490 Radial†	6422.8	5877.1	3814.9 µg/L	3814.9 ppb	13:23:56
2	Mg 279.077 IEC†	394.6	374.6	4069.0 µg/L	4069.0 ppb	13:24:16
2	Na 589.592 Radial†	1027.5	98.1	27.795 µg/L	27.795 ppb	13:23:56
2	Sr 421.552†	8936.1	8157.1	50.810 µg/L	50.810 ppb	13:23:56
2	Sc 361.383	1866088.5	1866088.5	101.20 %		13:25:26
2	Y 371.029	1185552.2	1185552.2	101.23 %		13:25:26
2	Ag 328.068†	-330.9	-336.3	-0.9289 µg/L	-0.9289 ppb	13:25:32
2	As 188.979†	-0.7	0.6	2.7553 µg/L	2.7553 ppb	13:25:52
2	B 249.677†	537.2	416.8	5.2243 µg/L	5.2243 ppb	13:25:32
2	Ba 233.527†	16033.1	15848.5	463.64 µg/L	463.64 ppb	13:25:32
2	Be 313.107†	7642.9	3150.8	1.7722 µg/L	1.7722 ppb	13:25:32
2	Cd 226.502†	-7.4	100.2	-0.2419 µg/L	-0.2419 ppb	13:25:52
2	Co 228.616†	242.7	275.6	12.992 µg/L	12.992 ppb	13:25:52
2	Cr 267.716†	1190.9	1227.4	28.651 µg/L	28.651 ppb	13:25:32
2	Cu 324.752†	5148.2	1252.8	13.077 µg/L	13.077 ppb	13:25:32
2	Mn 257.610†	290510.7	287120.8	1071.6 µg/L	1071.6 ppb	13:25:26
2	Mo 202.031†	8.7	-7.7	0.1237 µg/L	0.1237 ppb	13:25:52
2	Ni 231.604†	634.8	294.5	19.069 µg/L	19.069 ppb	13:25:52
2	P 214.914†	310.9	106.2	237.73 µg/L	237.73 ppb	13:25:52
2	Pb 220.353†	175.3	107.8	32.040 µg/L	32.040 ppb	13:25:52

2	S 181.975 Axial†	52.4	27.6	157.63 µg/L	157.63 ppb	13:25:52
2	Sb 206.836†	25.2	2.8	2.5084 µg/L	2.5084 ppb	13:25:52
2	Se 196.026†	-47.5	-56.8	16.623 µg/L	16.623 ppb	13:25:52
2	SiO2†	95678.7	92243.2	19421 µg/L	19421 ppb	13:25:32
2	Si 251.611†	109307.2	107692.5	9012.7 µg/L	9012.7 ppb	13:25:32
2	Sn 189.927†	-1.9	-23.9	-9.9117 µg/L	-9.9117 ppb	13:25:52
2	Ti 334.940†	462567.3	456123.5	1137.7 µg/L	1137.7 ppb	13:25:26
2	Tl 190.801†	-30.8	-8.8	-2.6650 µg/L	-2.6650 ppb	13:25:52
2	U 409.014†	-376.6	-220.6	-24.894 µg/L	-24.894 ppb	13:25:32
2	V 292.402†	4416.5	4460.0	56.962 µg/L	56.962 ppb	13:25:32
2	Zn 213.857†	2575.4	1877.7	53.058 µg/L	53.058 ppb	13:25:52
3	Sc RADIAL	74868.2	74868.2	101 %		13:24:22
3	Al 396.153Radial†	33282.7	32942.8	22777 µg/L	22777 ppb	13:24:22
3	Ca 317.933Radial†	5291.9	4976.2	3969.8 µg/L	3969.8 ppb	13:24:42
3	Fe 238.204 Radial†	2032.0	1993.4	28954 µg/L	28954 ppb	13:24:42
3	K 766.490 Radial†	6368.6	5889.6	3823.0 µg/L	3823.0 ppb	13:24:22
3	Mg 279.077 IEC†	394.8	378.9	4115.4 µg/L	4115.4 ppb	13:24:42
3	Na 589.592 Radial†	971.7	53.6	15.173 µg/L	15.173 ppb	13:24:22
3	Sr 421.552†	8830.9	8145.0	50.735 µg/L	50.735 ppb	13:24:22
3	Sc 361.383	1874850.2	1874850.2	101.68 %		13:25:59
3	Y 371.029	1191725.8	1191725.8	101.76 %		13:25:59
3	Ag 328.068†	-320.8	-324.8	-0.8261 µg/L	-0.8261 ppb	13:26:05
3	As 188.979†	0.7	2.0	6.0527 µg/L	6.0527 ppb	13:26:25
3	B 249.677†	512.1	389.5	3.7897 µg/L	3.7897 ppb	13:26:05
3	Ba 233.527†	15392.9	15144.7	443.05 µg/L	443.05 ppb	13:26:05
3	Be 313.107†	7402.8	2879.3	1.5939 µg/L	1.5939 ppb	13:26:05
3	Cd 226.502†	-12.8	94.8	-0.4271 µg/L	-0.4271 ppb	13:26:25
3	Co 228.616†	210.6	242.9	11.233 µg/L	11.233 ppb	13:26:25
3	Cr 267.716†	1113.1	1145.4	26.737 µg/L	26.737 ppb	13:26:05
3	Cu 324.752†	5124.3	1205.5	12.765 µg/L	12.765 ppb	13:26:05
3	Mn 257.610†	285535.1	280885.7	1048.5 µg/L	1048.5 ppb	13:25:59
3	Mo 202.031†	14.7	-1.8	0.8713 µg/L	0.8713 ppb	13:26:25
3	Ni 231.604†	602.7	260.0	16.883 µg/L	16.883 ppb	13:26:25
3	P 214.914†	310.2	104.1	232.46 µg/L	232.46 ppb	13:26:25
3	Pb 220.353†	159.2	91.1	27.109 µg/L	27.109 ppb	13:26:25
3	S 181.975 Axial†	47.4	22.5	128.29 µg/L	128.29 ppb	13:26:25
3	Sb 206.836†	19.6	-2.8	-3.6690 µg/L	-3.6690 ppb	13:26:25
3	Se 196.026†	-47.0	-56.1	18.484 µg/L	18.484 ppb	13:26:25
3	SiO2†	92558.5	88732.6	18682 µg/L	18682 ppb	13:26:05
3	Si 251.611†	105561.0	103503.2	8662.1 µg/L	8662.1 ppb	13:26:05
3	Sn 189.927†	-1.4	-23.5	-9.5945 µg/L	-9.5945 ppb	13:26:25
3	Ti 334.940†	452275.4	443865.1	1107.1 µg/L	1107.1 ppb	13:25:59
3	Tl 190.801†	-24.9	-2.8	7.4160 µg/L	7.4160 ppb	13:26:25
3	U 409.014†	-327.6	-170.6	-20.250 µg/L	-20.250 ppb	13:26:05
3	V 292.402†	4225.9	4252.2	54.398 µg/L	54.398 ppb	13:26:05
3	Zn 213.857†	2385.1	1678.6	47.250 µg/L	47.250 ppb	13:26:25

Mean Data: 1202011907|940180|5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1872149.8	101.53 %	0.285			0.28%
Sc RADIAL	75180.8	102 %	0.6			0.56%
Y 371.029	1189702.1	101.58 %	0.307			0.30%
Ag 328.068†	-337.7	-0.9399 µg/L	0.11967	-0.9399 ppb	0.11967	12.73%
Al 396.153Radial†	32912.4	22756 µg/L	37.1	22756 ppb	37.1	0.16%
As 188.979†	3.0	8.2879 µg/L	6.92613	8.2879 ppb	6.92613	83.57%
B 249.677†	400.0	4.3463 µg/L	0.76939	4.3463 ppb	0.76939	17.70%
Ba 233.527†	15563.4	455.30 µg/L	10.837	455.30 ppb	10.837	2.38%
Be 313.107†	3040.1	1.6994 µg/L	0.09356	1.6994 ppb	0.09356	5.51%
Ca 317.933Radial†	4956.3	3953.9 µg/L	15.63	3953.9 ppb	15.63	0.40%
Cd 226.502†	100.8	-0.2384 µg/L	0.19041	-0.2384 ppb	0.19041	79.86%
Co 228.616†	265.5	12.452 µg/L	1.0577	12.452 ppb	1.0577	8.49%
Cr 267.716†	1209.5	28.233 µg/L	1.3371	28.233 ppb	1.3371	4.74%
Cu 324.752†	1217.3	12.837 µg/L	0.2129	12.837 ppb	0.2129	1.66%
Fe 238.204 Radial†	1987.1	28862 µg/L	111.1	28862 ppb	111.1	0.38%
K 766.490 Radial†	5892.0	3824.6 µg/L	10.59	3824.6 ppb	10.59	0.28%
Mg 279.077 IEC†	377.6	4101.2 µg/L	27.96	4101.2 ppb	27.96	0.68%
Mn 257.610†	284635.1	1062.4 µg/L	12.28	1062.4 ppb	12.28	1.16%
Mo 202.031†	-4.4	0.5398 µg/L	0.38088	0.5398 ppb	0.38088	70.56%
Na 589.592 Radial†	77.4	21.908 µg/L	6.3533	21.908 ppb	6.3533	29.00%

Ni 231.604†	284.5	18.433 µg/L	1.3496	18.433 ppb	1.3496	7.32%
P 214.914†	106.0	237.04 µg/L	4.277	237.04 ppb	4.277	1.80%
Pb 220.353†	100.0	29.744 µg/L	2.4829	29.744 ppb	2.4829	8.35%
S 181.975 Axial†	22.9	131.07 µg/L	25.290	131.07 ppb	25.290	19.30%
Sb 206.836†	0.1	-0.4359 µg/L	3.09878	-0.4359 ppb	3.09878	710.84%
Se 196.026†	-60.5	11.282 µg/L	10.9028	11.282 ppb	10.9028	96.64%
SiO2†	90736.8	19104 µg/L	380.5	19104 ppb	380.5	1.99%
Si 251.611†	105898.7	8862.6 µg/L	180.65	8862.6 ppb	180.65	2.04%
Sn 189.927†	-22.9	-9.2966 µg/L	0.80637	-9.2966 ppb	0.80637	8.67%
Sr 421.552†	8131.3	50.649 µg/L	0.2165	50.649 ppb	0.2165	0.43%
Ti 334.940†	451274.7	1125.6 µg/L	16.26	1125.6 ppb	16.26	1.44%
Tl 190.801†	-4.9	3.9653 µg/L	5.74364	3.9653 ppb	5.74364	144.85%
U 409.014†	-175.3	-20.674 µg/L	4.0257	-20.674 ppb	4.0257	19.47%
V 292.402†	4389.8	56.104 µg/L	1.4773	56.104 ppb	1.4773	2.63%
Zn 213.857†	1805.7	50.955 µg/L	3.2185	50.955 ppb	3.2185	6.32%

Sequence No.: 8

Sample ID: 244144002|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 308

Date Collected: 1/26/2010 13:26:34

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144002|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77443.4	77443.4	105 %		13:27:07
1	Al 396.153Radial†	198846.4	190171.2	131490 µg/L	131490 ppb	13:27:07
1	Ca 317.933Radial†	27531.2	26068.9	20797 µg/L	20797 ppb	13:27:28
1	Fe 238.204 Radial†	10774.5	10286.7	149410 µg/L	149410 ppb	13:27:28
1	K 766.490 Radial†	32017.1	30207.0	19608 µg/L	19608 ppb	13:27:07
1	Mg 279.077 IEC†	2251.8	2141.6	23279 µg/L	23279 ppb	13:27:28
1	Na 589.592 Radial†	4180.1	3089.7	875.00 µg/L	875.00 ppb	13:27:28
1	Sr 421.552†	49621.3	46861.0	291.90 µg/L	291.90 ppb	13:27:07
1	Sc 361.383	1873249.5	1873249.5	101.59 %		13:28:34
1	Y 371.029	1216060.4	1216060.4	103.83 %		13:28:34
1	Ag 328.068†	-1500.8	-1486.6	-2.5337 µg/L	-2.5337 ppb	13:28:39
1	As 188.979†	11.5	12.6	36.531 µg/L	36.531 ppb	13:29:00
1	B 249.677†	2278.5	2128.7	25.285 µg/L	25.285 ppb	13:28:39
1	Ba 233.527†	61781.8	60821.2	1779.4 µg/L	1779.4 ppb	13:28:39
1	Be 313.107†	23569.1	18799.0	11.167 µg/L	11.167 ppb	13:28:39
1	Cd 226.502†	485.3	585.2	0.6535 µg/L	0.6535 ppb	13:28:39
1	Co 228.616†	1210.6	1227.4	57.512 µg/L	57.512 ppb	13:29:00
1	Cr 267.716†	5504.2	5468.8	127.67 µg/L	127.67 ppb	13:28:39
1	Cu 324.752†	10894.9	6890.2	70.722 µg/L	70.722 ppb	13:28:39
1	Mn 257.610†	955976.4	941083.2	3519.4 µg/L	3519.4 ppb	13:28:34
1	Mo 202.031†	-16.6	-32.7	1.5637 µg/L	1.5637 ppb	13:29:00
1	Ni 231.604†	1691.3	1332.1	86.498 µg/L	86.498 ppb	13:29:00
1	P 214.914†	752.8	540.1	1210.2 µg/L	1210.2 ppb	13:29:00
1	Pb 220.353†	532.2	458.4	137.11 µg/L	137.11 ppb	13:29:00
1	S 181.975 Axial†	120.8	94.7	541.22 µg/L	541.22 ppb	13:29:00
1	Sb 206.836†	28.0	5.4	3.1057 µg/L	3.1057 ppb	13:29:00
1	Se 196.026†	-332.8	-337.5	19.658 µg/L	19.658 ppb	13:29:00
1	SiO2†	475565.5	465828.2	98077 µg/L	98077 ppb	13:28:34
1	Si 251.611†	550204.4	541282.3	45300 µg/L	45300 ppb	13:28:34
1	Sn 189.927†	-95.5	-116.1	-46.112 µg/L	-46.112 ppb	13:29:00
1	Ti 334.940†	2131820.1	2097526.6	5231.4 µg/L	5231.4 ppb	13:28:34
1	Tl 190.801†	-47.7	-25.3	7.3639 µg/L	7.3639 ppb	13:29:00
1	U 409.014†	-762.4	-598.9	-78.140 µg/L	-78.140 ppb	13:28:34
1	V 292.402†	21964.0	21716.4	277.88 µg/L	277.88 ppb	13:28:39
1	Zn 213.857†	11322.2	10477.9	296.65 µg/L	296.65 ppb	13:28:39
2	Sc RADIAL	77541.9	77541.9	105 %		13:27:34
2	Al 396.153Radial†	199862.5	190900.1	131990 µg/L	131990 ppb	13:27:34
2	Ca 317.933Radial†	27539.7	26043.5	20776 µg/L	20776 ppb	13:27:54
2	Fe 238.204 Radial†	10767.9	10267.3	149130 µg/L	149130 ppb	13:27:54
2	K 766.490 Radial†	32159.7	30304.2	19671 µg/L	19671 ppb	13:27:34
2	Mg 279.077 IEC†	2258.1	2144.9	23315 µg/L	23315 ppb	13:27:54
2	Na 589.592 Radial†	4187.2	3091.4	875.48 µg/L	875.48 ppb	13:27:54
2	Sr 421.552†	49742.0	46916.1	292.24 µg/L	292.24 ppb	13:27:34
2	Sc 361.383	1869448.4	1869448.4	101.38 %		13:29:08
2	Y 371.029	1214141.6	1214141.6	103.67 %		13:29:08
2	Ag 328.068†	-1475.1	-1464.2	-2.3479 µg/L	-2.3479 ppb	13:29:13
2	As 188.979†	11.9	13.1	37.597 µg/L	37.597 ppb	13:29:34
2	B 249.677†	2289.8	2144.5	26.195 µg/L	26.195 ppb	13:29:13
2	Ba 233.527†	61510.9	60677.6	1775.2 µg/L	1775.2 ppb	13:29:13
2	Be 313.107†	23558.7	18836.0	11.190 µg/L	11.190 ppb	13:29:13
2	Cd 226.502†	507.3	607.8	1.3586 µg/L	1.3586 ppb	13:29:13
2	Co 228.616†	1192.5	1212.0	56.633 µg/L	56.633 ppb	13:29:34
2	Cr 267.716†	5479.3	5455.3	127.35 µg/L	127.35 ppb	13:29:13
2	Cu 324.752†	10796.2	6814.6	70.135 µg/L	70.135 ppb	13:29:13
2	Mn 257.610†	955822.5	942844.8	3525.9 µg/L	3525.9 ppb	13:29:08
2	Mo 202.031†	-18.4	-34.4	1.3326 µg/L	1.3326 ppb	13:29:34
2	Ni 231.604†	1678.6	1322.9	85.911 µg/L	85.911 ppb	13:29:34
2	P 214.914†	743.6	532.5	1192.4 µg/L	1192.4 ppb	13:29:34
2	Pb 220.353†	501.4	429.1	128.47 µg/L	128.47 ppb	13:29:34



2	S 181.975 Axial†	121.1	95.3	544.42 µg/L	544.42 ppb	13:29:34
2	Sb 206.836†	18.0	-4.4	-7.6964 µg/L	-7.6964 ppb	13:29:34
2	Se 196.026†	-336.9	-342.2	11.239 µg/L	11.239 ppb	13:29:34
2	SiO2†	475491.2	466706.8	98262 µg/L	98262 ppb	13:29:08
2	Si 251.611†	549955.2	542137.8	45371 µg/L	45371 ppb	13:29:08
2	Sn 189.927†	-99.0	-119.7	-48.296 µg/L	-48.296 ppb	13:29:34
2	Ti 334.940†	2130767.2	2100755.0	5239.4 µg/L	5239.4 ppb	13:29:08
2	Tl 190.801†	-50.2	-27.9	2.9914 µg/L	2.9914 ppb	13:29:34
2	U 409.014†	-726.7	-565.2	-74.941 µg/L	-74.941 ppb	13:29:08
2	V 292.402†	21877.7	21675.2	277.36 µg/L	277.36 ppb	13:29:13
2	Zn 213.857†	11290.5	10469.4	296.42 µg/L	296.42 ppb	13:29:13
3	Sc RADIAL	77637.9	77637.9	105 %		13:28:00
3	Al 396.153Radial†	200451.9	191226.2	132220 µg/L	132220 ppb	13:28:00
3	Ca 317.933Radial†	27552.7	26023.5	20760 µg/L	20760 ppb	13:28:20
3	Fe 238.204 Radial†	10778.7	10264.9	149100 µg/L	149100 ppb	13:28:20
3	K 766.490 Radial†	32132.2	30240.0	19629 µg/L	19629 ppb	13:28:00
3	Mg 279.077 IEC†	2260.2	2144.3	23308 µg/L	23308 ppb	13:28:20
3	Na 589.592 Radial†	4177.3	3077.0	871.40 µg/L	871.40 ppb	13:28:20
3	Sr 421.552†	49992.6	47096.4	293.36 µg/L	293.36 ppb	13:28:00
3	Sc 361.383	1874491.4	1874491.4	101.66 %		13:29:41
3	Y 371.029	1216463.8	1216463.8	103.87 %		13:29:41
3	Ag 328.068†	-1484.2	-1469.2	-2.4861 µg/L	-2.4861 ppb	13:29:47
3	As 188.979†	10.8	11.9	35.022 µg/L	35.022 ppb	13:30:08
3	B 249.677†	2155.1	2005.9	19.493 µg/L	19.493 ppb	13:29:47
3	Ba 233.527†	59014.5	58058.7	1698.6 µg/L	1698.6 ppb	13:29:47
3	Be 313.107†	22618.9	17849.0	10.564 µg/L	10.564 ppb	13:29:47
3	Cd 226.502†	454.5	554.5	-0.2328 µg/L	-0.2328 ppb	13:29:47
3	Co 228.616†	1118.5	1136.0	52.756 µg/L	52.756 ppb	13:30:08
3	Cr 267.716†	5140.1	5107.1	119.22 µg/L	119.22 ppb	13:29:47
3	Cu 324.752†	10543.5	6537.4	68.121 µg/L	68.121 ppb	13:29:47
3	Mn 257.610†	929460.4	914375.6	3420.0 µg/L	3420.0 ppb	13:29:41
3	Mo 202.031†	-15.1	-31.1	1.7425 µg/L	1.7425 ppb	13:30:08
3	Ni 231.604†	1589.8	1231.2	80.087 µg/L	80.087 ppb	13:30:08
3	P 214.914†	717.1	504.4	1125.1 µg/L	1125.1 ppb	13:30:08
3	Pb 220.353†	498.9	425.3	127.37 µg/L	127.37 ppb	13:30:08
3	S 181.975 Axial†	120.4	94.3	538.75 µg/L	538.75 ppb	13:30:08
3	Sb 206.836†	29.7	7.2	5.1175 µg/L	5.1175 ppb	13:30:08
3	Se 196.026†	-309.4	-314.2	54.768 µg/L	54.768 ppb	13:30:08
3	SiO2†	465318.1	455437.6	95889 µg/L	95889 ppb	13:29:41
3	Si 251.611†	538020.3	528937.9	44267 µg/L	44267 ppb	13:29:41
3	Sn 189.927†	-86.8	-107.5	-41.024 µg/L	-41.024 ppb	13:30:08
3	Ti 334.940†	2066691.7	2032068.9	5068.1 µg/L	5068.1 ppb	13:29:41
3	Tl 190.801†	-40.6	-18.3	17.734 µg/L	17.734 ppb	13:30:08
3	U 409.014†	-654.1	-491.8	-68.062 µg/L	-68.062 ppb	13:29:41
3	V 292.402†	20826.3	20582.9	263.78 µg/L	263.78 ppb	13:29:47
3	Zn 213.857†	10849.7	10005.9	282.93 µg/L	282.93 ppb	13:29:47

Mean Data: 244144002|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1872396.4	101.54 %	0.142			0.14%
Sc RADIAL	77541.1	105 %	0.1			0.13%
Y 371.029	1215555.3	103.79 %	0.106			0.10%
Ag 328.068†	-1473.3	-2.4559 µg/L	0.09655	-2.4559 ppb	0.09655	3.93%
Al 396.153Radial†	190765.9	131900 µg/L	373.5	131900 ppb	373.5	0.28%
As 188.979†	12.5	36.383 µg/L	1.2938	36.383 ppb	1.2938	3.56%
B 249.677†	2093.0	23.658 µg/L	3.6356	23.658 ppb	3.6356	15.37%
Ba 233.527†	59852.5	1751.0 µg/L	45.50	1751.0 ppb	45.50	2.60%
Be 313.107†	18494.7	10.974 µg/L	0.3549	10.974 ppb	0.3549	3.23%
Ca 317.933Radial†	26045.3	20778 µg/L	18.2	20778 ppb	18.2	0.09%
Cd 226.502†	582.5	0.5931 µg/L	0.79742	0.5931 ppb	0.79742	134.44%
Co 228.616†	1191.8	55.634 µg/L	2.5304	55.634 ppb	2.5304	4.55%
Cr 267.716†	5343.7	124.75 µg/L	4.786	124.75 ppb	4.786	3.84%
Cu 324.752†	6747.4	69.659 µg/L	1.3645	69.659 ppb	1.3645	1.96%
Fe 238.204 Radial†	10273.0	149210 µg/L	174.3	149210 ppb	174.3	0.12%
K 766.490 Radial†	30250.4	19636 µg/L	32.1	19636 ppb	32.1	0.16%
Mg 279.077 IEC†	2143.6	23301 µg/L	19.3	23301 ppb	19.3	0.08%
Mn 257.610†	932767.9	3488.4 µg/L	59.35	3488.4 ppb	59.35	1.70%
Mo 202.031†	-32.7	1.5462 µg/L	0.20552	1.5462 ppb	0.20552	13.29%
Na 589.592 Radial†	3086.0	873.96 µg/L	2.234	873.96 ppb	2.234	0.26%

Ni 231.604†	1295.4	84.165 µg/L	3.5439	84.165 ppb	3.5439	4.21%
P 214.914†	525.7	1175.9 µg/L	44.84	1175.9 ppb	44.84	3.81%
Pb 220.353†	437.6	130.98 µg/L	5.334	130.98 ppb	5.334	4.07%
S 181.975 Axial†	94.8	541.46 µg/L	2.842	541.46 ppb	2.842	0.52%
Sb 206.836†	2.7	0.1756 µg/L	6.89118	0.1756 ppb	6.89118	>999.9%
Se 196.026†	-331.3	28.555 µg/L	23.0881	28.555 ppb	23.0881	80.85%
SiO2†	462657.6	97409 µg/L	1319.7	97409 ppb	1319.7	1.35%
Si 251.611†	537452.7	44979 µg/L	618.2	44979 ppb	618.2	1.37%
Sn 189.927†	-114.4	-45.144 µg/L	3.7318	-45.144 ppb	3.7318	8.27%
Sr 421.552†	46957.8	292.50 µg/L	0.767	292.50 ppb	0.767	0.26%
Ti 334.940†	2076783.5	5179.6 µg/L	96.69	5179.6 ppb	96.69	1.87%
Tl 190.801†	-23.8	9.3630 µg/L	7.57174	9.3630 ppb	7.57174	80.87%
U 409.014†	-552.0	-73.714 µg/L	5.1502	-73.714 ppb	5.1502	6.99%
V 292.402†	21324.8	273.01 µg/L	7.996	273.01 ppb	7.996	2.93%
Zn 213.857†	10317.7	292.00 µg/L	7.854	292.00 ppb	7.854	2.69%

Sequence No.: 9  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 1/26/2010 13:30:17  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Conc. Units	Sample Units	Analysis Time
1	Sc RADIAL	76144.7	76144.7	103	%			13:30:56
1	Al 396.153Radial†	7747.2	7555.6	5213.5	µg/L	5213.5	ppb	13:30:56
1	Ca 317.933Radial†	6976.6	6527.0	5206.9	µg/L	5206.9	ppb	13:30:56
1	Fe 238.204 Radial†	397.3	369.8	5382.1	µg/L	5382.1	ppb	13:31:16
1	K 766.490 Radial†	8333.6	7695.1	4995.0	µg/L	4995.0	ppb	13:30:56
1	Mg 279.077 IEC†	513.0	487.2	5335.3	µg/L	5335.3	ppb	13:31:16
1	Na 589.592 Radial†	37613.4	35674.4	10103	µg/L	10103	ppb	13:30:56
1	Sr 421.552†	83701.4	80816.0	503.40	µg/L	503.40	ppb	13:30:56
1	Sc 361.383	1859153.7	1859153.7	100.82	%			13:32:20
1	Y 371.029	1175196.9	1175196.9	100.34	%			13:32:20
1	Ag 328.068†	55779.5	55314.3	514.50	µg/L	514.50	ppb	13:32:26
1	As 188.979†	228.8	228.2	523.85	µg/L	523.85	ppb	13:32:46
1	B 249.677†	10617.0	10416.1	502.24	µg/L	502.24	ppb	13:32:26
1	Ba 233.527†	17794.0	17654.1	517.28	µg/L	517.28	ppb	13:32:26
1	Be 313.107†	741661.5	731197.7	511.70	µg/L	511.70	ppb	13:32:20
1	Cd 226.502†	17291.6	17257.8	514.57	µg/L	514.57	ppb	13:32:26
1	Co 228.616†	9313.5	9273.2	516.43	µg/L	516.43	ppb	13:32:26
1	Cr 267.716†	22437.6	22304.9	520.33	µg/L	520.33	ppb	13:32:26
1	Cu 324.752†	74098.7	69658.7	505.77	µg/L	505.77	ppb	13:32:26
1	Mn 257.610†	138932.4	137852.2	513.25	µg/L	513.25	ppb	13:32:26
1	Mo 202.031†	4136.9	4086.8	515.15	µg/L	515.15	ppb	13:32:46
1	Ni 231.604†	8564.5	8161.8	518.02	µg/L	518.02	ppb	13:32:26
1	P 214.914†	1310.5	1098.8	2596.4	µg/L	2596.4	ppb	13:32:46
1	Pb 220.353†	1861.8	1781.1	526.98	µg/L	526.98	ppb	13:32:46
1	S 181.975 Axial†	207.9	182.1	1040.2	µg/L	1040.2	ppb	13:32:46
1	Sb 206.836†	498.0	471.9	523.55	µg/L	523.55	ppb	13:32:46
1	Se 196.026†	350.1	337.4	545.61	µg/L	545.61	ppb	13:32:46
1	SiO2†	28963.2	26425.7	5563.8	µg/L	5563.8	ppb	13:32:26
1	Si 251.611†	31674.9	31097.6	2602.5	µg/L	2602.5	ppb	13:32:26
1	Sn 189.927†	915.6	886.1	529.12	µg/L	529.12	ppb	13:32:46
1	Ti 334.940†	207943.2	205285.6	511.81	µg/L	511.81	ppb	13:32:20
1	Tl 190.801†	277.7	297.2	520.11	µg/L	520.11	ppb	13:32:46
1	U 409.014†	5489.7	5596.4	523.15	µg/L	523.15	ppb	13:32:26
1	V 292.402†	41943.3	41696.3	523.95	µg/L	523.95	ppb	13:32:26
1	Zn 213.857†	18612.5	17793.2	515.18	µg/L	515.18	ppb	13:32:26
2	Sc RADIAL	76563.9	76563.9	103	%			13:31:22
2	Al 396.153Radial†	7819.1	7583.9	5233.0	µg/L	5233.0	ppb	13:31:22
2	Ca 317.933Radial†	7064.1	6574.5	5244.8	µg/L	5244.8	ppb	13:31:22
2	Fe 238.204 Radial†	397.1	367.5	5349.1	µg/L	5349.1	ppb	13:31:43
2	K 766.490 Radial†	8421.1	7735.4	5021.1	µg/L	5021.1	ppb	13:31:22
2	Mg 279.077 IEC†	508.9	480.6	5262.4	µg/L	5262.4	ppb	13:31:43
2	Na 589.592 Radial†	37893.6	35745.0	10123	µg/L	10123	ppb	13:31:22
2	Sr 421.552†	84321.5	80970.0	504.36	µg/L	504.36	ppb	13:31:22
2	Sc 361.383	1857899.9	1857899.9	100.76	%			13:32:53
2	Y 371.029	1174641.5	1174641.5	100.30	%			13:32:53
2	Ag 328.068†	55803.7	55375.7	515.06	µg/L	515.06	ppb	13:32:58
2	As 188.979†	225.2	224.8	516.00	µg/L	516.00	ppb	13:33:19
2	B 249.677†	10646.0	10452.0	504.00	µg/L	504.00	ppb	13:32:58
2	Ba 233.527†	17784.9	17657.0	517.37	µg/L	517.37	ppb	13:32:58
2	Be 313.107†	743445.3	733464.6	513.29	µg/L	513.29	ppb	13:32:53
2	Cd 226.502†	17315.1	17292.6	515.62	µg/L	515.62	ppb	13:32:58
2	Co 228.616†	9300.3	9266.3	516.04	µg/L	516.04	ppb	13:32:58
2	Cr 267.716†	22353.9	22236.8	518.74	µg/L	518.74	ppb	13:32:58
2	Cu 324.752†	73988.6	69599.0	505.33	µg/L	505.33	ppb	13:32:58
2	Mn 257.610†	138724.9	137739.3	512.83	µg/L	512.83	ppb	13:32:58
2	Mo 202.031†	4127.3	4080.0	514.29	µg/L	514.29	ppb	13:33:19
2	Ni 231.604†	8559.6	8162.6	518.07	µg/L	518.07	ppb	13:32:58
2	P 214.914†	1313.7	1102.9	2606.3	µg/L	2606.3	ppb	13:33:19
2	Pb 220.353†	1856.1	1776.7	525.68	µg/L	525.68	ppb	13:33:19

2	S 181.975 Axial†	207.6	181.9	1039.2 µg/L	1039.2 ppb	13:33:19
2	Sb 206.836†	491.6	465.9	516.90 µg/L	516.90 ppb	13:33:19
2	Se 196.026†	336.6	324.2	524.89 µg/L	524.89 ppb	13:33:19
2	SiO2†	28961.1	26443.0	5567.4 µg/L	5567.4 ppb	13:32:58
2	Si 251.611†	31702.4	31146.1	2606.6 µg/L	2606.6 ppb	13:32:58
2	Sn 189.927†	923.1	894.1	533.87 µg/L	533.87 ppb	13:33:19
2	Ti 334.940†	208331.5	205810.1	513.12 µg/L	513.12 ppb	13:32:53
2	Tl 190.801†	273.4	293.1	512.99 µg/L	512.99 ppb	13:33:19
2	U 409.014†	5470.4	5580.9	521.70 µg/L	521.70 ppb	13:32:58
2	V 292.402†	41896.0	41677.5	523.70 µg/L	523.70 ppb	13:32:58
2	Zn 213.857†	18573.4	17766.8	514.42 µg/L	514.42 ppb	13:32:58
3	Sc RADIAL	75718.4	75718.4	102 %		13:31:48
3	Al 396.153Radial†	7768.5	7618.8	5258.6 µg/L	5258.6 ppb	13:31:48
3	Ca 317.933Radial†	6993.6	6581.8	5250.7 µg/L	5250.7 ppb	13:31:48
3	Fe 238.204 Radial†	400.6	375.2	5459.9 µg/L	5459.9 ppb	13:32:09
3	K 766.490 Radial†	8398.8	7804.5	5066.0 µg/L	5066.0 ppb	13:31:48
3	Mg 279.077 IEC†	515.5	492.5	5391.4 µg/L	5391.4 ppb	13:32:09
3	Na 589.592 Radial†	37643.6	35909.9	10170 µg/L	10170 ppb	13:31:48
3	Sr 421.552†	83866.9	81436.1	507.26 µg/L	507.26 ppb	13:31:48
3	Sc 361.383	1842851.3	1842851.3	99.940 %		13:33:26
3	Y 371.029	1165221.3	1165221.3	99.492 %		13:33:26
3	Ag 328.068†	53978.1	54001.3	502.17 µg/L	502.17 ppb	13:33:31
3	As 188.979†	203.4	204.8	470.19 µg/L	470.19 ppb	13:33:52
3	B 249.677†	10254.8	10146.9	489.11 µg/L	489.11 ppb	13:33:31
3	Ba 233.527†	16788.3	16803.9	492.36 µg/L	492.36 ppb	13:33:31
3	Be 313.107†	710854.6	706879.7	494.69 µg/L	494.69 ppb	13:33:26
3	Cd 226.502†	16355.7	16473.0	491.13 µg/L	491.13 ppb	13:33:31
3	Co 228.616†	8723.5	8764.5	488.04 µg/L	488.04 ppb	13:33:31
3	Cr 267.716†	20555.1	20618.1	480.99 µg/L	480.99 ppb	13:33:31
3	Cu 324.752†	69600.0	65807.4	477.86 µg/L	477.86 ppb	13:33:31
3	Mn 257.610†	129735.8	129869.2	483.57 µg/L	483.57 ppb	13:33:31
3	Mo 202.031†	3554.5	3540.4	446.30 µg/L	446.30 ppb	13:33:52
3	Ni 231.604†	8052.2	7724.3	490.26 µg/L	490.26 ppb	13:33:31
3	P 214.914†	1190.5	990.2	2336.7 µg/L	2336.7 ppb	13:33:52
3	Pb 220.353†	1667.6	1603.1	474.25 µg/L	474.25 ppb	13:33:52
3	S 181.975 Axial†	191.3	167.3	955.49 µg/L	955.49 ppb	13:33:52
3	Sb 206.836†	443.3	421.5	467.21 µg/L	467.21 ppb	13:33:52
3	Se 196.026†	317.2	307.5	499.17 µg/L	499.17 ppb	13:33:52
3	SiO2†	27721.9	25437.7	5355.7 µg/L	5355.7 ppb	13:33:31
3	Si 251.611†	30211.5	29911.2	2503.3 µg/L	2503.3 ppb	13:33:31
3	Sn 189.927†	782.5	761.0	454.79 µg/L	454.79 ppb	13:33:52
3	Ti 334.940†	198289.6	197450.7	492.26 µg/L	492.26 ppb	13:33:26
3	Tl 190.801†	250.1	272.0	476.13 µg/L	476.13 ppb	13:33:52
3	U 409.014†	4949.0	5103.5	476.97 µg/L	476.97 ppb	13:33:31
3	V 292.402†	38996.0	39115.3	491.22 µg/L	491.22 ppb	13:33:31
3	Zn 213.857†	17491.6	16834.9	487.40 µg/L	487.40 ppb	13:33:31

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1853301.6	100.51 %	0.492			0.49%
Sc RADIAL	76142.3	103 %	0.6			0.56%
Y 371.029	1171686.5	100.04 %	0.479			0.48%
Ag 328.068†	54897.1	510.57 µg/L	7.287	510.57 ppb	7.287	1.43%
QC value within limits for Ag 328.068 Recovery = 102.11%						
Al 396.153Radial†	7586.1	5235.0 µg/L	22.64	5235.0 ppb	22.64	0.43%
QC value within limits for Al 396.153Radial Recovery = 104.70%						
As 188.979†	219.2	503.35 µg/L	28.984	503.35 ppb	28.984	5.76%
QC value within limits for As 188.979 Recovery = 100.67%						
B 249.677†	10338.3	498.45 µg/L	8.137	498.45 ppb	8.137	1.63%
QC value within limits for B 249.677 Recovery = 99.69%						
Ba 233.527†	17371.6	509.00 µg/L	14.414	509.00 ppb	14.414	2.83%
QC value within limits for Ba 233.527 Recovery = 101.80%						
Be 313.107†	723847.3	506.56 µg/L	10.313	506.56 ppb	10.313	2.04%
QC value within limits for Be 313.107 Recovery = 101.31%						
Ca 317.933Radial†	6561.1	5234.1 µg/L	23.75	5234.1 ppb	23.75	0.45%
QC value within limits for Ca 317.933Radial Recovery = 104.68%						
Cd 226.502†	17007.8	507.11 µg/L	13.844	507.11 ppb	13.844	2.73%
QC value within limits for Cd 226.502 Recovery = 101.42%						
Co 228.616†	9101.3	506.84 µg/L	16.277	506.84 ppb	16.277	3.21%

QC value within limits for Co 228.616 Recovery = 101.37%							
Cr 267.716†	21720.0	506.69 µg/L	22.272	506.69 ppb	22.272	4.40%	
QC value within limits for Cr 267.716 Recovery = 101.34%							
Cu 324.752†	68355.0	496.32 µg/L	15.989	496.32 ppb	15.989	3.22%	
QC value within limits for Cu 324.752 Recovery = 99.26%							
Fe 238.204 Radial†	370.8	5397.0 µg/L	56.89	5397.0 ppb	56.89	1.05%	
QC value within limits for Fe 238.204 Radial Recovery = 107.94%							
K 766.490 Radial†	7745.0	5027.4 µg/L	35.92	5027.4 ppb	35.92	0.71%	
QC value within limits for K 766.490 Radial Recovery = 100.55%							
Mg 279.077 IEC†	486.7	5329.7 µg/L	64.72	5329.7 ppb	64.72	1.21%	
QC value within limits for Mg 279.077 IEC Recovery = 106.59%							
Mn 257.610†	135153.6	503.22 µg/L	17.018	503.22 ppb	17.018	3.38%	
QC value within limits for Mn 257.610 Recovery = 100.64%							
Mo 202.031†	3902.4	491.91 µg/L	39.504	491.91 ppb	39.504	8.03%	
QC value within limits for Mo 202.031 Recovery = 98.38%							
Na 589.592 Radial†	35776.4	10132 µg/L	34.2	10132 ppb	34.2	0.34%	
QC value within limits for Na 589.592 Radial Recovery = 101.32%							
Ni 231.604†	8016.2	508.79 µg/L	16.044	508.79 ppb	16.044	3.15%	
QC value within limits for Ni 231.604 Recovery = 101.76%							
P 214.914†	1063.9	2513.1 µg/L	152.87	2513.1 ppb	152.87	6.08%	
QC value within limits for P 214.914 Recovery = 100.52%							
Pb 220.353†	1720.3	508.97 µg/L	30.079	508.97 ppb	30.079	5.91%	
QC value within limits for Pb 220.353 Recovery = 101.79%							
S 181.975 Axial†	177.1	1011.6 µg/L	48.63	1011.6 ppb	48.63	4.81%	
QC value within limits for S 181.975 Axial Recovery = 101.16%							
Sb 206.836†	453.1	502.55 µg/L	30.785	502.55 ppb	30.785	6.13%	
QC value within limits for Sb 206.836 Recovery = 100.51%							
Se 196.026†	323.0	523.22 µg/L	23.265	523.22 ppb	23.265	4.45%	
QC value within limits for Se 196.026 Recovery = 104.64%							
SiO2†	26102.1	5495.6 µg/L	121.16	5495.6 ppb	121.16	2.20%	
QC value within limits for SiO2 Recovery = 102.77%							
Si 251.611†	30718.3	2570.8 µg/L	58.53	2570.8 ppb	58.53	2.28%	
QC value within limits for Si 251.611 Recovery = 102.83%							
Sn 189.927†	847.1	505.92 µg/L	44.345	505.92 ppb	44.345	8.77%	
QC value within limits for Sn 189.927 Recovery = 101.18%							
Sr 421.552†	81074.1	505.01 µg/L	2.011	505.01 ppb	2.011	0.40%	
QC value within limits for Sr 421.552 Recovery = 101.00%							
Ti 334.940†	202848.8	505.73 µg/L	11.686	505.73 ppb	11.686	2.31%	
QC value within limits for Ti 334.940 Recovery = 101.15%							
Tl 190.801†	287.4	503.08 µg/L	23.610	503.08 ppb	23.610	4.69%	
QC value within limits for Tl 190.801 Recovery = 100.62%							
U 409.014†	5426.9	507.27 µg/L	26.252	507.27 ppb	26.252	5.18%	
QC value within limits for U 409.014 Recovery = 101.45%							
V 292.402†	40829.7	512.96 µg/L	18.824	512.96 ppb	18.824	3.67%	
QC value within limits for V 292.402 Recovery = 102.59%							
Zn 213.857†	17465.0	505.66 µg/L	15.824	505.66 ppb	15.824	3.13%	
QC value within limits for Zn 213.857 Recovery = 101.13%							
All analyte(s) passed QC.							

Sequence No.: 10

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/26/2010 13:34:01

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	74298.5	74298.5	100 %		13:34:34
1	Al 396.153Radial†	-19.6	1.3	0.9015 µg/L	0.9015 ppb	13:34:34
1	Ca 317.933Radial†	261.3	2.2	1.7375 µg/L	1.7375 ppb	13:34:55
1	Fe 238.204 Radial†	18.3	1.6	23.803 µg/L	23.803 ppb	13:34:55
1	K 766.490 Radial†	388.4	-22.8	-14.820 µg/L	-14.820 ppb	13:34:34
1	Mg 279.077 IEC†	9.5	-2.3	-24.650 µg/L	-24.650 ppb	13:34:55
1	Na 589.592 Radial†	551.7	-357.7	-101.31 µg/L	-101.31 ppb	13:34:34
1	Sr 421.552†	572.0	-20.0	-0.1248 µg/L	-0.1248 ppb	13:34:34
1	Sc 361.383	1842296.8	1842296.8	99.910 %		13:35:56
1	Y 371.029	1168515.2	1168515.2	99.774 %		13:35:56
1	Ag 328.068†	-107.5	-116.8	-1.0750 µg/L	-1.0750 ppb	13:36:02
1	As 188.979†	-1.2	0.1	0.1301 µg/L	0.1301 ppb	13:36:22
1	B 249.677†	133.7	19.7	0.9426 µg/L	0.9426 ppb	13:36:22
1	Ba 233.527†	-13.4	-7.9	-0.2311 µg/L	-0.2311 ppb	13:36:22
1	Be 313.107†	4130.3	-267.5	-0.1872 µg/L	-0.1872 ppb	13:36:02
1	Cd 226.502†	-105.2	2.2	0.0625 µg/L	0.0625 ppb	13:36:22
1	Co 228.616†	-52.2	-16.5	-0.9162 µg/L	-0.9162 ppb	13:36:22
1	Cr 267.716†	-53.2	-2.6	-0.0605 µg/L	-0.0605 ppb	13:36:22
1	Cu 324.752†	3796.4	-34.5	-0.2471 µg/L	-0.2471 ppb	13:36:02
1	Mn 257.610†	-82.3	-26.9	-0.0958 µg/L	-0.0958 ppb	13:36:22
1	Mo 202.031†	22.3	6.0	0.7627 µg/L	0.7627 ppb	13:36:22
1	Ni 231.604†	332.2	-0.3	-0.0178 µg/L	-0.0178 ppb	13:36:22
1	P 214.914†	214.9	14.1	33.999 µg/L	33.999 ppb	13:36:22
1	Pb 220.353†	63.3	-2.1	-0.6372 µg/L	-0.6372 ppb	13:36:22
1	S 181.975 Axial†	19.9	-4.3	-24.288 µg/L	-24.288 ppb	13:36:22
1	Sb 206.836†	23.2	1.1	1.2686 µg/L	1.2686 ppb	13:36:22
1	Se 196.026†	13.1	3.2	5.1431 µg/L	5.1431 ppb	13:36:22
1	SiO2†	2335.4	36.7	7.7280 µg/L	7.7280 ppb	13:36:02
1	Si 251.611†	361.9	43.8	3.6674 µg/L	3.6674 ppb	13:36:22
1	Sn 189.927†	24.8	2.8	1.6346 µg/L	1.6346 ppb	13:36:22
1	Ti 334.940†	880.2	-77.0	-0.1900 µg/L	-0.1900 ppb	13:36:02
1	Tl 190.801†	-20.3	1.4	2.4436 µg/L	2.4436 ppb	13:36:22
1	U 409.014†	-31.7	119.9	11.224 µg/L	11.224 ppb	13:36:02
1	V 292.402†	-72.8	23.0	0.3038 µg/L	0.3038 ppb	13:36:02
1	Zn 213.857†	655.0	-11.5	-0.3358 µg/L	-0.3358 ppb	13:36:22
2	Sc RADIAL	74088.9	74088.9	100 %		13:35:00
2	Al 396.153Radial†	-25.9	-5.1	-3.5262 µg/L	-3.5262 ppb	13:35:00
2	Ca 317.933Radial†	253.5	-4.9	-3.9355 µg/L	-3.9355 ppb	13:35:21
2	Fe 238.204 Radial†	17.8	1.2	17.435 µg/L	17.435 ppb	13:35:21
2	K 766.490 Radial†	410.6	0.5	0.2982 µg/L	0.2982 ppb	13:35:00
2	Mg 279.077 IEC†	8.1	-3.6	-39.774 µg/L	-39.774 ppb	13:35:21
2	Na 589.592 Radial†	565.4	-342.5	-96.996 µg/L	-96.996 ppb	13:35:00
2	Sr 421.552†	608.8	18.4	0.1146 µg/L	0.1146 ppb	13:35:00
2	Sc 361.383	1835463.6	1835463.6	99.539 %		13:36:28
2	Y 371.029	1163459.8	1163459.8	99.342 %		13:36:28
2	Ag 328.068†	-74.8	-84.4	-0.7785 µg/L	-0.7785 ppb	13:36:33
2	As 188.979†	-1.1	0.1	0.3346 µg/L	0.3346 ppb	13:36:54
2	B 249.677†	116.9	3.3	0.1509 µg/L	0.1509 ppb	13:36:54
2	Ba 233.527†	-22.5	-17.1	-0.4996 µg/L	-0.4996 ppb	13:36:54
2	Be 313.107†	4090.7	-291.9	-0.2043 µg/L	-0.2043 ppb	13:36:33
2	Cd 226.502†	-109.1	-2.2	-0.0667 µg/L	-0.0667 ppb	13:36:54
2	Co 228.616†	-37.7	-2.1	-0.1156 µg/L	-0.1156 ppb	13:36:54
2	Cr 267.716†	-54.5	-4.0	-0.0942 µg/L	-0.0942 ppb	13:36:54
2	Cu 324.752†	3826.8	10.1	0.0758 µg/L	0.0758 ppb	13:36:33
2	Mn 257.610†	-93.5	-38.4	-0.1390 µg/L	-0.1390 ppb	13:36:54
2	Mo 202.031†	20.4	4.2	0.5291 µg/L	0.5291 ppb	13:36:54
2	Ni 231.604†	329.9	-1.3	-0.0845 µg/L	-0.0845 ppb	13:36:54
2	P 214.914†	227.4	27.4	65.985 µg/L	65.985 ppb	13:36:54
2	Pb 220.353†	62.1	-3.1	-0.9389 µg/L	-0.9389 ppb	13:36:54

2	S 181.975 Axial†	24.9	0.8	4.7364 µg/L	4.7364 ppb	13:36:54
2	Sb 206.836†	24.6	2.6	2.9118 µg/L	2.9118 ppb	13:36:54
2	Se 196.026†	13.2	3.4	5.3294 µg/L	5.3294 ppb	13:36:54
2	SiO2†	2335.2	45.3	9.5297 µg/L	9.5297 ppb	13:36:33
2	Si 251.611†	353.2	36.4	3.0433 µg/L	3.0433 ppb	13:36:54
2	Sn 189.927†	21.4	-0.6	-0.3572 µg/L	-0.3572 ppb	13:36:54
2	Ti 334.940†	893.6	-60.2	-0.1470 µg/L	-0.1470 ppb	13:36:33
2	Tl 190.801†	-26.1	-4.5	-7.8033 µg/L	-7.8033 ppb	13:36:54
2	U 409.014†	-11.3	140.2	13.134 µg/L	13.134 ppb	13:36:33
2	V 292.402†	-102.1	-6.7	-0.0654 µg/L	-0.0654 ppb	13:36:33
2	Zn 213.857†	650.5	-13.7	-0.3966 µg/L	-0.3966 ppb	13:36:54
3	Sc RADIAL	74203.0	74203.0	100 %		13:35:26
3	Al 396.153Radial†	-20.3	0.6	0.3884 µg/L	0.3884 ppb	13:35:26
3	Ca 317.933Radial†	258.8	-0.0	-0.0380 µg/L	-0.0380 ppb	13:35:46
3	Fe 238.204 Radial†	18.8	2.2	31.525 µg/L	31.525 ppb	13:35:46
3	K 766.490 Radial†	437.0	26.1	16.941 µg/L	16.941 ppb	13:35:26
3	Mg 279.077 IEC†	11.3	-0.4	-4.9539 µg/L	-4.9539 ppb	13:35:46
3	Na 589.592 Radial†	565.5	-343.2	-97.202 µg/L	-97.202 ppb	13:35:26
3	Sr 421.552†	569.4	-21.9	-0.1366 µg/L	-0.1366 ppb	13:35:26
3	Sc 361.383	1829321.1	1829321.1	99.206 %		13:37:00
3	Y 371.029	1159591.6	1159591.6	99.012 %		13:37:00
3	Ag 328.068†	-88.1	-98.0	-0.9043 µg/L	-0.9043 ppb	13:37:05
3	As 188.979†	-2.9	-1.6	-3.7715 µg/L	-3.7715 ppb	13:37:26
3	B 249.677†	112.6	-0.6	-0.0455 µg/L	-0.0455 ppb	13:37:26
3	Ba 233.527†	-16.3	-10.9	-0.3197 µg/L	-0.3197 ppb	13:37:26
3	Be 313.107†	4002.9	-366.6	-0.2566 µg/L	-0.2566 ppb	13:37:05
3	Cd 226.502†	-106.7	-0.1	-0.0073 µg/L	-0.0073 ppb	13:37:26
3	Co 228.616†	-46.5	-11.1	-0.6197 µg/L	-0.6197 ppb	13:37:26
3	Cr 267.716†	-54.3	-4.1	-0.0946 µg/L	-0.0946 ppb	13:37:26
3	Cu 324.752†	3807.3	3.4	0.0290 µg/L	0.0290 ppb	13:37:05
3	Mn 257.610†	-97.8	-43.1	-0.1561 µg/L	-0.1561 ppb	13:37:26
3	Mo 202.031†	13.7	-2.5	-0.3143 µg/L	-0.3143 ppb	13:37:26
3	Ni 231.604†	312.2	-18.1	-1.1469 µg/L	-1.1469 ppb	13:37:26
3	P 214.914†	220.7	21.5	51.623 µg/L	51.623 ppb	13:37:26
3	Pb 220.353†	69.3	4.4	1.2786 µg/L	1.2786 ppb	13:37:26
3	S 181.975 Axial†	19.5	-4.4	-25.377 µg/L	-25.377 ppb	13:37:26
3	Sb 206.836†	23.3	1.4	1.5039 µg/L	1.5039 ppb	13:37:26
3	Se 196.026†	10.7	0.9	1.5351 µg/L	1.5351 ppb	13:37:26
3	SiO2†	2284.2	1.7	0.3656 µg/L	0.3656 ppb	13:37:05
3	Si 251.611†	351.7	36.1	3.0230 µg/L	3.0230 ppb	13:37:26
3	Sn 189.927†	21.5	-0.3	-0.1929 µg/L	-0.1929 ppb	13:37:26
3	Ti 334.940†	837.9	-113.3	-0.2823 µg/L	-0.2823 ppb	13:37:05
3	Tl 190.801†	-23.2	-1.7	-3.0071 µg/L	-3.0071 ppb	13:37:26
3	U 409.014†	60.3	212.3	19.885 µg/L	19.885 ppb	13:37:05
3	V 292.402†	-110.0	-15.0	-0.1665 µg/L	-0.1665 ppb	13:37:05
3	Zn 213.857†	654.0	-7.9	-0.2261 µg/L	-0.2261 ppb	13:37:26

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1835693.8	99.552 %	0.3520			0.35%
Sc RADIAL	74196.8	100 %	0.1			0.14%
Y 371.029	1163855.5	99.376 %	0.3821			0.38%
Ag 328.068†	-99.7	-0.9193 µg/L	0.14882	-0.9193 ppb	0.14882	16.19%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-1.1	-0.7454 µg/L	2.42185	-0.7454 ppb	2.42185	324.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.5	-1.1023 µg/L	2.31388	-1.1023 ppb	2.31388	209.92%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	7.5	0.3493 µg/L	0.52312	0.3493 ppb	0.52312	149.76%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-12.0	-0.3501 µg/L	0.13684	-0.3501 ppb	0.13684	39.08%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-308.7	-0.2160 µg/L	0.03615	-0.2160 ppb	0.03615	16.74%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-0.9	-0.7453 µg/L	2.90193	-0.7453 ppb	2.90193	389.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-0.0	-0.0038 µg/L	0.06466	-0.0038 ppb	0.06466	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-9.9	-0.5505 µg/L	0.40476	-0.5505 ppb	0.40476	73.53%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-3.6	-0.0831 µg/L	0.01957	-0.0831 ppb	0.01957	23.55%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-7.0	-0.0474 µg/L	0.17453	-0.0474 ppb	0.17453	367.95%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	1.7	24.254 µg/L	7.0556	24.254 ppb	7.0556	29.09%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	1.2	0.8066 µg/L	15.88664	0.8066 ppb	15.88664	>999.9%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-2.1	-23.126 µg/L	17.4598	-23.126 ppb	17.4598	75.50%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-36.1	-0.1303 µg/L	0.03106	-0.1303 ppb	0.03106	23.83%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	2.6	0.3258 µg/L	0.56654	0.3258 ppb	0.56654	173.86%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-347.8	-98.502 µg/L	2.4327	-98.502 ppb	2.4327	2.47%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-6.6	-0.4164 µg/L	0.63351	-0.4164 ppb	0.63351	152.15%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	21.0	50.535 µg/L	16.0208	50.535 ppb	16.0208	31.70%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-0.3	-0.0992 µg/L	1.20271	-0.0992 ppb	1.20271	>999.9%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-2.6	-14.976 µg/L	17.0804	-14.976 ppb	17.0804	114.05%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	1.7	1.8948 µg/L	0.88861	1.8948 ppb	0.88861	46.90%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	2.5	4.0025 µg/L	2.13891	4.0025 ppb	2.13891	53.44%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	27.9	5.8744 µg/L	4.85509	5.8744 ppb	4.85509	82.65%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	38.8	3.2446 µg/L	0.36633	3.2446 ppb	0.36633	11.29%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	0.6	0.3615 µg/L	1.10555	0.3615 ppb	1.10555	305.82%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-7.9	-0.0489 µg/L	0.14173	-0.0489 ppb	0.14173	289.74%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-83.5	-0.2065 µg/L	0.06912	-0.2065 ppb	0.06912	33.48%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-1.6	-2.7889 µg/L	5.12696	-2.7889 ppb	5.12696	183.83%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	157.5	14.747 µg/L	4.5503	14.747 ppb	4.5503	30.85%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	0.4	0.0240 µg/L	0.24758	0.0240 ppb	0.24758	>999.9%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-11.0	-0.3195 µg/L	0.08638	-0.3195 ppb	0.08638	27.04%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
All analyte(s) passed QC.							



Sequence No.: 11

Sample ID: 244144003|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 309

Date Collected: 1/26/2010 13:37:35

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144003|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77665.7	77665.7	105 %		13:38:14
1	Al 396.153Radial†	146996.6	140186.6	96927 µg/L	96927 ppb	13:38:14
1	Ca 317.933Radial†	28047.9	26486.2	21129 µg/L	21129 ppb	13:38:34
1	Fe 238.204 Radial†	9032.5	8596.2	124860 µg/L	124860 ppb	13:38:34
1	K 766.490 Radial†	27819.2	26116.4	16953 µg/L	16953 ppb	13:38:14
1	Mg 279.077 IEC†	1687.3	1597.2	17347 µg/L	17347 ppb	13:38:34
1	Na 589.592 Radial†	3040.3	1991.4	563.96 µg/L	563.96 ppb	13:38:34
1	Sr 421.552†	43296.1	40694.0	253.48 µg/L	253.48 ppb	13:38:14
1	Sc 361.383	1896690.1	1896690.1	102.86 %		13:39:40
1	Y 371.029	1235076.1	1235076.1	105.46 %		13:39:40
1	Ag 328.068†	-1293.1	-1266.4	-2.3066 µg/L	-2.3066 ppb	13:39:45
1	As 188.979†	5.1	6.2	20.380 µg/L	20.380 ppb	13:40:06
1	B 249.677†	1981.9	1812.7	22.874 µg/L	22.874 ppb	13:39:45
1	Ba 233.527†	104627.5	101724.1	2975.6 µg/L	2975.6 ppb	13:39:45
1	Be 313.107†	20612.6	15638.0	9.0140 µg/L	9.0140 ppb	13:39:45
1	Cd 226.502†	376.5	473.5	0.1132 µg/L	0.1132 ppb	13:40:06
1	Co 228.616†	1144.0	1148.0	53.411 µg/L	53.411 ppb	13:40:06
1	Cr 267.716†	7617.8	7456.7	173.99 µg/L	173.99 ppb	13:39:45
1	Cu 324.752†	20099.0	15705.9	131.22 µg/L	131.22 ppb	13:39:45
1	Mn 257.610†	1167019.3	1134628.7	4236.2 µg/L	4236.2 ppb	13:39:40
1	Mo 202.031†	14.6	-2.1	4.4849 µg/L	4.4849 ppb	13:40:06
1	Ni 231.604†	1997.5	1609.2	103.79 µg/L	103.79 ppb	13:40:06
1	P 214.914†	733.5	512.1	1146.1 µg/L	1146.1 ppb	13:40:06
1	Pb 220.353†	586.2	504.4	149.63 µg/L	149.63 ppb	13:40:06
1	S 181.975 Axial†	183.0	153.8	878.70 µg/L	878.70 ppb	13:40:06
1	Sb 206.836†	30.1	7.2	4.5868 µg/L	4.5868 ppb	13:40:06
1	Se 196.026†	-277.1	-279.3	22.370 µg/L	22.370 ppb	13:40:06
1	SiO2†	465743.0	450493.4	94848 µg/L	94848 ppb	13:39:40
1	Si 251.611†	538641.6	523347.6	43799 µg/L	43799 ppb	13:39:40
1	Sn 189.927†	-83.2	-103.0	-41.670 µg/L	-41.670 ppb	13:40:06
1	Ti 334.940†	2093746.6	2034577.2	5074.8 µg/L	5074.8 ppb	13:39:40
1	Tl 190.801†	-48.4	-25.4	9.3045 µg/L	9.3045 ppb	13:40:06
1	U 409.014†	-448.6	-284.5	-45.298 µg/L	-45.298 ppb	13:39:40
1	V 292.402†	18987.5	18555.5	237.48 µg/L	237.48 ppb	13:39:45
1	Zn 213.857†	12409.7	11397.5	324.79 µg/L	324.79 ppb	13:39:45
2	Sc RADIAL	78138.5	78138.5	106 %		13:38:40
2	Al 396.153Radial†	147970.3	140261.3	96979 µg/L	96979 ppb	13:38:40
2	Ca 317.933Radial†	28013.6	26291.9	20975 µg/L	20975 ppb	13:39:00
2	Fe 238.204 Radial†	9006.5	8519.4	123740 µg/L	123740 ppb	13:39:00
2	K 766.490 Radial†	28041.5	26166.6	16985 µg/L	16985 ppb	13:38:40
2	Mg 279.077 IEC†	1677.0	1577.8	17135 µg/L	17135 ppb	13:39:00
2	Na 589.592 Radial†	3046.4	1979.7	560.64 µg/L	560.64 ppb	13:39:00
2	Sr 421.552†	43520.7	40657.0	253.25 µg/L	253.25 ppb	13:38:40
2	Sc 361.383	1893340.8	1893340.8	102.68 %		13:40:14
2	Y 371.029	1233154.4	1233154.4	105.29 %		13:40:14
2	Ag 328.068†	-1253.1	-1229.7	-2.0102 µg/L	-2.0102 ppb	13:40:19
2	As 188.979†	7.9	9.0	26.747 µg/L	26.747 ppb	13:40:40
2	B 249.677†	1982.7	1816.9	23.665 µg/L	23.665 ppb	13:40:19
2	Ba 233.527†	106376.0	103606.9	3030.7 µg/L	3030.7 ppb	13:40:19
2	Be 313.107†	20904.6	15957.9	9.2386 µg/L	9.2386 ppb	13:40:19
2	Cd 226.502†	405.1	502.0	1.0889 µg/L	1.0889 ppb	13:40:40
2	Co 228.616†	1150.4	1156.2	53.874 µg/L	53.874 ppb	13:40:40
2	Cr 267.716†	7752.1	7600.6	177.34 µg/L	177.34 ppb	13:40:19
2	Cu 324.752†	20327.7	15963.2	132.93 µg/L	132.93 ppb	13:40:19
2	Mn 257.610†	1163609.0	1133314.4	4231.2 µg/L	4231.2 ppb	13:40:14
2	Mo 202.031†	15.3	-1.4	4.5270 µg/L	4.5270 ppb	13:40:40
2	Ni 231.604†	1993.3	1608.6	103.74 µg/L	103.74 ppb	13:40:40
2	P 214.914†	730.0	510.0	1141.9 µg/L	1141.9 ppb	13:40:40
2	Pb 220.353†	576.9	496.3	147.28 µg/L	147.28 ppb	13:40:40

2	S 181.975 Axial†	185.8	156.8	895.56 µg/L	895.56 ppb	13:40:40
2	Sb 206.836†	23.5	0.7	-2.5714 µg/L	-2.5714 ppb	13:40:40
2	Se 196.026†	-284.8	-287.2	5.9114 µg/L	5.9114 ppb	13:40:40
2	SiO2†	464687.1	450266.0	94800 µg/L	94800 ppb	13:40:14
2	Si 251.611†	537202.3	522872.2	43759 µg/L	43759 ppb	13:40:14
2	Sn 189.927†	-86.7	-106.5	-43.963 µg/L	-43.963 ppb	13:40:40
2	Ti 334.940†	2089312.4	2033859.5	5073.0 µg/L	5073.0 ppb	13:40:14
2	Tl 190.801†	-52.3	-29.2	2.7547 µg/L	2.7547 ppb	13:40:40
2	U 409.014†	-495.1	-330.6	-49.445 µg/L	-49.445 ppb	13:40:14
2	V 292.402†	19295.9	18888.5	241.57 µg/L	241.57 ppb	13:40:19
2	Zn 213.857†	12600.2	11604.4	330.88 µg/L	330.88 ppb	13:40:19
3	Sc RADIAL	78053.8	78053.8	105 %		13:39:06
3	Al 396.153Radial†	146614.7	139127.4	96195 µg/L	96195 ppb	13:39:06
3	Ca 317.933Radial†	27870.3	26184.8	20889 µg/L	20889 ppb	13:39:26
3	Fe 238.204 Radial†	8972.0	8495.9	123400 µg/L	123400 ppb	13:39:26
3	K 766.490 Radial†	27650.5	25824.5	16763 µg/L	16763 ppb	13:39:06
3	Mg 279.077 IEC†	1682.0	1584.2	17205 µg/L	17205 ppb	13:39:26
3	Na 589.592 Radial†	3012.1	1950.2	552.31 µg/L	552.31 ppb	13:39:26
3	Sr 421.552†	43048.3	40253.6	250.74 µg/L	250.74 ppb	13:39:06
3	Sc 361.383	1892347.5	1892347.5	102.62 %		13:40:48
3	Y 371.029	1231328.7	1231328.7	105.14 %		13:40:48
3	Ag 328.068†	-1220.4	-1198.4	-1.7993 µg/L	-1.7993 ppb	13:40:53
3	As 188.979†	5.2	6.3	20.647 µg/L	20.647 ppb	13:41:14
3	B 249.677†	1878.1	1715.9	18.947 µg/L	18.947 ppb	13:40:53
3	Ba 233.527†	102932.6	100306.0	2934.2 µg/L	2934.2 ppb	13:40:53
3	Be 313.107†	20289.1	15368.7	8.8623 µg/L	8.8623 ppb	13:40:53
3	Cd 226.502†	364.2	462.4	-0.0590 µg/L	-0.0590 ppb	13:41:14
3	Co 228.616†	1076.5	1084.7	50.088 µg/L	50.088 ppb	13:41:14
3	Cr 267.716†	7477.3	7336.8	171.19 µg/L	171.19 ppb	13:40:53
3	Cu 324.752†	19758.2	15418.6	128.94 µg/L	128.94 ppb	13:40:53
3	Mn 257.610†	1144136.5	1114934.7	4162.8 µg/L	4162.8 ppb	13:40:48
3	Mo 202.031†	11.2	-5.4	4.0100 µg/L	4.0100 ppb	13:41:14
3	Ni 231.604†	1895.7	1514.4	97.753 µg/L	97.753 ppb	13:41:14
3	P 214.914†	701.0	482.1	1075.2 µg/L	1075.2 ppb	13:41:14
3	Pb 220.353†	555.2	475.6	141.11 µg/L	141.11 ppb	13:41:14
3	S 181.975 Axial†	181.9	153.2	874.93 µg/L	874.93 ppb	13:41:14
3	Sb 206.836†	27.6	4.8	1.9615 µg/L	1.9615 ppb	13:41:14
3	Se 196.026†	-266.6	-269.7	31.966 µg/L	31.966 ppb	13:41:14
3	SiO2†	458931.6	444895.3	93670 µg/L	93670 ppb	13:40:48
3	Si 251.611†	530749.2	516858.7	43256 µg/L	43256 ppb	13:40:48
3	Sn 189.927†	-82.8	-102.7	-41.752 µg/L	-41.752 ppb	13:41:14
3	Ti 334.940†	2049238.0	1995878.0	4978.3 µg/L	4978.3 ppb	13:40:48
3	Tl 190.801†	-44.5	-21.7	14.682 µg/L	14.682 ppb	13:41:14
3	U 409.014†	-568.9	-402.8	-56.158 µg/L	-56.158 ppb	13:40:48
3	V 292.402†	18580.5	18201.2	232.99 µg/L	232.99 ppb	13:40:53
3	Zn 213.857†	12226.1	11246.3	320.49 µg/L	320.49 ppb	13:40:53

Mean Data: 244144003|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1894126.1	102.72 %		0.123			0.12%
Sc RADIAL	77952.7	105 %		0.3			0.32%
Y 371.029	1233186.4	105.30 %		0.160			0.15%
Ag 328.068†	-1231.5	-2.0387 µg/L		0.25486	-2.0387 ppb	0.25486	12.50%
Al 396.153Radial†	139858.4	96700 µg/L		438.5	96700 ppb	438.5	0.45%
As 188.979†	7.2	22.591 µg/L		3.6015	22.591 ppb	3.6015	15.94%
B 249.677†	1781.8	21.829 µg/L		2.5270	21.829 ppb	2.5270	11.58%
Ba 233.527†	101879.0	2980.2 µg/L		48.44	2980.2 ppb	48.44	1.63%
Be 313.107†	15654.9	9.0383 µg/L		0.18934	9.0383 ppb	0.18934	2.09%
Ca 317.933Radial†	26321.0	20998 µg/L		121.9	20998 ppb	121.9	0.58%
Cd 226.502†	479.3	0.3810 µg/L		0.61906	0.3810 ppb	0.61906	162.48%
Co 228.616†	1129.6	52.458 µg/L		2.0653	52.458 ppb	2.0653	3.94%
Cr 267.716†	7464.7	174.17 µg/L		3.081	174.17 ppb	3.081	1.77%
Cu 324.752†	15695.9	131.03 µg/L		2.005	131.03 ppb	2.005	1.53%
Fe 238.204 Radial†	8537.2	124000 µg/L		761.9	124000 ppb	761.9	0.61%
K 766.490 Radial†	26035.9	16900 µg/L		119.9	16900 ppb	119.9	0.71%
Mg 279.077 IEC†	1586.4	17229 µg/L		107.9	17229 ppb	107.9	0.63%
Mn 257.610†	1127625.9	4210.1 µg/L		41.03	4210.1 ppb	41.03	0.97%
Mo 202.031†	-2.9	4.3406 µg/L		0.28713	4.3406 ppb	0.28713	6.61%
Na 589.592 Radial†	1973.8	558.97 µg/L		6.006	558.97 ppb	6.006	1.07%

Ni 231.604†	1577.4	101.76 µg/L	3.470	101.76 ppb	3.470	3.41%
P 214.914†	501.4	1121.1 µg/L	39.75	1121.1 ppb	39.75	3.55%
Pb 220.353†	492.1	146.01 µg/L	4.398	146.01 ppb	4.398	3.01%
S 181.975 Axial†	154.6	883.06 µg/L	10.988	883.06 ppb	10.988	1.24%
Sb 206.836†	4.2	1.3256 µg/L	3.62120	1.3256 ppb	3.62120	273.17%
Se 196.026†	-278.7	20.082 µg/L	13.1771	20.082 ppb	13.1771	65.61%
SiO2†	448551.6	94440 µg/L	667.1	94440 ppb	667.1	0.71%
Si 251.611†	521026.1	43604 µg/L	302.7	43604 ppb	302.7	0.69%
Sn 189.927†	-104.1	-42.462 µg/L	1.3006	-42.462 ppb	1.3006	3.06%
Sr 421.552†	40534.9	252.49 µg/L	1.522	252.49 ppb	1.522	0.60%
Ti 334.940†	2021438.2	5042.0 µg/L	55.23	5042.0 ppb	55.23	1.10%
Tl 190.801†	-25.4	8.9138 µg/L	5.97332	8.9138 ppb	5.97332	67.01%
U 409.014†	-339.3	-50.300 µg/L	5.4802	-50.300 ppb	5.4802	10.89%
V 292.402†	18548.4	237.35 µg/L	4.292	237.35 ppb	4.292	1.81%
Zn 213.857†	11416.1	325.39 µg/L	5.223	325.39 ppb	5.223	1.61%

Sequence No.: 12

Sample ID: 244144004|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 310

Date Collected: 1/26/2010 13:41:23

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144004|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77973.1	77973.1	105 %			13:41:57
1	Al 396.153Radial†	228083.0	216647.6	149790 µg/L		149790 ppb	13:41:57
1	Ca 317.933Radial†	26742.2	25140.6	20056 µg/L		20056 ppb	13:42:17
1	Fe 238.204 Radial†	10860.7	10298.6	149590 µg/L		149590 ppb	13:42:17
1	K 766.490 Radial†	30176.1	28250.4	18338 µg/L		18338 ppb	13:41:57
1	Mg 279.077 IEC†	2192.2	2070.4	22499 µg/L		22499 ppb	13:42:17
1	Na 589.592 Radial†	4160.8	3044.2	862.11 µg/L		862.11 ppb	13:42:17
1	Sr 421.552†	48682.3	45646.9	284.33 µg/L		284.33 ppb	13:41:57
1	Sc 361.383	1888414.6	1888414.6	102.41 %			13:43:23
1	Y 371.029	1223412.7	1223412.7	104.46 %			13:43:23
1	Ag 328.068†	-1576.0	-1548.1	-2.9756 µg/L		-2.9756 ppb	13:43:28
1	As 188.979†	11.5	12.5	36.466 µg/L		36.466 ppb	13:43:49
1	B 249.677†	2262.5	2095.2	23.543 µg/L		23.543 ppb	13:43:28
1	Ba 233.527†	69722.4	68086.5	1991.9 µg/L		1991.9 ppb	13:43:28
1	Be 313.107†	24582.9	19602.6	11.319 µg/L		11.319 ppb	13:43:28
1	Cd 226.502†	506.1	601.7	1.1142 µg/L		1.1142 ppb	13:43:28
1	Co 228.616†	1244.3	1250.7	56.559 µg/L		56.559 ppb	13:43:49
1	Cr 267.716†	4758.2	4696.9	109.68 µg/L		109.68 ppb	13:43:28
1	Cu 324.752†	11202.4	7104.3	72.299 µg/L		72.299 ppb	13:43:28
1	Mn 257.610†	974874.5	951979.3	3559.9 µg/L		3559.9 ppb	13:43:23
1	Mo 202.031†	-25.0	-40.7	0.5521 µg/L		0.5521 ppb	13:43:49
1	Ni 231.604†	1537.6	1168.6	76.111 µg/L		76.111 ppb	13:43:49
1	P 214.914†	626.7	411.0	904.38 µg/L		904.38 ppb	13:43:49
1	Pb 220.353†	557.7	479.1	144.21 µg/L		144.21 ppb	13:43:49
1	S 181.975 Axial†	105.2	78.6	449.11 µg/L		449.11 ppb	13:43:49
1	Sb 206.836†	29.0	6.2	4.1792 µg/L		4.1792 ppb	13:43:49
1	Se 196.026†	-330.0	-332.1	28.953 µg/L		28.953 ppb	13:43:49
1	SiO2†	465385.5	452128.5	95193 µg/L		95193 ppb	13:43:23
1	Si 251.611†	538075.7	525089.8	43945 µg/L		43945 ppb	13:43:23
1	Sn 189.927†	-106.1	-125.6	-52.095 µg/L		-52.095 ppb	13:43:49
1	Ti 334.940†	2591825.0	2529849.9	6310.0 µg/L		6310.0 ppb	13:43:23
1	Tl 190.801†	-44.0	-21.3	24.185 µg/L		24.185 ppb	13:43:49
1	U 409.014†	-659.1	-492.0	-68.101 µg/L		-68.101 ppb	13:43:23
1	V 292.402†	23583.6	23124.2	295.34 µg/L		295.34 ppb	13:43:28
1	Zn 213.857†	10485.3	9571.3	270.29 µg/L		270.29 ppb	13:43:28
2	Sc RADIAL	78180.6	78180.6	106 %			13:42:23
2	Al 396.153Radial†	229405.8	217325.7	150260 µg/L		150260 ppb	13:42:23
2	Ca 317.933Radial†	26588.0	24927.2	19886 µg/L		19886 ppb	13:42:43
2	Fe 238.204 Radial†	10816.3	10229.2	148580 µg/L		148580 ppb	13:42:43
2	K 766.490 Radial†	30341.6	28331.1	18390 µg/L		18390 ppb	13:42:23
2	Mg 279.077 IEC†	2190.2	2063.0	22419 µg/L		22419 ppb	13:42:43
2	Na 589.592 Radial†	4165.2	3037.9	860.32 µg/L		860.32 ppb	13:42:43
2	Sr 421.552†	48934.8	45763.4	285.06 µg/L		285.06 ppb	13:42:23
2	Sc 361.383	1883077.5	1883077.5	102.12 %			13:43:57
2	Y 371.029	1220520.6	1220520.6	104.21 %			13:43:57
2	Ag 328.068†	-1514.2	-1492.0	-2.5193 µg/L		-2.5193 ppb	13:44:02
2	As 188.979†	7.2	8.3	26.710 µg/L		26.710 ppb	13:44:23
2	B 249.677†	2198.1	2038.3	21.318 µg/L		21.318 ppb	13:44:02
2	Ba 233.527†	69770.9	68326.9	1998.9 µg/L		1998.9 ppb	13:44:02
2	Be 313.107†	24532.8	19621.7	11.324 µg/L		11.324 ppb	13:44:02
2	Cd 226.502†	497.6	594.7	1.0206 µg/L		1.0206 ppb	13:44:02
2	Co 228.616†	1236.5	1246.6	56.285 µg/L		56.285 ppb	13:44:23
2	Cr 267.716†	4764.1	4715.8	110.12 µg/L		110.12 ppb	13:44:02
2	Cu 324.752†	11213.4	7146.1	72.461 µg/L		72.461 ppb	13:44:02
2	Mn 257.610†	975523.8	955313.2	3572.2 µg/L		3572.2 ppb	13:43:57
2	Mo 202.031†	-17.5	-33.4	1.4390 µg/L		1.4390 ppb	13:44:23
2	Ni 231.604†	1540.4	1175.7	76.545 µg/L		76.545 ppb	13:44:23
2	P 214.914†	636.3	422.1	932.00 µg/L		932.00 ppb	13:44:23
2	Pb 220.353†	557.4	480.3	144.64 µg/L		144.64 ppb	13:44:23

2	S 181.975 Axial†	108.5	82.1	469.13 µg/L	469.13 ppb	13:44:23
2	Sb 206.836†	27.7	5.0	2.9039 µg/L	2.9039 ppb	13:44:23
2	Se 196.026†	-334.9	-337.8	16.226 µg/L	16.226 ppb	13:44:23
2	SiO2†	465852.3	453873.6	95560 µg/L	95560 ppb	13:43:57
2	Si 251.611†	538512.0	527006.2	44105 µg/L	44105 ppb	13:43:57
2	Sn 189.927†	-105.0	-124.9	-51.780 µg/L	-51.780 ppb	13:44:23
2	Ti 334.940†	2593176.8	2538346.6	6331.2 µg/L	6331.2 ppb	13:43:57
2	Tl 190.801†	-51.2	-28.4	12.133 µg/L	12.133 ppb	13:44:23
2	U 409.014†	-637.3	-472.5	-66.124 µg/L	-66.124 ppb	13:43:57
2	V 292.402†	23537.1	23144.0	295.54 µg/L	295.54 ppb	13:44:02
2	Zn 213.857†	10429.5	9545.7	269.59 µg/L	269.59 ppb	13:44:02
3	Sc RADIAL	77784.7	77784.7	105 %		13:42:49
3	Al 396.153Radial†	229250.8	218284.2	150930 µg/L	150930 ppb	13:42:49
3	Ca 317.933Radial†	26618.4	25084.3	20011 µg/L	20011 ppb	13:43:09
3	Fe 238.204 Radial†	10825.9	10290.4	149470 µg/L	149470 ppb	13:43:09
3	K 766.490 Radial†	30331.5	28467.8	18479 µg/L	18479 ppb	13:42:49
3	Mg 279.077 IEC†	2183.5	2067.1	22463 µg/L	22463 ppb	13:43:09
3	Na 589.592 Radial†	4170.7	3063.2	867.49 µg/L	867.49 ppb	13:43:09
3	Sr 421.552†	48814.3	45884.6	285.81 µg/L	285.81 ppb	13:42:49
3	Sc 361.383	1886927.2	1886927.2	102.33 %		13:44:30
3	Y 371.029	1222816.1	1222816.1	104.41 %		13:44:30
3	Ag 328.068†	-1473.5	-1449.2	-2.1602 µg/L	-2.1602 ppb	13:44:36
3	As 188.979†	11.4	12.4	36.221 µg/L	36.221 ppb	13:44:57
3	B 249.677†	2070.0	1908.7	14.570 µg/L	14.570 ppb	13:44:36
3	Ba 233.527†	66815.4	65299.3	1910.4 µg/L	1910.4 ppb	13:44:36
3	Be 313.107†	23633.1	18693.4	10.710 µg/L	10.710 ppb	13:44:36
3	Cd 226.502†	451.9	549.1	-0.4464 µg/L	-0.4464 ppb	13:44:36
3	Co 228.616†	1158.6	1168.0	52.098 µg/L	52.098 ppb	13:44:57
3	Cr 267.716†	4533.4	4480.8	104.64 µg/L	104.64 ppb	13:44:36
3	Cu 324.752†	10927.9	6844.7	70.400 µg/L	70.400 ppb	13:44:36
3	Mn 257.610†	967095.5	945127.9	3534.4 µg/L	3534.4 ppb	13:44:30
3	Mo 202.031†	-18.7	-34.6	1.3213 µg/L	1.3213 ppb	13:44:57
3	Ni 231.604†	1459.3	1093.3	71.333 µg/L	71.333 ppb	13:44:57
3	P 214.914†	609.8	394.9	866.29 µg/L	866.29 ppb	13:44:57
3	Pb 220.353†	539.3	461.5	139.08 µg/L	139.08 ppb	13:44:57
3	S 181.975 Axial†	100.9	74.5	425.34 µg/L	425.34 ppb	13:44:57
3	Sb 206.836†	38.6	15.6	14.715 µg/L	14.715 ppb	13:44:57
3	Se 196.026†	-309.4	-312.3	59.475 µg/L	59.475 ppb	13:44:57
3	SiO2†	463723.7	450862.8	94926 µg/L	94926 ppb	13:44:30
3	Si 251.611†	536399.5	523865.9	43842 µg/L	43842 ppb	13:44:30
3	Sn 189.927†	-100.4	-120.2	-48.857 µg/L	-48.857 ppb	13:44:57
3	Ti 334.940†	2560228.6	2500968.1	6237.9 µg/L	6237.9 ppb	13:44:30
3	Tl 190.801†	-50.0	-27.2	13.373 µg/L	13.373 ppb	13:44:57
3	U 409.014†	-604.8	-439.5	-63.161 µg/L	-63.161 ppb	13:44:30
3	V 292.402†	22434.2	22019.2	281.61 µg/L	281.61 ppb	13:44:36
3	Zn 213.857†	10093.8	9196.8	259.40 µg/L	259.40 ppb	13:44:36

Mean Data: 244144004|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1886139.8	102.29 %	0.149			0.15%
Sc RADIAL	77979.4	105 %	0.3			0.25%
Y 371.029	1222249.8	104.36 %	0.130			0.12%
Ag 328.068†	-1496.5	-2.5517 µg/L	0.40869	-2.5517 ppb	0.40869	16.02%
Al 396.153Radial†	217419.2	150330 µg/L	568.6	150330 ppb	568.6	0.38%
As 188.979†	11.1	33.133 µg/L	5.5633	33.133 ppb	5.5633	16.79%
B 249.677†	2014.1	19.811 µg/L	4.6726	19.811 ppb	4.6726	23.59%
Ba 233.527†	67237.6	1967.1 µg/L	49.24	1967.1 ppb	49.24	2.50%
Be 313.107†	19305.9	11.118 µg/L	0.3532	11.118 ppb	0.3532	3.18%
Ca 317.933Radial†	25050.7	19984 µg/L	88.2	19984 ppb	88.2	0.44%
Cd 226.502†	581.8	0.5628 µg/L	0.87522	0.5628 ppb	0.87522	155.52%
Co 228.616†	1221.8	54.981 µg/L	2.5000	54.981 ppb	2.5000	4.55%
Cr 267.716†	4631.2	108.15 µg/L	3.048	108.15 ppb	3.048	2.82%
Cu 324.752†	7031.7	71.720 µg/L	1.1459	71.720 ppb	1.1459	1.60%
Fe 238.204 Radial†	10272.7	149210 µg/L	551.2	149210 ppb	551.2	0.37%
K 766.490 Radial†	28349.8	18402 µg/L	71.3	18402 ppb	71.3	0.39%
Mg 279.077 IEC†	2066.8	22460 µg/L	40.4	22460 ppb	40.4	0.18%
Mn 257.610†	950806.8	3555.5 µg/L	19.27	3555.5 ppb	19.27	0.54%
Mo 202.031†	-36.2	1.1041 µg/L	0.48167	1.1041 ppb	0.48167	43.62%
Na 589.592 Radial†	3048.4	863.30 µg/L	3.730	863.30 ppb	3.730	0.43%

Ni 231.604†	1145.9	74.663 µg/L	2.8923	74.663 ppb	2.8923	3.87%
P 214.914†	409.3	900.89 µg/L	32.993	900.89 ppb	32.993	3.66%
Pb 220.353†	473.7	142.64 µg/L	3.095	142.64 ppb	3.095	2.17%
S 181.975 Axial†	78.4	447.86 µg/L	21.923	447.86 ppb	21.923	4.89%
Sb 206.836†	8.9	7.2662 µg/L	6.48272	7.2662 ppb	6.48272	89.22%
Se 196.026†	-327.4	34.885 µg/L	22.2265	34.885 ppb	22.2265	63.71%
SiO2†	452288.3	95226 µg/L	318.3	95226 ppb	318.3	0.33%
Si 251.611†	525320.7	43964 µg/L	132.5	43964 ppb	132.5	0.30%
Sn 189.927†	-123.6	-50.911 µg/L	1.7853	-50.911 ppb	1.7853	3.51%
Sr 421.552†	45764.9	285.07 µg/L	0.740	285.07 ppb	0.740	0.26%
Ti 334.940†	2523054.9	6293.0 µg/L	48.88	6293.0 ppb	48.88	0.78%
Tl 190.801†	-25.6	16.564 µg/L	6.6294	16.564 ppb	6.6294	40.02%
U 409.014†	-468.0	-65.795 µg/L	2.4866	-65.795 ppb	2.4866	3.78%
V 292.402†	22762.5	290.83 µg/L	7.988	290.83 ppb	7.988	2.75%
Zn 213.857†	9437.9	266.43 µg/L	6.096	266.43 ppb	6.096	2.29%

Sequence No.: 13

Sample ID: 244144005|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 311

Date Collected: 1/26/2010 13:45:06

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144005|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77791.4	77791.4	105 %		13:45:39
1	Al 396.153Radial†	142008.9	135211.9	93488 µg/L	93488 ppb	13:45:39
1	Ca 317.933Radial†	22523.2	21183.5	16899 µg/L	16899 ppb	13:45:59
1	Fe 238.204 Radial†	8777.8	8339.7	121130 µg/L	121130 ppb	13:45:59
1	K 766.490 Radial†	22875.5	21367.3	13870 µg/L	13870 ppb	13:45:39
1	Mg 279.077 IEC†	1517.7	1433.2	15555 µg/L	15555 ppb	13:45:59
1	Na 589.592 Radial†	3467.8	2393.7	677.89 µg/L	677.89 ppb	13:45:59
1	Sr 421.552†	35480.8	33187.2	206.72 µg/L	206.72 ppb	13:45:39
1	Sc 361.383	1872750.5	1872750.5	101.56 %		13:47:05
1	Y 371.029	1219184.8	1219184.8	104.10 %		13:47:05
1	Ag 328.068†	-1226.0	-1216.4	-2.0649 µg/L	-2.0649 ppb	13:47:11
1	As 188.979†	3.5	4.7	16.892 µg/L	16.892 ppb	13:47:31
1	B 249.677†	1844.2	1701.7	19.383 µg/L	19.383 ppb	13:47:11
1	Ba 233.527†	166480.8	163926.7	4795.0 µg/L	4795.0 ppb	13:47:05
1	Be 313.107†	19447.2	14746.7	8.3443 µg/L	8.3443 ppb	13:47:11
1	Cd 226.502†	383.3	484.9	0.8515 µg/L	0.8515 ppb	13:47:31
1	Co 228.616†	956.2	977.3	43.644 µg/L	43.644 ppb	13:47:31
1	Cr 267.716†	5782.9	5744.6	134.07 µg/L	134.07 ppb	13:47:11
1	Cu 324.752†	41564.3	37090.9	285.75 µg/L	285.75 ppb	13:47:11
1	Mn 257.610†	1025552.2	1009840.0	3771.6 µg/L	3771.6 ppb	13:47:05
1	Mo 202.031†	2.2	-14.1	2.8218 µg/L	2.8218 ppb	13:47:31
1	Ni 231.604†	1611.6	1254.0	81.185 µg/L	81.185 ppb	13:47:31
1	P 214.914†	837.5	623.7	1400.3 µg/L	1400.3 ppb	13:47:31
1	Pb 220.353†	746.7	669.7	198.21 µg/L	198.21 ppb	13:47:31
1	S 181.975 Axial†	156.7	130.2	743.79 µg/L	743.79 ppb	13:47:31
1	Sb 206.836†	28.6	6.1	4.0786 µg/L	4.0786 ppb	13:47:31
1	Se 196.026†	-273.6	-279.3	8.5131 µg/L	8.5131 ppb	13:47:31
1	SiO2†	434954.2	425966.1	89684 µg/L	89684 ppb	13:47:05
1	Si 251.611†	502666.1	494619.2	41394 µg/L	41394 ppb	13:47:05
1	Sn 189.927†	-89.8	-110.5	-47.746 µg/L	-47.746 ppb	13:47:31
1	Ti 334.940†	2116202.5	2082708.3	5195.0 µg/L	5195.0 ppb	13:47:05
1	Tl 190.801†	-51.6	-29.1	2.9037 µg/L	2.9037 ppb	13:47:31
1	U 409.014†	-557.8	-397.6	-55.116 µg/L	-55.116 ppb	13:47:05
1	V 292.402†	18921.7	18726.6	239.30 µg/L	239.30 ppb	13:47:11
1	Zn 213.857†	11455.3	10612.0	302.01 µg/L	302.01 ppb	13:47:11
2	Sc RADIAL	77470.6	77470.6	105 %		13:46:05
2	Al 396.153Radial†	141870.1	135639.0	93783 µg/L	93783 ppb	13:46:05
2	Ca 317.933Radial†	22547.0	21295.1	16988 µg/L	16988 ppb	13:46:25
2	Fe 238.204 Radial†	8778.6	8375.1	121650 µg/L	121650 ppb	13:46:25
2	K 766.490 Radial†	22985.6	21562.7	13997 µg/L	13997 ppb	13:46:05
2	Mg 279.077 IEC†	1514.0	1435.6	15581 µg/L	15581 ppb	13:46:25
2	Na 589.592 Radial†	3494.8	2433.2	689.07 µg/L	689.07 ppb	13:46:25
2	Sr 421.552†	35320.4	33173.7	206.64 µg/L	206.64 ppb	13:46:05
2	Sc 361.383	1866090.6	1866090.6	101.20 %		13:47:39
2	Y 371.029	1215143.7	1215143.7	103.75 %		13:47:39
2	Ag 328.068†	-1261.7	-1256.0	-2.4141 µg/L	-2.4141 ppb	13:47:45
2	As 188.979†	12.4	13.5	37.315 µg/L	37.315 ppb	13:48:05
2	B 249.677†	1803.5	1668.0	17.482 µg/L	17.482 ppb	13:47:45
2	Ba 233.527†	165777.4	163816.7	4791.7 µg/L	4791.7 ppb	13:47:39
2	Be 313.107†	19220.5	14591.1	8.2352 µg/L	8.2352 ppb	13:47:45
2	Cd 226.502†	373.7	476.8	0.5512 µg/L	0.5512 ppb	13:48:05
2	Co 228.616†	955.9	980.3	43.812 µg/L	43.812 ppb	13:48:05
2	Cr 267.716†	5754.6	5737.1	133.90 µg/L	133.90 ppb	13:47:45
2	Cu 324.752†	41203.5	36880.4	284.29 µg/L	284.29 ppb	13:47:45
2	Mn 257.610†	1021549.8	1009488.9	3770.4 µg/L	3770.4 ppb	13:47:39
2	Mo 202.031†	5.6	-10.8	3.2638 µg/L	3.2638 ppb	13:48:05
2	Ni 231.604†	1601.0	1249.3	80.891 µg/L	80.891 ppb	13:48:05
2	P 214.914†	822.9	612.1	1372.4 µg/L	1372.4 ppb	13:48:05
2	Pb 220.353†	747.5	673.1	199.21 µg/L	199.21 ppb	13:48:05

2	S 181.975 Axial†	168.5	142.3	813.04 µg/L	813.04 ppb	13:48:05
2	Sb 206.836†	23.1	0.8	-1.8067 µg/L	-1.8067 ppb	13:48:05
2	Se 196.026†	-268.6	-275.3	16.702 µg/L	16.702 ppb	13:48:05
2	SiO2†	433322.0	425881.7	89667 µg/L	89667 ppb	13:47:39
2	Si 251.611†	500852.6	494593.6	41392 µg/L	41392 ppb	13:47:39
2	Sn 189.927†	-83.8	-104.9	-44.351 µg/L	-44.351 ppb	13:48:05
2	Ti 334.940†	2108782.1	2082812.4	5195.2 µg/L	5195.2 ppb	13:47:39
2	Tl 190.801†	-48.6	-26.4	7.6313 µg/L	7.6313 ppb	13:48:05
2	U 409.014†	-523.1	-365.4	-52.169 µg/L	-52.169 ppb	13:47:39
2	V 292.402†	18663.6	18538.1	236.99 µg/L	236.99 ppb	13:47:45
2	Zn 213.857†	11353.8	10552.0	300.24 µg/L	300.24 ppb	13:47:45
3	Sc RADIAL	77644.5	77644.5	105 %		13:46:31
3	Al 396.153Radial†	141447.4	134932.0	93294 µg/L	93294 ppb	13:46:31
3	Ca 317.933Radial†	22516.5	21217.8	16927 µg/L	16927 ppb	13:46:51
3	Fe 238.204 Radial†	8778.0	8355.8	121370 µg/L	121370 ppb	13:46:51
3	K 766.490 Radial†	22900.1	21431.9	13912 µg/L	13912 ppb	13:46:31
3	Mg 279.077 IEC†	1504.9	1423.7	15451 µg/L	15451 ppb	13:46:51
3	Na 589.592 Radial†	3490.7	2421.8	685.84 µg/L	685.84 ppb	13:46:51
3	Sr 421.552†	35191.9	32975.5	205.40 µg/L	205.40 ppb	13:46:31
3	Sc 361.383	1863856.7	1863856.7	101.08 %		13:48:13
3	Y 371.029	1213242.9	1213242.9	103.59 %		13:48:13
3	Ag 328.068†	-1209.4	-1205.7	-2.0289 µg/L	-2.0289 ppb	13:48:19
3	As 188.979†	8.9	10.0	29.241 µg/L	29.241 ppb	13:48:39
3	B 249.677†	1750.6	1617.8	15.188 µg/L	15.188 ppb	13:48:19
3	Ba 233.527†	164266.1	162517.9	4753.7 µg/L	4753.7 ppb	13:48:13
3	Be 313.107†	18702.4	14101.2	7.9226 µg/L	7.9226 ppb	13:48:19
3	Cd 226.502†	322.4	426.4	-0.9236 µg/L	-0.9236 ppb	13:48:39
3	Co 228.616†	893.0	919.2	40.572 µg/L	40.572 ppb	13:48:39
3	Cr 267.716†	5482.9	5475.0	127.78 µg/L	127.78 ppb	13:48:19
3	Cu 324.752†	39894.9	35634.6	275.22 µg/L	275.22 ppb	13:48:19
3	Mn 257.610†	1008466.6	997755.2	3726.7 µg/L	3726.7 ppb	13:48:13
3	Mo 202.031†	14.6	-1.8	4.3817 µg/L	4.3817 ppb	13:48:39
3	Ni 231.604†	1522.8	1173.8	76.094 µg/L	76.094 ppb	13:48:39
3	P 214.914†	793.5	584.0	1305.8 µg/L	1305.8 ppb	13:48:39
3	Pb 220.353†	721.9	648.7	191.99 µg/L	191.99 ppb	13:48:39
3	S 181.975 Axial†	155.4	129.6	740.28 µg/L	740.28 ppb	13:48:39
3	Sb 206.836†	23.9	1.5	-0.8899 µg/L	-0.8899 ppb	13:48:39
3	Se 196.026†	-247.8	-255.1	47.327 µg/L	47.327 ppb	13:48:39
3	SiO2†	429773.9	422884.6	89036 µg/L	89036 ppb	13:48:13
3	Si 251.611†	496727.8	491106.0	41100 µg/L	41100 ppb	13:48:13
3	Sn 189.927†	-78.1	-99.3	-41.108 µg/L	-41.108 ppb	13:48:39
3	Ti 334.940†	2074023.9	2050922.7	5115.7 µg/L	5115.7 ppb	13:48:13
3	Tl 190.801†	-44.9	-22.7	13.086 µg/L	13.086 ppb	13:48:39
3	U 409.014†	-499.5	-342.6	-49.996 µg/L	-49.996 ppb	13:48:13
3	V 292.402†	17882.6	17787.5	227.65 µg/L	227.65 ppb	13:48:19
3	Zn 213.857†	11011.3	10226.6	290.81 µg/L	290.81 ppb	13:48:19

Mean Data: 244144005|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1867565.9	101.28 %	%	0.251			0.25%
Sc RADIAL	77635.5	105 %	%	0.2			0.21%
Y 371.029	1215857.2	103.82 %	%	0.259			0.25%
Ag 328.068†	-1226.0	-2.1693 µg/L	µg/L	0.21277	-2.1693 ppb	0.21277	9.81%
Al 396.153Radial†	135261.0	93522 µg/L	µg/L	246.2	93522 ppb	246.2	0.26%
As 188.979†	9.4	27.816 µg/L	µg/L	10.2855	27.816 ppb	10.2855	36.98%
B 249.677†	1662.5	17.351 µg/L	µg/L	2.1004	17.351 ppb	2.1004	12.11%
Ba 233.527†	163420.4	4780.1 µg/L	µg/L	22.93	4780.1 ppb	22.93	0.48%
Be 313.107†	14479.7	8.1674 µg/L	µg/L	0.21886	8.1674 ppb	0.21886	2.68%
Ca 317.933Radial†	21232.1	16938 µg/L	µg/L	45.6	16938 ppb	45.6	0.27%
Cd 226.502†	462.7	0.1597 µg/L	µg/L	0.95013	0.1597 ppb	0.95013	595.01%
Co 228.616†	958.9	42.676 µg/L	µg/L	1.8243	42.676 ppb	1.8243	4.27%
Cr 267.716†	5652.2	131.92 µg/L	µg/L	3.583	131.92 ppb	3.583	2.72%
Cu 324.752†	36535.3	281.75 µg/L	µg/L	5.704	281.75 ppb	5.704	2.02%
Fe 238.204 Radial†	8356.9	121380 µg/L	µg/L	257.5	121380 ppb	257.5	0.21%
K 766.490 Radial†	21453.9	13926 µg/L	µg/L	64.6	13926 ppb	64.6	0.46%
Mg 279.077 IEC†	1430.8	15529 µg/L	µg/L	68.7	15529 ppb	68.7	0.44%
Mn 257.610†	1005694.7	3756.3 µg/L	µg/L	25.58	3756.3 ppb	25.58	0.68%
Mo 202.031†	-8.9	3.4891 µg/L	µg/L	0.80398	3.4891 ppb	0.80398	23.04%
Na 589.592 Radial†	2416.2	684.27 µg/L	µg/L	5.755	684.27 ppb	5.755	0.84%



Ni 231.604†	1225.7	79.390 µg/L	2.8586	79.390 ppb	2.8586	3.60%
P 214.914†	606.6	1359.5 µg/L	48.56	1359.5 ppb	48.56	3.57%
Pb 220.353†	663.8	196.47 µg/L	3.911	196.47 ppb	3.911	1.99%
S 181.975 Axial†	134.0	765.70 µg/L	41.034	765.70 ppb	41.034	5.36%
Sb 206.836†	2.8	0.4607 µg/L	3.16659	0.4607 ppb	3.16659	687.38%
Se 196.026†	-269.9	24.181 µg/L	20.4593	24.181 ppb	20.4593	84.61%
SiO2†	424910.8	89462 µg/L	369.6	89462 ppb	369.6	0.41%
Si 251.611†	493439.6	41296 µg/L	169.1	41296 ppb	169.1	0.41%
Sn 189.927†	-104.9	-44.402 µg/L	3.3195	-44.402 ppb	3.3195	7.48%
Sr 421.552†	33112.1	206.25 µg/L	0.738	206.25 ppb	0.738	0.36%
Ti 334.940†	2072147.8	5168.6 µg/L	45.85	5168.6 ppb	45.85	0.89%
Tl 190.801†	-26.1	7.8736 µg/L	5.09543	7.8736 ppb	5.09543	64.72%
U 409.014†	-368.5	-52.427 µg/L	2.5696	-52.427 ppb	2.5696	4.90%
V 292.402†	18350.8	234.65 µg/L	6.169	234.65 ppb	6.169	2.63%
Zn 213.857†	10463.5	297.69 µg/L	6.023	297.69 ppb	6.023	2.02%

Sequence No.: 14

Sample ID: 244144006|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 312

Date Collected: 1/26/2010 13:48:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144006|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77985.2	77985.2	105 %		13:49:21
1	Al 396.153Radial†	154146.9	146402.5	101220 µg/L	101220 ppb	13:49:21
1	Ca 317.933Radial†	26412.6	24823.8	19803 µg/L	19803 ppb	13:49:41
1	Fe 238.204 Radial†	9190.3	8710.7	126520 µg/L	126520 ppb	13:49:41
1	K 766.490 Radial†	27691.4	25886.4	16803 µg/L	16803 ppb	13:49:21
1	Mg 279.077 IEC†	1754.1	1654.0	17967 µg/L	17967 ppb	13:49:41
1	Na 589.592 Radial†	3036.8	1976.2	559.65 µg/L	559.65 ppb	13:49:41
1	Sr 421.552†	40803.8	38158.1	237.69 µg/L	237.69 ppb	13:49:21
1	Sc 361.383	1894513.8	1894513.8	102.74 %		13:50:47
1	Y 371.029	1230465.0	1230465.0	105.06 %		13:50:47
1	Ag 328.068†	-1281.2	-1256.2	-1.9692 µg/L	-1.9692 ppb	13:50:53
1	As 188.979†	13.5	14.4	39.478 µg/L	39.478 ppb	13:51:13
1	B 249.677†	1953.8	1787.6	20.994 µg/L	20.994 ppb	13:50:53
1	Ba 233.527†	67072.8	65288.4	1910.0 µg/L	1910.0 ppb	13:50:53
1	Be 313.107†	21377.7	16405.7	9.5431 µg/L	9.5431 ppb	13:50:53
1	Cd 226.502†	409.6	506.1	0.9532 µg/L	0.9532 ppb	13:51:13
1	Co 228.616†	1225.6	1228.7	57.864 µg/L	57.864 ppb	13:51:13
1	Cr 267.716†	13200.7	12899.1	300.88 µg/L	300.88 ppb	13:50:53
1	Cu 324.752†	13416.3	9224.0	84.460 µg/L	84.460 ppb	13:50:53
1	Mn 257.610†	1317591.1	1282485.7	4786.4 µg/L	4786.4 ppb	13:50:47
1	Mo 202.031†	-0.9	-17.1	2.6471 µg/L	2.6471 ppb	13:51:13
1	Ni 231.604†	2873.8	2464.3	158.14 µg/L	158.14 ppb	13:51:13
1	P 214.914†	830.7	607.6	1380.8 µg/L	1380.8 ppb	13:51:13
1	Pb 220.353†	651.5	568.6	168.85 µg/L	168.85 ppb	13:51:13
1	S 181.975 Axial†	154.2	125.9	719.41 µg/L	719.41 ppb	13:51:13
1	Sb 206.836†	21.1	-1.6	-6.4793 µg/L	-6.4793 ppb	13:51:13
1	Se 196.026†	-269.2	-271.9	39.469 µg/L	39.469 ppb	13:51:13
1	SiO2†	435628.5	421702.6	88787 µg/L	88787 ppb	13:50:47
1	Si 251.611†	503692.5	489932.7	41002 µg/L	41002 ppb	13:50:47
1	Sn 189.927†	-81.9	-101.7	-40.953 µg/L	-40.953 ppb	13:51:13
1	Ti 334.940†	2100373.8	2043365.8	5096.7 µg/L	5096.7 ppb	13:50:47
1	Tl 190.801†	-44.6	-21.7	18.375 µg/L	18.375 ppb	13:51:13
1	U 409.014†	-331.1	-170.7	-34.783 µg/L	-34.783 ppb	13:50:47
1	V 292.402†	20699.2	20242.7	258.82 µg/L	258.82 ppb	13:50:53
1	Zn 213.857†	9348.4	8431.8	238.03 µg/L	238.03 ppb	13:50:53
2	Sc RADIAL	77704.4	77704.4	105 %		13:49:47
2	Al 396.153Radial†	154139.6	146924.4	101590 µg/L	101590 ppb	13:49:47
2	Ca 317.933Radial†	26291.1	24798.5	19783 µg/L	19783 ppb	13:50:07
2	Fe 238.204 Radial†	9130.3	8685.1	126150 µg/L	126150 ppb	13:50:07
2	K 766.490 Radial†	27724.8	26013.3	16886 µg/L	16886 ppb	13:49:47
2	Mg 279.077 IEC†	1747.1	1653.4	17960 µg/L	17960 ppb	13:50:07
2	Na 589.592 Radial†	3023.1	1973.6	558.92 µg/L	558.92 ppb	13:50:07
2	Sr 421.552†	40830.6	38323.7	238.72 µg/L	238.72 ppb	13:49:47
2	Sc 361.383	1893435.9	1893435.9	102.68 %		13:51:21
2	Y 371.029	1229929.8	1229929.8	105.02 %		13:51:21
2	Ag 328.068†	-1277.6	-1253.5	-1.9486 µg/L	-1.9486 ppb	13:51:27
2	As 188.979†	16.6	17.5	46.440 µg/L	46.440 ppb	13:51:47
2	B 249.677†	1990.1	1824.0	22.952 µg/L	22.952 ppb	13:51:27
2	Ba 233.527†	67647.1	65884.9	1927.5 µg/L	1927.5 ppb	13:51:27
2	Be 313.107†	21499.5	16536.1	9.6241 µg/L	9.6241 ppb	13:51:27
2	Cd 226.502†	394.5	491.6	0.5616 µg/L	0.5616 ppb	13:51:47
2	Co 228.616†	1227.6	1231.3	57.956 µg/L	57.956 ppb	13:51:47
2	Cr 267.716†	13267.6	12971.6	302.57 µg/L	302.57 ppb	13:51:27
2	Cu 324.752†	13547.7	9359.4	85.390 µg/L	85.390 ppb	13:51:27
2	Mn 257.610†	1323560.5	1289029.1	4810.7 µg/L	4810.7 ppb	13:51:21
2	Mo 202.031†	2.4	-13.9	3.0405 µg/L	3.0405 ppb	13:51:47
2	Ni 231.604†	2849.3	2442.1	156.72 µg/L	156.72 ppb	13:51:47
2	P 214.914†	823.3	600.7	1364.7 µg/L	1364.7 ppb	13:51:47
2	Pb 220.353†	643.2	560.9	166.61 µg/L	166.61 ppb	13:51:47

2	S 181.975 Axial†	152.5	124.3	710.27 µg/L	710.27 ppb	13:51:47
2	Sb 206.836†	29.2	6.3	2.2173 µg/L	2.2173 ppb	13:51:47
2	Se 196.026†	-288.1	-290.4	9.2386 µg/L	9.2386 ppb	13:51:47
2	SiO2†	437297.7	423569.6	89180 µg/L	89180 ppb	13:51:21
2	Si 251.611†	505525.4	491996.7	41175 µg/L	41175 ppb	13:51:21
2	Sn 189.927†	-85.7	-105.5	-43.261 µg/L	-43.261 ppb	13:51:47
2	Ti 334.940†	2110301.8	2054198.2	5123.7 µg/L	5123.7 ppb	13:51:21
2	Tl 190.801†	-44.7	-21.8	18.570 µg/L	18.570 ppb	13:51:47
2	U 409.014†	-385.9	-224.2	-39.743 µg/L	-39.743 ppb	13:51:21
2	V 292.402†	20919.7	20468.9	261.61 µg/L	261.61 ppb	13:51:27
2	Zn 213.857†	9387.6	8475.1	239.32 µg/L	239.32 ppb	13:51:27
3	Sc RADIAL	78281.0	78281.0	106 %		13:50:13
3	Al 396.153Radial†	154905.6	146567.1	101340 µg/L	101340 ppb	13:50:13
3	Ca 317.933Radial†	26277.2	24600.9	19625 µg/L	19625 ppb	13:50:33
3	Fe 238.204 Radial†	9117.6	8609.0	125040 µg/L	125040 ppb	13:50:33
3	K 766.490 Radial†	27799.6	25889.5	16805 µg/L	16805 ppb	13:50:13
3	Mg 279.077 IEC†	1744.1	1638.3	17797 µg/L	17797 ppb	13:50:33
3	Na 589.592 Radial†	3014.4	1944.1	550.57 µg/L	550.57 ppb	13:50:33
3	Sr 421.552†	41055.7	38250.0	238.26 µg/L	238.26 ppb	13:50:13
3	Sc 361.383	1891025.2	1891025.2	102.55 %		13:51:55
3	Y 371.029	1227158.9	1227158.9	104.78 %		13:51:55
3	Ag 328.068†	-1244.7	-1223.0	-1.7879 µg/L	-1.7879 ppb	13:52:01
3	As 188.979†	8.5	9.6	28.208 µg/L	28.208 ppb	13:52:21
3	B 249.677†	1964.5	1801.5	22.426 µg/L	22.426 ppb	13:52:01
3	Ba 233.527†	65997.6	64360.4	1882.9 µg/L	1882.9 ppb	13:52:01
3	Be 313.107†	20881.1	15959.8	9.2557 µg/L	9.2557 ppb	13:52:01
3	Cd 226.502†	368.6	466.9	-0.0570 µg/L	-0.0570 ppb	13:52:21
3	Co 228.616†	1149.3	1156.5	53.975 µg/L	53.975 ppb	13:52:21
3	Cr 267.716†	12800.5	12532.6	292.33 µg/L	292.33 ppb	13:52:01
3	Cu 324.752†	13304.9	9139.4	83.642 µg/L	83.642 ppb	13:52:01
3	Mn 257.610†	1302541.6	1270176.6	4740.4 µg/L	4740.4 ppb	13:51:55
3	Mo 202.031†	4.6	-11.8	3.2657 µg/L	3.2657 ppb	13:52:21
3	Ni 231.604†	2729.9	2329.2	149.54 µg/L	149.54 ppb	13:52:21
3	P 214.914†	802.7	581.7	1320.0 µg/L	1320.0 ppb	13:52:21
3	Pb 220.353†	618.5	537.6	159.74 µg/L	159.74 ppb	13:52:21
3	S 181.975 Axial†	154.9	126.9	724.85 µg/L	724.85 ppb	13:52:21
3	Sb 206.836†	30.1	7.3	3.4108 µg/L	3.4108 ppb	13:52:21
3	Se 196.026†	-257.6	-261.1	50.977 µg/L	50.977 ppb	13:52:21
3	SiO2†	432431.6	419367.5	88295 µg/L	88295 ppb	13:51:55
3	Si 251.611†	499909.8	487148.6	40769 µg/L	40769 ppb	13:51:55
3	Sn 189.927†	-82.4	-102.4	-41.542 µg/L	-41.542 ppb	13:52:21
3	Ti 334.940†	2069770.6	2017295.8	5031.6 µg/L	5031.6 ppb	13:51:55
3	Tl 190.801†	-41.3	-18.6	23.172 µg/L	23.172 ppb	13:52:21
3	U 409.014†	-279.8	-121.2	-29.935 µg/L	-29.935 ppb	13:51:55
3	V 292.402†	20258.5	19850.1	253.86 µg/L	253.86 ppb	13:52:01
3	Zn 213.857†	9157.6	8262.5	233.21 µg/L	233.21 ppb	13:52:01

Mean Data: 244144006|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1892991.6	102.66 %	0.097			0.09%
Sc RADIAL	77990.2	105 %	0.4			0.37%
Y 371.029	1229184.5	104.95 %	0.152			0.14%
Ag 328.068†	-1244.2	-1.9019 µg/L	0.09927	-1.9019 ppb	0.09927	5.22%
Al 396.153Radial†	146631.3	101380 µg/L	184.5	101380 ppb	184.5	0.18%
As 188.979†	13.8	38.042 µg/L	9.2004	38.042 ppb	9.2004	24.18%
B 249.677†	1804.3	22.124 µg/L	1.0133	22.124 ppb	1.0133	4.58%
Ba 233.527†	65177.9	1906.8 µg/L	22.48	1906.8 ppb	22.48	1.18%
Be 313.107†	16300.6	9.4743 µg/L	0.19359	9.4743 ppb	0.19359	2.04%
Ca 317.933Radial†	24741.1	19737 µg/L	97.4	19737 ppb	97.4	0.49%
Cd 226.502†	488.2	0.4859 µg/L	0.50934	0.4859 ppb	0.50934	104.82%
Co 228.616†	1205.5	56.599 µg/L	2.2725	56.599 ppb	2.2725	4.02%
Cr 267.716†	12801.1	298.60 µg/L	5.489	298.60 ppb	5.489	1.84%
Cu 324.752†	9240.9	84.497 µg/L	0.8747	84.497 ppb	0.8747	1.04%
Fe 238.204 Radial†	8668.3	125910 µg/L	768.8	125910 ppb	768.8	0.61%
K 766.490 Radial†	25929.7	16831 µg/L	47.0	16831 ppb	47.0	0.28%
Mg 279.077 IEC†	1648.6	17908 µg/L	96.3	17908 ppb	96.3	0.54%
Mn 257.610†	1280563.8	4779.2 µg/L	35.69	4779.2 ppb	35.69	0.75%
Mo 202.031†	-14.3	2.9844 µg/L	0.31308	2.9844 ppb	0.31308	10.49%
Na 589.592 Radial†	1964.6	556.38 µg/L	5.044	556.38 ppb	5.044	0.91%

Ni 231.604†	2411.9	154.80 µg/L	4.612	154.80 ppb	4.612	2.98%
P 214.914†	596.7	1355.2 µg/L	31.55	1355.2 ppb	31.55	2.33%
Pb 220.353†	555.7	165.07 µg/L	4.746	165.07 ppb	4.746	2.88%
S 181.975 Axial†	125.7	718.18 µg/L	7.369	718.18 ppb	7.369	1.03%
Sb 206.836†	4.0	-0.2837 µg/L	5.39861	-0.2837 ppb	5.39861	>999.9%
Se 196.026†	-274.5	33.228 µg/L	21.5575	33.228 ppb	21.5575	64.88%
SiO2†	421546.6	88754 µg/L	443.3	88754 ppb	443.3	0.50%
Si 251.611†	489692.7	40982 µg/L	203.6	40982 ppb	203.6	0.50%
Sn 189.927†	-103.2	-41.919 µg/L	1.1996	-41.919 ppb	1.1996	2.86%
Sr 421.552†	38243.9	238.22 µg/L	0.517	238.22 ppb	0.517	0.22%
Ti 334.940†	2038286.6	5084.0 µg/L	47.32	5084.0 ppb	47.32	0.93%
Tl 190.801†	-20.7	20.039 µg/L	2.7148	20.039 ppb	2.7148	13.55%
U 409.014†	-172.0	-34.820 µg/L	4.9041	-34.820 ppb	4.9041	14.08%
V 292.402†	20187.2	258.10 µg/L	3.929	258.10 ppb	3.929	1.52%
Zn 213.857†	8389.8	236.85 µg/L	3.217	236.85 ppb	3.217	1.36%

Sequence No.: 15

Sample ID: 244144007|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 313

Date Collected: 1/26/2010 13:52:30

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144007|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	78041.2	78041.2	105 %		13:53:03
1	Al 396.153Radial†	254249.3	241288.8	166830 µg/L	166830 ppb	13:53:03
1	Ca 317.933Radial†	31161.5	29312.1	23384 µg/L	23384 ppb	13:53:24
1	Fe 238.204 Radial†	11305.8	10711.9	155590 µg/L	155590 ppb	13:53:24
1	K 766.490 Radial†	31206.9	29203.6	18956 µg/L	18956 ppb	13:53:03
1	Mg 279.077 IEC†	2236.5	2110.6	22933 µg/L	22933 ppb	13:53:24
1	Na 589.592 Radial†	4188.4	3067.0	868.56 µg/L	868.56 ppb	13:53:24
1	Sr 421.552†	50553.1	47381.9	295.14 µg/L	295.14 ppb	13:53:03
1	Sc 361.383	1888412.7	1888412.7	102.41 %		13:54:29
1	Y 371.029	1231724.5	1231724.5	105.17 %		13:54:29
1	Ag 328.068†	-1530.1	-1503.3	-2.1356 µg/L	-2.1356 ppb	13:54:35
1	As 188.979†	7.9	9.0	28.436 µg/L	28.436 ppb	13:54:55
1	B 249.677†	2423.4	2252.3	28.021 µg/L	28.021 ppb	13:54:35
1	Ba 233.527†	78366.0	76526.7	2238.8 µg/L	2238.8 ppb	13:54:35
1	Be 313.107†	26148.4	21131.3	12.299 µg/L	12.299 ppb	13:54:35
1	Cd 226.502†	509.6	605.0	0.5478 µg/L	0.5478 ppb	13:54:35
1	Co 228.616†	1332.0	1336.4	60.840 µg/L	60.840 ppb	13:54:55
1	Cr 267.716†	4920.1	4854.9	113.37 µg/L	113.37 ppb	13:54:35
1	Cu 324.752†	11931.2	7816.0	78.293 µg/L	78.293 ppb	13:54:35
1	Mn 257.610†	1086810.0	1061280.7	3967.3 µg/L	3967.3 ppb	13:54:29
1	Mo 202.031†	-21.8	-37.6	1.1807 µg/L	1.1807 ppb	13:54:55
1	Ni 231.604†	1729.7	1356.2	88.104 µg/L	88.104 ppb	13:54:55
1	P 214.914†	680.9	463.9	1031.1 µg/L	1031.1 ppb	13:54:55
1	Pb 220.353†	579.2	500.1	151.14 µg/L	151.14 ppb	13:54:55
1	S 181.975 Axial†	130.3	103.1	588.73 µg/L	588.73 ppb	13:54:55
1	Sb 206.836†	23.3	0.7	-2.1462 µg/L	-2.1462 ppb	13:54:55
1	Se 196.026†	-358.4	-359.8	8.2580 µg/L	8.2580 ppb	13:54:55
1	SiO2†	470196.1	456826.3	96182 µg/L	96182 ppb	13:54:29
1	Si 251.611†	543686.2	530568.7	44403 µg/L	44403 ppb	13:54:29
1	Sn 189.927†	-113.5	-132.9	-55.029 µg/L	-55.029 ppb	13:54:55
1	Ti 334.940†	2689141.9	2624878.4	6547.1 µg/L	6547.1 ppb	13:54:29
1	Tl 190.801†	-47.1	-24.4	22.039 µg/L	22.039 ppb	13:54:55
1	U 409.014†	-675.5	-508.0	-70.640 µg/L	-70.640 ppb	13:54:29
1	V 292.402†	24175.7	23702.5	302.85 µg/L	302.85 ppb	13:54:35
1	Zn 213.857†	11050.6	10123.3	286.02 µg/L	286.02 ppb	13:54:35
2	Sc RADIAL	78200.9	78200.9	106 %		13:53:29
2	Al 396.153Radial†	255158.9	241657.7	167090 µg/L	167090 ppb	13:53:29
2	Ca 317.933Radial†	31232.9	29319.5	23390 µg/L	23390 ppb	13:53:50
2	Fe 238.204 Radial†	11311.5	10695.4	155350 µg/L	155350 ppb	13:53:50
2	K 766.490 Radial†	31363.0	29290.9	19013 µg/L	19013 ppb	13:53:29
2	Mg 279.077 IEC†	2245.5	2114.8	22978 µg/L	22978 ppb	13:53:50
2	Na 589.592 Radial†	4209.5	3078.8	871.93 µg/L	871.93 ppb	13:53:50
2	Sr 421.552†	50745.9	47466.4	295.67 µg/L	295.67 ppb	13:53:29
2	Sc 361.383	1890231.0	1890231.0	102.51 %		13:55:03
2	Y 371.029	1231969.7	1231969.7	105.19 %		13:55:03
2	Ag 328.068†	-1618.0	-1587.7	-2.9002 µg/L	-2.9002 ppb	13:55:09
2	As 188.979†	10.9	11.9	35.074 µg/L	35.074 ppb	13:55:29
2	B 249.677†	2409.4	2236.3	27.374 µg/L	27.374 ppb	13:55:09
2	Ba 233.527†	79575.3	77632.8	2271.1 µg/L	2271.1 ppb	13:55:09
2	Be 313.107†	26559.2	21507.5	12.563 µg/L	12.563 ppb	13:55:09
2	Cd 226.502†	525.1	619.7	1.0115 µg/L	1.0115 ppb	13:55:09
2	Co 228.616†	1334.7	1337.8	60.923 µg/L	60.923 ppb	13:55:29
2	Cr 267.716†	4975.9	4904.8	114.54 µg/L	114.54 ppb	13:55:09
2	Cu 324.752†	12047.8	7918.5	79.003 µg/L	79.003 ppb	13:55:09
2	Mn 257.610†	1087625.3	1061055.2	3966.4 µg/L	3966.4 ppb	13:55:03
2	Mo 202.031†	-25.0	-40.6	0.7841 µg/L	0.7841 ppb	13:55:29
2	Ni 231.604†	1718.1	1343.3	87.280 µg/L	87.280 ppb	13:55:29
2	P 214.914†	668.8	451.5	1001.4 µg/L	1001.4 ppb	13:55:29
2	Pb 220.353†	576.1	496.5	150.09 µg/L	150.09 ppb	13:55:29

2	S 181.975 Axial†	129.6	102.3	584.24 µg/L	584.24 ppb	13:55:29
2	Sb 206.836†	21.1	-1.5	-4.5879 µg/L	-4.5879 ppb	13:55:29
2	Se 196.026†	-348.0	-349.3	23.755 µg/L	23.755 ppb	13:55:29
2	SiO2†	470561.2	456740.8	96164 µg/L	96164 ppb	13:55:03
2	Si 251.611†	544205.7	530564.9	44403 µg/L	44403 ppb	13:55:03
2	Sn 189.927†	-111.0	-130.3	-53.500 µg/L	-53.500 ppb	13:55:29
2	Ti 334.940†	2691148.0	2624309.5	6545.7 µg/L	6545.7 ppb	13:55:03
2	Tl 190.801†	-57.3	-34.2	4.9660 µg/L	4.9660 ppb	13:55:29
2	U 409.014†	-729.9	-560.4	-75.518 µg/L	-75.518 ppb	13:55:03
2	V 292.402†	24569.5	24063.9	307.32 µg/L	307.32 ppb	13:55:09
2	Zn 213.857†	11196.1	10254.9	289.87 µg/L	289.87 ppb	13:55:09
3	Sc RADIAL	78262.2	78262.2	106 %		13:53:55
3	Al 396.153Radial†	254492.1	240837.3	166520 µg/L	166520 ppb	13:53:55
3	Ca 317.933Radial†	31224.4	29288.2	23365 µg/L	23365 ppb	13:54:16
3	Fe 238.204 Radial†	11317.6	10692.9	155310 µg/L	155310 ppb	13:54:16
3	K 766.490 Radial†	31249.3	29160.1	18928 µg/L	18928 ppb	13:53:55
3	Mg 279.077 IEC†	2237.6	2105.7	22879 µg/L	22879 ppb	13:54:16
3	Na 589.592 Radial†	4241.9	3106.3	879.71 µg/L	879.71 ppb	13:54:16
3	Sr 421.552†	50537.9	47232.0	294.21 µg/L	294.21 ppb	13:53:55
3	Sc 361.383	1878220.5	1878220.5	101.86 %		13:55:37
3	Y 371.029	1223413.3	1223413.3	104.46 %		13:55:37
3	Ag 328.068†	-1540.5	-1521.6	-2.3537 µg/L	-2.3537 ppb	13:55:43
3	As 188.979†	12.9	13.9	39.868 µg/L	39.868 ppb	13:56:03
3	B 249.677†	2358.1	2201.0	25.679 µg/L	25.679 ppb	13:55:43
3	Ba 233.527†	77148.1	75746.2	2216.0 µg/L	2216.0 ppb	13:55:43
3	Be 313.107†	25678.9	20808.9	12.119 µg/L	12.119 ppb	13:55:43
3	Cd 226.502†	467.9	566.8	-0.5653 µg/L	-0.5653 ppb	13:55:43
3	Co 228.616†	1246.4	1259.4	56.799 µg/L	56.799 ppb	13:56:03
3	Cr 267.716†	4753.2	4717.2	110.16 µg/L	110.16 ppb	13:55:43
3	Cu 324.752†	11833.1	7782.9	78.014 µg/L	78.014 ppb	13:55:43
3	Mn 257.610†	1064615.4	1045249.8	3907.6 µg/L	3907.6 ppb	13:55:37
3	Mo 202.031†	-19.0	-34.9	1.5014 µg/L	1.5014 ppb	13:56:03
3	Ni 231.604†	1650.7	1287.9	83.761 µg/L	83.761 ppb	13:56:03
3	P 214.914†	660.4	447.3	991.45 µg/L	991.45 ppb	13:56:03
3	Pb 220.353†	551.9	476.3	144.08 µg/L	144.08 ppb	13:56:03
3	S 181.975 Axial†	121.9	95.5	545.76 µg/L	545.76 ppb	13:56:03
3	Sb 206.836†	17.9	-4.5	-7.8770 µg/L	-7.8770 ppb	13:56:03
3	Se 196.026†	-326.2	-330.2	53.631 µg/L	53.631 ppb	13:56:03
3	SiO2†	462832.4	452088.4	95184 µg/L	95184 ppb	13:55:37
3	Si 251.611†	535332.7	525248.5	43958 µg/L	43958 ppb	13:55:37
3	Sn 189.927†	-112.3	-132.3	-54.700 µg/L	-54.700 ppb	13:56:03
3	Ti 334.940†	2625525.5	2576671.8	6426.8 µg/L	6426.8 ppb	13:55:37
3	Tl 190.801†	-48.7	-26.1	17.774 µg/L	17.774 ppb	13:56:03
3	U 409.014†	-612.2	-449.5	-65.115 µg/L	-65.115 ppb	13:55:37
3	V 292.402†	23655.8	23320.1	298.09 µg/L	298.09 ppb	13:55:43
3	Zn 213.857†	10876.0	10010.5	282.76 µg/L	282.76 ppb	13:55:43

Mean Data: 244144007|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1885621.4	102.26 %	0.351			0.34%
Sc RADIAL	78168.1	106 %	0.2			0.15%
Y 371.029	1229035.8	104.94 %	0.416			0.40%
Ag 328.068†	-1537.5	-2.4632 µg/L	0.39388	-2.4632 ppb	0.39388	15.99%
Al 396.153Radial†	241261.2	166810 µg/L	284.1	166810 ppb	284.1	0.17%
As 188.979†	11.6	34.460 µg/L	5.7409	34.460 ppb	5.7409	16.66%
B 249.677†	2229.8	27.024 µg/L	1.2095	27.024 ppb	1.2095	4.48%
Ba 233.527†	76635.2	2242.0 µg/L	27.73	2242.0 ppb	27.73	1.24%
Be 313.107†	21149.2	12.327 µg/L	0.2232	12.327 ppb	0.2232	1.81%
Ca 317.933Radial†	29306.6	23379 µg/L	13.0	23379 ppb	13.0	0.06%
Cd 226.502†	597.2	0.3313 µg/L	0.81037	0.3313 ppb	0.81037	244.58%
Co 228.616†	1311.2	59.521 µg/L	2.3572	59.521 ppb	2.3572	3.96%
Cr 267.716†	4825.7	112.69 µg/L	2.268	112.69 ppb	2.268	2.01%
Cu 324.752†	7839.1	78.437 µg/L	0.5095	78.437 ppb	0.5095	0.65%
Fe 238.204 Radial†	10700.1	155420 µg/L	150.4	155420 ppb	150.4	0.10%
K 766.490 Radial†	29218.2	18966 µg/L	43.2	18966 ppb	43.2	0.23%
Mg 279.077 IEC†	2110.4	22930 µg/L	49.8	22930 ppb	49.8	0.22%
Mn 257.610†	1055861.9	3947.1 µg/L	34.20	3947.1 ppb	34.20	0.87%
Mo 202.031†	-37.7	1.1554 µg/L	0.35933	1.1554 ppb	0.35933	31.10%
Na 589.592 Radial†	3084.0	873.40 µg/L	5.716	873.40 ppb	5.716	0.65%

Ni 231.604†	1329.1	86.382 µg/L	2.3062	86.382 ppb	2.3062	2.67%
P 214.914†	454.2	1008.0 µg/L	20.63	1008.0 ppb	20.63	2.05%
Pb 220.353†	491.0	148.43 µg/L	3.809	148.43 ppb	3.809	2.57%
S 181.975 Axial†	100.3	572.91 µg/L	23.622	572.91 ppb	23.622	4.12%
Sb 206.836†	-1.8	-4.8704 µg/L	2.87578	-4.8704 ppb	2.87578	59.05%
Se 196.026†	-346.4	28.548 µg/L	23.0629	28.548 ppb	23.0629	80.79%
SiO2†	455218.5	95843 µg/L	570.8	95843 ppb	570.8	0.60%
Si 251.611†	528794.0	44255 µg/L	257.0	44255 ppb	257.0	0.58%
Sn 189.927†	-131.8	-54.409 µg/L	0.8048	-54.409 ppb	0.8048	1.48%
Sr 421.552†	47360.1	295.00 µg/L	0.740	295.00 ppb	0.740	0.25%
Ti 334.940†	2608619.9	6506.5 µg/L	69.03	6506.5 ppb	69.03	1.06%
Tl 190.801†	-28.2	14.926 µg/L	8.8855	14.926 ppb	8.8855	59.53%
U 409.014†	-506.0	-70.424 µg/L	5.2049	-70.424 ppb	5.2049	7.39%
V 292.402†	23695.5	302.76 µg/L	4.618	302.76 ppb	4.618	1.53%
Zn 213.857†	10129.5	286.22 µg/L	3.555	286.22 ppb	3.555	1.24%

Sequence No.: 16

Sample ID: 244144008|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 314

Date Collected: 1/26/2010 13:56:12

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144008|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Conc. Units	Sample Units	Analysis Time
1	Sc RADIAL	77508.9	77508.9	105 %				13:56:45
1	Al 396.153Radial†	183408.1	175259.9	121180 µg/L		121180 ppb		13:56:45
1	Ca 317.933Radial†	34487.9	32693.5	26081 µg/L		26081 ppb		13:57:05
1	Fe 238.204 Radial†	10146.1	9677.6	140570 µg/L		140570 ppb		13:57:05
1	K 766.490 Radial†	28626.2	26941.2	17488 µg/L		17488 ppb		13:56:45
1	Mg 279.077 IEC†	2028.3	1926.2	20931 µg/L		20931 ppb		13:57:05
1	Na 589.592 Radial†	3798.3	2721.5	770.72 µg/L		770.72 ppb		13:57:05
1	Sr 421.552†	54560.9	51540.5	321.04 µg/L		321.04 ppb		13:56:45
1	Sc 361.383	1890196.3	1890196.3	102.51 %				13:58:11
1	Y 371.029	1226392.5	1226392.5	104.72 %				13:58:11
1	Ag 328.068†	-1427.9	-1402.2	-2.2936 µg/L		-2.2936 ppb		13:58:16
1	As 188.979†	7.5	8.6	26.508 µg/L		26.508 ppb		13:58:37
1	B 249.677†	2165.8	1998.7	23.608 µg/L		23.608 ppb		13:58:16
1	Ba 233.527†	83521.7	81484.0	2383.7 µg/L		2383.7 ppb		13:58:16
1	Be 313.107†	23679.8	18699.0	10.761 µg/L		10.761 ppb		13:58:16
1	Cd 226.502†	451.2	547.6	0.5314 µg/L		0.5314 ppb		13:58:37
1	Co 228.616†	1340.2	1343.2	62.125 µg/L		62.125 ppb		13:58:37
1	Cr 267.716†	5489.7	5406.1	126.21 µg/L		126.21 ppb		13:58:16
1	Cu 324.752†	11885.9	7760.8	75.805 µg/L		75.805 ppb		13:58:16
1	Mn 257.610†	1183485.0	1154589.4	4312.4 µg/L		4312.4 ppb		13:58:11
1	Mo 202.031†	-5.9	-22.0	2.5650 µg/L		2.5650 ppb		13:58:37
1	Ni 231.604†	1712.4	1337.8	86.734 µg/L		86.734 ppb		13:58:37
1	P 214.914†	670.9	453.4	1005.1 µg/L		1005.1 ppb		13:58:37
1	Pb 220.353†	560.5	481.3	143.61 µg/L		143.61 ppb		13:58:37
1	S 181.975 Axial†	149.2	121.5	693.86 µg/L		693.86 ppb		13:58:37
1	Sb 206.836†	27.0	4.3	1.5158 µg/L		1.5158 ppb		13:58:37
1	Se 196.026†	-309.3	-311.6	29.401 µg/L		29.401 ppb		13:58:37
1	SiO2†	400682.5	388580.0	81813 µg/L		81813 ppb		13:58:11
1	Si 251.611†	462903.2	451260.9	37766 µg/L		37766 ppb		13:58:11
1	Sn 189.927†	-108.2	-127.6	-53.112 µg/L		-53.112 ppb		13:58:37
1	Ti 334.940†	2513526.6	2451081.4	6113.7 µg/L		6113.7 ppb		13:58:11
1	Tl 190.801†	-45.9	-23.1	21.427 µg/L		21.427 ppb		13:58:37
1	U 409.014†	-498.9	-335.1	-52.518 µg/L		-52.518 ppb		13:58:11
1	V 292.402†	22389.3	21937.5	280.19 µg/L		280.19 ppb		13:58:16
1	Zn 213.857†	10849.2	9916.6	280.83 µg/L		280.83 ppb		13:58:16
2	Sc RADIAL	77341.3	77341.3	104 %				13:57:11
2	Al 396.153Radial†	183134.7	175377.8	121260 µg/L		121260 ppb		13:57:11
2	Ca 317.933Radial†	34550.5	32824.8	26186 µg/L		26186 ppb		13:57:31
2	Fe 238.204 Radial†	10155.1	9707.2	141000 µg/L		141000 ppb		13:57:31
2	K 766.490 Radial†	28518.8	26897.6	17460 µg/L		17460 ppb		13:57:11
2	Mg 279.077 IEC†	2029.0	1931.1	20984 µg/L		20984 ppb		13:57:31
2	Na 589.592 Radial†	3829.8	2759.5	781.49 µg/L		781.49 ppb		13:57:31
2	Sr 421.552†	54387.6	51487.6	320.71 µg/L		320.71 ppb		13:57:11
2	Sc 361.383	1875626.2	1875626.2	101.72 %				13:58:44
2	Y 371.029	1217158.1	1217158.1	103.93 %				13:58:44
2	Ag 328.068†	-1422.7	-1407.9	-2.3059 µg/L		-2.3059 ppb		13:58:50
2	As 188.979†	11.0	12.1	34.648 µg/L		34.648 ppb		13:59:10
2	B 249.677†	2194.2	2043.0	25.527 µg/L		25.527 ppb		13:58:50
2	Ba 233.527†	83691.5	82283.9	2407.1 µg/L		2407.1 ppb		13:58:50
2	Be 313.107†	23665.8	18864.7	10.850 µg/L		10.850 ppb		13:58:50
2	Cd 226.502†	444.2	544.1	0.3795 µg/L		0.3795 ppb		13:59:10
2	Co 228.616†	1320.6	1334.1	61.467 µg/L		61.467 ppb		13:59:10
2	Cr 267.716†	5500.4	5458.2	127.42 µg/L		127.42 ppb		13:58:50
2	Cu 324.752†	11813.7	7779.8	76.002 µg/L		76.002 ppb		13:58:50
2	Mn 257.610†	1188363.9	1168354.5	4363.7 µg/L		4363.7 ppb		13:58:44
2	Mo 202.031†	-7.4	-23.5	2.3919 µg/L		2.3919 ppb		13:59:10
2	Ni 231.604†	1705.9	1344.4	87.160 µg/L		87.160 ppb		13:59:10
2	P 214.914†	676.0	463.6	1029.3 µg/L		1029.3 ppb		13:59:10
2	Pb 220.353†	557.7	482.8	144.05 µg/L		144.05 ppb		13:59:10



2	S 181.975 Axial†	152.9	126.2	720.86 µg/L	720.86 ppb	13:59:10
2	Sb 206.836†	29.8	7.2	4.7804 µg/L	4.7804 ppb	13:59:10
2	Se 196.026†	-319.2	-323.7	12.087 µg/L	12.087 ppb	13:59:10
2	SiO2†	401805.1	392720.1	82685 µg/L	82685 ppb	13:58:44
2	Si 251.611†	464660.1	456496.2	38204 µg/L	38204 ppb	13:58:44
2	Sn 189.927†	-109.8	-129.9	-54.406 µg/L	-54.406 ppb	13:59:10
2	Ti 334.940†	2523296.4	2479734.0	6185.2 µg/L	6185.2 ppb	13:58:44
2	Tl 190.801†	-55.9	-33.3	4.5835 µg/L	4.5835 ppb	13:59:10
2	U 409.014†	-583.1	-421.7	-60.696 µg/L	-60.696 ppb	13:58:44
2	V 292.402†	22381.2	22099.2	282.22 µg/L	282.22 ppb	13:58:50
2	Zn 213.857†	10858.5	10008.0	283.47 µg/L	283.47 ppb	13:58:50
3	Sc RADIAL	77648.3	77648.3	105 %		13:57:37
3	Al 396.153Radial†	183180.5	174728.2	120810 µg/L	120810 ppb	13:57:37
3	Ca 317.933Radial†	34470.6	32617.8	26021 µg/L	26021 ppb	13:57:57
3	Fe 238.204 Radial†	10119.7	9635.0	139950 µg/L	139950 ppb	13:57:57
3	K 766.490 Radial†	28539.5	26809.3	17402 µg/L	17402 ppb	13:57:37
3	Mg 279.077 IEC†	2027.8	1922.3	20888 µg/L	20888 ppb	13:57:57
3	Na 589.592 Radial†	3814.7	2730.7	773.32 µg/L	773.32 ppb	13:57:57
3	Sr 421.552†	54415.7	51308.5	319.60 µg/L	319.60 ppb	13:57:37
3	Sc 361.383	1888746.5	1888746.5	102.43 %		13:59:18
3	Y 371.029	1224414.3	1224414.3	104.55 %		13:59:18
3	Ag 328.068†	-1414.8	-1390.5	-2.2874 µg/L	-2.2874 ppb	13:59:24
3	As 188.979†	10.1	11.1	32.323 µg/L	32.323 ppb	13:59:45
3	B 249.677†	2070.7	1907.5	19.506 µg/L	19.506 ppb	13:59:24
3	Ba 233.527†	81589.7	79660.4	2330.4 µg/L	2330.4 ppb	13:59:24
3	Be 313.107†	23004.1	18057.1	10.355 µg/L	10.355 ppb	13:59:24
3	Cd 226.502†	403.7	501.6	-0.7772 µg/L	-0.7772 ppb	13:59:45
3	Co 228.616†	1232.1	1238.7	56.538 µg/L	56.538 ppb	13:59:45
3	Cr 267.716†	5304.9	5229.8	122.09 µg/L	122.09 ppb	13:59:24
3	Cu 324.752†	11681.3	7569.9	74.335 µg/L	74.335 ppb	13:59:24
3	Mn 257.610†	1164776.8	1137211.1	4247.7 µg/L	4247.7 ppb	13:59:18
3	Mo 202.031†	-12.6	-28.6	1.7189 µg/L	1.7189 ppb	13:59:45
3	Ni 231.604†	1608.2	1237.3	80.349 µg/L	80.349 ppb	13:59:45
3	P 214.914†	640.4	424.2	935.28 µg/L	935.28 ppb	13:59:45
3	Pb 220.353†	519.9	442.1	132.04 µg/L	132.04 ppb	13:59:45
3	S 181.975 Axial†	145.9	118.3	675.65 µg/L	675.65 ppb	13:59:45
3	Sb 206.836†	21.2	-1.4	-4.6748 µg/L	-4.6748 ppb	13:59:45
3	Se 196.026†	-290.1	-293.1	55.950 µg/L	55.950 ppb	13:59:45
3	SiO2†	396118.4	384424.2	80938 µg/L	80938 ppb	13:59:18
3	Si 251.611†	457930.1	446752.4	37389 µg/L	37389 ppb	13:59:18
3	Sn 189.927†	-101.2	-120.8	-49.142 µg/L	-49.142 ppb	13:59:45
3	Ti 334.940†	2464410.7	2405012.4	5998.8 µg/L	5998.8 ppb	13:59:18
3	Tl 190.801†	-51.2	-28.3	11.206 µg/L	11.206 ppb	13:59:45
3	U 409.014†	-603.7	-437.8	-62.047 µg/L	-62.047 ppb	13:59:18
3	V 292.402†	21586.9	21170.9	270.61 µg/L	270.61 ppb	13:59:24
3	Zn 213.857†	10581.3	9663.2	273.50 µg/L	273.50 ppb	13:59:24

Mean Data: 244144008|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1884856.3	102.22 %	0.435			0.43%
Sc RADIAL	77499.5	105 %	0.2			0.20%
Y 371.029	1222655.0	104.40 %	0.415			0.40%
Ag 328.068†	-1400.2	-2.2956 µg/L	0.00942	-2.2956 ppb	0.00942	0.41%
Al 396.153Radial†	175121.9	121080 µg/L	239.3	121080 ppb	239.3	0.20%
As 188.979†	10.6	31.160 µg/L	4.1926	31.160 ppb	4.1926	13.46%
B 249.677†	1983.1	22.881 µg/L	3.0757	22.881 ppb	3.0757	13.44%
Ba 233.527†	81142.8	2373.8 µg/L	39.34	2373.8 ppb	39.34	1.66%
Be 313.107†	18540.3	10.655 µg/L	0.2636	10.655 ppb	0.2636	2.47%
Ca 317.933Radial†	32712.1	26096 µg/L	83.6	26096 ppb	83.6	0.32%
Cd 226.502†	531.1	0.0445 µg/L	0.71572	0.0445 ppb	0.71572	>999.9%
Co 228.616†	1305.3	60.044 µg/L	3.0532	60.044 ppb	3.0532	5.08%
Cr 267.716†	5364.7	125.24 µg/L	2.796	125.24 ppb	2.796	2.23%
Cu 324.752†	7703.5	75.380 µg/L	0.9112	75.380 ppb	0.9112	1.21%
Fe 238.204 Radial†	9673.3	140500 µg/L	527.4	140500 ppb	527.4	0.38%
K 766.490 Radial†	26882.7	17450 µg/L	43.6	17450 ppb	43.6	0.25%
Mg 279.077 IEC†	1926.6	20934 µg/L	48.0	20934 ppb	48.0	0.23%
Mn 257.610†	1153385.0	4307.9 µg/L	58.12	4307.9 ppb	58.12	1.35%
Mo 202.031†	-24.7	2.2253 µg/L	0.44699	2.2253 ppb	0.44699	20.09%
Na 589.592 Radial†	2737.2	775.18 µg/L	5.620	775.18 ppb	5.620	0.73%

Ni 231.604†	1306.5	84.748 µg/L	3.8150	84.748 ppb	3.8150	4.50%
P 214.914†	447.1	989.88 µg/L	48.803	989.88 ppb	48.803	4.93%
Pb 220.353†	468.7	139.90 µg/L	6.809	139.90 ppb	6.809	4.87%
S 181.975 Axial†	122.0	696.79 µg/L	22.745	696.79 ppb	22.745	3.26%
Sb 206.836†	3.4	0.5405 µg/L	4.80247	0.5405 ppb	4.80247	888.59%
Se 196.026†	-309.5	32.480 µg/L	22.0930	32.480 ppb	22.0930	68.02%
SiO2†	388574.8	81812 µg/L	873.3	81812 ppb	873.3	1.07%
Si 251.611†	451503.2	37786 µg/L	408.1	37786 ppb	408.1	1.08%
Sn 189.927†	-126.1	-52.220 µg/L	2.7430	-52.220 ppb	2.7430	5.25%
Sr 421.552†	51445.5	320.45 µg/L	0.757	320.45 ppb	0.757	0.24%
Ti 334.940†	2445275.9	6099.2 µg/L	94.05	6099.2 ppb	94.05	1.54%
Tl 190.801†	-28.2	12.406 µg/L	8.4857	12.406 ppb	8.4857	68.40%
U 409.014†	-398.2	-58.421 µg/L	5.1559	-58.421 ppb	5.1559	8.83%
V 292.402†	21735.8	277.67 µg/L	6.199	277.67 ppb	6.199	2.23%
Zn 213.857†	9862.6	279.26 µg/L	5.164	279.26 ppb	5.164	1.85%

Sequence No.: 17

Sample ID: 244144009|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 315

Date Collected: 1/26/2010 13:59:54

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144009|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77510.3	77510.3	105 %		14:00:28
1	Al 396.153Radial†	269363.3	257381.9	177960 µg/L	177960 ppb	14:00:28
1	Ca 317.933Radial†	31056.1	29414.0	23465 µg/L	23465 ppb	14:00:48
1	Fe 238.204 Radial†	10801.0	10303.1	149650 µg/L	149650 ppb	14:00:48
1	K 766.490 Radial†	31304.3	29499.5	19149 µg/L	19149 ppb	14:00:28
1	Mg 279.077 IEC†	2380.6	2262.9	24605 µg/L	24605 ppb	14:00:48
1	Na 589.592 Radial†	5511.0	4357.9	1234.1 µg/L	1234.1 ppb	14:00:48
1	Sr 421.552†	52613.6	49679.1	309.45 µg/L	309.45 ppb	14:00:28
1	Sc 361.383	1877262.2	1877262.2	101.81 %		14:01:54
1	Y 371.029	1236123.4	1236123.4	105.55 %		14:01:54
1	Ag 328.068†	-1503.0	-1485.6	-2.5916 µg/L	-2.5916 ppb	14:02:00
1	As 188.979†	18.5	19.4	52.135 µg/L	52.135 ppb	14:02:20
1	B 249.677†	2240.5	2086.6	23.093 µg/L	23.093 ppb	14:02:00
1	Ba 233.527†	73331.9	72036.4	2107.4 µg/L	2107.4 ppb	14:02:00
1	Be 313.107†	26243.7	21376.6	12.917 µg/L	12.917 ppb	14:02:00
1	Cd 226.502†	469.6	568.8	0.1294 µg/L	0.1294 ppb	14:02:20
1	Co 228.616†	983.8	1002.2	44.650 µg/L	44.650 ppb	14:02:20
1	Cr 267.716†	4712.6	4679.6	109.26 µg/L	109.26 ppb	14:02:00
1	Cu 324.752†	12228.5	8177.2	80.086 µg/L	80.086 ppb	14:02:00
1	Mn 257.610†	766349.0	752808.5	2819.0 µg/L	2819.0 ppb	14:01:54
1	Mo 202.031†	-18.5	-34.4	1.3516 µg/L	1.3516 ppb	14:02:20
1	Ni 231.604†	1591.2	1230.2	80.041 µg/L	80.041 ppb	14:02:20
1	P 214.914†	657.9	445.2	994.09 µg/L	994.09 ppb	14:02:20
1	Pb 220.353†	521.4	446.7	136.19 µg/L	136.19 ppb	14:02:20
1	S 181.975 Axial†	104.9	78.9	450.58 µg/L	450.58 ppb	14:02:20
1	Sb 206.836†	26.2	3.6	1.1559 µg/L	1.1559 ppb	14:02:20
1	Se 196.026†	-326.9	-330.9	30.684 µg/L	30.684 ppb	14:02:20
1	SiO2†	444283.8	434100.9	91397 µg/L	91397 ppb	14:01:54
1	Si 251.611†	513625.7	504194.9	42196 µg/L	42196 ppb	14:01:54
1	Sn 189.927†	-98.5	-118.8	-46.883 µg/L	-46.883 ppb	14:02:20
1	Ti 334.940†	2195153.2	2155250.6	5375.3 µg/L	5375.3 ppb	14:01:54
1	Tl 190.801†	-44.1	-21.6	12.363 µg/L	12.363 ppb	14:02:20
1	U 409.014†	-1015.6	-846.0	-101.48 µg/L	-101.48 ppb	14:01:54
1	V 292.402†	20985.1	20708.6	265.31 µg/L	265.31 ppb	14:02:00
1	Zn 213.857†	10991.8	10129.6	286.42 µg/L	286.42 ppb	14:02:00
2	Sc RADIAL	77335.2	77335.2	104 %		14:00:54
2	Al 396.153Radial†	270079.2	258650.0	178830 µg/L	178830 ppb	14:00:54
2	Ca 317.933Radial†	31154.0	29574.9	23593 µg/L	23593 ppb	14:01:14
2	Fe 238.204 Radial†	10844.8	10368.5	150600 µg/L	150600 ppb	14:01:14
2	K 766.490 Radial†	31367.3	29627.5	19232 µg/L	19232 ppb	14:00:54
2	Mg 279.077 IEC†	2389.3	2276.3	24751 µg/L	24751 ppb	14:01:14
2	Na 589.592 Radial†	5495.6	4355.0	1233.3 µg/L	1233.3 ppb	14:01:14
2	Sr 421.552†	52646.1	49824.0	310.35 µg/L	310.35 ppb	14:00:54
2	Sc 361.383	1863059.9	1863059.9	101.04 %		14:02:28
2	Y 371.029	1227497.2	1227497.2	104.81 %		14:02:28
2	Ag 328.068†	-1519.0	-1512.7	-2.7665 µg/L	-2.7665 ppb	14:02:34
2	As 188.979†	7.8	9.0	28.119 µg/L	28.119 ppb	14:02:54
2	B 249.677†	2271.2	2133.8	24.881 µg/L	24.881 ppb	14:02:34
2	Ba 233.527†	73455.4	72707.8	2127.0 µg/L	2127.0 ppb	14:02:34
2	Be 313.107†	26278.5	21607.5	13.070 µg/L	13.070 ppb	14:02:34
2	Cd 226.502†	453.3	556.1	-0.3537 µg/L	-0.3537 ppb	14:02:54
2	Co 228.616†	977.9	1003.6	44.689 µg/L	44.689 ppb	14:02:54
2	Cr 267.716†	4640.0	4643.1	108.41 µg/L	108.41 ppb	14:02:34
2	Cu 324.752†	12266.8	8306.7	81.157 µg/L	81.157 ppb	14:02:34
2	Mn 257.610†	762980.4	755212.7	2828.1 µg/L	2828.1 ppb	14:02:28
2	Mo 202.031†	-18.1	-34.2	1.4153 µg/L	1.4153 ppb	14:02:54
2	Ni 231.604†	1587.3	1238.3	80.566 µg/L	80.566 ppb	14:02:54
2	P 214.914†	666.2	458.4	1025.1 µg/L	1025.1 ppb	14:02:54
2	Pb 220.353†	524.5	453.7	138.27 µg/L	138.27 ppb	14:02:54

2	S 181.975 Axial†	112.3	87.0	496.92 µg/L	496.92 ppb	14:02:54
2	Sb 206.836†	30.9	8.5	6.4913 µg/L	6.4913 ppb	14:02:54
2	Se 196.026†	-337.0	-343.4	14.701 µg/L	14.701 ppb	14:02:54
2	SiO2†	442346.2	435509.9	91694 µg/L	91694 ppb	14:02:28
2	Si 251.611†	511615.8	506051.6	42351 µg/L	42351 ppb	14:02:28
2	Sn 189.927†	-98.7	-119.8	-47.296 µg/L	-47.296 ppb	14:02:54
2	Ti 334.940†	2187061.4	2163678.8	5396.3 µg/L	5396.3 ppb	14:02:28
2	Tl 190.801†	-47.2	-25.0	6.6235 µg/L	6.6235 ppb	14:02:54
2	U 409.014†	-953.6	-792.3	-96.585 µg/L	-96.585 ppb	14:02:28
2	V 292.402†	21021.0	20901.3	267.76 µg/L	267.76 ppb	14:02:34
2	Zn 213.857†	11035.2	10254.9	290.02 µg/L	290.02 ppb	14:02:34
3	Sc RADIAL	77034.3	77034.3	104 %		14:01:20
3	Al 396.153Radial†	270285.3	259858.6	179670 µg/L	179670 ppb	14:01:20
3	Ca 317.933Radial†	30943.5	29489.1	23525 µg/L	23525 ppb	14:01:40
3	Fe 238.204 Radial†	10756.3	10323.9	149950 µg/L	149950 ppb	14:01:40
3	K 766.490 Radial†	31325.6	29704.8	19282 µg/L	19282 ppb	14:01:20
3	Mg 279.077 IEC†	2382.5	2278.8	24779 µg/L	24779 ppb	14:01:40
3	Na 589.592 Radial†	5470.7	4351.6	1232.4 µg/L	1232.4 ppb	14:01:40
3	Sr 421.552†	52712.1	50084.4	311.97 µg/L	311.97 ppb	14:01:20
3	Sc 361.383	1870439.1	1870439.1	101.44 %		14:03:02
3	Y 371.029	1231475.7	1231475.7	105.15 %		14:03:02
3	Ag 328.068†	-1489.1	-1477.2	-2.5628 µg/L	-2.5628 ppb	14:03:07
3	As 188.979†	11.5	12.6	36.357 µg/L	36.357 ppb	14:03:28
3	B 249.677†	2126.5	1982.3	17.879 µg/L	17.879 ppb	14:03:07
3	Ba 233.527†	70470.8	69478.5	2032.6 µg/L	2032.6 ppb	14:03:07
3	Be 313.107†	25287.7	20528.2	12.356 µg/L	12.356 ppb	14:03:07
3	Cd 226.502†	436.4	537.7	-0.8374 µg/L	-0.8374 ppb	14:03:28
3	Co 228.616†	923.2	945.9	41.699 µg/L	41.699 ppb	14:03:28
3	Cr 267.716†	4467.8	4455.2	104.02 µg/L	104.02 ppb	14:03:07
3	Cu 324.752†	11927.1	7923.9	78.292 µg/L	78.292 ppb	14:03:07
3	Mn 257.610†	752472.3	741874.2	2778.4 µg/L	2778.4 ppb	14:03:02
3	Mo 202.031†	-15.1	-31.2	1.7664 µg/L	1.7664 ppb	14:03:28
3	Ni 231.604†	1491.8	1137.9	74.185 µg/L	74.185 ppb	14:03:28
3	P 214.914†	636.8	426.8	950.13 µg/L	950.13 ppb	14:03:28
3	Pb 220.353†	507.8	435.1	132.86 µg/L	132.86 ppb	14:03:28
3	S 181.975 Axial†	109.5	83.8	478.83 µg/L	478.83 ppb	14:03:28
3	Sb 206.836†	30.7	8.2	6.2739 µg/L	6.2739 ppb	14:03:28
3	Se 196.026†	-305.7	-311.3	62.451 µg/L	62.451 ppb	14:03:28
3	SiO2†	438700.9	430188.9	90573 µg/L	90573 ppb	14:03:02
3	Si 251.611†	507309.2	499808.3	41829 µg/L	41829 ppb	14:03:02
3	Sn 189.927†	-97.5	-118.1	-46.394 µg/L	-46.394 ppb	14:03:28
3	Ti 334.940†	2151290.7	2119874.6	5287.1 µg/L	5287.1 ppb	14:03:02
3	Tl 190.801†	-46.8	-24.4	6.5104 µg/L	6.5104 ppb	14:03:28
3	U 409.014†	-996.4	-830.8	-100.10 µg/L	-100.10 ppb	14:03:02
3	V 292.402†	20079.2	19890.8	255.16 µg/L	255.16 ppb	14:03:07
3	Zn 213.857†	10621.8	9804.3	276.94 µg/L	276.94 ppb	14:03:07

Mean Data: 244144009|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1870253.7	101.43 %	0.385			0.38%
Sc RADIAL	77293.3	104 %	0.3			0.31%
Y 371.029	1231698.7	105.17 %	0.369			0.35%
Ag 328.068†	-1491.8	-2.6403 µg/L	0.11022	-2.6403 ppb	0.11022	4.17%
Al 396.153Radial†	258630.2	178820 µg/L	856.3	178820 ppb	856.3	0.48%
As 188.979†	13.6	38.871 µg/L	12.2038	38.871 ppb	12.2038	31.40%
B 249.677†	2067.6	21.951 µg/L	3.6381	21.951 ppb	3.6381	16.57%
Ba 233.527†	71407.6	2089.0 µg/L	49.85	2089.0 ppb	49.85	2.39%
Be 313.107†	21170.8	12.781 µg/L	0.3758	12.781 ppb	0.3758	2.94%
Ca 317.933Radial†	29492.7	23528 µg/L	64.2	23528 ppb	64.2	0.27%
Cd 226.502†	554.2	-0.3539 µg/L	0.48339	-0.3539 ppb	0.48339	136.59%
Co 228.616†	983.9	43.679 µg/L	1.7153	43.679 ppb	1.7153	3.93%
Cr 267.716†	4592.6	107.23 µg/L	2.811	107.23 ppb	2.811	2.62%
Cu 324.752†	8135.9	79.845 µg/L	1.4476	79.845 ppb	1.4476	1.81%
Fe 238.204 Radial†	10331.8	150070 µg/L	484.9	150070 ppb	484.9	0.32%
K 766.490 Radial†	29610.6	19221 µg/L	67.3	19221 ppb	67.3	0.35%
Mg 279.077 IEC†	2272.6	24712 µg/L	93.3	24712 ppb	93.3	0.38%
Mn 257.610†	749965.2	2808.5 µg/L	26.47	2808.5 ppb	26.47	0.94%
Mo 202.031†	-33.3	1.5111 µg/L	0.22337	1.5111 ppb	0.22337	14.78%
Na 589.592 Radial†	4354.8	1233.3 µg/L	0.89	1233.3 ppb	0.89	0.07%

Ni 231.604†	1202.1	78.264 µg/L	3.5420	78.264 ppb	3.5420	4.53%
P 214.914†	443.5	989.78 µg/L	37.675	989.78 ppb	37.675	3.81%
Pb 220.353†	445.2	135.77 µg/L	2.725	135.77 ppb	2.725	2.01%
S 181.975 Axial†	83.2	475.45 µg/L	23.355	475.45 ppb	23.355	4.91%
Sb 206.836†	6.8	4.6404 µg/L	3.01962	4.6404 ppb	3.01962	65.07%
Se 196.026†	-328.5	35.945 µg/L	24.3063	35.945 ppb	24.3063	67.62%
SiO2†	433266.6	91221 µg/L	580.4	91221 ppb	580.4	0.64%
Si 251.611†	503351.6	42125 µg/L	268.3	42125 ppb	268.3	0.64%
Sn 189.927†	-118.9	-46.858 µg/L	0.4517	-46.858 ppb	0.4517	0.96%
Sr 421.552†	49862.5	310.59 µg/L	1.279	310.59 ppb	1.279	0.41%
Ti 334.940†	2146268.0	5352.9 µg/L	57.99	5352.9 ppb	57.99	1.08%
Tl 190.801†	-23.7	8.4990 µg/L	3.34688	8.4990 ppb	3.34688	39.38%
U 409.014†	-823.0	-99.388 µg/L	2.5245	-99.388 ppb	2.5245	2.54%
V 292.402†	20500.3	262.74 µg/L	6.680	262.74 ppb	6.680	2.54%
Zn 213.857†	10062.9	284.46 µg/L	6.756	284.46 ppb	6.756	2.38%

Sequence No.: 18

Sample ID: 244144010|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 316

Date Collected: 1/26/2010 14:03:37

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144010|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77964.3	77964.3	105 %			14:04:10
1	Al 396.153Radial†	208238.2	197821.8	136780 µg/L		136780 ppb	14:04:10
1	Ca 317.933Radial†	30982.9	29171.7	23272 µg/L		23272 ppb	14:04:31
1	Fe 238.204 Radial†	11232.3	10652.7	154730 µg/L		154730 ppb	14:04:31
1	K 766.490 Radial†	33949.7	31838.1	20666 µg/L		20666 ppb	14:04:10
1	Mg 279.077 IEC†	2259.5	2134.6	23196 µg/L		23196 ppb	14:04:31
1	Na 589.592 Radial†	3434.7	2354.9	666.91 µg/L		666.91 ppb	14:04:31
1	Sr 421.552†	52296.9	49085.6	305.75 µg/L		305.75 ppb	14:04:10
1	Sc 361.383	1880320.5	1880320.5	101.97 %			14:05:37
1	Y 371.029	1218524.6	1218524.6	104.04 %			14:05:37
1	Ag 328.068†	-1545.9	-1525.3	-2.2880 µg/L		-2.2880 ppb	14:05:42
1	As 188.979†	12.0	13.0	37.688 µg/L		37.688 ppb	14:06:03
1	B 249.677†	2492.9	2330.6	32.283 µg/L		32.283 ppb	14:05:42
1	Ba 233.527†	75865.5	74403.9	2176.7 µg/L		2176.7 ppb	14:05:42
1	Be 313.107†	24423.4	19549.5	11.229 µg/L		11.229 ppb	14:05:42
1	Cd 226.502†	524.2	621.5	1.1350 µg/L		1.1350 ppb	14:05:42
1	Co 228.616†	1374.3	1383.5	63.674 µg/L		63.674 ppb	14:06:03
1	Cr 267.716†	5445.2	5390.6	125.87 µg/L		125.87 ppb	14:05:42
1	Cu 324.752†	11426.8	7371.5	74.950 µg/L		74.950 ppb	14:05:42
1	Mn 257.610†	1164564.5	1142098.7	4267.8 µg/L		4267.8 ppb	14:05:37
1	Mo 202.031†	-11.5	-27.6	2.4020 µg/L		2.4020 ppb	14:06:03
1	Ni 231.604†	1691.5	1326.1	86.172 µg/L		86.172 ppb	14:06:03
1	P 214.914†	683.2	469.0	1035.7 µg/L		1035.7 ppb	14:06:03
1	Pb 220.353†	557.9	481.6	144.05 µg/L		144.05 ppb	14:06:03
1	S 181.975 Axial†	145.0	118.0	674.20 µg/L		674.20 ppb	14:06:03
1	Sb 206.836†	18.0	-4.4	-7.8738 µg/L		-7.8738 ppb	14:06:03
1	Se 196.026†	-337.8	-341.1	34.162 µg/L		34.162 ppb	14:06:03
1	SiO2†	441493.3	430654.3	90671 µg/L		90671 ppb	14:05:37
1	Si 251.611†	510448.7	500258.8	41866 µg/L		41866 ppb	14:05:37
1	Sn 189.927†	-113.6	-133.5	-55.430 µg/L		-55.430 ppb	14:06:03
1	Ti 334.940†	2637388.1	2585426.1	6448.6 µg/L		6448.6 ppb	14:05:37
1	Tl 190.801†	-53.9	-31.2	10.161 µg/L		10.161 ppb	14:06:03
1	U 409.014†	-691.8	-526.8	-72.275 µg/L		-72.275 ppb	14:05:37
1	V 292.402†	25379.4	24984.4	318.77 µg/L		318.77 ppb	14:05:42
1	Zn 213.857†	11092.1	10210.4	288.60 µg/L		288.60 ppb	14:05:42
2	Sc RADIAL	77713.6	77713.6	105 %			14:04:37
2	Al 396.153Radial†	208737.7	198936.1	137550 µg/L		137550 ppb	14:04:37
2	Ca 317.933Radial†	30964.4	29249.1	23334 µg/L		23334 ppb	14:04:57
2	Fe 238.204 Radial†	11226.7	10681.8	155150 µg/L		155150 ppb	14:04:57
2	K 766.490 Radial†	34024.6	32013.6	20780 µg/L		20780 ppb	14:04:37
2	Mg 279.077 IEC†	2258.1	2140.2	23256 µg/L		23256 ppb	14:04:57
2	Na 589.592 Radial†	3429.9	2360.9	668.59 µg/L		668.59 ppb	14:04:57
2	Sr 421.552†	52315.3	49263.4	306.86 µg/L		306.86 ppb	14:04:37
2	Sc 361.383	1872449.3	1872449.3	101.55 %			14:06:11
2	Y 371.029	1213438.6	1213438.6	103.61 %			14:06:11
2	Ag 328.068†	-1550.8	-1536.4	-2.3438 µg/L		-2.3438 ppb	14:06:16
2	As 188.979†	8.3	9.5	29.559 µg/L		29.559 ppb	14:06:36
2	B 249.677†	2546.8	2393.9	35.126 µg/L		35.126 ppb	14:06:16
2	Ba 233.527†	76465.5	75307.5	2203.2 µg/L		2203.2 ppb	14:06:16
2	Be 313.107†	24565.9	19790.6	11.387 µg/L		11.387 ppb	14:06:16
2	Cd 226.502†	512.9	612.6	0.8224 µg/L		0.8224 ppb	14:06:16
2	Co 228.616†	1377.6	1392.4	64.109 µg/L		64.109 ppb	14:06:36
2	Cr 267.716†	5421.1	5389.3	125.84 µg/L		125.84 ppb	14:06:16
2	Cu 324.752†	11551.3	7541.2	76.240 µg/L		76.240 ppb	14:06:16
2	Mn 257.610†	1164873.1	1147203.4	4286.8 µg/L		4286.8 ppb	14:06:11
2	Mo 202.031†	-17.9	-33.9	1.6271 µg/L		1.6271 ppb	14:06:36
2	Ni 231.604†	1703.6	1345.0	87.378 µg/L		87.378 ppb	14:06:36
2	P 214.914†	679.8	468.5	1034.3 µg/L		1034.3 ppb	14:06:36
2	Pb 220.353†	593.6	519.1	155.15 µg/L		155.15 ppb	14:06:36

2	S 181.975 Axial†	144.2	117.9	673.55 µg/L	673.55 ppb	14:06:36
2	Sb 206.836†	25.2	2.7	-0.0677 µg/L	-0.0677 ppb	14:06:36
2	Se 196.026†	-338.1	-342.8	33.040 µg/L	33.040 ppb	14:06:36
2	SiO2†	441510.8	432491.8	91058 µg/L	91058 ppb	14:06:11
2	Si 251.611†	510734.1	502644.1	42066 µg/L	42066 ppb	14:06:11
2	Sn 189.927†	-114.2	-134.5	-55.965 µg/L	-55.965 ppb	14:06:36
2	Ti 334.940†	2638113.8	2597013.1	6477.5 µg/L	6477.5 ppb	14:06:11
2	Tl 190.801†	-56.4	-33.8	5.8849 µg/L	5.8849 ppb	14:06:36
2	U 409.014†	-614.8	-453.9	-65.504 µg/L	-65.504 ppb	14:06:11
2	V 292.402†	25524.4	25231.9	321.87 µg/L	321.87 ppb	14:06:16
2	Zn 213.857†	11108.7	10272.5	290.38 µg/L	290.38 ppb	14:06:16
3	Sc RADIAL	77957.2	77957.2	105 %		14:05:03
3	Al 396.153Radial†	209665.6	199195.8	137730 µg/L	137730 ppb	14:05:03
3	Ca 317.933Radial†	30938.4	29132.1	23240 µg/L	23240 ppb	14:05:23
3	Fe 238.204 Radial†	11221.2	10643.1	154590 µg/L	154590 ppb	14:05:23
3	K 766.490 Radial†	34167.5	32047.9	20803 µg/L	20803 ppb	14:05:03
3	Mg 279.077 IEC†	2260.0	2135.2	23203 µg/L	23203 ppb	14:05:23
3	Na 589.592 Radial†	3428.9	2349.7	665.43 µg/L	665.43 ppb	14:05:23
3	Sr 421.552†	52599.1	49377.2	307.57 µg/L	307.57 ppb	14:05:03
3	Sc 361.383	1876830.7	1876830.7	101.78 %		14:06:44
3	Y 371.029	1215768.5	1215768.5	103.81 %		14:06:44
3	Ag 328.068†	-1511.4	-1494.2	-2.0622 µg/L	-2.0622 ppb	14:06:50
3	As 188.979†	12.6	13.6	39.091 µg/L	39.091 ppb	14:07:10
3	B 249.677†	2418.3	2261.8	29.019 µg/L	29.019 ppb	14:06:50
3	Ba 233.527†	74390.2	73092.7	2138.4 µg/L	2138.4 ppb	14:06:50
3	Be 313.107†	23938.8	19118.0	10.970 µg/L	10.970 ppb	14:06:50
3	Cd 226.502†	504.3	603.0	0.5930 µg/L	0.5930 ppb	14:06:50
3	Co 228.616†	1292.0	1305.2	59.543 µg/L	59.543 ppb	14:07:10
3	Cr 267.716†	5302.0	5259.9	122.82 µg/L	122.82 ppb	14:06:50
3	Cu 324.752†	11302.4	7270.1	74.196 µg/L	74.196 ppb	14:06:50
3	Mn 257.610†	1147092.6	1127056.4	4211.8 µg/L	4211.8 ppb	14:06:44
3	Mo 202.031†	-17.7	-33.7	1.6333 µg/L	1.6333 ppb	14:07:10
3	Ni 231.604†	1620.7	1259.5	81.950 µg/L	81.950 ppb	14:07:10
3	P 214.914†	658.0	445.5	979.73 µg/L	979.73 ppb	14:07:10
3	Pb 220.353†	542.4	467.4	139.90 µg/L	139.90 ppb	14:07:10
3	S 181.975 Axial†	146.9	120.2	686.54 µg/L	686.54 ppb	14:07:10
3	Sb 206.836†	17.4	-5.0	-8.4725 µg/L	-8.4725 ppb	14:07:10
3	Se 196.026†	-329.6	-333.7	45.257 µg/L	45.257 ppb	14:07:10
3	SiO2†	436524.7	426578.0	89813 µg/L	89813 ppb	14:06:44
3	Si 251.611†	504701.0	495542.6	41472 µg/L	41472 ppb	14:06:44
3	Sn 189.927†	-110.5	-130.6	-53.725 µg/L	-53.725 ppb	14:07:10
3	Ti 334.940†	2585810.6	2539561.3	6334.2 µg/L	6334.2 ppb	14:06:44
3	Tl 190.801†	-52.3	-29.7	11.531 µg/L	11.531 ppb	14:07:10
3	U 409.014†	-725.2	-560.9	-75.447 µg/L	-75.447 ppb	14:06:44
3	V 292.402†	24675.6	24339.2	310.73 µg/L	310.73 ppb	14:06:50
3	Zn 213.857†	10858.9	10001.5	282.53 µg/L	282.53 ppb	14:06:50

Mean Data: 244144010|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1876533.5	101.77 %	%	0.214			0.21%
Sc RADIAL	77878.4	105 %	%	0.2			0.18%
Y 371.029	1215910.6	103.82 %	%	0.217			0.21%
Ag 328.068†	-1518.6	-2.2313 µg/L	µg/L	0.14908	-2.2313 ppb	0.14908	6.68%
Al 396.153Radial†	198651.2	137350 µg/L	µg/L	504.7	137350 ppb	504.7	0.37%
As 188.979†	12.0	35.446 µg/L	µg/L	5.1463	35.446 ppb	5.1463	14.52%
B 249.677†	2328.8	32.143 µg/L	µg/L	3.0555	32.143 ppb	3.0555	9.51%
Ba 233.527†	74268.0	2172.8 µg/L	µg/L	32.58	2172.8 ppb	32.58	1.50%
Be 313.107†	19486.0	11.195 µg/L	µg/L	0.2102	11.195 ppb	0.2102	1.88%
Ca 317.933Radial†	29184.3	23282 µg/L	µg/L	47.4	23282 ppb	47.4	0.20%
Cd 226.502†	612.4	0.8501 µg/L	µg/L	0.27202	0.8501 ppb	0.27202	32.00%
Co 228.616†	1360.4	62.442 µg/L	µg/L	2.5196	62.442 ppb	2.5196	4.04%
Cr 267.716†	5346.6	124.84 µg/L	µg/L	1.754	124.84 ppb	1.754	1.41%
Cu 324.752†	7394.3	75.129 µg/L	µg/L	1.0333	75.129 ppb	1.0333	1.38%
Fe 238.204 Radial†	10659.2	154820 µg/L	µg/L	292.4	154820 ppb	292.4	0.19%
K 766.490 Radial†	31966.5	20750 µg/L	µg/L	73.1	20750 ppb	73.1	0.35%
Mg 279.077 IEC†	2136.7	23218 µg/L	µg/L	33.2	23218 ppb	33.2	0.14%
Mn 257.610†	1138786.1	4255.4 µg/L	µg/L	38.99	4255.4 ppb	38.99	0.92%
Mo 202.031†	-31.7	1.8875 µg/L	µg/L	0.44560	1.8875 ppb	0.44560	23.61%
Na 589.592 Radial†	2355.2	666.98 µg/L	µg/L	1.581	666.98 ppb	1.581	0.24%

Ni 231.604†	1310.2	85.167 µg/L	2.8505	85.167 ppb	2.8505	3.35%
P 214.914†	461.0	1016.6 µg/L	31.92	1016.6 ppb	31.92	3.14%
Pb 220.353†	489.4	146.37 µg/L	7.883	146.37 ppb	7.883	5.39%
S 181.975 Axial†	118.7	678.10 µg/L	7.320	678.10 ppb	7.320	1.08%
Sb 206.836†	-2.2	-5.4713 µg/L	4.68925	-5.4713 ppb	4.68925	85.71%
Se 196.026†	-339.2	37.486 µg/L	6.7526	37.486 ppb	6.7526	18.01%
SiO2†	429908.1	90514 µg/L	637.3	90514 ppb	637.3	0.70%
Si 251.611†	499481.8	41801 µg/L	302.5	41801 ppb	302.5	0.72%
Sn 189.927†	-132.8	-55.040 µg/L	1.1699	-55.040 ppb	1.1699	2.13%
Sr 421.552†	49242.0	306.73 µg/L	0.916	306.73 ppb	0.916	0.30%
Ti 334.940†	2574000.2	6420.1 µg/L	75.80	6420.1 ppb	75.80	1.18%
Tl 190.801†	-31.6	9.1921 µg/L	2.94491	9.1921 ppb	2.94491	32.04%
U 409.014†	-513.9	-71.075 µg/L	5.0787	-71.075 ppb	5.0787	7.15%
V 292.402†	24851.8	317.12 µg/L	5.747	317.12 ppb	5.747	1.81%
Zn 213.857†	10161.5	287.17 µg/L	4.113	287.17 ppb	4.113	1.43%



Sequence No.: 19

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/26/2010 14:07:19

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	76850.0	76850.0	104 %		14:07:57
1	Al 396.153Radial†	7816.6	7553.3	5211.8 µg/L	5211.8 ppb	14:07:57
1	Ca 317.933Radial†	7101.0	6584.6	5252.9 µg/L	5252.9 ppb	14:07:57
1	Fe 238.204 Radial†	404.3	373.0	5429.4 µg/L	5429.4 ppb	14:08:17
1	K 766.490 Radial†	8412.8	7697.0	4996.3 µg/L	4996.3 ppb	14:07:57
1	Mg 279.077 IEC†	520.0	489.4	5359.1 µg/L	5359.1 ppb	14:08:17
1	Na 589.592 Radial†	37636.1	35360.5	10014 µg/L	10014 ppb	14:07:57
1	Sr 421.552†	84221.7	80570.2	501.87 µg/L	501.87 ppb	14:07:57
1	Sc 361.383	1865167.2	1865167.2	101.15 %		14:09:20
1	Y 371.029	1180020.2	1180020.2	100.76 %		14:09:20
1	Ag 328.068†	55990.2	55344.2	514.79 µg/L	514.79 ppb	14:09:26
1	As 188.979†	233.7	232.3	533.32 µg/L	533.32 ppb	14:09:47
1	B 249.677†	10749.5	10513.1	506.92 µg/L	506.92 ppb	14:09:26
1	Ba 233.527†	17972.1	17773.2	520.77 µg/L	520.77 ppb	14:09:26
1	Be 313.107†	752758.1	739796.5	517.72 µg/L	517.72 ppb	14:09:20
1	Cd 226.502†	17517.0	17425.3	519.57 µg/L	519.57 ppb	14:09:26
1	Co 228.616†	9422.4	9351.0	520.76 µg/L	520.76 ppb	14:09:26
1	Cr 267.716†	22606.6	22400.2	522.55 µg/L	522.55 ppb	14:09:26
1	Cu 324.752†	74285.8	69606.7	505.40 µg/L	505.40 ppb	14:09:26
1	Mn 257.610†	140218.8	138679.8	516.33 µg/L	516.33 ppb	14:09:26
1	Mo 202.031†	4169.5	4105.8	517.54 µg/L	517.54 ppb	14:09:47
1	Ni 231.604†	8709.4	8277.6	525.38 µg/L	525.38 ppb	14:09:26
1	P 214.914†	1340.8	1124.6	2658.5 µg/L	2658.5 ppb	14:09:47
1	Pb 220.353†	1894.2	1807.2	534.72 µg/L	534.72 ppb	14:09:47
1	S 181.975 Axial†	211.2	184.7	1055.1 µg/L	1055.1 ppb	14:09:47
1	Sb 206.836†	496.5	468.8	520.13 µg/L	520.13 ppb	14:09:47
1	Se 196.026†	347.3	333.5	539.69 µg/L	539.69 ppb	14:09:47
1	SiO2†	29200.2	26567.3	5593.6 µg/L	5593.6 ppb	14:09:26
1	Si 251.611†	31927.0	31245.5	2614.9 µg/L	2614.9 ppb	14:09:26
1	Sn 189.927†	930.2	897.6	535.97 µg/L	535.97 ppb	14:09:47
1	Ti 334.940†	210279.0	206929.9	515.91 µg/L	515.91 ppb	14:09:20
1	Tl 190.801†	283.9	302.3	529.14 µg/L	529.14 ppb	14:09:47
1	U 409.014†	5429.8	5519.6	515.95 µg/L	515.95 ppb	14:09:26
1	V 292.402†	42246.9	41862.3	526.03 µg/L	526.03 ppb	14:09:26
1	Zn 213.857†	18741.0	17860.7	517.11 µg/L	517.11 ppb	14:09:26
2	Sc RADIAL	76554.3	76554.3	103 %		14:08:23
2	Al 396.153Radial†	7792.8	7559.4	5216.1 µg/L	5216.1 ppb	14:08:23
2	Ca 317.933Radial†	7074.8	6585.7	5253.7 µg/L	5253.7 ppb	14:08:23
2	Fe 238.204 Radial†	403.4	373.7	5438.6 µg/L	5438.6 ppb	14:08:43
2	K 766.490 Radial†	8419.7	7735.0	5020.9 µg/L	5020.9 ppb	14:08:23
2	Mg 279.077 IEC†	519.9	491.2	5379.0 µg/L	5379.0 ppb	14:08:43
2	Na 589.592 Radial†	37452.0	35322.5	10003 µg/L	10003 ppb	14:08:23
2	Sr 421.552†	83848.8	80523.0	501.57 µg/L	501.57 ppb	14:08:23
2	Sc 361.383	1865124.1	1865124.1	101.15 %		14:09:53
2	Y 371.029	1178812.7	1178812.7	100.65 %		14:09:53
2	Ag 328.068†	56233.5	55586.1	517.03 µg/L	517.03 ppb	14:09:59
2	As 188.979†	237.0	235.6	540.91 µg/L	540.91 ppb	14:10:19
2	B 249.677†	10747.3	10511.2	506.82 µg/L	506.82 ppb	14:09:59
2	Ba 233.527†	18003.8	17805.0	521.70 µg/L	521.70 ppb	14:09:59
2	Be 313.107†	747756.9	734869.3	514.27 µg/L	514.27 ppb	14:09:53
2	Cd 226.502†	17572.7	17480.8	521.22 µg/L	521.22 ppb	14:09:59
2	Co 228.616†	9447.4	9375.9	522.16 µg/L	522.16 ppb	14:09:59
2	Cr 267.716†	22659.5	22453.1	523.79 µg/L	523.79 ppb	14:09:59
2	Cu 324.752†	74450.4	69771.1	506.59 µg/L	506.59 ppb	14:09:59
2	Mn 257.610†	140752.0	139210.1	518.31 µg/L	518.31 ppb	14:09:59
2	Mo 202.031†	4145.8	4082.5	514.60 µg/L	514.60 ppb	14:10:19
2	Ni 231.604†	8680.5	8249.2	523.57 µg/L	523.57 ppb	14:09:59
2	P 214.914†	1337.8	1121.6	2651.2 µg/L	2651.2 ppb	14:10:19
2	Pb 220.353†	1886.2	1799.3	532.37 µg/L	532.37 ppb	14:10:19

2	S 181.975 Axial†	217.0	190.4	1087.5 µg/L	1087.5 ppb	14:10:19
2	Sb 206.836†	506.7	478.8	531.20 µg/L	531.20 ppb	14:10:19
2	Se 196.026†	345.0	331.2	536.15 µg/L	536.15 ppb	14:10:19
2	SiO2†	29293.2	26660.0	5613.1 µg/L	5613.1 ppb	14:09:59
2	Si 251.611†	32015.3	31333.5	2622.3 µg/L	2622.3 ppb	14:09:59
2	Sn 189.927†	927.8	895.3	534.58 µg/L	534.58 ppb	14:10:19
2	Ti 334.940†	208915.9	205587.1	512.56 µg/L	512.56 ppb	14:09:53
2	Tl 190.801†	283.0	301.4	527.56 µg/L	527.56 ppb	14:10:19
2	U 409.014†	5450.4	5540.1	517.87 µg/L	517.87 ppb	14:09:59
2	V 292.402†	42365.9	41980.9	527.49 µg/L	527.49 ppb	14:09:59
2	Zn 213.857†	18834.9	17954.0	519.84 µg/L	519.84 ppb	14:09:59
3	Sc RADIAL	76759.6	76759.6	104 %		14:08:49
3	Al 396.153Radial†	7796.2	7542.5	5205.8 µg/L	5205.8 ppb	14:08:49
3	Ca 317.933Radial†	7119.4	6610.4	5273.5 µg/L	5273.5 ppb	14:08:49
3	Fe 238.204 Radial†	404.9	374.1	5443.6 µg/L	5443.6 ppb	14:09:09
3	K 766.490 Radial†	8427.2	7720.4	5011.4 µg/L	5011.4 ppb	14:08:49
3	Mg 279.077 IEC†	519.2	489.2	5355.9 µg/L	5355.9 ppb	14:09:09
3	Na 589.592 Radial†	37618.2	35385.9	10021 µg/L	10021 ppb	14:08:49
3	Sr 421.552†	84262.7	80705.4	502.71 µg/L	502.71 ppb	14:08:49
3	Sc 361.383	1852971.9	1852971.9	100.49 %		14:10:26
3	Y 371.029	1172081.4	1172081.4	100.08 %		14:10:26
3	Ag 328.068†	54262.4	53989.1	502.06 µg/L	502.06 ppb	14:10:32
3	As 188.979†	209.8	210.1	482.34 µg/L	482.34 ppb	14:10:52
3	B 249.677†	10298.9	10134.6	488.53 µg/L	488.53 ppb	14:10:32
3	Ba 233.527†	16947.6	16870.6	494.31 µg/L	494.31 ppb	14:10:32
3	Be 313.107†	717290.1	709399.0	496.45 µg/L	496.45 ppb	14:10:26
3	Cd 226.502†	16524.2	16551.3	493.47 µg/L	493.47 ppb	14:10:32
3	Co 228.616†	8815.9	8808.8	490.51 µg/L	490.51 ppb	14:10:32
3	Cr 267.716†	20698.0	20648.0	481.68 µg/L	481.68 ppb	14:10:32
3	Cu 324.752†	69878.2	65703.9	477.11 µg/L	477.11 ppb	14:10:32
3	Mn 257.610†	131161.9	130579.3	486.21 µg/L	486.21 ppb	14:10:32
3	Mo 202.031†	3597.3	3563.5	449.21 µg/L	449.21 ppb	14:10:52
3	Ni 231.604†	8145.8	7773.4	493.38 µg/L	493.38 ppb	14:10:32
3	P 214.914†	1217.2	1010.2	2385.2 µg/L	2385.2 ppb	14:10:52
3	Pb 220.353†	1666.5	1592.9	471.22 µg/L	471.22 ppb	14:10:52
3	S 181.975 Axial†	192.1	167.0	954.23 µg/L	954.23 ppb	14:10:52
3	Sb 206.836†	447.6	423.3	469.25 µg/L	469.25 ppb	14:10:52
3	Se 196.026†	317.3	305.9	496.63 µg/L	496.63 ppb	14:10:52
3	SiO2†	27891.5	25455.1	5359.4 µg/L	5359.4 ppb	14:10:32
3	Si 251.611†	30335.6	29869.6	2499.8 µg/L	2499.8 ppb	14:10:32
3	Sn 189.927†	797.6	771.6	461.14 µg/L	461.14 ppb	14:10:52
3	Ti 334.940†	199646.7	197717.5	492.93 µg/L	492.93 ppb	14:10:26
3	Tl 190.801†	250.4	270.8	474.16 µg/L	474.16 ppb	14:10:52
3	U 409.014†	5006.8	5134.0	479.82 µg/L	479.82 ppb	14:10:32
3	V 292.402†	39335.6	39240.1	492.80 µg/L	492.80 ppb	14:10:32
3	Zn 213.857†	17616.3	16863.4	488.22 µg/L	488.22 ppb	14:10:32

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1861087.7	100.93 %	0.381			0.38%
Sc RADIAL	76721.3	104 %	0.2			0.20%
Y 371.029	1176971.4	100.50 %	0.365			0.36%
Ag 328.068†	54973.2	511.30 µg/L	8.073	511.30 ppb	8.073	1.58%
QC value within limits for Ag 328.068 Recovery = 102.26%						
Al 396.153Radial†	7551.7	5211.2 µg/L	5.21	5211.2 ppb	5.21	0.10%
QC value within limits for Al 396.153Radial Recovery = 104.22%						
As 188.979†	226.0	518.85 µg/L	31.853	518.85 ppb	31.853	6.14%
QC value within limits for As 188.979 Recovery = 103.77%						
B 249.677†	10386.3	500.76 µg/L	10.592	500.76 ppb	10.592	2.12%
QC value within limits for B 249.677 Recovery = 100.15%						
Ba 233.527†	17482.9	512.26 µg/L	15.551	512.26 ppb	15.551	3.04%
QC value within limits for Ba 233.527 Recovery = 102.45%						
Be 313.107†	728021.6	509.48 µg/L	11.417	509.48 ppb	11.417	2.24%
QC value within limits for Be 313.107 Recovery = 101.90%						
Ca 317.933Radial†	6593.6	5260.0 µg/L	11.65	5260.0 ppb	11.65	0.22%
QC value within limits for Ca 317.933Radial Recovery = 105.20%						
Cd 226.502†	17152.4	511.42 µg/L	15.566	511.42 ppb	15.566	3.04%
QC value within limits for Cd 226.502 Recovery = 102.28%						
Co 228.616†	9178.6	511.14 µg/L	17.880	511.14 ppb	17.880	3.50%

QC value within limits for Co 228.616 Recovery = 102.23%							
Cr 267.716†	21833.7	509.34 µg/L	23.961	509.34 ppb	23.961	4.70%	
QC value within limits for Cr 267.716 Recovery = 101.87%							
Cu 324.752†	68360.6	496.37 µg/L	16.690	496.37 ppb	16.690	3.36%	
QC value within limits for Cu 324.752 Recovery = 99.27%							
Fe 238.204 Radial†	373.6	5437.2 µg/L	7.17	5437.2 ppb	7.17	0.13%	
QC value within limits for Fe 238.204 Radial Recovery = 108.74%							
K 766.490 Radial†	7717.5	5009.5 µg/L	12.44	5009.5 ppb	12.44	0.25%	
QC value within limits for K 766.490 Radial Recovery = 100.19%							
Mg 279.077 IEC†	489.9	5364.7 µg/L	12.54	5364.7 ppb	12.54	0.23%	
QC value within limits for Mg 279.077 IEC Recovery = 107.29%							
Mn 257.610†	136156.4	506.95 µg/L	17.991	506.95 ppb	17.991	3.55%	
QC value within limits for Mn 257.610 Recovery = 101.39%							
Mo 202.031†	3917.3	493.79 µg/L	38.631	493.79 ppb	38.631	7.82%	
QC value within limits for Mo 202.031 Recovery = 98.76%							
Na 589.592 Radial†	35356.3	10013 µg/L	9.0	10013 ppb	9.0	0.09%	
QC value within limits for Na 589.592 Radial Recovery = 100.13%							
Ni 231.604†	8100.1	514.11 µg/L	17.978	514.11 ppb	17.978	3.50%	
QC value within limits for Ni 231.604 Recovery = 102.82%							
P 214.914†	1085.5	2565.0 µg/L	155.75	2565.0 ppb	155.75	6.07%	
QC value within limits for P 214.914 Recovery = 102.60%							
Pb 220.353†	1733.1	512.77 µg/L	36.002	512.77 ppb	36.002	7.02%	
QC value within limits for Pb 220.353 Recovery = 102.55%							
S 181.975 Axial†	180.7	1032.3 µg/L	69.53	1032.3 ppb	69.53	6.74%	
QC value within limits for S 181.975 Axial Recovery = 103.23%							
Sb 206.836†	457.0	506.86 µg/L	33.036	506.86 ppb	33.036	6.52%	
QC value within limits for Sb 206.836 Recovery = 101.37%							
Se 196.026†	323.5	524.16 µg/L	23.904	524.16 ppb	23.904	4.56%	
QC value within limits for Se 196.026 Recovery = 104.83%							
SiO2†	26227.5	5522.0 µg/L	141.17	5522.0 ppb	141.17	2.56%	
QC value within limits for SiO2 Recovery = 103.26%							
Si 251.611†	30816.2	2579.0 µg/L	68.71	2579.0 ppb	68.71	2.66%	
QC value within limits for Si 251.611 Recovery = 103.16%							
Sn 189.927†	854.8	510.56 µg/L	42.809	510.56 ppb	42.809	8.38%	
QC value within limits for Sn 189.927 Recovery = 102.11%							
Sr 421.552†	80599.5	502.05 µg/L	0.590	502.05 ppb	0.590	0.12%	
QC value within limits for Sr 421.552 Recovery = 100.41%							
Ti 334.940†	203411.5	507.13 µg/L	12.415	507.13 ppb	12.415	2.45%	
QC value within limits for Ti 334.940 Recovery = 101.43%							
Tl 190.801†	291.5	510.28 µg/L	31.295	510.28 ppb	31.295	6.13%	
QC value within limits for Tl 190.801 Recovery = 102.06%							
U 409.014†	5397.9	504.55 µg/L	21.432	504.55 ppb	21.432	4.25%	
QC value within limits for U 409.014 Recovery = 100.91%							
V 292.402†	41027.8	515.44 µg/L	19.620	515.44 ppb	19.620	3.81%	
QC value within limits for V 292.402 Recovery = 103.09%							
Zn 213.857†	17559.4	508.39 µg/L	17.521	508.39 ppb	17.521	3.45%	
QC value within limits for Zn 213.857 Recovery = 101.68%							
All analyte(s) passed QC.							

Sequence No.: 20

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/26/2010 14:11:01

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	75507.8	75507.8	102 %		14:11:34
1	Al 396.153Radial†	14.8	35.4	24.427 µg/L	24.427 ppb	14:11:34
1	Ca 317.933Radial†	256.7	-6.5	-5.1754 µg/L	-5.1754 ppb	14:11:54
1	Fe 238.204 Radial†	19.8	2.8	40.397 µg/L	40.397 ppb	14:11:54
1	K 766.490 Radial†	367.0	-50.0	-32.464 µg/L	-32.464 ppb	14:11:34
1	Mg 279.077 IEC†	12.5	0.6	6.3475 µg/L	6.3475 ppb	14:11:54
1	Na 589.592 Radial†	615.6	-303.8	-86.050 µg/L	-86.050 ppb	14:11:34
1	Sr 421.552†	591.1	-10.5	-0.0652 µg/L	-0.0652 ppb	14:11:34
1	Sc 361.383	1857733.4	1857733.4	100.75 %		14:12:56
1	Y 371.029	1177520.4	1177520.4	100.54 %		14:12:56
1	Ag 328.068†	-79.6	-88.2	-0.8138 µg/L	-0.8138 ppb	14:13:02
1	As 188.979†	-0.3	1.0	2.2434 µg/L	2.2434 ppb	14:13:22
1	B 249.677†	110.2	-4.8	-0.2518 µg/L	-0.2518 ppb	14:13:22
1	Ba 233.527†	-7.5	-2.0	-0.0576 µg/L	-0.0576 ppb	14:13:22
1	Be 313.107†	4122.5	-309.6	-0.2169 µg/L	-0.2169 ppb	14:13:02
1	Cd 226.502†	-105.2	3.0	0.0856 µg/L	0.0856 ppb	14:13:22
1	Co 228.616†	-40.0	-3.9	-0.2191 µg/L	-0.2191 ppb	14:13:22
1	Cr 267.716†	-61.2	-10.1	-0.2348 µg/L	-0.2348 ppb	14:13:22
1	Cu 324.752†	3772.3	-90.0	-0.6470 µg/L	-0.6470 ppb	14:13:02
1	Mn 257.610†	-20.3	35.3	0.1366 µg/L	0.1366 ppb	14:13:22
1	Mo 202.031†	24.7	8.2	1.0391 µg/L	1.0391 ppb	14:13:22
1	Ni 231.604†	325.1	-10.1	-0.6406 µg/L	-0.6406 ppb	14:13:22
1	P 214.914†	229.3	26.6	64.068 µg/L	64.068 ppb	14:13:22
1	Pb 220.353†	65.1	-0.8	-0.2646 µg/L	-0.2646 ppb	14:13:22
1	S 181.975 Axial†	24.8	0.5	2.9351 µg/L	2.9351 ppb	14:13:22
1	Sb 206.836†	29.3	6.9	7.6986 µg/L	7.6986 ppb	14:13:22
1	Se 196.026†	4.5	-5.4	-8.3630 µg/L	-8.3630 ppb	14:13:22
1	SiO2†	2356.6	38.4	8.0770 µg/L	8.0770 ppb	14:13:02
1	Si 251.611†	361.1	39.9	3.3424 µg/L	3.3424 ppb	14:13:22
1	Sn 189.927†	19.9	-2.3	-1.3746 µg/L	-1.3746 ppb	14:13:22
1	Ti 334.940†	1074.8	108.9	0.2710 µg/L	0.2710 ppb	14:13:02
1	Tl 190.801†	-26.1	-4.2	-7.2595 µg/L	-7.2595 ppb	14:13:22
1	U 409.014†	35.4	186.7	17.486 µg/L	17.486 ppb	14:13:02
1	V 292.402†	-115.7	-19.0	-0.2082 µg/L	-0.2082 ppb	14:13:02
1	Zn 213.857†	653.1	-18.9	-0.5500 µg/L	-0.5500 ppb	14:13:22
2	Sc RADIAL	74820.0	74820.0	101 %		14:12:00
2	Al 396.153Radial†	9.6	30.3	20.944 µg/L	20.944 ppb	14:12:00
2	Ca 317.933Radial†	257.8	-3.1	-2.4630 µg/L	-2.4630 ppb	14:12:20
2	Fe 238.204 Radial†	18.6	1.8	26.234 µg/L	26.234 ppb	14:12:20
2	K 766.490 Radial†	404.9	-9.2	-6.0040 µg/L	-6.0040 ppb	14:12:00
2	Mg 279.077 IEC†	10.2	-1.5	-16.906 µg/L	-16.906 ppb	14:12:20
2	Na 589.592 Radial†	548.3	-364.9	-103.35 µg/L	-103.35 ppb	14:12:00
2	Sr 421.552†	584.8	-11.3	-0.0704 µg/L	-0.0704 ppb	14:12:00
2	Sc 361.383	1862354.5	1862354.5	101.00 %		14:13:28
2	Y 371.029	1180558.1	1180558.1	100.80 %		14:13:28
2	Ag 328.068†	-162.3	-169.9	-1.5663 µg/L	-1.5663 ppb	14:13:33
2	As 188.979†	2.3	3.6	8.2378 µg/L	8.2378 ppb	14:13:54
2	B 249.677†	114.9	-0.4	-0.0324 µg/L	-0.0324 ppb	14:13:54
2	Ba 233.527†	-11.9	-6.3	-0.1827 µg/L	-0.1827 ppb	14:13:54
2	Be 313.107†	4066.4	-375.3	-0.2629 µg/L	-0.2629 ppb	14:13:33
2	Cd 226.502†	-113.4	-4.8	-0.1476 µg/L	-0.1476 ppb	14:13:54
2	Co 228.616†	-38.5	-2.4	-0.1324 µg/L	-0.1324 ppb	14:13:54
2	Cr 267.716†	-58.5	-7.3	-0.1690 µg/L	-0.1690 ppb	14:13:54
2	Cu 324.752†	3843.0	-29.3	-0.2085 µg/L	-0.2085 ppb	14:13:33
2	Mn 257.610†	-17.1	38.6	0.1476 µg/L	0.1476 ppb	14:13:54
2	Mo 202.031†	16.6	0.2	0.0236 µg/L	0.0236 ppb	14:13:54
2	Ni 231.604†	323.1	-12.9	-0.8160 µg/L	-0.8160 ppb	14:13:54
2	P 214.914†	224.8	21.6	52.046 µg/L	52.046 ppb	14:13:54
2	Pb 220.353†	50.4	-15.6	-4.6293 µg/L	-4.6293 ppb	14:13:54

2	S 181.975 Axial†	20.2	-4.2	-23.782 µg/L	-23.782 ppb	14:13:54
2	Sb 206.836†	25.4	3.1	3.3854 µg/L	3.3854 ppb	14:13:54
2	Se 196.026†	8.3	-1.6	-2.4231 µg/L	-2.4231 ppb	14:13:54
2	SiO2†	2359.9	35.8	7.5402 µg/L	7.5402 ppb	14:13:33
2	Si 251.611†	352.1	30.1	2.5219 µg/L	2.5219 ppb	14:13:54
2	Sn 189.927†	24.8	2.5	1.5009 µg/L	1.5009 ppb	14:13:54
2	Ti 334.940†	1083.8	115.1	0.2885 µg/L	0.2885 ppb	14:13:33
2	Tl 190.801†	-19.5	2.3	4.0998 µg/L	4.0998 ppb	14:13:54
2	U 409.014†	26.1	177.4	16.618 µg/L	16.618 ppb	14:13:33
2	V 292.402†	-81.6	15.1	0.2057 µg/L	0.2057 ppb	14:13:33
2	Zn 213.857†	652.5	-21.1	-0.6108 µg/L	-0.6108 ppb	14:13:54
3	Sc RADIAL	74638.8	74638.8	101 %		14:12:26
3	Al 396.153Radial†	-6.8	14.1	9.7293 µg/L	9.7293 ppb	14:12:26
3	Ca 317.933Radial†	263.5	3.1	2.4853 µg/L	2.4853 ppb	14:12:46
3	Fe 238.204 Radial†	15.2	-1.6	-22.609 µg/L	-22.609 ppb	14:12:46
3	K 766.490 Radial†	375.3	-37.6	-24.439 µg/L	-24.439 ppb	14:12:26
3	Mg 279.077 IEC†	8.0	-3.7	-40.719 µg/L	-40.719 ppb	14:12:46
3	Na 589.592 Radial†	567.0	-345.0	-97.701 µg/L	-97.701 ppb	14:12:26
3	Sr 421.552†	540.7	-53.7	-0.3345 µg/L	-0.3345 ppb	14:12:26
3	Sc 361.383	1842995.0	1842995.0	99.948 %		14:13:59
3	Y 371.029	1168393.1	1168393.1	99.763 %		14:13:59
3	Ag 328.068†	-71.5	-80.8	-0.7449 µg/L	-0.7449 ppb	14:14:05
3	As 188.979†	-0.8	0.4	1.0058 µg/L	1.0058 ppb	14:14:26
3	B 249.677†	113.0	-1.1	-0.0403 µg/L	-0.0403 ppb	14:14:26
3	Ba 233.527†	-19.3	-13.8	-0.4034 µg/L	-0.4034 ppb	14:14:26
3	Be 313.107†	4096.2	-303.2	-0.2123 µg/L	-0.2123 ppb	14:14:05
3	Cd 226.502†	-111.6	-4.2	-0.1221 µg/L	-0.1221 ppb	14:14:26
3	Co 228.616†	-40.2	-4.4	-0.2480 µg/L	-0.2480 ppb	14:14:26
3	Cr 267.716†	-55.0	-4.3	-0.1001 µg/L	-0.1001 ppb	14:14:26
3	Cu 324.752†	3758.7	-73.7	-0.5371 µg/L	-0.5371 ppb	14:14:05
3	Mn 257.610†	-52.3	3.2	0.0105 µg/L	0.0105 ppb	14:14:26
3	Mo 202.031†	17.6	1.3	0.1651 µg/L	0.1651 ppb	14:14:26
3	Ni 231.604†	338.0	5.4	0.3439 µg/L	0.3439 ppb	14:14:26
3	P 214.914†	224.8	23.9	57.708 µg/L	57.708 ppb	14:14:26
3	Pb 220.353†	61.7	-3.8	-1.1342 µg/L	-1.1342 ppb	14:14:26
3	S 181.975 Axial†	17.1	-7.1	-40.416 µg/L	-40.416 ppb	14:14:26
3	Sb 206.836†	22.9	0.8	0.9006 µg/L	0.9006 ppb	14:14:26
3	Se 196.026†	6.0	-3.9	-6.1589 µg/L	-6.1589 ppb	14:14:26
3	SiO2†	2321.7	22.2	4.6663 µg/L	4.6663 ppb	14:14:05
3	Si 251.611†	369.3	51.1	4.2732 µg/L	4.2732 ppb	14:14:26
3	Sn 189.927†	22.7	0.7	0.3987 µg/L	0.3987 ppb	14:14:26
3	Ti 334.940†	1008.3	50.9	0.1303 µg/L	0.1303 ppb	14:14:05
3	Tl 190.801†	-16.6	5.0	8.7835 µg/L	8.7835 ppb	14:14:26
3	U 409.014†	11.3	162.9	15.261 µg/L	15.261 ppb	14:14:05
3	V 292.402†	-65.0	30.8	0.3986 µg/L	0.3986 ppb	14:14:05
3	Zn 213.857†	641.5	-25.3	-0.7348 µg/L	-0.7348 ppb	14:14:26

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1854361.0	100.56 %	0.548			0.55%
Sc RADIAL	74988.9	101 %	0.6			0.61%
Y 371.029	1175490.5	100.37 %	0.541			0.54%
Ag 328.068†	-113.0	-1.0417 µg/L	0.45566	-1.0417 ppb	0.45566	43.74%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	26.6	18.367 µg/L	7.6804	18.367 ppb	7.6804	41.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.7	3.8290 µg/L	3.86796	3.8290 ppb	3.86796	101.02%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-2.1	-0.1082 µg/L	0.12444	-0.1082 ppb	0.12444	115.02%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-7.3	-0.2145 µg/L	0.17509	-0.2145 ppb	0.17509	81.62%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-329.4	-0.2307 µg/L	0.02797	-0.2307 ppb	0.02797	12.13%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-2.2	-1.7177 µg/L	3.88436	-1.7177 ppb	3.88436	226.14%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-2.0	-0.0614 µg/L	0.12790	-0.0614 ppb	0.12790	208.39%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-3.6	-0.1998 µg/L	0.06014	-0.1998 ppb	0.06014	30.10%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated				
	-7.2	-0.1680 µg/L	0.06735	-0.1680 ppb	0.06735	40.10%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated				
	-64.3	-0.4642 µg/L	0.22819	-0.4642 ppb	0.22819	49.16%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated				
	1.0	14.674 µg/L	33.0558	14.674 ppb	33.0558	225.27%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated				
	-32.3	-20.969 µg/L	13.5669	-20.969 ppb	13.5669	64.70%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated				
	-1.6	-17.092 µg/L	23.5336	-17.092 ppb	23.5336	137.68%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated				
	25.7	0.0982 µg/L	0.07617	0.0982 ppb	0.07617	77.54%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated				
	3.2	0.4093 µg/L	0.55002	0.4093 ppb	0.55002	134.39%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated				
	-337.9	-95.700 µg/L	8.8218	-95.700 ppb	8.8218	9.22%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated				
	-5.8	-0.3709 µg/L	0.62519	-0.3709 ppb	0.62519	168.56%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated				
	24.1	57.941 µg/L	6.0144	57.941 ppb	6.0144	10.38%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated				
	-6.7	-2.0094 µg/L	2.31020	-2.0094 ppb	2.31020	114.97%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated				
	-3.6	-20.421 µg/L	21.8701	-20.421 ppb	21.8701	107.10%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated				
	3.6	3.9948 µg/L	3.43973	3.9948 ppb	3.43973	86.10%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated				
	-3.7	-5.6483 µg/L	3.00270	-5.6483 ppb	3.00270	53.16%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated				
	32.1	6.7612 µg/L	1.83400	6.7612 ppb	1.83400	27.13%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated				
	40.4	3.3791 µg/L	0.87623	3.3791 ppb	0.87623	25.93%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated				
	0.3	0.1750 µg/L	1.45078	0.1750 ppb	1.45078	829.02%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated				
	-25.2	-0.1567 µg/L	0.15396	-0.1567 ppb	0.15396	98.25%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated				
	91.7	0.2300 µg/L	0.08672	0.2300 ppb	0.08672	37.71%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated				
	1.1	1.8746 µg/L	8.24975	1.8746 ppb	8.24975	440.08%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated				
	175.7	16.455 µg/L	1.1211	16.455 ppb	1.1211	6.81%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated				
	9.0	0.1321 µg/L	0.31005	0.1321 ppb	0.31005	234.79%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated				
	-21.8	-0.6319 µg/L	0.09418	-0.6319 ppb	0.09418	14.90%
	QC value within limits for Zn 213.857 Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 21

Sample ID: 244144011|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 317

Date Collected: 1/26/2010 14:14:36

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144011|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	78024.1	78024.1	105 %		14:15:13
1	Al 396.153Radial†	195750.9	185818.0	128480 µg/L	128480 ppb	14:15:13
1	Ca 317.933Radial†	27495.9	25839.5	20614 µg/L	20614 ppb	14:15:34
1	Fe 238.204 Radial†	11144.4	10561.1	153400 µg/L	153400 ppb	14:15:34
1	K 766.490 Radial†	33175.0	31078.1	20173 µg/L	20173 ppb	14:15:13
1	Mg 279.077 IEC†	2275.7	2148.3	23348 µg/L	23348 ppb	14:15:34
1	Na 589.592 Radial†	4315.3	3188.3	902.92 µg/L	902.92 ppb	14:15:34
1	Sr 421.552†	50534.4	47374.6	295.09 µg/L	295.09 ppb	14:15:13
1	Sc 361.383	1886516.4	1886516.4	102.31 %		14:16:39
1	Y 371.029	1219835.5	1219835.5	104.16 %		14:16:39
1	Ag 328.068†	-1532.0	-1506.7	-2.3681 µg/L	-2.3681 ppb	14:16:45
1	As 188.979†	12.3	13.2	38.300 µg/L	38.300 ppb	14:17:05
1	B 249.677†	2349.9	2182.7	25.795 µg/L	25.795 ppb	14:16:45
1	Ba 233.527†	73644.0	71988.1	2106.0 µg/L	2106.0 ppb	14:16:45
1	Be 313.107†	22574.9	17664.1	10.180 µg/L	10.180 ppb	14:16:45
1	Cd 226.502†	483.2	579.8	0.0331 µg/L	0.0331 ppb	14:17:05
1	Co 228.616†	1230.0	1238.0	57.044 µg/L	57.044 ppb	14:17:05
1	Cr 267.716†	4833.1	4774.8	111.50 µg/L	111.50 ppb	14:16:45
1	Cu 324.752†	11358.8	7268.2	74.017 µg/L	74.017 ppb	14:16:45
1	Mn 257.610†	987246.9	965030.5	3609.0 µg/L	3609.0 ppb	14:16:39
1	Mo 202.031†	-16.2	-32.2	1.7771 µg/L	1.7771 ppb	14:17:05
1	Ni 231.604†	1586.0	1217.4	79.264 µg/L	79.264 ppb	14:17:05
1	P 214.914†	676.0	459.7	1012.4 µg/L	1012.4 ppb	14:17:05
1	Pb 220.353†	531.4	453.9	135.44 µg/L	135.44 ppb	14:17:05
1	S 181.975 Axial†	140.1	112.8	644.33 µg/L	644.33 ppb	14:17:05
1	Sb 206.836†	25.8	3.1	0.7473 µg/L	0.7473 ppb	14:17:05
1	Se 196.026†	-331.7	-334.1	39.612 µg/L	39.612 ppb	14:17:05
1	SiO2†	476449.0	463399.7	97566 µg/L	97566 ppb	14:16:39
1	Si 251.611†	550893.0	538146.6	45037 µg/L	45037 ppb	14:16:39
1	Sn 189.927†	-104.3	-124.0	-50.458 µg/L	-50.458 ppb	14:17:05
1	Ti 334.940†	2354480.7	2300406.5	5737.5 µg/L	5737.5 ppb	14:16:39
1	Tl 190.801†	-56.5	-33.5	-2.3085 µg/L	-2.3085 ppb	14:17:05
1	U 409.014†	-673.7	-506.9	-70.063 µg/L	-70.063 ppb	14:16:39
1	V 292.402†	23370.6	22939.3	293.26 µg/L	293.26 ppb	14:16:45
1	Zn 213.857†	11259.9	10338.7	292.42 µg/L	292.42 ppb	14:16:45
2	Sc RADIAL	77460.4	77460.4	105 %		14:15:39
2	Al 396.153Radial†	195621.9	187046.8	129330 µg/L	129330 ppb	14:15:39
2	Ca 317.933Radial†	27359.6	25899.1	20661 µg/L	20661 ppb	14:16:00
2	Fe 238.204 Radial†	11083.5	10579.8	153670 µg/L	153670 ppb	14:16:00
2	K 766.490 Radial†	33147.7	31281.1	20305 µg/L	20305 ppb	14:15:39
2	Mg 279.077 IEC†	2272.2	2160.7	23482 µg/L	23482 ppb	14:16:00
2	Na 589.592 Radial†	4293.2	3196.9	905.37 µg/L	905.37 ppb	14:16:00
2	Sr 421.552†	50274.9	47475.6	295.72 µg/L	295.72 ppb	14:15:39
2	Sc 361.383	1872809.2	1872809.2	101.56 %		14:17:13
2	Y 371.029	1211298.1	1211298.1	103.43 %		14:17:13
2	Ag 328.068†	-1525.2	-1511.0	-2.3645 µg/L	-2.3645 ppb	14:17:19
2	As 188.979†	11.4	12.5	36.634 µg/L	36.634 ppb	14:17:39
2	B 249.677†	2362.3	2211.8	27.061 µg/L	27.061 ppb	14:17:19
2	Ba 233.527†	73832.5	72700.6	2126.9 µg/L	2126.9 ppb	14:17:19
2	Be 313.107†	22622.2	17872.1	10.318 µg/L	10.318 ppb	14:17:19
2	Cd 226.502†	486.4	586.4	0.2002 µg/L	0.2002 ppb	14:17:39
2	Co 228.616†	1229.2	1246.0	57.455 µg/L	57.455 ppb	14:17:39
2	Cr 267.716†	4817.3	4793.8	111.94 µg/L	111.94 ppb	14:17:19
2	Cu 324.752†	11374.6	7365.0	74.757 µg/L	74.757 ppb	14:17:19
2	Mn 257.610†	982643.8	967561.0	3618.4 µg/L	3618.4 ppb	14:17:13
2	Mo 202.031†	-16.8	-32.8	1.7104 µg/L	1.7104 ppb	14:17:39
2	Ni 231.604†	1582.5	1225.4	79.770 µg/L	79.770 ppb	14:17:39
2	P 214.914†	687.5	475.9	1051.3 µg/L	1051.3 ppb	14:17:39
2	Pb 220.353†	532.0	458.3	136.80 µg/L	136.80 ppb	14:17:39

2	S 181.975 Axial†	130.5	104.4	596.12 µg/L	596.12 ppb	14:17:39
2	Sb 206.836†	20.8	-1.6	-4.4772 µg/L	-4.4772 ppb	14:17:39
2	Se 196.026†	-335.8	-340.5	30.628 µg/L	30.628 ppb	14:17:39
2	SiO2†	474475.9	464865.4	97874 µg/L	97874 ppb	14:17:13
2	Si 251.611†	548719.6	539947.7	45188 µg/L	45188 ppb	14:17:13
2	Sn 189.927†	-101.1	-121.5	-48.954 µg/L	-48.954 ppb	14:17:39
2	Ti 334.940†	2344768.4	2307687.7	5755.7 µg/L	5755.7 ppb	14:17:13
2	Tl 190.801†	-48.7	-26.2	10.470 µg/L	10.470 ppb	14:17:39
2	U 409.014†	-693.7	-531.5	-72.402 µg/L	-72.402 ppb	14:17:13
2	V 292.402†	23520.9	23254.4	297.18 µg/L	297.18 ppb	14:17:19
2	Zn 213.857†	11297.4	10456.2	295.83 µg/L	295.83 ppb	14:17:19
3	Sc RADIAL	77604.5	77604.5	105 %		14:16:05
3	Al 396.153Radial†	196862.7	187883.6	129910 µg/L	129910 ppb	14:16:05
3	Ca 317.933Radial†	27513.8	25997.6	20740 µg/L	20740 ppb	14:16:26
3	Fe 238.204 Radial†	11143.8	10617.7	154220 µg/L	154220 ppb	14:16:26
3	K 766.490 Radial†	33361.2	31426.1	20399 µg/L	20399 ppb	14:16:05
3	Mg 279.077 IEC†	2283.9	2167.8	23560 µg/L	23560 ppb	14:16:26
3	Na 589.592 Radial†	4311.9	3207.1	908.26 µg/L	908.26 ppb	14:16:26
3	Sr 421.552†	50724.3	47815.2	297.84 µg/L	297.84 ppb	14:16:05
3	Sc 361.383	1865969.2	1865969.2	101.19 %		14:17:47
3	Y 371.029	1206982.9	1206982.9	103.06 %		14:17:47
3	Ag 328.068†	-1520.6	-1511.9	-2.4033 µg/L	-2.4033 ppb	14:17:53
3	As 188.979†	6.7	7.9	26.119 µg/L	26.119 ppb	14:18:13
3	B 249.677†	2216.3	2076.0	20.195 µg/L	20.195 ppb	14:17:53
3	Ba 233.527†	71666.8	70826.8	2072.1 µg/L	2072.1 ppb	14:17:53
3	Be 313.107†	21914.0	17254.0	9.9268 µg/L	9.9268 ppb	14:17:53
3	Cd 226.502†	433.5	535.9	-1.3741 µg/L	-1.3741 ppb	14:18:13
3	Co 228.616†	1142.2	1164.5	53.132 µg/L	53.132 ppb	14:18:13
3	Cr 267.716†	4613.9	4610.2	107.66 µg/L	107.66 ppb	14:17:53
3	Cu 324.752†	11140.3	7174.5	73.452 µg/L	73.452 ppb	14:17:53
3	Mn 257.610†	963487.4	952177.1	3561.2 µg/L	3561.2 ppb	14:17:47
3	Mo 202.031†	-19.7	-35.8	1.3534 µg/L	1.3534 ppb	14:18:13
3	Ni 231.604†	1493.1	1142.7	74.530 µg/L	74.530 ppb	14:18:13
3	P 214.914†	657.4	448.7	985.57 µg/L	985.57 ppb	14:18:13
3	Pb 220.353†	502.0	430.6	128.62 µg/L	128.62 ppb	14:18:13
3	S 181.975 Axial†	130.3	104.6	597.44 µg/L	597.44 ppb	14:18:13
3	Sb 206.836†	31.2	8.7	6.9997 µg/L	6.9997 ppb	14:18:13
3	Se 196.026†	-310.3	-316.5	70.020 µg/L	70.020 ppb	14:18:13
3	SiO2†	467939.3	460118.4	96875 µg/L	96875 ppb	14:17:47
3	Si 251.611†	540880.7	534181.8	44705 µg/L	44705 ppb	14:17:47
3	Sn 189.927†	-96.8	-117.7	-46.586 µg/L	-46.586 ppb	14:18:13
3	Ti 334.940†	2292531.9	2264530.1	5648.0 µg/L	5648.0 ppb	14:17:47
3	Tl 190.801†	-52.5	-30.2	2.4003 µg/L	2.4003 ppb	14:18:13
3	U 409.014†	-756.0	-595.5	-78.481 µg/L	-78.481 ppb	14:17:47
3	V 292.402†	22631.7	22460.6	287.33 µg/L	287.33 ppb	14:17:53
3	Zn 213.857†	10981.4	10184.7	287.91 µg/L	287.91 ppb	14:17:53

Mean Data: 244144011|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1875098.3	101.69 %	0.567			0.56%
Sc RADIAL	77696.3	105 %	0.4			0.38%
Y 371.029	1212705.5	103.55 %	0.558			0.54%
Ag 328.068†	-1509.9	-2.3786 µg/L	0.02144	-2.3786 ppb	0.02144	0.90%
Al 396.153Radial†	186916.1	129240 µg/L	718.4	129240 ppb	718.4	0.56%
As 188.979†	11.2	33.684 µg/L	6.6047	33.684 ppb	6.6047	19.61%
B 249.677†	2156.9	24.350 µg/L	3.6535	24.350 ppb	3.6535	15.00%
Ba 233.527†	71838.5	2101.6 µg/L	27.67	2101.6 ppb	27.67	1.32%
Be 313.107†	17596.7	10.142 µg/L	0.1986	10.142 ppb	0.1986	1.96%
Ca 317.933Radial†	25912.1	20671 µg/L	63.7	20671 ppb	63.7	0.31%
Cd 226.502†	567.3	-0.3802 µg/L	0.86472	-0.3802 ppb	0.86472	227.41%
Co 228.616†	1216.2	55.877 µg/L	2.3860	55.877 ppb	2.3860	4.27%
Cr 267.716†	4726.2	110.36 µg/L	2.357	110.36 ppb	2.357	2.14%
Cu 324.752†	7269.2	74.075 µg/L	0.6544	74.075 ppb	0.6544	0.88%
Fe 238.204 Radial†	10586.2	153760 µg/L	418.6	153760 ppb	418.6	0.27%
K 766.490 Radial†	31261.8	20292 µg/L	113.4	20292 ppb	113.4	0.56%
Mg 279.077 IEC†	2158.9	23463 µg/L	107.4	23463 ppb	107.4	0.46%
Mn 257.610†	961589.5	3596.2 µg/L	30.64	3596.2 ppb	30.64	0.85%
Mo 202.031†	-33.6	1.6136 µg/L	0.22781	1.6136 ppb	0.22781	14.12%
Na 589.592 Radial†	3197.5	905.52 µg/L	2.672	905.52 ppb	2.672	0.30%



Ni 231.604†	1195.2	77.855 µg/L	2.8905	77.855 ppb	2.8905	3.71%
P 214.914†	461.4	1016.4 µg/L	33.03	1016.4 ppb	33.03	3.25%
Pb 220.353†	447.6	133.62 µg/L	4.384	133.62 ppb	4.384	3.28%
S 181.975 Axial†	107.2	612.63 µg/L	27.458	612.63 ppb	27.458	4.48%
Sb 206.836†	3.4	1.0900 µg/L	5.74611	1.0900 ppb	5.74611	527.18%
Se 196.026†	-330.4	46.753 µg/L	20.6444	46.753 ppb	20.6444	44.16%
SiO2†	462794.5	97438 µg/L	511.8	97438 ppb	511.8	0.53%
Si 251.611†	537425.4	44977 µg/L	246.9	44977 ppb	246.9	0.55%
Sn 189.927†	-121.1	-48.666 µg/L	1.9518	-48.666 ppb	1.9518	4.01%
Sr 421.552†	47555.1	296.22 µg/L	1.438	296.22 ppb	1.438	0.49%
Ti 334.940†	2290874.8	5713.7 µg/L	57.64	5713.7 ppb	57.64	1.01%
Tl 190.801†	-30.0	3.5205 µg/L	6.46243	3.5205 ppb	6.46243	183.56%
U 409.014†	-544.6	-73.649 µg/L	4.3453	-73.649 ppb	4.3453	5.90%
V 292.402†	22884.8	292.59 µg/L	4.959	292.59 ppb	4.959	1.69%
Zn 213.857†	10326.5	292.05 µg/L	3.974	292.05 ppb	3.974	1.36%

Sequence No.: 22

Sample ID: 244144012|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 318

Date Collected: 1/26/2010 14:18:23

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144012|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77190.8	77190.8	104 %			14:18:55
1	Al 396.153Radial†	120349.7	115484.0	79847 µg/L		79847 ppb	14:18:55
1	Ca 317.933Radial†	23392.7	22184.6	17698 µg/L		17698 ppb	14:19:16
1	Fe 238.204 Radial†	7788.9	7456.0	108300 µg/L		108300 ppb	14:19:16
1	K 766.490 Radial†	25942.5	24479.1	15890 µg/L		15890 ppb	14:18:55
1	Mg 279.077 IEC†	1447.4	1376.9	14954 µg/L		14954 ppb	14:19:16
1	Na 589.592 Radial†	3014.2	1984.2	561.94 µg/L		561.94 ppb	14:19:16
1	Sr 421.552†	35703.8	33664.0	209.69 µg/L		209.69 ppb	14:18:55
1	Sc 361.383	1852391.2	1852391.2	100.46 %			14:20:22
1	Y 371.029	1198784.9	1198784.9	102.36 %			14:20:22
1	Ag 328.068†	-1124.8	-1128.9	-2.2146 µg/L		-2.2146 ppb	14:20:27
1	As 188.979†	8.3	9.5	27.153 µg/L		27.153 ppb	14:20:48
1	B 249.677†	1774.4	1652.2	24.525 µg/L		24.525 ppb	14:20:27
1	Ba 233.527†	63670.4	63386.0	1854.3 µg/L		1854.3 ppb	14:20:27
1	Be 313.107†	17882.1	13399.1	7.5623 µg/L		7.5623 ppb	14:20:27
1	Cd 226.502†	311.3	417.3	0.5278 µg/L		0.5278 ppb	14:20:48
1	Co 228.616†	994.8	1026.1	47.256 µg/L		47.256 ppb	14:20:48
1	Cr 267.716†	28390.1	28311.5	660.17 µg/L		660.17 ppb	14:20:27
1	Cu 324.752†	14031.1	10132.9	88.517 µg/L		88.517 ppb	14:20:27
1	Mn 257.610†	881436.9	877479.2	3277.6 µg/L		3277.6 ppb	14:20:22
1	Mo 202.031†	73.7	57.1	11.311 µg/L		11.311 ppb	14:20:48
1	Ni 231.604†	5398.7	5041.3	321.65 µg/L		321.65 ppb	14:20:48
1	P 214.914†	789.2	584.6	1333.6 µg/L		1333.6 ppb	14:20:48
1	Pb 220.353†	466.9	399.3	118.29 µg/L		118.29 ppb	14:20:48
1	S 181.975 Axial†	189.8	164.8	941.35 µg/L		941.35 ppb	14:20:48
1	Sb 206.836†	28.2	6.0	-1.9052 µg/L		-1.9052 ppb	14:20:48
1	Se 196.026†	-236.1	-244.9	15.234 µg/L		15.234 ppb	14:20:48
1	SiO2†	429756.6	425499.1	89586 µg/L		89586 ppb	14:20:22
1	Si 251.611†	496972.4	494391.3	41375 µg/L		41375 ppb	14:20:22
1	Sn 189.927†	-72.6	-94.3	-39.252 µg/L		-39.252 ppb	14:20:48
1	Ti 334.940†	1922601.6	1912890.1	4771.4 µg/L		4771.4 ppb	14:20:22
1	Tl 190.801†	-46.3	-24.4	5.5418 µg/L		5.5418 ppb	14:20:48
1	U 409.014†	-231.5	-78.8	-23.517 µg/L		-23.517 ppb	14:20:22
1	V 292.402†	16899.4	16918.3	217.47 µg/L		217.47 ppb	14:20:27
1	Zn 213.857†	12690.6	11965.6	341.38 µg/L		341.38 ppb	14:20:27
2	Sc RADIAL	76786.2	76786.2	104 %			14:19:21
2	Al 396.153Radial†	120114.0	115865.1	80111 µg/L		80111 ppb	14:19:21
2	Ca 317.933Radial†	23504.1	22410.3	17878 µg/L		17878 ppb	14:19:42
2	Fe 238.204 Radial†	7826.3	7531.5	109400 µg/L		109400 ppb	14:19:42
2	K 766.490 Radial†	25841.7	24513.1	15912 µg/L		15912 ppb	14:19:21
2	Mg 279.077 IEC†	1465.5	1401.7	15224 µg/L		15224 ppb	14:19:42
2	Na 589.592 Radial†	3029.8	2014.5	570.49 µg/L		570.49 ppb	14:19:42
2	Sr 421.552†	35484.8	33633.2	209.50 µg/L		209.50 ppb	14:19:21
2	Sc 361.383	1882229.6	1882229.6	102.08 %			14:20:56
2	Y 371.029	1217230.3	1217230.3	103.93 %			14:20:56
2	Ag 328.068†	-1136.9	-1123.0	-2.1207 µg/L		-2.1207 ppb	14:21:01
2	As 188.979†	7.7	8.8	25.568 µg/L		25.568 ppb	14:21:22
2	B 249.677†	1708.5	1559.7	19.444 µg/L		19.444 ppb	14:21:01
2	Ba 233.527†	63145.8	61867.3	1809.9 µg/L		1809.9 ppb	14:21:01
2	Be 313.107†	17745.7	12983.3	7.2940 µg/L		7.2940 ppb	14:21:01
2	Cd 226.502†	314.9	416.0	0.3568 µg/L		0.3568 ppb	14:21:22
2	Co 228.616†	979.7	995.5	45.679 µg/L		45.679 ppb	14:21:22
2	Cr 267.716†	28082.0	27561.7	642.69 µg/L		642.69 ppb	14:21:01
2	Cu 324.752†	13958.4	9840.3	86.548 µg/L		86.548 ppb	14:21:01
2	Mn 257.610†	885505.7	867555.7	3240.9 µg/L		3240.9 ppb	14:20:56
2	Mo 202.031†	71.4	53.7	10.924 µg/L		10.924 ppb	14:21:22
2	Ni 231.604†	5375.2	4933.2	314.79 µg/L		314.79 ppb	14:21:22
2	P 214.914†	784.8	567.8	1292.7 µg/L		1292.7 ppb	14:21:22
2	Pb 220.353†	475.2	400.1	118.49 µg/L		118.49 ppb	14:21:22

2	S 181.975 Axial†	185.7	157.8	901.50 µg/L	901.50 ppb	14:21:22
2	Sb 206.836†	37.2	14.4	7.5549 µg/L	7.5549 ppb	14:21:22
2	Se 196.026†	-243.3	-248.2	13.932 µg/L	13.932 ppb	14:21:22
2	SiO2†	431538.3	420462.8	88526 µg/L	88526 ppb	14:20:56
2	Si 251.611†	498840.1	488378.5	40872 µg/L	40872 ppb	14:20:56
2	Sn 189.927†	-70.9	-91.5	-37.428 µg/L	-37.428 ppb	14:21:22
2	Ti 334.940†	1929017.5	1888835.9	4711.3 µg/L	4711.3 ppb	14:20:56
2	Tl 190.801†	-38.8	-16.3	18.918 µg/L	18.918 ppb	14:21:22
2	U 409.014†	-271.2	-114.1	-26.982 µg/L	-26.982 ppb	14:20:56
2	V 292.402†	16799.8	16554.1	212.95 µg/L	212.95 ppb	14:21:01
2	Zn 213.857†	12534.4	11612.4	331.05 µg/L	331.05 ppb	14:21:01
3	Sc RADIAL	76750.8	76750.8	104 %		14:19:47
3	Al 396.153Radial†	120483.8	116275.3	80394 µg/L	80394 ppb	14:19:47
3	Ca 317.933Radial†	23311.4	22234.8	17738 µg/L	17738 ppb	14:20:08
3	Fe 238.204 Radial†	7755.0	7466.2	108450 µg/L	108450 ppb	14:20:08
3	K 766.490 Radial†	25905.1	24585.7	15959 µg/L	15959 ppb	14:19:47
3	Mg 279.077 IEC†	1445.6	1383.2	15022 µg/L	15022 ppb	14:20:08
3	Na 589.592 Radial†	3027.2	2013.3	570.17 µg/L	570.17 ppb	14:20:08
3	Sr 421.552†	35632.1	33791.1	210.48 µg/L	210.48 ppb	14:19:47
3	Sc 361.383	1882221.2	1882221.2	102.08 %		14:21:30
3	Y 371.029	1216823.1	1216823.1	103.90 %		14:21:30
3	Ag 328.068†	-1092.2	-1079.3	-1.8394 µg/L	-1.8394 ppb	14:21:35
3	As 188.979†	7.3	8.4	24.726 µg/L	24.726 ppb	14:21:56
3	B 249.677†	1704.2	1555.4	19.687 µg/L	19.687 ppb	14:21:35
3	Ba 233.527†	60842.0	59610.6	1743.8 µg/L	1743.8 ppb	14:21:35
3	Be 313.107†	17162.3	12411.9	6.9319 µg/L	6.9319 ppb	14:21:35
3	Cd 226.502†	285.1	386.8	-0.4262 µg/L	-0.4262 ppb	14:21:56
3	Co 228.616†	901.9	919.3	41.637 µg/L	41.637 ppb	14:21:56
3	Cr 267.716†	26768.0	26274.5	612.68 µg/L	612.68 ppb	14:21:35
3	Cu 324.752†	13527.5	9418.1	83.355 µg/L	83.355 ppb	14:21:35
3	Mn 257.610†	869813.8	852186.7	3183.6 µg/L	3183.6 ppb	14:21:30
3	Mo 202.031†	62.0	44.5	9.7238 µg/L	9.7238 ppb	14:21:56
3	Ni 231.604†	5044.9	4609.6	294.23 µg/L	294.23 ppb	14:21:56
3	P 214.914†	746.9	530.7	1204.6 µg/L	1204.6 ppb	14:21:56
3	Pb 220.353†	455.5	380.8	112.83 µg/L	112.83 ppb	14:21:56
3	S 181.975 Axial†	185.6	157.7	900.76 µg/L	900.76 ppb	14:21:56
3	Sb 206.836†	23.6	1.0	-6.9076 µg/L	-6.9076 ppb	14:21:56
3	Se 196.026†	-203.8	-209.5	70.985 µg/L	70.985 ppb	14:21:56
3	SiO2†	426313.6	415346.3	87448 µg/L	87448 ppb	14:21:30
3	Si 251.611†	492697.5	482363.0	40369 µg/L	40369 ppb	14:21:30
3	Sn 189.927†	-64.4	-85.1	-33.773 µg/L	-33.773 ppb	14:21:56
3	Ti 334.940†	1888308.0	1848962.4	4611.9 µg/L	4611.9 ppb	14:21:30
3	Tl 190.801†	-45.9	-23.3	5.7361 µg/L	5.7361 ppb	14:21:56
3	U 409.014†	-247.7	-91.1	-24.693 µg/L	-24.693 ppb	14:21:30
3	V 292.402†	16018.5	15788.7	203.32 µg/L	203.32 ppb	14:21:35
3	Zn 213.857†	12168.9	11254.4	320.76 µg/L	320.76 ppb	14:21:35

Mean Data: 244144012|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1872280.7	101.54 %	0.934			0.92%
Sc RADIAL	76909.2	104 %	0.3			0.32%
Y 371.029	1210946.1	103.40 %	0.899			0.87%
Ag 328.068†	-1110.4	-2.0582 µg/L	0.19525	-2.0582 ppb	0.19525	9.49%
Al 396.153Radial†	115874.8	80117 µg/L	273.6	80117 ppb	273.6	0.34%
As 188.979†	8.9	25.815 µg/L	1.2323	25.815 ppb	1.2323	4.77%
B 249.677†	1589.1	21.219 µg/L	2.8660	21.219 ppb	2.8660	13.51%
Ba 233.527†	61621.3	1802.7 µg/L	55.57	1802.7 ppb	55.57	3.08%
Be 313.107†	12931.4	7.2627 µg/L	0.31634	7.2627 ppb	0.31634	4.36%
Ca 317.933Radial†	22276.5	17771 µg/L	94.5	17771 ppb	94.5	0.53%
Cd 226.502†	406.7	0.1528 µg/L	0.50868	0.1528 ppb	0.50868	332.92%
Co 228.616†	980.3	44.857 µg/L	2.8984	44.857 ppb	2.8984	6.46%
Cr 267.716†	27382.6	638.51 µg/L	24.023	638.51 ppb	24.023	3.76%
Cu 324.752†	9797.1	86.140 µg/L	2.6049	86.140 ppb	2.6049	3.02%
Fe 238.204 Radial†	7484.6	108710 µg/L	595.2	108710 ppb	595.2	0.55%
K 766.490 Radial†	24526.0	15920 µg/L	35.4	15920 ppb	35.4	0.22%
Mg 279.077 IEC†	1387.3	15066 µg/L	140.4	15066 ppb	140.4	0.93%
Mn 257.610†	865740.5	3234.0 µg/L	47.40	3234.0 ppb	47.40	1.47%
Mo 202.031†	51.8	10.653 µg/L	0.8278	10.653 ppb	0.8278	7.77%
Na 589.592 Radial†	2004.0	567.53 µg/L	4.849	567.53 ppb	4.849	0.85%

Ni 231.604†	4861.4	310.22 µg/L	14.269	310.22 ppb	14.269	4.60%
P 214.914†	561.1	1277.0 µg/L	65.95	1277.0 ppb	65.95	5.16%
Pb 220.353†	393.4	116.54 µg/L	3.210	116.54 ppb	3.210	2.75%
S 181.975 Axial†	160.1	914.54 µg/L	23.226	914.54 ppb	23.226	2.54%
Sb 206.836†	7.1	-0.4193 µg/L	7.34489	-0.4193 ppb	7.34489	>999.9%
Se 196.026†	-234.2	33.384 µg/L	32.5700	33.384 ppb	32.5700	97.56%
SiO2†	420436.1	88520 µg/L	1068.8	88520 ppb	1068.8	1.21%
Si 251.611†	488377.6	40872 µg/L	503.3	40872 ppb	503.3	1.23%
Sn 189.927†	-90.3	-36.818 µg/L	2.7899	-36.818 ppb	2.7899	7.58%
Sr 421.552†	33696.1	209.89 µg/L	0.521	209.89 ppb	0.521	0.25%
Ti 334.940†	1883562.8	4698.2 µg/L	80.55	4698.2 ppb	80.55	1.71%
Tl 190.801†	-21.4	10.065 µg/L	7.6675	10.065 ppb	7.6675	76.18%
U 409.014†	-94.7	-25.064 µg/L	1.7621	-25.064 ppb	1.7621	7.03%
V 292.402†	16420.4	211.25 µg/L	7.226	211.25 ppb	7.226	3.42%
Zn 213.857†	11610.8	331.06 µg/L	10.310	331.06 ppb	10.310	3.11%

Sequence No.: 23

Sample ID: 244144013|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 319

Date Collected: 1/26/2010 14:22:05

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144013|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77070.6	77070.6	104 %		14:22:38
1	Al 396.153Radial†	235977.3	226769.9	156790 µg/L	156790 ppb	14:22:38
1	Ca 317.933Radial†	29913.0	28485.0	22724 µg/L	22724 ppb	14:22:59
1	Fe 238.204 Radial†	11404.3	10941.7	158930 µg/L	158930 ppb	14:22:59
1	K 766.490 Radial†	31091.9	29466.0	19127 µg/L	19127 ppb	14:22:38
1	Mg 279.077 IEC†	2166.5	2070.1	22485 µg/L	22485 ppb	14:22:59
1	Na 589.592 Radial†	3849.4	2791.3	790.49 µg/L	790.49 ppb	14:22:59
1	Sr 421.552†	49287.7	46770.1	291.33 µg/L	291.33 ppb	14:22:38
1	Sc 361.383	1877123.8	1877123.8	101.80 %		14:24:05
1	Y 371.029	1225285.5	1225285.5	104.62 %		14:24:05
1	Ag 328.068†	-1564.1	-1545.7	-2.2936 µg/L	-2.2936 ppb	14:24:10
1	As 188.979†	10.1	11.2	33.859 µg/L	33.859 ppb	14:24:31
1	B 249.677†	2424.3	2267.4	27.017 µg/L	27.017 ppb	14:24:10
1	Ba 233.527†	75774.6	74441.2	2177.8 µg/L	2177.8 ppb	14:24:10
1	Be 313.107†	26122.3	21259.2	12.326 µg/L	12.326 ppb	14:24:10
1	Cd 226.502†	499.9	598.5	-0.0206 µg/L	-0.0206 ppb	14:24:10
1	Co 228.616†	1321.5	1333.9	60.359 µg/L	60.359 ppb	14:24:31
1	Cr 267.716†	5024.5	4986.4	116.44 µg/L	116.44 ppb	14:24:10
1	Cu 324.752†	11438.9	7402.5	75.759 µg/L	75.759 ppb	14:24:10
1	Mn 257.610†	1112405.7	1092806.3	4085.0 µg/L	4085.0 ppb	14:24:05
1	Mo 202.031†	-20.2	-36.1	1.4889 µg/L	1.4889 ppb	14:24:31
1	Ni 231.604†	1761.0	1397.2	90.748 µg/L	90.748 ppb	14:24:31
1	P 214.914†	690.1	476.9	1057.1 µg/L	1057.1 ppb	14:24:31
1	Pb 220.353†	569.7	494.2	148.71 µg/L	148.71 ppb	14:24:31
1	S 181.975 Axial†	122.1	95.8	547.41 µg/L	547.41 ppb	14:24:31
1	Sb 206.836†	23.8	1.2	-1.5235 µg/L	-1.5235 ppb	14:24:31
1	Se 196.026†	-360.8	-364.3	13.689 µg/L	13.689 ppb	14:24:31
1	SiO2†	444899.2	434737.6	91531 µg/L	91531 ppb	14:24:05
1	Si 251.611†	514499.9	505090.8	42271 µg/L	42271 ppb	14:24:05
1	Sn 189.927†	-112.0	-132.1	-54.480 µg/L	-54.480 ppb	14:24:31
1	Ti 334.940†	2740257.7	2690882.7	6711.8 µg/L	6711.8 ppb	14:24:05
1	Tl 190.801†	-52.4	-29.8	14.260 µg/L	14.260 ppb	14:24:31
1	U 409.014†	-783.9	-618.5	-81.413 µg/L	-81.413 ppb	14:24:05
1	V 292.402†	24319.7	23985.9	306.55 µg/L	306.55 ppb	14:24:10
1	Zn 213.857†	11114.7	10251.2	289.61 µg/L	289.61 ppb	14:24:10
2	Sc RADIAL	77118.6	77118.6	104 %		14:23:05
2	Al 396.153Radial†	234303.7	225021.6	155580 µg/L	155580 ppb	14:23:05
2	Ca 317.933Radial†	29834.6	28391.7	22650 µg/L	22650 ppb	14:23:25
2	Fe 238.204 Radial†	11357.0	10889.5	158170 µg/L	158170 ppb	14:23:25
2	K 766.490 Radial†	30846.8	29212.0	18962 µg/L	18962 ppb	14:23:05
2	Mg 279.077 IEC†	2157.6	2060.3	22379 µg/L	22379 ppb	14:23:25
2	Na 589.592 Radial†	3846.5	2786.2	789.04 µg/L	789.04 ppb	14:23:25
2	Sr 421.552†	48951.2	46417.4	289.13 µg/L	289.13 ppb	14:23:05
2	Sc 361.383	1874196.1	1874196.1	101.64 %		14:24:39
2	Y 371.029	1224052.2	1224052.2	104.52 %		14:24:39
2	Ag 328.068†	-1593.4	-1576.9	-2.6159 µg/L	-2.6159 ppb	14:24:44
2	As 188.979†	10.3	11.4	34.247 µg/L	34.247 ppb	14:25:05
2	B 249.677†	2385.1	2232.5	25.730 µg/L	25.730 ppb	14:24:44
2	Ba 233.527†	76309.7	75084.0	2196.6 µg/L	2196.6 ppb	14:24:44
2	Be 313.107†	26321.1	21494.9	12.485 µg/L	12.485 ppb	14:24:44
2	Cd 226.502†	515.1	614.3	0.5336 µg/L	0.5336 ppb	14:24:44
2	Co 228.616†	1330.6	1344.9	60.943 µg/L	60.943 ppb	14:25:05
2	Cr 267.716†	5124.2	5092.2	118.91 µg/L	118.91 ppb	14:24:44
2	Cu 324.752†	11579.7	7558.5	76.785 µg/L	76.785 ppb	14:24:44
2	Mn 257.610†	1112677.3	1094780.6	4092.2 µg/L	4092.2 ppb	14:24:39
2	Mo 202.031†	-23.0	-38.9	1.1053 µg/L	1.1053 ppb	14:25:05
2	Ni 231.604†	1737.5	1376.7	89.439 µg/L	89.439 ppb	14:25:05
2	P 214.914†	682.0	470.0	1040.6 µg/L	1040.6 ppb	14:25:05
2	Pb 220.353†	576.8	502.0	151.00 µg/L	151.00 ppb	14:25:05

2	S	181.975 Axial†	119.0	92.9	530.89 µg/L	530.89 ppb	14:25:05
2	Sb	206.836†	33.1	10.5	8.6989 µg/L	8.6989 ppb	14:25:05
2	Se	196.026†	-350.0	-354.3	26.599 µg/L	26.599 ppb	14:25:05
2	SiO2†		444639.0	435164.3	91621 µg/L	91621 ppb	14:24:39
2	Si	251.611†	514269.1	505653.3	42318 µg/L	42318 ppb	14:24:39
2	Sn	189.927†	-106.3	-126.6	-51.340 µg/L	-51.340 ppb	14:25:05
2	Ti	334.940†	2741418.5	2696229.8	6725.1 µg/L	6725.1 ppb	14:24:39
2	Tl	190.801†	-52.9	-30.4	13.437 µg/L	13.437 ppb	14:25:05
2	U	409.014†	-783.8	-619.6	-81.403 µg/L	-81.403 ppb	14:24:39
2	V	292.402†	24458.5	24159.7	308.67 µg/L	308.67 ppb	14:24:44
2	Zn	213.857†	11170.0	10322.6	291.74 µg/L	291.74 ppb	14:24:44
3	Sc	RADIAL	78017.2	78017.2	105 %		14:23:31
3	Al	396.153Radial†	236795.4	224795.2	155430 µg/L	155430 ppb	14:23:31
3	Ca	317.933Radial†	29839.1	28066.0	22390 µg/L	22390 ppb	14:23:51
3	Fe	238.204 Radial†	11379.9	10785.6	156660 µg/L	156660 ppb	14:23:51
3	K	766.490 Radial†	31267.2	29269.9	18999 µg/L	18999 ppb	14:23:31
3	Mg	279.077 IEC†	2162.0	2040.5	22165 µg/L	22165 ppb	14:23:51
3	Na	589.592 Radial†	3845.4	2742.6	776.71 µg/L	776.71 ppb	14:23:51
3	Sr	421.552†	49534.9	46430.0	289.21 µg/L	289.21 ppb	14:23:31
3	Sc	361.383	1867706.3	1867706.3	101.29 %		14:25:13
3	Y	371.029	1219227.2	1219227.2	104.10 %		14:25:13
3	Ag	328.068†	-1568.3	-1557.6	-2.6139 µg/L	-2.6139 ppb	14:25:18
3	As	188.979†	9.5	10.7	32.514 µg/L	32.514 ppb	14:25:39
3	B	249.677†	2310.7	2167.2	23.343 µg/L	23.343 ppb	14:25:18
3	Ba	233.527†	73412.4	72484.4	2120.5 µg/L	2120.5 ppb	14:25:18
3	Be	313.107†	25330.0	20606.4	11.911 µg/L	11.911 ppb	14:25:18
3	Cd	226.502†	494.0	595.2	0.1307 µg/L	0.1307 ppb	14:25:18
3	Co	228.616†	1230.8	1251.0	55.969 µg/L	55.969 ppb	14:25:39
3	Cr	267.716†	4849.9	4838.9	112.99 µg/L	112.99 ppb	14:25:18
3	Cu	324.752†	11258.9	7281.4	74.566 µg/L	74.566 ppb	14:25:18
3	Mn	257.610†	1091649.2	1077823.8	4029.0 µg/L	4029.0 ppb	14:25:13
3	Mo	202.031†	-18.8	-34.9	1.5597 µg/L	1.5597 ppb	14:25:39
3	Ni	231.604†	1650.7	1297.0	84.359 µg/L	84.359 ppb	14:25:39
3	P	214.914†	672.1	462.6	1024.3 µg/L	1024.3 ppb	14:25:39
3	Pb	220.353†	529.8	457.6	137.88 µg/L	137.88 ppb	14:25:39
3	S	181.975 Axial†	120.7	95.0	542.80 µg/L	542.80 ppb	14:25:39
3	Sb	206.836†	23.2	0.8	-1.8918 µg/L	-1.8918 ppb	14:25:39
3	Se	196.026†	-313.4	-319.3	75.765 µg/L	75.765 ppb	14:25:39
3	SiO2†		438977.2	431094.5	90764 µg/L	90764 ppb	14:25:13
3	Si	251.611†	507413.0	500642.5	41899 µg/L	41899 ppb	14:25:13
3	Sn	189.927†	-100.4	-121.2	-48.344 µg/L	-48.344 ppb	14:25:39
3	Ti	334.940†	2680857.9	2645811.2	6599.4 µg/L	6599.4 ppb	14:25:13
3	Tl	190.801†	-56.5	-34.1	5.7403 µg/L	5.7403 ppb	14:25:39
3	U	409.014†	-686.9	-526.6	-72.466 µg/L	-72.466 ppb	14:25:13
3	V	292.402†	23371.5	23170.1	296.30 µg/L	296.30 ppb	14:25:18
3	Zn	213.857†	10817.2	10012.5	282.80 µg/L	282.80 ppb	14:25:18

Mean Data: 244144013|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1873008.7	101.58 %	0.261			0.26%
Sc RADIAL	77402.1	105 %	0.7			0.69%
Y 371.029	1222854.9	104.41 %	0.273			0.26%
Ag 328.068†	-1560.1	-2.5078 µg/L	0.18552	-2.5078 ppb	0.18552	7.40%
Al 396.153Radial†	225528.9	155930 µg/L	747.2	155930 ppb	747.2	0.48%
As 188.979†	11.1	33.540 µg/L	0.9095	33.540 ppb	0.9095	2.71%
B 249.677†	2222.4	25.363 µg/L	1.8640	25.363 ppb	1.8640	7.35%
Ba 233.527†	74003.2	2165.0 µg/L	39.61	2165.0 ppb	39.61	1.83%
Be 313.107†	21120.2	12.241 µg/L	0.2963	12.241 ppb	0.2963	2.42%
Ca 317.933Radial†	28314.2	22588 µg/L	175.5	22588 ppb	175.5	0.78%
Cd 226.502†	602.7	0.2146 µg/L	0.28644	0.2146 ppb	0.28644	133.50%
Co 228.616†	1309.9	59.090 µg/L	2.7191	59.090 ppb	2.7191	4.60%
Cr 267.716†	4972.5	116.11 µg/L	2.970	116.11 ppb	2.970	2.56%
Cu 324.752†	7414.1	75.703 µg/L	1.1105	75.703 ppb	1.1105	1.47%
Fe 238.204 Radial†	10872.2	157920 µg/L	1154.2	157920 ppb	1154.2	0.73%
K 766.490 Radial†	29316.0	19029 µg/L	86.4	19029 ppb	86.4	0.45%
Mg 279.077 IEC†	2057.0	22343 µg/L	163.3	22343 ppb	163.3	0.73%
Mn 257.610†	1088470.2	4068.7 µg/L	34.62	4068.7 ppb	34.62	0.85%
Mo 202.031†	-36.6	1.3846 µg/L	0.24447	1.3846 ppb	0.24447	17.66%
Na 589.592 Radial†	2773.4	785.41 µg/L	7.573	785.41 ppb	7.573	0.96%

Ni 231.604†	1357.0	88.182 µg/L	3.3748	88.182 ppb	3.3748	3.83%
P 214.914†	469.8	1040.7 µg/L	16.39	1040.7 ppb	16.39	1.58%
Pb 220.353†	484.6	145.86 µg/L	7.005	145.86 ppb	7.005	4.80%
S 181.975 Axial†	94.6	540.37 µg/L	8.522	540.37 ppb	8.522	1.58%
Sb 206.836†	4.2	1.7612 µg/L	6.01104	1.7612 ppb	6.01104	341.30%
Se 196.026†	-346.0	38.684 µg/L	32.7555	38.684 ppb	32.7555	84.67%
SiO2†	433665.4	91305 µg/L	470.9	91305 ppb	470.9	0.52%
Si 251.611†	503795.6	42162 µg/L	229.7	42162 ppb	229.7	0.54%
Sn 189.927†	-126.6	-51.388 µg/L	3.0681	-51.388 ppb	3.0681	5.97%
Sr 421.552†	46539.2	289.89 µg/L	1.246	289.89 ppb	1.246	0.43%
Ti 334.940†	2677641.3	6678.8 µg/L	69.08	6678.8 ppb	69.08	1.03%
Tl 190.801†	-31.5	11.146 µg/L	4.6992	11.146 ppb	4.6992	42.16%
U 409.014†	-588.2	-78.427 µg/L	5.1624	-78.427 ppb	5.1624	6.58%
V 292.402†	23771.9	303.84 µg/L	6.617	303.84 ppb	6.617	2.18%
Zn 213.857†	10195.5	288.05 µg/L	4.666	288.05 ppb	4.666	1.62%

Sequence No.: 24

Sample ID: 244144014|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 320

Date Collected: 1/26/2010 14:25:49

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144014|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77087.1	77087.1	104 %		14:26:21
1	Al 396.153Radial†	133185.5	127970.5	88481 µg/L	88481 ppb	14:26:21
1	Ca 317.933Radial†	24770.5	23538.4	18778 µg/L	18778 ppb	14:26:42
1	Fe 238.204 Radial†	8989.0	8619.1	125190 µg/L	125190 ppb	14:26:42
1	K 766.490 Radial†	25211.9	23810.8	15456 µg/L	15456 ppb	14:26:21
1	Mg 279.077 IEC†	1545.2	1472.8	15985 µg/L	15985 ppb	14:26:42
1	Na 589.592 Radial†	2698.5	1684.8	477.14 µg/L	477.14 ppb	14:26:42
1	Sr 421.552†	38785.9	36671.0	228.42 µg/L	228.42 ppb	14:26:21
1	Sc 361.383	1898131.3	1898131.3	102.94 %		14:27:47
1	Y 371.029	1228434.6	1228434.6	104.89 %		14:27:47
1	Ag 328.068†	-1280.0	-1252.7	-2.0547 µg/L	-2.0547 ppb	14:27:53
1	As 188.979†	10.6	11.5	32.791 µg/L	32.791 ppb	14:28:13
1	B 249.677†	1906.9	1738.4	19.606 µg/L	19.606 ppb	14:27:53
1	Ba 233.527†	59993.3	58286.5	1705.2 µg/L	1705.2 ppb	14:27:53
1	Be 313.107†	19952.2	14981.3	8.4060 µg/L	8.4060 ppb	14:27:53
1	Cd 226.502†	396.9	493.0	0.8123 µg/L	0.8123 ppb	14:28:13
1	Co 228.616†	1180.7	1182.7	54.547 µg/L	54.547 ppb	14:28:13
1	Cr 267.716†	21452.6	20891.0	487.20 µg/L	487.20 ppb	14:27:53
1	Cu 324.752†	11583.8	7418.9	71.188 µg/L	71.188 ppb	14:27:53
1	Mn 257.610†	1150616.8	1117832.9	4173.9 µg/L	4173.9 ppb	14:27:47
1	Mo 202.031†	92.5	73.6	14.030 µg/L	14.030 ppb	14:28:13
1	Ni 231.604†	4505.6	4044.2	258.50 µg/L	258.50 ppb	14:28:13
1	P 214.914†	745.7	523.4	1177.1 µg/L	1177.1 ppb	14:28:13
1	Pb 220.353†	549.9	468.8	138.71 µg/L	138.71 ppb	14:28:13
1	S 181.975 Axial†	206.7	176.7	1009.2 µg/L	1009.2 ppb	14:28:13
1	Sb 206.836†	33.9	10.8	5.3179 µg/L	5.3179 ppb	14:28:13
1	Se 196.026†	-275.7	-277.7	26.229 µg/L	26.229 ppb	14:28:13
1	SiO2†	425099.6	410666.1	86463 µg/L	86463 ppb	14:27:47
1	Si 251.611†	491242.8	476904.0	39912 µg/L	39912 ppb	14:27:47
1	Sn 189.927†	-87.8	-107.4	-45.039 µg/L	-45.039 ppb	14:28:13
1	Ti 334.940†	2255864.4	2190522.5	5463.9 µg/L	5463.9 ppb	14:27:47
1	Tl 190.801†	-51.4	-28.2	7.8035 µg/L	7.8035 ppb	14:28:13
1	U 409.014†	-288.6	-128.8	-30.611 µg/L	-30.611 ppb	14:27:47
1	V 292.402†	20313.7	19829.8	254.14 µg/L	254.14 ppb	14:27:53
1	Zn 213.857†	9578.3	8637.7	243.79 µg/L	243.79 ppb	14:27:53
2	Sc RADIAL	77082.4	77082.4	104 %		14:26:47
2	Al 396.153Radial†	133594.0	128370.7	88757 µg/L	88757 ppb	14:26:47
2	Ca 317.933Radial†	25021.6	23781.1	18971 µg/L	18971 ppb	14:27:08
2	Fe 238.204 Radial†	9091.1	8717.6	126620 µg/L	126620 ppb	14:27:08
2	K 766.490 Radial†	25368.9	23963.1	15555 µg/L	15555 ppb	14:26:47
2	Mg 279.077 IEC†	1562.5	1489.4	16165 µg/L	16165 ppb	14:27:08
2	Na 589.592 Radial†	2710.1	1696.1	480.35 µg/L	480.35 ppb	14:27:08
2	Sr 421.552†	38912.3	36794.6	229.19 µg/L	229.19 ppb	14:26:47
2	Sc 361.383	1876302.8	1876302.8	101.75 %		14:28:21
2	Y 371.029	1214566.7	1214566.7	103.71 %		14:28:21
2	Ag 328.068†	-1317.0	-1303.5	-2.4015 µg/L	-2.4015 ppb	14:28:27
2	As 188.979†	7.9	9.0	27.026 µg/L	27.026 ppb	14:28:47
2	B 249.677†	1868.8	1722.5	18.103 µg/L	18.103 ppb	14:28:27
2	Ba 233.527†	60237.0	59204.1	1732.1 µg/L	1732.1 ppb	14:28:27
2	Be 313.107†	20063.6	15316.2	8.6392 µg/L	8.6392 ppb	14:28:27
2	Cd 226.502†	384.0	484.9	0.4102 µg/L	0.4102 ppb	14:28:47
2	Co 228.616†	1178.3	1193.8	55.155 µg/L	55.155 ppb	14:28:47
2	Cr 267.716†	21573.3	21252.1	495.62 µg/L	495.62 ppb	14:28:27
2	Cu 324.752†	11633.1	7598.2	72.688 µg/L	72.688 ppb	14:28:27
2	Mn 257.610†	1137467.1	1117913.8	4174.3 µg/L	4174.3 ppb	14:28:21
2	Mo 202.031†	89.9	72.1	13.895 µg/L	13.895 ppb	14:28:47
2	Ni 231.604†	4473.7	4063.8	259.77 µg/L	259.77 ppb	14:28:47
2	P 214.914†	740.2	526.4	1183.0 µg/L	1183.0 ppb	14:28:47
2	Pb 220.353†	558.5	483.3	142.98 µg/L	142.98 ppb	14:28:47



2	S 181.975 Axial†	204.8	177.1	1011.8 µg/L	1011.8 ppb	14:28:47
2	Sb 206.836†	29.6	7.0	1.0176 µg/L	1.0176 ppb	14:28:47
2	Se 196.026†	-268.7	-274.0	37.349 µg/L	37.349 ppb	14:28:47
2	SiO2†	420052.4	410510.3	86430 µg/L	86430 ppb	14:28:21
2	Si 251.611†	485719.4	477027.7	39922 µg/L	39922 ppb	14:28:21
2	Sn 189.927†	-93.0	-113.4	-48.420 µg/L	-48.420 ppb	14:28:47
2	Ti 334.940†	2231314.4	2191890.9	5467.3 µg/L	5467.3 ppb	14:28:21
2	Tl 190.801†	-47.8	-25.3	12.827 µg/L	12.827 ppb	14:28:47
2	U 409.014†	-300.4	-143.7	-32.217 µg/L	-32.217 ppb	14:28:21
2	V 292.402†	20477.3	20220.2	259.08 µg/L	259.08 ppb	14:28:27
2	Zn 213.857†	9557.3	8725.4	246.26 µg/L	246.26 ppb	14:28:27
3	Sc RADIAL	76838.3	76838.3	104 %		14:27:13
3	Al 396.153Radial†	133986.4	129156.8	89301 µg/L	89301 ppb	14:27:13
3	Ca 317.933Radial†	24867.5	23709.0	18914 µg/L	18914 ppb	14:27:34
3	Fe 238.204 Radial†	9040.7	8696.8	126320 µg/L	126320 ppb	14:27:34
3	K 766.490 Radial†	25342.1	24014.7	15588 µg/L	15588 ppb	14:27:13
3	Mg 279.077 IEC†	1551.8	1483.9	16105 µg/L	16105 ppb	14:27:34
3	Na 589.592 Radial†	2713.5	1707.6	483.60 µg/L	483.60 ppb	14:27:34
3	Sr 421.552†	38958.2	36957.7	230.21 µg/L	230.21 ppb	14:27:13
3	Sc 361.383	1870537.6	1870537.6	101.44 %		14:28:55
3	Y 371.029	1210044.5	1210044.5	103.32 %		14:28:55
3	Ag 328.068†	-1265.4	-1256.6	-2.0391 µg/L	-2.0391 ppb	14:29:01
3	As 188.979†	13.5	14.6	39.877 µg/L	39.877 ppb	14:29:21
3	B 249.677†	1801.5	1661.8	15.296 µg/L	15.296 ppb	14:29:01
3	Ba 233.527†	58672.1	57843.8	1692.3 µg/L	1692.3 ppb	14:29:01
3	Be 313.107†	19504.9	14826.2	8.3396 µg/L	8.3396 ppb	14:29:01
3	Cd 226.502†	347.3	449.8	-0.6163 µg/L	-0.6163 ppb	14:29:21
3	Co 228.616†	1110.3	1130.3	51.855 µg/L	51.855 ppb	14:29:21
3	Cr 267.716†	20756.4	20512.1	478.36 µg/L	478.36 ppb	14:29:01
3	Cu 324.752†	11372.2	7376.2	71.036 µg/L	71.036 ppb	14:29:01
3	Mn 257.610†	1113727.6	1097957.0	4100.1 µg/L	4100.1 ppb	14:28:55
3	Mo 202.031†	90.9	73.3	14.038 µg/L	14.038 ppb	14:29:21
3	Ni 231.604†	4221.2	3828.4	244.81 µg/L	244.81 ppb	14:29:21
3	P 214.914†	719.9	508.7	1141.0 µg/L	1141.0 ppb	14:29:21
3	Pb 220.353†	533.1	460.0	136.13 µg/L	136.13 ppb	14:29:21
3	S 181.975 Axial†	193.9	167.0	954.09 µg/L	954.09 ppb	14:29:21
3	Sb 206.836†	32.5	9.9	4.4639 µg/L	4.4639 ppb	14:29:21
3	Se 196.026†	-258.7	-264.9	50.351 µg/L	50.351 ppb	14:29:21
3	SiO2†	413390.6	405215.5	85315 µg/L	85315 ppb	14:28:55
3	Si 251.611†	477763.0	470655.5	39389 µg/L	39389 ppb	14:28:55
3	Sn 189.927†	-78.3	-99.3	-40.062 µg/L	-40.062 ppb	14:29:21
3	Ti 334.940†	2178046.7	2146138.7	5353.2 µg/L	5353.2 ppb	14:28:55
3	Tl 190.801†	-45.0	-22.7	16.167 µg/L	16.167 ppb	14:29:21
3	U 409.014†	-363.8	-207.1	-38.108 µg/L	-38.108 ppb	14:28:55
3	V 292.402†	19775.9	19590.7	251.20 µg/L	251.20 ppb	14:29:01
3	Zn 213.857†	9321.3	8521.6	240.41 µg/L	240.41 ppb	14:29:01

Mean Data: 244144014|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1881657.2	102.04 %	0.789			0.77%
Sc RADIAL	77002.6	104 %	0.2			0.18%
Y 371.029	1217682.0	103.97 %	0.818			0.79%
Ag 328.068†	-1271.0	-2.1651 µg/L	0.20491	-2.1651 ppb	0.20491	9.46%
Al 396.153Radial†	128499.3	88846 µg/L	417.3	88846 ppb	417.3	0.47%
As 188.979†	11.7	33.231 µg/L	6.4365	33.231 ppb	6.4365	19.37%
B 249.677†	1707.6	17.668 µg/L	2.1875	17.668 ppb	2.1875	12.38%
Ba 233.527†	58444.8	1709.8 µg/L	20.30	1709.8 ppb	20.30	1.19%
Be 313.107†	15041.2	8.4616 µg/L	0.15733	8.4616 ppb	0.15733	1.86%
Ca 317.933Radial†	23676.2	18888 µg/L	99.4	18888 ppb	99.4	0.53%
Cd 226.502†	475.9	0.2021 µg/L	0.73672	0.2021 ppb	0.73672	364.60%
Co 228.616†	1168.9	53.852 µg/L	1.7561	53.852 ppb	1.7561	3.26%
Cr 267.716†	20885.1	487.06 µg/L	8.629	487.06 ppb	8.629	1.77%
Cu 324.752†	7464.4	71.637 µg/L	0.9127	71.637 ppb	0.9127	1.27%
Fe 238.204 Radial†	8677.8	126040 µg/L	754.5	126040 ppb	754.5	0.60%
K 766.490 Radial†	23929.5	15533 µg/L	68.8	15533 ppb	68.8	0.44%
Mg 279.077 IEC†	1482.1	16085 µg/L	92.0	16085 ppb	92.0	0.57%
Mn 257.610†	1111234.6	4149.4 µg/L	42.74	4149.4 ppb	42.74	1.03%
Mo 202.031†	73.0	13.988 µg/L	0.0801	13.988 ppb	0.0801	0.57%
Na 589.592 Radial†	1696.2	480.36 µg/L	3.229	480.36 ppb	3.229	0.67%

Ni 231.604†	3978.8	254.36 µg/L	8.295	254.36 ppb	8.295	3.26%
P 214.914†	519.5	1167.0 µg/L	22.75	1167.0 ppb	22.75	1.95%
Pb 220.353†	470.7	139.28 µg/L	3.460	139.28 ppb	3.460	2.48%
S 181.975 Axial†	173.6	991.70 µg/L	32.597	991.70 ppb	32.597	3.29%
Sb 206.836†	9.2	3.5998 µg/L	2.27665	3.5998 ppb	2.27665	63.24%
Se 196.026†	-272.2	37.976 µg/L	12.0729	37.976 ppb	12.0729	31.79%
SiO2†	408797.3	86070 µg/L	653.3	86070 ppb	653.3	0.76%
Si 251.611†	474862.4	39741 µg/L	304.9	39741 ppb	304.9	0.77%
Sn 189.927†	-106.7	-44.507 µg/L	4.2042	-44.507 ppb	4.2042	9.45%
Sr 421.552†	36807.8	229.27 µg/L	0.896	229.27 ppb	0.896	0.39%
Ti 334.940†	2176184.0	5428.2 µg/L	64.94	5428.2 ppb	64.94	1.20%
Tl 190.801†	-25.4	12.266 µg/L	4.2101	12.266 ppb	4.2101	34.32%
U 409.014†	-159.8	-33.645 µg/L	3.9473	-33.645 ppb	3.9473	11.73%
V 292.402†	19880.3	254.81 µg/L	3.982	254.81 ppb	3.982	1.56%
Zn 213.857†	8628.3	243.49 µg/L	2.939	243.49 ppb	2.939	1.21%

Sequence No.: 25

Sample ID: 244144015|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 321

Date Collected: 1/26/2010 14:29:30

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144015|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77584.3	77584.3	105 %		14:30:03
1	Al 396.153Radial†	112776.2	107669.2	74444 µg/L	74444 ppb	14:30:03
1	Ca 317.933Radial†	24879.3	23489.8	18739 µg/L	18739 ppb	14:30:23
1	Fe 238.204 Radial†	7584.1	7222.7	104910 µg/L	104910 ppb	14:30:23
1	K 766.490 Radial†	24687.1	23154.6	15030 µg/L	15030 ppb	14:30:03
1	Mg 279.077 IEC†	1376.7	1302.4	14142 µg/L	14142 ppb	14:30:23
1	Na 589.592 Radial†	2240.7	1231.2	348.67 µg/L	348.67 ppb	14:30:23
1	Sr 421.552†	34721.4	32552.5	202.77 µg/L	202.77 ppb	14:30:03
1	Sc 361.383	1869855.6	1869855.6	101.40 %		14:31:28
1	Y 371.029	1207759.8	1207759.8	103.12 %		14:31:28
1	Ag 328.068†	-1116.7	-1110.5	-2.2601 µg/L	-2.2601 ppb	14:31:34
1	As 188.979†	3.9	5.1	16.934 µg/L	16.934 ppb	14:31:54
1	B 249.677†	1689.0	1551.5	20.637 µg/L	20.637 ppb	14:31:34
1	Ba 233.527†	56513.8	55736.6	1630.6 µg/L	1630.6 ppb	14:31:34
1	Be 313.107†	17528.0	12883.7	7.2504 µg/L	7.2504 ppb	14:31:34
1	Cd 226.502†	333.0	435.8	1.2445 µg/L	1.2445 ppb	14:31:54
1	Co 228.616†	956.9	979.4	44.918 µg/L	44.918 ppb	14:31:54
1	Cr 267.716†	7441.3	7388.9	172.39 µg/L	172.39 ppb	14:31:34
1	Cu 324.752†	14893.0	10852.4	93.262 µg/L	93.262 ppb	14:31:34
1	Mn 257.610†	960468.8	947221.3	3536.6 µg/L	3536.6 ppb	14:31:28
1	Mo 202.031†	47.8	30.8	7.8722 µg/L	7.8722 ppb	14:31:54
1	Ni 231.604†	1969.5	1609.4	103.56 µg/L	103.56 ppb	14:31:54
1	P 214.914†	791.7	579.7	1322.4 µg/L	1322.4 ppb	14:31:54
1	Pb 220.353†	525.0	452.3	133.79 µg/L	133.79 ppb	14:31:54
1	S 181.975 Axial†	206.0	179.0	1022.8 µg/L	1022.8 ppb	14:31:54
1	Sb 206.836†	20.6	-1.8	-5.0888 µg/L	-5.0888 ppb	14:31:54
1	Se 196.026†	-228.1	-234.8	18.926 µg/L	18.926 ppb	14:31:54
1	SiO2†	425541.7	417347.0	87870 µg/L	87870 ppb	14:31:28
1	Si 251.611†	491650.6	484522.6	40550 µg/L	40550 ppb	14:31:28
1	Sn 189.927†	-75.9	-96.9	-41.028 µg/L	-41.028 ppb	14:31:54
1	Ti 334.940†	1888579.5	1861463.9	4643.1 µg/L	4643.1 ppb	14:31:28
1	Tl 190.801†	-42.3	-20.1	12.965 µg/L	12.965 ppb	14:31:54
1	U 409.014†	-507.8	-349.2	-48.433 µg/L	-48.433 ppb	14:31:34
1	V 292.402†	17025.8	16885.8	215.71 µg/L	215.71 ppb	14:31:34
1	Zn 213.857†	9312.7	8516.5	241.97 µg/L	241.97 ppb	14:31:34
2	Sc RADIAL	76761.1	76761.1	104 %		14:30:29
2	Al 396.153Radial†	112004.4	108079.1	74727 µg/L	74727 ppb	14:30:29
2	Ca 317.933Radial†	24903.0	23767.3	18960 µg/L	18960 ppb	14:30:49
2	Fe 238.204 Radial†	7588.9	7304.9	106100 µg/L	106100 ppb	14:30:49
2	K 766.490 Radial†	24528.4	23254.2	15095 µg/L	15095 ppb	14:30:29
2	Mg 279.077 IEC†	1390.4	1329.8	14440 µg/L	14440 ppb	14:30:49
2	Na 589.592 Radial†	2241.1	1254.6	355.29 µg/L	355.29 ppb	14:30:49
2	Sr 421.552†	34405.4	32603.0	203.08 µg/L	203.08 ppb	14:30:29
2	Sc 361.383	1862316.0	1862316.0	101.00 %		14:32:02
2	Y 371.029	1203826.2	1203826.2	102.79 %		14:32:02
2	Ag 328.068†	-1097.7	-1096.1	-2.0499 µg/L	-2.0499 ppb	14:32:07
2	As 188.979†	11.0	12.2	33.215 µg/L	33.215 ppb	14:32:28
2	B 249.677†	1706.3	1575.4	21.173 µg/L	21.173 ppb	14:32:07
2	Ba 233.527†	56557.3	56005.3	1638.4 µg/L	1638.4 ppb	14:32:07
2	Be 313.107†	17540.4	12966.0	7.2980 µg/L	7.2980 ppb	14:32:07
2	Cd 226.502†	333.4	437.5	1.1596 µg/L	1.1596 ppb	14:32:28
2	Co 228.616†	946.9	973.4	44.527 µg/L	44.527 ppb	14:32:28
2	Cr 267.716†	7448.3	7425.6	173.25 µg/L	173.25 ppb	14:32:07
2	Cu 324.752†	14881.4	10900.4	93.776 µg/L	93.776 ppb	14:32:07
2	Mn 257.610†	961608.9	952184.9	3555.2 µg/L	3555.2 ppb	14:32:02
2	Mo 202.031†	46.3	29.6	7.7555 µg/L	7.7555 ppb	14:32:28
2	Ni 231.604†	1939.0	1587.2	102.16 µg/L	102.16 ppb	14:32:28
2	P 214.914†	788.9	580.1	1322.4 µg/L	1322.4 ppb	14:32:28
2	Pb 220.353†	531.9	461.1	136.40 µg/L	136.40 ppb	14:32:28

2	S 181.975 Axial†	208.7	182.5	1042.6 µg/L	1042.6 ppb	14:32:28
2	Sb 206.836†	24.8	2.4	-0.4567 µg/L	-0.4567 ppb	14:32:28
2	Se 196.026†	-226.1	-233.7	24.947 µg/L	24.947 ppb	14:32:28
2	SiO2†	426014.7	419514.3	88326 µg/L	88326 ppb	14:32:02
2	Si 251.611†	492231.1	487060.3	40762 µg/L	40762 ppb	14:32:02
2	Sn 189.927†	-82.3	-103.5	-44.774 µg/L	-44.774 ppb	14:32:28
2	Ti 334.940†	1891523.6	1871919.0	4669.2 µg/L	4669.2 ppb	14:32:02
2	Tl 190.801†	-41.1	-19.0	14.965 µg/L	14.965 ppb	14:32:28
2	U 409.014†	-571.9	-414.7	-54.747 µg/L	-54.747 ppb	14:32:07
2	V 292.402†	16991.3	16919.7	216.19 µg/L	216.19 ppb	14:32:07
2	Zn 213.857†	9328.0	8568.8	243.42 µg/L	243.42 ppb	14:32:07
3	Sc RADIAL	77399.1	77399.1	105 %		14:30:55
3	Al 396.153Radial†	112933.3	108077.1	74726 µg/L	74726 ppb	14:30:55
3	Ca 317.933Radial†	24869.1	23536.8	18777 µg/L	18777 ppb	14:31:15
3	Fe 238.204 Radial†	7574.7	7231.0	105030 µg/L	105030 ppb	14:31:15
3	K 766.490 Radial†	24695.8	23219.3	15072 µg/L	15072 ppb	14:30:55
3	Mg 279.077 IEC†	1388.8	1317.2	14303 µg/L	14303 ppb	14:31:15
3	Na 589.592 Radial†	2258.4	1253.3	354.92 µg/L	354.92 ppb	14:31:15
3	Sr 421.552†	34797.5	32704.6	203.72 µg/L	203.72 ppb	14:30:55
3	Sc 361.383	1877345.2	1877345.2	101.81 %		14:32:35
3	Y 371.029	1212041.4	1212041.4	103.49 %		14:32:35
3	Ag 328.068†	-1055.2	-1045.6	-1.6936 µg/L	-1.6936 ppb	14:32:40
3	As 188.979†	9.7	10.8	29.999 µg/L	29.999 ppb	14:33:01
3	B 249.677†	1656.4	1512.8	18.694 µg/L	18.694 ppb	14:32:40
3	Ba 233.527†	55656.7	54672.4	1599.4 µg/L	1599.4 ppb	14:32:40
3	Be 313.107†	17266.7	12558.1	7.0640 µg/L	7.0640 ppb	14:32:40
3	Cd 226.502†	283.4	385.9	-0.2675 µg/L	-0.2675 ppb	14:33:01
3	Co 228.616†	891.8	911.7	41.373 µg/L	41.373 ppb	14:33:01
3	Cr 267.716†	7256.3	7177.9	167.47 µg/L	167.47 ppb	14:32:40
3	Cu 324.752†	14736.7	10640.3	91.741 µg/L	91.741 ppb	14:32:40
3	Mn 257.610†	943715.1	926986.9	3461.4 µg/L	3461.4 ppb	14:32:35
3	Mo 202.031†	41.5	24.5	7.0796 µg/L	7.0796 ppb	14:33:01
3	Ni 231.604†	1843.1	1477.6	95.186 µg/L	95.186 ppb	14:33:01
3	P 214.914†	761.7	547.1	1244.2 µg/L	1244.2 ppb	14:33:01
3	Pb 220.353†	514.9	440.2	130.24 µg/L	130.24 ppb	14:33:01
3	S 181.975 Axial†	202.9	175.1	1000.3 µg/L	1000.3 ppb	14:33:01
3	Sb 206.836†	30.1	7.4	5.1449 µg/L	5.1449 ppb	14:33:01
3	Se 196.026†	-217.0	-223.0	37.809 µg/L	37.809 ppb	14:33:01
3	SiO2†	419877.6	410109.4	86346 µg/L	86346 ppb	14:32:35
3	Si 251.611†	485558.0	476604.1	39887 µg/L	39887 ppb	14:32:35
3	Sn 189.927†	-68.7	-89.5	-36.617 µg/L	-36.617 ppb	14:33:01
3	Ti 334.940†	1851576.6	1817689.1	4533.9 µg/L	4533.9 ppb	14:32:35
3	Tl 190.801†	-41.3	-18.9	13.747 µg/L	13.747 ppb	14:33:01
3	U 409.014†	-467.5	-307.6	-44.558 µg/L	-44.558 ppb	14:32:40
3	V 292.402†	16601.9	16402.5	209.70 µg/L	209.70 ppb	14:32:40
3	Zn 213.857†	9194.7	8364.0	237.54 µg/L	237.54 ppb	14:32:40

Mean Data: 244144015|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1869838.9	101.40 %	0.408			0.40%
Sc RADIAL	77248.2	104 %	0.6			0.56%
Y 371.029	1207875.8	103.13 %	0.351			0.34%
Ag 328.068†	-1084.1	-2.0012 µg/L	0.28639	-2.0012 ppb	0.28639	14.31%
Al 396.153Radial†	107941.8	74633 µg/L	163.2	74633 ppb	163.2	0.22%
As 188.979†	9.4	26.716 µg/L	8.6229	26.716 ppb	8.6229	32.28%
B 249.677†	1546.5	20.168 µg/L	1.3046	20.168 ppb	1.3046	6.47%
Ba 233.527†	55471.4	1622.8 µg/L	20.62	1622.8 ppb	20.62	1.27%
Be 313.107†	12802.6	7.2041 µg/L	0.12367	7.2041 ppb	0.12367	1.72%
Ca 317.933Radial†	23598.0	18825 µg/L	118.5	18825 ppb	118.5	0.63%
Cd 226.502†	419.7	0.7122 µg/L	0.84952	0.7122 ppb	0.84952	119.28%
Co 228.616†	954.8	43.606 µg/L	1.9433	43.606 ppb	1.9433	4.46%
Cr 267.716†	7330.8	171.04 µg/L	3.119	171.04 ppb	3.119	1.82%
Cu 324.752†	10797.7	92.927 µg/L	1.0582	92.927 ppb	1.0582	1.14%
Fe 238.204 Radial†	7252.9	105350 µg/L	657.7	105350 ppb	657.7	0.62%
K 766.490 Radial†	23209.4	15066 µg/L	32.8	15066 ppb	32.8	0.22%
Mg 279.077 IEC†	1316.4	14295 µg/L	149.2	14295 ppb	149.2	1.04%
Mn 257.610†	942131.1	3517.8 µg/L	49.70	3517.8 ppb	49.70	1.41%
Mo 202.031†	28.3	7.5691 µg/L	0.42793	7.5691 ppb	0.42793	5.65%
Na 589.592 Radial†	1246.3	352.96 µg/L	3.718	352.96 ppb	3.718	1.05%

Ni 231.604†	1558.1	100.30 µg/L	4.483	100.30 ppb	4.483	4.47%
P 214.914†	569.0	1296.3 µg/L	45.16	1296.3 ppb	45.16	3.48%
Pb 220.353†	451.2	133.48 µg/L	3.091	133.48 ppb	3.091	2.32%
S 181.975 Axial†	178.9	1021.9 µg/L	21.13	1021.9 ppb	21.13	2.07%
Sb 206.836†	2.7	-0.1335 µg/L	5.12451	-0.1335 ppb	5.12451	>999.9%
Se 196.026†	-230.5	27.227 µg/L	9.6458	27.227 ppb	9.6458	35.43%
SiO2†	415656.9	87514 µg/L	1036.9	87514 ppb	1036.9	1.18%
Si 251.611†	482729.0	40399 µg/L	456.4	40399 ppb	456.4	1.13%
Sn 189.927†	-96.6	-40.806 µg/L	4.0829	-40.806 ppb	4.0829	10.01%
Sr 421.552†	32620.0	203.19 µg/L	0.482	203.19 ppb	0.482	0.24%
Ti 334.940†	1850357.3	4615.4 µg/L	71.78	4615.4 ppb	71.78	1.56%
Tl 190.801†	-19.3	13.892 µg/L	1.0078	13.892 ppb	1.0078	7.25%
U 409.014†	-357.2	-49.246 µg/L	5.1429	-49.246 ppb	5.1429	10.44%
V 292.402†	16736.0	213.86 µg/L	3.616	213.86 ppb	3.616	1.69%
Zn 213.857†	8483.1	240.98 µg/L	3.062	240.98 ppb	3.062	1.27%

Sequence No.: 26

Sample ID: 244144016|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 322

Date Collected: 1/26/2010 14:33:10

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144016|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77216.8	77216.8	104 %		14:33:43
1	Al 396.153Radial†	139926.1	134220.4	92802 µg/L	92802 ppb	14:33:43
1	Ca 317.933Radial†	25667.3	24358.6	19432 µg/L	19432 ppb	14:34:03
1	Fe 238.204 Radial†	8438.3	8076.4	117310 µg/L	117310 ppb	14:34:03
1	K 766.490 Radial†	25094.0	23657.0	15356 µg/L	15356 ppb	14:33:43
1	Mg 279.077 IEC†	1492.0	1419.3	15407 µg/L	15407 ppb	14:34:03
1	Na 589.592 Radial†	2794.9	1772.9	502.10 µg/L	502.10 ppb	14:34:03
1	Sr 421.552†	36103.6	34035.9	212.01 µg/L	212.01 ppb	14:33:43
1	Sc 361.383	1878265.4	1878265.4	101.86 %		14:35:09
1	Y 371.029	1218866.2	1218866.2	104.07 %		14:35:09
1	Ag 328.068†	-1229.6	-1216.3	-2.3902 µg/L	-2.3902 ppb	14:35:15
1	As 188.979†	9.1	10.2	29.205 µg/L	29.205 ppb	14:35:35
1	B 249.677†	1764.8	1618.4	17.514 µg/L	17.514 ppb	14:35:15
1	Ba 233.527†	59137.2	58062.5	1698.6 µg/L	1698.6 ppb	14:35:15
1	Be 313.107†	19564.6	14805.7	8.5028 µg/L	8.5028 ppb	14:35:15
1	Cd 226.502†	371.7	472.4	0.9617 µg/L	0.9617 ppb	14:35:35
1	Co 228.616†	1018.5	1035.7	47.547 µg/L	47.547 ppb	14:35:35
1	Cr 267.716†	10386.1	10247.1	239.03 µg/L	239.03 ppb	14:35:15
1	Cu 324.752†	25362.2	21064.6	169.02 µg/L	169.02 ppb	14:35:15
1	Mn 257.610†	1015644.7	997148.6	3723.9 µg/L	3723.9 ppb	14:35:09
1	Mo 202.031†	36.2	19.2	6.8799 µg/L	6.8799 ppb	14:35:35
1	Ni 231.604†	2417.0	2040.1	131.07 µg/L	131.07 ppb	14:35:35
1	P 214.914†	831.2	615.0	1394.8 µg/L	1394.8 ppb	14:35:35
1	Pb 220.353†	543.7	468.3	138.94 µg/L	138.94 ppb	14:35:35
1	S 181.975 Axial†	208.3	180.4	1030.6 µg/L	1030.6 ppb	14:35:35
1	Sb 206.836†	36.0	13.2	10.675 µg/L	10.675 ppb	14:35:35
1	Se 196.026†	-260.6	-265.7	16.136 µg/L	16.136 ppb	14:35:35
1	SiO2†	417478.3	407551.9	85807 µg/L	85807 ppb	14:35:09
1	Si 251.611†	482803.9	473666.6	39641 µg/L	39641 ppb	14:35:09
1	Sn 189.927†	-70.2	-91.0	-36.002 µg/L	-36.002 ppb	14:35:35
1	Ti 334.940†	1996855.0	1959422.9	4887.4 µg/L	4887.4 ppb	14:35:09
1	Tl 190.801†	-46.6	-24.1	8.4202 µg/L	8.4202 ppb	14:35:35
1	U 409.014†	-482.8	-322.4	-47.687 µg/L	-47.687 ppb	14:35:09
1	V 292.402†	17928.4	17696.7	226.58 µg/L	226.58 ppb	14:35:15
1	Zn 213.857†	9508.2	8667.4	245.47 µg/L	245.47 ppb	14:35:15
2	Sc RADIAL	77474.6	77474.6	105 %		14:34:09
2	Al 396.153Radial†	139130.9	133013.7	91968 µg/L	91968 ppb	14:34:09
2	Ca 317.933Radial†	25439.9	24059.3	19193 µg/L	19193 ppb	14:34:29
2	Fe 238.204 Radial†	8372.8	7986.8	116010 µg/L	116010 ppb	14:34:29
2	K 766.490 Radial†	24983.4	23471.3	15235 µg/L	15235 ppb	14:34:09
2	Mg 279.077 IEC†	1472.5	1395.8	15152 µg/L	15152 ppb	14:34:29
2	Na 589.592 Radial†	2779.3	1749.0	495.32 µg/L	495.32 ppb	14:34:29
2	Sr 421.552†	35901.8	33727.7	210.09 µg/L	210.09 ppb	14:34:09
2	Sc 361.383	1860374.8	1860374.8	100.89 %		14:35:43
2	Y 371.029	1207775.7	1207775.7	103.13 %		14:35:43
2	Ag 328.068†	-1185.2	-1184.0	-2.1437 µg/L	-2.1437 ppb	14:35:48
2	As 188.979†	7.0	8.2	24.621 µg/L	24.621 ppb	14:36:09
2	B 249.677†	1813.5	1683.3	21.344 µg/L	21.344 ppb	14:35:48
2	Ba 233.527†	59601.8	59081.3	1728.4 µg/L	1728.4 ppb	14:35:48
2	Be 313.107†	19680.5	15105.3	8.7003 µg/L	8.7003 ppb	14:35:48
2	Cd 226.502†	364.6	468.8	1.0029 µg/L	1.0029 ppb	14:36:09
2	Co 228.616†	1020.2	1046.9	48.105 µg/L	48.105 ppb	14:36:09
2	Cr 267.716†	10518.3	10476.2	244.38 µg/L	244.38 ppb	14:35:48
2	Cu 324.752†	25580.0	21520.0	172.14 µg/L	172.14 ppb	14:35:48
2	Mn 257.610†	1011687.2	1002814.6	3744.9 µg/L	3744.9 ppb	14:35:43
2	Mo 202.031†	34.7	18.1	6.6857 µg/L	6.6857 ppb	14:36:09
2	Ni 231.604†	2405.4	2051.4	131.78 µg/L	131.78 ppb	14:36:09
2	P 214.914†	820.7	612.5	1389.1 µg/L	1389.1 ppb	14:36:09
2	Pb 220.353†	544.2	473.9	140.60 µg/L	140.60 ppb	14:36:09

2	S 181.975 Axial†	203.4	177.5	1013.9 µg/L	1013.9 ppb	14:36:09
2	Sb 206.836†	23.9	1.6	-2.2542 µg/L	-2.2542 ppb	14:36:09
2	Se 196.026†	-252.9	-260.5	19.515 µg/L	19.515 ppb	14:36:09
2	SiO2†	416281.1	410306.7	86387 µg/L	86387 ppb	14:35:43
2	Si 251.611†	481157.1	476592.6	39886 µg/L	39886 ppb	14:35:43
2	Sn 189.927†	-82.8	-104.1	-44.041 µg/L	-44.041 ppb	14:36:09
2	Ti 334.940†	1990806.1	1972279.6	4919.5 µg/L	4919.5 ppb	14:35:43
2	Tl 190.801†	-41.6	-19.6	16.738 µg/L	16.738 ppb	14:36:09
2	U 409.014†	-455.8	-300.2	-45.413 µg/L	-45.413 ppb	14:35:43
2	V 292.402†	18119.7	18055.6	230.99 µg/L	230.99 ppb	14:35:48
2	Zn 213.857†	9577.8	8826.2	250.16 µg/L	250.16 ppb	14:35:48
3	Sc RADIAL	77752.8	77752.8	105 %		14:34:35
3	Al 396.153Radial†	140166.6	133524.3	92321 µg/L	92321 ppb	14:34:35
3	Ca 317.933Radial†	25431.1	23963.9	19117 µg/L	19117 ppb	14:34:55
3	Fe 238.204 Radial†	8357.4	7943.5	115380 µg/L	115380 ppb	14:34:55
3	K 766.490 Radial†	25189.1	23581.7	15307 µg/L	15307 ppb	14:34:35
3	Mg 279.077 IEC†	1473.1	1391.4	15104 µg/L	15104 ppb	14:34:55
3	Na 589.592 Radial†	2776.8	1737.2	491.98 µg/L	491.98 ppb	14:34:55
3	Sr 421.552†	36216.4	33904.6	211.19 µg/L	211.19 ppb	14:34:35
3	Sc 361.383	1885886.7	1885886.7	102.27 %		14:36:17
3	Y 371.029	1222314.6	1222314.6	104.37 %		14:36:17
3	Ag 328.068†	-1147.3	-1131.1	-1.7721 µg/L	-1.7721 ppb	14:36:22
3	As 188.979†	9.9	11.0	30.934 µg/L	30.934 ppb	14:36:43
3	B 249.677†	1741.1	1588.2	17.046 µg/L	17.046 ppb	14:36:22
3	Ba 233.527†	57714.9	56437.2	1651.1 µg/L	1651.1 ppb	14:36:22
3	Be 313.107†	19019.9	14195.5	8.1225 µg/L	8.1225 ppb	14:36:22
3	Cd 226.502†	310.7	411.3	-0.6523 µg/L	-0.6523 ppb	14:36:43
3	Co 228.616†	941.3	956.2	43.368 µg/L	43.368 ppb	14:36:43
3	Cr 267.716†	10009.5	9837.6	229.48 µg/L	229.48 ppb	14:36:22
3	Cu 324.752†	24783.1	20397.7	163.92 µg/L	163.92 ppb	14:36:22
3	Mn 257.610†	997635.4	975510.2	3643.2 µg/L	3643.2 ppb	14:36:17
3	Mo 202.031†	39.9	22.7	7.2452 µg/L	7.2452 ppb	14:36:43
3	Ni 231.604†	2272.6	1889.3	121.47 µg/L	121.47 ppb	14:36:43
3	P 214.914†	792.6	574.0	1298.1 µg/L	1298.1 ppb	14:36:43
3	Pb 220.353†	524.8	447.7	132.89 µg/L	132.89 ppb	14:36:43
3	S 181.975 Axial†	193.9	165.4	944.92 µg/L	944.92 ppb	14:36:43
3	Sb 206.836†	16.9	-5.5	-9.9225 µg/L	-9.9225 ppb	14:36:43
3	Se 196.026†	-230.2	-235.0	57.095 µg/L	57.095 ppb	14:36:43
3	SiO2†	411763.0	400307.4	84282 µg/L	84282 ppb	14:36:17
3	Si 251.611†	476244.8	465337.9	38944 µg/L	38944 ppb	14:36:17
3	Sn 189.927†	-70.7	-91.2	-36.424 µg/L	-36.424 ppb	14:36:43
3	Ti 334.940†	1954495.7	1910083.0	4764.4 µg/L	4764.4 ppb	14:36:17
3	Tl 190.801†	-44.2	-21.6	11.578 µg/L	11.578 ppb	14:36:43
3	U 409.014†	-381.2	-221.2	-37.920 µg/L	-37.920 ppb	14:36:17
3	V 292.402†	17404.0	17112.9	219.22 µg/L	219.22 ppb	14:36:22
3	Zn 213.857†	9290.2	8416.5	238.31 µg/L	238.31 ppb	14:36:22

Mean Data: 244144016|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1874842.3	101.67 %		0.710			0.70%
Sc RADIAL	77481.4	105 %		0.4			0.35%
Y 371.029	1216318.9	103.86 %		0.649			0.62%
Ag 328.068†	-1177.1	-2.1020 µg/L		0.31115	-2.1020 ppb	0.31115	14.80%
Al 396.153Radial†	133586.1	92363 µg/L		418.8	92363 ppb	418.8	0.45%
As 188.979†	9.8	28.253 µg/L		3.2623	28.253 ppb	3.2623	11.55%
B 249.677†	1630.0	18.635 µg/L		2.3583	18.635 ppb	2.3583	12.66%
Ba 233.527†	57860.3	1692.7 µg/L		39.02	1692.7 ppb	39.02	2.30%
Be 313.107†	14702.2	8.4418 µg/L		0.29370	8.4418 ppb	0.29370	3.48%
Ca 317.933Radial†	24127.3	19248 µg/L		164.3	19248 ppb	164.3	0.85%
Cd 226.502†	450.8	0.4375 µg/L		0.94399	0.4375 ppb	0.94399	215.78%
Co 228.616†	1012.9	46.340 µg/L		2.5887	46.340 ppb	2.5887	5.59%
Cr 267.716†	10187.0	237.63 µg/L		7.546	237.63 ppb	7.546	3.18%
Cu 324.752†	20994.1	168.36 µg/L		4.151	168.36 ppb	4.151	2.47%
Fe 238.204 Radial†	8002.2	116230 µg/L		984.5	116230 ppb	984.5	0.85%
K 766.490 Radial†	23570.0	15300 µg/L		60.6	15300 ppb	60.6	0.40%
Mg 279.077 IEC†	1402.2	15221 µg/L		162.9	15221 ppb	162.9	1.07%
Mn 257.610†	991824.5	3704.0 µg/L		53.67	3704.0 ppb	53.67	1.45%
Mo 202.031†	20.0	6.9369 µg/L		0.28411	6.9369 ppb	0.28411	4.10%
Na 589.592 Radial†	1753.1	496.47 µg/L		5.155	496.47 ppb	5.155	1.04%

Ni 231.604†	1993.6	128.11 µg/L	5.757	128.11 ppb	5.757	4.49%
P 214.914†	600.5	1360.7 µg/L	54.30	1360.7 ppb	54.30	3.99%
Pb 220.353†	463.3	137.48 µg/L	4.058	137.48 ppb	4.058	2.95%
S 181.975 Axial†	174.4	996.47 µg/L	45.414	996.47 ppb	45.414	4.56%
Sb 206.836†	3.1	-0.5005 µg/L	10.41023	-0.5005 ppb	10.41023	>999.9%
Se 196.026†	-253.7	30.915 µg/L	22.7351	30.915 ppb	22.7351	73.54%
SiO2†	406055.3	85492 µg/L	1087.4	85492 ppb	1087.4	1.27%
Si 251.611†	471865.7	39490 µg/L	488.7	39490 ppb	488.7	1.24%
Sn 189.927†	-95.4	-38.822 µg/L	4.5244	-38.822 ppb	4.5244	11.65%
Sr 421.552†	33889.4	211.10 µg/L	0.963	211.10 ppb	0.963	0.46%
Ti 334.940†	1947261.8	4857.1 µg/L	81.91	4857.1 ppb	81.91	1.69%
Tl 190.801†	-21.8	12.246 µg/L	4.1990	12.246 ppb	4.1990	34.29%
U 409.014†	-281.2	-43.674 µg/L	5.1108	-43.674 ppb	5.1108	11.70%
V 292.402†	17621.8	225.60 µg/L	5.945	225.60 ppb	5.945	2.64%
Zn 213.857†	8636.7	244.65 µg/L	5.969	244.65 ppb	5.969	2.44%



Sequence No.: 27

Sample ID: 244144017|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 323

Date Collected: 1/26/2010 14:36:52

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144017|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77365.4	77365.4	104 %		14:37:25
1	Al 396.153Radial†	123419.4	118161.8	81699 µg/L	81699 ppb	14:37:25
1	Ca 317.933Radial†	22329.6	21116.3	16846 µg/L	16846 ppb	14:37:45
1	Fe 238.204 Radial†	8219.8	7851.6	114040 µg/L	114040 ppb	14:37:45
1	K 766.490 Radial†	20817.1	19516.8	12669 µg/L	12669 ppb	14:37:25
1	Mg 279.077 IEC†	1325.8	1257.4	13640 µg/L	13640 ppb	14:37:45
1	Na 589.592 Radial†	3613.9	2551.7	722.64 µg/L	722.64 ppb	14:37:45
1	Sr 421.552†	33235.6	31224.0	194.49 µg/L	194.49 ppb	14:37:25
1	Sc 361.383	1872033.3	1872033.3	101.52 %		14:38:51
1	Y 371.029	1217841.8	1217841.8	103.99 %		14:38:51
1	Ag 328.068†	-1139.9	-1132.0	-1.8624 µg/L	-1.8624 ppb	14:38:57
1	As 188.979†	8.4	9.6	27.771 µg/L	27.771 ppb	14:39:17
1	B 249.677†	1658.9	1519.9	14.271 µg/L	14.271 ppb	14:38:57
1	Ba 233.527†	164398.7	161938.7	4736.8 µg/L	4736.8 ppb	14:38:51
1	Be 313.107†	17774.3	13106.2	7.3644 µg/L	7.3644 ppb	14:38:57
1	Cd 226.502†	339.6	442.0	0.3709 µg/L	0.3709 ppb	14:39:17
1	Co 228.616†	874.6	897.2	40.104 µg/L	40.104 ppb	14:39:17
1	Cr 267.716†	5555.3	5522.7	128.89 µg/L	128.89 ppb	14:38:57
1	Cu 324.752†	29428.0	25152.3	198.21 µg/L	198.21 ppb	14:38:57
1	Mn 257.610†	987546.5	972791.2	3633.0 µg/L	3633.0 ppb	14:38:51
1	Mo 202.031†	11.6	-4.9	3.7162 µg/L	3.7162 ppb	14:39:17
1	Ni 231.604†	1570.4	1214.1	78.562 µg/L	78.562 ppb	14:39:17
1	P 214.914†	976.2	760.5	1741.4 µg/L	1741.4 ppb	14:39:17
1	Pb 220.353†	822.7	744.9	220.23 µg/L	220.23 ppb	14:39:17
1	S 181.975 Axial†	170.2	143.5	820.01 µg/L	820.01 ppb	14:39:17
1	Sb 206.836†	22.0	-0.5	-3.0784 µg/L	-3.0784 ppb	14:39:17
1	Se 196.026†	-239.1	-245.4	36.116 µg/L	36.116 ppb	14:39:17
1	SiO2†	421286.3	412667.2	86884 µg/L	86884 ppb	14:38:51
1	Si 251.611†	486958.9	479337.3	40116 µg/L	40116 ppb	14:38:51
1	Sn 189.927†	-72.5	-93.5	-38.682 µg/L	-38.682 ppb	14:39:17
1	Ti 334.940†	1935272.3	1905290.0	4752.5 µg/L	4752.5 ppb	14:38:51
1	Tl 190.801†	-43.8	-21.5	11.850 µg/L	11.850 ppb	14:39:17
1	U 409.014†	-533.1	-373.5	-51.867 µg/L	-51.867 ppb	14:38:51
1	V 292.402†	17308.9	17145.2	219.28 µg/L	219.28 ppb	14:38:57
1	Zn 213.857†	10894.1	10063.5	286.61 µg/L	286.61 ppb	14:38:57
2	Sc RADIAL	76824.0	76824.0	104 %		14:37:51
2	Al 396.153Radial†	122892.9	118486.8	81924 µg/L	81924 ppb	14:37:51
2	Ca 317.933Radial†	22401.2	21336.0	17021 µg/L	17021 ppb	14:38:11
2	Fe 238.204 Radial†	8246.2	7932.5	115220 µg/L	115220 ppb	14:38:11
2	K 766.490 Radial†	20743.4	19586.2	12714 µg/L	12714 ppb	14:37:51
2	Mg 279.077 IEC†	1325.9	1266.4	13737 µg/L	13737 ppb	14:38:11
2	Na 589.592 Radial†	3631.5	2593.1	734.36 µg/L	734.36 ppb	14:38:11
2	Sr 421.552†	33011.8	31232.5	194.55 µg/L	194.55 ppb	14:37:51
2	Sc 361.383	1870347.8	1870347.8	101.43 %		14:39:25
2	Y 371.029	1216654.7	1216654.7	103.88 %		14:39:25
2	Ag 328.068†	-1149.9	-1142.9	-1.8827 µg/L	-1.8827 ppb	14:39:31
2	As 188.979†	9.1	10.2	29.374 µg/L	29.374 ppb	14:39:51
2	B 249.677†	1683.3	1545.4	14.894 µg/L	14.894 ppb	14:39:31
2	Ba 233.527†	164248.0	161936.0	4736.7 µg/L	4736.7 ppb	14:39:25
2	Be 313.107†	17822.4	13169.4	7.4071 µg/L	7.4071 ppb	14:39:31
2	Cd 226.502†	330.1	432.9	-0.0323 µg/L	-0.0323 ppb	14:39:51
2	Co 228.616†	887.5	910.7	40.848 µg/L	40.848 ppb	14:39:51
2	Cr 267.716†	5548.1	5520.5	128.84 µg/L	128.84 ppb	14:39:31
2	Cu 324.752†	29450.8	25200.9	198.72 µg/L	198.72 ppb	14:39:31
2	Mn 257.610†	986865.0	972995.8	3633.9 µg/L	3633.9 ppb	14:39:25
2	Mo 202.031†	5.9	-10.5	3.0559 µg/L	3.0559 ppb	14:39:51
2	Ni 231.604†	1583.2	1228.1	79.469 µg/L	79.469 ppb	14:39:51
2	P 214.914†	969.5	754.8	1726.8 µg/L	1726.8 ppb	14:39:51
2	Pb 220.353†	832.0	754.8	223.10 µg/L	223.10 ppb	14:39:51

2	S 181.975 Axial†	175.0	148.4	847.99 µg/L	847.99 ppb	14:39:51
2	Sb 206.836†	27.3	4.8	2.7425 µg/L	2.7425 ppb	14:39:51
2	Se 196.026†	-249.3	-255.7	24.415 µg/L	24.415 ppb	14:39:51
2	SiO2†	421059.7	412817.7	86916 µg/L	86916 ppb	14:39:25
2	Si 251.611†	486659.0	479473.8	40127 µg/L	40127 ppb	14:39:25
2	Sn 189.927†	-69.2	-90.3	-36.630 µg/L	-36.630 ppb	14:39:51
2	Ti 334.940†	1935257.4	1906993.1	4756.7 µg/L	4756.7 ppb	14:39:25
2	Tl 190.801†	-45.8	-23.4	8.4827 µg/L	8.4827 ppb	14:39:51
2	U 409.014†	-437.3	-279.5	-43.236 µg/L	-43.236 ppb	14:39:25
2	V 292.402†	17371.3	17222.1	220.30 µg/L	220.30 ppb	14:39:31
2	Zn 213.857†	10920.9	10099.6	287.60 µg/L	287.60 ppb	14:39:31
3	Sc RADIAL	76911.5	76911.5	104 %		14:38:17
3	Al 396.153Radial†	122934.4	118392.0	81858 µg/L	81858 ppb	14:38:17
3	Ca 317.933Radial†	22181.0	21099.3	16832 µg/L	16832 ppb	14:38:37
3	Fe 238.204 Radial†	8158.9	7839.5	113870 µg/L	113870 ppb	14:38:37
3	K 766.490 Radial†	20777.7	19596.5	12720 µg/L	12720 ppb	14:38:17
3	Mg 279.077 IEC†	1309.5	1249.2	13549 µg/L	13549 ppb	14:38:37
3	Na 589.592 Radial†	3598.3	2557.1	724.18 µg/L	724.18 ppb	14:38:37
3	Sr 421.552†	33095.9	31277.3	194.82 µg/L	194.82 ppb	14:38:17
3	Sc 361.383	1868553.7	1868553.7	101.33 %		14:39:59
3	Y 371.029	1215080.2	1215080.2	103.75 %		14:39:59
3	Ag 328.068†	-1144.5	-1138.7	-1.9868 µg/L	-1.9868 ppb	14:40:05
3	As 188.979†	5.4	6.6	21.010 µg/L	21.010 ppb	14:40:25
3	B 249.677†	1617.4	1482.0	12.523 µg/L	12.523 ppb	14:40:05
3	Ba 233.527†	161531.9	159411.1	4662.8 µg/L	4662.8 ppb	14:39:59
3	Be 313.107†	17246.1	12617.6	7.0587 µg/L	7.0587 ppb	14:40:05
3	Cd 226.502†	300.6	404.1	-0.7444 µg/L	-0.7444 ppb	14:40:25
3	Co 228.616†	808.3	833.5	36.749 µg/L	36.749 ppb	14:40:25
3	Cr 267.716†	5306.7	5287.6	123.40 µg/L	123.40 ppb	14:40:05
3	Cu 324.752†	28574.4	24363.9	192.47 µg/L	192.47 ppb	14:40:05
3	Mn 257.610†	968831.9	956134.3	3571.0 µg/L	3571.0 ppb	14:39:59
3	Mo 202.031†	6.8	-9.5	3.1252 µg/L	3.1252 ppb	14:40:25
3	Ni 231.604†	1488.7	1136.3	73.623 µg/L	73.623 ppb	14:40:25
3	P 214.914†	936.3	722.9	1651.7 µg/L	1651.7 ppb	14:40:25
3	Pb 220.353†	791.6	715.7	211.61 µg/L	211.61 ppb	14:40:25
3	S 181.975 Axial†	163.2	136.9	781.99 µg/L	781.99 ppb	14:40:25
3	Sb 206.836†	25.4	3.0	0.7446 µg/L	0.7446 ppb	14:40:25
3	Se 196.026†	-224.0	-230.9	58.111 µg/L	58.111 ppb	14:40:25
3	SiO2†	415410.5	407641.5	85826 µg/L	85826 ppb	14:39:59
3	Si 251.611†	480017.1	473380.0	39617 µg/L	39617 ppb	14:39:59
3	Sn 189.927†	-72.2	-93.3	-38.650 µg/L	-38.650 ppb	14:40:25
3	Ti 334.940†	1892928.7	1867053.5	4657.1 µg/L	4657.1 ppb	14:39:59
3	Tl 190.801†	-40.9	-18.7	15.645 µg/L	15.645 ppb	14:40:25
3	U 409.014†	-425.1	-267.9	-41.950 µg/L	-41.950 ppb	14:39:59
3	V 292.402†	16638.6	16515.5	211.44 µg/L	211.44 ppb	14:40:05
3	Zn 213.857†	10557.9	9751.8	277.57 µg/L	277.57 ppb	14:40:05

Mean Data: 244144017|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1870311.6	101.43 %	0.094			0.09%
Sc RADIAL	77033.7	104 %	0.4			0.38%
Y 371.029	1216525.5	103.87 %	0.118			0.11%
Ag 328.068†	-1137.9	-1.9107 µg/L	0.06671	-1.9107 ppb	0.06671	3.49%
Al 396.153Radial†	118346.9	81827 µg/L	115.6	81827 ppb	115.6	0.14%
As 188.979†	8.8	26.052 µg/L	4.4394	26.052 ppb	4.4394	17.04%
B 249.677†	1515.8	13.896 µg/L	1.2291	13.896 ppb	1.2291	8.85%
Ba 233.527†	161095.2	4712.1 µg/L	42.67	4712.1 ppb	42.67	0.91%
Be 313.107†	12964.4	7.2767 µg/L	0.19002	7.2767 ppb	0.19002	2.61%
Ca 317.933Radial†	21183.9	16900 µg/L	105.3	16900 ppb	105.3	0.62%
Cd 226.502†	426.3	-0.1352 µg/L	0.56473	-0.1352 ppb	0.56473	417.56%
Co 228.616†	880.5	39.234 µg/L	2.1840	39.234 ppb	2.1840	5.57%
Cr 267.716†	5443.6	127.04 µg/L	3.153	127.04 ppb	3.153	2.48%
Cu 324.752†	24905.7	196.46 µg/L	3.473	196.46 ppb	3.473	1.77%
Fe 238.204 Radial†	7874.6	114380 µg/L	734.9	114380 ppb	734.9	0.64%
K 766.490 Radial†	19566.5	12701 µg/L	28.1	12701 ppb	28.1	0.22%
Mg 279.077 IEC†	1257.7	13642 µg/L	93.7	13642 ppb	93.7	0.69%
Mn 257.610†	967307.1	3612.6 µg/L	36.05	3612.6 ppb	36.05	1.00%
Mo 202.031†	-8.3	3.2991 µg/L	0.36290	3.2991 ppb	0.36290	11.00%
Na 589.592 Radial†	2567.3	727.06 µg/L	6.371	727.06 ppb	6.371	0.88%

Ni 231.604†	1192.9	77.218 µg/L	3.1465	77.218 ppb	3.1465	4.07%
P 214.914†	746.1	1706.7 µg/L	48.11	1706.7 ppb	48.11	2.82%
Pb 220.353†	738.5	218.31 µg/L	5.979	218.31 ppb	5.979	2.74%
S 181.975 Axial†	143.0	816.66 µg/L	33.124	816.66 ppb	33.124	4.06%
Sb 206.836†	2.4	0.1363 µg/L	2.95777	0.1363 ppb	2.95777	>999.9%
Se 196.026†	-244.0	39.547 µg/L	17.1082	39.547 ppb	17.1082	43.26%
SiO2†	411042.2	86542 µg/L	620.3	86542 ppb	620.3	0.72%
Si 251.611†	477397.0	39953 µg/L	291.2	39953 ppb	291.2	0.73%
Sn 189.927†	-92.4	-37.987 µg/L	1.1754	-37.987 ppb	1.1754	3.09%
Sr 421.552†	31244.6	194.62 µg/L	0.178	194.62 ppb	0.178	0.09%
Ti 334.940†	1893112.2	4722.1 µg/L	56.34	4722.1 ppb	56.34	1.19%
Tl 190.801†	-21.2	11.993 µg/L	3.5834	11.993 ppb	3.5834	29.88%
U 409.014†	-307.0	-45.685 µg/L	5.3928	-45.685 ppb	5.3928	11.80%
V 292.402†	16960.9	217.00 µg/L	4.847	217.00 ppb	4.847	2.23%
Zn 213.857†	9971.6	283.93 µg/L	5.530	283.93 ppb	5.530	1.95%

Sequence No.: 28

Sample ID: 244144018|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 324

Date Collected: 1/26/2010 14:40:34

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144018|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	77028.8	77028.8	104 %		14:41:07
1	Al 396.153Radial†	237792.1	228637.6	158080 µg/L	158080 ppb	14:41:07
1	Ca 317.933Radial†	30106.0	28686.0	22884 µg/L	22884 ppb	14:41:28
1	Fe 238.204 Radial†	10802.2	10368.8	150610 µg/L	150610 ppb	14:41:28
1	K 766.490 Radial†	32800.1	31124.5	20203 µg/L	20203 ppb	14:41:07
1	Mg 279.077 IEC†	2187.0	2090.9	22722 µg/L	22722 ppb	14:41:28
1	Na 589.592 Radial†	3897.6	2839.6	804.17 µg/L	804.17 ppb	14:41:28
1	Sr 421.552†	52468.4	49853.7	310.54 µg/L	310.54 ppb	14:41:07
1	Sc 361.383	1871301.3	1871301.3	101.48 %		14:42:34
1	Y 371.029	1220734.4	1220734.4	104.23 %		14:42:34
1	Ag 328.068†	-1485.0	-1472.5	-2.2834 µg/L	-2.2834 ppb	14:42:39
1	As 188.979†	13.0	14.1	40.005 µg/L	40.005 ppb	14:43:00
1	B 249.677†	2296.9	2149.2	25.632 µg/L	25.632 ppb	14:42:39
1	Ba 233.527†	80908.0	79731.3	2332.5 µg/L	2332.5 ppb	14:42:39
1	Be 313.107†	25522.9	20748.5	12.113 µg/L	12.113 ppb	14:42:39
1	Cd 226.502†	474.2	574.7	0.2010 µg/L	0.2010 ppb	14:43:00
1	Co 228.616†	1185.9	1204.4	53.929 µg/L	53.929 ppb	14:43:00
1	Cr 267.716†	4867.6	4847.1	113.18 µg/L	113.18 ppb	14:42:39
1	Cu 324.752†	11149.5	7152.3	72.788 µg/L	72.788 ppb	14:42:39
1	Mn 257.610†	994812.3	980331.3	3665.5 µg/L	3665.5 ppb	14:42:34
1	Mo 202.031†	-16.6	-32.6	1.6143 µg/L	1.6143 ppb	14:43:00
1	Ni 231.604†	1614.9	1258.5	81.841 µg/L	81.841 ppb	14:43:00
1	P 214.914†	691.4	480.3	1072.7 µg/L	1072.7 ppb	14:43:00
1	Pb 220.353†	548.8	475.3	143.50 µg/L	143.50 ppb	14:43:00
1	S 181.975 Axial†	123.3	97.4	556.32 µg/L	556.32 ppb	14:43:00
1	Sb 206.836†	23.1	0.7	-2.1112 µg/L	-2.1112 ppb	14:43:00
1	Se 196.026†	-324.0	-329.2	37.680 µg/L	37.680 ppb	14:43:00
1	SiO2†	398072.3	389954.8	82102 µg/L	82102 ppb	14:42:34
1	Si 251.611†	460202.2	453159.1	37925 µg/L	37925 ppb	14:42:34
1	Sn 189.927†	-114.9	-135.2	-57.040 µg/L	-57.040 ppb	14:43:00
1	Ti 334.940†	2577170.1	2538553.7	6331.7 µg/L	6331.7 ppb	14:42:34
1	Tl 190.801†	-48.4	-26.0	16.283 µg/L	16.283 ppb	14:43:00
1	U 409.014†	-614.2	-453.6	-64.820 µg/L	-64.820 ppb	14:42:34
1	V 292.402†	22499.2	22266.3	284.76 µg/L	284.76 ppb	14:42:39
1	Zn 213.857†	10515.3	9694.5	273.80 µg/L	273.80 ppb	14:42:39
2	Sc RADIAL	76673.5	76673.5	104 %		14:41:34
2	Al 396.153Radial†	236679.3	228622.3	158070 µg/L	158070 ppb	14:41:34
2	Ca 317.933Radial†	30166.2	28878.3	23038 µg/L	23038 ppb	14:41:54
2	Fe 238.204 Radial†	10822.1	10436.1	151580 µg/L	151580 ppb	14:41:54
2	K 766.490 Radial†	32633.2	31109.4	20194 µg/L	20194 ppb	14:41:34
2	Mg 279.077 IEC†	2192.2	2105.7	22883 µg/L	22883 ppb	14:41:54
2	Na 589.592 Radial†	3907.0	2866.0	811.66 µg/L	811.66 ppb	14:41:54
2	Sr 421.552†	52092.5	49724.4	309.73 µg/L	309.73 ppb	14:41:34
2	Sc 361.383	1874582.2	1874582.2	101.66 %		14:43:07
2	Y 371.029	1222597.1	1222597.1	104.39 %		14:43:07
2	Ag 328.068†	-1511.7	-1496.2	-2.4527 µg/L	-2.4527 ppb	14:43:13
2	As 188.979†	8.9	10.0	30.641 µg/L	30.641 ppb	14:43:33
2	B 249.677†	2263.5	2112.4	23.340 µg/L	23.340 ppb	14:43:13
2	Ba 233.527†	80308.8	79002.3	2311.2 µg/L	2311.2 ppb	14:43:13
2	Be 313.107†	25457.7	20640.3	12.048 µg/L	12.048 ppb	14:43:13
2	Cd 226.502†	468.6	568.4	-0.0985 µg/L	-0.0985 ppb	14:43:33
2	Co 228.616†	1186.8	1203.2	53.923 µg/L	53.923 ppb	14:43:33
2	Cr 267.716†	4827.2	4799.1	112.06 µg/L	112.06 ppb	14:43:13
2	Cu 324.752†	11051.0	7036.1	72.082 µg/L	72.082 ppb	14:43:13
2	Mn 257.610†	992693.7	976531.7	3651.5 µg/L	3651.5 ppb	14:43:07
2	Mo 202.031†	-18.7	-34.7	1.3928 µg/L	1.3928 ppb	14:43:33
2	Ni 231.604†	1595.9	1237.1	80.492 µg/L	80.492 ppb	14:43:33
2	P 214.914†	695.0	482.7	1077.8 µg/L	1077.8 ppb	14:43:33
2	Pb 220.353†	540.7	466.4	140.85 µg/L	140.85 ppb	14:43:33

2	S 181.975 Axial†	118.3	92.3	527.08 µg/L	527.08 ppb	14:43:33
2	Sb 206.836†	26.3	3.8	1.2846 µg/L	1.2846 ppb	14:43:33
2	Se 196.026†	-328.8	-333.3	34.767 µg/L	34.767 ppb	14:43:33
2	SiO2†	396919.1	388133.9	81719 µg/L	81719 ppb	14:43:07
2	Si 251.611†	459012.3	451195.0	37760 µg/L	37760 ppb	14:43:07
2	Sn 189.927†	-100.6	-121.0	-48.431 µg/L	-48.431 ppb	14:43:33
2	Ti 334.940†	2570420.1	2527469.5	6304.1 µg/L	6304.1 ppb	14:43:07
2	Tl 190.801†	-51.6	-29.1	10.596 µg/L	10.596 ppb	14:43:33
2	U 409.014†	-764.0	-600.0	-78.676 µg/L	-78.676 ppb	14:43:07
2	V 292.402†	22391.3	22121.4	282.99 µg/L	282.99 ppb	14:43:13
2	Zn 213.857†	10456.3	9618.3	271.53 µg/L	271.53 ppb	14:43:13
3	Sc RADIAL	77488.0	77488.0	105 %		14:42:00
3	Al 396.153Radial†	238415.3	227878.5	157560 µg/L	157560 ppb	14:42:00
3	Ca 317.933Radial†	30107.8	28516.2	22749 µg/L	22749 ppb	14:42:20
3	Fe 238.204 Radial†	10778.7	10284.8	149390 µg/L	149390 ppb	14:42:20
3	K 766.490 Radial†	32811.5	30948.6	20089 µg/L	20089 ppb	14:42:00
3	Mg 279.077 IEC†	2188.4	2079.8	22602 µg/L	22602 ppb	14:42:20
3	Na 589.592 Radial†	3909.5	2828.7	801.09 µg/L	801.09 ppb	14:42:20
3	Sr 421.552†	52602.2	49682.7	309.47 µg/L	309.47 ppb	14:42:00
3	Sc 361.383	1877078.6	1877078.6	101.80 %		14:43:41
3	Y 371.029	1223129.1	1223129.1	104.44 %		14:43:41
3	Ag 328.068†	-1470.1	-1453.4	-2.2519 µg/L	-2.2519 ppb	14:43:47
3	As 188.979†	6.6	7.7	25.316 µg/L	25.316 ppb	14:44:07
3	B 249.677†	2216.6	2063.4	22.106 µg/L	22.106 ppb	14:43:47
3	Ba 233.527†	78464.4	77085.4	2255.1 µg/L	2255.1 ppb	14:43:47
3	Be 313.107†	24801.5	19962.4	11.619 µg/L	11.619 ppb	14:43:47
3	Cd 226.502†	439.0	538.7	-0.7389 µg/L	-0.7389 ppb	14:44:07
3	Co 228.616†	1116.7	1132.8	50.247 µg/L	50.247 ppb	14:44:07
3	Cr 267.716†	4672.6	4640.9	108.36 µg/L	108.36 ppb	14:43:47
3	Cu 324.752†	10917.0	6890.1	70.717 µg/L	70.717 ppb	14:43:47
3	Mn 257.610†	977947.8	960747.3	3592.5 µg/L	3592.5 ppb	14:43:41
3	Mo 202.031†	-23.4	-39.3	0.7237 µg/L	0.7237 ppb	14:44:07
3	Ni 231.604†	1541.8	1181.8	76.954 µg/L	76.954 ppb	14:44:07
3	P 214.914†	647.6	435.2	965.26 µg/L	965.26 ppb	14:44:07
3	Pb 220.353†	519.5	444.9	134.54 µg/L	134.54 ppb	14:44:07
3	S 181.975 Axial†	119.9	93.6	534.78 µg/L	534.78 ppb	14:44:07
3	Sb 206.836†	23.8	1.3	-1.3367 µg/L	-1.3367 ppb	14:44:07
3	Se 196.026†	-307.3	-311.8	60.394 µg/L	60.394 ppb	14:44:07
3	SiO2†	393220.3	383981.0	80845 µg/L	80845 ppb	14:43:41
3	Si 251.611†	454304.4	445969.7	37323 µg/L	37323 ppb	14:43:41
3	Sn 189.927†	-102.5	-122.7	-49.760 µg/L	-49.760 ppb	14:44:07
3	Ti 334.940†	2524833.5	2479324.6	6184.0 µg/L	6184.0 ppb	14:43:41
3	Tl 190.801†	-54.0	-31.3	5.4997 µg/L	5.4997 ppb	14:44:07
3	U 409.014†	-741.9	-577.2	-76.219 µg/L	-76.219 ppb	14:43:41
3	V 292.402†	21720.0	21432.6	274.31 µg/L	274.31 ppb	14:43:47
3	Zn 213.857†	10184.7	9337.8	263.49 µg/L	263.49 ppb	14:43:47

Mean Data: 244144018|940180|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1874320.7	101.65 %	0.157			0.15%
Sc RADIAL	77063.4	104 %	0.6			0.53%
Y 371.029	1222153.5	104.35 %	0.107			0.10%
Ag 328.068†	-1474.1	-2.3293 µg/L	0.10800	-2.3293 ppb	0.10800	4.64%
Al 396.153Radial†	228379.5	157910 µg/L	300.0	157910 ppb	300.0	0.19%
As 188.979†	10.6	31.987 µg/L	7.4364	31.987 ppb	7.4364	23.25%
B 249.677†	2108.3	23.692 µg/L	1.7894	23.692 ppb	1.7894	7.55%
Ba 233.527†	78606.3	2299.6 µg/L	39.98	2299.6 ppb	39.98	1.74%
Be 313.107†	20450.4	11.926 µg/L	0.2684	11.926 ppb	0.2684	2.25%
Ca 317.933Radial†	28693.5	22890 µg/L	144.5	22890 ppb	144.5	0.63%
Cd 226.502†	560.6	-0.2121 µg/L	0.48011	-0.2121 ppb	0.48011	226.32%
Co 228.616†	1180.1	52.700 µg/L	2.1242	52.700 ppb	2.1242	4.03%
Cr 267.716†	4762.3	111.20 µg/L	2.520	111.20 ppb	2.520	2.27%
Cu 324.752†	7026.1	71.862 µg/L	1.0525	71.862 ppb	1.0525	1.46%
Fe 238.204 Radial†	10363.2	150530 µg/L	1101.1	150530 ppb	1101.1	0.73%
K 766.490 Radial†	31060.8	20162 µg/L	63.3	20162 ppb	63.3	0.31%
Mg 279.077 IEC†	2092.1	22736 µg/L	141.3	22736 ppb	141.3	0.62%
Mn 257.610†	972536.7	3636.5 µg/L	38.74	3636.5 ppb	38.74	1.07%
Mo 202.031†	-35.5	1.2436 µg/L	0.46364	1.2436 ppb	0.46364	37.28%
Na 589.592 Radial†	2844.8	805.64 µg/L	5.432	805.64 ppb	5.432	0.67%

Ni 231.604†	1225.8	79.762 µg/L	2.5241	79.762 ppb	2.5241	3.16%
P 214.914†	466.1	1038.6 µg/L	63.53	1038.6 ppb	63.53	6.12%
Pb 220.353†	462.2	139.63 µg/L	4.600	139.63 ppb	4.600	3.29%
S 181.975 Axial†	94.4	539.39 µg/L	15.155	539.39 ppb	15.155	2.81%
Sb 206.836†	1.9	-0.7211 µg/L	1.77963	-0.7211 ppb	1.77963	246.79%
Se 196.026†	-324.8	44.280 µg/L	14.0309	44.280 ppb	14.0309	31.69%
SiO2†	387356.6	81555 µg/L	644.6	81555 ppb	644.6	0.79%
Si 251.611†	450107.9	37669 µg/L	311.0	37669 ppb	311.0	0.83%
Sn 189.927†	-126.3	-51.744 µg/L	4.6344	-51.744 ppb	4.6344	8.96%
Sr 421.552†	49753.6	309.91 µg/L	0.555	309.91 ppb	0.555	0.18%
Ti 334.940†	2515115.9	6273.3 µg/L	78.55	6273.3 ppb	78.55	1.25%
Tl 190.801†	-28.8	10.793 µg/L	5.3941	10.793 ppb	5.3941	49.98%
U 409.014†	-543.6	-73.238 µg/L	7.3929	-73.238 ppb	7.3929	10.09%
V 292.402†	21940.1	280.69 µg/L	5.593	280.69 ppb	5.593	1.99%
Zn 213.857†	9550.2	269.60 µg/L	5.418	269.60 ppb	5.418	2.01%

Sequence No.: 29

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/26/2010 14:44:16

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	76175.7	76175.7	103 %		14:44:51
1	Al 396.153Radial†	7719.2	7525.3	5192.7 µg/L	5192.7 ppb	14:44:51
1	Ca 317.933Radial†	6980.6	6528.1	5207.8 µg/L	5207.8 ppb	14:44:51
1	Fe 238.204 Radial†	396.4	368.8	5367.0 µg/L	5367.0 ppb	14:45:12
1	K 766.490 Radial†	8334.6	7692.8	4993.5 µg/L	4993.5 ppb	14:44:51
1	Mg 279.077 IEC†	507.2	481.4	5271.6 µg/L	5271.6 ppb	14:45:12
1	Na 589.592 Radial†	37055.4	35117.0	9945.1 µg/L	9945.1 ppb	14:44:51
1	Sr 421.552†	82820.8	79926.7	497.86 µg/L	497.86 ppb	14:44:51
1	Sc 361.383	1865911.7	1865911.7	101.19 %		14:46:15
1	Y 371.029	1179453.9	1179453.9	100.71 %		14:46:15
1	Ag 328.068†	55283.8	54624.1	508.08 µg/L	508.08 ppb	14:46:21
1	As 188.979†	228.9	227.5	522.27 µg/L	522.27 ppb	14:46:41
1	B 249.677†	10534.2	10296.1	496.43 µg/L	496.43 ppb	14:46:21
1	Ba 233.527†	17690.5	17487.8	512.41 µg/L	512.41 ppb	14:46:21
1	Be 313.107†	736864.3	723792.8	506.52 µg/L	506.52 ppb	14:46:15
1	Cd 226.502†	17206.5	17111.5	510.21 µg/L	510.21 ppb	14:46:21
1	Co 228.616†	9264.8	9191.5	511.88 µg/L	511.88 ppb	14:46:21
1	Cr 267.716†	22253.9	22042.7	514.22 µg/L	514.22 ppb	14:46:21
1	Cu 324.752†	73113.5	68418.9	496.78 µg/L	496.78 ppb	14:46:21
1	Mn 257.610†	137945.4	136377.8	507.77 µg/L	507.77 ppb	14:46:21
1	Mo 202.031†	4101.9	4037.4	508.92 µg/L	508.92 ppb	14:46:41
1	Ni 231.604†	8507.9	8075.1	512.52 µg/L	512.52 ppb	14:46:21
1	P 214.914†	1325.3	1108.7	2621.1 µg/L	2621.1 ppb	14:46:41
1	Pb 220.353†	1856.0	1768.7	523.33 µg/L	523.33 ppb	14:46:41
1	S 181.975 Axial†	206.1	179.6	1025.8 µg/L	1025.8 ppb	14:46:41
1	Sb 206.836†	499.3	471.4	522.94 µg/L	522.94 ppb	14:46:41
1	Se 196.026†	345.3	331.4	536.19 µg/L	536.19 ppb	14:46:41
1	SiO2†	28772.0	26132.7	5502.1 µg/L	5502.1 ppb	14:46:21
1	Si 251.611†	31383.2	30695.5	2568.9 µg/L	2568.9 ppb	14:46:21
1	Sn 189.927†	921.0	888.1	530.30 µg/L	530.30 ppb	14:46:41
1	Ti 334.940†	206096.1	202713.3	505.40 µg/L	505.40 ppb	14:46:15
1	Tl 190.801†	277.3	295.7	517.55 µg/L	517.55 ppb	14:46:41
1	U 409.014†	5422.1	5509.9	515.05 µg/L	515.05 ppb	14:46:21
1	V 292.402†	41606.6	41213.0	517.88 µg/L	517.88 ppb	14:46:21
1	Zn 213.857†	18446.3	17562.1	508.48 µg/L	508.48 ppb	14:46:21
2	Sc RADIAL	75325.1	75325.1	102 %		14:45:17
2	Al 396.153Radial†	7609.9	7502.6	5176.9 µg/L	5176.9 ppb	14:45:17
2	Ca 317.933Radial†	6888.8	6514.5	5197.0 µg/L	5197.0 ppb	14:45:17
2	Fe 238.204 Radial†	393.9	370.7	5395.3 µg/L	5395.3 ppb	14:45:38
2	K 766.490 Radial†	8257.9	7708.9	5003.9 µg/L	5003.9 ppb	14:45:17
2	Mg 279.077 IEC†	508.6	488.4	5347.6 µg/L	5347.6 ppb	14:45:38
2	Na 589.592 Radial†	36879.9	35351.3	10011 µg/L	10011 ppb	14:45:17
2	Sr 421.552†	82179.8	80205.7	499.60 µg/L	499.60 ppb	14:45:17
2	Sc 361.383	1858888.7	1858888.7	100.81 %		14:46:48
2	Y 371.029	1174589.0	1174589.0	100.29 %		14:46:48
2	Ag 328.068†	55336.8	54883.0	510.49 µg/L	510.49 ppb	14:46:53
2	As 188.979†	229.0	228.5	524.52 µg/L	524.52 ppb	14:47:14
2	B 249.677†	10560.0	10361.0	499.56 µg/L	499.56 ppb	14:46:53
2	Ba 233.527†	17663.3	17526.9	513.56 µg/L	513.56 ppb	14:46:53
2	Be 313.107†	733750.7	723455.3	506.29 µg/L	506.29 ppb	14:46:48
2	Cd 226.502†	17211.3	17180.5	512.26 µg/L	512.26 ppb	14:46:53
2	Co 228.616†	9282.1	9243.4	514.78 µg/L	514.78 ppb	14:46:53
2	Cr 267.716†	22207.7	22080.0	515.09 µg/L	515.09 ppb	14:46:53
2	Cu 324.752†	73197.6	68775.3	499.37 µg/L	499.37 ppb	14:46:53
2	Mn 257.610†	137906.8	136854.6	509.54 µg/L	509.54 ppb	14:46:53
2	Mo 202.031†	4105.3	4056.1	511.28 µg/L	511.28 ppb	14:47:14
2	Ni 231.604†	8508.5	8107.4	514.57 µg/L	514.57 ppb	14:46:53
2	P 214.914†	1325.2	1113.5	2632.6 µg/L	2632.6 ppb	14:47:14
2	Pb 220.353†	1847.6	1767.2	522.90 µg/L	522.90 ppb	14:47:14

2	S 181.975 Axial†	206.4	180.6	1031.9 µg/L	1031.9 ppb	14:47:14
2	Sb 206.836†	505.2	479.1	531.48 µg/L	531.48 ppb	14:47:14
2	Se 196.026†	343.5	330.8	535.35 µg/L	535.35 ppb	14:47:14
2	SiO2†	28653.7	26122.7	5500.0 µg/L	5500.0 ppb	14:46:53
2	Si 251.611†	31377.2	30806.8	2578.2 µg/L	2578.2 ppb	14:46:53
2	Sn 189.927†	920.2	890.8	531.88 µg/L	531.88 ppb	14:47:14
2	Ti 334.940†	205387.0	202779.3	505.55 µg/L	505.55 ppb	14:46:48
2	Tl 190.801†	272.1	291.6	510.38 µg/L	510.38 ppb	14:47:14
2	U 409.014†	5332.2	5440.9	508.58 µg/L	508.58 ppb	14:46:53
2	V 292.402†	41590.3	41352.1	519.62 µg/L	519.62 ppb	14:46:53
2	Zn 213.857†	18451.5	17636.1	510.62 µg/L	510.62 ppb	14:46:53
3	Sc RADIAL	76418.5	76418.5	103 %		14:45:43
3	Al 396.153Radial†	7630.9	7415.9	5118.4 µg/L	5118.4 ppb	14:45:43
3	Ca 317.933Radial†	6912.0	6440.1	5137.6 µg/L	5137.6 ppb	14:45:43
3	Fe 238.204 Radial†	395.7	366.9	5339.0 µg/L	5339.0 ppb	14:46:04
3	K 766.490 Radial†	8309.1	7642.3	4960.7 µg/L	4960.7 ppb	14:45:43
3	Mg 279.077 IEC†	505.1	477.8	5231.3 µg/L	5231.3 ppb	14:46:04
3	Na 589.592 Radial†	36907.8	34859.5	9872.2 µg/L	9872.2 ppb	14:45:43
3	Sr 421.552†	82314.8	79180.5	493.21 µg/L	493.21 ppb	14:45:43
3	Sc 361.383	1866174.7	1866174.7	101.20 %		14:47:21
3	Y 371.029	1179426.5	1179426.5	100.71 %		14:47:21
3	Ag 328.068†	53625.9	52978.2	492.66 µg/L	492.66 ppb	14:47:26
3	As 188.979†	202.1	200.9	461.32 µg/L	461.32 ppb	14:47:47
3	B 249.677†	10181.2	9945.9	479.43 µg/L	479.43 ppb	14:47:26
3	Ba 233.527†	16803.1	16608.6	486.63 µg/L	486.63 ppb	14:47:26
3	Be 313.107†	711390.8	698519.9	488.84 µg/L	488.84 ppb	14:47:21
3	Cd 226.502†	16330.7	16243.7	484.30 µg/L	484.30 ppb	14:47:26
3	Co 228.616†	8716.2	8648.2	481.57 µg/L	481.57 ppb	14:47:26
3	Cr 267.716†	20526.5	20332.9	474.33 µg/L	474.33 ppb	14:47:26
3	Cu 324.752†	69123.3	64466.0	468.12 µg/L	468.12 ppb	14:47:26
3	Mn 257.610†	129565.9	128078.8	476.90 µg/L	476.90 ppb	14:47:26
3	Mo 202.031†	3553.0	3494.4	440.50 µg/L	440.50 ppb	14:47:47
3	Ni 231.604†	8025.9	7597.6	482.22 µg/L	482.22 ppb	14:47:26
3	P 214.914†	1188.0	972.9	2296.2 µg/L	2296.2 ppb	14:47:47
3	Pb 220.353†	1670.8	1585.4	469.02 µg/L	469.02 ppb	14:47:47
3	S 181.975 Axial†	191.0	164.6	940.51 µg/L	940.51 ppb	14:47:47
3	Sb 206.836†	450.5	423.1	468.92 µg/L	468.92 ppb	14:47:47
3	Se 196.026†	314.5	300.8	488.36 µg/L	488.36 ppb	14:47:47
3	SiO2†	27595.8	24966.4	5256.5 µg/L	5256.5 ppb	14:47:26
3	Si 251.611†	30037.1	29361.0	2457.2 µg/L	2457.2 ppb	14:47:26
3	Sn 189.927†	792.7	761.2	454.86 µg/L	454.86 ppb	14:47:47
3	Ti 334.940†	198430.4	195110.1	486.43 µg/L	486.43 ppb	14:47:21
3	Tl 190.801†	261.4	279.9	489.90 µg/L	489.90 ppb	14:47:47
3	U 409.014†	4932.4	5025.3	469.66 µg/L	469.66 ppb	14:47:26
3	V 292.402†	38855.7	38489.0	483.37 µg/L	483.37 ppb	14:47:26
3	Zn 213.857†	17463.5	16588.4	480.28 µg/L	480.28 ppb	14:47:26

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1863658.4	101.07 %	0.224			0.22%
Sc RADIAL	75973.1	103 %	0.8			0.76%
Y 371.029	1177823.1	100.57 %	0.239			0.24%
Ag 328.068†	54161.8	503.74 µg/L	9.673	503.74 ppb	9.673	1.92%
QC value within limits for Ag 328.068 Recovery = 100.75%						
Al 396.153Radial†	7481.3	5162.7 µg/L	39.12	5162.7 ppb	39.12	0.76%
QC value within limits for Al 396.153Radial Recovery = 103.25%						
As 188.979†	219.0	502.70 µg/L	35.854	502.70 ppb	35.854	7.13%
QC value within limits for As 188.979 Recovery = 100.54%						
B 249.677†	10201.0	491.81 µg/L	10.832	491.81 ppb	10.832	2.20%
QC value within limits for B 249.677 Recovery = 98.36%						
Ba 233.527†	17207.8	504.20 µg/L	15.224	504.20 ppb	15.224	3.02%
QC value within limits for Ba 233.527 Recovery = 100.84%						
Be 313.107†	715256.0	500.55 µg/L	10.143	500.55 ppb	10.143	2.03%
QC value within limits for Be 313.107 Recovery = 100.11%						
Ca 317.933Radial†	6494.2	5180.8 µg/L	37.79	5180.8 ppb	37.79	0.73%
QC value within limits for Ca 317.933Radial Recovery = 103.62%						
Cd 226.502†	16845.2	502.26 µg/L	15.584	502.26 ppb	15.584	3.10%
QC value within limits for Cd 226.502 Recovery = 100.45%						
Co 228.616†	9027.7	502.74 µg/L	18.395	502.74 ppb	18.395	3.66%



QC value within limits for Co 228.616 Recovery = 100.55%

Cr 267.716†	21485.2	501.21 µg/L	23.282	501.21 ppb	23.282	4.65%
QC value within limits for Cr 267.716 Recovery = 100.24%						
Cu 324.752†	67220.1	488.09 µg/L	17.344	488.09 ppb	17.344	3.55%
QC value within limits for Cu 324.752 Recovery = 97.62%						
Fe 238.204 Radial†	368.8	5367.1 µg/L	28.14	5367.1 ppb	28.14	0.52%
QC value within limits for Fe 238.204 Radial Recovery = 107.34%						
K 766.490 Radial†	7681.3	4986.0 µg/L	22.56	4986.0 ppb	22.56	0.45%
QC value within limits for K 766.490 Radial Recovery = 99.72%						
Mg 279.077 IEC†	482.5	5283.5 µg/L	59.05	5283.5 ppb	59.05	1.12%
QC value within limits for Mg 279.077 IEC Recovery = 105.67%						
Mn 257.610†	133770.4	498.07 µg/L	18.357	498.07 ppb	18.357	3.69%
QC value within limits for Mn 257.610 Recovery = 99.61%						
Mo 202.031†	3862.6	486.90 µg/L	40.199	486.90 ppb	40.199	8.26%
QC value within limits for Mo 202.031 Recovery = 97.38%						
Na 589.592 Radial†	35109.2	9942.9 µg/L	69.66	9942.9 ppb	69.66	0.70%
QC value within limits for Na 589.592 Radial Recovery = 99.43%						
Ni 231.604†	7926.7	503.10 µg/L	18.116	503.10 ppb	18.116	3.60%
QC value within limits for Ni 231.604 Recovery = 100.62%						
P 214.914†	1065.0	2516.6 µg/L	190.98	2516.6 ppb	190.98	7.59%
QC value within limits for P 214.914 Recovery = 100.67%						
Pb 220.353†	1707.1	505.08 µg/L	31.235	505.08 ppb	31.235	6.18%
QC value within limits for Pb 220.353 Recovery = 101.02%						
S 181.975 Axial†	174.9	999.37 µg/L	51.072	999.37 ppb	51.072	5.11%
QC value within limits for S 181.975 Axial Recovery = 99.94%						
Sb 206.836†	457.8	507.78 µg/L	33.925	507.78 ppb	33.925	6.68%
QC value within limits for Sb 206.836 Recovery = 101.56%						
Se 196.026†	321.0	519.97 µg/L	27.374	519.97 ppb	27.374	5.26%
QC value within limits for Se 196.026 Recovery = 103.99%						
SiO2†	25740.6	5419.5 µg/L	141.17	5419.5 ppb	141.17	2.60%
QC value within limits for SiO2 Recovery = 101.35%						
Si 251.611†	30287.8	2534.8 µg/L	67.33	2534.8 ppb	67.33	2.66%
QC value within limits for Si 251.611 Recovery = 101.39%						
Sn 189.927†	846.7	505.68 µg/L	44.017	505.68 ppb	44.017	8.70%
QC value within limits for Sn 189.927 Recovery = 101.14%						
Sr 421.552†	79771.0	496.89 µg/L	3.302	496.89 ppb	3.302	0.66%
QC value within limits for Sr 421.552 Recovery = 99.38%						
Ti 334.940†	200200.9	499.13 µg/L	10.996	499.13 ppb	10.996	2.20%
QC value within limits for Ti 334.940 Recovery = 99.83%						
Tl 190.801†	289.1	505.94 µg/L	14.347	505.94 ppb	14.347	2.84%
QC value within limits for Tl 190.801 Recovery = 101.19%						
U 409.014†	5325.4	497.77 µg/L	24.552	497.77 ppb	24.552	4.93%
QC value within limits for U 409.014 Recovery = 99.55%						
V 292.402†	40351.4	506.96 µg/L	20.444	506.96 ppb	20.444	4.03%
QC value within limits for V 292.402 Recovery = 101.39%						
Zn 213.857†	17262.2	499.79 µg/L	16.937	499.79 ppb	16.937	3.39%
QC value within limits for Zn 213.857 Recovery = 99.96%						

All analyte(s) passed QC.

Sequence No.: 30

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/26/2010 14:47:56

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	74809.5	74809.5	101 %		14:48:29
1	Al 396.153Radial†	7.4	28.1	19.411 µg/L	19.411 ppb	14:48:29
1	Ca 317.933Radial†	257.7	-3.2	-2.5696 µg/L	-2.5696 ppb	14:48:50
1	Fe 238.204 Radial†	19.9	3.1	45.641 µg/L	45.641 ppb	14:48:50
1	K 766.490 Radial†	411.0	-3.1	-2.0258 µg/L	-2.0258 ppb	14:48:29
1	Mg 279.077 IEC†	12.4	0.6	6.9186 µg/L	6.9186 ppb	14:48:50
1	Na 589.592 Radial†	528.1	-384.9	-108.99 µg/L	-108.99 ppb	14:48:29
1	Sr 421.552†	588.8	-7.3	-0.0457 µg/L	-0.0457 ppb	14:48:29
1	Sc 361.383	1875860.6	1875860.6	101.73 %		14:49:51
1	Y 371.029	1188476.9	1188476.9	101.48 %		14:49:51
1	Ag 328.068†	-119.8	-127.0	-1.1710 µg/L	-1.1710 ppb	14:49:57
1	As 188.979†	-6.2	-4.8	-11.110 µg/L	-11.110 ppb	14:50:17
1	B 249.677†	108.7	-7.2	-0.3739 µg/L	-0.3739 ppb	14:50:17
1	Ba 233.527†	-7.6	-1.9	-0.0570 µg/L	-0.0570 ppb	14:50:17
1	Be 313.107†	3987.1	-482.2	-0.3375 µg/L	-0.3375 ppb	14:49:57
1	Cd 226.502†	-115.2	-5.8	-0.1791 µg/L	-0.1791 ppb	14:50:17
1	Co 228.616†	-37.4	-1.0	-0.0541 µg/L	-0.0541 ppb	14:50:17
1	Cr 267.716†	-46.5	5.0	0.1169 µg/L	0.1169 ppb	14:50:17
1	Cu 324.752†	3847.0	-52.8	-0.3764 µg/L	-0.3764 ppb	14:49:57
1	Mn 257.610†	-52.3	4.1	0.0210 µg/L	0.0210 ppb	14:50:17
1	Mo 202.031†	24.2	7.5	0.9429 µg/L	0.9429 ppb	14:50:17
1	Ni 231.604†	323.3	-14.9	-0.9485 µg/L	-0.9485 ppb	14:50:17
1	P 214.914†	219.9	15.1	36.443 µg/L	36.443 ppb	14:50:17
1	Pb 220.353†	64.6	-2.0	-0.5989 µg/L	-0.5989 ppb	14:50:17
1	S 181.975 Axial†	21.4	-3.1	-17.993 µg/L	-17.993 ppb	14:50:17
1	Sb 206.836†	31.9	9.3	10.240 µg/L	10.240 ppb	14:50:17
1	Se 196.026†	9.3	-0.8	-1.0188 µg/L	-1.0188 ppb	14:50:17
1	SiO2†	2338.6	-2.0	-0.4143 µg/L	-0.4143 ppb	14:49:57
1	Si 251.611†	338.9	14.7	1.2320 µg/L	1.2320 ppb	14:50:17
1	Sn 189.927†	20.4	-2.0	-1.1621 µg/L	-1.1621 ppb	14:50:17
1	Ti 334.940†	898.9	-74.3	-0.1860 µg/L	-0.1860 ppb	14:49:57
1	Tl 190.801†	-22.2	-0.1	-0.1849 µg/L	-0.1849 ppb	14:50:17
1	U 409.014†	-113.8	39.7	3.7094 µg/L	3.7094 ppb	14:49:57
1	V 292.402†	-115.8	-17.9	-0.2090 µg/L	-0.2090 ppb	14:49:57
1	Zn 213.857†	642.1	-36.0	-1.0469 µg/L	-1.0469 ppb	14:50:17
2	Sc RADIAL	75042.4	75042.4	101 %		14:48:55
2	Al 396.153Radial†	-21.8	-0.7	-0.4838 µg/L	-0.4838 ppb	14:48:55
2	Ca 317.933Radial†	263.8	2.0	1.6126 µg/L	1.6126 ppb	14:49:15
2	Fe 238.204 Radial†	19.2	2.4	34.133 µg/L	34.133 ppb	14:49:15
2	K 766.490 Radial†	424.1	8.5	5.5288 µg/L	5.5288 ppb	14:48:55
2	Mg 279.077 IEC†	7.9	-3.9	-42.490 µg/L	-42.490 ppb	14:49:15
2	Na 589.592 Radial†	513.9	-400.5	-113.42 µg/L	-113.42 ppb	14:48:55
2	Sr 421.552†	552.7	-44.8	-0.2788 µg/L	-0.2788 ppb	14:48:55
2	Sc 361.383	1881627.2	1881627.2	102.04 %		14:50:23
2	Y 371.029	1193615.6	1193615.6	101.92 %		14:50:23
2	Ag 328.068†	-115.0	-121.9	-1.1230 µg/L	-1.1230 ppb	14:50:29
2	As 188.979†	0.8	2.1	4.7844 µg/L	4.7844 ppb	14:50:50
2	B 249.677†	105.7	-10.5	-0.5262 µg/L	-0.5262 ppb	14:50:50
2	Ba 233.527†	-8.0	-2.4	-0.0692 µg/L	-0.0692 ppb	14:50:50
2	Be 313.107†	3981.4	-499.8	-0.3498 µg/L	-0.3498 ppb	14:50:29
2	Cd 226.502†	-117.1	-7.3	-0.2224 µg/L	-0.2224 ppb	14:50:50
2	Co 228.616†	-44.7	-8.0	-0.4482 µg/L	-0.4482 ppb	14:50:50
2	Cr 267.716†	-67.6	-15.6	-0.3636 µg/L	-0.3636 ppb	14:50:50
2	Cu 324.752†	3778.1	-131.8	-0.9511 µg/L	-0.9511 ppb	14:50:29
2	Mn 257.610†	-45.6	10.8	0.0466 µg/L	0.0466 ppb	14:50:50
2	Mo 202.031†	13.6	-2.9	-0.3685 µg/L	-0.3685 ppb	14:50:50
2	Ni 231.604†	331.5	-7.9	-0.5010 µg/L	-0.5010 ppb	14:50:50
2	P 214.914†	225.4	19.8	47.866 µg/L	47.866 ppb	14:50:50
2	Pb 220.353†	59.1	-7.6	-2.2447 µg/L	-2.2447 ppb	14:50:50

2	S 181.975 Axial†	22.1	-2.5	-14.212 µg/L	-14.212 ppb	14:50:50
2	Sb 206.836†	25.9	3.3	3.6619 µg/L	3.6619 ppb	14:50:50
2	Se 196.026†	2.8	-7.2	-11.064 µg/L	-11.064 ppb	14:50:50
2	SiO2†	2306.4	-40.5	-8.5300 µg/L	-8.5300 ppb	14:50:29
2	Si 251.611†	344.5	19.1	1.6025 µg/L	1.6025 ppb	14:50:50
2	Sn 189.927†	26.0	3.5	2.0622 µg/L	2.0622 ppb	14:50:50
2	Ti 334.940†	900.6	-75.3	-0.1845 µg/L	-0.1845 ppb	14:50:29
2	Tl 190.801†	-23.7	-1.5	-2.6402 µg/L	-2.6402 ppb	14:50:50
2	U 409.014†	-126.2	27.9	2.6069 µg/L	2.6069 ppb	14:50:29
2	V 292.402†	-88.5	9.1	0.1145 µg/L	0.1145 ppb	14:50:29
2	Zn 213.857†	641.2	-38.8	-1.1272 µg/L	-1.1272 ppb	14:50:50
3	Sc RADIAL	74733.8	74733.8	101 %		14:49:21
3	Al 396.153Radial†	-34.7	-13.6	-9.3908 µg/L	-9.3908 ppb	14:49:21
3	Ca 317.933Radial†	249.3	-11.2	-8.9525 µg/L	-8.9525 ppb	14:49:41
3	Fe 238.204 Radial†	17.7	1.0	14.073 µg/L	14.073 ppb	14:49:41
3	K 766.490 Radial†	381.3	-32.2	-20.878 µg/L	-20.878 ppb	14:49:21
3	Mg 279.077 IEC†	8.5	-3.3	-35.831 µg/L	-35.831 ppb	14:49:41
3	Na 589.592 Radial†	513.0	-399.3	-113.07 µg/L	-113.07 ppb	14:49:21
3	Sr 421.552†	569.8	-25.5	-0.1588 µg/L	-0.1588 ppb	14:49:21
3	Sc 361.383	1865463.8	1865463.8	101.17 %		14:50:56
3	Y 371.029	1182694.5	1182694.5	100.98 %		14:50:56
3	Ag 328.068†	-93.2	-101.4	-0.9360 µg/L	-0.9360 ppb	14:51:01
3	As 188.979†	-5.1	-3.8	-8.6930 µg/L	-8.6930 ppb	14:51:22
3	B 249.677†	118.6	3.1	0.1413 µg/L	0.1413 ppb	14:51:22
3	Ba 233.527†	-13.4	-7.8	-0.2273 µg/L	-0.2273 ppb	14:51:22
3	Be 313.107†	3989.4	-458.1	-0.3207 µg/L	-0.3207 ppb	14:51:01
3	Cd 226.502†	-118.2	-9.3	-0.2808 µg/L	-0.2808 ppb	14:51:22
3	Co 228.616†	-41.5	-5.3	-0.2940 µg/L	-0.2940 ppb	14:51:22
3	Cr 267.716†	-68.5	-17.0	-0.3964 µg/L	-0.3964 ppb	14:51:22
3	Cu 324.752†	3724.2	-153.1	-1.1080 µg/L	-1.1080 ppb	14:51:01
3	Mn 257.610†	-66.4	-10.1	-0.0343 µg/L	-0.0343 ppb	14:51:22
3	Mo 202.031†	14.7	-1.7	-0.2173 µg/L	-0.2173 ppb	14:51:22
3	Ni 231.604†	327.4	-9.1	-0.5802 µg/L	-0.5802 ppb	14:51:22
3	P 214.914†	220.8	17.3	41.704 µg/L	41.704 ppb	14:51:22
3	Pb 220.353†	68.1	1.9	0.5487 µg/L	0.5487 ppb	14:51:22
3	S 181.975 Axial†	23.4	-1.0	-5.8598 µg/L	-5.8598 ppb	14:51:22
3	Sb 206.836†	25.0	2.6	2.8700 µg/L	2.8700 ppb	14:51:22
3	Se 196.026†	3.5	-6.4	-9.9613 µg/L	-9.9613 ppb	14:51:22
3	SiO2†	2312.8	-14.7	-3.0944 µg/L	-3.0944 ppb	14:51:01
3	Si 251.611†	341.0	18.6	1.5594 µg/L	1.5594 ppb	14:51:22
3	Sn 189.927†	26.0	3.6	2.1504 µg/L	2.1504 ppb	14:51:22
3	Ti 334.940†	945.5	-23.3	-0.0554 µg/L	-0.0554 ppb	14:51:01
3	Tl 190.801†	-18.1	3.8	6.6725 µg/L	6.6725 ppb	14:51:22
3	U 409.014†	-96.6	56.1	5.2544 µg/L	5.2544 ppb	14:51:01
3	V 292.402†	-103.4	-6.4	-0.0755 µg/L	-0.0755 ppb	14:51:01
3	Zn 213.857†	655.2	-19.6	-0.5645 µg/L	-0.5645 ppb	14:51:22

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1874317.2	101.65 %	0.444			0.44%
Sc RADIAL	74861.9	101 %	0.2			0.21%
Y 371.029	1188262.3	101.46 %	0.467			0.46%
Ag 328.068†	-116.8	-1.0767 µg/L	0.12415	-1.0767 ppb	0.12415	11.53%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	4.6	3.1789 µg/L	14.74626	3.1789 ppb	14.74626	463.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.2	-5.0063 µg/L	8.56465	-5.0063 ppb	8.56465	171.08%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-4.9	-0.2529 µg/L	0.34979	-0.2529 ppb	0.34979	138.29%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-4.0	-0.1178 µg/L	0.09497	-0.1178 ppb	0.09497	80.60%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-480.0	-0.3360 µg/L	0.01463	-0.3360 ppb	0.01463	4.36%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-4.1	-3.3032 µg/L	5.32063	-3.3032 ppb	5.32063	161.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-7.5	-0.2274 µg/L	0.05107	-0.2274 ppb	0.05107	22.46%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-4.8	-0.2654 µg/L	0.19863	-0.2654 ppb	0.19863	74.84%

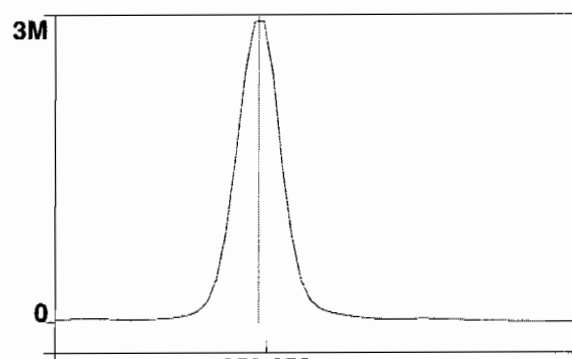
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-9.2	-0.2144 µg/L	0.28738	-0.2144 ppb	0.28738	134.06%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-112.6	-0.8118 µg/L	0.38516	-0.8118 ppb	0.38516	47.44%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	2.2	31.283 µg/L	15.9758	31.283 ppb	15.9758	51.07%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-8.9	-5.7916 µg/L	13.60012	-5.7916 ppb	13.60012	234.82%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-2.2	-23.801 µg/L	26.8115	-23.801 ppb	26.8115	112.65%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	1.6	0.0111 µg/L	0.04135	0.0111 ppb	0.04135	373.35%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	0.9	0.1190 µg/L	0.71752	0.1190 ppb	0.71752	602.73%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-394.9	-111.83 µg/L	2.465	-111.83 ppb	2.465	2.20%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-10.7	-0.6766 µg/L	0.23883	-0.6766 ppb	0.23883	35.30%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	17.4	42.004 µg/L	5.7176	42.004 ppb	5.7176	13.61%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-2.6	-0.7649 µg/L	1.40407	-0.7649 ppb	1.40407	183.55%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-2.2	-12.688 µg/L	6.2082	-12.688 ppb	6.2082	48.93%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	5.1	5.5907 µg/L	4.04595	5.5907 ppb	4.04595	72.37%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-4.8	-7.3480 µg/L	5.50887	-7.3480 ppb	5.50887	74.97%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-19.1	-4.0129 µg/L	4.13509	-4.0129 ppb	4.13509	103.04%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	17.5	1.4646 µg/L	0.20264	1.4646 ppb	0.20264	13.84%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	1.7	1.0168 µg/L	1.88753	1.0168 ppb	1.88753	185.63%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-25.9	-0.1611 µg/L	0.11660	-0.1611 ppb	0.11660	72.37%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-57.6	-0.1419 µg/L	0.07498	-0.1419 ppb	0.07498	52.82%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	0.7	1.2825 µg/L	4.82664	1.2825 ppb	4.82664	376.36%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	41.2	3.8569 µg/L	1.32991	3.8569 ppb	1.32991	34.48%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-5.1	-0.0567 µg/L	0.16257	-0.0567 ppb	0.16257	286.89%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-31.4	-0.9129 µg/L	0.30435	-0.9129 ppb	0.30435	33.34%
QC value within limits for Zn 213.857 Recovery = Not calculated						
All analyte(s) passed QC.						

Method: Hg\_ReAlign  
Result: 012810

Sample ID: Hg\_ReAlign

Hg 253.652

Rep: 1



Intensity: 3295885.3 cps

Conc:

1

## =====

Reprocessing Begun

Logged In Analyst: Optima3

Technique: ICP Continuous

Results Data Set (original): 012510

Results Library (original): C:\pe\Optima3\Results\Results.mdb

Results Data Set (reprocessed): 012510A

Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

## =====

Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 1/25/2010 09:50:48

IEC File: 011110.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

=====

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 1/25/2010 07:43:34

Analyst:

Data Type: Reprocessed on 1/25/2010 09:52:59

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	877591.8	877591.8	100.63 %	07:46:43
1	Sc Radial	5475.1	5475.1	102 %	07:45:26
1	Y 371.029	787434.3	787434.3	100.77 %	07:46:43
1	Y RADIAL	5896.3	5896.3	101.6 %	07:45:26
1	Ag 328.068†	228.6	227.1	[0.00] ug/L	07:46:43

1	Al 396.153Radial†	8.6	8.5	[0.00]	ug/L	07:45:46
1	As 188.979†	-27.0	-26.8	[0.00]	ug/L	07:47:03
1	B 249.677†	-305.5	-303.6	[0.00]	ug/L	07:47:03
1	Ba 233.527†	2.5	2.5	[0.00]	ug/L	07:47:03
1	Be 313.107†	-5650.4	-5614.8	[0.00]	ug/L	07:46:43
1	Ca 317.933Radial†	19.1	18.8	[0.00]	ug/L	07:45:46
1	Cd 226.502†	-181.2	-180.1	[0.00]	ug/L	07:47:03
1	Co 228.616†	-60.4	-60.0	[0.00]	ug/L	07:47:03
1	Cr 267.716†	86.5	86.0	[0.00]	ug/L	07:47:03
1	Cu 324.752†	9914.5	9852.2	[0.00]	ug/L	07:46:43
1	Fe 238.204 Radial†	9.1	8.9	[0.00]	ug/L	07:45:46
1	K 766.490 Radial†	1972.9	1943.2	[0.00]	ug/L	07:45:26
1	Mg 279.077 IEC†	1.9	1.8	[0.00]	ug/L	07:45:46
1	Mn 257.610†	557.8	554.3	[0.00]	ug/L	07:47:03
1	Mo 202.031†	28.0	27.8	[0.00]	ug/L	07:47:03
1	Na 589.592 Radial†	-439.3	-432.7	[0.00]	ug/L	07:45:26
1	Ni 231.604†	118.3	117.6	[0.00]	ug/L	07:47:03
1	P 214.914†	221.5	220.1	[0.00]	ug/L	07:47:03
1	Pb 220.353†	-43.6	-43.3	[0.00]	ug/L	07:47:03
1	S 181.975 Axial†	45.1	44.8	[0.00]	ug/L	07:47:03
1	Sb 206.836†	35.1	34.9	[0.00]	ug/L	07:47:03
1	Se 196.026†	-17.4	-17.3	[0.00]	ug/L	07:47:03
1	Si 251.611†	571.1	567.5	[0.00]	ug/L	07:47:03
1	Sn 189.927†	9.4	9.4	[0.00]	ug/L	07:47:03
1	Sr 421.552†	9.7	9.6	[0.00]	ug/L	07:45:26
1	Ti 334.940†	-861.9	-856.5	[0.00]	ug/L	07:46:43
1	Tl 190.801†	-20.9	-20.8	[0.00]	ug/L	07:47:03
1	U 409.014†	-955.0	-949.0	[0.00]	ug/L	07:46:43
1	V 292.402†	-1390.0	-1381.3	[0.00]	ug/L	07:46:43
1	Zn 213.857†	659.4	655.2	[0.00]	ug/L	07:47:03
1	SiO2†	581.3	577.7	[0.00]	ug/L	07:48:14
2	Sc 361.383	867027.3	867027.3	99.421	%	07:47:08
2	Sc Radial	5334.2	5334.2	98.9	%	07:45:51
2	Y 371.029	775786.9	775786.9	99.279	%	07:47:08
2	Y RADIAL	5773.4	5773.4	99.45	%	07:45:51
2	Ag 328.068†	349.3	351.4	[0.00]	ug/L	07:47:08
2	Al 396.153Radial†	1.1	1.1	[0.00]	ug/L	07:46:11
2	As 188.979†	-32.6	-32.8	[0.00]	ug/L	07:47:28
2	B 249.677†	-301.2	-303.0	[0.00]	ug/L	07:47:28
2	Ba 233.527†	-2.8	-2.8	[0.00]	ug/L	07:47:28
2	Be 313.107†	-5590.1	-5622.6	[0.00]	ug/L	07:47:08
2	Ca 317.933Radial†	19.5	19.7	[0.00]	ug/L	07:46:11
2	Cd 226.502†	-168.6	-169.6	[0.00]	ug/L	07:47:28
2	Co 228.616†	-60.4	-60.8	[0.00]	ug/L	07:47:28
2	Cr 267.716†	73.6	74.0	[0.00]	ug/L	07:47:28
2	Cu 324.752†	9807.9	9865.1	[0.00]	ug/L	07:47:08
2	Fe 238.204 Radial†	8.1	8.2	[0.00]	ug/L	07:46:11
2	K 766.490 Radial†	1935.5	1956.7	[0.00]	ug/L	07:45:51
2	Mg 279.077 IEC†	4.2	4.2	[0.00]	ug/L	07:46:11
2	Mn 257.610†	562.8	566.1	[0.00]	ug/L	07:47:28
2	Mo 202.031†	26.6	26.8	[0.00]	ug/L	07:47:28
2	Na 589.592 Radial†	-399.4	-403.8	[0.00]	ug/L	07:45:51
2	Ni 231.604†	107.6	108.2	[0.00]	ug/L	07:47:28
2	P 214.914†	217.1	218.4	[0.00]	ug/L	07:47:28
2	Pb 220.353†	-46.8	-47.0	[0.00]	ug/L	07:47:28
2	S 181.975 Axial†	38.9	39.1	[0.00]	ug/L	07:47:28
2	Sb 206.836†	38.9	39.1	[0.00]	ug/L	07:47:28
2	Se 196.026†	-10.7	-10.8	[0.00]	ug/L	07:47:28
2	Si 251.611†	562.1	565.3	[0.00]	ug/L	07:47:28
2	Sn 189.927†	-3.6	-3.7	[0.00]	ug/L	07:47:28
2	Sr 421.552†	21.4	21.6	[0.00]	ug/L	07:45:51
2	Ti 334.940†	-1022.8	-1028.7	[0.00]	ug/L	07:47:08
2	Tl 190.801†	-34.8	-35.0	[0.00]	ug/L	07:47:28
2	U 409.014†	-843.1	-848.0	[0.00]	ug/L	07:47:08
2	V 292.402†	-1451.0	-1459.5	[0.00]	ug/L	07:47:08
2	Zn 213.857†	665.2	669.1	[0.00]	ug/L	07:47:28
2	SiO2†	577.5	580.9	[0.00]	ug/L	07:48:34
3	Sc 361.383	871613.3	871613.3	99.947	%	07:47:33
3	Sc Radial	5368.9	5368.9	99.6	%	07:46:16
3	Y 371.029	781039.2	781039.2	99.951	%	07:47:33
3	Y RADIAL	5746.0	5746.0	98.98	%	07:46:16

3	Ag 328.068†	305.2	305.3	[0.00]	ug/L	07:47:33
3	Al 396.153Radial†	2.7	2.7	[0.00]	ug/L	07:46:36
3	As 188.979†	-32.3	-32.3	[0.00]	ug/L	07:47:53
3	B 249.677†	-322.3	-322.5	[0.00]	ug/L	07:47:53
3	Ba 233.527†	-16.2	-16.2	[0.00]	ug/L	07:47:53
3	Be 313.107†	-5537.9	-5540.9	[0.00]	ug/L	07:47:33
3	Ca 317.933Radial†	19.5	19.6	[0.00]	ug/L	07:46:36
3	Cd 226.502†	-187.9	-188.0	[0.00]	ug/L	07:47:53
3	Co 228.616†	-56.4	-56.4	[0.00]	ug/L	07:47:53
3	Cr 267.716†	78.5	78.6	[0.00]	ug/L	07:47:53
3	Cu 324.752†	9796.7	9801.9	[0.00]	ug/L	07:47:33
3	Fe 238.204 Radial†	6.9	6.9	[0.00]	ug/L	07:46:36
3	K 766.490 Radial†	2003.1	2012.0	[0.00]	ug/L	07:46:16
3	Mg 279.077 IEC†	1.1	1.1	[0.00]	ug/L	07:46:36
3	Mn 257.610†	553.0	553.3	[0.00]	ug/L	07:47:53
3	Mo 202.031†	8.5	8.5	[0.00]	ug/L	07:47:53
3	Na 589.592 Radial†	-431.7	-433.6	[0.00]	ug/L	07:46:16
3	Ni 231.604†	90.0	90.0	[0.00]	ug/L	07:47:53
3	P 214.914†	222.9	223.1	[0.00]	ug/L	07:47:53
3	Pb 220.353†	-45.8	-45.8	[0.00]	ug/L	07:47:53
3	S 181.975 Axial†	40.3	40.3	[0.00]	ug/L	07:47:53
3	Sb 206.836†	34.2	34.2	[0.00]	ug/L	07:47:53
3	Se 196.026†	-14.2	-14.2	[0.00]	ug/L	07:47:53
3	Si 251.611†	570.7	571.0	[0.00]	ug/L	07:47:53
3	Sn 189.927†	-1.3	-1.3	[0.00]	ug/L	07:47:53
3	Sr 421.552†	13.9	13.9	[0.00]	ug/L	07:46:16
3	Ti 334.940†	-864.8	-865.2	[0.00]	ug/L	07:47:33
3	Tl 190.801†	-35.7	-35.7	[0.00]	ug/L	07:47:53
3	U 409.014†	-988.1	-988.6	[0.00]	ug/L	07:47:33
3	V 292.402†	-1347.4	-1348.1	[0.00]	ug/L	07:47:33
3	Zn 213.857†	662.3	662.6	[0.00]	ug/L	07:47:53
3	SiO2†	579.9	580.2	[0.00]	ug/L	07:48:54

## Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	872077.5	5297.53	0.61%	100.00	%
Sc Radial	5392.7	73.42	1.36%	100	%
Y 371.029	781420.1	5833.05	0.75%	100.00	%
Y RADIAL	5805.2	80.04	1.38%	100.0	%
Ag 328.068†	294.6	62.81	21.32%	[0.00]	ug/L
Al 396.153Radial†	4.1	3.89	95.24%	[0.00]	ug/L
As 188.979†	-30.6	3.32	10.83%	[0.00]	ug/L
B 249.677†	-309.7	11.10	3.58%	[0.00]	ug/L
Ba 233.527†	-5.5	9.63	175.48%	[0.00]	ug/L
Be 313.107†	-5592.8	45.12	0.81%	[0.00]	ug/L
Ca 317.933Radial†	19.4	0.51	2.62%	[0.00]	ug/L
Cd 226.502†	-179.3	9.23	5.15%	[0.00]	ug/L
Co 228.616†	-59.1	2.34	3.96%	[0.00]	ug/L
Cr 267.716†	79.5	6.02	7.57%	[0.00]	ug/L
Cu 324.752†	9839.7	33.38	0.34%	[0.00]	ug/L
Fe 238.204 Radial†	8.0	1.02	12.71%	[0.00]	ug/L
K 766.490 Radial†	1970.6	36.44	1.85%	[0.00]	ug/L
Mg 279.077 IEC†	2.4	1.62	67.38%	[0.00]	ug/L
Mn 257.610†	557.9	7.09	1.27%	[0.00]	ug/L
Mo 202.031†	21.0	10.85	51.55%	[0.00]	ug/L
Na 589.592 Radial†	-423.4	16.96	4.01%	[0.00]	ug/L
Ni 231.604†	105.3	14.00	13.30%	[0.00]	ug/L
P 214.914†	220.5	2.37	1.07%	[0.00]	ug/L
Pb 220.353†	-45.4	1.91	4.21%	[0.00]	ug/L
S 181.975 Axial†	41.4	3.01	7.27%	[0.00]	ug/L
Sb 206.836†	36.0	2.66	7.39%	[0.00]	ug/L
Se 196.026†	-14.1	3.26	23.11%	[0.00]	ug/L
Si 251.611†	567.9	2.85	0.50%	[0.00]	ug/L
Sn 189.927†	1.5	6.95	467.82%	[0.00]	ug/L
Sr 421.552†	15.0	6.09	40.47%	[0.00]	ug/L
Ti 334.940†	-916.8	97.03	10.58%	[0.00]	ug/L
Tl 190.801†	-30.5	8.42	27.64%	[0.00]	ug/L
U 409.014†	-928.5	72.51	7.81%	[0.00]	ug/L
V 292.402†	-1396.3	57.19	4.10%	[0.00]	ug/L



Zn 213.857†	662.3	6.93	1.05%	[0.00] ug/L
SiO2†	579.6	1.70	0.29%	[0.00] ug/L

Sequence No.: 2  
 Sample ID: S0.1  
 Analyst:  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 1/25/2010 07:51:04  
 Data Type: Reprocessed on 1/25/2010 09:53:02  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	876654.6	876654.6	100.52 %	07:53:13
1	Sc Radial	5353.1	5353.1	99.3 %	07:52:56
1	Y 371.029	785723.9	785723.9	100.55 %	07:53:13
1	Y RADIAL	5730.8	5730.8	98.72 %	07:52:56
1	Ag 328.068†	23528.9	23111.5	[100] ug/L	07:53:13
1	As 188.979†	190.0	219.6	[100] ug/L	07:53:33
1	B 249.677†	3863.1	4152.6	[100] ug/L	07:53:13
1	Ba 233.527†	11953.1	11896.2	[100] ug/L	07:53:13
1	Be 313.107†	262389.2	266612.0	[100] ug/L	07:53:13
1	Cd 226.502†	8165.0	8301.6	[100] ug/L	07:53:13
1	Co 228.616†	4206.5	4243.6	[100] ug/L	07:53:33
1	Cr 267.716†	8778.7	8653.4	[100] ug/L	07:53:13
1	Cu 324.752†	44613.1	34540.4	[100] ug/L	07:53:13
1	K 766.490 Radial†	7287.0	5370.3	[1000] ug/L	07:52:56
1	Mn 257.610†	85520.9	84516.5	[100] ug/L	07:53:13
1	Mo 202.031†	1394.6	1366.2	[100] ug/L	07:53:33
1	Ni 231.604†	3764.5	3639.6	[100] ug/L	07:53:33
1	P 214.914†	1042.5	816.5	[500] ug/L	07:53:33
1	Pb 220.353†	688.2	729.9	[100] ug/L	07:53:33
1	S 181.975 Axial†	165.3	123.0	[200] ug/L	07:53:33
1	Sb 206.836†	300.3	262.7	[100] ug/L	07:53:33
1	Se 196.026†	142.0	155.3	[100] ug/L	07:53:33
1	Si 251.611†	16428.7	15775.0	[500] ug/L	07:53:13
1	Sn 189.927†	486.8	482.7	[100] ug/L	07:53:33
1	Sr 421.552†	15217.0	15314.7	[100] ug/L	07:52:56
1	Ti 334.940†	63120.8	63708.0	[100] ug/L	07:53:13
1	Tl 190.801†	255.1	284.3	[100] ug/L	07:53:33
1	U 409.014†	2919.8	3833.0	[100] ug/L	07:53:13
1	V 292.402†	13704.3	15029.0	[100] ug/L	07:53:13
1	Zn 213.857†	10823.7	10104.8	[100] ug/L	07:53:13
1	SiO2†	16417.6	15752.3	[1069.5] ug/L	07:54:30
2	Sc 361.383	872646.3	872646.3	100.07 %	07:53:39
2	Sc Radial	5215.0	5215.0	96.7 %	07:53:01
2	Y 371.029	780895.8	780895.8	99.933 %	07:53:39
2	Y RADIAL	5648.6	5648.6	97.30 %	07:53:01
2	Ag 328.068†	23374.3	23064.5	[100] ug/L	07:53:39
2	As 188.979†	196.5	227.0	[100] ug/L	07:53:59
2	B 249.677†	3851.4	4158.6	[100] ug/L	07:53:39
2	Ba 233.527†	11811.3	11809.1	[100] ug/L	07:53:39
2	Be 313.107†	259637.0	265060.6	[100] ug/L	07:53:39
2	Cd 226.502†	8088.1	8262.1	[100] ug/L	07:53:39
2	Co 228.616†	4184.3	4240.6	[100] ug/L	07:53:59
2	Cr 267.716†	8685.1	8599.9	[100] ug/L	07:53:39
2	Cu 324.752†	44186.2	34317.7	[100] ug/L	07:53:39
2	K 766.490 Radial†	7259.8	5536.6	[1000] ug/L	07:53:01
2	Mn 257.610†	84633.8	84020.8	[100] ug/L	07:53:39
2	Mo 202.031†	1387.3	1365.4	[100] ug/L	07:53:59
2	Ni 231.604†	3736.8	3629.1	[100] ug/L	07:53:59
2	P 214.914†	1020.3	799.1	[500] ug/L	07:53:59
2	Pb 220.353†	680.7	725.7	[100] ug/L	07:53:59
2	S 181.975 Axial†	167.7	126.2	[200] ug/L	07:53:59
2	Sb 206.836†	300.7	264.4	[100] ug/L	07:53:59
2	Se 196.026†	137.0	151.0	[100] ug/L	07:53:59
2	Si 251.611†	16265.5	15686.9	[500] ug/L	07:53:39
2	Sn 189.927†	485.2	483.4	[100] ug/L	07:53:59
2	Sr 421.552†	14879.0	15371.1	[100] ug/L	07:53:01
2	Ti 334.940†	62702.4	63578.4	[100] ug/L	07:53:39
2	Tl 190.801†	248.2	278.6	[100] ug/L	07:53:59

2	U 409.014†	3112.8	4039.3	[100]	ug/L	07:53:39
2	V 292.402†	13544.0	14931.4	[100]	ug/L	07:53:39
2	Zn 213.857†	10696.4	10027.1	[100]	ug/L	07:53:39
2	SiO2†	16153.6	15563.5	[1069.5]	ug/L	07:54:35
3	Sc 361.383	871679.0	871679.0	99.954	%	07:54:04
3	Sc Radial	5319.2	5319.2	98.6	%	07:53:06
3	Y 371.029	781484.3	781484.3	100.01	%	07:54:04
3	Y RADIAL	5705.7	5705.7	98.29	%	07:53:06
3	Ag 328.068†	23352.9	23068.9	[100]	ug/L	07:54:04
3	As 188.979†	187.1	217.8	[100]	ug/L	07:54:24
3	B 249.677†	3849.6	4161.1	[100]	ug/L	07:54:04
3	Ba 233.527†	11775.2	11786.1	[100]	ug/L	07:54:04
3	Be 313.107†	260119.9	265831.6	[100]	ug/L	07:54:04
3	Cd 226.502†	8066.5	8249.4	[100]	ug/L	07:54:04
3	Co 228.616†	4207.6	4268.6	[100]	ug/L	07:54:24
3	Cr 267.716†	8678.4	8602.8	[100]	ug/L	07:54:04
3	Cu 324.752†	44313.5	34494.1	[100]	ug/L	07:54:04
3	K 766.490 Radial†	7377.2	5508.5	[1000]	ug/L	07:53:06
3	Mn 257.610†	84487.5	83968.2	[100]	ug/L	07:54:04
3	Mo 202.031†	1395.3	1374.9	[100]	ug/L	07:54:24
3	Ni 231.604†	3754.9	3651.4	[100]	ug/L	07:54:24
3	P 214.914†	1024.8	804.8	[500]	ug/L	07:54:24
3	Pb 220.353†	705.5	751.2	[100]	ug/L	07:54:24
3	S 181.975 Axial†	178.6	137.3	[200]	ug/L	07:54:24
3	Sb 206.836†	302.9	267.0	[100]	ug/L	07:54:24
3	Se 196.026†	146.7	160.8	[100]	ug/L	07:54:24
3	Si 251.611†	16231.7	15671.2	[500]	ug/L	07:54:04
3	Sn 189.927†	495.9	494.7	[100]	ug/L	07:54:24
3	Sr 421.552†	15233.2	15428.6	[100]	ug/L	07:53:06
3	Ti 334.940†	62751.4	63696.9	[100]	ug/L	07:54:04
3	Tl 190.801†	246.5	277.1	[100]	ug/L	07:54:24
3	U 409.014†	3041.9	3971.8	[100]	ug/L	07:54:04
3	V 292.402†	13646.0	15048.5	[100]	ug/L	07:54:04
3	Zn 213.857†	10708.1	10050.7	[100]	ug/L	07:54:04
3	SiO2†	16325.9	15753.8	[1069.5]	ug/L	07:54:40

## Mean Data: S0.1

Analyte	Mean Corrected				Calib
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	873660.0	2638.11	0.30%	100.18	%
Sc Radial	5295.8	71.98	1.36%	98.2	%
Y 371.029	782701.3	2634.14	0.34%	100.16	%
Y RADIAL	5695.0	42.12	0.74%	98.10	%
Ag 328.068†	23081.6	25.94	0.11%	[100]	ug/L
As 188.979†	221.5	4.88	2.20%	[100]	ug/L
B 249.677†	4157.4	4.36	0.10%	[100]	ug/L
Ba 233.527†	11830.4	58.08	0.49%	[100]	ug/L
Be 313.107†	265834.7	775.73	0.29%	[100]	ug/L
Cd 226.502†	8271.0	27.20	0.33%	[100]	ug/L
Co 228.616†	4250.9	15.33	0.36%	[100]	ug/L
Cr 267.716†	8618.7	30.07	0.35%	[100]	ug/L
Cu 324.752†	34450.7	117.54	0.34%	[100]	ug/L
K 766.490 Radial†	5471.8	89.01	1.63%	[1000]	ug/L
Mn 257.610†	84168.5	302.54	0.36%	[100]	ug/L
Mo 202.031†	1368.8	5.24	0.38%	[100]	ug/L
Ni 231.604†	3640.1	11.13	0.31%	[100]	ug/L
P 214.914†	806.8	8.90	1.10%	[500]	ug/L
Pb 220.353†	735.6	13.67	1.86%	[100]	ug/L
S 181.975 Axial†	128.8	7.52	5.83%	[200]	ug/L
Sb 206.836†	264.7	2.17	0.82%	[100]	ug/L
Se 196.026†	155.7	4.94	3.17%	[100]	ug/L
Si 251.611†	15711.0	55.94	0.36%	[500]	ug/L
Sn 189.927†	486.9	6.71	1.38%	[100]	ug/L
Sr 421.552†	15371.5	56.96	0.37%	[100]	ug/L
Ti 334.940†	63661.1	71.84	0.11%	[100]	ug/L
Tl 190.801†	280.0	3.78	1.35%	[100]	ug/L
U 409.014†	3948.0	105.17	2.66%	[100]	ug/L
V 292.402†	15003.0	62.74	0.42%	[100]	ug/L
Zn 213.857†	10060.9	39.84	0.40%	[100]	ug/L
SiO2†	15689.8	109.45	0.70%	[1069.5]	ug/L

Sequence No.: 3  
 Sample ID: S0.5  
 Analyst:  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 1/25/2010 07:56:50  
 Data Type: Reprocessed on 1/25/2010 09:53:13  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	900164.6	900164.6	103.22 %	08:00:00
1	Sc Radial	5365.8	5365.8	99.5 %	07:58:43
1	Y 371.029	784849.6	784849.6	100.44 %	08:00:00
1	Y RADIAL	5758.0	5758.0	99.19 %	07:58:43
1	Ag 328.068†	116570.2	112638.4	[500] ug/L	08:00:05
1	Al 396.153Radial†	6259.9	6287.2	[5000] ug/L	07:58:43
1	As 188.979†	1113.0	1108.9	[500] ug/L	08:00:26
1	B 249.677†	21716.4	21348.5	[500] ug/L	08:00:05
1	Ba 233.527†	59876.5	58013.7	[500] ug/L	08:00:05
1	Be 313.107†	1337861.4	1301709.9	[500] ug/L	08:00:00
1	Ca 317.933Radial†	3032.9	3028.7	[5000] ug/L	07:59:03
1	Cd 226.502†	41508.5	40392.6	[500] ug/L	08:00:05
1	Co 228.616†	21863.8	21240.7	[500] ug/L	08:00:05
1	Cr 267.716†	43666.4	42224.4	[500] ug/L	08:00:05
1	Cu 324.752†	184711.2	169108.1	[500] ug/L	08:00:05
1	K 766.490 Radial†	28814.5	26988.4	[5000] ug/L	07:58:43
1	Mg 279.077 IEC†	141.1	139.4	[5000] ug/L	07:59:03
1	Mn 257.610†	418362.8	404751.1	[500] ug/L	08:00:00
1	Mo 202.031†	6931.8	6694.5	[500] ug/L	08:00:26
1	Ni 231.604†	18816.1	18123.7	[500] ug/L	08:00:05
1	P 214.914†	4329.5	3973.9	[2500] ug/L	08:00:26
1	Pb 220.353†	3638.7	3570.5	[500] ug/L	08:00:26
1	S 181.975 Axial†	718.5	654.7	[1000] ug/L	08:00:26
1	Sb 206.836†	1416.3	1336.0	[500] ug/L	08:00:26
1	Se 196.026†	811.2	800.0	[500] ug/L	08:00:26
1	Si 251.611†	80867.0	77775.8	[2500] ug/L	08:00:05
1	Sn 189.927†	2494.2	2414.9	[500] ug/L	08:00:26
1	Sr 421.552†	77216.0	77588.3	[500] ug/L	07:58:43
1	Ti 334.940†	316081.8	307136.1	[500] ug/L	08:00:05
1	Tl 190.801†	1435.6	1421.2	[500] ug/L	08:00:26
1	U 409.014†	19058.8	19392.7	[500] ug/L	08:00:05
1	V 292.402†	75236.2	74284.9	[500] ug/L	08:00:05
1	Zn 213.857†	51478.1	49209.5	[500] ug/L	08:00:05
1	SiO2†	80186.6	77105.0	[5347.5] ug/L	08:01:33
2	Sc 361.383	896566.0	896566.0	102.81 %	08:00:31
2	Sc Radial	5389.2	5389.2	99.9 %	07:59:08
2	Y 371.029	781006.7	781006.7	99.947 %	08:00:31
2	Y RADIAL	5783.3	5783.3	99.62 %	07:59:08
2	Ag 328.068†	115133.6	111694.2	[500] ug/L	08:00:36
2	Al 396.153Radial†	6341.8	6341.8	[5000] ug/L	07:59:08
2	As 188.979†	1109.4	1109.7	[500] ug/L	08:00:57
2	B 249.677†	21393.3	21118.7	[500] ug/L	08:00:36
2	Ba 233.527†	59001.6	57395.5	[500] ug/L	08:00:36
2	Be 313.107†	1329998.7	1299264.4	[500] ug/L	08:00:31
2	Ca 317.933Radial†	3025.7	3008.3	[5000] ug/L	07:59:28
2	Cd 226.502†	40969.4	40029.6	[500] ug/L	08:00:36
2	Co 228.616†	21560.0	21030.1	[500] ug/L	08:00:36
2	Cr 267.716†	43153.2	41895.0	[500] ug/L	08:00:36
2	Cu 324.752†	181457.2	166661.3	[500] ug/L	08:00:36
2	K 766.490 Radial†	29079.4	27127.6	[5000] ug/L	07:59:08
2	Mg 279.077 IEC†	140.8	138.5	[5000] ug/L	07:59:28
2	Mn 257.610†	416081.6	404158.9	[500] ug/L	08:00:31
2	Mo 202.031†	6923.7	6713.5	[500] ug/L	08:00:57
2	Ni 231.604†	18604.1	17990.6	[500] ug/L	08:00:36
2	P 214.914†	4332.5	3993.7	[2500] ug/L	08:00:57
2	Pb 220.353†	3625.5	3571.8	[500] ug/L	08:00:57
2	S 181.975 Axial†	714.7	653.8	[1000] ug/L	08:00:57
2	Sb 206.836†	1415.2	1340.5	[500] ug/L	08:00:57

2	Se 196.026†	792.5	784.9	[500]	ug/L	08:00:57
2	Si 251.611†	79521.6	76781.6	[2500]	ug/L	08:00:36
2	Sn 189.927†	2489.1	2419.7	[500]	ug/L	08:00:57
2	Sr 421.552†	77444.8	77480.0	[500]	ug/L	07:59:08
2	Ti 334.940†	311518.3	303926.4	[500]	ug/L	08:00:36
2	Tl 190.801†	1436.2	1427.4	[500]	ug/L	08:00:57
2	U 409.014†	18636.4	19055.9	[500]	ug/L	08:00:36
2	V 292.402†	74283.0	73650.3	[500]	ug/L	08:00:36
2	Zn 213.857†	50726.7	48678.8	[500]	ug/L	08:00:36
2	SiO2†	80548.6	77768.9	[5347.5]	ug/L	08:01:38
3	Sc 361.383	900245.7	900245.7	103.23	%	08:01:02
3	Sc Radial	5341.7	5341.7	99.1	%	07:59:33
3	Y 371.029	785690.9	785690.9	100.55	%	08:01:02
3	Y RADIAL	5708.0	5708.0	98.33	%	07:59:33
3	Ag 328.068†	115969.7	112046.4	[500]	ug/L	08:01:07
3	Al 396.153Radial†	6271.8	6327.7	[5000]	ug/L	07:59:33
3	As 188.979†	1112.3	1108.1	[500]	ug/L	08:01:28
3	B 249.677†	21656.1	21288.2	[500]	ug/L	08:01:07
3	Ba 233.527†	59514.5	57657.8	[500]	ug/L	08:01:07
3	Be 313.107†	1337386.6	1301133.3	[500]	ug/L	08:01:02
3	Ca 317.933Radial†	3023.7	3033.2	[5000]	ug/L	07:59:53
3	Cd 226.502†	41376.6	40261.2	[500]	ug/L	08:01:07
3	Co 228.616†	21749.7	21128.2	[500]	ug/L	08:01:07
3	Cr 267.716†	43558.0	42115.6	[500]	ug/L	08:01:07
3	Cu 324.752†	182781.5	167222.7	[500]	ug/L	08:01:07
3	K 766.490 Radial†	28696.5	27000.2	[5000]	ug/L	07:59:33
3	Mg 279.077 IEC†	142.1	141.1	[5000]	ug/L	07:59:53
3	Mn 257.610†	417261.0	403647.2	[500]	ug/L	08:01:02
3	Mo 202.031†	6932.7	6694.7	[500]	ug/L	08:01:28
3	Ni 231.604†	18750.3	18058.4	[500]	ug/L	08:01:07
3	P 214.914†	4334.6	3978.5	[2500]	ug/L	08:01:28
3	Pb 220.353†	3613.0	3545.3	[500]	ug/L	08:01:28
3	S 181.975 Axial†	723.9	659.9	[1000]	ug/L	08:01:28
3	Sb 206.836†	1440.5	1359.4	[500]	ug/L	08:01:28
3	Se 196.026†	809.8	798.6	[500]	ug/L	08:01:28
3	Si 251.611†	80049.8	76977.2	[2500]	ug/L	08:01:07
3	Sn 189.927†	2494.0	2414.4	[500]	ug/L	08:01:28
3	Sr 421.552†	76948.0	77668.8	[500]	ug/L	07:59:33
3	Ti 334.940†	314267.7	305351.2	[500]	ug/L	08:01:07
3	Tl 190.801†	1448.9	1434.1	[500]	ug/L	08:01:28
3	U 409.014†	18715.5	19058.4	[500]	ug/L	08:01:07
3	V 292.402†	74960.4	74011.2	[500]	ug/L	08:01:07
3	Zn 213.857†	51200.7	48936.3	[500]	ug/L	08:01:07
3	SiO2†	80571.2	77470.6	[5347.5]	ug/L	08:01:43

## Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	898992.1	2101.47	0.23%	103.09 %
Sc Radial	5365.6	23.79	0.44%	99.5 %
Y 371.029	783849.1	2497.23	0.32%	100.31 %
Y RADIAL	5749.7	38.29	0.67%	99.04 %
Ag 328.068†	112126.4	477.11	0.43%	[500] ug/L
Al 396.153Radial†	6318.9	28.34	0.45%	[5000] ug/L
As 188.979†	1108.9	0.79	0.07%	[500] ug/L
B 249.677†	21251.8	119.16	0.56%	[500] ug/L
Ba 233.527†	57689.0	310.27	0.54%	[500] ug/L
Be 313.107†	1300702.5	1278.42	0.10%	[500] ug/L
Ca 317.933Radial†	3023.4	13.26	0.44%	[5000] ug/L
Cd 226.502†	40227.8	183.78	0.46%	[500] ug/L
Co 228.616†	21133.0	105.34	0.50%	[500] ug/L
Cr 267.716†	42078.3	167.82	0.40%	[500] ug/L
Cu 324.752†	167664.0	1281.71	0.76%	[500] ug/L
K 766.490 Radial†	27038.7	77.19	0.29%	[5000] ug/L
Mg 279.077 IEC†	139.7	1.30	0.93%	[5000] ug/L
Mn 257.610†	404185.7	552.41	0.14%	[500] ug/L
Mo 202.031†	6700.9	10.92	0.16%	[500] ug/L
Ni 231.604†	18057.6	66.55	0.37%	[500] ug/L
P 214.914†	3982.0	10.36	0.26%	[2500] ug/L
Pb 220.353†	3562.5	14.96	0.42%	[500] ug/L

S 181.975 Axial†	656.1	3.27	0.50%	[1000]	ug/L
Sb 206.836†	1345.3	12.38	0.92%	[500]	ug/L
Se 196.026†	794.5	8.31	1.05%	[500]	ug/L
Si 251.611†	77178.2	526.68	0.68%	[2500]	ug/L
Sn 189.927†	2416.3	2.88	0.12%	[500]	ug/L
Sr 421.552†	77579.0	94.71	0.12%	[500]	ug/L
Ti 334.940†	305471.2	1608.25	0.53%	[500]	ug/L
Tl 190.801†	1427.6	6.43	0.45%	[500]	ug/L
U 409.014†	19169.0	193.73	1.01%	[500]	ug/L
V 292.402†	73982.2	318.29	0.43%	[500]	ug/L
Zn 213.857†	48941.6	265.37	0.54%	[500]	ug/L
SiO2†	77448.2	332.55	0.43%	[5347.5]	ug/L

Sequence No.: 4  
 Sample ID: SCAL  
 Analyst:  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 1/25/2010 08:03:54  
 Data Type: Reprocessed on 1/25/2010 09:53:14  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	878271.7	878271.7	100.71 %	08:07:11
1	Sc Radial	5317.0	5317.0	98.6 %	08:05:47
1	Y 371.029	765230.6	765230.6	97.928 %	08:07:11
1	Y RADIAL	5705.3	5705.3	98.28 %	08:05:47
1	Ag 328.068†	229372.8	227460.4	[1000] ug/L	08:07:11
1	Al 396.153Radial†	12467.9	12641.3	[10000] ug/L	08:05:47
1	As 188.979†	2239.4	2254.2	[1000] ug/L	08:07:31
1	B 249.677†	43521.7	43524.5	[1000] ug/L	08:07:11
1	Ba 233.527†	117690.3	116865.7	[1000] ug/L	08:07:11
1	Be 313.107†	2674212.1	2660944.3	[1000] ug/L	08:07:05
1	Ca 317.933Radial†	6050.1	6116.8	[10000] ug/L	08:05:47
1	Cd 226.502†	81569.6	81173.6	[1000] ug/L	08:07:11
1	Co 228.616†	42086.3	41848.5	[1000] ug/L	08:07:31
1	Cr 267.716†	85838.9	85154.0	[1000] ug/L	08:07:11
1	Cu 324.752†	355958.7	343608.5	[1000] ug/L	08:07:11
1	Fe 238.204 Radial†	1067.3	1074.4	[10000] ug/L	08:06:07
1	K 766.490 Radial†	54519.3	53324.7	[10000] ug/L	08:05:47
1	Mg 279.077 IEC†	281.2	282.8	[10000] ug/L	08:06:07
1	Mn 257.610†	831908.6	825483.5	[1000] ug/L	08:07:05
1	Mo 202.031†	13755.2	13637.2	[1000] ug/L	08:07:31
1	Na 589.592 Radial†	30236.8	31090.6	[10000] ug/L	08:05:47
1	Ni 231.604†	36722.3	36358.1	[1000] ug/L	08:07:11
1	P 214.914†	8397.5	8117.8	[5000] ug/L	08:07:31
1	Pb 220.353†	7283.9	7278.0	[1000] ug/L	08:07:31
1	S 181.975 Axial†	1372.0	1320.9	[2000] ug/L	08:07:31
1	Sb 206.836†	2833.5	2777.4	[1000] ug/L	08:07:31
1	Se 196.026†	1608.5	1611.3	[1000] ug/L	08:07:31
1	Si 251.611†	158757.4	157069.7	[5000] ug/L	08:07:11
1	Sn 189.927†	4986.0	4949.3	[1000] ug/L	08:07:31
1	Sr 421.552†	150869.7	153002.1	[1000] ug/L	08:05:47
1	Ti 334.940†	639713.1	636118.2	[1000] ug/L	08:07:05
1	Tl 190.801†	2883.4	2893.5	[1000] ug/L	08:07:31
1	U 409.014†	38190.5	38849.7	[1000] ug/L	08:07:11
1	V 292.402†	149970.2	150308.8	[1000] ug/L	08:07:11
1	Zn 213.857†	100399.1	99028.7	[1000] ug/L	08:07:11
1	SiO2†	159759.9	158053.5	[10695] ug/L	08:08:40
2	Sc 361.383	879656.8	879656.8	100.87 %	08:07:43
2	Sc Radial	5253.2	5253.2	97.4 %	08:06:13
2	Y 371.029	766870.1	766870.1	98.138 %	08:07:43
2	Y RADIAL	5678.2	5678.2	97.81 %	08:06:13
2	Ag 328.068†	229767.3	227492.9	[1000] ug/L	08:07:43
2	Al 396.153Radial†	12346.9	12670.7	[10000] ug/L	08:06:13
2	As 188.979†	2215.6	2227.1	[1000] ug/L	08:08:03
2	B 249.677†	43629.3	43563.1	[1000] ug/L	08:07:43
2	Ba 233.527†	117915.6	116905.1	[1000] ug/L	08:07:43
2	Be 313.107†	2671600.1	2654173.7	[1000] ug/L	08:07:37
2	Ca 317.933Radial†	6040.1	6181.1	[10000] ug/L	08:06:13
2	Cd 226.502†	81715.4	81190.6	[1000] ug/L	08:07:43
2	Co 228.616†	41749.3	41448.6	[1000] ug/L	08:08:03
2	Cr 267.716†	86035.8	85215.0	[1000] ug/L	08:07:43
2	Cu 324.752†	356250.1	343340.9	[1000] ug/L	08:07:43
2	Fe 238.204 Radial†	1072.9	1093.3	[10000] ug/L	08:06:33
2	K 766.490 Radial†	54156.6	53624.0	[10000] ug/L	08:06:13
2	Mg 279.077 IEC†	279.5	284.5	[10000] ug/L	08:06:33
2	Mn 257.610†	830260.2	822548.6	[1000] ug/L	08:07:37
2	Mo 202.031†	13657.6	13518.9	[1000] ug/L	08:08:03
2	Na 589.592 Radial†	29816.9	31032.1	[10000] ug/L	08:06:13
2	Ni 231.604†	36890.4	36467.3	[1000] ug/L	08:07:43

2	P 214.914†	8326.8	8034.5	[5000]	ug/L	08:08:03
2	Pb 220.353†	7216.3	7199.5	[1000]	ug/L	08:08:03
2	S 181.975 Axial†	1371.0	1317.8	[2000]	ug/L	08:08:03
2	Sb 206.836†	2812.2	2752.0	[1000]	ug/L	08:08:03
2	Se 196.026†	1595.4	1595.8	[1000]	ug/L	08:08:03
2	Si 251.611†	159023.9	157085.8	[5000]	ug/L	08:07:43
2	Sn 189.927†	4941.6	4897.5	[1000]	ug/L	08:08:03
2	Sr 421.552†	148933.5	152873.2	[1000]	ug/L	08:06:13
2	Ti 334.940†	638652.1	634066.1	[1000]	ug/L	08:07:37
2	Tl 190.801†	2864.6	2870.4	[1000]	ug/L	08:08:03
2	U 409.014†	38256.1	38855.0	[1000]	ug/L	08:07:43
2	V 292.402†	150546.9	150646.0	[1000]	ug/L	08:07:43
2	Zn 213.857†	100624.7	99095.4	[1000]	ug/L	08:07:43
2	SiO2†	159499.8	157546.0	[10695]	ug/L	08:08:45
3	Sc 361.383	880990.1	880990.1	101.02	%	08:08:15
3	Sc Radial	5267.3	5267.3	97.7	%	08:06:38
3	Y 371.029	767795.3	767795.3	98.256	%	08:08:15
3	Y RADIAL	5671.3	5671.3	97.69	%	08:06:38
3	Ag 328.068†	230330.1	227705.4	[1000]	ug/L	08:08:15
3	Al 396.153Radial†	12428.0	12719.8	[10000]	ug/L	08:06:38
3	As 188.979†	2227.8	2235.9	[1000]	ug/L	08:08:35
3	B 249.677†	43866.0	43731.9	[1000]	ug/L	08:08:15
3	Ba 233.527†	118134.5	116944.9	[1000]	ug/L	08:08:15
3	Be 313.107†	2713082.5	2691228.0	[1000]	ug/L	08:08:09
3	Ca 317.933Radial†	6049.0	6173.7	[10000]	ug/L	08:06:38
3	Cd 226.502†	82017.3	81366.8	[1000]	ug/L	08:08:15
3	Co 228.616†	41955.8	41590.4	[1000]	ug/L	08:08:35
3	Cr 267.716†	86347.8	85394.8	[1000]	ug/L	08:08:15
3	Cu 324.752†	356672.3	343224.2	[1000]	ug/L	08:08:15
3	Fe 238.204 Radial†	1071.2	1088.6	[10000]	ug/L	08:06:58
3	K 766.490 Radial†	54474.1	53800.6	[10000]	ug/L	08:06:38
3	Mg 279.077 IEC†	282.3	286.6	[10000]	ug/L	08:06:58
3	Mn 257.610†	845842.2	836727.2	[1000]	ug/L	08:08:09
3	Mo 202.031†	13728.2	13568.3	[1000]	ug/L	08:08:35
3	Na 589.592 Radial†	30033.6	31172.1	[10000]	ug/L	08:06:38
3	Ni 231.604†	37024.5	36544.7	[1000]	ug/L	08:08:15
3	P 214.914†	8404.8	8099.3	[5000]	ug/L	08:08:35
3	Pb 220.353†	7266.4	7238.3	[1000]	ug/L	08:08:35
3	S 181.975 Axial†	1382.2	1326.8	[2000]	ug/L	08:08:35
3	Sb 206.836†	2828.3	2763.7	[1000]	ug/L	08:08:35
3	Se 196.026†	1602.8	1600.7	[1000]	ug/L	08:08:35
3	Si 251.611†	159619.7	157436.9	[5000]	ug/L	08:08:15
3	Sn 189.927†	4993.1	4941.1	[1000]	ug/L	08:08:35
3	Sr 421.552†	149991.3	153547.9	[1000]	ug/L	08:06:38
3	Ti 334.940†	650919.3	645251.0	[1000]	ug/L	08:08:09
3	Tl 190.801†	2879.0	2880.4	[1000]	ug/L	08:08:35
3	U 409.014†	38232.4	38774.1	[1000]	ug/L	08:08:15
3	V 292.402†	150893.6	150763.3	[1000]	ug/L	08:08:15
3	Zn 213.857†	100862.8	99180.0	[1000]	ug/L	08:08:15
3	SiO2†	159356.8	157165.1	[10695]	ug/L	08:08:51

## Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	879639.5	1359.29	0.15%	100.87	%
Sc Radial	5279.2	33.53	0.64%	97.9	%
Y 371.029	766632.0	1298.80	0.17%	98.108	%
Y RADIAL	5684.9	17.95	0.32%	97.93	%
Ag 328.068†	227552.9	133.02	0.06%	[1000]	ug/L
Al 396.153Radial†	12677.3	39.68	0.31%	[10000]	ug/L
As 188.979†	2239.1	13.83	0.62%	[1000]	ug/L
B 249.677†	43606.5	110.33	0.25%	[1000]	ug/L
Ba 233.527†	116905.2	39.59	0.03%	[1000]	ug/L
Be 313.107†	2668782.0	19731.39	0.74%	[1000]	ug/L
Ca 317.933Radial†	6157.2	35.16	0.57%	[10000]	ug/L
Cd 226.502†	81243.7	106.99	0.13%	[1000]	ug/L
Co 228.616†	41629.2	202.75	0.49%	[1000]	ug/L
Cr 267.716†	85254.6	125.17	0.15%	[1000]	ug/L
Cu 324.752†	343391.2	197.01	0.06%	[1000]	ug/L
Fe 238.204 Radial†	1085.5	9.84	0.91%	[10000]	ug/L



K 766.490 Radial†	53583.1	240.61	0.45%	[10000]	ug/L
Mg 279.077 IEC†	284.6	1.90	0.67%	[10000]	ug/L
Mn 257.610†	828253.1	7484.07	0.90%	[1000]	ug/L
Mo 202.031†	13574.8	59.42	0.44%	[1000]	ug/L
Na 589.592 Radial†	31098.3	70.35	0.23%	[10000]	ug/L
Ni 231.604†	36456.7	93.76	0.26%	[1000]	ug/L
P 214.914†	8083.9	43.72	0.54%	[5000]	ug/L
Pb 220.353†	7238.6	39.24	0.54%	[1000]	ug/L
S 181.975 Axial†	1321.8	4.59	0.35%	[2000]	ug/L
Sb 206.836†	2764.4	12.75	0.46%	[1000]	ug/L
Se 196.026†	1602.6	7.92	0.49%	[1000]	ug/L
Si 251.611†	157197.5	207.51	0.13%	[5000]	ug/L
Sn 189.927†	4929.3	27.86	0.57%	[1000]	ug/L
Sr 421.552†	153141.1	358.16	0.23%	[1000]	ug/L
Ti 334.940†	638478.4	5954.26	0.93%	[1000]	ug/L
Tl 190.801†	2881.4	11.60	0.40%	[1000]	ug/L
U 409.014†	38826.3	45.26	0.12%	[1000]	ug/L
V 292.402†	150572.7	235.96	0.16%	[1000]	ug/L
Zn 213.857†	99101.4	75.87	0.08%	[1000]	ug/L
SiO2†	157588.2	445.74	0.28%	[10695]	ug/L

Sequence No.: 5

Sample ID: S10

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 1/25/2010 08:11:01

Data Type: Reprocessed on 1/25/2010 09:53:15

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	885133.4	885133.4	101.50 %	08:14:12
1	Sc Radial	5267.5	5267.5	97.7 %	08:13:15
1	Y 371.029	767796.8	767796.8	98.257 %	08:14:12
1	Y RADIAL	5644.3	5644.3	97.23 %	08:13:15
1	Al 396.153Radial†	63418.4	64922.1	[50000] ug/L	08:12:55
1	Ca 317.933Radial†	29920.7	30612.7	[50000] ug/L	08:12:55
1	Fe 238.204 Radial†	2085.9	2127.5	[20000] ug/L	08:13:15
1	Mg 279.077 IEC†	1331.5	1360.7	[50000] ug/L	08:13:15
1	Na 589.592 Radial†	64704.4	66666.1	[20000] ug/L	08:12:55
2	Sc 361.383	874438.5	874438.5	100.27 %	08:14:18
2	Sc Radial	5253.7	5253.7	97.4 %	08:13:40
2	Y 371.029	758224.7	758224.7	97.032 %	08:14:18
2	Y RADIAL	5614.3	5614.3	96.71 %	08:13:40
2	Al 396.153Radial†	62401.0	64048.8	[50000] ug/L	08:13:20
2	Ca 317.933Radial†	29500.6	30262.1	[50000] ug/L	08:13:20
2	Fe 238.204 Radial†	2081.9	2128.9	[20000] ug/L	08:13:40
2	Mg 279.077 IEC†	1327.4	1360.1	[50000] ug/L	08:13:40
2	Na 589.592 Radial†	63588.6	65695.3	[20000] ug/L	08:13:20
3	Sc 361.383	883034.4	883034.4	101.26 %	08:14:24
3	Sc Radial	5252.1	5252.1	97.4 %	08:14:05
3	Y 371.029	766379.1	766379.1	98.075 %	08:14:24
3	Y RADIAL	5618.2	5618.2	96.78 %	08:14:05
3	Al 396.153Radial†	61081.5	62712.8	[50000] ug/L	08:13:45
3	Ca 317.933Radial†	28875.6	29629.3	[50000] ug/L	08:13:45
3	Fe 238.204 Radial†	2077.0	2124.6	[20000] ug/L	08:14:05
3	Mg 279.077 IEC†	1325.4	1358.5	[50000] ug/L	08:14:05
3	Na 589.592 Radial†	62222.5	64311.8	[20000] ug/L	08:13:45

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	880868.8	5666.82	0.64%	101.01 %
Sc Radial	5257.8	8.47	0.16%	97.5 %
Y 371.029	764133.5	5166.07	0.68%	97.788 %
Y RADIAL	5625.6	16.31	0.29%	96.91 %
Al 396.153Radial†	63894.6	1112.70	1.74%	[50000] ug/L
Ca 317.933Radial†	30168.0	498.40	1.65%	[50000] ug/L
Fe 238.204 Radial†	2127.0	2.23	0.10%	[20000] ug/L
Mg 279.077 IEC†	1359.8	1.14	0.08%	[50000] ug/L
Na 589.592 Radial†	65557.7	1183.15	1.80%	[20000] ug/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	226.9	0.00000	0.999982	
Al 396.153Radial	3	Lin Thru 0	0.0	1.277	0.00000	0.999998	
As 188.979	3	Lin Thru 0	0.0	2.235	0.00000	0.999992	
B 249.677	3	Lin Thru 0	0.0	43.37	0.00000	0.999942	
Ba 233.527	3	Lin Thru 0	0.0	116.6	0.00000	0.999986	
Be 313.107	3	Lin Thru 0	0.0	2655	0.00000	0.999949	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6038	0.00000	0.999992	
Cd 226.502	3	Lin Thru 0	0.0	81.10	0.00000	0.999991	
Co 228.616	3	Lin Thru 0	0.0	41.76	0.00000	0.999980	
Cr 267.716	3	Lin Thru 0	0.0	85.04	0.00000	0.999986	
Cu 324.752	3	Lin Thru 0	0.0	341.8	0.00000	0.999956	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1068	0.00000	0.999966	

K 766.490 Radial	3	Lin Thru 0	0.0	5.369	0.00000	0.999992
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0273	0.00000	0.999957
Mn 257.610	3	Lin Thru 0	0.0	824.4	0.00000	0.999952
Mo 202.031	3	Lin Thru 0	0.0	13.54	0.00000	0.999987
Na 589.592 Radia	2	Lin Thru 0	0.0	3.244	0.00000	0.999785
Ni 231.604	3	Lin Thru 0	0.0	36.39	0.00000	0.999993
P 214.914	3	Lin Thru 0	0.0	1.612	0.00000	0.999982
Pb 220.353	3	Lin Thru 0	0.0	7.217	0.00000	0.999979
S 181.975 Axial	3	Lin Thru 0	0.0	0.6598	0.00000	0.999994
Sb 206.836	3	Lin Thru 0	0.0	2.749	0.00000	0.999937
Se 196.026	3	Lin Thru 0	0.0	1.600	0.00000	0.999991
Si 251.611	3	Lin Thru 0	0.0	31.33	0.00000	0.999974
Sn 189.927	3	Lin Thru 0	0.0	4.910	0.00000	0.999969
Sr 421.552	3	Lin Thru 0	0.0	153.5	0.00000	0.999986
Ti 334.940	3	Lin Thru 0	0.0	633.0	0.00000	0.999850
Tl 190.801	3	Lin Thru 0	0.0	2.876	0.00000	0.999991
U 409.014	3	Lin Thru 0	0.0	38.73	0.00000	0.999986
V 292.402	3	Lin Thru 0	0.0	150.1	0.00000	0.999976
Zn 213.857	3	Lin Thru 0	0.0	98.87	0.00000	0.999987
SiO2	3	Lin Thru 0	0.0	14.68	0.00000	0.999977

Sequence No.: 6

Sample ID: ICV

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 1/25/2010 08:16:35

Data Type: Reprocessed on 1/25/2010 09:53:16

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	907741.3	907741.3	104.09 %			08:19:45
1	Sc Radial	5418.5	5418.5	100 %			08:18:28
1	Y 371.029	795131.7	795131.7	101.75 %			08:19:45
1	Y RADIAL	5827.2	5827.2	100.4 %			08:18:28
1	Ag 328.068†	60552.5	57878.9	258.30 ug/L		258.30 ppb	08:19:45
1	Al 396.153Radial†	6366.8	6332.4	4931.6 ug/L		4931.6 ppb	08:18:28
1	As 188.979†	1064.6	1053.4	475.54 ug/L		475.54 ppb	08:20:05
1	B 249.677†	22564.3	21987.5	504.67 ug/L		504.67 ppb	08:19:45
1	Ba 233.527†	60711.0	58331.3	501.47 ug/L		501.47 ppb	08:19:45
1	Be 313.107†	699237.8	677358.6	256.20 ug/L		256.20 ppb	08:19:45
1	Ca 317.933Radial†	3055.9	3022.0	5004.6 ug/L		5004.6 ppb	08:18:48
1	Cd 226.502†	40729.3	39308.4	484.57 ug/L		484.57 ppb	08:20:05
1	Co 228.616†	21941.8	21138.8	506.34 ug/L		506.34 ppb	08:20:05
1	Cr 267.716†	42576.3	40824.0	480.65 ug/L		480.65 ppb	08:19:45
1	Cu 324.752†	188681.0	171428.3	501.56 ug/L		501.56 ppb	08:19:45
1	Fe 238.204 Radial†	562.1	551.4	5178.5 ug/L		5178.5 ppb	08:18:48
1	K 766.490 Radial†	15498.4	13454.0	2502.4 ug/L		2502.4 ppb	08:18:28
1	Mg 279.077 IEC†	148.7	145.6	5341.8 ug/L		5341.8 ppb	08:18:48
1	Mn 257.610†	431401.0	413894.0	502.34 ug/L		502.34 ppb	08:19:45
1	Mo 202.031†	7514.3	7198.0	532.02 ug/L		532.02 ppb	08:20:05
1	Na 589.592 Radial†	7641.3	8028.3	2474.6 ug/L		2474.6 ppb	08:18:28
1	Ni 231.604†	18859.4	18013.2	494.72 ug/L		494.72 ppb	08:20:05
1	P 214.914†	4398.3	4005.0	2386.9 ug/L		2386.9 ppb	08:20:05
1	Pb 220.353†	3664.0	3565.4	495.73 ug/L		495.73 ppb	08:20:05
1	S 181.975 Axial†	1751.3	1641.1	2486.2 ug/L		2486.2 ppb	08:20:05
1	Sb 206.836†	1459.9	1366.5	516.42 ug/L		516.42 ppb	08:20:05
1	Se 196.026†	4216.9	4065.3	2560.6 ug/L		2560.6 ppb	08:20:05
1	Si 251.611†	155917.1	149223.4	4756.9 ug/L		4756.9 ppb	08:19:45
1	Sn 189.927†	2703.3	2595.6	529.51 ug/L		529.51 ppb	08:20:05
1	Sr 421.552†	81934.9	81530.3	530.95 ug/L		530.95 ppb	08:18:28
1	Ti 334.940†	320513.5	308837.8	487.75 ug/L		487.75 ppb	08:19:45
1	Tl 190.801†	1522.3	1493.0	522.48 ug/L		522.48 ppb	08:20:05
1	U 409.014†	18178.9	18393.2	473.19 ug/L		473.19 ppb	08:19:45
1	V 292.402†	76618.1	75004.1	506.93 ug/L		506.93 ppb	08:19:45
1	Zn 213.857†	52480.5	49756.3	498.91 ug/L		498.91 ppb	08:19:45
1	SiO2†	156941.1	150195.6	10214 ug/L		10214 ppb	08:21:03
2	Sc 361.383	910757.0	910757.0	104.44 %			08:20:11
2	Sc Radial	5313.9	5313.9	98.5 %			08:18:53
2	Y 371.029	797049.4	797049.4	102.00 %			08:20:11
2	Y RADIAL	5694.0	5694.0	98.08 %			08:18:53
2	Ag 328.068†	60729.3	57855.5	258.21 ug/L		258.21 ppb	08:20:11
2	Al 396.153Radial†	6238.3	6326.7	4927.3 ug/L		4927.3 ppb	08:18:53
2	As 188.979†	1054.9	1040.8	469.90 ug/L		469.90 ppb	08:20:31
2	B 249.677†	22637.7	21986.0	504.64 ug/L		504.64 ppb	08:20:11
2	Ba 233.527†	60882.8	58302.6	501.22 ug/L		501.22 ppb	08:20:11
2	Be 313.107†	700532.0	676373.4	255.83 ug/L		255.83 ppb	08:20:11
2	Ca 317.933Radial†	3035.0	3060.7	5068.6 ug/L		5068.6 ppb	08:19:13
2	Cd 226.502†	40643.2	39096.4	481.95 ug/L		481.95 ppb	08:20:31
2	Co 228.616†	21915.6	21043.9	504.06 ug/L		504.06 ppb	08:20:31
2	Cr 267.716†	42649.8	40759.0	479.89 ug/L		479.89 ppb	08:20:11
2	Cu 324.752†	189000.2	171133.7	500.70 ug/L		500.70 ppb	08:20:11
2	Fe 238.204 Radial†	557.7	557.9	5239.6 ug/L		5239.6 ppb	08:19:13
2	K 766.490 Radial†	15072.0	13324.9	2478.3 ug/L		2478.3 ppb	08:18:53
2	Mg 279.077 IEC†	148.5	148.3	5440.9 ug/L		5440.9 ppb	08:19:13
2	Mn 257.610†	433215.3	414258.9	502.78 ug/L		502.78 ppb	08:20:11
2	Mo 202.031†	7504.7	7165.0	529.58 ug/L		529.58 ppb	08:20:31
2	Na 589.592 Radial†	7491.0	8025.4	2473.7 ug/L		2473.7 ppb	08:18:53
2	Ni 231.604†	18791.2	17887.9	491.28 ug/L		491.28 ppb	08:20:31

2	P 214.914†	4398.8	3991.5	2378.6 ug/L	2378.6 ppb	08:20:31
2	Pb 220.353†	3669.5	3559.0	494.83 ug/L	494.83 ppb	08:20:31
2	S 181.975 Axial†	1743.3	1627.8	2466.1 ug/L	2466.1 ppb	08:20:31
2	Sb 206.836†	1451.8	1354.1	511.81 ug/L	511.81 ppb	08:20:31
2	Se 196.026†	4201.8	4037.4	2543.4 ug/L	2543.4 ppb	08:20:31
2	Si 251.611†	156295.1	149089.4	4752.7 ug/L	4752.7 ppb	08:20:11
2	Sn 189.927†	2700.3	2584.1	527.19 ug/L	527.19 ppb	08:20:31
2	Sr 421.552†	80193.7	81367.9	529.89 ug/L	529.89 ppb	08:18:53
2	Ti 334.940†	321557.5	308817.9	487.72 ug/L	487.72 ppb	08:20:11
2	Tl 190.801†	1520.1	1486.0	520.07 ug/L	520.07 ppb	08:20:31
2	U 409.014†	18187.0	18343.1	471.89 ug/L	471.89 ppb	08:20:11
2	V 292.402†	76782.8	74918.1	506.32 ug/L	506.32 ppb	08:20:11
2	Zn 213.857†	52663.2	49764.3	499.01 ug/L	499.01 ppb	08:20:11
2	SiO2†	155658.7	148468.4	10096 ug/L	10096 ppb	08:21:08
3	Sc 361.383	901454.6	901454.6	103.37 %		08:20:37
3	Sc Radial	5427.7	5427.7	101 %		08:19:18
3	Y 371.029	788774.5	788774.5	100.94 %		08:20:37
3	Y RADIAL	5807.5	5807.5	100.0 %		08:19:18
3	Ag 328.068†	60161.0	57905.8	258.38 ug/L	258.38 ppb	08:20:37
3	Al 396.153Radial†	6346.6	6301.6	4907.6 ug/L	4907.6 ppb	08:19:18
3	As 188.979†	1050.3	1046.7	472.49 ug/L	472.49 ppb	08:20:57
3	B 249.677†	22375.8	21956.3	503.97 ug/L	503.97 ppb	08:20:37
3	Ba 233.527†	60135.1	58180.9	500.18 ug/L	500.18 ppb	08:20:37
3	Be 313.107†	691076.7	674148.2	254.99 ug/L	254.99 ppb	08:20:37
3	Ca 317.933Radial†	3019.3	2980.5	4935.8 ug/L	4935.8 ppb	08:19:38
3	Cd 226.502†	40322.7	39187.9	483.10 ug/L	483.10 ppb	08:20:57
3	Co 228.616†	21809.7	21158.0	506.80 ug/L	506.80 ppb	08:20:57
3	Cr 267.716†	42173.9	40720.0	479.43 ug/L	479.43 ppb	08:20:37
3	Cu 324.752†	187173.9	171234.5	500.98 ug/L	500.98 ppb	08:20:37
3	Fe 238.204 Radial†	550.7	539.2	5063.9 ug/L	5063.9 ppb	08:19:38
3	K 766.490 Radial†	15292.4	13223.3	2459.4 ug/L	2459.4 ppb	08:19:18
3	Mg 279.077 IEC†	147.4	144.0	5284.6 ug/L	5284.6 ppb	08:19:38
3	Mn 257.610†	427476.5	412987.7	501.23 ug/L	501.23 ppb	08:20:37
3	Mo 202.031†	7449.5	7185.7	531.10 ug/L	531.10 ppb	08:20:57
3	Na 589.592 Radial†	7576.2	7950.8	2450.7 ug/L	2450.7 ppb	08:19:18
3	Ni 231.604†	18700.3	17985.6	493.96 ug/L	493.96 ppb	08:20:57
3	P 214.914†	4354.8	3992.4	2379.3 ug/L	2379.3 ppb	08:20:57
3	Pb 220.353†	3628.0	3555.1	494.30 ug/L	494.30 ppb	08:20:57
3	S 181.975 Axial†	1722.2	1624.7	2461.3 ug/L	2461.3 ppb	08:20:57
3	Sb 206.836†	1446.3	1363.2	515.19 ug/L	515.19 ppb	08:20:57
3	Se 196.026†	4175.2	4053.2	2552.7 ug/L	2552.7 ppb	08:20:57
3	Si 251.611†	154512.2	148909.0	4746.9 ug/L	4746.9 ppb	08:20:37
3	Sn 189.927†	2682.7	2593.8	529.14 ug/L	529.14 ppb	08:20:57
3	Sr 421.552†	81434.6	80895.0	526.81 ug/L	526.81 ppb	08:19:18
3	Ti 334.940†	317391.8	307965.3	486.37 ug/L	486.37 ppb	08:20:37
3	Tl 190.801†	1500.0	1481.6	518.52 ug/L	518.52 ppb	08:20:57
3	U 409.014†	18008.7	18350.3	472.10 ug/L	472.10 ppb	08:20:37
3	V 292.402†	76014.9	74934.0	506.47 ug/L	506.47 ppb	08:20:37
3	Zn 213.857†	52060.2	49701.3	498.37 ug/L	498.37 ppb	08:20:37
3	SiO2†	155541.2	149892.8	10193 ug/L	10193 ppb	08:21:13

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	906650.9	103.96 %	0.544			0.52%
Sc Radial	5386.7	99.9 %	1.17			1.17%
Y 371.029	793651.9	101.57 %	0.554			0.55%
Y RADIAL	5776.2	99.50 %	1.239			1.25%
Ag 328.068†	57880.1	258.29 ug/L	0.083	258.29 ppb	0.083	0.03%
QC value within limits for Ag 328.068 Recovery = 103.32%						
Al 396.153Radial†	6320.3	4922.2 ug/L	12.82	4922.2 ppb	12.82	0.26%
QC value within limits for Al 396.153Radial Recovery = 98.44%						
As 188.979†	1047.0	472.65 ug/L	2.825	472.65 ppb	2.825	0.60%
QC value within limits for As 188.979 Recovery = 94.53%						
B 249.677†	21976.6	504.43 ug/L	0.395	504.43 ppb	0.395	0.08%
QC value within limits for B 249.677 Recovery = 100.89%						
Ba 233.527†	58271.6	500.96 ug/L	0.687	500.96 ppb	0.687	0.14%
QC value within limits for Ba 233.527 Recovery = 100.19%						
Be 313.107†	675960.1	255.67 ug/L	0.621	255.67 ppb	0.621	0.24%
QC value within limits for Be 313.107 Recovery = 102.27%						

Ca 317.933Radial†	3021.0	5003.0 ug/L	66.42	5003.0 ppb	66.42	1.33%
QC value within limits for Ca 317.933Radial Recovery = 100.06%						
Cd 226.502†	39197.6	483.20 ug/L	1.315	483.20 ppb	1.315	0.27%
QC value within limits for Cd 226.502 Recovery = 96.64%						
Co 228.616†	21113.6	505.73 ug/L	1.466	505.73 ppb	1.466	0.29%
QC value within limits for Co 228.616 Recovery = 101.15%						
Cr 267.716†	40767.7	479.99 ug/L	0.619	479.99 ppb	0.619	0.13%
QC value within limits for Cr 267.716 Recovery = 96.00%						
Cu 324.752†	171265.5	501.08 ug/L	0.437	501.08 ppb	0.437	0.09%
QC value within limits for Cu 324.752 Recovery = 100.22%						
Fe 238.204 Radial†	549.5	5160.7 ug/L	89.17	5160.7 ppb	89.17	1.73%
QC value within limits for Fe 238.204 Radial Recovery = 103.21%						
K 766.490 Radial†	13334.1	2480.1 ug/L	21.53	2480.1 ppb	21.53	0.87%
QC value within limits for K 766.490 Radial Recovery = 99.20%						
Mg 279.077 IEC†	145.9	5355.8 ug/L	79.05	5355.8 ppb	79.05	1.48%
QC value within limits for Mg 279.077 IEC Recovery = 107.12%						
Mn 257.610†	413713.5	502.12 ug/L	0.800	502.12 ppb	0.800	0.16%
QC value within limits for Mn 257.610 Recovery = 100.42%						
Mo 202.031†	7182.9	530.90 ug/L	1.230	530.90 ppb	1.230	0.23%
QC value within limits for Mo 202.031 Recovery = 106.18%						
Na 589.592 Radial†	8001.5	2466.3 ug/L	13.55	2466.3 ppb	13.55	0.55%
QC value within limits for Na 589.592 Radial Recovery = 98.65%						
Ni 231.604†	17962.2	493.32 ug/L	1.809	493.32 ppb	1.809	0.37%
QC value within limits for Ni 231.604 Recovery = 98.66%						
P 214.914†	3996.3	2381.6 ug/L	4.60	2381.6 ppb	4.60	0.19%
QC value within limits for P 214.914 Recovery = 95.26%						
Pb 220.353†	3559.9	494.95 ug/L	0.723	494.95 ppb	0.723	0.15%
QC value within limits for Pb 220.353 Recovery = 98.99%						
S 181.975 Axial†	1631.2	2471.2 ug/L	13.24	2471.2 ppb	13.24	0.54%
QC value within limits for S 181.975 Axial Recovery = 98.85%						
Sb 206.836†	1361.2	514.47 ug/L	2.385	514.47 ppb	2.385	0.46%
QC value within limits for Sb 206.836 Recovery = 102.89%						
Se 196.026†	4052.0	2552.2 ug/L	8.62	2552.2 ppb	8.62	0.34%
QC value within limits for Se 196.026 Recovery = 102.09%						
Si 251.611†	149073.9	4752.2 ug/L	5.03	4752.2 ppb	5.03	0.11%
QC value within limits for Si 251.611 Recovery = 95.04%						
Sn 189.927†	2591.2	528.61 ug/L	1.248	528.61 ppb	1.248	0.24%
QC value within limits for Sn 189.927 Recovery = 105.72%						
Sr 421.552†	81264.4	529.21 ug/L	2.149	529.21 ppb	2.149	0.41%
QC value within limits for Sr 421.552 Recovery = 105.84%						
Ti 334.940†	308540.3	487.28 ug/L	0.789	487.28 ppb	0.789	0.16%
QC value within limits for Ti 334.940 Recovery = 97.46%						
Tl 190.801†	1486.9	520.35 ug/L	1.995	520.35 ppb	1.995	0.38%
QC value within limits for Tl 190.801 Recovery = 104.07%						
U 409.014†	18362.2	472.39 ug/L	0.698	472.39 ppb	0.698	0.15%
QC value within limits for U 409.014 Recovery = 94.48%						
V 292.402†	74952.1	506.57 ug/L	0.321	506.57 ppb	0.321	0.06%
QC value within limits for V 292.402 Recovery = 101.31%						
Zn 213.857†	49740.6	498.76 ug/L	0.343	498.76 ppb	0.343	0.07%
QC value within limits for Zn 213.857 Recovery = 99.75%						
SiO2†	149518.9	10168 ug/L	62.8	10168 ppb	62.8	0.62%
QC value within limits for SiO2 Recovery = 95.07%						

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 1/25/2010 08:23:24

Data Type: Reprocessed on 1/25/2010 09:53:18

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 361.383	846471.9	846471.9	97.064 %		08:26:34
1	Sc Radial	5424.5	5424.5	101 %		08:25:17
1	Y 371.029	751259.8	751259.8	96.140 %		08:26:34
1	Y RADIAL	5839.8	5839.8	100.6 %		08:25:17
1	Ag 328.068†	438.1	156.8	0.6905 ug/L	0.6905 ppb	08:26:34
1	Al 396.153Radial†	11.1	7.0	5.4381 ug/L	5.4381 ppb	08:25:37
1	As 188.979†	-33.8	-4.2	-1.8878 ug/L	-1.8878 ppb	08:26:54
1	B 249.677†	-14.0	295.3	6.8081 ug/L	6.8081 ppb	08:26:54
1	Ba 233.527†	8.8	14.6	0.1213 ug/L	0.1213 ppb	08:26:54
1	Be 313.107†	-5978.9	-567.0	-0.2145 ug/L	-0.2145 ppb	08:26:34
1	Ca 317.933Radial†	14.4	-5.1	-8.4286 ug/L	-8.4286 ppb	08:25:37
1	Cd 226.502†	-209.1	-36.2	-0.4484 ug/L	-0.4484 ppb	08:26:54
1	Co 228.616†	-60.2	-3.0	-0.0693 ug/L	-0.0693 ppb	08:26:54
1	Cr 267.716†	92.4	15.6	0.1838 ug/L	0.1838 ppb	08:26:54
1	Cu 324.752†	10791.3	1278.0	3.7426 ug/L	3.7426 ppb	08:26:34
1	Fe 238.204 Radial†	8.8	0.7	6.3631 ug/L	6.3631 ppb	08:25:37
1	K 766.490 Radial†	2044.8	62.2	11.576 ug/L	11.576 ppb	08:25:17
1	Mg 279.077 IEC†	3.1	0.7	25.497 ug/L	25.497 ppb	08:25:37
1	Mn 257.610†	542.8	1.3	0.0011 ug/L	0.0011 ppb	08:26:54
1	Mo 202.031†	25.4	5.1	0.3797 ug/L	0.3797 ppb	08:26:54
1	Na 589.592 Radial†	-403.7	22.0	6.7872 ug/L	6.7872 ppb	08:25:17
1	Ni 231.604†	102.4	0.2	0.0068 ug/L	0.0068 ppb	08:26:54
1	P 214.914†	215.9	1.9	0.4561 ug/L	0.4561 ppb	08:26:54
1	Pb 220.353†	-77.7	-34.7	-4.8038 ug/L	-4.8038 ppb	08:26:54
1	S 181.975 Axial†	44.2	4.1	6.2013 ug/L	6.2013 ppb	08:26:54
1	Sb 206.836†	57.6	23.3	8.5124 ug/L	8.5124 ppb	08:26:54
1	Se 196.026†	-25.1	-11.8	-7.3567 ug/L	-7.3567 ppb	08:26:54
1	Si 251.611†	1423.0	898.1	28.663 ug/L	28.663 ppb	08:26:54
1	Sn 189.927†	11.0	9.9	2.0055 ug/L	2.0055 ppb	08:26:54
1	Sr 421.552†	5.8	-9.3	-0.0605 ug/L	-0.0605 ppb	08:25:17
1	Ti 334.940†	-1139.8	-257.4	-0.4073 ug/L	-0.4073 ppb	08:26:34
1	Tl 190.801†	-40.0	-10.8	-3.7434 ug/L	-3.7434 ppb	08:26:54
1	U 409.014†	-1127.9	-233.5	-6.0286 ug/L	-6.0286 ppb	08:26:34
1	V 292.402†	-1622.9	-275.7	-1.8437 ug/L	-1.8437 ppb	08:26:34
1	Zn 213.857†	686.2	44.7	0.4462 ug/L	0.4462 ppb	08:26:54
1	SiO2†	1283.0	742.3	50.538 ug/L	50.538 ppb	08:27:50
2	Sc 361.383	850335.9	850335.9	97.507 %		08:26:59
2	Sc Radial	5378.2	5378.2	99.7 %		08:25:42
2	Y 371.029	753932.5	753932.5	96.482 %		08:26:59
2	Y RADIAL	5777.7	5777.7	99.53 %		08:25:42
2	Ag 328.068†	421.6	137.7	0.6045 ug/L	0.6045 ppb	08:26:59
2	Al 396.153Radial†	6.5	2.5	1.9144 ug/L	1.9144 ppb	08:26:02
2	As 188.979†	-31.4	-1.6	-0.7137 ug/L	-0.7137 ppb	08:27:19
2	B 249.677†	199.7	514.5	11.865 ug/L	11.865 ppb	08:27:19
2	Ba 233.527†	10.9	16.7	0.1379 ug/L	0.1379 ppb	08:27:19
2	Be 313.107†	-6003.1	-563.8	-0.2130 ug/L	-0.2130 ppb	08:26:59
2	Ca 317.933Radial†	19.2	-0.1	-0.1837 ug/L	-0.1837 ppb	08:26:02
2	Cd 226.502†	-205.2	-31.2	-0.3855 ug/L	-0.3855 ppb	08:27:19
2	Co 228.616†	-66.4	-9.0	-0.2139 ug/L	-0.2139 ppb	08:27:19
2	Cr 267.716†	65.2	-12.7	-0.1473 ug/L	-0.1473 ppb	08:27:19
2	Cu 324.752†	10796.1	1232.4	3.6121 ug/L	3.6121 ppb	08:26:59
2	Fe 238.204 Radial†	6.9	-1.1	-10.608 ug/L	-10.608 ppb	08:26:02
2	K 766.490 Radial†	2032.2	67.1	12.491 ug/L	12.491 ppb	08:25:42
2	Mg 279.077 IEC†	0.1	-2.3	-85.499 ug/L	-85.499 ppb	08:26:02
2	Mn 257.610†	547.8	3.9	0.0072 ug/L	0.0072 ppb	08:27:19
2	Mo 202.031†	25.0	4.6	0.3419 ug/L	0.3419 ppb	08:27:19
2	Na 589.592 Radial†	-443.7	-21.5	-6.6295 ug/L	-6.6295 ppb	08:25:42
2	Ni 231.604†	100.4	-2.3	-0.0635 ug/L	-0.0635 ppb	08:27:19

2	P 214.914†	216.4	1.5	0.2215 ug/L	0.2215 ppb	08:27:19
2	Pb 220.353†	-68.5	-24.8	-3.4430 ug/L	-3.4430 ppb	08:27:19
2	S 181.975 Axial†	45.2	4.9	7.4976 ug/L	7.4976 ppb	08:27:19
2	Sb 206.836†	62.1	27.7	10.109 ug/L	10.109 ppb	08:27:19
2	Se 196.026†	-30.2	-16.9	-10.589 ug/L	-10.589 ppb	08:27:19
2	Si 251.611†	1343.4	809.8	25.845 ug/L	25.845 ppb	08:27:19
2	Sn 189.927†	14.2	13.1	2.6614 ug/L	2.6614 ppb	08:27:19
2	Sr 421.552†	1.3	-13.7	-0.0895 ug/L	-0.0895 ppb	08:25:42
2	Ti 334.940†	-1080.4	-191.2	-0.2896 ug/L	-0.2896 ppb	08:26:59
2	Tl 190.801†	-42.4	-13.0	-4.5070 ug/L	-4.5070 ppb	08:27:19
2	U 409.014†	-1375.3	-481.9	-12.440 ug/L	-12.440 ppb	08:26:59
2	V 292.402†	-1694.5	-341.6	-2.2950 ug/L	-2.2950 ppb	08:26:59
2	Zn 213.857†	688.6	43.9	0.4406 ug/L	0.4406 ppb	08:27:19
2	SiO2†	1256.3	708.8	48.260 ug/L	48.260 ppb	08:27:55
3	Sc 361.383	842913.5	842913.5	96.656 %		08:27:24
3	Sc Radial	5360.7	5360.7	99.4 %		08:26:07
3	Y 371.029	743679.1	743679.1	95.170 %		08:27:24
3	Y RADIAL	5795.6	5795.6	99.83 %		08:26:07
3	Ag 328.068†	425.2	145.3	0.6374 ug/L	0.6374 ppb	08:27:24
3	Al 396.153Radial†	-1.4	-5.5	-4.3437 ug/L	-4.3437 ppb	08:26:27
3	As 188.979†	-29.6	-0.0	-0.0185 ug/L	-0.0185 ppb	08:27:44
3	B 249.677†	459.1	784.6	18.094 ug/L	18.094 ppb	08:27:44
3	Ba 233.527†	-13.0	-7.9	-0.0724 ug/L	-0.0724 ppb	08:27:44
3	Be 313.107†	-6046.9	-663.3	-0.2510 ug/L	-0.2510 ppb	08:27:24
3	Ca 317.933Radial†	15.6	-3.7	-6.1591 ug/L	-6.1591 ppb	08:26:27
3	Cd 226.502†	-196.6	-24.1	-0.2981 ug/L	-0.2981 ppb	08:27:44
3	Co 228.616†	-68.8	-12.2	-0.2876 ug/L	-0.2876 ppb	08:27:44
3	Cr 267.716†	78.4	1.6	0.0200 ug/L	0.0200 ppb	08:27:44
3	Cu 324.752†	10724.3	1255.6	3.6786 ug/L	3.6786 ppb	08:27:24
3	Fe 238.204 Radial†	6.7	-1.3	-11.869 ug/L	-11.869 ppb	08:26:27
3	K 766.490 Radial†	2029.6	71.1	13.247 ug/L	13.247 ppb	08:26:07
3	Mg 279.077 IEC†	2.4	-0.0	-0.6726 ug/L	-0.6726 ppb	08:26:27
3	Mn 257.610†	546.6	7.6	0.0080 ug/L	0.0080 ppb	08:27:44
3	Mo 202.031†	33.3	13.4	0.9864 ug/L	0.9864 ppb	08:27:44
3	Na 589.592 Radial†	-436.5	-15.7	-4.8443 ug/L	-4.8443 ppb	08:26:07
3	Ni 231.604†	101.9	0.1	0.0039 ug/L	0.0039 ppb	08:27:44
3	P 214.914†	232.7	20.2	11.823 ug/L	11.823 ppb	08:27:44
3	Pb 220.353†	-72.7	-29.8	-4.1314 ug/L	-4.1314 ppb	08:27:44
3	S 181.975 Axial†	46.2	6.4	9.7014 ug/L	9.7014 ppb	08:27:44
3	Sb 206.836†	61.0	27.0	9.8630 ug/L	9.8630 ppb	08:27:44
3	Se 196.026†	-26.4	-13.2	-8.2901 ug/L	-8.2901 ppb	08:27:44
3	Si 251.611†	1252.9	728.3	23.237 ug/L	23.237 ppb	08:27:44
3	Sn 189.927†	6.9	5.7	1.1510 ug/L	1.1510 ppb	08:27:44
3	Sr 421.552†	6.0	-9.0	-0.0588 ug/L	-0.0588 ppb	08:26:07
3	Ti 334.940†	-1202.6	-327.4	-0.5135 ug/L	-0.5135 ppb	08:27:24
3	Tl 190.801†	-34.3	-5.0	-1.7521 ug/L	-1.7521 ppb	08:27:44
3	U 409.014†	-1282.8	-398.7	-10.292 ug/L	-10.292 ppb	08:27:24
3	V 292.402†	-1619.5	-279.2	-1.8644 ug/L	-1.8644 ppb	08:27:24
3	Zn 213.857†	697.9	59.7	0.5998 ug/L	0.5998 ppb	08:27:44
3	SiO2†	1232.1	695.1	47.311 ug/L	47.311 ppb	08:28:00

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	846573.8	97.076 %	0.4257			0.44%
Sc Radial	5387.8	99.9 %	0.61			0.61%
Y 371.029	749623.8	95.931 %	0.6807			0.71%
Y RADIAL	5804.4	99.99 %	0.551			0.55%
Ag 328.068†	146.6	0.6441 ug/L	0.04339	0.6441 ppb	0.04339	6.74%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	1.3	1.0029 ug/L	4.95419	1.0029 ppb	4.95419	493.97%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.9	-0.8733 ug/L	0.94484	-0.8733 ppb	0.94484	108.19%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	531.5	12.256 ug/L	5.6531	12.256 ppb	5.6531	46.13%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	7.8	0.0623 ug/L	0.11690	0.0623 ppb	0.11690	187.69%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-598.0	-0.2262 ug/L	0.02150	-0.2262 ppb	0.02150	9.51%
QC value within limits for Be 313.107 Recovery = Not calculated						



Ca 317.933Radial†	-3.0	-4.9238 ug/L	4.25901	-4.9238 ppb	4.25901	86.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-30.5	-0.3773 ug/L	0.07549	-0.3773 ppb	0.07549	20.01%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-8.0	-0.1903 ug/L	0.11108	-0.1903 ppb	0.11108	58.38%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	1.5	0.0188 ug/L	0.16557	0.0188 ppb	0.16557	879.90%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	1255.3	3.6778 ug/L	0.06527	3.6778 ppb	0.06527	1.77%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.6	-5.3712 ug/L	10.18174	-5.3712 ppb	10.18174	189.56%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	66.8	12.438 ug/L	0.8369	12.438 ppb	0.8369	6.73%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.6	-20.225 ug/L	58.0236	-20.225 ppb	58.0236	286.89%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	4.3	0.0055 ug/L	0.00378	0.0055 ppb	0.00378	69.30%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	7.7	0.5694 ug/L	0.36166	0.5694 ppb	0.36166	63.52%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-5.1	-1.5622 ug/L	7.28569	-1.5622 ppb	7.28569	466.37%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-0.6	-0.0176 ug/L	0.03973	-0.0176 ppb	0.03973	225.62%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	7.9	4.1670 ug/L	6.63172	4.1670 ppb	6.63172	159.15%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-29.8	-4.1261 ug/L	0.68042	-4.1261 ppb	0.68042	16.49%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	5.1	7.8001 ug/L	1.76954	7.8001 ppb	1.76954	22.69%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	26.0	9.4947 ug/L	0.85956	9.4947 ppb	0.85956	9.05%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-14.0	-8.7452 ug/L	1.66340	-8.7452 ppb	1.66340	19.02%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	812.0	25.915 ug/L	2.7139	25.915 ppb	2.7139	10.47%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	9.5	1.9393 ug/L	0.75738	1.9393 ppb	0.75738	39.05%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-10.7	-0.0696 ug/L	0.01722	-0.0696 ppb	0.01722	24.73%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-258.7	-0.4035 ug/L	0.11199	-0.4035 ppb	0.11199	27.76%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-9.6	-3.3342 ug/L	1.42233	-3.3342 ppb	1.42233	42.66%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-371.4	-9.5868 ug/L	3.26336	-9.5868 ppb	3.26336	34.04%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-298.8	-2.0010 ug/L	0.25480	-2.0010 ppb	0.25480	12.73%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	49.4	0.4955 ug/L	0.09032	0.4955 ppb	0.09032	18.23%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	715.4	48.703 ug/L	1.6580	48.703 ppb	1.6580	3.40%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 8

Sample ID: PQL

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 1/25/2010 08:30:10

Data Type: Reprocessed on 1/25/2010 09:53:19

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 361.383	890955.4	890955.4	102.16 %		08:33:20
1	Sc Radial	5258.4	5258.4	97.5 %		08:32:04
1	Y 371.029	786618.7	786618.7	100.67 %		08:33:20
1	Y RADIAL	5659.7	5659.7	97.49 %		08:32:04
1	Ag 328.068†	1516.8	1190.1	5.2606 ug/L	5.2606 ppb	08:33:25
1	Al 396.153Radial†	261.2	263.8	206.00 ug/L	206.00 ppb	08:32:24
1	As 188.979†	29.0	59.1	26.472 ug/L	26.472 ppb	08:33:45
1	B 249.677†	2590.5	2845.3	65.573 ug/L	65.573 ppb	08:33:25
1	Ba 233.527†	614.9	607.4	5.2230 ug/L	5.2230 ppb	08:33:45
1	Be 313.107†	8208.1	13626.9	5.1436 ug/L	5.1436 ppb	08:33:25
1	Ca 317.933Radial†	138.1	122.2	202.42 ug/L	202.42 ppb	08:32:24
1	Cd 226.502†	243.0	417.1	5.1445 ug/L	5.1445 ppb	08:33:45
1	Co 228.616†	156.2	211.9	5.0855 ug/L	5.0855 ppb	08:33:45
1	Cr 267.716†	514.1	423.7	4.9744 ug/L	4.9744 ppb	08:33:45
1	Cu 324.752†	13500.3	3374.6	9.8548 ug/L	9.8548 ppb	08:33:25
1	Fe 238.204 Radial†	18.2	10.7	100.22 ug/L	100.22 ppb	08:32:24
1	K 766.490 Radial†	2791.6	892.2	165.99 ug/L	165.99 ppb	08:32:04
1	Mg 279.077 IEC†	8.6	6.4	235.37 ug/L	235.37 ppb	08:32:24
1	Mn 257.610†	9453.0	8694.8	10.547 ug/L	10.547 ppb	08:33:25
1	Mo 202.031†	158.7	134.3	9.9281 ug/L	9.9281 ppb	08:33:45
1	Na 589.592 Radial†	455.3	890.3	274.41 ug/L	274.41 ppb	08:32:04
1	Ni 231.604†	318.9	206.9	5.6823 ug/L	5.6823 ppb	08:33:45
1	P 214.914†	462.3	232.0	141.99 ug/L	141.99 ppb	08:33:45
1	Pb 220.353†	16.8	61.8	8.6246 ug/L	8.6246 ppb	08:33:45
1	S 181.975 Axial†	106.3	62.7	94.967 ug/L	94.967 ppb	08:33:45
1	Sb 206.836†	73.8	36.2	13.505 ug/L	13.505 ppb	08:33:45
1	Se 196.026†	30.5	43.9	27.829 ug/L	27.829 ppb	08:33:45
1	Si 251.611†	3634.4	2989.5	95.307 ug/L	95.307 ppb	08:33:45
1	Sn 189.927†	43.1	40.7	8.3176 ug/L	8.3176 ppb	08:33:45
1	Sr 421.552†	786.7	791.7	5.1547 ug/L	5.1547 ppb	08:32:04
1	Ti 334.940†	2398.4	3264.4	5.1446 ug/L	5.1446 ppb	08:33:25
1	Tl 190.801†	25.8	55.7	19.438 ug/L	19.438 ppb	08:33:45
1	U 409.014†	721.1	1634.4	42.171 ug/L	42.171 ppb	08:33:25
1	V 292.402†	-625.6	784.0	5.4282 ug/L	5.4282 ppb	08:33:25
1	Zn 213.857†	1723.6	1024.8	10.305 ug/L	10.305 ppb	08:33:45
1	SiO2†	3751.7	3092.7	210.34 ug/L	210.34 ppb	08:34:51
2	Sc 361.383	899265.8	899265.8	103.12 %		08:33:50
2	Sc Radial	5171.5	5171.5	95.9 %		08:32:29
2	Y 371.029	793178.1	793178.1	101.50 %		08:33:50
2	Y RADIAL	5601.2	5601.2	96.49 %		08:32:29
2	Ag 328.068†	1495.4	1155.6	5.1132 ug/L	5.1132 ppb	08:33:56
2	Al 396.153Radial†	263.7	270.9	211.55 ug/L	211.55 ppb	08:32:49
2	As 188.979†	33.6	63.2	28.315 ug/L	28.315 ppb	08:34:16
2	B 249.677†	2396.8	2634.0	60.700 ug/L	60.700 ppb	08:33:56
2	Ba 233.527†	599.4	586.7	5.0457 ug/L	5.0457 ppb	08:34:16
2	Be 313.107†	8082.5	13430.9	5.0697 ug/L	5.0697 ppb	08:33:56
2	Ca 317.933Radial†	138.9	125.4	207.74 ug/L	207.74 ppb	08:32:49
2	Cd 226.502†	239.1	411.1	5.0686 ug/L	5.0686 ppb	08:34:16
2	Co 228.616†	149.5	204.0	4.8976 ug/L	4.8976 ppb	08:34:16
2	Cr 267.716†	526.4	431.0	5.0613 ug/L	5.0613 ppb	08:34:16
2	Cu 324.752†	13298.7	3056.9	8.9273 ug/L	8.9273 ppb	08:33:56
2	Fe 238.204 Radial†	19.2	12.0	112.18 ug/L	112.18 ppb	08:32:49
2	K 766.490 Radial†	2889.6	1042.6	194.00 ug/L	194.00 ppb	08:32:29
2	Mg 279.077 IEC†	9.4	7.4	270.32 ug/L	270.32 ppb	08:32:49
2	Mn 257.610†	9392.1	8550.2	10.371 ug/L	10.371 ppb	08:33:56
2	Mo 202.031†	164.3	138.3	10.225 ug/L	10.225 ppb	08:34:16
2	Na 589.592 Radial†	392.8	833.0	256.75 ug/L	256.75 ppb	08:32:29
2	Ni 231.604†	308.9	194.3	5.3375 ug/L	5.3375 ppb	08:34:16

2	P 214.914†	460.5	226.0	138.51 ug/L	138.51 ppb	08:34:16
2	Pb 220.353†	35.2	79.6	11.082 ug/L	11.082 ppb	08:34:16
2	S 181.975 Axial†	107.7	63.0	95.476 ug/L	95.476 ppb	08:34:16
2	Sb 206.836†	71.9	33.6	12.607 ug/L	12.607 ppb	08:34:16
2	Se 196.026†	31.0	44.2	28.044 ug/L	28.044 ppb	08:34:16
2	Si 251.611†	3719.2	3038.8	96.879 ug/L	96.879 ppb	08:34:16
2	Sn 189.927†	53.5	50.4	10.290 ug/L	10.290 ppb	08:34:16
2	Sr 421.552†	733.2	749.5	4.8797 ug/L	4.8797 ppb	08:32:29
2	Ti 334.940†	2377.8	3222.8	5.0776 ug/L	5.0776 ppb	08:33:56
2	Tl 190.801†	23.9	53.7	18.737 ug/L	18.737 ppb	08:34:16
2	U 409.014†	646.3	1555.2	40.127 ug/L	40.127 ppb	08:33:56
2	V 292.402†	-673.9	742.7	5.1528 ug/L	5.1528 ppb	08:33:56
2	Zn 213.857†	1703.0	989.2	9.9476 ug/L	9.9476 ppb	08:34:16
2	SiO2†	3729.7	3037.3	206.56 ug/L	206.56 ppb	08:34:56
3	Sc 361.383	898878.2	898878.2	103.07 %		08:34:21
3	Sc Radial	5209.3	5209.3	96.6 %		08:32:54
3	Y 371.029	792947.2	792947.2	101.48 %		08:34:21
3	Y RADIAL	5612.5	5612.5	96.68 %		08:32:54
3	Ag 328.068†	1537.4	1196.9	5.2963 ug/L	5.2963 ppb	08:34:26
3	Al 396.153Radial†	262.8	268.0	209.32 ug/L	209.32 ppb	08:33:14
3	As 188.979†	33.1	62.7	28.115 ug/L	28.115 ppb	08:34:46
3	B 249.677†	2309.1	2550.0	58.760 ug/L	58.760 ppb	08:34:26
3	Ba 233.527†	594.1	581.9	5.0040 ug/L	5.0040 ppb	08:34:46
3	Be 313.107†	8151.8	13501.5	5.0962 ug/L	5.0962 ppb	08:34:26
3	Ca 317.933Radial†	138.0	123.4	204.40 ug/L	204.40 ppb	08:33:14
3	Cd 226.502†	228.8	401.2	4.9460 ug/L	4.9460 ppb	08:34:46
3	Co 228.616†	166.3	220.4	5.2893 ug/L	5.2893 ppb	08:34:46
3	Cr 267.716†	519.6	424.5	4.9859 ug/L	4.9859 ppb	08:34:46
3	Cu 324.752†	13339.5	3102.0	9.0605 ug/L	9.0605 ppb	08:34:26
3	Fe 238.204 Radial†	19.4	12.0	112.72 ug/L	112.72 ppb	08:33:14
3	K 766.490 Radial†	2865.2	995.4	185.20 ug/L	185.20 ppb	08:32:54
3	Mg 279.077 IEC†	12.3	10.3	378.06 ug/L	378.06 ppb	08:33:14
3	Mn 257.610†	9485.1	8644.4	10.481 ug/L	10.481 ppb	08:34:26
3	Mo 202.031†	158.5	132.7	9.8116 ug/L	9.8116 ppb	08:34:46
3	Na 589.592 Radial†	435.9	874.6	269.59 ug/L	269.59 ppb	08:32:54
3	Ni 231.604†	306.0	191.6	5.2632 ug/L	5.2632 ppb	08:34:46
3	P 214.914†	466.8	232.4	142.41 ug/L	142.41 ppb	08:34:46
3	Pb 220.353†	25.5	70.2	9.7795 ug/L	9.7795 ppb	08:34:46
3	S 181.975 Axial†	104.8	60.3	91.333 ug/L	91.333 ppb	08:34:46
3	Sb 206.836†	72.5	34.3	12.810 ug/L	12.810 ppb	08:34:46
3	Se 196.026†	34.7	47.8	30.301 ug/L	30.301 ppb	08:34:46
3	Si 251.611†	3649.5	2972.8	94.775 ug/L	94.775 ppb	08:34:46
3	Sn 189.927†	49.0	46.1	9.4154 ug/L	9.4154 ppb	08:34:46
3	Sr 421.552†	783.7	796.2	5.1840 ug/L	5.1840 ppb	08:32:54
3	Ti 334.940†	2365.9	3212.2	5.0526 ug/L	5.0526 ppb	08:34:26
3	Tl 190.801†	29.1	58.7	20.478 ug/L	20.478 ppb	08:34:46
3	U 409.014†	559.3	1471.2	37.957 ug/L	37.957 ppb	08:34:26
3	V 292.402†	-708.7	708.7	4.9182 ug/L	4.9182 ppb	08:34:26
3	Zn 213.857†	1704.5	991.3	9.9696 ug/L	9.9696 ppb	08:34:46
3	SiO2†	3751.5	3060.0	208.12 ug/L	208.12 ppb	08:35:01

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	896366.5	102.79 %	0.538			0.52%
Sc Radial	5213.1	96.7 %	0.81			0.84%
Y 371.029	790914.7	101.22 %	0.476			0.47%
Y RADIAL	5624.5	96.89 %	0.535			0.55%
Ag 328.068†	1180.9	5.2234 ug/L	0.09705	5.2234 ppb	0.09705	1.86%
QC value within limits for Ag 328.068 Recovery = 104.47%						
Al 396.153Radial†	267.5	208.96 ug/L	2.790	208.96 ppb	2.790	1.34%
QC value within limits for Al 396.153Radial Recovery = 104.48%						
As 188.979†	61.7	27.634 ug/L	1.0110	27.634 ppb	1.0110	3.66%
QC value within limits for As 188.979 Recovery = 92.11%						
B 249.677†	2676.4	61.678 ug/L	3.5101	61.678 ppb	3.5101	5.69%
QC value within limits for B 249.677 Recovery = 123.36%						
Ba 233.527†	592.0	5.0909 ug/L	0.11631	5.0909 ppb	0.11631	2.28%
QC value within limits for Ba 233.527 Recovery = 101.82%						
Be 313.107†	13519.8	5.1032 ug/L	0.03747	5.1032 ppb	0.03747	0.73%
QC value within limits for Be 313.107 Recovery = 102.06%						

Ca 317.933Radial†	123.7	204.85 ug/L	2.688	204.85 ppb	2.688	1.31%
QC value within limits for Ca 317.933Radial Recovery = 102.43%						
Cd 226.502†	409.8	5.0530 ug/L	0.10013	5.0530 ppb	0.10013	1.98%
QC value within limits for Cd 226.502 Recovery = 101.06%						
Co 228.616†	212.1	5.0908 ug/L	0.19594	5.0908 ppb	0.19594	3.85%
QC value within limits for Co 228.616 Recovery = 101.82%						
Cr 267.716†	426.4	5.0072 ug/L	0.04721	5.0072 ppb	0.04721	0.94%
QC value within limits for Cr 267.716 Recovery = 100.14%						
Cu 324.752†	3177.8	9.2809 ug/L	0.50151	9.2809 ppb	0.50151	5.40%
QC value within limits for Cu 324.752 Recovery = 92.81%						
Fe 238.204 Radial†	11.6	108.37 ug/L	7.069	108.37 ppb	7.069	6.52%
QC value within limits for Fe 238.204 Radial Recovery = 108.37%						
K 766.490 Radial†	976.7	181.73 ug/L	14.324	181.73 ppb	14.324	7.88%
QC value within limits for K 766.490 Radial Recovery = 121.15%						
Mg 279.077 IEC†	8.0	294.58 ug/L	74.372	294.58 ppb	74.372	25.25%
QC value within limits for Mg 279.077 IEC Recovery = 98.19%						
Mn 257.610†	8629.8	10.466 ug/L	0.0887	10.466 ppb	0.0887	0.85%
QC value within limits for Mn 257.610 Recovery = 104.66%						
Mo 202.031†	135.1	9.9881 ug/L	0.21293	9.9881 ppb	0.21293	2.13%
QC value within limits for Mo 202.031 Recovery = 99.88%						
Na 589.592 Radial†	865.9	266.92 ug/L	9.130	266.92 ppb	9.130	3.42%
QC value within limits for Na 589.592 Radial Recovery = 88.97%						
Ni 231.604†	197.6	5.4277 ug/L	0.22362	5.4277 ppb	0.22362	4.12%
QC value within limits for Ni 231.604 Recovery = 108.55%						
P 214.914†	230.1	140.97 ug/L	2.141	140.97 ppb	2.141	1.52%
QC value within limits for P 214.914 Recovery = 93.98%						
Pb 220.353†	70.5	9.8288 ug/L	1.22954	9.8288 ppb	1.22954	12.51%
QC value within limits for Pb 220.353 Recovery = 98.29%						
S 181.975 Axial†	62.0	93.925 ug/L	2.2594	93.925 ppb	2.2594	2.41%
QC value within limits for S 181.975 Axial Recovery = 93.93%						
Sb 206.836†	34.7	12.974 ug/L	0.4709	12.974 ppb	0.4709	3.63%
QC value within limits for Sb 206.836 Recovery = 129.74%						
Se 196.026†	45.3	28.725 ug/L	1.3695	28.725 ppb	1.3695	4.77%
QC value within limits for Se 196.026 Recovery = 95.75%						
Si 251.611†	3000.4	95.654 ug/L	1.0936	95.654 ppb	1.0936	1.14%
QC value within limits for Si 251.611 Recovery = 95.65%						
Sn 189.927†	45.7	9.3411 ug/L	0.98841	9.3411 ppb	0.98841	10.58%
QC value within limits for Sn 189.927 Recovery = 93.41%						
Sr 421.552†	779.1	5.0728 ug/L	0.16788	5.0728 ppb	0.16788	3.31%
QC value within limits for Sr 421.552 Recovery = 101.46%						
Ti 334.940†	3233.1	5.0916 ug/L	0.04759	5.0916 ppb	0.04759	0.93%
QC value within limits for Ti 334.940 Recovery = 101.83%						
Tl 190.801†	56.0	19.551 ug/L	0.8759	19.551 ppb	0.8759	4.48%
QC value within limits for Tl 190.801 Recovery = 97.75%						
U 409.014†	1553.6	40.085 ug/L	2.1075	40.085 ppb	2.1075	5.26%
QC value within limits for U 409.014 Recovery = 80.17%						
V 292.402†	745.1	5.1664 ug/L	0.25527	5.1664 ppb	0.25527	4.94%
QC value within limits for V 292.402 Recovery = 103.33%						
Zn 213.857†	1001.8	10.074 ug/L	0.2005	10.074 ppb	0.2005	1.99%
QC value within limits for Zn 213.857 Recovery = 100.74%						
SiO2†	3063.3	208.34 ug/L	1.898	208.34 ppb	1.898	0.91%
QC value within limits for SiO2 Recovery = 97.81%						

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: ICSA

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 13

Date Collected: 1/25/2010 08:37:13

Data Type: Reprocessed on 1/25/2010 09:53:20

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 361.383	786376.3	786376.3	90.173 %		08:39:38
1	Sc Radial	4855.4	4855.4	90.0 %		08:39:11
1	Y 371.029	676518.2	676518.2	86.575 %		08:39:38
1	Y RADIAL	5229.9	5229.9	90.09 %		08:39:11
1	Ag 328.068†	-9826.2	-11191.7	5.4648 ug/L	5.4648 ppb	08:39:38
1	Al 396.153Radial†	594162.5	659912.1	516620 ug/L	516620 ppb	08:39:06
1	As 188.979†	-80.0	-58.0	18.178 ug/L	18.178 ppb	08:39:59
1	B 249.677†	532.2	899.9	-10.007 ug/L	-10.007 ppb	08:39:38
1	Ba 233.527†	-490.5	-538.5	1.1786 ug/L	1.1786 ppb	08:39:59
1	Be 313.107†	-5659.8	-683.9	-0.3220 ug/L	-0.3220 ppb	08:39:38
1	Ca 317.933Radial†	263521.6	292665.2	484670 ug/L	484670 ppb	08:39:06
1	Cd 226.502†	1415.2	1748.7	2.0084 ug/L	2.0084 ppb	08:39:59
1	Co 228.616†	-10.5	47.4	-1.5791 ug/L	-1.5791 ppb	08:39:59
1	Cr 267.716†	-103.0	-193.8	1.4164 ug/L	1.4164 ppb	08:39:59
1	Cu 324.752†	7100.7	-1965.2	4.2627 ug/L	4.2627 ppb	08:39:38
1	Fe 238.204 Radial†	18214.2	20221.8	189360 ug/L	189360 ppb	08:39:11
1	K 766.490 Radial†	1868.5	104.6	-142.62 ug/L	-142.62 ppb	08:39:11
1	Mg 279.077 IEC†	12446.8	13821.9	507010 ug/L	507010 ppb	08:39:11
1	Mn 257.610†	-1412.3	-2124.1	-4.6122 ug/L	-4.6122 ppb	08:39:38
1	Mo 202.031†	-180.8	-221.5	4.1067 ug/L	4.1067 ppb	08:39:59
1	Na 589.592 Radial†	-365.3	17.6	5.4368 ug/L	5.4368 ppb	08:39:11
1	Ni 231.604†	198.4	114.7	3.1524 ug/L	3.1524 ppb	08:39:59
1	P 214.914†	172.4	-29.3	-41.456 ug/L	-41.456 ppb	08:39:59
1	Pb 220.353†	-666.3	-693.5	5.2888 ug/L	5.2888 ppb	08:39:59
1	S 181.975 Axial†	65.6	31.3	-49.389 ug/L	-49.389 ppb	08:39:59
1	Sb 206.836†	74.6	46.7	6.4078 ug/L	6.4078 ppb	08:39:59
1	Se 196.026†	-958.3	-1048.7	3.3246 ug/L	3.3246 ppb	08:39:59
1	Si 251.611†	429.2	-92.0	-2.7345 ug/L	-2.7345 ppb	08:39:59
1	Sn 189.927†	-345.6	-384.8	-1.5358 ug/L	-1.5358 ppb	08:39:59
1	Sr 421.552†	555.0	601.3	0.2972 ug/L	0.2972 ppb	08:39:11
1	Ti 334.940†	-17042.4	-17982.9	-4.8380 ug/L	-4.8380 ppb	08:39:38
1	Tl 190.801†	-73.1	-50.6	-17.878 ug/L	-17.878 ppb	08:39:59
1	U 409.014†	-153.5	758.3	-2.0047 ug/L	-2.0047 ppb	08:39:38
1	V 292.402†	888.5	2381.6	-2.0745 ug/L	-2.0745 ppb	08:39:59
1	Zn 213.857†	3096.7	2771.9	9.6540 ug/L	9.6540 ppb	08:39:59
1	SiO2†	440.7	-90.9	-5.7447 ug/L	-5.7447 ppb	08:40:55
2	Sc 361.383	781752.4	781752.4	89.643 %		08:40:04
2	Sc Radial	4756.7	4756.7	88.2 %		08:39:21
2	Y 371.029	673448.6	673448.6	86.183 %		08:40:04
2	Y RADIAL	5102.0	5102.0	87.89 %		08:39:21
2	Ag 328.068†	-9924.3	-11365.6	4.9822 ug/L	4.9822 ppb	08:40:04
2	Al 396.153Radial†	592592.8	671826.3	525950 ug/L	525950 ppb	08:39:16
2	As 188.979†	-61.7	-38.2	27.334 ug/L	27.334 ppb	08:40:24
2	B 249.677†	580.1	956.9	-8.8794 ug/L	-8.8794 ppb	08:40:04
2	Ba 233.527†	-465.9	-514.2	1.4213 ug/L	1.4213 ppb	08:40:24
2	Be 313.107†	-5685.0	-749.1	-0.3472 ug/L	-0.3472 ppb	08:40:04
2	Ca 317.933Radial†	261492.5	296438.2	490920 ug/L	490920 ppb	08:39:16
2	Cd 226.502†	1377.4	1715.8	1.4848 ug/L	1.4848 ppb	08:40:24
2	Co 228.616†	-22.0	34.6	-1.9071 ug/L	-1.9071 ppb	08:40:24
2	Cr 267.716†	-34.2	-117.7	2.3313 ug/L	2.3313 ppb	08:40:24
2	Cu 324.752†	7126.9	-1889.4	4.5427 ug/L	4.5427 ppb	08:40:04
2	Fe 238.204 Radial†	17952.6	20345.1	190520 ug/L	190520 ppb	08:39:21
2	K 766.490 Radial†	1847.8	124.3	-141.05 ug/L	-141.05 ppb	08:39:21
2	Mg 279.077 IEC†	12283.5	13923.6	510740 ug/L	510740 ppb	08:39:21
2	Mn 257.610†	-1671.2	-2422.2	-5.0124 ug/L	-5.0124 ppb	08:40:04
2	Mo 202.031†	-197.7	-241.6	2.7902 ug/L	2.7902 ppb	08:40:24
2	Na 589.592 Radial†	-351.8	24.5	7.5624 ug/L	7.5624 ppb	08:39:21
2	Ni 231.604†	188.2	104.7	2.8758 ug/L	2.8758 ppb	08:40:24

2	P 214.914†	190.6	-7.9	-26.842 ug/L	-26.842 ppb	08:40:24
2	Pb 220.353†	-686.9	-720.9	3.4895 ug/L	3.4895 ppb	08:40:24
2	S 181.975 Axial†	84.8	53.2	-17.993 ug/L	-17.993 ppb	08:40:24
2	Sb 206.836†	57.9	28.5	-0.4474 ug/L	-0.4474 ppb	08:40:24
2	Se 196.026†	-962.3	-1059.4	1.0239 ug/L	1.0239 ppb	08:40:24
2	Si 251.611†	452.5	-63.1	-1.7954 ug/L	-1.7954 ppb	08:40:24
2	Sn 189.927†	-342.3	-383.3	-0.2698 ug/L	-0.2698 ppb	08:40:24
2	Sr 421.552†	542.8	600.4	0.2442 ug/L	0.2442 ppb	08:39:21
2	Ti 334.940†	-17102.6	-18161.8	-4.5899 ug/L	-4.5899 ppb	08:40:04
2	Tl 190.801†	-78.2	-56.8	-20.038 ug/L	-20.038 ppb	08:40:24
2	U 409.014†	23.7	954.9	2.9366 ug/L	2.9366 ppb	08:40:04
2	V 292.402†	854.9	2350.0	-2.3925 ug/L	-2.3925 ppb	08:40:24
2	Zn 213.857†	3106.1	2802.7	9.8545 ug/L	9.8545 ppb	08:40:24
2	SiO2†	410.5	-121.7	-7.8000 ug/L	-7.8000 ppb	08:41:00
3	Sc 361.383	781916.5	781916.5	89.661 %		08:40:29
3	Sc Radial	4814.1	4814.1	89.3 %		08:39:32
3	Y 371.029	672531.8	672531.8	86.065 %		08:40:29
3	Y RADIAL	5173.5	5173.5	89.12 %		08:39:32
3	Ag 328.068†	-9927.5	-11366.8	5.0587 ug/L	5.0587 ppb	08:40:29
3	Al 396.153Radial†	586513.8	657012.4	514350 ug/L	514350 ppb	08:39:27
3	As 188.979†	-72.9	-50.6	21.728 ug/L	21.728 ppb	08:40:49
3	B 249.677†	612.7	993.1	-8.0188 ug/L	-8.0188 ppb	08:40:29
3	Ba 233.527†	-488.2	-539.1	1.2046 ug/L	1.2046 ppb	08:40:49
3	Be 313.107†	-5734.1	-802.5	-0.3668 ug/L	-0.3668 ppb	08:40:29
3	Ca 317.933Radial†	259523.3	290700.2	481420 ug/L	481420 ppb	08:39:27
3	Cd 226.502†	1400.4	1741.1	1.8125 ug/L	1.8125 ppb	08:40:49
3	Co 228.616†	-23.6	32.8	-1.9469 ug/L	-1.9469 ppb	08:40:49
3	Cr 267.716†	-105.7	-197.4	1.3924 ug/L	1.3924 ppb	08:40:49
3	Cu 324.752†	7047.4	-1979.7	4.2713 ug/L	4.2713 ppb	08:40:29
3	Fe 238.204 Radial†	18154.2	20328.4	190360 ug/L	190360 ppb	08:39:32
3	K 766.490 Radial†	1896.2	153.5	-132.43 ug/L	-132.43 ppb	08:39:32
3	Mg 279.077 IEC†	12428.4	13919.9	510610 ug/L	510610 ppb	08:39:32
3	Mn 257.610†	-1382.1	-2099.4	-4.6307 ug/L	-4.6307 ppb	08:40:29
3	Mo 202.031†	-190.2	-233.2	3.2821 ug/L	3.2821 ppb	08:40:49
3	Na 589.592 Radial†	-374.3	4.1	1.2569 ug/L	1.2569 ppb	08:39:32
3	Ni 231.604†	200.5	118.4	3.2533 ug/L	3.2533 ppb	08:40:49
3	P 214.914†	163.7	-37.9	-48.197 ug/L	-48.197 ppb	08:40:49
3	Pb 220.353†	-681.4	-714.6	1.7312 ug/L	1.7312 ppb	08:40:49
3	S 181.975 Axial†	66.2	32.5	-47.195 ug/L	-47.195 ppb	08:40:49
3	Sb 206.836†	45.2	14.4	-5.2810 ug/L	-5.2810 ppb	08:40:49
3	Se 196.026†	-968.4	-1066.0	-4.3462 ug/L	-4.3462 ppb	08:40:49
3	Si 251.611†	426.2	-92.6	-2.7454 ug/L	-2.7454 ppb	08:40:49
3	Sn 189.927†	-348.3	-389.9	-3.0604 ug/L	-3.0604 ppb	08:40:49
3	Sr 421.552†	535.4	584.7	0.2132 ug/L	0.2132 ppb	08:39:32
3	Ti 334.940†	-16976.2	-18016.9	-5.6233 ug/L	-5.6233 ppb	08:40:29
3	Tl 190.801†	-93.0	-73.2	-25.736 ug/L	-25.736 ppb	08:40:49
3	U 409.014†	-36.5	887.8	1.2242 ug/L	1.2242 ppb	08:40:29
3	V 292.402†	911.6	2413.0	-1.9469 ug/L	-1.9469 ppb	08:40:49
3	Zn 213.857†	3138.6	2838.2	10.227 ug/L	10.227 ppb	08:40:49
3	SiO2†	458.1	-68.6	-4.2057 ug/L	-4.2057 ppb	08:41:05

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	783348.4	89.826 %	0.3008			0.33%
Sc Radial	4808.7	89.2 %	0.92			1.03%
Y 371.029	674166.2	86.274 %	0.2672			0.31%
Y RADIAL	5168.5	89.03 %	1.104			1.24%
Ag 328.068†	-11308.0	5.1685 ug/L	0.25937	5.1685 ppb	0.25937	5.02%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	662916.9	518970 ug/L	6146.1	518970 ppb	6146.1	1.18%
QC value within limits for Al 396.153Radial Recovery = 103.79%						
As 188.979†	-49.0	22.414 ug/L	4.6166	22.414 ppb	4.6166	20.60%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	949.9	-8.9683 ug/L	0.99694	-8.9683 ppb	0.99694	11.12%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-530.6	1.2681 ug/L	0.13325	1.2681 ppb	0.13325	10.51%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-745.1	-0.3454 ug/L	0.02245	-0.3454 ppb	0.02245	6.50%
QC value within limits for Be 313.107 Recovery = Not calculated						

Ca	317.933Radial†	293267.9	485670 ug/L	4829.1	485670 ppb	4829.1	0.99%
	QC value within limits for Ca	317.933Radial	Recovery = 97.13%				
Cd	226.502†	1735.2	1.7686 ug/L	0.26456	1.7686 ppb	0.26456	14.96%
	QC value within limits for Cd	226.502	Recovery = Not calculated				
Co	228.616†	38.2	-1.8110 ug/L	0.20184	-1.8110 ppb	0.20184	11.14%
	QC value within limits for Co	228.616	Recovery = Not calculated				
Cr	267.716†	-169.6	1.7134 ug/L	0.53527	1.7134 ppb	0.53527	31.24%
	QC value within limits for Cr	267.716	Recovery = Not calculated				
Cu	324.752†	-1944.7	4.3589 ug/L	0.15922	4.3589 ppb	0.15922	3.65%
	QC value within limits for Cu	324.752	Recovery = Not calculated				
Fe	238.204 Radial†	20298.5	190080 ug/L	626.3	190080 ppb	626.3	0.33%
	QC value within limits for Fe	238.204 Radial	Recovery = 95.04%				
K	766.490 Radial†	127.5	-138.70 ug/L	5.485	-138.70 ppb	5.485	3.95%
	QC value within limits for K	766.490 Radial	Recovery = Not calculated				
Mg	279.077 IEC†	13888.5	509450 ug/L	2116.4	509450 ppb	2116.4	0.42%
	QC value within limits for Mg	279.077 IEC	Recovery = 101.89%				
Mn	257.610†	-2215.2	-4.7517 ug/L	0.22592	-4.7517 ppb	0.22592	4.75%
	QC value within limits for Mn	257.610	Recovery = Not calculated				
Mo	202.031†	-232.1	3.3930 ug/L	0.66522	3.3930 ppb	0.66522	19.61%
	QC value within limits for Mo	202.031	Recovery = Not calculated				
Na	589.592 Radial†	15.4	4.7520 ug/L	3.20801	4.7520 ppb	3.20801	67.51%
	QC value within limits for Na	589.592 Radial	Recovery = Not calculated				
Ni	231.604†	112.6	3.0938 ug/L	0.19544	3.0938 ppb	0.19544	6.32%
	QC value within limits for Ni	231.604	Recovery = Not calculated				
P	214.914†	-25.0	-38.832 ug/L	10.9166	-38.832 ppb	10.9166	28.11%
	QC value within limits for P	214.914	Recovery = Not calculated				
Pb	220.353†	-709.7	3.5032 ug/L	1.77881	3.5032 ppb	1.77881	50.78%
	QC value within limits for Pb	220.353	Recovery = Not calculated				
S	181.975 Axial†	39.0	-38.192 ug/L	17.5275	-38.192 ppb	17.5275	45.89%
	QC value within limits for S	181.975 Axial	Recovery = Not calculated				
Sb	206.836†	29.9	0.2265 ug/L	5.87345	0.2265 ppb	5.87345	>999.9%
	QC value within limits for Sb	206.836	Recovery = Not calculated				
Se	196.026†	-1058.0	0.0008 ug/L	3.93639	0.0008 ppb	3.93639	>999.9%
	QC value within limits for Se	196.026	Recovery = Not calculated				
Si	251.611†	-82.6	-2.4251 ug/L	0.54537	-2.4251 ppb	0.54537	22.49%
	QC value within limits for Si	251.611	Recovery = Not calculated				
Sn	189.927†	-386.0	-1.6220 ug/L	1.39731	-1.6220 ppb	1.39731	86.15%
	QC value within limits for Sn	189.927	Recovery = Not calculated				
Sr	421.552†	595.5	0.2516 ug/L	0.04250	0.2516 ppb	0.04250	16.90%
	QC value within limits for Sr	421.552	Recovery = Not calculated				
Ti	334.940†	-18053.9	-5.0171 ug/L	0.53949	-5.0171 ppb	0.53949	10.75%
	QC value within limits for Ti	334.940	Recovery = Not calculated				
Tl	190.801†	-60.2	-21.217 ug/L	4.0596	-21.217 ppb	4.0596	19.13%
	QC value within limits for Tl	190.801	Recovery = Not calculated				
U	409.014†	867.0	0.7187 ug/L	2.50915	0.7187 ppb	2.50915	349.13%
	QC value within limits for U	409.014	Recovery = Not calculated				
V	292.402†	2381.5	-2.1380 ug/L	0.22948	-2.1380 ppb	0.22948	10.73%
	QC value within limits for V	292.402	Recovery = Not calculated				
Zn	213.857†	2804.2	9.9118 ug/L	0.29062	9.9118 ppb	0.29062	2.93%
	QC value within limits for Zn	213.857	Recovery = Not calculated				
SiO2†		-93.7	-5.9168 ug/L	1.80334	-5.9168 ppb	1.80334	30.48%
	QC value within limits for SiO2		Recovery = Not calculated				
All analyte(s) passed QC.							

Sequence No.: 10

Sample ID: ICSAB

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 14

Date Collected: 1/25/2010 08:43:16

Data Type: Reprocessed on 1/25/2010 09:53:21

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 361.383	800980.2	800980.2	91.847 %		08:45:42
1	Sc Radial	4751.4	4751.4	88.1 %		08:45:14
1	Y 371.029	688425.4	688425.4	88.099 %		08:45:42
1	Y RADIAL	5181.9	5181.9	89.26 %		08:45:14
1	Ag 328.068†	45168.9	48883.6	272.19 ug/L	272.19 ppb	08:45:42
1	Al 396.153Radial†	600920.3	682022.5	533900 ug/L	533900 ppb	08:45:09
1	As 188.979†	917.3	1029.3	508.36 ug/L	508.36 ppb	08:46:02
1	B 249.677†	20510.7	22641.0	489.69 ug/L	489.69 ppb	08:45:42
1	Ba 233.527†	52049.9	56675.5	492.94 ug/L	492.94 ppb	08:45:42
1	Be 313.107†	576403.7	633159.7	239.52 ug/L	239.52 ppb	08:45:42
1	Ca 317.933Radial†	265400.2	301201.9	498810 ug/L	498810 ppb	08:45:09
1	Cd 226.502†	34753.3	38017.4	449.40 ug/L	449.40 ppb	08:46:02
1	Co 228.616†	17297.6	18892.0	449.72 ug/L	449.72 ppb	08:46:02
1	Cr 267.716†	36799.4	39986.3	474.42 ug/L	474.42 ppb	08:45:42
1	Cu 324.752†	180864.4	187078.8	557.18 ug/L	557.18 ppb	08:45:42
1	Fe 238.204 Radial†	17994.7	20415.4	191190 ug/L	191190 ppb	08:45:14
1	K 766.490 Radial†	28060.3	29876.9	5394.9 ug/L	5394.9 ppb	08:45:09
1	Mg 279.077 IEC†	12336.7	13999.3	513530 ug/L	513530 ppb	08:45:14
1	Mn 257.610†	361307.7	392820.5	474.36 ug/L	474.36 ppb	08:45:42
1	Mo 202.031†	5749.1	6238.3	481.46 ug/L	481.46 ppb	08:46:02
1	Na 589.592 Radial†	15684.1	18224.4	5617.4 ug/L	5617.4 ppb	08:45:14
1	Ni 231.604†	14721.2	15922.6	437.30 ug/L	437.30 ppb	08:46:02
1	P 214.914†	3913.5	4040.3	2380.7 ug/L	2380.7 ppb	08:46:02
1	Pb 220.353†	2358.5	2613.2	468.14 ug/L	468.14 ppb	08:46:02
1	S 181.975 Axial†	1646.2	1750.9	2553.5 ug/L	2553.5 ppb	08:46:02
1	Sb 206.836†	1407.6	1496.5	550.83 ug/L	550.83 ppb	08:46:02
1	Se 196.026†	2708.9	2963.4	2520.2 ug/L	2520.2 ppb	08:46:02
1	Si 251.611†	151367.7	164235.6	5237.0 ug/L	5237.0 ppb	08:45:42
1	Sn 189.927†	1844.2	2006.4	487.68 ug/L	487.68 ppb	08:46:02
1	Sr 421.552†	70809.3	80351.4	519.58 ug/L	519.58 ppb	08:45:09
1	Ti 334.940†	272716.6	297840.6	495.08 ug/L	495.08 ppb	08:45:42
1	Tl 190.801†	1180.9	1316.2	460.98 ug/L	460.98 ppb	08:46:02
1	U 409.014†	16398.8	18782.9	462.07 ug/L	462.07 ppb	08:45:42
1	V 292.402†	68257.3	75712.3	493.42 ug/L	493.42 ppb	08:45:42
1	Zn 213.857†	47882.0	51469.8	498.50 ug/L	498.50 ppb	08:45:42
1	SiO2†	149166.9	161827.7	11008 ug/L	11008 ppb	08:46:59
2	Sc 361.383	782195.9	782195.9	89.693 %		08:46:08
2	Sc Radial	4947.0	4947.0	91.7 %		08:45:24
2	Y 371.029	672487.8	672487.8	86.060 %		08:46:08
2	Y RADIAL	5312.8	5312.8	91.52 %		08:45:24
2	Ag 328.068†	43930.9	48684.3	270.60 ug/L	270.60 ppb	08:46:08
2	Al 396.153Radial†	606045.9	660646.0	517170 ug/L	517170 ppb	08:45:19
2	As 188.979†	923.3	1060.1	521.40 ug/L	521.40 ppb	08:46:28
2	B 249.677†	19925.4	22524.7	487.46 ug/L	487.46 ppb	08:46:08
2	Ba 233.527†	50945.6	56805.3	493.96 ug/L	493.96 ppb	08:46:08
2	Be 313.107†	563656.1	634018.2	239.84 ug/L	239.84 ppb	08:46:08
2	Ca 317.933Radial†	266545.5	290541.6	481150 ug/L	481150 ppb	08:45:19
2	Cd 226.502†	34681.6	38846.1	459.93 ug/L	459.93 ppb	08:46:28
2	Co 228.616†	17245.1	19285.8	459.21 ug/L	459.21 ppb	08:46:28
2	Cr 267.716†	36070.3	40135.6	476.12 ug/L	476.12 ppb	08:46:08
2	Cu 324.752†	175815.5	186178.6	554.40 ug/L	554.40 ppb	08:46:08
2	Fe 238.204 Radial†	18445.3	20099.2	188230 ug/L	188230 ppb	08:45:24
2	K 766.490 Radial†	28229.7	28802.5	5200.7 ug/L	5200.7 ppb	08:45:19
2	Mg 279.077 IEC†	12648.5	13785.8	505690 ug/L	505690 ppb	08:45:24
2	Mn 257.610†	353096.0	393112.1	474.74 ug/L	474.74 ppb	08:46:08
2	Mo 202.031†	5745.5	6384.7	491.83 ug/L	491.83 ppb	08:46:28
2	Na 589.592 Radial†	16185.4	18067.0	5568.9 ug/L	5568.9 ppb	08:45:24
2	Ni 231.604†	14682.6	16264.5	446.69 ug/L	446.69 ppb	08:46:28



2	P 214.914†	3893.8	4120.8	2429.4 ug/L	2429.4 ppb	08:46:28
2	Pb 220.353†	2405.4	2727.2	480.33 ug/L	480.33 ppb	08:46:28
2	S 181.975 Axial†	1645.2	1792.8	2620.2 ug/L	2620.2 ppb	08:46:28
2	Sb 206.836†	1399.0	1523.8	561.46 ug/L	561.46 ppb	08:46:28
2	Se 196.026†	2708.3	3033.6	2553.3 ug/L	2553.3 ppb	08:46:28
2	Si 251.611†	147692.4	164095.7	5232.4 ug/L	5232.4 ppb	08:46:08
2	Sn 189.927†	1830.1	2039.0	491.58 ug/L	491.58 ppb	08:46:28
2	Sr 421.552†	71488.0	77913.9	503.84 ug/L	503.84 ppb	08:45:19
2	Ti 334.940†	266543.0	298088.0	493.75 ug/L	493.75 ppb	08:46:08
2	Tl 190.801†	1175.4	1341.0	469.55 ug/L	469.55 ppb	08:46:28
2	U 409.014†	15932.5	18691.8	460.05 ug/L	460.05 ppb	08:46:08
2	V 292.402†	66648.3	75703.1	493.79 ug/L	493.79 ppb	08:46:08
2	Zn 213.857†	46886.7	51612.1	500.17 ug/L	500.17 ppb	08:46:08
2	SiO2†	150930.9	167694.7	11407 ug/L	11407 ppb	08:47:05
3	Sc 361.383	798551.3	798551.3	91.569 %		08:46:34
3	Sc Radial	4862.8	4862.8	90.2 %		08:45:34
3	Y 371.029	687013.7	687013.7	87.919 %		08:46:34
3	Y RADIAL	5227.0	5227.0	90.04 %		08:45:34
3	Ag 328.068†	44936.3	48779.2	271.45 ug/L	271.45 ppb	08:46:34
3	Al 396.153Radial†	595339.3	660210.7	516830 ug/L	516830 ppb	08:45:29
3	As 188.979†	917.7	1032.8	509.53 ug/L	509.53 ppb	08:46:54
3	B 249.677†	20416.6	22606.2	489.14 ug/L	489.14 ppb	08:46:34
3	Ba 233.527†	51801.2	56576.3	492.04 ug/L	492.04 ppb	08:46:34
3	Be 313.107†	574191.3	632652.4	239.32 ug/L	239.32 ppb	08:46:34
3	Ca 317.933Radial†	262576.9	291171.0	482200 ug/L	482200 ppb	08:45:29
3	Cd 226.502†	34684.1	38056.9	450.05 ug/L	450.05 ppb	08:46:54
3	Co 228.616†	17261.4	18909.7	450.17 ug/L	450.17 ppb	08:46:54
3	Cr 267.716†	36713.0	40013.8	474.71 ug/L	474.71 ppb	08:46:34
3	Cu 324.752†	179937.6	186665.6	555.89 ug/L	555.89 ppb	08:46:34
3	Fe 238.204 Radial†	18266.6	20249.1	189630 ug/L	189630 ppb	08:45:34
3	K 766.490 Radial†	27822.4	28883.6	5215.5 ug/L	5215.5 ppb	08:45:29
3	Mg 279.077 IEC†	12568.1	13935.3	511180 ug/L	511180 ppb	08:45:34
3	Mn 257.610†	359326.5	391853.4	473.13 ug/L	473.13 ppb	08:46:34
3	Mo 202.031†	5728.9	6235.4	480.93 ug/L	480.93 ppb	08:46:54
3	Na 589.592 Radial†	15931.7	18091.2	5576.4 ug/L	5576.4 ppb	08:45:34
3	Ni 231.604†	14676.8	15922.9	437.31 ug/L	437.31 ppb	08:46:54
3	P 214.914†	3869.2	4005.0	2356.0 ug/L	2356.0 ppb	08:46:54
3	Pb 220.353†	2379.0	2643.5	468.51 ug/L	468.51 ppb	08:46:54
3	S 181.975 Axial†	1627.1	1735.5	2533.3 ug/L	2533.3 ppb	08:46:54
3	Sb 206.836†	1394.9	1487.3	547.97 ug/L	547.97 ppb	08:46:54
3	Se 196.026†	2722.5	2987.3	2528.9 ug/L	2528.9 ppb	08:46:54
3	Si 251.611†	150639.3	163941.4	5227.6 ug/L	5227.6 ppb	08:46:34
3	Sn 189.927†	1857.8	2027.4	489.41 ug/L	489.41 ppb	08:46:54
3	Sr 421.552†	69968.5	77578.1	501.64 ug/L	501.64 ppb	08:45:29
3	Ti 334.940†	271391.8	297296.9	492.19 ug/L	492.19 ppb	08:46:34
3	Tl 190.801†	1173.7	1312.3	459.59 ug/L	459.59 ppb	08:46:54
3	U 409.014†	16329.5	18761.6	461.69 ug/L	461.69 ppb	08:46:34
3	V 292.402†	67956.9	75610.2	492.92 ug/L	492.92 ppb	08:46:34
3	Zn 213.857†	47646.6	51371.3	497.66 ug/L	497.66 ppb	08:46:34
3	SiO2†	151613.2	164993.3	11223 ug/L	11223 ppb	08:47:10

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	793909.1	91.037 %	1.1715			1.29%
Sc Radial	4853.8	90.0 %	1.82			2.02%
Y 371.029	682642.3	87.359 %	1.1290			1.29%
Y RADIAL	5240.6	90.27 %	1.145			1.27%
Ag 328.068†	48782.4	271.41 ug/L	0.798	271.41 ppb	0.798	0.29%
QC value within limits for Ag 328.068 Recovery = 108.57%						
Al 396.153Radial†	667626.4	522630 ug/L	9761.8	522630 ppb	9761.8	1.87%
QC value within limits for Al 396.153Radial Recovery = 104.53%						
As 188.979†	1040.7	513.10 ug/L	7.214	513.10 ppb	7.214	1.41%
QC value within limits for As 188.979 Recovery = 102.62%						
B 249.677†	22590.6	488.76 ug/L	1.161	488.76 ppb	1.161	0.24%
QC value within limits for B 249.677 Recovery = 97.75%						
Ba 233.527†	56685.7	492.98 ug/L	0.962	492.98 ppb	0.962	0.20%
QC value within limits for Ba 233.527 Recovery = 98.60%						
Be 313.107†	633276.8	239.56 ug/L	0.261	239.56 ppb	0.261	0.11%
QC value within limits for Be 313.107 Recovery = 95.82%						

Ca 317.933Radial†	294304.9	487390 ug/L	9905.4	487390 ppb	9905.4	2.03%
QC value within limits for Ca 317.933Radial Recovery = 97.48%						
Cd 226.502†	38306.8	453.13 ug/L	5.902	453.13 ppb	5.902	1.30%
QC value within limits for Cd 226.502 Recovery = 90.63%						
Co 228.616†	19029.2	453.03 ug/L	5.357	453.03 ppb	5.357	1.18%
QC value within limits for Co 228.616 Recovery = 90.61%						
Cr 267.716†	40045.2	475.08 ug/L	0.909	475.08 ppb	0.909	0.19%
QC value within limits for Cr 267.716 Recovery = 95.02%						
Cu 324.752†	186641.0	555.82 ug/L	1.396	555.82 ppb	1.396	0.25%
QC value within limits for Cu 324.752 Recovery = 111.16%						
Fe 238.204 Radial†	20254.5	189680 ug/L	1481.1	189680 ppb	1481.1	0.78%
QC value within limits for Fe 238.204 Radial Recovery = 94.84%						
K 766.490 Radial†	29187.7	5270.4 ug/L	108.11	5270.4 ppb	108.11	2.05%
QC value within limits for K 766.490 Radial Recovery = 105.41%						
Mg 279.077 IEC†	13906.8	510130 ug/L	4020.7	510130 ppb	4020.7	0.79%
QC value within limits for Mg 279.077 IEC Recovery = 102.03%						
Mn 257.610†	392595.3	474.08 ug/L	0.843	474.08 ppb	0.843	0.18%
QC value within limits for Mn 257.610 Recovery = 94.82%						
Mo 202.031†	6286.1	484.74 ug/L	6.146	484.74 ppb	6.146	1.27%
QC value within limits for Mo 202.031 Recovery = 96.95%						
Na 589.592 Radial†	18127.6	5587.6 ug/L	26.12	5587.6 ppb	26.12	0.47%
QC value within limits for Na 589.592 Radial Recovery = 111.75%						
Ni 231.604†	16036.7	440.43 ug/L	5.418	440.43 ppb	5.418	1.23%
QC value within limits for Ni 231.604 Recovery = 88.09%						
P 214.914†	4055.4	2388.7 ug/L	37.32	2388.7 ppb	37.32	1.56%
QC value within limits for P 214.914 Recovery = 95.55%						
Pb 220.353†	2661.3	472.33 ug/L	6.931	472.33 ppb	6.931	1.47%
QC value within limits for Pb 220.353 Recovery = 94.47%						
S 181.975 Axial†	1759.8	2569.0 ug/L	45.46	2569.0 ppb	45.46	1.77%
QC value within limits for S 181.975 Axial Recovery = 102.76%						
Sb 206.836†	1502.5	553.42 ug/L	7.109	553.42 ppb	7.109	1.28%
QC value within limits for Sb 206.836 Recovery = 110.68%						
Se 196.026†	2994.8	2534.1 ug/L	17.14	2534.1 ppb	17.14	0.68%
QC value within limits for Se 196.026 Recovery = 101.36%						
Si 251.611†	164090.9	5232.4 ug/L	4.69	5232.4 ppb	4.69	0.09%
QC value within limits for Si 251.611 Recovery = 104.65%						
Sn 189.927†	2024.2	489.56 ug/L	1.955	489.56 ppb	1.955	0.40%
QC value within limits for Sn 189.927 Recovery = 97.91%						
Sr 421.552†	78614.5	508.35 ug/L	9.784	508.35 ppb	9.784	1.92%
QC value within limits for Sr 421.552 Recovery = 101.67%						
Ti 334.940†	297741.8	493.67 ug/L	1.449	493.67 ppb	1.449	0.29%
QC value within limits for Ti 334.940 Recovery = 98.73%						
Tl 190.801†	1323.2	463.37 ug/L	5.392	463.37 ppb	5.392	1.16%
QC value within limits for Tl 190.801 Recovery = 92.67%						
U 409.014†	18745.4	461.27 ug/L	1.074	461.27 ppb	1.074	0.23%
QC value within limits for U 409.014 Recovery = 92.25%						
V 292.402†	75675.2	493.38 ug/L	0.436	493.38 ppb	0.436	0.09%
QC value within limits for V 292.402 Recovery = 98.68%						
Zn 213.857†	51484.4	498.77 ug/L	1.279	498.77 ppb	1.279	0.26%
QC value within limits for Zn 213.857 Recovery = 99.75%						
SiO2†	164838.6	11213 ug/L	199.8	11213 ppb	199.8	1.78%
QC value within limits for SiO2 Recovery = 104.84%						
All analyte(s) passed QC.						

Sequence No.: 11

Sample ID: LR1

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 15

Date Collected: 1/25/2010 08:49:19

Data Type: Reprocessed on 1/25/2010 09:53:22

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 361.383	771341.4	771341.4	88.449 %		08:51:45
1	Sc Radial	4689.9	4689.9	87.0 %		08:51:17
1	Y 371.029	666206.7	666206.7	85.256 %		08:51:45
1	Y RADIAL	5045.8	5045.8	86.92 %		08:51:17
1	Ag 328.068†	-23329.1	-26670.4	7.4707 ug/L	7.4707 ppb	08:51:45
1	Al 396.153Radial†	582159.7	669395.5	524040 ug/L	524040 ppb	08:51:12
1	As 188.979†	-178.6	-171.2	26.679 ug/L	26.679 ppb	08:52:05
1	B 249.677†	1474.4	1976.6	-26.171 ug/L	-26.171 ppb	08:51:45
1	Ba 233.527†	-1175.1	-1323.1	2.1427 ug/L	2.1427 ppb	08:52:05
1	Be 313.107†	-12420.1	-8449.3	-3.2472 ug/L	-3.2472 ppb	08:51:45
1	Ca 317.933Radial†	256672.7	295117.2	488730 ug/L	488730 ppb	08:51:12
1	Cd 226.502†	3609.5	4260.2	9.6510 ug/L	9.6510 ppb	08:52:05
1	Co 228.616†	188.7	272.4	0.1085 ug/L	0.1085 ppb	08:52:05
1	Cr 267.716†	140.5	79.3	3.9708 ug/L	3.9708 ppb	08:52:05
1	Cu 324.752†	3553.7	-5822.0	-1.4444 ug/L	-1.4444 ppb	08:51:45
1	Fe 238.204 Radial†	41027.0	47167.1	441690 ug/L	441690 ppb	08:51:17
1	K 766.490 Radial†	2182.2	538.6	-263.73 ug/L	-263.73 ppb	08:51:17
1	Mg 279.077 IEC†	12116.1	13929.3	510690 ug/L	510690 ppb	08:51:17
1	Mn 257.610†	-27245.8	-31362.0	-15.317 ug/L	-15.317 ppb	08:51:45
1	Mo 202.031†	-438.6	-516.9	1.9335 ug/L	1.9335 ppb	08:52:05
1	Na 589.592 Radial†	1450761.5	1668589.6	514320 ug/L	514320 ppb	08:51:12
1	Ni 231.604†	265.8	195.3	5.3625 ug/L	5.3625 ppb	08:52:05
1	P 214.914†	605.8	464.4	65.589 ug/L	65.589 ppb	08:52:05
1	Pb 220.353†	-426.9	-437.2	18.307 ug/L	18.307 ppb	08:52:05
1	S 181.975 Axial†	83.6	53.1	-17.707 ug/L	-17.707 ppb	08:52:05
1	Sb 206.836†	56.5	27.8	5.1537 ug/L	5.1537 ppb	08:52:05
1	Se 196.026†	-2381.2	-2678.1	-180.59 ug/L	-180.59 ppb	08:52:05
1	Si 251.611†	-439.2	-1064.5	-33.512 ug/L	-33.512 ppb	08:52:05
1	Sn 189.927†	-368.0	-417.6	-3.3532 ug/L	-3.3532 ppb	08:52:05
1	Sr 421.552†	729.5	823.7	1.7154 ug/L	1.7154 ppb	08:51:17
1	Ti 334.940†	-16890.0	-18179.0	-11.097 ug/L	-11.097 ppb	08:51:45
1	Tl 190.801†	-89.7	-71.0	-25.171 ug/L	-25.171 ppb	08:52:05
1	U 409.014†	481252.4	545031.8	14021 ug/L	14021 ppb	08:51:45
1	V 292.402†	1798.6	3429.8	-5.1790 ug/L	-5.1790 ppb	08:52:05
1	Zn 213.857†	6054.8	6183.2	19.681 ug/L	19.681 ppb	08:52:05
1	SiO2†	-543.3	-1193.8	-80.258 ug/L	-80.258 ppb	08:53:02
2	Sc 361.383	781227.5	781227.5	89.582 %		08:52:11
2	Sc Radial	4703.7	4703.7	87.2 %		08:51:28
2	Y 371.029	674378.6	674378.6	86.302 %		08:52:11
2	Y RADIAL	5102.6	5102.6	87.90 %		08:51:28
2	Ag 328.068†	-23547.5	-26580.4	8.4351 ug/L	8.4351 ppb	08:52:11
2	Al 396.153Radial†	585972.1	671805.0	525930 ug/L	525930 ppb	08:51:23
2	As 188.979†	-175.5	-165.3	29.747 ug/L	29.747 ppb	08:52:31
2	B 249.677†	1643.1	2143.9	-22.611 ug/L	-22.611 ppb	08:52:11
2	Ba 233.527†	-1247.6	-1387.2	1.6482 ug/L	1.6482 ppb	08:52:31
2	Be 313.107†	-12590.3	-8461.7	-3.2526 ug/L	-3.2526 ppb	08:52:11
2	Ca 317.933Radial†	257919.5	295681.8	489670 ug/L	489670 ppb	08:51:23
2	Cd 226.502†	3600.3	4198.2	8.7013 ug/L	8.7013 ppb	08:52:31
2	Co 228.616†	188.6	269.6	0.0169 ug/L	0.0169 ppb	08:52:31
2	Cr 267.716†	127.2	62.4	3.8020 ug/L	3.8020 ppb	08:52:31
2	Cu 324.752†	3698.4	-5711.2	-1.0314 ug/L	-1.0314 ppb	08:52:11
2	Fe 238.204 Radial†	41318.1	47362.6	443520 ug/L	443520 ppb	08:51:28
2	K 766.490 Radial†	2181.5	530.4	-266.31 ug/L	-266.31 ppb	08:51:28
2	Mg 279.077 IEC†	12152.5	13930.3	510730 ug/L	510730 ppb	08:51:28
2	Mn 257.610†	-27841.3	-31636.9	-15.472 ug/L	-15.472 ppb	08:52:11
2	Mo 202.031†	-436.8	-508.7	2.6925 ug/L	2.6925 ppb	08:52:31
2	Na 589.592 Radial†	1460308.4	1674647.1	516190 ug/L	516190 ppb	08:51:23
2	Ni 231.604†	291.6	220.3	6.0499 ug/L	6.0499 ppb	08:52:31

2	P 214.914†	584.4	431.9	44.377 ug/L	44.377 ppb	08:52:31
2	Pb 220.353†	-444.6	-451.0	16.655 ug/L	16.655 ppb	08:52:31
2	S 181.975 Axial†	61.4	27.1	-57.506 ug/L	-57.506 ppb	08:52:31
2	Sb 206.836†	41.9	10.7	-1.0017 ug/L	-1.0017 ppb	08:52:31
2	Se 196.026†	-2380.0	-2642.7	-152.25 ug/L	-152.25 ppb	08:52:31
2	Si 251.611†	-465.5	-1087.6	-34.256 ug/L	-34.256 ppb	08:52:31
2	Sn 189.927†	-360.4	-403.8	-0.3772 ug/L	-0.3772 ppb	08:52:31
2	Sr 421.552†	723.7	814.6	1.6492 ug/L	1.6492 ppb	08:51:28
2	Ti 334.940†	-17287.0	-18380.5	-11.299 ug/L	-11.299 ppb	08:52:11
2	Tl 190.801†	-112.9	-95.6	-33.733 ug/L	-33.733 ppb	08:52:31
2	U 409.014†	487917.8	545586.9	14035 ug/L	14035 ppb	08:52:11
2	V 292.402†	1813.8	3421.0	-5.4670 ug/L	-5.4670 ppb	08:52:31
2	Zn 213.857†	6095.2	6141.7	19.079 ug/L	19.079 ppb	08:52:31
2	SiO2†	-469.3	-1103.4	-74.119 ug/L	-74.119 ppb	08:53:07
3	Sc 361.383	773585.1	773585.1	88.706 %		08:52:37
3	Sc Radial	4699.0	4699.0	87.1 %		08:51:38
3	Y 371.029	667520.1	667520.1	85.424 %		08:52:37
3	Y RADIAL	5111.8	5111.8	88.06 %		08:51:38
3	Ag 328.068†	-23526.5	-26816.5	6.8234 ug/L	6.8234 ppb	08:52:37
3	Al 396.153Radial†	584693.0	671015.0	525310 ug/L	525310 ppb	08:51:33
3	As 188.979†	-172.1	-163.4	30.215 ug/L	30.215 ppb	08:52:57
3	B 249.677†	1571.3	2081.1	-23.774 ug/L	-23.774 ppb	08:52:37
3	Ba 233.527†	-1210.8	-1359.5	1.8330 ug/L	1.8330 ppb	08:52:57
3	Be 313.107†	-12536.9	-8540.3	-3.2813 ug/L	-3.2813 ppb	08:52:37
3	Ca 317.933Radial†	257317.7	295289.6	489020 ug/L	489020 ppb	08:51:33
3	Cd 226.502†	3625.1	4265.9	9.7201 ug/L	9.7201 ppb	08:52:57
3	Co 228.616†	178.3	260.1	-0.1891 ug/L	-0.1891 ppb	08:52:57
3	Cr 267.716†	129.0	65.9	3.8031 ug/L	3.8031 ppb	08:52:57
3	Cu 324.752†	3512.4	-5880.1	-1.6270 ug/L	-1.6270 ppb	08:52:37
3	Fe 238.204 Radial†	41112.9	47174.9	441760 ug/L	441760 ppb	08:51:38
3	K 766.490 Radial†	2111.4	452.5	-279.66 ug/L	-279.66 ppb	08:51:38
3	Mg 279.077 IEC†	12155.1	13947.3	511350 ug/L	511350 ppb	08:51:38
3	Mn 257.610†	-27108.9	-31118.3	-15.042 ug/L	-15.042 ppb	08:52:37
3	Mo 202.031†	-447.3	-525.3	1.3181 ug/L	1.3181 ppb	08:52:57
3	Na 589.592 Radial†	1452047.0	1666855.8	513780 ug/L	513780 ppb	08:51:33
3	Ni 231.604†	311.5	245.9	6.7534 ug/L	6.7534 ppb	08:52:57
3	P 214.914†	589.4	443.9	53.208 ug/L	53.208 ppb	08:52:57
3	Pb 220.353†	-444.9	-456.1	15.960 ug/L	15.960 ppb	08:52:57
3	S 181.975 Axial†	93.3	63.8	-1.7852 ug/L	-1.7852 ppb	08:52:57
3	Sb 206.836†	48.3	18.4	1.7263 ug/L	1.7263 ppb	08:52:57
3	Se 196.026†	-2390.4	-2680.6	-181.83 ug/L	-181.83 ppb	08:52:57
3	Si 251.611†	-455.3	-1081.2	-34.037 ug/L	-34.037 ppb	08:52:57
3	Sn 189.927†	-361.7	-409.3	-1.6124 ug/L	-1.6124 ppb	08:52:57
3	Sr 421.552†	765.8	863.8	1.9742 ug/L	1.9742 ppb	08:51:38
3	Ti 334.940†	-16902.8	-18138.0	-11.061 ug/L	-11.061 ppb	08:52:37
3	Tl 190.801†	-96.7	-78.5	-27.797 ug/L	-27.797 ppb	08:52:57
3	U 409.014†	483671.0	546180.2	14050 ug/L	14050 ppb	08:52:37
3	V 292.402†	1835.3	3465.3	-4.8926 ug/L	-4.8926 ppb	08:52:57
3	Zn 213.857†	6127.4	6245.2	20.293 ug/L	20.293 ppb	08:52:57
3	SiO2†	-488.8	-1130.6	-75.938 ug/L	-75.938 ppb	08:53:12

## Mean Data: LRL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	775384.6	88.912 %	0.5943			0.67%
Sc Radial	4697.5	87.1 %	0.13			0.15%
Y 371.029	669368.5	85.661 %	0.5616			0.66%
Y RADIAL	5086.7	87.62 %	0.617			0.70%
Ag 328.068†	-26689.1	7.5764 ug/L	0.81103	7.5764 ppb	0.81103	10.70%
Al 396.153Radial†	670738.5	525100 ug/L	961.6	525100 ppb	961.6	0.18%
QC value within limits for Al 396.153Radial Recovery = 105.02%						
As 188.979†	-166.6	28.880 ug/L	1.9203	28.880 ppb	1.9203	6.65%
B 249.677†	2067.2	-24.186 ug/L	1.8153	-24.186 ppb	1.8153	7.51%
Ba 233.527†	-1356.6	1.8746 ug/L	0.24985	1.8746 ppb	0.24985	13.33%
Be 313.107†	-8483.8	-3.2604 ug/L	0.01834	-3.2604 ppb	0.01834	0.56%
Ca 317.933Radial†	295362.8	489140 ug/L	479.2	489140 ppb	479.2	0.10%
QC value within limits for Ca 317.933Radial Recovery = 97.83%						
Cd 226.502†	4241.4	9.3575 ug/L	0.56935	9.3575 ppb	0.56935	6.08%
Co 228.616†	267.4	-0.0212 ug/L	0.15243	-0.0212 ppb	0.15243	718.19%
Cr 267.716†	69.2	3.8586 ug/L	0.09714	3.8586 ppb	0.09714	2.52%

Cu 324.752†	-5804.4	-1.3676 ug/L	0.30516	-1.3676 ppb	0.30516	22.31%
Fe 238.204 Radial†	47234.9	442320 ug/L	1036.1	442320 ppb	1036.1	0.23%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 88.46%						
K 766.490 Radial†	507.2	-269.90 ug/L	8.548	-269.90 ppb	8.548	3.17%
Mg 279.077 IEC†	13935.7	510920 ug/L	371.6	510920 ppb	371.6	0.07%
QC value within limits for Mg 279.077 IEC Recovery = 102.18%						
Mn 257.610†	-31372.4	-15.277 ug/L	0.2179	-15.277 ppb	0.2179	1.43%
Mo 202.031†	-516.9	1.9814 ug/L	0.68844	1.9814 ppb	0.68844	34.75%
Na 589.592 Radial†	1670030.8	514760 ug/L	1260.9	514760 ppb	1260.9	0.24%
QC value within limits for Na 589.592 Radial Recovery = 102.95%						
Ni 231.604†	220.5	6.0553 ug/L	0.69545	6.0553 ppb	0.69545	11.49%
P 214.914†	446.7	54.392 ug/L	10.6554	54.392 ppb	10.6554	19.59%
Pb 220.353†	-448.1	16.974 ug/L	1.2058	16.974 ppb	1.2058	7.10%
S 181.975 Axial†	48.0	-25.666 ug/L	28.7002	-25.666 ppb	28.7002	111.82%
Sb 206.836†	19.0	1.9594 ug/L	3.08431	1.9594 ppb	3.08431	157.41%
Se 196.026†	-2667.2	-171.55 ug/L	16.728	-171.55 ppb	16.728	9.75%
Si 251.611†	-1077.8	-33.935 ug/L	0.3824	-33.935 ppb	0.3824	1.13%
Sn 189.927†	-410.2	-1.7810 ug/L	1.49514	-1.7810 ppb	1.49514	83.95%
Sr 421.552†	834.1	1.7796 ug/L	0.17175	1.7796 ppb	0.17175	9.65%
Ti 334.940†	-18232.5	-11.152 ug/L	0.1284	-11.152 ppb	0.1284	1.15%
Tl 190.801†	-81.7	-28.900 ug/L	4.3862	-28.900 ppb	4.3862	15.18%
U 409.014†	545599.6	14035 ug/L	14.8	14035 ppb	14.8	0.11%
QC value within limits for U 409.014 Recovery = 93.57%						
V 292.402†	3438.7	-5.1795 ug/L	0.28720	-5.1795 ppb	0.28720	5.54%
Zn 213.857†	6190.1	19.684 ug/L	0.6069	19.684 ppb	0.6069	3.08%
SiO2†	-1142.6	-76.772 ug/L	3.1534	-76.772 ppb	3.1534	4.11%

QC Failed. Continue with analysis.

Sequence No.: 12

Sample ID: LR2

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 16

Date Collected: 1/25/2010 08:55:22

Data Type: Reprocessed on 1/25/2010 09:53:23

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 361.383	877901.5	877901.5	100.67 %		08:58:57
1	Sc Radial	5078.0	5078.0	94.2 %		08:57:20
1	Y 371.029	758684.0	758684.0	97.090 %		08:58:57
1	Y RADIAL	5462.0	5462.0	94.09 %		08:57:20
1	Ag 328.068†	-7214.3	-7461.0	7.0669 ug/L	7.0669 ppb	08:59:02
1	Al 396.153Radial†	555.9	586.3	-11.945 ug/L	-11.945 ppb	08:57:20
1	As 188.979†	21773.6	21659.8	9752.1 ug/L	9752.1 ppb	08:59:02
1	B 249.677†	214997.6	213881.0	4903.6 ug/L	4903.6 ppb	08:58:57
1	Ba 233.527†	1196409.0	1188477.4	10213 ug/L	10213 ppb	08:58:57
1	Be 313.107†	7602138.9	7557298.5	2867.9 ug/L	2867.9 ppb	08:58:51
1	Ca 317.933Radial†	32.0	14.6	24.143 ug/L	24.143 ppb	08:57:40
1	Cd 226.502†	792029.7	786954.6	9709.8 ug/L	9709.8 ppb	08:58:57
1	Co 228.616†	409560.0	406902.0	9740.0 ug/L	9740.0 ppb	08:59:02
1	Cr 267.716†	2053432.0	2039729.8	23998 ug/L	23998 ppb	08:58:57
1	Cu 324.752†	6836421.2	6781228.1	19840 ug/L	19840 ppb	08:58:51
1	Fe 238.204 Radial†	-20.0	-29.3	16.938 ug/L	16.938 ppb	08:57:40
1	K 766.490 Radial†	1529473.8	1622303.9	302140 ug/L	302140 ppb	08:57:15
1	Mg 279.077 IEC†	-6.5	-9.3	-240.25 ug/L	-240.25 ppb	08:57:40
1	Mn 257.610†	7834455.2	7781922.8	9439.3 ug/L	9439.3 ppb	08:58:51
1	Mo 202.031†	132401.5	131502.1	9711.1 ug/L	9711.1 ppb	08:59:02
1	Na 589.592 Radial†	-90.2	327.6	100.97 ug/L	100.97 ppb	08:57:20
1	Ni 231.604†	355992.3	353525.3	9709.4 ug/L	9709.4 ppb	08:59:02
1	P 214.914†	28868.1	28456.1	13813 ug/L	13813 ppb	08:59:02
1	Pb 220.353†	175162.8	174046.2	24129 ug/L	24129 ppb	08:59:02
1	S 181.975 Axial†	33555.7	33291.7	50454 ug/L	50454 ppb	08:59:02
1	Sb 206.836†	29369.7	29138.8	10971 ug/L	10971 ppb	08:59:02
1	Se 196.026†	16278.0	16184.1	10147 ug/L	10147 ppb	08:59:02
1	Si 251.611†	1470490.5	1460167.2	46492 ug/L	46492 ppb	08:58:57
1	Sn 189.927†	53206.8	52852.3	10765 ug/L	10765 ppb	08:59:02
1	Sr 421.552†	1439375.5	1528576.7	9955.2 ug/L	9955.2 ppb	08:57:15
1	Ti 334.940†	6115323.5	6075670.7	9589.6 ug/L	9589.6 ppb	08:58:51
1	Tl 190.801†	28640.5	28481.0	9967.9 ug/L	9967.9 ppb	08:59:02
1	U 409.014†	266.2	1193.0	-22.843 ug/L	-22.843 ppb	08:59:02
1	V 292.402†	1494938.1	1486416.8	10024 ug/L	10024 ppb	08:58:57
1	Zn 213.857†	1386643.5	1376782.0	13836 ug/L	13836 ppb	08:58:57
1	SiO2†	1454143.9	1443917.4	98066 ug/L	98066 ppb	08:59:48
2	Sc 361.383	882413.6	882413.6	101.19 %		08:59:17
2	Sc Radial	5119.0	5119.0	94.9 %		08:57:50
2	Y 371.029	761544.4	761544.4	97.456 %		08:59:17
2	Y RADIAL	5461.0	5461.0	94.07 %		08:57:50
2	Ag 328.068†	-7106.9	-7318.3	7.7274 ug/L	7.7274 ppb	08:59:22
2	Al 396.153Radial†	575.8	602.5	10.444 ug/L	10.444 ppb	08:57:50
2	As 188.979†	21355.4	21135.8	9517.8 ug/L	9517.8 ppb	08:59:22
2	B 249.677†	216868.4	214637.8	4921.6 ug/L	4921.6 ppb	08:59:17
2	Ba 233.527†	1205141.7	1191030.7	10235 ug/L	10235 ppb	08:59:17
2	Be 313.107†	7586126.9	7502859.4	2847.3 ug/L	2847.3 ppb	08:59:10
2	Ca 317.933Radial†	36.1	18.7	30.906 ug/L	30.906 ppb	08:58:10
2	Cd 226.502†	798561.6	789386.9	9739.7 ug/L	9739.7 ppb	08:59:17
2	Co 228.616†	403438.2	398771.5	9544.9 ug/L	9544.9 ppb	08:59:22
2	Cr 267.716†	2066165.7	2041884.1	24024 ug/L	24024 ppb	08:59:17
2	Cu 324.752†	6843032.4	6753036.6	19757 ug/L	19757 ppb	08:59:10
2	Fe 238.204 Radial†	-19.6	-28.7	17.344 ug/L	17.344 ppb	08:58:10
2	K 766.490 Radial†	1510987.4	1589818.8	296090 ug/L	296090 ppb	08:57:45
2	Mg 279.077 IEC†	-3.1	-5.7	-109.80 ug/L	-109.80 ppb	08:58:10
2	Mn 257.610†	7842098.8	7749682.3	9400.2 ug/L	9400.2 ppb	08:59:10
2	Mo 202.031†	130348.7	128800.8	9511.6 ug/L	9511.6 ppb	08:59:22
2	Na 589.592 Radial†	-96.1	322.1	99.291 ug/L	99.291 ppb	08:57:50
2	Ni 231.604†	350664.2	346451.4	9515.1 ug/L	9515.1 ppb	08:59:22

2	P 214.914†	28395.9	27842.8	13447 ug/L	13447 ppb	08:59:22
2	Pb 220.353†	172644.1	170667.2	23660 ug/L	23660 ppb	08:59:22
2	S 181.975 Axial†	33062.2	32633.5	49457 ug/L	49457 ppb	08:59:22
2	Sb 206.836†	28940.2	28565.1	10755 ug/L	10755 ppb	08:59:22
2	Se 196.026†	15991.6	15818.4	9917.8 ug/L	9917.8 ppb	08:59:22
2	Si 251.611†	1483278.9	1465336.5	46659 ug/L	46659 ppb	08:59:17
2	Sn 189.927†	52511.9	51895.3	10570 ug/L	10570 ppb	08:59:22
2	Sr 421.552†	1419855.7	1495769.3	9741.5 ug/L	9741.5 ppb	08:57:45
2	Ti 334.940†	6120105.8	6049334.6	9547.9 ug/L	9547.9 ppb	08:59:10
2	Tl 190.801†	28158.1	27858.7	9751.8 ug/L	9751.8 ppb	08:59:22
2	U 409.014†	403.2	1327.0	-19.441 ug/L	-19.441 ppb	08:59:22
2	V 292.402†	1503834.6	1487615.6	10030 ug/L	10030 ppb	08:59:17
2	Zn 213.857†	1395414.0	1378406.5	13854 ug/L	13854 ppb	08:59:17
2	SiO2†	1439479.3	1422038.3	96582 ug/L	96582 ppb	08:59:54
3	Sc 361.383	848720.9	848720.9	97.322 %		08:59:37
3	Sc Radial	5097.8	5097.8	94.5 %		08:58:21
3	Y 371.029	733581.9	733581.9	93.878 %		08:59:37
3	Y RADIAL	5506.0	5506.0	94.85 %		08:58:21
3	Ag 328.068†	-6996.4	-7483.6	7.1676 ug/L	7.1676 ppb	08:59:42
3	Al 396.153Radial†	602.9	633.7	23.081 ug/L	23.081 ppb	08:58:21
3	As 188.979†	21057.1	21667.2	9756.7 ug/L	9756.7 ppb	08:59:42
3	B 249.677†	208209.1	214248.6	4912.0 ug/L	4912.0 ppb	08:59:37
3	Ba 233.527†	1162255.8	1194246.2	10263 ug/L	10263 ppb	08:59:37
3	Be 313.107†	7450017.9	7660632.9	2907.1 ug/L	2907.1 ppb	08:59:30
3	Ca 317.933Radial†	39.4	22.3	36.982 ug/L	36.982 ppb	08:58:41
3	Cd 226.502†	772245.2	793676.4	9792.7 ug/L	9792.7 ppb	08:59:37
3	Co 228.616†	397202.5	408192.5	9770.6 ug/L	9770.6 ppb	08:59:42
3	Cr 267.716†	2002161.5	2057180.9	24204 ug/L	24204 ppb	08:59:37
3	Cu 324.752†	6726319.0	6901585.5	20192 ug/L	20192 ppb	08:59:30
3	Fe 238.204 Radial†	-18.3	-27.4	35.662 ug/L	35.662 ppb	08:58:41
3	K 766.490 Radial†	1523808.7	1609982.2	299850 ug/L	299850 ppb	08:58:16
3	Mg 279.077 IEC†	-4.6	-7.3	-164.79 ug/L	-164.79 ppb	08:58:41
3	Mn 257.610†	7695856.4	7907086.1	9591.1 ug/L	9591.1 ppb	08:59:30
3	Mo 202.031†	128574.5	132091.8	9754.7 ug/L	9754.7 ppb	08:59:42
3	Na 589.592 Radial†	-168.5	245.2	75.574 ug/L	75.574 ppb	08:58:21
3	Ni 231.604†	345249.0	354644.8	9740.2 ug/L	9740.2 ppb	08:59:42
3	P 214.914†	27922.4	28470.3	13753 ug/L	13753 ppb	08:59:42
3	Pb 220.353†	169892.1	174612.8	24207 ug/L	24207 ppb	08:59:42
3	S 181.975 Axial†	32481.3	33333.8	50518 ug/L	50518 ppb	08:59:42
3	Sb 206.836†	28488.2	29236.1	11007 ug/L	11007 ppb	08:59:42
3	Se 196.026†	15679.5	16125.1	10110 ug/L	10110 ppb	08:59:42
3	Si 251.611†	1423169.6	1461766.9	46542 ug/L	46542 ppb	08:59:37
3	Sn 189.927†	51624.8	53044.0	10804 ug/L	10804 ppb	08:59:42
3	Sr 421.552†	1432817.3	1515683.0	9871.2 ug/L	9871.2 ppb	08:58:16
3	Ti 334.940†	6005603.3	6171792.5	9741.3 ug/L	9741.3 ppb	08:59:30
3	Tl 190.801†	27736.6	28530.4	9986.8 ug/L	9986.8 ppb	08:59:42
3	U 409.014†	298.3	1235.0	-22.219 ug/L	-22.219 ppb	08:59:42
3	V 292.402†	1452307.6	1493671.0	10073 ug/L	10073 ppb	08:59:37
3	Zn 213.857†	1354026.0	1390626.1	13976 ug/L	13976 ppb	08:59:37
3	SiO2†	1440350.0	1479408.4	100480 ug/L	100480 ppb	09:00:00

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	869678.7	99.725 %	2.0972			2.10%
Sc Radial	5098.3	94.5 %	0.38			0.40%
Y 371.029	751270.1	96.142 %	1.9689			2.05%
Y RADIAL	5476.3	94.33 %	0.442			0.47%
Ag 328.068†	-7421.0	7.3207 ug/L	0.35584	7.3207 ppb	0.35584	4.86%
Al 396.153Radial†	607.5	7.1932 ug/L	17.73785	7.1932 ppb	17.73785	246.59%
As 188.979†	21487.6	9675.5 ug/L	136.63	9675.5 ppb	136.63	1.41%
QC value within limits for As 188.979 Recovery = 96.76%						
B 249.677†	214255.8	4912.4 ug/L	9.01	4912.4 ppb	9.01	0.18%
QC value within limits for B 249.677 Recovery = 98.25%						
Ba 233.527†	1191251.5	10237 ug/L	24.8	10237 ppb	24.8	0.24%
QC value less than the lower limit for Ba 233.527 Recovery = 68.25%						
Be 313.107†	7573596.9	2874.1 ug/L	30.41	2874.1 ppb	30.41	1.06%
QC value within limits for Be 313.107 Recovery = 95.80%						
Ca 317.933Radial†	18.5	30.677 ug/L	6.4223	30.677 ppb	6.4223	20.94%
Cd 226.502†	790006.0	9747.4 ug/L	41.99	9747.4 ppb	41.99	0.43%

QC value within limits for Cd 226.502 Recovery = 97.47%							
Co	228.616†	404622.0	9685.2 ug/L	122.42	9685.2 ppb	122.42	1.26%
QC value within limits for Co 228.616 Recovery = 96.85%							
Cr	267.716†	2046264.9	24075 ug/L	111.9	24075 ppb	111.9	0.46%
QC value within limits for Cr 267.716 Recovery = 96.30%							
Cu	324.752†	6811950.1	19930 ug/L	230.8	19930 ppb	230.8	1.16%
QC value within limits for Cu 324.752 Recovery = 99.65%							
Fe	238.204 Radial†	-28.5	23.315 ug/L	10.6950	23.315 ppb	10.6950	45.87%
K	766.490 Radial†	1607368.3	299360 ug/L	3054.3	299360 ppb	3054.3	1.02%
QC value within limits for K 766.490 Radial Recovery = 99.79%							
Mg	279.077 IEC†	-7.4	-171.61 ug/L	65.491	-171.61 ppb	65.491	38.16%
Mn	257.610†	7812897.1	9476.9 ug/L	100.86	9476.9 ppb	100.86	1.06%
QC value within limits for Mn 257.610 Recovery = 94.77%							
Mo	202.031†	130798.2	9659.1 ug/L	129.58	9659.1 ppb	129.58	1.34%
QC value within limits for Mo 202.031 Recovery = 96.59%							
Na	589.592 Radial†	298.3	91.944 ug/L	14.2022	91.944 ppb	14.2022	15.45%
Ni	231.604†	351540.5	9654.9 ug/L	122.02	9654.9 ppb	122.02	1.26%
QC value within limits for Ni 231.604 Recovery = 96.55%							
P	214.914†	28256.4	13671 ug/L	196.1	13671 ppb	196.1	1.43%
QC value within limits for P 214.914 Recovery = 91.14%							
Pb	220.353†	173108.7	23999 ug/L	295.8	23999 ppb	295.8	1.23%
QC value within limits for Pb 220.353 Recovery = 96.00%							
S	181.975 Axial†	33086.3	50143 ug/L	595.1	50143 ppb	595.1	1.19%
QC value within limits for S 181.975 Axial Recovery = 100.29%							
Sb	206.836†	28980.0	10911 ug/L	136.4	10911 ppb	136.4	1.25%
QC value within limits for Sb 206.836 Recovery = 109.11%							
Se	196.026†	16042.5	10058 ug/L	123.1	10058 ppb	123.1	1.22%
QC value within limits for Se 196.026 Recovery = 100.58%							
Si	251.611†	1462423.6	46564 ug/L	85.9	46564 ppb	85.9	0.18%
QC value within limits for Si 251.611 Recovery = 93.13%							
Sn	189.927†	52597.2	10713 ug/L	125.3	10713 ppb	125.3	1.17%
QC value within limits for Sn 189.927 Recovery = 107.13%							
Sr	421.552†	1513343.0	9856.0 ug/L	107.64	9856.0 ppb	107.64	1.09%
QC value within limits for Sr 421.552 Recovery = 98.56%							
Ti	334.940†	6098932.6	9626.3 ug/L	101.79	9626.3 ppb	101.79	1.06%
QC value within limits for Ti 334.940 Recovery = 96.26%							
Tl	190.801†	28290.0	9902.2 ug/L	130.57	9902.2 ppb	130.57	1.32%
QC value within limits for Tl 190.801 Recovery = 99.02%							
U	409.014†	1251.7	-21.501 ug/L	1.8108	-21.501 ppb	1.8108	8.42%
V	292.402†	1489234.5	10042 ug/L	26.8	10042 ppb	26.8	0.27%
QC value within limits for V 292.402 Recovery = 100.42%							
Zn	213.857†	1381938.2	13889 ug/L	75.8	13889 ppb	75.8	0.55%
QC value within limits for Zn 213.857 Recovery = 92.59%							
SiO2†		1448454.7	98377 ug/L	1968.6	98377 ppb	1968.6	2.00%
QC value within limits for SiO2 Recovery = 91.94%							

QC Failed. Continue with analysis.



Sequence No.: 13  
 Sample ID: CCV  
 Analyst:  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 1/25/2010 09:02:09  
 Data Type: Reprocessed on 1/25/2010 09:53:24  
 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 361.383	917386.8	917386.8	105.20 %		09:05:19
1	Sc Radial	5322.4	5322.4	98.7 %		09:04:01
1	Y 371.029	803788.8	803788.8	102.86 %		09:05:19
1	Y RADIAL	5718.5	5718.5	98.51 %		09:04:01
1	Ag 328.068†	115672.0	109664.4	486.46 ug/L	486.46 ppb	09:05:24
1	Al 396.153Radial†	6218.3	6296.4	4905.3 ug/L	4905.3 ppb	09:04:01
1	As 188.979†	1205.0	1176.1	530.40 ug/L	530.40 ppb	09:05:44
1	B 249.677†	22849.8	22030.9	505.69 ug/L	505.69 ppb	09:05:24
1	Ba 233.527†	60107.6	57144.4	491.27 ug/L	491.27 ppb	09:05:24
1	Be 313.107†	1374834.2	1312524.5	495.37 ug/L	495.37 ppb	09:05:19
1	Ca 317.933Radial†	3056.1	3077.1	5095.8 ug/L	5095.8 ppb	09:04:21
1	Cd 226.502†	42173.0	40269.4	496.42 ug/L	496.42 ppb	09:05:24
1	Co 228.616†	21903.9	20881.1	500.10 ug/L	500.10 ppb	09:05:24
1	Cr 267.716†	44246.0	41981.2	494.24 ug/L	494.24 ppb	09:05:24
1	Cu 324.752†	180187.5	161448.4	472.36 ug/L	472.36 ppb	09:05:24
1	Fe 238.204 Radial†	554.1	553.4	5197.4 ug/L	5197.4 ppb	09:04:21
1	K 766.490 Radial†	29305.4	27721.8	5157.0 ug/L	5157.0 ppb	09:04:01
1	Mg 279.077 IEC†	144.9	144.4	5299.2 ug/L	5299.2 ppb	09:04:21
1	Mn 257.610†	426014.2	404415.6	490.84 ug/L	490.84 ppb	09:05:19
1	Mo 202.031†	7026.1	6658.0	492.14 ug/L	492.14 ppb	09:05:44
1	Na 589.592 Radial†	31072.9	31906.7	9834.8 ug/L	9834.8 ppb	09:04:01
1	Ni 231.604†	19106.1	18057.2	495.93 ug/L	495.93 ppb	09:05:24
1	P 214.914†	4370.7	3934.4	2348.6 ug/L	2348.6 ppb	09:05:44
1	Pb 220.353†	3774.4	3633.4	505.05 ug/L	505.05 ppb	09:05:44
1	S 181.975 Axial†	730.4	652.9	988.54 ug/L	988.54 ppb	09:05:44
1	Sb 206.836†	1484.5	1375.1	518.27 ug/L	518.27 ppb	09:05:44
1	Se 196.026†	810.2	784.3	509.30 ug/L	509.30 ppb	09:05:44
1	Si 251.611†	80657.2	76105.7	2423.4 ug/L	2423.4 ppb	09:05:24
1	Sn 189.927†	2568.8	2440.4	497.92 ug/L	497.92 ppb	09:05:44
1	Sr 421.552†	75546.0	76528.7	498.37 ug/L	498.37 ppb	09:04:01
1	Ti 334.940†	312217.8	297714.3	470.19 ug/L	470.19 ppb	09:05:24
1	Tl 190.801†	1454.5	1413.1	494.56 ug/L	494.56 ppb	09:05:44
1	U 409.014†	18377.9	18398.7	473.30 ug/L	473.30 ppb	09:05:24
1	V 292.402†	75514.9	73181.6	494.24 ug/L	494.24 ppb	09:05:24
1	Zn 213.857†	51952.7	48724.4	488.50 ug/L	488.50 ppb	09:05:24
1	SiO2†	81200.0	76610.0	5203.7 ug/L	5203.7 ppb	09:06:51
2	Sc 361.383	912646.2	912646.2	104.65 %		09:05:50
2	Sc Radial	5276.5	5276.5	97.8 %		09:04:26
2	Y 371.029	798771.2	798771.2	102.22 %		09:05:50
2	Y RADIAL	5673.6	5673.6	97.73 %		09:04:26
2	Ag 328.068†	116860.9	111371.6	494.00 ug/L	494.00 ppb	09:05:55
2	Al 396.153Radial†	6160.3	6291.8	4901.5 ug/L	4901.5 ppb	09:04:26
2	As 188.979†	1185.8	1163.7	524.90 ug/L	524.90 ppb	09:06:15
2	B 249.677†	23017.0	22303.6	511.95 ug/L	511.95 ppb	09:05:55
2	Ba 233.527†	60946.0	58242.3	500.70 ug/L	500.70 ppb	09:05:55
2	Be 313.107†	1367551.6	1312354.3	495.32 ug/L	495.32 ppb	09:05:50
2	Ca 317.933Radial†	3047.5	3095.2	5125.9 ug/L	5125.9 ppb	09:04:47
2	Cd 226.502†	42825.9	41101.4	506.69 ug/L	506.69 ppb	09:05:55
2	Co 228.616†	22143.6	21218.3	508.17 ug/L	508.17 ppb	09:05:55
2	Cr 267.716†	44691.6	42625.5	501.82 ug/L	501.82 ppb	09:05:55
2	Cu 324.752†	182213.8	164274.3	480.62 ug/L	480.62 ppb	09:05:55
2	Fe 238.204 Radial†	547.9	552.0	5184.0 ug/L	5184.0 ppb	09:04:47
2	K 766.490 Radial†	29099.0	27769.1	5165.8 ug/L	5165.8 ppb	09:04:26
2	Mg 279.077 IEC†	145.5	146.3	5369.8 ug/L	5369.8 ppb	09:04:47
2	Mn 257.610†	424925.9	405479.3	492.13 ug/L	492.13 ppb	09:05:50
2	Mo 202.031†	7078.4	6742.7	498.40 ug/L	498.40 ppb	09:06:15
2	Na 589.592 Radial†	30884.1	31987.5	9859.7 ug/L	9859.7 ppb	09:04:26
2	Ni 231.604†	19352.0	18386.5	504.98 ug/L	504.98 ppb	09:05:55

2	P 214.914†	4410.1	3993.6	2383.7 ug/L	2383.7 ppb	09:06:15
2	Pb 220.353†	3766.0	3643.9	506.53 ug/L	506.53 ppb	09:06:15
2	S 181.975 Axial†	728.0	654.3	990.61 ug/L	990.61 ppb	09:06:15
2	Sb 206.836†	1485.1	1383.0	521.37 ug/L	521.37 ppb	09:06:15
2	Se 196.026†	808.7	786.8	510.85 ug/L	510.85 ppb	09:06:15
2	Si 251.611†	81663.8	77465.7	2466.7 ug/L	2466.7 ppb	09:05:55
2	Sn 189.927†	2581.4	2465.2	502.97 ug/L	502.97 ppb	09:06:15
2	Sr 421.552†	74911.6	76546.1	498.48 ug/L	498.48 ppb	09:04:26
2	Ti 334.940†	316092.0	302958.0	478.46 ug/L	478.46 ppb	09:05:55
2	Tl 190.801†	1457.7	1423.4	498.16 ug/L	498.16 ppb	09:06:15
2	U 409.014†	18738.5	18834.0	484.52 ug/L	484.52 ppb	09:05:55
2	V 292.402†	76393.6	74394.1	502.42 ug/L	502.42 ppb	09:05:55
2	Zn 213.857†	52528.7	49531.3	496.60 ug/L	496.60 ppb	09:05:55
2	SiO2†	80712.1	76544.7	5199.1 ug/L	5199.1 ppb	09:06:57
3	Sc 361.383	913507.5	913507.5	104.75 %		09:06:21
3	Sc Radial	5343.9	5343.9	99.1 %		09:04:52
3	Y 371.029	799803.7	799803.7	102.35 %		09:06:21
3	Y RADIAL	5749.5	5749.5	99.04 %		09:04:52
3	Ag 328.068†	115583.3	110046.7	488.12 ug/L	488.12 ppb	09:06:26
3	Al 396.153Radial†	6286.8	6340.1	4939.5 ug/L	4939.5 ppb	09:04:52
3	As 188.979†	1177.7	1154.9	520.90 ug/L	520.90 ppb	09:06:46
3	B 249.677†	22668.6	21950.2	503.84 ug/L	503.84 ppb	09:06:26
3	Ba 233.527†	60345.2	57613.9	495.29 ug/L	495.29 ppb	09:06:26
3	Be 313.107†	1365224.1	1308900.2	494.00 ug/L	494.00 ppb	09:06:21
3	Ca 317.933Radial†	3048.8	3057.3	5063.1 ug/L	5063.1 ppb	09:05:12
3	Cd 226.502†	42233.9	40497.7	499.24 ug/L	499.24 ppb	09:06:26
3	Co 228.616†	21850.0	20918.1	500.99 ug/L	500.99 ppb	09:06:26
3	Cr 267.716†	44192.1	42108.4	495.74 ug/L	495.74 ppb	09:06:26
3	Cu 324.752†	179352.4	161378.5	472.15 ug/L	472.15 ppb	09:06:26
3	Fe 238.204 Radial†	548.6	545.6	5124.1 ug/L	5124.1 ppb	09:05:12
3	K 766.490 Radial†	29411.2	27709.1	5154.6 ug/L	5154.6 ppb	09:04:52
3	Mg 279.077 IEC†	147.2	146.1	5361.1 ug/L	5361.1 ppb	09:05:12
3	Mn 257.610†	424648.4	404831.5	491.34 ug/L	491.34 ppb	09:06:21
3	Mo 202.031†	7025.0	6685.4	494.16 ug/L	494.16 ppb	09:06:46
3	Na 589.592 Radial†	31383.2	32093.1	9892.2 ug/L	9892.2 ppb	09:04:52
3	Ni 231.604†	19074.0	18103.7	497.21 ug/L	497.21 ppb	09:06:26
3	P 214.914†	4366.3	3947.7	2357.0 ug/L	2357.0 ppb	09:06:46
3	Pb 220.353†	3744.8	3620.3	503.27 ug/L	503.27 ppb	09:06:46
3	S 181.975 Axial†	719.4	645.4	977.18 ug/L	977.18 ppb	09:06:46
3	Sb 206.836†	1481.6	1378.4	519.51 ug/L	519.51 ppb	09:06:46
3	Se 196.026†	803.5	781.1	507.07 ug/L	507.07 ppb	09:06:46
3	Si 251.611†	80356.1	76143.8	2424.6 ug/L	2424.6 ppb	09:06:26
3	Sn 189.927†	2554.7	2437.3	497.29 ug/L	497.29 ppb	09:06:46
3	Sr 421.552†	76331.2	77013.0	501.53 ug/L	501.53 ppb	09:04:52
3	Ti 334.940†	311744.1	298522.5	471.45 ug/L	471.45 ppb	09:06:26
3	Tl 190.801†	1449.9	1414.6	495.09 ug/L	495.09 ppb	09:06:46
3	U 409.014†	18513.9	18602.7	478.57 ug/L	478.57 ppb	09:06:26
3	V 292.402†	75471.4	73444.8	496.04 ug/L	496.04 ppb	09:06:26
3	Zn 213.857†	51963.9	48944.9	490.73 ug/L	490.73 ppb	09:06:26
3	SiO2†	81049.0	76793.6	5216.2 ug/L	5216.2 ppb	09:07:02

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	914513.5	104.87 %	0.290			0.28%
Sc Radial	5314.3	98.5 %	0.64			0.65%
Y 371.029	800787.9	102.48 %	0.339			0.33%
Y RADIAL	5713.9	98.43 %	0.658			0.67%
Ag 328.068†	110360.9	489.53 ug/L	3.962	489.53 ppb	3.962	0.81%
QC value within limits for Ag 328.068 Recovery = 97.91%						
Al 396.153Radial†	6309.4	4915.4 ug/L	20.91	4915.4 ppb	20.91	0.43%
QC value within limits for Al 396.153Radial Recovery = 98.31%						
As 188.979†	1164.9	525.40 ug/L	4.771	525.40 ppb	4.771	0.91%
QC value within limits for As 188.979 Recovery = 105.08%						
B 249.677†	22094.9	507.16 ug/L	4.254	507.16 ppb	4.254	0.84%
QC value within limits for B 249.677 Recovery = 101.43%						
Ba 233.527†	57666.9	495.75 ug/L	4.733	495.75 ppb	4.733	0.95%
QC value within limits for Ba 233.527 Recovery = 99.15%						
Be 313.107†	1311259.7	494.90 ug/L	0.774	494.90 ppb	0.774	0.16%
QC value within limits for Be 313.107 Recovery = 98.98%						

Ca 317.933Radial†	3076.5	5094.9 ug/L	31.42	5094.9 ppb	31.42	0.62%
QC value within limits for Ca 317.933Radial Recovery = 101.90%						
Cd 226.502†	40622.9	500.78 ug/L	5.305	500.78 ppb	5.305	1.06%
QC value within limits for Cd 226.502 Recovery = 100.16%						
Co 228.616†	21005.8	503.09 ug/L	4.427	503.09 ppb	4.427	0.88%
QC value within limits for Co 228.616 Recovery = 100.62%						
Cr 267.716†	42238.3	497.27 ug/L	4.017	497.27 ppb	4.017	0.81%
QC value within limits for Cr 267.716 Recovery = 99.45%						
Cu 324.752†	162367.1	475.04 ug/L	4.832	475.04 ppb	4.832	1.02%
QC value within limits for Cu 324.752 Recovery = 95.01%						
Fe 238.204 Radial†	550.3	5168.5 ug/L	39.04	5168.5 ppb	39.04	0.76%
QC value within limits for Fe 238.204 Radial Recovery = 103.37%						
K 766.490 Radial†	27733.3	5159.1 ug/L	5.88	5159.1 ppb	5.88	0.11%
QC value within limits for K 766.490 Radial Recovery = 103.18%						
Mg 279.077 IEC†	145.6	5343.4 ug/L	38.51	5343.4 ppb	38.51	0.72%
QC value within limits for Mg 279.077 IEC Recovery = 106.87%						
Mn 257.610†	404908.8	491.44 ug/L	0.649	491.44 ppb	0.649	0.13%
QC value within limits for Mn 257.610 Recovery = 98.29%						
Mo 202.031†	6695.4	494.90 ug/L	3.192	494.90 ppb	3.192	0.64%
QC value within limits for Mo 202.031 Recovery = 98.98%						
Na 589.592 Radial†	31995.7	9862.2 ug/L	28.81	9862.2 ppb	28.81	0.29%
QC value within limits for Na 589.592 Radial Recovery = 98.62%						
Ni 231.604†	18182.5	499.37 ug/L	4.896	499.37 ppb	4.896	0.98%
QC value within limits for Ni 231.604 Recovery = 99.87%						
P 214.914†	3958.6	2363.1 ug/L	18.35	2363.1 ppb	18.35	0.78%
QC value within limits for P 214.914 Recovery = 94.52%						
Pb 220.353†	3632.6	504.95 ug/L	1.635	504.95 ppb	1.635	0.32%
QC value within limits for Pb 220.353 Recovery = 100.99%						
S 181.975 Axial†	650.8	985.45 ug/L	7.229	985.45 ppb	7.229	0.73%
QC value within limits for S 181.975 Axial Recovery = 98.54%						
Sb 206.836†	1378.8	519.72 ug/L	1.560	519.72 ppb	1.560	0.30%
QC value within limits for Sb 206.836 Recovery = 103.94%						
Se 196.026†	784.1	509.07 ug/L	1.900	509.07 ppb	1.900	0.37%
QC value within limits for Se 196.026 Recovery = 101.81%						
Si 251.611†	76571.7	2438.2 ug/L	24.68	2438.2 ppb	24.68	1.01%
QC value within limits for Si 251.611 Recovery = 97.53%						
Sn 189.927†	2447.6	499.39 ug/L	3.114	499.39 ppb	3.114	0.62%
QC value within limits for Sn 189.927 Recovery = 99.88%						
Sr 421.552†	76695.9	499.46 ug/L	1.790	499.46 ppb	1.790	0.36%
QC value within limits for Sr 421.552 Recovery = 99.89%						
Ti 334.940†	299731.6	473.37 ug/L	4.457	473.37 ppb	4.457	0.94%
QC value within limits for Ti 334.940 Recovery = 94.67%						
Tl 190.801†	1417.0	495.94 ug/L	1.941	495.94 ppb	1.941	0.39%
QC value within limits for Tl 190.801 Recovery = 99.19%						
U 409.014†	18611.8	478.80 ug/L	5.615	478.80 ppb	5.615	1.17%
QC value within limits for U 409.014 Recovery = 95.76%						
V 292.402†	73673.5	497.56 ug/L	4.299	497.56 ppb	4.299	0.86%
QC value within limits for V 292.402 Recovery = 99.51%						
Zn 213.857†	49066.9	491.94 ug/L	4.181	491.94 ppb	4.181	0.85%
QC value within limits for Zn 213.857 Recovery = 98.39%						
SiO2†	76649.4	5206.4 ug/L	8.83	5206.4 ppb	8.83	0.17%
QC value within limits for SiO2 Recovery = 97.36%						
All analyte(s) passed QC.						

Sequence No.: 14  
 Sample ID: CCB  
 Analyst:  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 1/25/2010 09:09:11  
 Data Type: Reprocessed on 1/25/2010 09:53:26  
 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 361.383	917053.3	917053.3	105.16 %		09:12:20
1	Sc Radial	5365.5	5365.5	99.5 %		09:11:04
1	Y 371.029	811412.9	811412.9	103.84 %		09:12:20
1	Y RADIAL	5782.2	5782.2	99.60 %		09:11:04
1	Ag 328.068†	381.2	67.9	0.3078 ug/L	0.3078 ppb	09:12:26
1	Al 396.153Radial†	3.4	-0.7	-0.5656 ug/L	-0.5656 ppb	09:11:24
1	As 188.979†	-13.9	17.4	7.7736 ug/L	7.7736 ppb	09:12:46
1	B 249.677†	429.5	718.1	16.558 ug/L	16.558 ppb	09:12:46
1	Ba 233.527†	51.1	54.1	0.4643 ug/L	0.4643 ppb	09:12:46
1	Be 313.107†	-5187.8	659.4	0.2487 ug/L	0.2487 ppb	09:12:26
1	Ca 317.933Radial†	22.7	3.4	5.6869 ug/L	5.6869 ppb	09:11:24
1	Cd 226.502†	-164.6	22.7	0.2786 ug/L	0.2786 ppb	09:12:46
1	Co 228.616†	-58.5	3.5	0.0832 ug/L	0.0832 ppb	09:12:46
1	Cr 267.716†	88.4	4.6	0.0584 ug/L	0.0584 ppb	09:12:46
1	Cu 324.752†	9556.0	-752.4	-2.1959 ug/L	-2.1959 ppb	09:12:26
1	Fe 238.204 Radial†	7.6	-0.4	-3.3728 ug/L	-3.3728 ppb	09:11:24
1	K 766.490 Radial†	2499.9	542.0	100.94 ug/L	100.94 ppb	09:11:04
1	Mg 279.077 IEC†	3.9	1.5	56.782 ug/L	56.782 ppb	09:11:24
1	Mn 257.610†	517.9	-65.4	-0.0820 ug/L	-0.0820 ppb	09:12:46
1	Mo 202.031†	25.3	3.1	0.2258 ug/L	0.2258 ppb	09:12:46
1	Na 589.592 Radial†	-385.5	35.9	11.081 ug/L	11.081 ppb	09:11:04
1	Ni 231.604†	108.1	-2.5	-0.0688 ug/L	-0.0688 ppb	09:12:46
1	P 214.914†	224.2	-7.3	-4.0466 ug/L	-4.0466 ppb	09:12:46
1	Pb 220.353†	-26.7	20.0	2.7752 ug/L	2.7752 ppb	09:12:46
1	S 181.975 Axial†	41.6	-1.9	-2.8346 ug/L	-2.8346 ppb	09:12:46
1	Sb 206.836†	57.5	18.7	6.8295 ug/L	6.8295 ppb	09:12:46
1	Se 196.026†	-13.2	1.5	0.9427 ug/L	0.9427 ppb	09:12:46
1	Si 251.611†	617.0	18.8	0.5963 ug/L	0.5963 ppb	09:12:46
1	Sn 189.927†	11.8	9.7	1.9770 ug/L	1.9770 ppb	09:12:46
1	Sr 421.552†	8.1	-6.9	-0.0452 ug/L	-0.0452 ppb	09:11:04
1	Ti 334.940†	-871.8	87.8	0.1391 ug/L	0.1391 ppb	09:12:26
1	Tl 190.801†	-29.0	2.9	1.0085 ug/L	1.0085 ppb	09:12:46
1	U 409.014†	-1382.1	-385.8	-9.9591 ug/L	-9.9591 ppb	09:12:26
1	V 292.402†	-1402.8	62.3	0.4008 ug/L	0.4008 ppb	09:12:26
1	Zn 213.857†	707.8	10.8	0.1130 ug/L	0.1130 ppb	09:12:46
1	SiO2†	620.9	10.9	0.7353 ug/L	0.7353 ppb	09:14:06
2	Sc 361.383	918900.9	918900.9	105.37 %		09:12:51
2	Sc Radial	5326.0	5326.0	98.8 %		09:11:29
2	Y 371.029	812161.1	812161.1	103.93 %		09:12:51
2	Y RADIAL	5757.9	5757.9	99.18 %		09:11:29
2	Ag 328.068†	350.5	38.0	0.1746 ug/L	0.1746 ppb	09:12:56
2	Al 396.153Radial†	10.6	6.7	5.2092 ug/L	5.2092 ppb	09:11:49
2	As 188.979†	-4.8	26.1	11.688 ug/L	11.688 ppb	09:13:16
2	B 249.677†	399.4	688.8	15.881 ug/L	15.881 ppb	09:13:16
2	Ba 233.527†	28.4	32.4	0.2787 ug/L	0.2787 ppb	09:13:16
2	Be 313.107†	-5194.9	662.6	0.2501 ug/L	0.2501 ppb	09:12:56
2	Ca 317.933Radial†	24.3	5.2	8.5847 ug/L	8.5847 ppb	09:11:49
2	Cd 226.502†	-181.2	7.2	0.0882 ug/L	0.0882 ppb	09:13:16
2	Co 228.616†	-62.2	0.0	0.0014 ug/L	0.0014 ppb	09:13:16
2	Cr 267.716†	87.7	3.7	0.0479 ug/L	0.0479 ppb	09:13:16
2	Cu 324.752†	9400.3	-918.4	-2.6823 ug/L	-2.6823 ppb	09:12:56
2	Fe 238.204 Radial†	7.2	-0.7	-6.6347 ug/L	-6.6347 ppb	09:11:49
2	K 766.490 Radial†	2584.7	646.5	120.41 ug/L	120.41 ppb	09:11:29
2	Mg 279.077 IEC†	1.2	-1.1	-41.931 ug/L	-41.931 ppb	09:11:49
2	Mn 257.610†	507.4	-76.4	-0.0916 ug/L	-0.0916 ppb	09:13:16
2	Mo 202.031†	31.0	8.4	0.6181 ug/L	0.6181 ppb	09:13:16
2	Na 589.592 Radial†	-423.8	-5.7	-1.7639 ug/L	-1.7639 ppb	09:11:29
2	Ni 231.604†	108.4	-2.4	-0.0661 ug/L	-0.0661 ppb	09:13:16

2	P 214.914†	218.2	-13.4	-7.7550 ug/L	-7.7550 ppb	09:13:16
2	Pb 220.353†	-42.9	4.7	0.6552 ug/L	0.6552 ppb	09:13:16
2	S 181.975 Axial†	40.5	-3.0	-4.5504 ug/L	-4.5504 ppb	09:13:16
2	Sb 206.836†	59.6	20.5	7.5071 ug/L	7.5071 ppb	09:13:16
2	Se 196.026†	-26.9	-11.4	-7.1594 ug/L	-7.1594 ppb	09:13:16
2	Si 251.611†	600.5	1.9	0.0536 ug/L	0.0536 ppb	09:13:16
2	Sn 189.927†	10.9	8.8	1.8023 ug/L	1.8023 ppb	09:13:16
2	Sr 421.552†	4.1	-10.9	-0.0713 ug/L	-0.0713 ppb	09:11:29
2	Ti 334.940†	-807.5	150.5	0.2463 ug/L	0.2463 ppb	09:12:56
2	Tl 190.801†	-33.8	-1.6	-0.5586 ug/L	-0.5586 ppb	09:13:16
2	U 409.014†	-1350.7	-353.3	-9.1213 ug/L	-9.1213 ppb	09:12:56
2	V 292.402†	-1400.1	67.5	0.4413 ug/L	0.4413 ppb	09:12:56
2	Zn 213.857†	706.0	7.7	0.0824 ug/L	0.0824 ppb	09:13:16
2	SiO2†	630.4	18.7	1.2554 ug/L	1.2554 ppb	09:14:26
3	Sc 361.383	913387.6	913387.6	104.74 %		09:13:21
3	Sc Radial	5389.0	5389.0	99.9 %		09:11:54
3	Y 371.029	808017.6	808017.6	103.40 %		09:13:21
3	Y RADIAL	5858.0	5858.0	100.9 %		09:11:54
3	Ag 328.068†	399.2	86.5	0.3922 ug/L	0.3922 ppb	09:13:26
3	Al 396.153Radial†	9.7	5.6	4.4055 ug/L	4.4055 ppb	09:12:14
3	As 188.979†	-9.5	21.6	9.6639 ug/L	9.6639 ppb	09:13:46
3	B 249.677†	348.0	641.9	14.799 ug/L	14.799 ppb	09:13:46
3	Ba 233.527†	36.3	40.2	0.3465 ug/L	0.3465 ppb	09:13:46
3	Be 313.107†	-5166.3	660.1	0.2490 ug/L	0.2490 ppb	09:13:26
3	Ca 317.933Radial†	21.9	2.5	4.1888 ug/L	4.1888 ppb	09:12:14
3	Cd 226.502†	-184.2	3.4	0.0400 ug/L	0.0400 ppb	09:13:46
3	Co 228.616†	-52.7	8.8	0.2102 ug/L	0.2102 ppb	09:13:46
3	Cr 267.716†	93.0	9.3	0.1133 ug/L	0.1133 ppb	09:13:46
3	Cu 324.752†	9425.4	-840.6	-2.4549 ug/L	-2.4549 ppb	09:13:26
3	Fe 238.204 Radial†	8.7	0.7	6.1752 ug/L	6.1752 ppb	09:12:14
3	K 766.490 Radial†	2396.7	427.7	79.660 ug/L	79.660 ppb	09:11:54
3	Mg 279.077 IEC†	1.2	-1.2	-43.571 ug/L	-43.571 ppb	09:12:14
3	Mn 257.610†	488.3	-91.7	-0.1088 ug/L	-0.1088 ppb	09:13:46
3	Mo 202.031†	23.6	1.5	0.1097 ug/L	0.1097 ppb	09:13:46
3	Na 589.592 Radial†	-394.3	28.9	8.8936 ug/L	8.8936 ppb	09:11:54
3	Ni 231.604†	111.6	1.3	0.0354 ug/L	0.0354 ppb	09:13:46
3	P 214.914†	216.9	-13.4	-7.8372 ug/L	-7.8372 ppb	09:13:46
3	Pb 220.353†	-38.7	8.5	1.1754 ug/L	1.1754 ppb	09:13:46
3	S 181.975 Axial†	33.8	-9.1	-13.805 ug/L	-13.805 ppb	09:13:46
3	Sb 206.836†	52.3	13.9	5.0770 ug/L	5.0770 ppb	09:13:46
3	Se 196.026†	-22.5	-7.4	-4.5912 ug/L	-4.5912 ppb	09:13:46
3	Si 251.611†	611.9	16.2	0.5172 ug/L	0.5172 ppb	09:13:46
3	Sn 189.927†	8.2	6.3	1.2924 ug/L	1.2924 ppb	09:13:46
3	Sr 421.552†	54.1	39.0	0.2542 ug/L	0.2542 ppb	09:11:54
3	Ti 334.940†	-838.6	116.1	0.1907 ug/L	0.1907 ppb	09:13:26
3	Tl 190.801†	-30.3	1.6	0.5426 ug/L	0.5426 ppb	09:13:46
3	U 409.014†	-1270.2	-284.2	-7.3387 ug/L	-7.3387 ppb	09:13:26
3	V 292.402†	-1347.9	109.4	0.7143 ug/L	0.7143 ppb	09:13:26
3	Zn 213.857†	702.2	8.1	0.0846 ug/L	0.0846 ppb	09:13:46
3	SiO2†	616.1	8.6	0.5837 ug/L	0.5837 ppb	09:14:47

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	916447.3	105.09 %	0.322			0.31%
Sc Radial	5360.2	99.4 %	0.59			0.59%
Y 371.029	810530.5	103.73 %	0.283			0.27%
Y RADIAL	5799.3	99.90 %	0.900			0.90%
Ag 328.068†	64.2	0.2916 ug/L	0.10970	0.2916 ppb	0.10970	37.63%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	3.9	3.0164 ug/L	3.12796	3.0164 ppb	3.12796	103.70%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	21.7	9.7086 ug/L	1.95776	9.7086 ppb	1.95776	20.17%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	682.9	15.746 ug/L	0.8874	15.746 ppb	0.8874	5.64%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	42.2	0.3632 ug/L	0.09394	0.3632 ppb	0.09394	25.87%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	660.7	0.2492 ug/L	0.00072	0.2492 ppb	0.00072	0.29%
QC value within limits for Be 313.107 Recovery = Not calculated						

Ca 317.933Radial†	3.7	6.1534 ug/L	2.23475	6.1534 ppb	2.23475	36.32%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	11.1	0.1356 ug/L	0.12615	0.1356 ppb	0.12615	93.05%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	4.1	0.0983 ug/L	0.10523	0.0983 ppb	0.10523	107.08%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	5.9	0.0732 ug/L	0.03512	0.0732 ppb	0.03512	47.96%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-837.1	-2.4444 ug/L	0.24335	-2.4444 ppb	0.24335	9.96%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.1	-1.2774 ug/L	6.65703	-1.2774 ppb	6.65703	521.12%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	538.7	100.34 ug/L	20.380	100.34 ppb	20.380	20.31%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.3	-9.5734 ug/L	57.47107	-9.5734 ppb	57.47107	600.32%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-77.8	-0.0941 ug/L	0.01358	-0.0941 ppb	0.01358	14.43%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	4.3	0.3179 ug/L	0.26640	0.3179 ppb	0.26640	83.80%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	19.7	6.0701 ug/L	6.87203	6.0701 ppb	6.87203	113.21%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-1.2	-0.0331 ug/L	0.05937	-0.0331 ppb	0.05937	179.15%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-11.4	-6.5462 ug/L	2.16518	-6.5462 ppb	2.16518	33.08%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	11.1	1.5353 ug/L	1.10487	1.5353 ppb	1.10487	71.97%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-4.7	-7.0634 ug/L	5.90123	-7.0634 ppb	5.90123	83.55%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	17.7	6.4712 ug/L	1.25404	6.4712 ppb	1.25404	19.38%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-5.8	-3.6026 ug/L	4.14054	-3.6026 ppb	4.14054	114.93%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	12.3	0.3890 ug/L	0.29318	0.3890 ppb	0.29318	75.36%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	8.3	1.6906 ug/L	0.35573	1.6906 ppb	0.35573	21.04%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	7.1	0.0459 ug/L	0.18088	0.0459 ppb	0.18088	393.97%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	118.1	0.1920 ug/L	0.05359	0.1920 ppb	0.05359	27.91%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	1.0	0.3309 ug/L	0.80475	0.3309 ppb	0.80475	243.23%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-341.1	-8.8064 ug/L	1.33828	-8.8064 ppb	1.33828	15.20%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	79.7	0.5188 ug/L	0.17054	0.5188 ppb	0.17054	32.87%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	8.9	0.0934 ug/L	0.01704	0.0934 ppb	0.01704	18.25%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	12.7	0.8581 ug/L	0.35228	0.8581 ppb	0.35228	41.05%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 15

Sample ID: LR1

Analyst: HSC

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 36

Date Collected: 1/25/2010 09:16:00

Data Type: Reprocessed on 1/25/2010 09:53:27

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 361.383	897130.0	897130.0	102.87 %		09:19:11
1	Sc Radial	5190.9	5190.9	96.3 %		09:17:54
1	Y 371.029	790457.2	790457.2	101.16 %		09:19:11
1	Y RADIAL	5629.5	5629.5	96.97 %		09:17:54
1	Ag 328.068†	-27041.0	-26580.5	8.8176 ug/L	8.8176 ppb	09:19:11
1	Al 396.153Radial†	-17.7	-22.5	-16.351 ug/L	-16.351 ppb	09:18:14
1	As 188.979†	-187.8	-151.9	23.076 ug/L	23.076 ppb	09:19:31
1	B 249.677†	2167.3	2416.5	-7.3718 ug/L	-7.3718 ppb	09:19:11
1	Ba 233.527†	-1781.7	-1726.4	-2.8750 ug/L	-2.8750 ppb	09:19:11
1	Be 313.107†	-5095.4	639.7	0.2414 ug/L	0.2414 ppb	09:19:11
1	Ca 317.933Radial†	20.4	1.8	2.9557 ug/L	2.9557 ppb	09:18:14
1	Cd 226.502†	3479.9	3561.9	3.8131 ug/L	3.8131 ppb	09:19:11
1	Co 228.616†	182.8	236.8	-0.0060 ug/L	-0.0060 ppb	09:19:31
1	Cr 267.716†	-469.0	-535.4	1.3093 ug/L	1.3093 ppb	09:19:11
1	Cu 324.752†	1637.5	-8247.9	-3.5963 ug/L	-3.5963 ppb	09:19:11
1	Fe 238.204 Radial†	39930.1	41474.8	388380 ug/L	388380 ppb	09:17:54
1	K 766.490 Radial†	1952.9	58.2	10.883 ug/L	10.883 ppb	09:17:54
1	Mg 279.077 IEC†	12.9	11.0	-3.0461 ug/L	-3.0461 ppb	09:18:14
1	Mn 257.610†	-38564.9	-38045.9	-7.8065 ug/L	-7.8065 ppb	09:19:11
1	Mo 202.031†	-342.1	-353.6	4.0367 ug/L	4.0367 ppb	09:19:11
1	Na 589.592 Radial†	-409.9	-2.5	-0.7744 ug/L	-0.7744 ppb	09:17:54
1	Ni 231.604†	178.3	68.0	1.8662 ug/L	1.8662 ppb	09:19:31
1	P 214.914†	723.4	482.7	-8.5920 ug/L	-8.5920 ppb	09:19:31
1	Pb 220.353†	218.2	257.5	-1.4858 ug/L	-1.4858 ppb	09:19:31
1	S 181.975 Axial†	53.7	10.8	16.438 ug/L	16.438 ppb	09:19:31
1	Sb 206.836†	24.2	-12.5	4.7928 ug/L	4.7928 ppb	09:19:31
1	Se 196.026†	-1973.7	-1904.5	93.571 ug/L	93.571 ppb	09:19:31
1	Si 251.611†	-519.7	-1073.1	-33.935 ug/L	-33.935 ppb	09:19:11
1	Sn 189.927†	-9.2	-10.4	4.4184 ug/L	4.4184 ppb	09:19:31
1	Sr 421.552†	91.5	80.0	0.5212 ug/L	0.5212 ppb	09:17:54
1	Ti 334.940†	-800.9	138.2	0.1702 ug/L	0.1702 ppb	09:19:11
1	Tl 190.801†	-39.7	-8.1	-3.1440 ug/L	-3.1440 ppb	09:19:31
1	U 409.014†	667.5	1577.4	-3.5387 ug/L	-3.5387 ppb	09:19:11
1	V 292.402†	6491.3	7706.3	-5.4881 ug/L	-5.4881 ppb	09:19:11
1	Zn 213.857†	4542.7	3753.5	0.3091 ug/L	0.3091 ppb	09:19:31
1	SiO2†	-676.3	-1237.0	-83.531 ug/L	-83.531 ppb	09:20:29
2	Sc 361.383	875412.5	875412.5	100.38 %		09:19:37
2	Sc Radial	5238.6	5238.6	97.1 %		09:18:19
2	Y 371.029	769457.7	769457.7	98.469 %		09:19:37
2	Y RADIAL	5655.9	5655.9	97.43 %		09:18:19
2	Ag 328.068†	-26690.5	-26883.5	6.8283 ug/L	6.8283 ppb	09:19:37
2	Al 396.153Radial†	-19.1	-23.7	-17.260 ug/L	-17.260 ppb	09:18:39
2	As 188.979†	-188.9	-157.5	20.060 ug/L	20.060 ppb	09:19:57
2	B 249.677†	2078.5	2380.3	-7.8724 ug/L	-7.8724 ppb	09:19:37
2	Ba 233.527†	-1691.9	-1679.9	-2.5363 ug/L	-2.5363 ppb	09:19:37
2	Be 313.107†	-5140.0	472.4	0.1778 ug/L	0.1778 ppb	09:19:37
2	Ca 317.933Radial†	14.6	-4.3	-7.2033 ug/L	-7.2033 ppb	09:18:39
2	Cd 226.502†	3323.9	3490.5	3.1434 ug/L	3.1434 ppb	09:19:37
2	Co 228.616†	160.9	219.3	-0.3938 ug/L	-0.3938 ppb	09:19:57
2	Cr 267.716†	-570.7	-648.0	-0.0514 ug/L	-0.0514 ppb	09:19:37
2	Cu 324.752†	1747.9	-8098.5	-3.2647 ug/L	-3.2647 ppb	09:19:37
2	Fe 238.204 Radial†	40084.6	41256.2	386330 ug/L	386330 ppb	09:18:19
2	K 766.490 Radial†	1950.4	37.2	6.9721 ug/L	6.9721 ppb	09:18:19
2	Mg 279.077 IEC†	7.5	5.3	-210.86 ug/L	-210.86 ppb	09:18:39
2	Mn 257.610†	-37491.4	-37906.5	-7.8310 ug/L	-7.8310 ppb	09:19:37
2	Mo 202.031†	-342.6	-362.3	3.2371 ug/L	3.2371 ppb	09:19:37
2	Na 589.592 Radial†	-381.2	30.9	9.5277 ug/L	9.5277 ppb	09:18:19
2	Ni 231.604†	192.2	86.2	2.3661 ug/L	2.3661 ppb	09:19:57

2	P 214.914†	697.7	474.5	-12.130 ug/L	-12.130 ppb	09:19:57
2	Pb 220.353†	213.4	257.9	-1.2280 ug/L	-1.2280 ppb	09:19:57
2	S 181.975 Axial†	57.8	16.2	24.554 ug/L	24.554 ppb	09:19:57
2	Sb 206.836†	12.6	-23.5	0.7154 ug/L	0.7154 ppb	09:19:57
2	Se 196.026†	-1971.7	-1950.1	58.308 ug/L	58.308 ppb	09:19:57
2	Si 251.611†	-547.2	-1113.0	-35.201 ug/L	-35.201 ppb	09:19:37
2	Sn 189.927†	-18.7	-20.1	2.4093 ug/L	2.4093 ppb	09:19:57
2	Sr 421.552†	104.6	92.6	0.6032 ug/L	0.6032 ppb	09:18:19
2	Ti 334.940†	-946.3	-25.9	-0.0707 ug/L	-0.0707 ppb	09:19:37
2	Tl 190.801†	-45.5	-14.9	-5.5204 ug/L	-5.5204 ppb	09:19:57
2	U 409.014†	469.9	1396.6	-7.9697 ug/L	-7.9697 ppb	09:19:37
2	V 292.402†	6508.8	7880.3	-4.0516 ug/L	-4.0516 ppb	09:19:37
2	Zn 213.857†	4535.8	3856.2	1.5430 ug/L	1.5430 ppb	09:19:57
2	SiO2†	-591.8	-1169.1	-78.889 ug/L	-78.889 ppb	09:20:34
3	Sc 361.383	880683.1	880683.1	100.99 %		09:20:03
3	Sc Radial	5304.3	5304.3	98.4 %		09:18:44
3	Y 371.029	774662.6	774662.6	99.135 %		09:20:03
3	Y RADIAL	5722.0	5722.0	98.57 %		09:18:44
3	Ag 328.068†	-26776.1	-26809.1	6.3678 ug/L	6.3678 ppb	09:20:03
3	Al 396.153Radial†	-17.6	-22.0	-16.019 ug/L	-16.019 ppb	09:19:04
3	As 188.979†	-189.2	-156.7	19.867 ug/L	19.867 ppb	09:20:23
3	B 249.677†	2120.2	2409.2	-6.8142 ug/L	-6.8142 ppb	09:20:03
3	Ba 233.527†	-1762.8	-1740.1	-3.1268 ug/L	-3.1268 ppb	09:20:03
3	Be 313.107†	-5212.7	431.0	0.1624 ug/L	0.1624 ppb	09:20:03
3	Ca 317.933Radial†	16.2	-2.9	-4.7398 ug/L	-4.7398 ppb	09:19:04
3	Cd 226.502†	3366.8	3513.2	3.6726 ug/L	3.6726 ppb	09:20:03
3	Co 228.616†	163.4	220.8	-0.3194 ug/L	-0.3194 ppb	09:20:23
3	Cr 267.716†	-494.2	-568.9	0.8294 ug/L	0.8294 ppb	09:20:03
3	Cu 324.752†	1701.3	-8155.1	-3.5610 ug/L	-3.5610 ppb	09:20:03
3	Fe 238.204 Radial†	40333.8	40998.4	383920 ug/L	383920 ppb	09:18:44
3	K 766.490 Radial†	1944.2	6.0	1.1540 ug/L	1.1540 ppb	09:18:44
3	Mg 279.077 IEC†	11.4	9.2	-64.546 ug/L	-64.546 ppb	09:19:04
3	Mn 257.610†	-37791.2	-37979.8	-8.1642 ug/L	-8.1642 ppb	09:20:03
3	Mo 202.031†	-319.1	-337.0	4.9160 ug/L	4.9160 ppb	09:20:03
3	Na 589.592 Radial†	-365.0	52.3	16.132 ug/L	16.132 ppb	09:18:44
3	Ni 231.604†	180.1	73.1	2.0054 ug/L	2.0054 ppb	09:20:23
3	P 214.914†	713.5	486.1	-3.0089 ug/L	-3.0089 ppb	09:20:23
3	Pb 220.353†	217.7	260.9	-0.5804 ug/L	-0.5804 ppb	09:20:23
3	S 181.975 Axial†	52.7	10.7	16.285 ug/L	16.285 ppb	09:20:23
3	Sb 206.836†	20.4	-15.8	3.4456 ug/L	3.4456 ppb	09:20:23
3	Se 196.026†	-1961.8	-1928.5	63.829 ug/L	63.829 ppb	09:20:23
3	Si 251.611†	-588.6	-1150.8	-36.429 ug/L	-36.429 ppb	09:20:03
3	Sn 189.927†	-28.9	-30.1	0.3296 ug/L	0.3296 ppb	09:20:23
3	Sr 421.552†	101.6	88.2	0.5747 ug/L	0.5747 ppb	09:18:44
3	Ti 334.940†	-906.3	19.4	-0.0133 ug/L	-0.0133 ppb	09:20:03
3	Tl 190.801†	-41.7	-10.8	-4.0987 ug/L	-4.0987 ppb	09:20:23
3	U 409.014†	673.9	1595.8	-2.5530 ug/L	-2.5530 ppb	09:20:03
3	V 292.402†	6469.6	7802.7	-4.1787 ug/L	-4.1787 ppb	09:20:03
3	Zn 213.857†	4508.8	3802.4	1.2351 ug/L	1.2351 ppb	09:20:23
3	SiO2†	-566.5	-1140.6	-76.995 ug/L	-76.995 ppb	09:20:39

## Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	884408.5	101.41 %	%	1.299			1.28%
Sc Radial	5244.6	97.3 %	%	1.06			1.09%
Y 371.029	778192.5	99.587 %	%	1.3995			1.41%
Y RADIAL	5669.2	97.66 %	%	0.821			0.84%
Ag 328.068†	-26757.7	7.3379 ug/L	ug/L	1.30196	7.3379 ppb	1.30196	17.74%
Al 396.153Radial†	-22.7	-16.543 ug/L	ug/L	0.6425	-16.543 ppb	0.6425	3.88%
As 188.979†	-155.4	21.001 ug/L	ug/L	1.7994	21.001 ppb	1.7994	8.57%
B 249.677†	2402.0	-7.3528 ug/L	ug/L	0.52936	-7.3528 ppb	0.52936	7.20%
Ba 233.527†	-1715.5	-2.8460 ug/L	ug/L	0.29631	-2.8460 ppb	0.29631	10.41%
Be 313.107†	514.4	0.1939 ug/L	ug/L	0.04189	0.1939 ppb	0.04189	21.60%
Ca 317.933Radial†	-1.8	-2.9958 ug/L	ug/L	5.29931	-2.9958 ppb	5.29931	176.89%
Cd 226.502†	3521.9	3.5430 ug/L	ug/L	0.35316	3.5430 ppb	0.35316	9.97%
Co 228.616†	225.6	-0.2398 ug/L	ug/L	0.20580	-0.2398 ppb	0.20580	85.83%
Cr 267.716†	-584.1	0.6958 ug/L	ug/L	0.69008	0.6958 ppb	0.69008	99.18%
Cu 324.752†	-8167.2	-3.4740 ug/L	ug/L	0.18210	-3.4740 ppb	0.18210	5.24%
Fe 238.204 Radial†	41243.2	386210 ug/L	ug/L	2233.0	386210 ppb	2233.0	0.58%



K 766.490 Radial†	33.8	6.3365 ug/L	4.89567	6.3365 ppb	4.89567	77.26%
Mg 279.077 IEC†	8.5	-92.818 ug/L	106.7531	-92.818 ppb	106.7531	115.01%
Mn 257.610†	-37977.4	-7.9339 ug/L	0.19984	-7.9339 ppb	0.19984	2.52%
Mo 202.031†	-351.0	4.0633 ug/L	0.83974	4.0633 ppb	0.83974	20.67%
Na 589.592 Radial†	26.9	8.2953 ug/L	8.52054	8.2953 ppb	8.52054	102.72%
Ni 231.604†	75.8	2.0793 ug/L	0.25799	2.0793 ppb	0.25799	12.41%
P 214.914†	481.1	-7.9104 ug/L	4.59870	-7.9104 ppb	4.59870	58.13%
Pb 220.353†	258.8	-1.0981 ug/L	0.46644	-1.0981 ppb	0.46644	42.48%
S 181.975 Axial†	12.6	19.092 ug/L	4.7309	19.092 ppb	4.7309	24.78%
Sb 206.836†	-17.3	2.9846 ug/L	2.07741	2.9846 ppb	2.07741	69.60%
Se 196.026†	-1927.7	71.903 ug/L	18.9673	71.903 ppb	18.9673	26.38%
Si 251.611†	-1112.3	-35.188 ug/L	1.2470	-35.188 ppb	1.2470	3.54%
Sn 189.927†	-20.2	2.3858 ug/L	2.04450	2.3858 ppb	2.04450	85.69%
Sr 421.552†	87.0	0.5664 ug/L	0.04161	0.5664 ppb	0.04161	7.35%
Ti 334.940†	43.9	0.0287 ug/L	0.12585	0.0287 ppb	0.12585	438.08%
Tl 190.801†	-11.3	-4.2544 ug/L	1.19580	-4.2544 ppb	1.19580	28.11%
U 409.014†	1523.3	-4.6871 ug/L	2.88520	-4.6871 ppb	2.88520	61.56%
V 292.402†	7796.4	-4.5728 ug/L	0.79524	-4.5728 ppb	0.79524	17.39%
Zn 213.857†	3804.0	1.0291 ug/L	0.64225	1.0291 ppb	0.64225	62.41%
SiO2†	-1182.2	-79.805 ug/L	3.3628	-79.805 ppb	3.3628	4.21%

Sequence No.: 16  
 Sample ID: LR2  
 Analyst: HSC  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 37  
 Date Collected: 1/25/2010 09:22:50  
 Data Type: Reprocessed on 1/25/2010 09:53:28  
 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 361.383	886201.8	886201.8	101.62 %		09:26:00
1	Sc Radial	5104.6	5104.6	94.7 %		09:24:43
1	Y 371.029	784745.6	784745.6	100.43 %		09:26:00
1	Y RADIAL	5522.2	5522.2	95.12 %		09:24:43
1	Ag 328.068†	342.9	42.8	0.2155 ug/L	0.2155 ppb	09:26:05
1	Al 396.153Radial†	10.5	7.0	5.4068 ug/L	5.4068 ppb	09:25:03
1	As 188.979†	18.2	48.5	21.724 ug/L	21.724 ppb	09:26:25
1	B 249.677†	1086.2	1378.6	31.793 ug/L	31.793 ppb	09:26:05
1	Ba 233.527†	1182933.3	1164085.1	9982.4 ug/L	9982.4 ppb	09:26:00
1	Be 313.107†	-5241.3	435.1	0.1638 ug/L	0.1638 ppb	09:26:05
1	Ca 317.933Radial†	21.1	2.9	4.8783 ug/L	4.8783 ppb	09:25:03
1	Cd 226.502†	-169.4	12.5	0.1468 ug/L	0.1468 ppb	09:26:25
1	Co 228.616†	-296.0	-232.2	-0.7529 ug/L	-0.7529 ppb	09:26:25
1	Cr 267.716†	102.1	21.0	0.2527 ug/L	0.2527 ppb	09:26:25
1	Cu 324.752†	9462.8	-527.7	-1.5340 ug/L	-1.5340 ppb	09:26:05
1	Fe 238.204 Radial†	12.5	5.2	48.395 ug/L	48.395 ppb	09:25:03
1	K 766.490 Radial†	2396.6	561.3	104.56 ug/L	104.56 ppb	09:24:43
1	Mg 279.077 IEC†	2.6	0.3	10.684 ug/L	10.684 ppb	09:25:03
1	Mn 257.610†	649.8	81.6	0.1033 ug/L	0.1033 ppb	09:26:25
1	Mo 202.031†	34.7	13.1	0.9737 ug/L	0.9737 ppb	09:26:25
1	Na 589.592 Radial†	-553.8	-161.7	-49.840 ug/L	-49.840 ppb	09:24:43
1	Ni 231.604†	117.8	10.6	0.2954 ug/L	0.2954 ppb	09:26:25
1	P 214.914†	216.5	-7.4	-4.3208 ug/L	-4.3208 ppb	09:26:25
1	Pb 220.353†	-44.7	1.4	0.1953 ug/L	0.1953 ppb	09:26:25
1	S 181.975 Axial†	40.9	-1.1	-1.7049 ug/L	-1.7049 ppb	09:26:25
1	Sb 206.836†	52.0	15.1	5.5575 ug/L	5.5575 ppb	09:26:25
1	Se 196.026†	-20.2	-5.8	-3.4724 ug/L	-3.4724 ppb	09:26:25
1	Si 251.611†	650.4	72.1	2.2901 ug/L	2.2901 ppb	09:26:25
1	Sn 189.927†	13.9	12.2	2.4792 ug/L	2.4792 ppb	09:26:25
1	Sr 421.552†	25.0	11.3	0.0737 ug/L	0.0737 ppb	09:24:43
1	Ti 334.940†	-932.6	-0.9	0.0042 ug/L	0.0042 ppb	09:26:05
1	Tl 190.801†	-31.1	-0.1	-0.0002 ug/L	-0.0002 ppb	09:26:25
1	U 409.014†	-1470.2	-518.3	-13.387 ug/L	-13.387 ppb	09:26:05
1	V 292.402†	-1403.0	15.7	0.0856 ug/L	0.0856 ppb	09:26:05
1	Zn 213.857†	696.7	23.3	0.2309 ug/L	0.2309 ppb	09:26:25
1	SiO2†	604.4	15.2	1.0065 ug/L	1.0065 ppb	09:27:31
2	Sc 361.383	885369.8	885369.8	101.52 %		09:26:30
2	Sc Radial	5188.0	5188.0	96.2 %		09:25:08
2	Y 371.029	783874.0	783874.0	100.31 %		09:26:30
2	Y RADIAL	5581.5	5581.5	96.15 %		09:25:08
2	Ag 328.068†	373.2	73.0	0.3438 ug/L	0.3438 ppb	09:26:35
2	Al 396.153Radial†	1.6	-2.5	-1.9232 ug/L	-1.9232 ppb	09:25:28
2	As 188.979†	5.4	35.9	16.090 ug/L	16.090 ppb	09:26:55
2	B 249.677†	1043.7	1337.7	30.855 ug/L	30.855 ppb	09:26:35
2	Ba 233.527†	1183467.9	1165705.7	9996.3 ug/L	9996.3 ppb	09:26:30
2	Be 313.107†	-5234.3	437.1	0.1646 ug/L	0.1646 ppb	09:26:35
2	Ca 317.933Radial†	19.4	0.8	1.2462 ug/L	1.2462 ppb	09:25:28
2	Cd 226.502†	-156.6	25.0	0.3020 ug/L	0.3020 ppb	09:26:55
2	Co 228.616†	-303.1	-239.4	-0.9210 ug/L	-0.9210 ppb	09:26:55
2	Cr 267.716†	102.6	21.5	0.2591 ug/L	0.2591 ppb	09:26:55
2	Cu 324.752†	9479.2	-502.9	-1.4624 ug/L	-1.4624 ppb	09:26:35
2	Fe 238.204 Radial†	11.1	3.5	32.467 ug/L	32.467 ppb	09:25:28
2	K 766.490 Radial†	2318.5	439.3	81.836 ug/L	81.836 ppb	09:25:08
2	Mg 279.077 IEC†	2.7	0.4	13.960 ug/L	13.960 ppb	09:25:28
2	Mn 257.610†	636.1	68.7	0.0859 ug/L	0.0859 ppb	09:26:55
2	Mo 202.031†	22.0	0.6	0.0469 ug/L	0.0469 ppb	09:26:55
2	Na 589.592 Radial†	-497.8	-94.0	-28.983 ug/L	-28.983 ppb	09:25:08
2	Ni 231.604†	108.2	1.3	0.0390 ug/L	0.0390 ppb	09:26:55

2	P 214.914†	223.2	-0.6	-0.0999 ug/L	-0.0999 ppb	09:26:55
2	Pb 220.353†	-51.0	-4.8	-0.6741 ug/L	-0.6741 ppb	09:26:55
2	S 181.975 Axial†	38.4	-3.6	-5.4805 ug/L	-5.4805 ppb	09:26:55
2	Sb 206.836†	40.6	3.9	1.4709 ug/L	1.4709 ppb	09:26:55
2	Se 196.026†	-22.5	-8.1	-4.9586 ug/L	-4.9586 ppb	09:26:55
2	Si 251.611†	632.7	55.3	1.7643 ug/L	1.7643 ppb	09:26:55
2	Sn 189.927†	13.2	11.5	2.3448 ug/L	2.3448 ppb	09:26:55
2	Sr 421.552†	37.4	23.8	0.1552 ug/L	0.1552 ppb	09:25:08
2	Ti 334.940†	-942.4	-11.4	-0.0135 ug/L	-0.0135 ppb	09:26:35
2	Tl 190.801†	-27.7	3.2	1.1321 ug/L	1.1321 ppb	09:26:55
2	U 409.014†	-1447.9	-497.7	-12.853 ug/L	-12.853 ppb	09:26:35
2	V 292.402†	-1379.0	38.0	0.2244 ug/L	0.2244 ppb	09:26:35
2	Zn 213.857†	701.3	28.4	0.2859 ug/L	0.2859 ppb	09:26:55
2	SiO2†	630.4	41.3	2.8117 ug/L	2.8117 ppb	09:27:36
3	Sc 361.383	900025.2	900025.2	103.20 %		09:27:01
3	Sc Radial	5031.6	5031.6	93.3 %		09:25:33
3	Y 371.029	796867.1	796867.1	101.98 %		09:27:01
3	Y RADIAL	5490.6	5490.6	94.58 %		09:25:33
3	Ag 328.068†	317.6	13.1	0.0855 ug/L	0.0855 ppb	09:27:06
3	Al 396.153Radial†	2.9	-0.9	-0.7497 ug/L	-0.7497 ppb	09:25:53
3	As 188.979†	15.4	45.6	20.417 ug/L	20.417 ppb	09:27:26
3	B 249.677†	1022.9	1300.9	30.000 ug/L	30.000 ppb	09:27:06
3	Ba 233.527†	1194297.0	1157217.0	9923.5 ug/L	9923.5 ppb	09:27:01
3	Be 313.107†	-5164.2	589.0	0.2220 ug/L	0.2220 ppb	09:27:06
3	Ca 317.933Radial†	18.7	0.7	1.1185 ug/L	1.1185 ppb	09:25:53
3	Cd 226.502†	-177.9	6.9	0.0771 ug/L	0.0771 ppb	09:27:26
3	Co 228.616†	-292.5	-224.3	-0.5941 ug/L	-0.5941 ppb	09:27:26
3	Cr 267.716†	95.4	12.9	0.1580 ug/L	0.1580 ppb	09:27:26
3	Cu 324.752†	9477.1	-656.9	-1.9117 ug/L	-1.9117 ppb	09:27:06
3	Fe 238.204 Radial†	12.7	5.6	52.544 ug/L	52.544 ppb	09:25:53
3	K 766.490 Radial†	2401.8	603.5	112.42 ug/L	112.42 ppb	09:25:33
3	Mg 279.077 IEC†	1.7	-0.6	-23.106 ug/L	-23.106 ppb	09:25:53
3	Mn 257.610†	662.9	84.4	0.1086 ug/L	0.1086 ppb	09:27:26
3	Mo 202.031†	24.0	2.3	0.1706 ug/L	0.1706 ppb	09:27:26
3	Na 589.592 Radial†	-500.7	-113.2	-34.906 ug/L	-34.906 ppb	09:25:33
3	Ni 231.604†	115.5	6.6	0.1854 ug/L	0.1854 ppb	09:27:26
3	P 214.914†	220.1	-7.3	-4.1480 ug/L	-4.1480 ppb	09:27:26
3	Pb 220.353†	-38.6	8.0	1.0994 ug/L	1.0994 ppb	09:27:26
3	S 181.975 Axial†	43.0	0.3	0.4128 ug/L	0.4128 ppb	09:27:26
3	Sb 206.836†	42.3	5.0	1.8572 ug/L	1.8572 ppb	09:27:26
3	Se 196.026†	-28.4	-13.4	-8.2208 ug/L	-8.2208 ppb	09:27:26
3	Si 251.611†	601.3	14.7	0.4674 ug/L	0.4674 ppb	09:27:26
3	Sn 189.927†	14.8	12.9	2.6232 ug/L	2.6232 ppb	09:27:26
3	Sr 421.552†	-5.2	-20.6	-0.1343 ug/L	-0.1343 ppb	09:25:33
3	Ti 334.940†	-905.5	39.4	0.0701 ug/L	0.0701 ppb	09:27:06
3	Tl 190.801†	-31.4	0.0	0.0299 ug/L	0.0299 ppb	09:27:26
3	U 409.014†	-1490.7	-515.9	-13.325 ug/L	-13.325 ppb	09:27:06
3	V 292.402†	-1445.1	-4.0	-0.0578 ug/L	-0.0578 ppb	09:27:06
3	Zn 213.857†	698.2	14.2	0.1397 ug/L	0.1397 ppb	09:27:26
3	SiO2†	610.5	12.0	0.8116 ug/L	0.8116 ppb	09:27:41

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	890532.3	102.12 %	0.944			0.92%
Sc Radial	5108.1	94.7 %	1.45			1.53%
Y 371.029	788495.6	100.91 %	0.929			0.92%
Y RADIAL	5531.4	95.28 %	0.795			0.83%
Ag 328.068†	43.0	0.2149 ug/L	0.12911	0.2149 ppb	0.12911	60.07%
Al 396.153Radial†	1.2	0.9113 ug/L	3.93722	0.9113 ppb	3.93722	432.04%
As 188.979†	43.4	19.410 ug/L	2.9486	19.410 ppb	2.9486	15.19%
B 249.677†	1339.1	30.883 ug/L	0.8969	30.883 ppb	0.8969	2.90%
Ba 233.527†	1162335.9	9967.4 ug/L	38.65	9967.4 ppb	38.65	0.39%
Be 313.107†	487.0	0.1835 ug/L	0.03335	0.1835 ppb	0.03335	18.18%
Ca 317.933Radial†	1.5	2.4143 ug/L	2.13484	2.4143 ppb	2.13484	88.42%
Cd 226.502†	14.8	0.1753 ug/L	0.11509	0.1753 ppb	0.11509	65.65%
Co 228.616†	-232.0	-0.7560 ug/L	0.16347	-0.7560 ppb	0.16347	21.62%
Cr 267.716†	18.5	0.2233 ug/L	0.05662	0.2233 ppb	0.05662	25.36%
Cu 324.752†	-562.5	-1.6361 ug/L	0.24141	-1.6361 ppb	0.24141	14.76%
Fe 238.204 Radial†	4.8	44.469 ug/L	10.5989	44.469 ppb	10.5989	23.83%

K 766.490 Radial†	534.7	99.604 ug/L	15.8818	99.604 ppb	15.8818	15.94%
Mg 279.077 IEC†	0.0	0.5126 ug/L	20.51978	0.5126 ppb	20.51978	>999.9%
Mn 257.610†	78.2	0.0993 ug/L	0.01183	0.0993 ppb	0.01183	11.92%
Mo 202.031†	5.3	0.3971 ug/L	0.50322	0.3971 ppb	0.50322	126.73%
Na 589.592 Radial†	-123.0	-37.909 ug/L	10.7478	-37.909 ppb	10.7478	28.35%
Ni 231.604†	6.2	0.1733 ug/L	0.12860	0.1733 ppb	0.12860	74.22%
P 214.914†	-5.1	-2.8563 ug/L	2.38862	-2.8563 ppb	2.38862	83.63%
Pb 220.353†	1.5	0.2069 ug/L	0.88680	0.2069 ppb	0.88680	428.65%
S 181.975 Axial†	-1.5	-2.2575 ug/L	2.98524	-2.2575 ppb	2.98524	132.24%
Sb 206.836†	8.0	2.9619 ug/L	2.25615	2.9619 ppb	2.25615	76.17%
Se 196.026†	-9.1	-5.5506 ug/L	2.42893	-5.5506 ppb	2.42893	43.76%
Si 251.611†	47.4	1.5073 ug/L	0.93818	1.5073 ppb	0.93818	62.24%
Sn 189.927†	12.2	2.4824 ug/L	0.13925	2.4824 ppb	0.13925	5.61%
Sr 421.552†	4.8	0.0315 ug/L	0.14929	0.0315 ppb	0.14929	473.48%
Ti 334.940†	9.0	0.0203 ug/L	0.04407	0.0203 ppb	0.04407	217.39%
Tl 190.801†	1.0	0.3873 ug/L	0.64522	0.3873 ppb	0.64522	166.60%
U 409.014†	-510.6	-13.188 ug/L	0.2922	-13.188 ppb	0.2922	2.22%
V 292.402†	16.6	0.0841 ug/L	0.14113	0.0841 ppb	0.14113	167.87%
Zn 213.857†	22.0	0.2188 ug/L	0.07386	0.2188 ppb	0.07386	33.75%
SiO2†	22.8	1.5433 ug/L	1.10279	1.5433 ppb	1.10279	71.46%

Sequence No.: 17

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/25/2010 09:29:53

Data Type: Reprocessed on 1/25/2010 09:53:29

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 361.383	904620.0	904620.0	103.73 %		09:33:03
1	Sc Radial	5099.0	5099.0	94.6 %		09:31:46
1	Y 371.029	790847.7	790847.7	101.21 %		09:33:03
1	Y RADIAL	5529.0	5529.0	95.24 %		09:31:46
1	Ag 328.068†	115403.0	110956.9	492.21 ug/L	492.21 ppb	09:33:08
1	Al 396.153Radial†	6046.9	6391.1	4979.2 ug/L	4979.2 ppb	09:31:46
1	As 188.979†	1143.9	1133.4	511.36 ug/L	511.36 ppb	09:33:29
1	B 249.677†	22267.5	21776.1	499.77 ug/L	499.77 ppb	09:33:08
1	Ba 233.527†	60591.2	58417.0	502.20 ug/L	502.20 ppb	09:33:08
1	Be 313.107†	1366941.2	1323360.1	499.46 ug/L	499.46 ppb	09:33:03
1	Ca 317.933Radial†	3016.1	3170.5	5250.5 ug/L	5250.5 ppb	09:32:06
1	Cd 226.502†	42595.0	41241.9	508.41 ug/L	508.41 ppb	09:33:08
1	Co 228.616†	22049.4	21315.2	510.49 ug/L	510.49 ppb	09:33:08
1	Cr 267.716†	44376.3	42700.4	502.71 ug/L	502.71 ppb	09:33:08
1	Cu 324.752†	179648.5	163346.2	477.92 ug/L	477.92 ppb	09:33:08
1	Fe 238.204 Radial†	540.2	563.3	5290.3 ug/L	5290.3 ppb	09:32:06
1	K 766.490 Radial†	27937.8	27576.4	5129.9 ug/L	5129.9 ppb	09:31:46
1	Mg 279.077 IEC†	140.3	146.0	5358.1 ug/L	5358.1 ppb	09:32:06
1	Mn 257.610†	424490.8	408662.4	496.00 ug/L	496.00 ppb	09:33:03
1	Mo 202.031†	7021.4	6747.8	498.78 ug/L	498.78 ppb	09:33:29
1	Na 589.592 Radial†	29287.5	31397.9	9677.9 ug/L	9677.9 ppb	09:31:46
1	Ni 231.604†	19218.6	18422.0	505.95 ug/L	505.95 ppb	09:33:08
1	P 214.914†	4392.4	4013.9	2396.8 ug/L	2396.8 ppb	09:33:29
1	Pb 220.353†	3742.7	3653.4	507.85 ug/L	507.85 ppb	09:33:29
1	S 181.975 Axial†	729.8	662.2	1002.6 ug/L	1002.6 ppb	09:33:29
1	Sb 206.836†	1426.7	1339.4	505.50 ug/L	505.50 ppb	09:33:29
1	Se 196.026†	811.2	796.1	517.01 ug/L	517.01 ppb	09:33:29
1	Si 251.611†	80789.1	77314.9	2461.9 ug/L	2461.9 ppb	09:33:08
1	Sn 189.927†	2562.4	2468.8	503.72 ug/L	503.72 ppb	09:33:29
1	Sr 421.552†	72206.0	76350.2	497.21 ug/L	497.21 ppb	09:31:46
1	Ti 334.940†	312631.3	302301.6	477.45 ug/L	477.45 ppb	09:33:08
1	Tl 190.801†	1446.7	1425.2	498.78 ug/L	498.78 ppb	09:33:29
1	U 409.014†	18146.6	18422.3	473.88 ug/L	473.88 ppb	09:33:08
1	V 292.402†	75657.7	74332.3	501.98 ug/L	501.98 ppb	09:33:08
1	Zn 213.857†	52194.4	49654.4	497.83 ug/L	497.83 ppb	09:33:08
1	SiO2†	80751.9	77267.3	5248.3 ug/L	5248.3 ppb	09:34:36
2	Sc 361.383	895850.4	895850.4	102.73 %		09:33:34
2	Sc Radial	5132.3	5132.3	95.2 %		09:32:11
2	Y 371.029	784071.6	784071.6	100.34 %		09:33:34
2	Y RADIAL	5520.8	5520.8	95.10 %		09:32:11
2	Ag 328.068†	114831.1	111489.3	494.53 ug/L	494.53 ppb	09:33:39
2	Al 396.153Radial†	6071.1	6375.1	4966.7 ug/L	4966.7 ppb	09:32:11
2	As 188.979†	1133.3	1133.9	511.55 ug/L	511.55 ppb	09:33:59
2	B 249.677†	22067.2	21791.3	500.13 ug/L	500.13 ppb	09:33:39
2	Ba 233.527†	60247.0	58653.7	504.23 ug/L	504.23 ppb	09:33:39
2	Be 313.107†	1351874.2	1321592.7	498.80 ug/L	498.80 ppb	09:33:34
2	Ca 317.933Radial†	2988.8	3121.1	5168.7 ug/L	5168.7 ppb	09:32:31
2	Cd 226.502†	42305.4	41362.0	509.90 ug/L	509.90 ppb	09:33:39
2	Co 228.616†	21931.4	21408.5	512.72 ug/L	512.72 ppb	09:33:39
2	Cr 267.716†	44128.6	42878.0	504.80 ug/L	504.80 ppb	09:33:39
2	Cu 324.752†	178263.2	163693.0	478.92 ug/L	478.92 ppb	09:33:39
2	Fe 238.204 Radial†	532.3	551.3	5178.1 ug/L	5178.1 ppb	09:32:31
2	K 766.490 Radial†	28087.7	27542.4	5123.6 ug/L	5123.6 ppb	09:32:11
2	Mg 279.077 IEC†	142.3	147.2	5400.0 ug/L	5400.0 ppb	09:32:31
2	Mn 257.610†	420285.1	408574.2	495.88 ug/L	495.88 ppb	09:33:34
2	Mo 202.031†	6944.1	6738.8	498.11 ug/L	498.11 ppb	09:33:59
2	Na 589.592 Radial†	29303.5	31214.0	9621.2 ug/L	9621.2 ppb	09:32:11
2	Ni 231.604†	19162.5	18548.8	509.43 ug/L	509.43 ppb	09:33:39

2	P 214.914†	4356.9	4020.8	2401.0 ug/L	2401.0 ppb	09:33:59
2	Pb 220.353†	3699.3	3646.6	506.91 ug/L	506.91 ppb	09:33:59
2	S 181.975 Axial†	712.7	652.4	987.81 ug/L	987.81 ppb	09:33:59
2	Sb 206.836†	1415.9	1342.2	506.54 ug/L	506.54 ppb	09:33:59
2	Se 196.026†	791.1	784.2	509.21 ug/L	509.21 ppb	09:33:59
2	Si 251.611†	80068.7	77376.0	2463.9 ug/L	2463.9 ppb	09:33:39
2	Sn 189.927†	2539.4	2470.5	504.07 ug/L	504.07 ppb	09:33:59
2	Sr 421.552†	72486.0	76149.4	495.90 ug/L	495.90 ppb	09:32:11
2	Ti 334.940†	310913.1	303579.3	479.45 ug/L	479.45 ppb	09:33:39
2	Tl 190.801†	1429.8	1422.4	497.80 ug/L	497.80 ppb	09:33:59
2	U 409.014†	18263.7	18707.5	481.25 ug/L	481.25 ppb	09:33:39
2	V 292.402†	75225.6	74625.6	503.95 ug/L	503.95 ppb	09:33:39
2	Zn 213.857†	51847.8	49809.6	499.38 ug/L	499.38 ppb	09:33:39
2	SiO2†	80078.7	77374.1	5255.6 ug/L	5255.6 ppb	09:34:41
3	Sc 361.383	907215.0	907215.0	104.03 %		09:34:05
3	Sc Radial	5177.5	5177.5	96.0 %		09:32:36
3	Y 371.029	794663.0	794663.0	101.69 %		09:34:05
3	Y RADIAL	5584.2	5584.2	96.19 %		09:32:36
3	Ag 328.068†	114548.1	109816.9	487.11 ug/L	487.11 ppb	09:34:10
3	Al 396.153Radial†	6117.3	6367.5	4960.9 ug/L	4960.9 ppb	09:32:36
3	As 188.979†	1138.0	1124.5	507.29 ug/L	507.29 ppb	09:34:30
3	B 249.677†	21953.5	21413.0	491.45 ug/L	491.45 ppb	09:34:10
3	Ba 233.527†	60100.2	57778.0	496.70 ug/L	496.70 ppb	09:34:10
3	Be 313.107†	1364268.0	1317021.1	497.06 ug/L	497.06 ppb	09:34:05
3	Ca 317.933Radial†	3004.7	3110.2	5150.6 ug/L	5150.6 ppb	09:32:56
3	Cd 226.502†	42171.2	40717.2	501.95 ug/L	501.95 ppb	09:34:10
3	Co 228.616†	21774.6	20990.3	502.72 ug/L	502.72 ppb	09:34:10
3	Cr 267.716†	43950.1	42168.4	496.44 ug/L	496.44 ppb	09:34:10
3	Cu 324.752†	177707.3	160984.8	471.00 ug/L	471.00 ppb	09:34:10
3	Fe 238.204 Radial†	530.3	544.3	5111.7 ug/L	5111.7 ppb	09:32:56
3	K 766.490 Radial†	28273.8	27478.3	5111.7 ug/L	5111.7 ppb	09:32:36
3	Mg 279.077 IEC†	142.0	145.5	5340.9 ug/L	5340.9 ppb	09:32:56
3	Mn 257.610†	423678.7	406711.2	493.62 ug/L	493.62 ppb	09:34:05
3	Mo 202.031†	6983.9	6692.4	494.68 ug/L	494.68 ppb	09:34:30
3	Na 589.592 Radial†	29471.6	31119.9	9592.3 ug/L	9592.3 ppb	09:32:36
3	Ni 231.604†	19045.4	18202.4	499.92 ug/L	499.92 ppb	09:34:10
3	P 214.914†	4371.3	3981.5	2378.2 ug/L	2378.2 ppb	09:34:30
3	Pb 220.353†	3705.2	3607.1	501.44 ug/L	501.44 ppb	09:34:30
3	S 181.975 Axial†	720.2	651.0	985.60 ug/L	985.60 ppb	09:34:30
3	Sb 206.836†	1421.1	1330.0	501.93 ug/L	501.93 ppb	09:34:30
3	Se 196.026†	801.1	784.1	508.92 ug/L	508.92 ppb	09:34:30
3	Si 251.611†	79567.2	75917.6	2417.3 ug/L	2417.3 ppb	09:34:10
3	Sn 189.927†	2537.9	2438.1	497.46 ug/L	497.46 ppb	09:34:30
3	Sr 421.552†	72900.7	75915.6	494.38 ug/L	494.38 ppb	09:32:36
3	Ti 334.940†	309499.0	298428.5	471.32 ug/L	471.32 ppb	09:34:10
3	Tl 190.801†	1440.4	1415.1	495.25 ug/L	495.25 ppb	09:34:30
3	U 409.014†	18356.0	18573.5	477.82 ug/L	477.82 ppb	09:34:10
3	V 292.402†	74997.4	73488.9	496.34 ug/L	496.34 ppb	09:34:10
3	Zn 213.857†	51716.1	49050.8	491.79 ug/L	491.79 ppb	09:34:10
3	SiO2†	79613.0	75949.9	5158.7 ug/L	5158.7 ppb	09:34:46

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	902561.8	103.50 %	0.683			0.66%
Sc Radial	5136.3	95.2 %	0.73			0.77%
Y 371.029	789860.7	101.08 %	0.686			0.68%
Y RADIAL	5544.6	95.51 %	0.594			0.62%
Ag 328.068†	110754.4	491.28 ug/L	3.796	491.28 ppb	3.796	0.77%
QC value within limits for Ag 328.068 Recovery = 98.26%						
Al 396.153Radial†	6377.9	4968.9 ug/L	9.36	4968.9 ppb	9.36	0.19%
QC value within limits for Al 396.153Radial Recovery = 99.38%						
As 188.979†	1130.6	510.07 ug/L	2.404	510.07 ppb	2.404	0.47%
QC value within limits for As 188.979 Recovery = 102.01%						
B 249.677†	21660.1	497.12 ug/L	4.913	497.12 ppb	4.913	0.99%
QC value within limits for B 249.677 Recovery = 99.42%						
Ba 233.527†	58282.9	501.04 ug/L	3.895	501.04 ppb	3.895	0.78%
QC value within limits for Ba 233.527 Recovery = 100.21%						
Be 313.107†	1320657.9	498.44 ug/L	1.240	498.44 ppb	1.240	0.25%
QC value within limits for Be 313.107 Recovery = 99.69%						

Ca 317.933Radial†	3133.9	5190.0 ug/L	53.24	5190.0 ppb	53.24	1.03%
QC value within limits for Ca 317.933Radial Recovery = 103.80%						
Cd 226.502†	41107.0	506.75 ug/L	4.226	506.75 ppb	4.226	0.83%
QC value within limits for Cd 226.502 Recovery = 101.35%						
Co 228.616†	21238.0	508.65 ug/L	5.252	508.65 ppb	5.252	1.03%
QC value within limits for Co 228.616 Recovery = 101.73%						
Cr 267.716†	42582.3	501.32 ug/L	4.349	501.32 ppb	4.349	0.87%
QC value within limits for Cr 267.716 Recovery = 100.26%						
Cu 324.752†	162674.7	475.94 ug/L	4.315	475.94 ppb	4.315	0.91%
QC value within limits for Cu 324.752 Recovery = 95.19%						
Fe 238.204 Radial†	553.0	5193.4 ug/L	90.27	5193.4 ppb	90.27	1.74%
QC value within limits for Fe 238.204 Radial Recovery = 103.87%						
K 766.490 Radial†	27532.4	5121.7 ug/L	9.24	5121.7 ppb	9.24	0.18%
QC value within limits for K 766.490 Radial Recovery = 102.43%						
Mg 279.077 IEC†	146.2	5366.3 ug/L	30.36	5366.3 ppb	30.36	0.57%
QC value within limits for Mg 279.077 IEC Recovery = 107.33%						
Mn 257.610†	407982.6	495.17 ug/L	1.343	495.17 ppb	1.343	0.27%
QC value within limits for Mn 257.610 Recovery = 99.03%						
Mo 202.031†	6726.3	497.19 ug/L	2.201	497.19 ppb	2.201	0.44%
QC value within limits for Mo 202.031 Recovery = 99.44%						
Na 589.592 Radial†	31243.9	9630.5 ug/L	43.58	9630.5 ppb	43.58	0.45%
QC value within limits for Na 589.592 Radial Recovery = 96.30%						
Ni 231.604†	18391.1	505.10 ug/L	4.812	505.10 ppb	4.812	0.95%
QC value within limits for Ni 231.604 Recovery = 101.02%						
P 214.914†	4005.4	2392.0 ug/L	12.13	2392.0 ppb	12.13	0.51%
QC value within limits for P 214.914 Recovery = 95.68%						
Pb 220.353†	3635.7	505.40 ug/L	3.462	505.40 ppb	3.462	0.68%
QC value within limits for Pb 220.353 Recovery = 101.08%						
S 181.975 Axial†	655.2	992.00 ug/L	9.237	992.00 ppb	9.237	0.93%
QC value within limits for S 181.975 Axial Recovery = 99.20%						
Sb 206.836†	1337.2	504.66 ug/L	2.421	504.66 ppb	2.421	0.48%
QC value within limits for Sb 206.836 Recovery = 100.93%						
Se 196.026†	788.2	511.71 ug/L	4.592	511.71 ppb	4.592	0.90%
QC value within limits for Se 196.026 Recovery = 102.34%						
Si 251.611†	76869.5	2447.7 ug/L	26.31	2447.7 ppb	26.31	1.07%
QC value within limits for Si 251.611 Recovery = 97.91%						
Sn 189.927†	2459.1	501.75 ug/L	3.723	501.75 ppb	3.723	0.74%
QC value within limits for Sn 189.927 Recovery = 100.35%						
Sr 421.552†	76138.4	495.83 ug/L	1.416	495.83 ppb	1.416	0.29%
QC value within limits for Sr 421.552 Recovery = 99.17%						
Ti 334.940†	301436.5	476.07 ug/L	4.236	476.07 ppb	4.236	0.89%
QC value within limits for Ti 334.940 Recovery = 95.21%						
Tl 190.801†	1420.9	497.28 ug/L	1.825	497.28 ppb	1.825	0.37%
QC value within limits for Tl 190.801 Recovery = 99.46%						
U 409.014†	18567.8	477.65 ug/L	3.689	477.65 ppb	3.689	0.77%
QC value within limits for U 409.014 Recovery = 95.53%						
V 292.402†	74148.9	500.76 ug/L	3.949	500.76 ppb	3.949	0.79%
QC value within limits for V 292.402 Recovery = 100.15%						
Zn 213.857†	49504.9	496.33 ug/L	4.013	496.33 ppb	4.013	0.81%
QC value within limits for Zn 213.857 Recovery = 99.27%						
SiO2†	76863.8	5220.9 ug/L	53.96	5220.9 ppb	53.96	1.03%
QC value within limits for SiO2 Recovery = 97.63%						

All analyte(s) passed QC.

Sequence No.: 18  
 Sample ID: CCB  
 Analyst:  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 1/25/2010 09:36:56  
 Data Type: Reprocessed on 1/25/2010 09:53:30  
 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 361.383	916072.7	916072.7	105.04 %		09:40:05
1	Sc Radial	5301.0	5301.0	98.3 %		09:38:48
1	Y 371.029	808845.0	808845.0	103.51 %		09:40:05
1	Y RADIAL	5697.0	5697.0	98.13 %		09:38:48
1	Ag 328.068†	421.3	106.4	0.4802 ug/L	0.4802 ppb	09:40:10
1	Al 396.153Radial†	8.7	4.7	3.7176 ug/L	3.7176 ppb	09:39:09
1	As 188.979†	-33.9	-1.6	-0.7269 ug/L	-0.7269 ppb	09:40:30
1	B 249.677†	111.3	415.6	9.5823 ug/L	9.5823 ppb	09:40:30
1	Ba 233.527†	137.9	136.8	1.1743 ug/L	1.1743 ppb	09:40:30
1	Be 313.107†	-5111.8	726.5	0.2739 ug/L	0.2739 ppb	09:40:10
1	Ca 317.933Radial†	18.6	-0.5	-0.8386 ug/L	-0.8386 ppb	09:39:09
1	Cd 226.502†	-176.1	11.6	0.1412 ug/L	0.1412 ppb	09:40:30
1	Co 228.616†	-58.2	3.7	0.0876 ug/L	0.0876 ppb	09:40:30
1	Cr 267.716†	81.4	-2.0	-0.0191 ug/L	-0.0191 ppb	09:40:30
1	Cu 324.752†	9302.7	-983.8	-2.8725 ug/L	-2.8725 ppb	09:40:10
1	Fe 238.204 Radial†	8.0	0.1	0.8505 ug/L	0.8505 ppb	09:39:09
1	K 766.490 Radial†	2307.2	376.5	70.139 ug/L	70.139 ppb	09:38:48
1	Mg 279.077 IEC†	2.1	-0.3	-11.191 ug/L	-11.191 ppb	09:39:09
1	Mn 257.610†	466.4	-113.9	-0.1377 ug/L	-0.1377 ppb	09:40:30
1	Mo 202.031†	20.5	-1.5	-0.1131 ug/L	-0.1131 ppb	09:40:30
1	Na 589.592 Radial†	-468.7	-53.5	-16.484 ug/L	-16.484 ppb	09:38:48
1	Ni 231.604†	125.0	13.8	0.3787 ug/L	0.3787 ppb	09:40:30
1	P 214.914†	213.5	-17.3	-10.115 ug/L	-10.115 ppb	09:40:30
1	Pb 220.353†	-44.2	3.3	0.4611 ug/L	0.4611 ppb	09:40:30
1	S 181.975 Axial†	30.3	-12.6	-19.078 ug/L	-19.078 ppb	09:40:30
1	Sb 206.836†	52.4	13.8	5.0713 ug/L	5.0713 ppb	09:40:30
1	Se 196.026†	-15.1	-0.3	-0.1968 ug/L	-0.1968 ppb	09:40:30
1	Si 251.611†	550.4	-44.0	-1.4027 ug/L	-1.4027 ppb	09:40:30
1	Sn 189.927†	14.4	12.2	2.4865 ug/L	2.4865 ppb	09:40:30
1	Sr 421.552†	48.9	34.7	0.2258 ug/L	0.2258 ppb	09:38:48
1	Ti 334.940†	-867.5	91.0	0.1489 ug/L	0.1489 ppb	09:40:10
1	Tl 190.801†	-34.1	-1.9	-0.6747 ug/L	-0.6747 ppb	09:40:30
1	U 409.014†	-1383.8	-388.8	-10.038 ug/L	-10.038 ppb	09:40:10
1	V 292.402†	-1357.9	103.6	0.6693 ug/L	0.6693 ppb	09:40:10
1	Zn 213.857†	691.1	-4.4	-0.0428 ug/L	-0.0428 ppb	09:40:30
1	SiO2†	546.2	-59.6	-4.0562 ug/L	-4.0562 ppb	09:41:51
2	Sc 361.383	899642.2	899642.2	103.16 %		09:40:35
2	Sc Radial	5246.8	5246.8	97.3 %		09:39:14
2	Y 371.029	795778.9	795778.9	101.84 %		09:40:35
2	Y RADIAL	5703.1	5703.1	98.24 %		09:39:14
2	Ag 328.068†	412.4	105.2	0.4711 ug/L	0.4711 ppb	09:40:40
2	Al 396.153Radial†	9.9	6.1	4.8078 ug/L	4.8078 ppb	09:39:34
2	As 188.979†	-33.2	-1.5	-0.6726 ug/L	-0.6726 ppb	09:41:01
2	B 249.677†	99.7	406.4	9.3677 ug/L	9.3677 ppb	09:41:01
2	Ba 233.527†	136.5	137.8	1.1825 ug/L	1.1825 ppb	09:41:01
2	Be 313.107†	-5171.0	580.2	0.2187 ug/L	0.2187 ppb	09:40:40
2	Ca 317.933Radial†	19.3	0.4	0.6843 ug/L	0.6843 ppb	09:39:34
2	Cd 226.502†	-184.5	0.4	0.0028 ug/L	0.0028 ppb	09:41:01
2	Co 228.616†	-38.3	21.9	0.5244 ug/L	0.5244 ppb	09:41:01
2	Cr 267.716†	77.4	-4.5	-0.0497 ug/L	-0.0497 ppb	09:41:01
2	Cu 324.752†	9342.6	-783.3	-2.2877 ug/L	-2.2877 ppb	09:40:40
2	Fe 238.204 Radial†	8.1	0.3	3.1922 ug/L	3.1922 ppb	09:39:34
2	K 766.490 Radial†	2243.9	335.6	62.523 ug/L	62.523 ppb	09:39:14
2	Mg 279.077 IEC†	-0.3	-2.7	-100.44 ug/L	-100.44 ppb	09:39:34
2	Mn 257.610†	459.9	-112.1	-0.1316 ug/L	-0.1316 ppb	09:41:01
2	Mo 202.031†	20.3	-1.4	-0.1034 ug/L	-0.1034 ppb	09:41:01
2	Na 589.592 Radial†	-479.5	-69.5	-21.418 ug/L	-21.418 ppb	09:39:14
2	Ni 231.604†	102.9	-5.5	-0.1516 ug/L	-0.1516 ppb	09:41:01



2	P 214.914†	215.9	-11.2	-6.4875 ug/L	-6.4875 ppb	09:41:01
2	Pb 220.353†	-51.3	-4.4	-0.6026 ug/L	-0.6026 ppb	09:41:01
2	S 181.975 Axial†	42.5	-0.2	-0.3321 ug/L	-0.3321 ppb	09:41:01
2	Sb 206.836†	51.4	13.8	5.0377 ug/L	5.0377 ppb	09:41:01
2	Se 196.026†	-24.7	-9.8	-6.1457 ug/L	-6.1457 ppb	09:41:01
2	Si 251.611†	536.9	-47.5	-1.5160 ug/L	-1.5160 ppb	09:41:01
2	Sn 189.927†	8.5	6.7	1.3746 ug/L	1.3746 ppb	09:41:01
2	Sr 421.552†	15.1	0.4	0.0029 ug/L	0.0029 ppb	09:39:14
2	Ti 334.940†	-901.9	42.5	0.0787 ug/L	0.0787 ppb	09:40:40
2	Tl 190.801†	-26.2	5.0	1.7523 ug/L	1.7523 ppb	09:41:01
2	U 409.014†	-1247.6	-280.8	-7.2498 ug/L	-7.2498 ppb	09:40:40
2	V 292.402†	-1413.4	26.2	0.1567 ug/L	0.1567 ppb	09:40:40
2	Zn 213.857†	690.2	6.7	0.0716 ug/L	0.0716 ppb	09:41:01
2	SiO2†	548.9	-47.5	-3.2313 ug/L	-3.2313 ppb	09:42:11
3	Sc 361.383	905443.8	905443.8	103.83 %		09:41:06
3	Sc Radial	5132.2	5132.2	95.2 %		09:39:39
3	Y 371.029	801709.2	801709.2	102.60 %		09:41:06
3	Y RADIAL	5535.1	5535.1	95.35 %		09:39:39
3	Ag 328.068†	408.6	98.9	0.4469 ug/L	0.4469 ppb	09:41:11
3	Al 396.153Radial†	6.8	3.1	2.4014 ug/L	2.4014 ppb	09:39:59
3	As 188.979†	-25.7	5.9	2.6543 ug/L	2.6543 ppb	09:41:31
3	B 249.677†	68.6	375.8	8.6609 ug/L	8.6609 ppb	09:41:31
3	Ba 233.527†	153.7	153.5	1.3173 ug/L	1.3173 ppb	09:41:31
3	Be 313.107†	-5212.2	572.7	0.2161 ug/L	0.2161 ppb	09:41:11
3	Ca 317.933Radial†	25.9	7.9	13.017 ug/L	13.017 ppb	09:39:59
3	Cd 226.502†	-183.9	2.1	0.0235 ug/L	0.0235 ppb	09:41:31
3	Co 228.616†	-42.7	17.9	0.4301 ug/L	0.4301 ppb	09:41:31
3	Cr 267.716†	62.2	-19.6	-0.2261 ug/L	-0.2261 ppb	09:41:31
3	Cu 324.752†	9421.2	-765.7	-2.2348 ug/L	-2.2348 ppb	09:41:11
3	Fe 238.204 Radial†	8.6	1.0	9.6895 ug/L	9.6895 ppb	09:39:59
3	K 766.490 Radial†	2341.5	489.7	91.216 ug/L	91.216 ppb	09:39:39
3	Mg 279.077 IEC†	3.3	1.1	40.575 ug/L	40.575 ppb	09:39:59
3	Mn 257.610†	444.5	-129.8	-0.1582 ug/L	-0.1582 ppb	09:41:31
3	Mo 202.031†	25.3	3.3	0.2467 ug/L	0.2467 ppb	09:41:31
3	Na 589.592 Radial†	-474.3	-75.0	-23.102 ug/L	-23.102 ppb	09:39:39
3	Ni 231.604†	113.1	3.7	0.1017 ug/L	0.1017 ppb	09:41:31
3	P 214.914†	213.1	-15.3	-9.0357 ug/L	-9.0357 ppb	09:41:31
3	Pb 220.353†	-35.3	11.3	1.5738 ug/L	1.5738 ppb	09:41:31
3	S 181.975 Axial†	37.0	-5.8	-8.7354 ug/L	-8.7354 ppb	09:41:31
3	Sb 206.836†	37.9	0.5	0.2188 ug/L	0.2188 ppb	09:41:31
3	Se 196.026†	-25.5	-10.4	-6.4851 ug/L	-6.4851 ppb	09:41:31
3	Si 251.611†	522.7	-64.5	-2.0629 ug/L	-2.0629 ppb	09:41:31
3	Sn 189.927†	12.1	10.2	2.0748 ug/L	2.0748 ppb	09:41:31
3	Sr 421.552†	-0.6	-15.7	-0.1020 ug/L	-0.1020 ppb	09:39:39
3	Ti 334.940†	-824.5	122.7	0.1962 ug/L	0.1962 ppb	09:41:11
3	Tl 190.801†	-28.1	3.5	1.2019 ug/L	1.2019 ppb	09:41:31
3	U 409.014†	-1314.8	-337.8	-8.7220 ug/L	-8.7220 ppb	09:41:11
3	V 292.402†	-1409.2	39.0	0.2457 ug/L	0.2457 ppb	09:41:11
3	Zn 213.857†	693.4	5.5	0.0569 ug/L	0.0569 ppb	09:41:31
3	SiO2†	540.4	-59.1	-4.0291 ug/L	-4.0291 ppb	09:42:31

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	907052.9	104.01 %	0.955			0.92%
Sc Radial	5226.7	96.9 %	1.60			1.65%
Y 371.029	802111.1	102.65 %	0.837			0.82%
Y RADIAL	5645.0	97.24 %	1.641			1.69%
Ag 328.068†	103.5	0.4661 ug/L	0.01719	0.4661 ppb	0.01719	3.69%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	4.7	3.6423 ug/L	1.20499	3.6423 ppb	1.20499	33.08%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.9	0.4183 ug/L	1.93666	0.4183 ppb	1.93666	463.00%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	399.3	9.2037 ug/L	0.48210	9.2037 ppb	0.48210	5.24%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	142.7	1.2247 ug/L	0.08032	1.2247 ppb	0.08032	6.56%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	626.4	0.2362 ug/L	0.03266	0.2362 ppb	0.03266	13.83%
QC value within limits for Be 313.107 Recovery = Not calculated						

Ca 317.933Radial†	2.6	4.2875 ug/L	7.59811	4.2875 ppb	7.59811 177.21%
QC value within limits for Ca 317.933Radial Recovery = Not calculated					
Cd 226.502†	4.7	0.0558 ug/L	0.07465	0.0558 ppb	0.07465 133.78%
QC value within limits for Cd 226.502 Recovery = Not calculated					
Co 228.616†	14.5	0.3474 ug/L	0.22986	0.3474 ppb	0.22986 66.17%
QC value within limits for Co 228.616 Recovery = Not calculated					
Cr 267.716†	-8.7	-0.0983 ug/L	0.11172	-0.0983 ppb	0.11172 113.64%
QC value within limits for Cr 267.716 Recovery = Not calculated					
Cu 324.752†	-844.3	-2.4650 ug/L	0.35392	-2.4650 ppb	0.35392 14.36%
QC value within limits for Cu 324.752 Recovery = Not calculated					
Fe 238.204 Radial†	0.5	4.5774 ug/L	4.57943	4.5774 ppb	4.57943 100.04%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated					
K 766.490 Radial†	400.6	74.626 ug/L	14.8635	74.626 ppb	14.8635 19.92%
QC value within limits for K 766.490 Radial Recovery = Not calculated					
Mg 279.077 IEC†	-0.6	-23.684 ug/L	71.3315	-23.684 ppb	71.3315 301.18%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated					
Mn 257.610†	-118.6	-0.1425 ug/L	0.01394	-0.1425 ppb	0.01394 9.79%
QC value within limits for Mn 257.610 Recovery = Not calculated					
Mo 202.031†	0.1	0.0100 ug/L	0.20500	0.0100 ppb	0.20500 >999.9%
QC value within limits for Mo 202.031 Recovery = Not calculated					
Na 589.592 Radial†	-66.0	-20.335 ug/L	3.4398	-20.335 ppb	3.4398 16.92%
QC value within limits for Na 589.592 Radial Recovery = Not calculated					
Ni 231.604†	4.0	0.1096 ug/L	0.26522	0.1096 ppb	0.26522 242.01%
QC value within limits for Ni 231.604 Recovery = Not calculated					
P 214.914†	-14.6	-8.5461 ug/L	1.86266	-8.5461 ppb	1.86266 21.80%
QC value within limits for P 214.914 Recovery = Not calculated					
Pb 220.353†	3.4	0.4774 ug/L	1.08827	0.4774 ppb	1.08827 227.94%
QC value within limits for Pb 220.353 Recovery = Not calculated					
S 181.975 Axial†	-6.2	-9.3817 ug/L	9.38952	-9.3817 ppb	9.38952 100.08%
QC value within limits for S 181.975 Axial Recovery = Not calculated					
Sb 206.836†	9.4	3.4426 ug/L	2.79196	3.4426 ppb	2.79196 81.10%
QC value within limits for Sb 206.836 Recovery = Not calculated					
Se 196.026†	-6.9	-4.2759 ug/L	3.53660	-4.2759 ppb	3.53660 82.71%
QC value within limits for Se 196.026 Recovery = Not calculated					
Si 251.611†	-52.0	-1.6606 ug/L	0.35305	-1.6606 ppb	0.35305 21.26%
QC value within limits for Si 251.611 Recovery = Not calculated					
Sn 189.927†	9.7	1.9786 ug/L	0.56215	1.9786 ppb	0.56215 28.41%
QC value within limits for Sn 189.927 Recovery = Not calculated					
Sr 421.552†	6.5	0.0422 ug/L	0.16741	0.0422 ppb	0.16741 396.43%
QC value within limits for Sr 421.552 Recovery = Not calculated					
Ti 334.940†	85.4	0.1413 ug/L	0.05911	0.1413 ppb	0.05911 41.84%
QC value within limits for Ti 334.940 Recovery = Not calculated					
Tl 190.801†	2.2	0.7598 ug/L	1.27247	0.7598 ppb	1.27247 167.47%
QC value within limits for Tl 190.801 Recovery = Not calculated					
U 409.014†	-335.8	-8.6699 ug/L	1.39483	-8.6699 ppb	1.39483 16.09%
QC value within limits for U 409.014 Recovery = Not calculated					
V 292.402†	56.3	0.3572 ug/L	0.27392	0.3572 ppb	0.27392 76.68%
QC value within limits for V 292.402 Recovery = Not calculated					
Zn 213.857†	2.6	0.0285 ug/L	0.06225	0.0285 ppb	0.06225 218.09%
QC value within limits for Zn 213.857 Recovery = Not calculated					
SiO2†	-55.4	-3.7722 ug/L	0.46864	-3.7722 ppb	0.46864 12.42%
QC value within limits for SiO2 Recovery = Not calculated					
All analyte(s) passed QC.					

Sequence No.: 9

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/25/2010 10:56:16

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5462.0	5462.0	101 %		10:58:08
1	Y RADIAL	5861.7	5861.7	101.0 %		10:58:08
1	Al 396.153Radial†	6400.6	6315.4	4920.2 ug/L	4920.2 ppb	10:58:08
1	Ca 317.933Radial†	3120.5	3061.6	5070.1 ug/L	5070.1 ppb	10:58:28
1	Fe 238.204 Radial†	571.5	556.2	5223.7 ug/L	5223.7 ppb	10:58:28
1	K 766.490 Radial†	29656.1	27309.6	5080.0 ug/L	5080.0 ppb	10:58:08
1	Mg 279.077 IEC†	149.2	144.9	5316.5 ug/L	5316.5 ppb	10:58:28
1	Na 589.592 Radial†	33674.5	33671.1	10379 ug/L	10379 ppb	10:58:08
1	Sr 421.552†	79603.8	78579.9	511.73 ug/L	511.73 ppb	10:58:08
1	Sc 361.383	934885.6	934885.6	107.20 %		10:59:26
1	Y 371.029	817868.9	817868.9	104.66 %		10:59:26
1	Ag 328.068†	117997.4	109775.4	486.96 ug/L	486.96 ppb	10:59:31
1	As 188.979†	1160.8	1113.4	502.37 ug/L	502.37 ppb	10:59:51
1	B 249.677†	21955.0	20789.7	477.06 ug/L	477.06 ppb	10:59:31
1	Ba 233.527†	61617.0	57482.9	494.18 ug/L	494.18 ppb	10:59:31
1	Be 313.107†	1402606.8	1313968.7	495.91 ug/L	495.91 ppb	10:59:26
1	Cd 226.502†	43381.5	40646.3	501.07 ug/L	501.07 ppb	10:59:31
1	Co 228.616†	22431.2	20983.3	502.54 ug/L	502.54 ppb	10:59:31
1	Cr 267.716†	45302.4	42179.3	496.57 ug/L	496.57 ppb	10:59:31
1	Cu 324.752†	183698.7	161517.6	472.56 ug/L	472.56 ppb	10:59:31
1	Mn 257.610†	436935.1	407022.7	494.01 ug/L	494.01 ppb	10:59:26
1	Mo 202.031†	7158.5	6656.6	492.04 ug/L	492.04 ppb	10:59:51
1	Ni 231.604†	19616.5	18193.3	499.67 ug/L	499.67 ppb	10:59:31
1	P 214.914†	4499.3	3976.5	2374.7 ug/L	2374.7 ppb	10:59:51
1	Pb 220.353†	3836.7	3624.3	503.79 ug/L	503.79 ppb	10:59:51
1	S 181.975 Axial†	744.2	652.8	988.47 ug/L	988.47 ppb	10:59:51
1	Sb 206.836†	1463.2	1328.9	501.46 ug/L	501.46 ppb	10:59:51
1	Se 196.026†	828.0	786.4	510.71 ug/L	510.71 ppb	10:59:51
1	Si 251.611†	82195.2	76105.2	2423.4 ug/L	2423.4 ppb	10:59:31
1	Sn 189.927†	2617.9	2440.5	497.94 ug/L	497.94 ppb	10:59:51
1	Ti 334.940†	319133.7	298610.3	471.59 ug/L	471.59 ppb	10:59:31
1	Tl 190.801†	1485.5	1416.1	495.63 ug/L	495.63 ppb	10:59:51
1	U 409.014†	18922.4	18579.7	477.96 ug/L	477.96 ppb	10:59:31
1	V 292.402†	77415.7	73611.0	497.10 ug/L	497.10 ppb	10:59:31
1	Zn 213.857†	53244.5	49005.1	491.31 ug/L	491.31 ppb	10:59:31
1	SiO2†	81300.6	75259.0	5111.7 ug/L	5111.7 ppb	11:00:58
2	Sc Radial	5358.1	5358.1	99.4 %		10:58:33
2	Y RADIAL	5752.2	5752.2	99.09 %		10:58:33
2	Al 396.153Radial†	6309.6	6346.3	4944.3 ug/L	4944.3 ppb	10:58:33
2	Ca 317.933Radial†	3102.3	3102.9	5138.6 ug/L	5138.6 ppb	10:58:53
2	Fe 238.204 Radial†	567.5	563.2	5288.7 ug/L	5288.7 ppb	10:58:53
2	K 766.490 Radial†	29083.8	27301.0	5078.3 ug/L	5078.3 ppb	10:58:33
2	Mg 279.077 IEC†	148.0	146.5	5377.3 ug/L	5377.3 ppb	10:58:53
2	Na 589.592 Radial†	33431.7	34071.0	10502 ug/L	10502 ppb	10:58:33
2	Sr 421.552†	78286.2	78776.6	513.01 ug/L	513.01 ppb	10:58:33
2	Sc 361.383	934012.7	934012.7	107.10 %		10:59:57
2	Y 371.029	817090.8	817090.8	104.56 %		10:59:57
2	Ag 328.068†	117944.1	109828.5	487.22 ug/L	487.22 ppb	11:00:02
2	As 188.979†	1170.8	1123.8	507.03 ug/L	507.03 ppb	11:00:22
2	B 249.677†	22014.6	20864.5	478.77 ug/L	478.77 ppb	11:00:02
2	Ba 233.527†	61794.8	57702.6	496.06 ug/L	496.06 ppb	11:00:02
2	Be 313.107†	1404934.0	1317364.3	497.19 ug/L	497.19 ppb	10:59:57
2	Cd 226.502†	43454.4	40752.2	502.37 ug/L	502.37 ppb	11:00:02
2	Co 228.616†	22467.9	21037.1	503.84 ug/L	503.84 ppb	11:00:02
2	Cr 267.716†	45290.6	42207.8	496.91 ug/L	496.91 ppb	11:00:02
2	Cu 324.752†	183347.2	161349.5	472.07 ug/L	472.07 ppb	11:00:02
2	Mn 257.610†	437578.2	408004.0	495.20 ug/L	495.20 ppb	10:59:57
2	Mo 202.031†	7200.8	6702.2	495.42 ug/L	495.42 ppb	11:00:22
2	Ni 231.604†	19643.7	18235.8	500.84 ug/L	500.84 ppb	11:00:02

2	P 214.914†	4514.1	3994.3	2385.8 ug/L	2385.8 ppb	11:00:22
2	Pb 220.353†	3847.9	3638.1	505.72 ug/L	505.72 ppb	11:00:22
2	S 181.975 Axial†	742.7	652.0	987.20 ug/L	987.20 ppb	11:00:22
2	Sb 206.836†	1470.2	1336.6	504.44 ug/L	504.44 ppb	11:00:22
2	Se 196.026†	828.8	787.9	511.86 ug/L	511.86 ppb	11:00:22
2	Si 251.611†	82299.4	76274.1	2428.7 ug/L	2428.7 ppb	11:00:02
2	Sn 189.927†	2642.8	2466.0	503.15 ug/L	503.15 ppb	11:00:22
2	Ti 334.940†	319120.5	298876.1	472.02 ug/L	472.02 ppb	11:00:02
2	Tl 190.801†	1498.7	1429.8	500.37 ug/L	500.37 ppb	11:00:22
2	U 409.014†	18877.1	18553.9	477.29 ug/L	477.29 ppb	11:00:02
2	V 292.402†	77359.3	73625.8	497.24 ug/L	497.24 ppb	11:00:02
2	Zn 213.857†	53227.5	49035.6	491.61 ug/L	491.61 ppb	11:00:02
2	SiO2†	81952.8	75938.9	5158.0 ug/L	5158.0 ppb	11:01:03
3	Sc Radial	5340.3	5340.3	99.0 %		10:58:59
3	Y RADIAL	5768.2	5768.2	99.36 %		10:58:59
3	Al 396.153Radial†	6267.8	6325.3	4927.6 ug/L	4927.6 ppb	10:58:59
3	Ca 317.933Radial†	3122.2	3133.5	5189.3 ug/L	5189.3 ppb	10:59:19
3	Fe 238.204 Radial†	573.5	571.1	5363.1 ug/L	5363.1 ppb	10:59:19
3	K 766.490 Radial†	29122.2	27437.5	5103.7 ug/L	5103.7 ppb	10:58:59
3	Mg 279.077 IEC†	148.7	147.8	5421.7 ug/L	5421.7 ppb	10:59:19
3	Na 589.592 Radial†	33150.1	33899.0	10449 ug/L	10449 ppb	10:58:59
3	Sr 421.552†	78113.9	78865.8	513.59 ug/L	513.59 ppb	10:58:59
3	Sc 361.383	924853.9	924853.9	106.05 %		11:00:28
3	Y 371.029	808304.4	808304.4	103.44 %		11:00:28
3	Ag 328.068†	120243.7	113087.4	501.65 ug/L	501.65 ppb	11:00:33
3	As 188.979†	1166.3	1130.4	510.10 ug/L	510.10 ppb	11:00:53
3	B 249.677†	22563.4	21585.5	495.34 ug/L	495.34 ppb	11:00:33
3	Ba 233.527†	63056.1	59463.3	511.19 ug/L	511.19 ppb	11:00:33
3	Be 313.107†	1393592.8	1319660.8	498.09 ug/L	498.09 ppb	11:00:28
3	Cd 226.502†	44173.8	41832.3	515.69 ug/L	515.69 ppb	11:00:33
3	Co 228.616†	22947.8	21697.4	519.63 ug/L	519.63 ppb	11:00:33
3	Cr 267.716†	46062.6	43354.6	510.41 ug/L	510.41 ppb	11:00:33
3	Cu 324.752†	187417.9	166883.3	488.26 ug/L	488.26 ppb	11:00:33
3	Mn 257.610†	434543.1	409188.2	496.64 ug/L	496.64 ppb	11:00:28
3	Mo 202.031†	7177.9	6747.2	498.74 ug/L	498.74 ppb	11:00:53
3	Ni 231.604†	19989.7	18743.7	514.79 ug/L	514.79 ppb	11:00:33
3	P 214.914†	4519.6	4041.2	2411.6 ug/L	2411.6 ppb	11:00:53
3	Pb 220.353†	3837.2	3663.6	509.24 ug/L	509.24 ppb	11:00:53
3	S 181.975 Axial†	745.0	661.1	1001.0 ug/L	1001.0 ppb	11:00:53
3	Sb 206.836†	1474.1	1354.0	510.81 ug/L	510.81 ppb	11:00:53
3	Se 196.026†	836.5	802.9	521.47 ug/L	521.47 ppb	11:00:53
3	Si 251.611†	83971.9	78612.1	2503.3 ug/L	2503.3 ppb	11:00:33
3	Sn 189.927†	2613.8	2463.2	502.58 ug/L	502.58 ppb	11:00:53
3	Ti 334.940†	325729.2	308058.4	486.52 ug/L	486.52 ppb	11:00:33
3	Tl 190.801†	1495.5	1440.6	504.17 ug/L	504.17 ppb	11:00:53
3	U 409.014†	19386.2	19208.5	494.15 ug/L	494.15 ppb	11:00:33
3	V 292.402†	78922.1	75814.7	511.87 ug/L	511.87 ppb	11:00:33
3	Zn 213.857†	54234.6	50477.4	506.07 ug/L	506.07 ppb	11:00:33
3	SiO2†	81285.0	76067.0	5166.6 ug/L	5166.6 ppb	11:01:09

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	931250.7	106.79 %		0.637			0.60%
Sc Radial	5386.8	99.9 %		1.22			1.22%
Y 371.029	814421.4	104.22 %		0.680			0.65%
Y RADIAL	5794.0	99.81 %		1.019			1.02%
Ag 328.068†	110897.1	491.94 ug/L		8.405	491.94 ppb	8.405	1.71%
QC value within limits for Ag 328.068 Recovery = 98.39%							
Al 396.153Radial†	6329.0	4930.7 ug/L		12.32	4930.7 ppb	12.32	0.25%
QC value within limits for Al 396.153Radial Recovery = 98.61%							
As 188.979†	1122.5	506.50 ug/L		3.889	506.50 ppb	3.889	0.77%
QC value within limits for As 188.979 Recovery = 101.30%							
B 249.677†	21079.9	483.72 ug/L		10.094	483.72 ppb	10.094	2.09%
QC value within limits for B 249.677 Recovery = 96.74%							
Ba 233.527†	58216.3	500.48 ug/L		9.329	500.48 ppb	9.329	1.86%
QC value within limits for Ba 233.527 Recovery = 100.10%							
Be 313.107†	1316998.0	497.07 ug/L		1.094	497.07 ppb	1.094	0.22%
QC value within limits for Be 313.107 Recovery = 99.41%							
Ca 317.933Radial†	3099.3	5132.7 ug/L		59.80	5132.7 ppb	59.80	1.17%

QC value within limits for Ca 317.933 Radial Recovery = 102.65%							
Cd	226.502†	41076.9	506.37 ug/L	8.093	506.37 ppb	8.093	1.60%
QC value within limits for Cd 226.502 Recovery = 101.27%							
Co	228.616†	21239.2	508.67 ug/L	9.511	508.67 ppb	9.511	1.87%
QC value within limits for Co 228.616 Recovery = 101.73%							
Cr	267.716†	42580.6	501.30 ug/L	7.893	501.30 ppb	7.893	1.57%
QC value within limits for Cr 267.716 Recovery = 100.26%							
Cu	324.752†	163250.1	477.63 ug/L	9.207	477.63 ppb	9.207	1.93%
QC value within limits for Cu 324.752 Recovery = 95.53%							
Fe	238.204 Radial†	563.5	5291.8 ug/L	69.78	5291.8 ppb	69.78	1.32%
QC value within limits for Fe 238.204 Radial Recovery = 105.84%							
K	766.490 Radial†	27349.4	5087.4 ug/L	14.22	5087.4 ppb	14.22	0.28%
QC value within limits for K 766.490 Radial Recovery = 101.75%							
Mg	279.077 IEC†	146.4	5371.8 ug/L	52.80	5371.8 ppb	52.80	0.98%
QC value within limits for Mg 279.077 IEC Recovery = 107.44%							
Mn	257.610†	408071.6	495.28 ug/L	1.320	495.28 ppb	1.320	0.27%
QC value within limits for Mn 257.610 Recovery = 99.06%							
Mo	202.031†	6702.0	495.40 ug/L	3.354	495.40 ppb	3.354	0.68%
QC value within limits for Mo 202.031 Recovery = 99.08%							
Na	589.592 Radial†	33880.4	10443 ug/L	61.8	10443 ppb	61.8	0.59%
QC value within limits for Na 589.592 Radial Recovery = 104.43%							
Ni	231.604†	18390.9	505.10 ug/L	8.410	505.10 ppb	8.410	1.67%
QC value within limits for Ni 231.604 Recovery = 101.02%							
P	214.914†	4004.0	2390.7 ug/L	18.96	2390.7 ppb	18.96	0.79%
QC value within limits for P 214.914 Recovery = 95.63%							
Pb	220.353†	3642.0	506.25 ug/L	2.760	506.25 ppb	2.760	0.55%
QC value within limits for Pb 220.353 Recovery = 101.25%							
S	181.975 Axial†	655.3	992.21 ug/L	7.610	992.21 ppb	7.610	0.77%
QC value within limits for S 181.975 Axial Recovery = 99.22%							
Sb	206.836†	1339.8	505.57 ug/L	4.776	505.57 ppb	4.776	0.94%
QC value within limits for Sb 206.836 Recovery = 101.11%							
Se	196.026†	792.4	514.68 ug/L	5.905	514.68 ppb	5.905	1.15%
QC value within limits for Se 196.026 Recovery = 102.94%							
Si	251.611†	76997.2	2451.8 ug/L	44.69	2451.8 ppb	44.69	1.82%
QC value within limits for Si 251.611 Recovery = 98.07%							
Sn	189.927†	2456.6	501.22 ug/L	2.858	501.22 ppb	2.858	0.57%
QC value within limits for Sn 189.927 Recovery = 100.24%							
Sr	421.552†	78740.8	512.78 ug/L	0.952	512.78 ppb	0.952	0.19%
QC value within limits for Sr 421.552 Recovery = 102.56%							
Ti	334.940†	301848.3	476.71 ug/L	8.495	476.71 ppb	8.495	1.78%
QC value within limits for Ti 334.940 Recovery = 95.34%							
Tl	190.801†	1428.8	500.05 ug/L	4.279	500.05 ppb	4.279	0.86%
QC value within limits for Tl 190.801 Recovery = 100.01%							
U	409.014†	18780.7	483.13 ug/L	9.545	483.13 ppb	9.545	1.98%
QC value within limits for U 409.014 Recovery = 96.63%							
V	292.402†	74350.5	502.07 ug/L	8.490	502.07 ppb	8.490	1.69%
QC value within limits for V 292.402 Recovery = 100.41%							
Zn	213.857†	49506.0	496.33 ug/L	8.437	496.33 ppb	8.437	1.70%
QC value within limits for Zn 213.857 Recovery = 99.27%							
SiO2†		75755.0	5145.4 ug/L	29.49	5145.4 ppb	29.49	0.57%
QC value within limits for SiO2 Recovery = 96.22%							
All analyte(s) passed QC.							

Sequence No.: 10  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 1/25/2010 11:03:19  
 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	5300.5	5300.5	98.3 %		11:05:11
1	Y RADIAL	5767.1	5767.1	99.34 %		11:05:11
1	Al 396.153Radial†	-1.4	-5.5	-4.3356 ug/L	-4.3356 ppb	11:05:31
1	Ca 317.933Radial†	26.5	7.5	12.484 ug/L	12.484 ppb	11:05:31
1	Fe 238.204 Radial†	7.3	-0.6	-5.5304 ug/L	-5.5304 ppb	11:05:31
1	K 766.490 Radial†	2270.2	339.1	63.156 ug/L	63.156 ppb	11:05:11
1	Mg 279.077 IEC†	1.8	-0.6	-20.526 ug/L	-20.526 ppb	11:05:31
1	Na 589.592 Radial†	-431.2	-15.3	-4.7091 ug/L	-4.7091 ppb	11:05:11
1	Sr 421.552†	35.9	21.5	0.1399 ug/L	0.1399 ppb	11:05:11
1	Sc 361.383	906304.9	906304.9	103.92 %		11:06:28
1	Y 371.029	797459.4	797459.4	102.05 %		11:06:28
1	Ag 328.068†	388.2	79.0	0.3510 ug/L	0.3510 ppb	11:06:28
1	As 188.979†	-29.1	2.6	1.1800 ug/L	1.1800 ppb	11:06:48
1	B 249.677†	-184.2	132.4	3.0538 ug/L	3.0538 ppb	11:06:48
1	Ba 233.527†	119.6	120.6	1.0350 ug/L	1.0350 ppb	11:06:48
1	Be 313.107†	-5105.7	679.9	0.2563 ug/L	0.2563 ppb	11:06:28
1	Cd 226.502†	-189.9	-3.5	-0.0430 ug/L	-0.0430 ppb	11:06:48
1	Co 228.616†	-54.7	6.4	0.1546 ug/L	0.1546 ppb	11:06:48
1	Cr 267.716†	86.8	4.0	0.0492 ug/L	0.0492 ppb	11:06:48
1	Cu 324.752†	9263.2	-926.3	-2.7085 ug/L	-2.7085 ppb	11:06:28
1	Mn 257.610†	486.9	-89.4	-0.1081 ug/L	-0.1081 ppb	11:06:48
1	Mo 202.031†	23.5	1.6	0.1189 ug/L	0.1189 ppb	11:06:48
1	Ni 231.604†	113.9	4.4	0.1199 ug/L	0.1199 ppb	11:06:48
1	P 214.914†	210.5	-18.0	-10.611 ug/L	-10.611 ppb	11:06:48
1	Pb 220.353†	-47.6	-0.4	-0.0596 ug/L	-0.0596 ppb	11:06:48
1	S 181.975 Axial†	37.8	-5.0	-7.6301 ug/L	-7.6301 ppb	11:06:48
1	Sb 206.836†	36.2	-1.3	-0.4556 ug/L	-0.4556 ppb	11:06:48
1	Se 196.026†	-19.9	-5.0	-3.1535 ug/L	-3.1535 ppb	11:06:48
1	Si 251.611†	527.9	-60.0	-1.9158 ug/L	-1.9158 ppb	11:06:48
1	Sn 189.927†	1.0	-0.5	-0.1003 ug/L	-0.1003 ppb	11:06:48
1	Ti 334.940†	-878.8	71.2	0.1174 ug/L	0.1174 ppb	11:06:28
1	Tl 190.801†	-42.9	-10.7	-3.7394 ug/L	-3.7394 ppb	11:06:48
1	U 409.014†	-1103.8	-133.6	-3.4482 ug/L	-3.4482 ppb	11:06:28
1	V 292.402†	-1367.2	80.7	0.5330 ug/L	0.5330 ppb	11:06:28
1	Zn 213.857†	701.5	12.7	0.1321 ug/L	0.1321 ppb	11:06:48
1	SiO2†	523.0	-76.4	-5.2030 ug/L	-5.2030 ppb	11:07:59
2	Sc Radial	5400.5	5400.5	100 %		11:05:36
2	Y RADIAL	5824.9	5824.9	100.3 %		11:05:36
2	Al 396.153Radial†	10.9	6.8	5.3345 ug/L	5.3345 ppb	11:05:56
2	Ca 317.933Radial†	24.3	4.8	8.0105 ug/L	8.0105 ppb	11:05:56
2	Fe 238.204 Radial†	7.3	-0.8	-7.1668 ug/L	-7.1668 ppb	11:05:56
2	K 766.490 Radial†	2225.7	251.9	46.905 ug/L	46.905 ppb	11:05:36
2	Mg 279.077 IEC†	-0.9	-3.3	-122.84 ug/L	-122.84 ppb	11:05:56
2	Na 589.592 Radial†	-386.7	37.2	11.477 ug/L	11.477 ppb	11:05:36
2	Sr 421.552†	45.7	30.6	0.1992 ug/L	0.1992 ppb	11:05:36
2	Sc 361.383	914396.2	914396.2	104.85 %		11:06:53
2	Y 371.029	802751.4	802751.4	102.73 %		11:06:53
2	Ag 328.068†	336.5	26.3	0.1185 ug/L	0.1185 ppb	11:06:53
2	As 188.979†	-20.3	11.3	5.0568 ug/L	5.0568 ppb	11:07:13
2	B 249.677†	-245.0	76.1	1.7536 ug/L	1.7536 ppb	11:07:13
2	Ba 233.527†	109.0	109.5	0.9398 ug/L	0.9398 ppb	11:07:13
2	Be 313.107†	-5164.7	667.1	0.2516 ug/L	0.2516 ppb	11:06:53
2	Cd 226.502†	-186.5	1.4	0.0177 ug/L	0.0177 ppb	11:07:13
2	Co 228.616†	-42.7	18.4	0.4397 ug/L	0.4397 ppb	11:07:13
2	Cr 267.716†	84.9	1.5	0.0193 ug/L	0.0193 ppb	11:07:13
2	Cu 324.752†	9405.2	-869.8	-2.5433 ug/L	-2.5433 ppb	11:06:53
2	Mn 257.610†	455.5	-123.5	-0.1454 ug/L	-0.1454 ppb	11:07:13
2	Mo 202.031†	18.9	-3.0	-0.2203 ug/L	-0.2203 ppb	11:07:13
2	Ni 231.604†	119.6	8.8	0.2412 ug/L	0.2412 ppb	11:07:13

2	P 214.914†	211.3	-18.9	-11.232 ug/L	-11.232 ppb	11:07:13
2	Pb 220.353†	-36.2	10.8	1.5012 ug/L	1.5012 ppb	11:07:13
2	S 181.975 Axial†	32.6	-10.3	-15.625 ug/L	-15.625 ppb	11:07:13
2	Sb 206.836†	28.5	-8.9	-3.2206 ug/L	-3.2206 ppb	11:07:13
2	Se 196.026†	-15.6	-0.8	-0.5340 ug/L	-0.5340 ppb	11:07:13
2	Si 251.611†	513.3	-78.4	-2.5000 ug/L	-2.5000 ppb	11:07:13
2	Sn 189.927†	6.9	5.1	1.0297 ug/L	1.0297 ppb	11:07:13
2	Ti 334.940†	-849.9	106.2	0.1803 ug/L	0.1803 ppb	11:06:53
2	Tl 190.801†	-33.4	-1.4	-0.4815 ug/L	-0.4815 ppb	11:07:13
2	U 409.014†	-1108.4	-128.5	-3.3177 ug/L	-3.3177 ppb	11:06:53
2	V 292.402†	-1381.8	78.4	0.5114 ug/L	0.5114 ppb	11:06:53
2	Zn 213.857†	703.2	8.3	0.0869 ug/L	0.0869 ppb	11:07:13
2	SiO2†	530.1	-74.0	-5.0356 ug/L	-5.0356 ppb	11:08:19
3	Sc Radial	5402.8	5402.8	100 %		11:06:01
3	Y RADIAL	5812.1	5812.1	100.1 %		11:06:01
3	Al 396.153Radial†	10.9	6.8	5.3229 ug/L	5.3229 ppb	11:06:21
3	Ca 317.933Radial†	23.3	3.8	6.3695 ug/L	6.3695 ppb	11:06:21
3	Fe 238.204 Radial†	8.1	0.1	0.8743 ug/L	0.8743 ppb	11:06:21
3	K 766.490 Radial†	2284.0	309.1	57.563 ug/L	57.563 ppb	11:06:01
3	Mg 279.077 IEC†	0.6	-1.8	-65.824 ug/L	-65.824 ppb	11:06:21
3	Na 589.592 Radial†	-366.4	57.7	17.771 ug/L	17.771 ppb	11:06:01
3	Sr 421.552†	17.7	2.7	0.0173 ug/L	0.0173 ppb	11:06:01
3	Sc 361.383	904265.1	904265.1	103.69 %		11:07:19
3	Y 371.029	794826.7	794826.7	101.72 %		11:07:19
3	Ag 328.068†	412.6	103.3	0.4578 ug/L	0.4578 ppb	11:07:19
3	As 188.979†	-25.0	6.5	2.9206 ug/L	2.9206 ppb	11:07:39
3	B 249.677†	-234.5	83.5	1.9258 ug/L	1.9258 ppb	11:07:39
3	Ba 233.527†	115.9	117.3	1.0066 ug/L	1.0066 ppb	11:07:39
3	Be 313.107†	-5093.6	680.5	0.2566 ug/L	0.2566 ppb	11:07:19
3	Cd 226.502†	-187.7	-1.7	-0.0219 ug/L	-0.0219 ppb	11:07:39
3	Co 228.616†	-55.4	5.6	0.1339 ug/L	0.1339 ppb	11:07:39
3	Cr 267.716†	82.9	0.4	0.0057 ug/L	0.0057 ppb	11:07:39
3	Cu 324.752†	9355.5	-817.2	-2.3903 ug/L	-2.3903 ppb	11:07:19
3	Mn 257.610†	453.7	-120.4	-0.1432 ug/L	-0.1432 ppb	11:07:39
3	Mo 202.031†	17.1	-4.6	-0.3369 ug/L	-0.3369 ppb	11:07:39
3	Ni 231.604†	108.0	-1.1	-0.0316 ug/L	-0.0316 ppb	11:07:39
3	P 214.914†	215.3	-12.9	-7.5241 ug/L	-7.5241 ppb	11:07:39
3	Pb 220.353†	-48.1	-1.0	-0.1353 ug/L	-0.1353 ppb	11:07:39
3	S 181.975 Axial†	37.3	-5.5	-8.2869 ug/L	-8.2869 ppb	11:07:39
3	Sb 206.836†	35.6	-1.7	-0.6285 ug/L	-0.6285 ppb	11:07:39
3	Se 196.026†	-11.8	2.7	1.6773 ug/L	1.6773 ppb	11:07:39
3	Si 251.611†	519.1	-67.3	-2.1445 ug/L	-2.1445 ppb	11:07:39
3	Sn 189.927†	-1.3	-2.8	-0.5628 ug/L	-0.5628 ppb	11:07:39
3	Ti 334.940†	-841.9	104.9	0.1724 ug/L	0.1724 ppb	11:07:19
3	Tl 190.801†	-29.9	1.6	0.5661 ug/L	0.5661 ppb	11:07:39
3	U 409.014†	-1006.9	-42.6	-1.0991 ug/L	-1.0991 ppb	11:07:19
3	V 292.402†	-1391.6	54.2	0.3529 ug/L	0.3529 ppb	11:07:19
3	Zn 213.857†	686.6	-0.1	0.0019 ug/L	0.0019 ppb	11:07:39
3	SiO2†	527.2	-71.1	-4.8338 ug/L	-4.8338 ppb	11:08:39

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	908322.1	104.16 %		0.614			0.59%
Sc Radial	5368.0	99.5 %		1.08			1.09%
Y 371.029	798345.9	102.17 %		0.516			0.51%
Y RADIAL	5801.4	99.93 %		0.523			0.52%
Ag 328.068†	69.5	0.3091 ug/L		0.17349	0.3091 ppb	0.17349	56.13%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	2.7	2.1073 ug/L		5.57967	2.1073 ppb	5.57967	264.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	6.8	3.0525 ug/L		1.94177	3.0525 ppb	1.94177	63.61%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	97.3	2.2444 ug/L		0.70625	2.2444 ppb	0.70625	31.47%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	115.8	0.9938 ug/L		0.04889	0.9938 ppb	0.04889	4.92%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	675.8	0.2549 ug/L		0.00281	0.2549 ppb	0.00281	1.10%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	5.4	8.9546 ug/L		3.16462	8.9546 ppb	3.16462	35.34%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated

Cd 226.502†	-1.3	-0.0157 ug/L	0.03081	-0.0157 ppb	0.03081	195.97%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	10.1	0.2427 ug/L	0.17092	0.2427 ppb	0.17092	70.41%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	2.0	0.0247 ug/L	0.02225	0.0247 ppb	0.02225	89.94%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-871.1	-2.5474 ug/L	0.15910	-2.5474 ppb	0.15910	6.25%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.4	-3.9410 ug/L	4.24965	-3.9410 ppb	4.24965	107.83%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	300.0	55.875 ug/L	8.2558	55.875 ppb	8.2558	14.78%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-1.9	-69.729 ug/L	51.2670	-69.729 ppb	51.2670	73.52%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-111.1	-0.1323 ug/L	0.02094	-0.1323 ppb	0.02094	15.83%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-2.0	-0.1461 ug/L	0.23681	-0.1461 ppb	0.23681	162.10%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	26.5	8.1796 ug/L	11.59702	8.1796 ppb	11.59702	141.78%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	4.0	0.1098 ug/L	0.13666	0.1098 ppb	0.13666	124.45%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-16.6	-9.7889 ug/L	1.98582	-9.7889 ppb	1.98582	20.29%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	3.1	0.4354 ug/L	0.92375	0.4354 ppb	0.92375	212.15%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-6.9	-10.514 ug/L	4.4382	-10.514 ppb	4.4382	42.21%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-3.9	-1.4349 ug/L	1.54888	-1.4349 ppb	1.54888	107.94%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-1.1	-0.6701 ug/L	2.41826	-0.6701 ppb	2.41826	360.91%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	-68.6	-2.1867 ug/L	0.29440	-2.1867 ppb	0.29440	13.46%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	0.6	0.1222 ug/L	0.81924	0.1222 ppb	0.81924	670.40%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	18.3	0.1188 ug/L	0.09277	0.1188 ppb	0.09277	78.09%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	94.1	0.1567 ug/L	0.03428	0.1567 ppb	0.03428	21.87%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-3.5	-1.2183 ug/L	2.24535	-1.2183 ppb	2.24535	184.31%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-101.6	-2.6217 ug/L	1.32019	-2.6217 ppb	1.32019	50.36%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	71.1	0.4658 ug/L	0.09833	0.4658 ppb	0.09833	21.11%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	7.0	0.0736 ug/L	0.06611	0.0736 ppb	0.06611	89.79%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	-73.8	-5.0241 ug/L	0.18491	-5.0241 ppb	0.18491	3.68%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.



Sequence No.: 10  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 1/25/2010 12:14:50  
 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	5527.0	5527.0	102 %		12:16:42
1	Y RADIAL	5917.2	5917.2	101.9 %		12:16:42
1	Al 396.153Radial†	6203.2	6048.5	4710.5 ug/L	4710.5 ppb	12:16:42
1	Ca 317.933Radial†	3093.0	2998.5	4965.7 ug/L	4965.7 ppb	12:17:02
1	Fe 238.204 Radial†	558.8	537.2	5045.7 ug/L	5045.7 ppb	12:17:02
1	K 766.490 Radial†	28912.6	26239.7	4881.0 ug/L	4881.0 ppb	12:16:42
1	Mg 279.077 IEC†	147.0	141.0	5175.1 ug/L	5175.1 ppb	12:17:02
1	Na 589.592 Radial†	31841.0	31491.0	9706.6 ug/L	9706.6 ppb	12:16:42
1	Sr 421.552†	76544.1	74670.0	486.27 ug/L	486.27 ppb	12:16:42
1	Sc 361.383	915375.2	915375.2	104.96 %		12:18:00
1	Y 371.029	801046.4	801046.4	102.51 %		12:18:00
1	Ag 328.068†	118845.9	112929.8	500.86 ug/L	500.86 ppb	12:18:05
1	As 188.979†	1167.6	1143.0	515.66 ug/L	515.66 ppb	12:18:25
1	B 249.677†	22347.1	21599.8	495.71 ug/L	495.71 ppb	12:18:05
1	Ba 233.527†	62422.0	59474.9	511.28 ug/L	511.28 ppb	12:18:05
1	Be 313.107†	1387807.3	1327756.0	501.14 ug/L	501.14 ppb	12:18:00
1	Cd 226.502†	43905.2	42007.8	517.89 ug/L	517.89 ppb	12:18:05
1	Co 228.616†	22748.1	21731.1	520.46 ug/L	520.46 ppb	12:18:05
1	Cr 267.716†	45678.3	43438.2	511.39 ug/L	511.39 ppb	12:18:05
1	Cu 324.752†	185233.8	166632.4	487.51 ug/L	487.51 ppb	12:18:05
1	Mn 257.610†	433066.7	412024.5	500.06 ug/L	500.06 ppb	12:18:00
1	Mo 202.031†	7234.3	6871.1	507.86 ug/L	507.86 ppb	12:18:25
1	Ni 231.604†	19844.9	18801.0	516.36 ug/L	516.36 ppb	12:18:05
1	P 214.914†	4545.2	4109.7	2454.5 ug/L	2454.5 ppb	12:18:25
1	Pb 220.353†	3850.4	3713.6	516.17 ug/L	516.17 ppb	12:18:25
1	S 181.975 Axial†	747.0	670.3	1015.0 ug/L	1015.0 ppb	12:18:25
1	Sb 206.836†	1468.1	1362.6	514.29 ug/L	514.29 ppb	12:18:25
1	Se 196.026†	827.4	802.4	520.13 ug/L	520.13 ppb	12:18:25
1	Si 251.611†	83153.3	78652.1	2504.5 ug/L	2504.5 ppb	12:18:05
1	Sn 189.927†	2635.4	2509.3	511.93 ug/L	511.93 ppb	12:18:25
1	Ti 334.940†	322747.0	308397.7	487.04 ug/L	487.04 ppb	12:18:05
1	Tl 190.801†	1507.6	1466.8	513.28 ug/L	513.28 ppb	12:18:25
1	U 409.014†	19083.0	19108.9	491.61 ug/L	491.61 ppb	12:18:05
1	V 292.402†	78069.8	75773.3	511.76 ug/L	511.76 ppb	12:18:05
1	Zn 213.857†	53785.0	50578.6	507.12 ug/L	507.12 ppb	12:18:05
1	SiO2†	83149.6	78637.0	5341.4 ug/L	5341.4 ppb	12:19:32
2	Sc Radial	5211.6	5211.6	96.6 %		12:17:07
2	Y RADIAL	5648.7	5648.7	97.30 %		12:17:07
2	Al 396.153Radial†	6200.3	6411.7	4994.8 ug/L	4994.8 ppb	12:17:07
2	Ca 317.933Radial†	3112.5	3201.3	5301.6 ug/L	5301.6 ppb	12:17:27
2	Fe 238.204 Radial†	563.0	574.5	5395.5 ug/L	5395.5 ppb	12:17:27
2	K 766.490 Radial†	28879.5	27912.4	5192.2 ug/L	5192.2 ppb	12:17:07
2	Mg 279.077 IEC†	144.5	147.1	5398.6 ug/L	5398.6 ppb	12:17:27
2	Na 589.592 Radial†	31927.6	33460.4	10314 ug/L	10314 ppb	12:17:07
2	Sr 421.552†	76261.3	78896.2	513.79 ug/L	513.79 ppb	12:17:07
2	Sc 361.383	901110.3	901110.3	103.33 %		12:18:31
2	Y 371.029	788535.7	788535.7	100.91 %		12:18:31
2	Ag 328.068†	117656.8	113571.4	503.80 ug/L	503.80 ppb	12:18:36
2	As 188.979†	1158.1	1151.5	519.54 ug/L	519.54 ppb	12:18:56
2	B 249.677†	22028.3	21628.3	496.31 ug/L	496.31 ppb	12:18:36
2	Ba 233.527†	61881.6	59893.4	514.89 ug/L	514.89 ppb	12:18:36
2	Be 313.107†	1399599.7	1360098.9	513.33 ug/L	513.33 ppb	12:18:31
2	Cd 226.502†	43436.9	42216.7	520.43 ug/L	520.43 ppb	12:18:36
2	Co 228.616†	22507.3	21841.2	523.08 ug/L	523.08 ppb	12:18:36
2	Cr 267.716†	45270.8	43732.7	514.86 ug/L	514.86 ppb	12:18:36
2	Cu 324.752†	183175.3	167433.9	489.87 ug/L	489.87 ppb	12:18:36
2	Mn 257.610†	436268.2	421654.2	511.77 ug/L	511.77 ppb	12:18:31
2	Mo 202.031†	7124.8	6874.2	508.13 ug/L	508.13 ppb	12:18:56
2	Ni 231.604†	19647.1	18908.9	519.32 ug/L	519.32 ppb	12:18:36

2	P 214.914†	4473.6	4109.0	2453.4 ug/L	2453.4 ppb	12:18:56
2	Pb 220.353†	3777.3	3701.0	514.46 ug/L	514.46 ppb	12:18:56
2	S 181.975 Axial†	739.3	674.1	1020.7 ug/L	1020.7 ppb	12:18:56
2	Sb 206.836†	1445.6	1363.0	514.45 ug/L	514.45 ppb	12:18:56
2	Se 196.026†	828.1	815.5	529.52 ug/L	529.52 ppb	12:18:56
2	Si 251.611†	82430.9	79207.1	2522.2 ug/L	2522.2 ppb	12:18:36
2	Sn 189.927†	2601.2	2515.9	513.34 ug/L	513.34 ppb	12:18:56
2	Ti 334.940†	319189.5	309822.4	489.32 ug/L	489.32 ppb	12:18:36
2	Tl 190.801†	1479.6	1462.4	511.82 ug/L	511.82 ppb	12:18:56
2	U 409.014†	18811.3	19133.8	492.21 ug/L	492.21 ppb	12:18:36
2	V 292.402†	77321.9	76226.9	514.74 ug/L	514.74 ppb	12:18:36
2	Zn 213.857†	53321.6	50941.3	510.73 ug/L	510.73 ppb	12:18:36
2	SiO2†	82311.9	79080.3	5371.5 ug/L	5371.5 ppb	12:19:37
3	Sc Radial	5377.9	5377.9	99.7 %		12:17:32
3	Y RADIAL	5758.3	5758.3	99.19 %		12:17:32
3	Al 396.153Radial†	6389.5	6403.0	4988.3 ug/L	4988.3 ppb	12:17:32
3	Ca 317.933Radial†	3111.1	3100.3	5134.2 ug/L	5134.2 ppb	12:17:52
3	Fe 238.204 Radial†	562.6	556.1	5222.8 ug/L	5222.8 ppb	12:17:52
3	K 766.490 Radial†	29361.6	27471.8	5110.2 ug/L	5110.2 ppb	12:17:32
3	Mg 279.077 IEC†	151.0	149.0	5468.8 ug/L	5468.8 ppb	12:17:52
3	Na 589.592 Radial†	32694.0	33207.5	10236 ug/L	10236 ppb	12:17:32
3	Sr 421.552†	78457.8	78658.9	512.24 ug/L	512.24 ppb	12:17:32
3	Sc 361.383	912794.3	912794.3	104.67 %		12:19:02
3	Y 371.029	798450.3	798450.3	102.18 %		12:19:02
3	Ag 328.068†	118038.7	112478.8	498.92 ug/L	498.92 ppb	12:19:07
3	As 188.979†	1154.5	1133.6	511.47 ug/L	511.47 ppb	12:19:27
3	B 249.677†	21983.4	21312.5	489.08 ug/L	489.08 ppb	12:19:07
3	Ba 233.527†	61827.0	59074.6	507.85 ug/L	507.85 ppb	12:19:07
3	Be 313.107†	1366649.5	1311280.3	494.93 ug/L	494.93 ppb	12:19:02
3	Cd 226.502†	43531.0	41768.4	514.91 ug/L	514.91 ppb	12:19:07
3	Co 228.616†	22467.9	21524.7	515.51 ug/L	515.51 ppb	12:19:07
3	Cr 267.716†	45249.8	43151.8	508.02 ug/L	508.02 ppb	12:19:07
3	Cu 324.752†	183515.7	165490.0	484.18 ug/L	484.18 ppb	12:19:07
3	Mn 257.610†	427820.7	408179.1	495.40 ug/L	495.40 ppb	12:19:02
3	Mo 202.031†	7155.0	6814.8	503.72 ug/L	503.72 ppb	12:19:27
3	Ni 231.604†	19633.0	18652.0	512.27 ug/L	512.27 ppb	12:19:07
3	P 214.914†	4485.1	4064.6	2427.1 ug/L	2427.1 ppb	12:19:27
3	Pb 220.353†	3808.4	3683.9	512.09 ug/L	512.09 ppb	12:19:27
3	S 181.975 Axial†	740.4	666.0	1008.4 ug/L	1008.4 ppb	12:19:27
3	Sb 206.836†	1458.6	1357.5	512.25 ug/L	512.25 ppb	12:19:27
3	Se 196.026†	828.9	806.0	523.00 ug/L	523.00 ppb	12:19:27
3	Si 251.611†	82557.2	78306.6	2493.5 ug/L	2493.5 ppb	12:19:07
3	Sn 189.927†	2601.9	2484.3	506.88 ug/L	506.88 ppb	12:19:27
3	Ti 334.940†	319393.0	306062.7	483.35 ug/L	483.35 ppb	12:19:07
3	Tl 190.801†	1481.7	1446.1	506.07 ug/L	506.07 ppb	12:19:27
3	U 409.014†	18869.7	18956.5	487.67 ug/L	487.67 ppb	12:19:07
3	V 292.402†	77416.7	75359.7	508.92 ug/L	508.92 ppb	12:19:07
3	Zn 213.857†	53217.2	50181.1	503.11 ug/L	503.11 ppb	12:19:07
3	SiO2†	81835.0	77605.0	5271.2 ug/L	5271.2 ppb	12:19:42

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	909759.9	104.32 %	0.872			0.84%
Sc Radial	5372.2	99.6 %	2.93			2.94%
Y 371.029	796010.8	101.87 %	0.845			0.83%
Y RADIAL	5774.7	99.47 %	2.326			2.34%
Ag 328.068†	112993.3	501.19 ug/L	2.461	501.19 ppb	2.461	0.49%
QC value within limits for Ag 328.068 Recovery = 100.24%						
Al 396.153Radial†	6287.7	4897.9 ug/L	162.28	4897.9 ppb	162.28	3.31%
QC value within limits for Al 396.153Radial Recovery = 97.96%						
As 188.979†	1142.7	515.56 ug/L	4.037	515.56 ppb	4.037	0.78%
QC value within limits for As 188.979 Recovery = 103.11%						
B 249.677†	21513.5	493.70 ug/L	4.015	493.70 ppb	4.015	0.81%
QC value within limits for B 249.677 Recovery = 98.74%						
Ba 233.527†	59481.0	511.34 ug/L	3.520	511.34 ppb	3.520	0.69%
QC value within limits for Ba 233.527 Recovery = 102.27%						
Be 313.107†	1333045.1	503.13 ug/L	9.359	503.13 ppb	9.359	1.86%
QC value within limits for Be 313.107 Recovery = 100.63%						
Ca 317.933Radial†	3100.0	5133.8 ug/L	167.95	5133.8 ppb	167.95	3.27%

QC value within limits for Ca 317.933 Radial Recovery = 102.68%

Cd 226.502†	41997.6	517.74 ug/L	2.760	517.74 ppb	2.760	0.53%
QC value within limits for Cd 226.502 Recovery = 103.55%						
Co 228.616†	21699.0	519.68 ug/L	3.845	519.68 ppb	3.845	0.74%
QC value within limits for Co 228.616 Recovery = 103.94%						
Cr 267.716†	43440.9	511.42 ug/L	3.420	511.42 ppb	3.420	0.67%
QC value within limits for Cr 267.716 Recovery = 102.28%						
Cu 324.752†	166518.8	487.18 ug/L	2.861	487.18 ppb	2.861	0.59%
QC value within limits for Cu 324.752 Recovery = 97.44%						
Fe 238.204 Radial†	555.9	5221.3 ug/L	174.93	5221.3 ppb	174.93	3.35%
QC value within limits for Fe 238.204 Radial Recovery = 104.43%						
K 766.490 Radial†	27208.0	5061.1 ug/L	161.30	5061.1 ppb	161.30	3.19%
QC value within limits for K 766.490 Radial Recovery = 101.22%						
Mg 279.077 IEC†	145.7	5347.5 ug/L	153.36	5347.5 ppb	153.36	2.87%
QC value within limits for Mg 279.077 IEC Recovery = 106.95%						
Mn 257.610†	413952.6	502.41 ug/L	8.432	502.41 ppb	8.432	1.68%
QC value within limits for Mn 257.610 Recovery = 100.48%						
Mo 202.031†	6853.4	506.57 ug/L	2.471	506.57 ppb	2.471	0.49%
QC value within limits for Mo 202.031 Recovery = 101.31%						
Na 589.592 Radial†	32719.6	10085 ug/L	330.3	10085 ppb	330.3	3.27%
QC value within limits for Na 589.592 Radial Recovery = 100.85%						
Ni 231.604†	18787.3	515.98 ug/L	3.542	515.98 ppb	3.542	0.69%
QC value within limits for Ni 231.604 Recovery = 103.20%						
P 214.914†	4094.4	2445.0 ug/L	15.54	2445.0 ppb	15.54	0.64%
QC value within limits for P 214.914 Recovery = 97.80%						
Pb 220.353†	3699.5	514.24 ug/L	2.048	514.24 ppb	2.048	0.40%
QC value within limits for Pb 220.353 Recovery = 102.85%						
S 181.975 Axial†	670.1	1014.7 ug/L	6.16	1014.7 ppb	6.16	0.61%
QC value within limits for S 181.975 Axial Recovery = 101.47%						
Sb 206.836†	1361.0	513.66 ug/L	1.224	513.66 ppb	1.224	0.24%
QC value within limits for Sb 206.836 Recovery = 102.73%						
Se 196.026†	808.0	524.22 ug/L	4.812	524.22 ppb	4.812	0.92%
QC value within limits for Se 196.026 Recovery = 104.84%						
Si 251.611†	78722.0	2506.7 ug/L	14.48	2506.7 ppb	14.48	0.58%
QC value within limits for Si 251.611 Recovery = 100.27%						
Sn 189.927†	2503.2	510.72 ug/L	3.401	510.72 ppb	3.401	0.67%
QC value within limits for Sn 189.927 Recovery = 102.14%						
Sr 421.552†	77408.4	504.10 ug/L	15.463	504.10 ppb	15.463	3.07%
QC value within limits for Sr 421.552 Recovery = 100.82%						
Ti 334.940†	308094.3	486.57 ug/L	3.009	486.57 ppb	3.009	0.62%
QC value within limits for Ti 334.940 Recovery = 97.31%						
Tl 190.801†	1458.4	510.39 ug/L	3.813	510.39 ppb	3.813	0.75%
QC value within limits for Tl 190.801 Recovery = 102.08%						
U 409.014†	19066.4	490.50 ug/L	2.468	490.50 ppb	2.468	0.50%
QC value within limits for U 409.014 Recovery = 98.10%						
V 292.402†	75786.6	511.81 ug/L	2.908	511.81 ppb	2.908	0.57%
QC value within limits for V 292.402 Recovery = 102.36%						
Zn 213.857†	50567.0	506.99 ug/L	3.812	506.99 ppb	3.812	0.75%
QC value within limits for Zn 213.857 Recovery = 101.40%						
SiO2†	78440.7	5328.0 ug/L	51.48	5328.0 ppb	51.48	0.97%
QC value within limits for SiO2 Recovery = 99.64%						

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 1/25/2010 12:21:53  
 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	5289.0	5289.0	98.1 %		12:23:45
1	Y RADIAL	5699.2	5699.2	98.17 %		12:23:45
1	Al 396.153Radial†	11.1	7.2	5.6651 ug/L	5.6651 ppb	12:24:05
1	Ca 317.933Radial†	30.3	11.5	18.989 ug/L	18.989 ppb	12:24:05
1	Fe 238.204 Radial†	6.9	-1.0	-9.4092 ug/L	-9.4092 ppb	12:24:05
1	K 766.490 Radial†	2123.6	194.6	36.233 ug/L	36.233 ppb	12:23:45
1	Mg 279.077 IEC†	3.6	1.3	46.503 ug/L	46.503 ppb	12:24:05
1	Na 589.592 Radial†	-421.3	-6.2	-1.9055 ug/L	-1.9055 ppb	12:23:45
1	Sr 421.552†	31.0	16.5	0.1076 ug/L	0.1076 ppb	12:23:45
1	Sc 361.383	888813.8	888813.8	101.92 %		12:25:02
1	Y 371.029	783035.9	783035.9	100.21 %		12:25:02
1	Ag 328.068†	360.2	58.8	0.2584 ug/L	0.2584 ppb	12:25:02
1	As 188.979†	-25.6	5.6	2.4847 ug/L	2.4847 ppb	12:25:22
1	B 249.677†	-169.8	143.1	3.3013 ug/L	3.3013 ppb	12:25:22
1	Ba 233.527†	97.2	100.9	0.8653 ug/L	0.8653 ppb	12:25:22
1	Be 313.107†	-5111.7	577.4	0.2178 ug/L	0.2178 ppb	12:25:02
1	Cd 226.502†	-191.7	-8.8	-0.1081 ug/L	-0.1081 ppb	12:25:22
1	Co 228.616†	-62.8	-2.6	-0.0609 ug/L	-0.0609 ppb	12:25:22
1	Cr 267.716†	75.5	-5.4	-0.0627 ug/L	-0.0627 ppb	12:25:22
1	Cu 324.752†	9177.8	-834.7	-2.4418 ug/L	-2.4418 ppb	12:25:02
1	Mn 257.610†	542.8	-25.3	-0.0335 ug/L	-0.0335 ppb	12:25:22
1	Mo 202.031†	23.0	1.5	0.1114 ug/L	0.1114 ppb	12:25:22
1	Ni 231.604†	121.6	14.0	0.3854 ug/L	0.3854 ppb	12:25:22
1	P 214.914†	221.6	-3.1	-1.4374 ug/L	-1.4374 ppb	12:25:22
1	Pb 220.353†	-51.1	-4.7	-0.6500 ug/L	-0.6500 ppb	12:25:22
1	S 181.975 Axial†	34.0	-8.0	-12.199 ug/L	-12.199 ppb	12:25:22
1	Sb 206.836†	29.7	-6.9	-2.5300 ug/L	-2.5300 ppb	12:25:22
1	Se 196.026†	-18.6	-4.2	-2.6569 ug/L	-2.6569 ppb	12:25:22
1	Si 251.611†	551.7	-26.7	-0.8525 ug/L	-0.8525 ppb	12:25:22
1	Sn 189.927†	-0.3	-1.8	-0.3613 ug/L	-0.3613 ppb	12:25:22
1	Ti 334.940†	-828.8	103.6	0.1630 ug/L	0.1630 ppb	12:25:02
1	Tl 190.801†	-38.6	-7.4	-2.5621 ug/L	-2.5621 ppb	12:25:22
1	U 409.014†	-999.3	-52.0	-1.3400 ug/L	-1.3400 ppb	12:25:02
1	V 292.402†	-1373.7	48.4	0.3240 ug/L	0.3240 ppb	12:25:02
1	Zn 213.857†	713.8	38.1	0.3866 ug/L	0.3866 ppb	12:25:22
1	SiO2†	555.5	-34.6	-2.3574 ug/L	-2.3574 ppb	12:26:33
2	Sc Radial	5426.3	5426.3	101 %		12:24:10
2	Y RADIAL	5830.4	5830.4	100.4 %		12:24:10
2	Al 396.153Radial†	8.0	3.9	3.0246 ug/L	3.0246 ppb	12:24:30
2	Ca 317.933Radial†	28.3	8.8	14.511 ug/L	14.511 ppb	12:24:30
2	Fe 238.204 Radial†	8.3	0.2	1.8554 ug/L	1.8554 ppb	12:24:30
2	K 766.490 Radial†	2114.6	130.8	24.367 ug/L	24.367 ppb	12:24:10
2	Mg 279.077 IEC†	2.8	0.4	15.059 ug/L	15.059 ppb	12:24:30
2	Na 589.592 Radial†	-434.7	-8.6	-2.6644 ug/L	-2.6644 ppb	12:24:10
2	Sr 421.552†	26.1	10.9	0.0706 ug/L	0.0706 ppb	12:24:10
2	Sc 361.383	890082.5	890082.5	102.06 %		12:25:27
2	Y 371.029	783928.6	783928.6	100.32 %		12:25:27
2	Ag 328.068†	354.2	52.4	0.2300 ug/L	0.2300 ppb	12:25:27
2	As 188.979†	-31.0	0.2	0.1003 ug/L	0.1003 ppb	12:25:47
2	B 249.677†	-174.1	139.1	3.2066 ug/L	3.2066 ppb	12:25:47
2	Ba 233.527†	87.5	91.3	0.7841 ug/L	0.7841 ppb	12:25:47
2	Be 313.107†	-5107.6	588.5	0.2221 ug/L	0.2221 ppb	12:25:27
2	Cd 226.502†	-193.9	-10.7	-0.1317 ug/L	-0.1317 ppb	12:25:47
2	Co 228.616†	-51.7	8.4	0.2005 ug/L	0.2005 ppb	12:25:47
2	Cr 267.716†	84.6	3.3	0.0383 ug/L	0.0383 ppb	12:25:47
2	Cu 324.752†	9325.4	-702.9	-2.0591 ug/L	-2.0591 ppb	12:25:27
2	Mn 257.610†	544.9	-24.0	-0.0296 ug/L	-0.0296 ppb	12:25:47
2	Mo 202.031†	20.1	-1.3	-0.0981 ug/L	-0.0981 ppb	12:25:47
2	Ni 231.604†	106.0	-1.4	-0.0377 ug/L	-0.0377 ppb	12:25:47

2	P 214.914†	210.5	-14.3	-8.4646 ug/L	-8.4646 ppb	12:25:47
2	Pb 220.353†	-56.8	-10.3	-1.4202 ug/L	-1.4202 ppb	12:25:47
2	S 181.975 Axial†	42.1	-0.2	-0.2890 ug/L	-0.2890 ppb	12:25:47
2	Sb 206.836†	32.8	-3.9	-1.4384 ug/L	-1.4384 ppb	12:25:47
2	Se 196.026†	-28.4	-13.7	-8.5801 ug/L	-8.5801 ppb	12:25:47
2	Si 251.611†	525.8	-52.8	-1.6839 ug/L	-1.6839 ppb	12:25:47
2	Sn 189.927†	1.1	-0.4	-0.0730 ug/L	-0.0730 ppb	12:25:47
2	Ti 334.940†	-787.9	144.8	0.2274 ug/L	0.2274 ppb	12:25:27
2	Tl 190.801†	-35.2	-4.1	-1.4094 ug/L	-1.4094 ppb	12:25:47
2	U 409.014†	-758.6	185.3	4.7835 ug/L	4.7835 ppb	12:25:27
2	V 292.402†	-1329.7	93.4	0.6303 ug/L	0.6303 ppb	12:25:27
2	Zn 213.857†	716.9	40.1	0.4086 ug/L	0.4086 ppb	12:25:47
2	SiO2†	559.4	-31.5	-2.1445 ug/L	-2.1445 ppb	12:26:53
3	Sc Radial	5317.0	5317.0	98.6 %		12:24:35
3	Y RADIAL	5756.6	5756.6	99.16 %		12:24:35
3	Al 396.153Radial†	8.0	4.0	3.0803 ug/L	3.0803 ppb	12:24:55
3	Ca 317.933Radial†	24.1	5.0	8.3095 ug/L	8.3095 ppb	12:24:55
3	Fe 238.204 Radial†	8.6	0.7	6.7442 ug/L	6.7442 ppb	12:24:55
3	K 766.490 Radial†	2248.2	309.5	57.648 ug/L	57.648 ppb	12:24:35
3	Mg 279.077 IEC†	3.2	0.9	31.367 ug/L	31.367 ppb	12:24:55
3	Na 589.592 Radial†	-399.2	18.5	5.6875 ug/L	5.6875 ppb	12:24:35
3	Sr 421.552†	28.5	13.9	0.0904 ug/L	0.0904 ppb	12:24:35
3	Sc 361.383	893227.9	893227.9	102.43 %		12:25:53
3	Y 371.029	786150.4	786150.4	100.61 %		12:25:53
3	Ag 328.068†	416.1	111.6	0.4949 ug/L	0.4949 ppb	12:25:53
3	As 188.979†	-28.3	3.0	1.3459 ug/L	1.3459 ppb	12:26:13
3	B 249.677†	-160.3	153.2	3.5314 ug/L	3.5314 ppb	12:26:13
3	Ba 233.527†	77.7	81.3	0.6991 ug/L	0.6991 ppb	12:26:13
3	Be 313.107†	-5060.5	652.2	0.2462 ug/L	0.2462 ppb	12:25:53
3	Cd 226.502†	-200.6	-16.6	-0.2051 ug/L	-0.2051 ppb	12:26:13
3	Co 228.616†	-62.4	-1.8	-0.0423 ug/L	-0.0423 ppb	12:26:13
3	Cr 267.716†	74.9	-6.4	-0.0751 ug/L	-0.0751 ppb	12:26:13
3	Cu 324.752†	9235.6	-822.8	-2.4080 ug/L	-2.4080 ppb	12:25:53
3	Mn 257.610†	564.3	-7.0	-0.0091 ug/L	-0.0091 ppb	12:26:13
3	Mo 202.031†	33.3	11.4	0.8450 ug/L	0.8450 ppb	12:26:13
3	Ni 231.604†	107.1	-0.7	-0.0179 ug/L	-0.0179 ppb	12:26:13
3	P 214.914†	224.4	-1.5	-0.4294 ug/L	-0.4294 ppb	12:26:13
3	Pb 220.353†	-35.4	10.9	1.5071 ug/L	1.5071 ppb	12:26:13
3	S 181.975 Axial†	28.0	-14.0	-21.293 ug/L	-21.293 ppb	12:26:13
3	Sb 206.836†	29.7	-7.0	-2.5380 ug/L	-2.5380 ppb	12:26:13
3	Se 196.026†	-22.0	-7.4	-4.5739 ug/L	-4.5739 ppb	12:26:13
3	Si 251.611†	522.7	-57.6	-1.8506 ug/L	-1.8506 ppb	12:26:13
3	Sn 189.927†	2.3	0.7	0.1480 ug/L	0.1480 ppb	12:26:13
3	Ti 334.940†	-782.1	153.3	0.2398 ug/L	0.2398 ppb	12:25:53
3	Tl 190.801†	-39.0	-7.6	-2.6460 ug/L	-2.6460 ppb	12:26:13
3	U 409.014†	-874.4	74.9	1.9320 ug/L	1.9320 ppb	12:25:53
3	V 292.402†	-1332.7	95.1	0.6487 ug/L	0.6487 ppb	12:25:53
3	Zn 213.857†	718.0	38.7	0.3942 ug/L	0.3942 ppb	12:26:13
3	SiO2†	530.2	-62.0	-4.2435 ug/L	-4.2435 ppb	12:27:13

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	890708.1	102.14 %		0.261			0.26%
Sc Radial	5344.1	99.1 %		1.35			1.36%
Y 371.029	784371.6	100.38 %		0.205			0.20%
Y RADIAL	5762.1	99.26 %		1.133			1.14%
Ag 328.068†	74.3	0.3278 ug/L		0.14546	0.3278 ppb	0.14546	44.38%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	5.0	3.9233 ug/L		1.50869	3.9233 ppb	1.50869	38.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	2.9	1.3103 ug/L		1.19260	1.3103 ppb	1.19260	91.02%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	145.1	3.3465 ug/L		0.16704	3.3465 ppb	0.16704	4.99%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	91.2	0.7828 ug/L		0.08313	0.7828 ppb	0.08313	10.62%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	606.0	0.2287 ug/L		0.01527	0.2287 ppb	0.01527	6.67%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	8.4	13.937 ug/L		5.3631	13.937 ppb	5.3631	38.48%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-12.1	-0.1483 ug/L	0.05058	-0.1483 ppb	0.05058	34.10%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	1.3	0.0324 ug/L	0.14585	0.0324 ppb	0.14585	449.58%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-2.8	-0.0332 ug/L	0.06222	-0.0332 ppb	0.06222	187.67%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-786.8	-2.3029 ug/L	0.21188	-2.3029 ppb	0.21188	9.20%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.0	-0.2699 ug/L	8.28378	-0.2699 ppb	8.28378	>999.9%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	211.7	39.416 ug/L	16.8671	39.416 ppb	16.8671	42.79%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.8	30.976 ug/L	15.7252	30.976 ppb	15.7252	50.77%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-18.8	-0.0241 ug/L	0.01311	-0.0241 ppb	0.01311	54.46%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	3.9	0.2861 ug/L	0.49521	0.2861 ppb	0.49521	173.10%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	1.2	0.3726 ug/L	4.61853	0.3726 ppb	4.61853	>999.9%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	4.0	0.1099 ug/L	0.23878	0.1099 ppb	0.23878	217.28%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-6.3	-3.4438 ug/L	4.37727	-3.4438 ppb	4.37727	127.11%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-1.4	-0.1877 ug/L	1.51741	-0.1877 ppb	1.51741	808.45%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-7.4	-11.260 ug/L	10.5334	-11.260 ppb	10.5334	93.55%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-6.0	-2.1688 ug/L	0.63252	-2.1688 ppb	0.63252	29.16%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-8.4	-5.2703 ug/L	3.02236	-5.2703 ppb	3.02236	57.35%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-45.7	-1.4623 ug/L	0.53464	-1.4623 ppb	0.53464	36.56%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-0.5	-0.0954 ug/L	0.25537	-0.0954 ppb	0.25537	267.61%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	13.8	0.0896 ug/L	0.01852	0.0896 ppb	0.01852	20.68%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	133.9	0.2101 ug/L	0.04124	0.2101 ppb	0.04124	19.63%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-6.3	-2.2058 ug/L	0.69098	-2.2058 ppb	0.69098	31.33%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	69.4	1.7918 ug/L	3.06420	1.7918 ppb	3.06420	171.01%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	79.0	0.5343 ug/L	0.18241	0.5343 ppb	0.18241	34.14%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	39.0	0.3965 ug/L	0.01118	0.3965 ppb	0.01118	2.82%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-42.7	-2.9151 ug/L	1.15531	-2.9151 ppb	1.15531	39.63%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 3

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/25/2010 12:43:01

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	5079.2	5079.2	94.2 %		12:44:53
1	Y RADIAL	5429.4	5429.4	93.53 %		12:44:53
1	Al 396.153Radial†	5948.6	6311.7	4916.5 ug/L	4916.5 ppb	12:44:53
1	Ca 317.933Radial†	2872.3	3030.2	5018.3 ug/L	5018.3 ppb	12:45:13
1	Fe 238.204 Radial†	498.3	521.0	4894.3 ug/L	4894.3 ppb	12:45:13
1	K 766.490 Radial†	29356.3	29197.7	5429.8 ug/L	5429.8 ppb	12:44:53
1	Mg 279.077 IEC†	137.0	143.1	5251.1 ug/L	5251.1 ppb	12:45:13
1	Na 589.592 Radial†	45737.1	48983.6	15098 ug/L	15098 ppb	12:44:53
1	Sr 421.552†	72563.3	77027.3	501.62 ug/L	501.62 ppb	12:44:53
1	Sc 361.383	868898.1	868898.1	99.635 %		12:46:12
1	Y 371.029	755821.0	755821.0	96.724 %		12:46:12
1	Ag 328.068†	110951.1	111062.4	492.57 ug/L	492.57 ppb	12:46:12
1	As 188.979†	1094.5	1129.2	509.47 ug/L	509.47 ppb	12:46:32
1	B 249.677†	20438.4	20822.8	477.84 ug/L	477.84 ppb	12:46:12
1	Ba 233.527†	59035.1	59256.6	509.39 ug/L	509.39 ppb	12:46:12
1	Be 313.107†	1321605.4	1332034.0	502.76 ug/L	502.76 ppb	12:46:12
1	Cd 226.502†	40392.0	40719.1	502.00 ug/L	502.00 ppb	12:46:32
1	Co 228.616†	21379.7	21516.9	515.32 ug/L	515.32 ppb	12:46:32
1	Cr 267.716†	42919.9	42997.5	506.20 ug/L	506.20 ppb	12:46:12
1	Cu 324.752†	174071.6	164868.8	482.35 ug/L	482.35 ppb	12:46:12
1	Mn 257.610†	414326.8	415284.9	504.00 ug/L	504.00 ppb	12:46:12
1	Mo 202.031†	6864.4	6868.5	507.66 ug/L	507.66 ppb	12:46:32
1	Ni 231.604†	18535.9	18498.4	508.05 ug/L	508.05 ppb	12:46:32
1	P 214.914†	4320.3	4115.6	2459.4 ug/L	2459.4 ppb	12:46:32
1	Pb 220.353†	3625.7	3684.4	512.18 ug/L	512.18 ppb	12:46:32
1	S 181.975 Axial†	1329.7	1293.2	1958.9 ug/L	1958.9 ppb	12:46:32
1	Sb 206.836†	1392.2	1361.2	513.70 ug/L	513.70 ppb	12:46:32
1	Se 196.026†	787.7	804.7	521.08 ug/L	521.08 ppb	12:46:32
1	Si 251.611†	78209.1	77927.3	2481.3 ug/L	2481.3 ppb	12:46:12
1	Sn 189.927†	2495.4	2503.0	510.66 ug/L	510.66 ppb	12:46:32
1	Ti 334.940†	309927.2	311978.1	492.71 ug/L	492.71 ppb	12:46:12
1	Tl 190.801†	1407.7	1443.3	505.24 ug/L	505.24 ppb	12:46:32
1	U 409.014†	17043.0	18033.8	463.89 ug/L	463.89 ppb	12:46:12
1	V 292.402†	72869.8	74532.7	503.46 ug/L	503.46 ppb	12:46:12
1	Zn 213.857†	50579.9	50102.7	502.38 ug/L	502.38 ppb	12:46:12
1	SiO2†	79468.8	79180.0	5378.3 ug/L	5378.3 ppb	12:47:32
2	Sc Radial	4968.7	4968.7	92.1 %		12:45:18
2	Y RADIAL	5359.4	5359.4	92.32 %		12:45:18
2	Al 396.153Radial†	5880.8	6378.6	4968.7 ug/L	4968.7 ppb	12:45:18
2	Ca 317.933Radial†	2876.2	3102.3	5137.5 ug/L	5137.5 ppb	12:45:38
2	Fe 238.204 Radial†	499.3	533.8	5014.6 ug/L	5014.6 ppb	12:45:38
2	K 766.490 Radial†	29033.5	29540.8	5493.6 ug/L	5493.6 ppb	12:45:18
2	Mg 279.077 IEC†	132.7	141.6	5197.4 ug/L	5197.4 ppb	12:45:38
2	Na 589.592 Radial†	44898.7	49154.1	15151 ug/L	15151 ppb	12:45:18
2	Sr 421.552†	71463.6	77547.9	505.01 ug/L	505.01 ppb	12:45:18
2	Sc 361.383	869723.5	869723.5	99.730 %		12:46:39
2	Y 371.029	757389.3	757389.3	96.925 %		12:46:39
2	Ag 328.068†	111330.4	111337.1	493.82 ug/L	493.82 ppb	12:46:39
2	As 188.979†	1103.8	1137.4	513.17 ug/L	513.17 ppb	12:46:59
2	B 249.677†	20504.4	20869.6	478.89 ug/L	478.89 ppb	12:46:39
2	Ba 233.527†	59067.5	59232.8	509.19 ug/L	509.19 ppb	12:46:39
2	Be 313.107†	1323533.5	1332708.4	503.02 ug/L	503.02 ppb	12:46:39
2	Cd 226.502†	40864.1	41154.0	507.35 ug/L	507.35 ppb	12:46:59
2	Co 228.616†	21586.1	21703.6	519.80 ug/L	519.80 ppb	12:46:59
2	Cr 267.716†	42892.5	42929.1	505.40 ug/L	505.40 ppb	12:46:39
2	Cu 324.752†	175075.1	165709.2	484.82 ug/L	484.82 ppb	12:46:39
2	Mn 257.610†	414597.1	415161.3	503.86 ug/L	503.86 ppb	12:46:39
2	Mo 202.031†	6947.2	6944.9	513.32 ug/L	513.32 ppb	12:46:59
2	Ni 231.604†	18719.2	18664.6	512.61 ug/L	512.61 ppb	12:46:59

2	P 214.914†	4345.1	4136.4	2471.7 ug/L	2471.7 ppb	12:46:59
2	Pb 220.353†	3673.6	3728.9	518.37 ug/L	518.37 ppb	12:46:59
2	S 181.975 Axial†	1437.1	1399.6	2120.2 ug/L	2120.2 ppb	12:46:59
2	Sb 206.836†	1395.4	1363.2	514.58 ug/L	514.58 ppb	12:46:59
2	Se 196.026†	794.4	810.6	525.21 ug/L	525.21 ppb	12:46:59
2	Si 251.611†	78416.9	78061.2	2485.5 ug/L	2485.5 ppb	12:46:39
2	Sn 189.927†	2516.1	2521.4	514.42 ug/L	514.42 ppb	12:46:59
2	Ti 334.940†	310739.3	312497.1	493.55 ug/L	493.55 ppb	12:46:39
2	Tl 190.801†	1432.5	1466.9	513.40 ug/L	513.40 ppb	12:46:59
2	U 409.014†	17018.5	17993.1	462.82 ug/L	462.82 ppb	12:46:39
2	V 292.402†	73014.0	74607.9	504.02 ug/L	504.02 ppb	12:46:39
2	Zn 213.857†	50631.8	50106.5	502.38 ug/L	502.38 ppb	12:46:39
2	SiO2†	79390.5	79025.8	5367.7 ug/L	5367.7 ppb	12:47:37
3	Sc Radial	5001.1	5001.1	92.7 %		12:45:43
3	Y RADIAL	5371.8	5371.8	92.53 %		12:45:43
3	Al 396.153Radial†	5984.3	6448.9	5023.9 ug/L	5023.9 ppb	12:45:43
3	Ca 317.933Radial†	2864.3	3069.2	5082.7 ug/L	5082.7 ppb	12:46:03
3	Fe 238.204 Radial†	496.4	527.2	4952.7 ug/L	4952.7 ppb	12:46:03
3	K 766.490 Radial†	29326.7	29652.5	5514.6 ug/L	5514.6 ppb	12:45:43
3	Mg 279.077 IEC†	133.4	141.4	5189.3 ug/L	5189.3 ppb	12:46:03
3	Na 589.592 Radial†	44130.2	48009.2	14798 ug/L	14798 ppb	12:45:43
3	Sr 421.552†	72389.3	78042.7	508.23 ug/L	508.23 ppb	12:45:43
3	Sc 361.383	874827.4	874827.4	100.32 %		12:47:07
3	Y 371.029	762009.3	762009.3	97.516 %		12:47:07
3	Ag 328.068†	111647.7	111002.1	492.32 ug/L	492.32 ppb	12:47:07
3	As 188.979†	1103.4	1130.5	510.09 ug/L	510.09 ppb	12:47:27
3	B 249.677†	20616.2	20861.1	478.71 ug/L	478.71 ppb	12:47:07
3	Ba 233.527†	59284.3	59103.5	508.08 ug/L	508.08 ppb	12:47:07
3	Be 313.107†	1329845.4	1331257.9	502.47 ug/L	502.47 ppb	12:47:07
3	Cd 226.502†	40744.8	40796.0	502.94 ug/L	502.94 ppb	12:47:27
3	Co 228.616†	21515.6	21507.0	515.08 ug/L	515.08 ppb	12:47:27
3	Cr 267.716†	43080.4	42865.4	504.65 ug/L	504.65 ppb	12:47:07
3	Cu 324.752†	175460.7	165069.5	482.95 ug/L	482.95 ppb	12:47:07
3	Mn 257.610†	416159.9	414293.8	502.81 ug/L	502.81 ppb	12:47:07
3	Mo 202.031†	6925.6	6882.8	508.72 ug/L	508.72 ppb	12:47:27
3	Ni 231.604†	18699.8	18535.7	509.07 ug/L	509.07 ppb	12:47:27
3	P 214.914†	4360.1	4125.8	2465.6 ug/L	2465.6 ppb	12:47:27
3	Pb 220.353†	3678.4	3712.2	516.06 ug/L	516.06 ppb	12:47:27
3	S 181.975 Axial†	1304.6	1259.1	1907.3 ug/L	1907.3 ppb	12:47:27
3	Sb 206.836†	1399.3	1358.9	512.84 ug/L	512.84 ppb	12:47:27
3	Se 196.026†	784.7	796.3	516.04 ug/L	516.04 ppb	12:47:27
3	Si 251.611†	78678.5	77863.2	2479.3 ug/L	2479.3 ppb	12:47:07
3	Sn 189.927†	2504.3	2494.9	509.02 ug/L	509.02 ppb	12:47:27
3	Ti 334.940†	311955.1	311891.3	492.59 ug/L	492.59 ppb	12:47:07
3	Tl 190.801†	1424.1	1450.1	507.57 ug/L	507.57 ppb	12:47:27
3	U 409.014†	17065.5	17940.3	461.47 ug/L	461.47 ppb	12:47:07
3	V 292.402†	73290.1	74456.0	502.95 ug/L	502.95 ppb	12:47:07
3	Zn 213.857†	50886.4	50064.1	501.98 ug/L	501.98 ppb	12:47:07
3	SiO2†	79866.0	79035.4	5368.5 ug/L	5368.5 ppb	12:47:42

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	871149.7	99.894 %	0.3683			0.37%
Sc Radial	5016.3	93.0 %	1.05			1.13%
Y 371.029	758406.5	97.055 %	0.4117			0.42%
Y RADIAL	5386.9	92.79 %	0.644			0.69%
Ag 328.068†	111133.9	492.90 ug/L	0.803	492.90 ppb	0.803	0.16%
QC value within limits for Ag 328.068 Recovery = 98.58%						
Al 396.153Radial†	6379.7	4969.7 ug/L	53.69	4969.7 ppb	53.69	1.08%
QC value within limits for Al 396.153Radial Recovery = 99.39%						
As 188.979†	1132.3	510.91 ug/L	1.982	510.91 ppb	1.982	0.39%
QC value within limits for As 188.979 Recovery = 102.18%						
B 249.677†	20851.2	478.48 ug/L	0.561	478.48 ppb	0.561	0.12%
QC value within limits for B 249.677 Recovery = 95.70%						
Ba 233.527†	59197.6	508.88 ug/L	0.708	508.88 ppb	0.708	0.14%
QC value within limits for Ba 233.527 Recovery = 101.78%						
Be 313.107†	1332000.1	502.75 ug/L	0.274	502.75 ppb	0.274	0.05%
QC value within limits for Be 313.107 Recovery = 100.55%						
Ca 317.933Radial†	3067.2	5079.5 ug/L	59.69	5079.5 ppb	59.69	1.18%



QC value within limits for Ca 317.933 Radial Recovery = 101.59%							
Cd 226.502†	40889.7	504.10 ug/L	2.858	504.10 ppb	2.858	0.57%	
QC value within limits for Cd 226.502 Recovery = 100.82%							
Co 228.616†	21575.8	516.73 ug/L	2.657	516.73 ppb	2.657	0.51%	
QC value within limits for Co 228.616 Recovery = 103.35%							
Cr 267.716†	42930.7	505.42 ug/L	0.776	505.42 ppb	0.776	0.15%	
QC value within limits for Cr 267.716 Recovery = 101.08%							
Cu 324.752†	165215.8	483.37 ug/L	1.287	483.37 ppb	1.287	0.27%	
QC value within limits for Cu 324.752 Recovery = 96.67%							
Fe 238.204 Radial†	527.4	4953.9 ug/L	60.17	4953.9 ppb	60.17	1.21%	
QC value within limits for Fe 238.204 Radial Recovery = 99.08%							
K 766.490 Radial†	29463.7	5479.4 ug/L	44.17	5479.4 ppb	44.17	0.81%	
QC value within limits for K 766.490 Radial Recovery = 109.59%							
Mg 279.077 IEC†	142.0	5212.6 ug/L	33.55	5212.6 ppb	33.55	0.64%	
QC value within limits for Mg 279.077 IEC Recovery = 104.25%							
Mn 257.610†	414913.4	503.56 ug/L	0.654	503.56 ppb	0.654	0.13%	
QC value within limits for Mn 257.610 Recovery = 100.71%							
Mo 202.031†	6898.7	509.90 ug/L	3.007	509.90 ppb	3.007	0.59%	
QC value within limits for Mo 202.031 Recovery = 101.98%							
Na 589.592 Radial†	48715.6	15016 ug/L	190.4	15016 ppb	190.4	1.27%	
QC value greater than the upper limit for Na 589.592 Radial Recovery = 150.16%							
Ni 231.604†	18566.3	509.91 ug/L	2.394	509.91 ppb	2.394	0.47%	
QC value within limits for Ni 231.604 Recovery = 101.98%							
P 214.914†	4125.9	2465.6 ug/L	6.18	2465.6 ppb	6.18	0.25%	
QC value within limits for P 214.914 Recovery = 98.62%							
Pb 220.353†	3708.5	515.54 ug/L	3.127	515.54 ppb	3.127	0.61%	
QC value within limits for Pb 220.353 Recovery = 103.11%							
S 181.975 Axial†	1317.3	1995.4 ug/L	111.06	1995.4 ppb	111.06	5.57%	
QC value greater than the upper limit for S 181.975 Axial Recovery = 199.54%							
Sb 206.836†	1361.1	513.71 ug/L	0.869	513.71 ppb	0.869	0.17%	
QC value within limits for Sb 206.836 Recovery = 102.74%							
Se 196.026†	803.9	520.78 ug/L	4.590	520.78 ppb	4.590	0.88%	
QC value within limits for Se 196.026 Recovery = 104.16%							
Si 251.611†	77950.6	2482.0 ug/L	3.19	2482.0 ppb	3.19	0.13%	
QC value within limits for Si 251.611 Recovery = 99.28%							
Sn 189.927†	2506.5	511.37 ug/L	2.766	511.37 ppb	2.766	0.54%	
QC value within limits for Sn 189.927 Recovery = 102.27%							
Sr 421.552†	77539.3	504.95 ug/L	3.306	504.95 ppb	3.306	0.65%	
QC value within limits for Sr 421.552 Recovery = 100.99%							
Ti 334.940†	312122.1	492.95 ug/L	0.524	492.95 ppb	0.524	0.11%	
QC value within limits for Ti 334.940 Recovery = 98.59%							
Tl 190.801†	1453.4	508.74 ug/L	4.205	508.74 ppb	4.205	0.83%	
QC value within limits for Tl 190.801 Recovery = 101.75%							
U 409.014†	17989.1	462.73 ug/L	1.211	462.73 ppb	1.211	0.26%	
QC value within limits for U 409.014 Recovery = 92.55%							
V 292.402†	74532.2	503.47 ug/L	0.535	503.47 ppb	0.535	0.11%	
QC value within limits for V 292.402 Recovery = 100.69%							
Zn 213.857†	50091.1	502.24 ug/L	0.231	502.24 ppb	0.231	0.05%	
QC value within limits for Zn 213.857 Recovery = 100.45%							
SiO2†	79080.4	5371.5 ug/L	5.94	5371.5 ppb	5.94	0.11%	
QC value within limits for SiO2 Recovery = 100.45%							
QC Failed. Continue with analysis.							

Sequence No.: 4

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/25/2010 12:49:53

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	5200.0	5200.0	96.4 %		12:51:46
1	Y RADIAL	5588.5	5588.5	96.27 %		12:51:46
1	Al 396.153Radial†	0.5	-3.6	-2.8107 ug/L	-2.8107 ppb	12:52:06
1	Ca 317.933Radial†	24.0	5.5	9.0674 ug/L	9.0674 ppb	12:52:06
1	Fe 238.204 Radial†	6.2	-1.6	-14.614 ug/L	-14.614 ppb	12:52:06
1	K 766.490 Radial†	2990.4	1130.6	209.18 ug/L	209.18 ppb	12:51:46
1	Mg 279.077 IEC†	3.5	1.2	45.455 ug/L	45.455 ppb	12:52:06
1	Na 589.592 Radial†	10810.3	11634.4	3586.1 ug/L	3586.1 ppb	12:51:46
1	Sr 421.552†	19.9	5.6	0.0365 ug/L	0.0365 ppb	12:51:46
1	Sc 361.383	842316.4	842316.4	96.587 %		12:53:02
1	Y 371.029	750008.8	750008.8	95.980 %		12:53:02
1	Ag 328.068†	295.9	11.7	0.0467 ug/L	0.0467 ppb	12:53:02
1	As 188.979†	-31.4	-1.8	-0.8264 ug/L	-0.8264 ppb	12:53:22
1	B 249.677†	-264.7	35.6	0.8242 ug/L	0.8242 ppb	12:53:22
1	Ba 233.527†	80.1	88.4	0.7574 ug/L	0.7574 ppb	12:53:22
1	Be 313.107†	-4952.2	465.6	0.1755 ug/L	0.1755 ppb	12:53:02
1	Cd 226.502†	-193.1	-20.7	-0.2537 ug/L	-0.2537 ppb	12:53:22
1	Co 228.616†	-60.7	-3.7	-0.0885 ug/L	-0.0885 ppb	12:53:22
1	Cr 267.716†	92.4	16.2	0.1898 ug/L	0.1898 ppb	12:53:22
1	Cu 324.752†	8925.6	-598.8	-1.7523 ug/L	-1.7523 ppb	12:53:02
1	Mn 257.610†	522.3	-17.1	-0.0241 ug/L	-0.0241 ppb	12:53:22
1	Mo 202.031†	23.8	3.7	0.2687 ug/L	0.2687 ppb	12:53:22
1	Ni 231.604†	101.1	-0.6	-0.0160 ug/L	-0.0160 ppb	12:53:22
1	P 214.914†	225.3	12.8	8.2921 ug/L	8.2921 ppb	12:53:22
1	Pb 220.353†	-51.2	-7.7	-1.0581 ug/L	-1.0581 ppb	12:53:22
1	S 181.975 Axial†	426.3	399.9	606.09 ug/L	606.09 ppb	12:53:22
1	Sb 206.836†	27.5	-7.6	-2.7484 ug/L	-2.7484 ppb	12:53:22
1	Se 196.026†	-30.7	-17.7	-11.121 ug/L	-11.121 ppb	12:53:22
1	Si 251.611†	535.1	-14.0	-0.4492 ug/L	-0.4492 ppb	12:53:22
1	Sn 189.927†	4.9	3.6	0.7417 ug/L	0.7417 ppb	12:53:22
1	Ti 334.940†	-842.1	44.9	0.0687 ug/L	0.0687 ppb	12:53:02
1	Tl 190.801†	-29.9	-0.5	-0.1648 ug/L	-0.1648 ppb	12:53:22
1	U 409.014†	-925.8	-30.0	-0.7724 ug/L	-0.7724 ppb	12:53:02
1	V 292.402†	-1375.9	-28.2	-0.1829 ug/L	-0.1829 ppb	12:53:02
1	Zn 213.857†	711.0	73.8	0.7500 ug/L	0.7500 ppb	12:53:22
1	SiO2†	519.8	-41.5	-2.8309 ug/L	-2.8309 ppb	12:54:33
2	Sc Radial	4929.2	4929.2	91.4 %		12:52:11
2	Y RADIAL	5278.0	5278.0	90.92 %		12:52:11
2	Al 396.153Radial†	20.6	18.5	14.437 ug/L	14.437 ppb	12:52:31
2	Ca 317.933Radial†	19.9	2.4	3.9447 ug/L	3.9447 ppb	12:52:31
2	Fe 238.204 Radial†	9.3	2.2	20.416 ug/L	20.416 ppb	12:52:31
2	K 766.490 Radial†	2891.7	1193.0	220.75 ug/L	220.75 ppb	12:52:11
2	Mg 279.077 IEC†	1.0	-1.3	-48.090 ug/L	-48.090 ppb	12:52:31
2	Na 589.592 Radial†	10633.1	12056.4	3716.2 ug/L	3716.2 ppb	12:52:11
2	Sr 421.552†	28.7	16.4	0.1068 ug/L	0.1068 ppb	12:52:11
2	Sc 361.383	844148.3	844148.3	96.797 %		12:53:28
2	Y 371.029	752106.2	752106.2	96.249 %		12:53:28
2	Ag 328.068†	306.4	21.9	0.1005 ug/L	0.1005 ppb	12:53:28
2	As 188.979†	-29.4	0.3	0.1184 ug/L	0.1184 ppb	12:53:48
2	B 249.677†	-314.3	-15.0	-0.3488 ug/L	-0.3488 ppb	12:53:48
2	Ba 233.527†	93.9	102.5	0.8785 ug/L	0.8785 ppb	12:53:48
2	Be 313.107†	-4998.5	428.9	0.1615 ug/L	0.1615 ppb	12:53:28
2	Cd 226.502†	-191.3	-18.3	-0.2277 ug/L	-0.2277 ppb	12:53:48
2	Co 228.616†	-50.7	6.6	0.1596 ug/L	0.1596 ppb	12:53:48
2	Cr 267.716†	88.2	11.6	0.1357 ug/L	0.1357 ppb	12:53:48
2	Cu 324.752†	8972.7	-570.2	-1.6677 ug/L	-1.6677 ppb	12:53:28
2	Mn 257.610†	525.4	-15.2	-0.0144 ug/L	-0.0144 ppb	12:53:48
2	Mo 202.031†	24.6	4.3	0.3217 ug/L	0.3217 ppb	12:53:48
2	Ni 231.604†	107.9	6.2	0.1700 ug/L	0.1700 ppb	12:53:48

2	P 214.914†	214.2	0.8	0.8102 ug/L	0.8102 ppb	12:53:48
2	Pb 220.353†	-51.1	-7.4	-1.0244 ug/L	-1.0244 ppb	12:53:48
2	S 181.975 Axial†	412.3	384.6	582.81 ug/L	582.81 ppb	12:53:48
2	Sb 206.836†	40.7	6.0	2.2174 ug/L	2.2174 ppb	12:53:48
2	Se 196.026†	-23.1	-9.8	-6.0333 ug/L	-6.0333 ppb	12:53:48
2	Si 251.611†	512.1	-38.9	-1.2445 ug/L	-1.2445 ppb	12:53:48
2	Sn 189.927†	7.3	6.1	1.2427 ug/L	1.2427 ppb	12:53:48
2	Ti 334.940†	-889.9	-2.5	-0.0001 ug/L	-0.0001 ppb	12:53:28
2	Tl 190.801†	-33.3	-3.9	-1.3470 ug/L	-1.3470 ppb	12:53:48
2	U 409.014†	-851.9	48.5	1.2490 ug/L	1.2490 ppb	12:53:28
2	V 292.402†	-1406.3	-56.5	-0.3738 ug/L	-0.3738 ppb	12:53:28
2	Zn 213.857†	718.1	79.6	0.8039 ug/L	0.8039 ppb	12:53:48
2	SiO2†	552.8	-8.5	-0.5887 ug/L	-0.5887 ppb	12:54:53
3	Sc Radial	5008.8	5008.8	92.9 %		12:52:36
3	Y RADIAL	5383.1	5383.1	92.73 %		12:52:36
3	Al 396.153Radial†	13.3	10.3	8.0238 ug/L	8.0238 ppb	12:52:56
3	Ca 317.933Radial†	23.8	6.3	10.368 ug/L	10.368 ppb	12:52:56
3	Fe 238.204 Radial†	8.5	1.1	10.426 ug/L	10.426 ppb	12:52:56
3	K 766.490 Radial†	2988.7	1247.1	230.85 ug/L	230.85 ppb	12:52:36
3	Mg 279.077 IEC†	3.1	0.9	34.217 ug/L	34.217 ppb	12:52:56
3	Na 589.592 Radial†	10636.6	11875.3	3660.4 ug/L	3660.4 ppb	12:52:36
3	Sr 421.552†	18.9	5.3	0.0347 ug/L	0.0347 ppb	12:52:36
3	Sc 361.383	847552.7	847552.7	97.188 %		12:53:53
3	Y 371.029	758028.0	758028.0	97.006 %		12:53:53
3	Ag 328.068†	262.5	-24.6	-0.1058 ug/L	-0.1058 ppb	12:53:53
3	As 188.979†	-29.1	0.7	0.2973 ug/L	0.2973 ppb	12:54:13
3	B 249.677†	-319.0	-18.6	-0.4305 ug/L	-0.4305 ppb	12:54:13
3	Ba 233.527†	78.1	85.9	0.7362 ug/L	0.7362 ppb	12:54:13
3	Be 313.107†	-4941.6	508.2	0.1912 ug/L	0.1912 ppb	12:53:53
3	Cd 226.502†	-206.2	-32.9	-0.4063 ug/L	-0.4063 ppb	12:54:13
3	Co 228.616†	-49.7	7.9	0.1898 ug/L	0.1898 ppb	12:54:13
3	Cr 267.716†	74.5	-2.9	-0.0341 ug/L	-0.0341 ppb	12:54:13
3	Cu 324.752†	8962.9	-617.5	-1.8061 ug/L	-1.8061 ppb	12:53:53
3	Mn 257.610†	501.5	-41.9	-0.0512 ug/L	-0.0512 ppb	12:54:13
3	Mo 202.031†	21.1	0.7	0.0522 ug/L	0.0522 ppb	12:54:13
3	Ni 231.604†	99.0	-3.4	-0.0940 ug/L	-0.0940 ppb	12:54:13
3	P 214.914†	227.2	13.3	8.6157 ug/L	8.6157 ppb	12:54:13
3	Pb 220.353†	-37.1	7.2	0.9981 ug/L	0.9981 ppb	12:54:13
3	S 181.975 Axial†	440.2	411.5	623.65 ug/L	623.65 ppb	12:54:13
3	Sb 206.836†	26.8	-8.5	-3.0648 ug/L	-3.0648 ppb	12:54:13
3	Se 196.026†	-23.7	-10.3	-6.3900 ug/L	-6.3900 ppb	12:54:13
3	Si 251.611†	514.6	-38.5	-1.2293 ug/L	-1.2293 ppb	12:54:13
3	Sn 189.927†	4.8	3.4	0.6989 ug/L	0.6989 ppb	12:54:13
3	Ti 334.940†	-936.6	-46.8	-0.0755 ug/L	-0.0755 ppb	12:53:53
3	Tl 190.801†	-40.6	-11.3	-3.9365 ug/L	-3.9365 ppb	12:54:13
3	U 409.014†	-892.8	9.9	0.2548 ug/L	0.2548 ppb	12:53:53
3	V 292.402†	-1377.9	-21.5	-0.1428 ug/L	-0.1428 ppb	12:53:53
3	Zn 213.857†	710.1	68.3	0.6926 ug/L	0.6926 ppb	12:54:13
3	SiO2†	508.0	-56.8	-3.8727 ug/L	-3.8727 ppb	12:55:13

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	844672.5	96.858 %		0.3047			0.31%
Sc Radial	5046.0	93.6 %		2.58			2.76%
Y 371.029	753381.0	96.412 %		0.5322			0.55%
Y RADIAL	5416.5	93.30 %		2.720			2.92%
Ag 328.068†	3.0	0.0138 ug/L		0.10700	0.0138 ppb	0.10700	777.59%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	8.4	6.5500 ug/L		8.71766	6.5500 ppb	8.71766	133.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-0.3	-0.1369 ug/L		0.60382	-0.1369 ppb	0.60382	441.01%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	0.7	0.0149 ug/L		0.70200	0.0149 ppb	0.70200	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	92.2	0.7907 ug/L		0.07677	0.7907 ppb	0.07677	9.71%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	467.6	0.1761 ug/L		0.01485	0.1761 ppb	0.01485	8.43%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	4.7	7.7933 ug/L		3.39580	7.7933 ppb	3.39580	43.57%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-24.0	-0.2959 ug/L	0.09650	-0.2959 ppb	0.09650	32.61%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	3.6	0.0869 ug/L	0.15270	0.0869 ppb	0.15270	175.64%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	8.3	0.0971 ug/L	0.11683	0.0971 ppb	0.11683	120.29%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-595.5	-1.7420 ug/L	0.06975	-1.7420 ppb	0.06975	4.00%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.6	5.4094 ug/L	18.04574	5.4094 ppb	18.04574	333.60%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	1190.3	220.26 ug/L	10.841	220.26 ppb	10.841	4.92%	
QC value greater than the upper limit for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.3	10.527 ug/L	51.0741	10.527 ppb	51.0741	485.16%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-24.7	-0.0299 ug/L	0.01904	-0.0299 ppb	0.01904	63.72%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	2.9	0.2142 ug/L	0.14279	0.2142 ppb	0.14279	66.67%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	11855.4	3654.2 ug/L	65.26	3654.2 ppb	65.26	1.79%	
QC value greater than the upper limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	0.7	0.0200 ug/L	0.13563	0.0200 ppb	0.13563	678.63%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	9.0	5.9060 ug/L	4.41605	5.9060 ppb	4.41605	74.77%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-2.6	-0.3614 ug/L	1.17756	-0.3614 ppb	1.17756	325.79%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	398.7	604.18 ug/L	20.483	604.18 ppb	20.483	3.39%	
QC value greater than the upper limit for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-3.3	-1.1986 ug/L	2.96257	-1.1986 ppb	2.96257	247.16%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-12.6	-7.8482 ug/L	2.84023	-7.8482 ppb	2.84023	36.19%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-30.4	-0.9744 ug/L	0.45487	-0.9744 ppb	0.45487	46.68%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	4.4	0.8944 ug/L	0.30235	0.8944 ppb	0.30235	33.80%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	9.1	0.0593 ug/L	0.04110	0.0593 ppb	0.04110	69.29%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-1.5	-0.0023 ug/L	0.07215	-0.0023 ppb	0.07215	>999.9%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-5.2	-1.8161 ug/L	1.92912	-1.8161 ppb	1.92912	106.22%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	9.5	0.2438 ug/L	1.01071	0.2438 ppb	1.01071	414.54%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-35.4	-0.2332 ug/L	0.12343	-0.2332 ppb	0.12343	52.93%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	73.9	0.7488 ug/L	0.05567	0.7488 ppb	0.05567	7.43%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-35.6	-2.4308 ug/L	1.67816	-2.4308 ppb	1.67816	69.04%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 3

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/25/2010 13:25:33

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	5071.6	5071.6	94.0 %		13:27:25
1	Y RADIAL	5463.8	5463.8	94.12 %		13:27:25
1	Al 396.153Radial†	5965.4	6339.0	4938.0 ug/L	4938.0 ppb	13:27:25
1	Ca 317.933Radial†	2910.1	3075.0	5092.4 ug/L	5092.4 ppb	13:27:45
1	Fe 238.204 Radial†	512.9	537.4	5047.3 ug/L	5047.3 ppb	13:27:45
1	K 766.490 Radial†	29328.5	29214.8	5434.2 ug/L	5434.2 ppb	13:27:25
1	Mg 279.077 IEC†	135.3	141.5	5192.9 ug/L	5192.9 ppb	13:27:45
1	Na 589.592 Radial†	35775.8	38464.3	11856 ug/L	11856 ppb	13:27:25
1	Sr 421.552†	73765.6	78421.0	510.70 ug/L	510.70 ppb	13:27:25
1	Sc 361.383	892642.0	892642.0	102.36 %		13:28:44
1	Y 371.029	779743.1	779743.1	99.785 %		13:28:44
1	Ag 328.068†	113862.1	110944.3	492.09 ug/L	492.09 ppb	13:28:44
1	As 188.979†	1127.2	1131.9	510.69 ug/L	510.69 ppb	13:29:04
1	B 249.677†	20920.7	20748.5	476.12 ug/L	476.12 ppb	13:28:44
1	Ba 233.527†	59976.4	58600.2	503.76 ug/L	503.76 ppb	13:28:44
1	Be 313.107†	1347885.4	1322425.9	499.14 ug/L	499.14 ppb	13:28:44
1	Cd 226.502†	41448.4	40672.8	501.41 ug/L	501.41 ppb	13:29:04
1	Co 228.616†	21687.3	21246.7	508.85 ug/L	508.85 ppb	13:29:04
1	Cr 267.716†	43907.9	42816.8	504.08 ug/L	504.08 ppb	13:28:44
1	Cu 324.752†	177366.0	163440.2	478.18 ug/L	478.18 ppb	13:28:44
1	Mn 257.610†	421310.2	411046.2	498.88 ug/L	498.88 ppb	13:28:44
1	Mo 202.031†	7017.1	6834.4	505.15 ug/L	505.15 ppb	13:29:04
1	Ni 231.604†	18954.2	18412.2	505.68 ug/L	505.68 ppb	13:29:04
1	P 214.914†	4392.8	4071.1	2432.4 ug/L	2432.4 ppb	13:29:04
1	Pb 220.353†	3721.8	3681.4	511.76 ug/L	511.76 ppb	13:29:04
1	S 181.975 Axial†	984.5	920.4	1394.0 ug/L	1394.0 ppb	13:29:04
1	Sb 206.836†	1414.8	1346.1	508.09 ug/L	508.09 ppb	13:29:04
1	Se 196.026†	792.8	788.6	511.53 ug/L	511.53 ppb	13:29:04
1	Si 251.611†	79747.9	77342.7	2462.7 ug/L	2462.7 ppb	13:28:44
1	Sn 189.927†	2541.2	2481.1	506.22 ug/L	506.22 ppb	13:29:04
1	Ti 334.940†	315763.8	309406.1	488.66 ug/L	488.66 ppb	13:28:44
1	Tl 190.801†	1432.2	1429.7	500.47 ug/L	500.47 ppb	13:29:04
1	U 409.014†	17632.7	18155.0	467.00 ug/L	467.00 ppb	13:28:44
1	V 292.402†	74675.2	74351.2	502.20 ug/L	502.20 ppb	13:28:44
1	Zn 213.857†	51716.3	49862.6	499.96 ug/L	499.96 ppb	13:28:44
1	SiO2†	79127.4	76724.9	5211.2 ug/L	5211.2 ppb	13:30:04
2	Sc Radial	5077.3	5077.3	94.2 %		13:27:50
2	Y RADIAL	5469.6	5469.6	94.22 %		13:27:50
2	Al 396.153Radial†	5974.8	6341.9	4940.3 ug/L	4940.3 ppb	13:27:50
2	Ca 317.933Radial†	2927.7	3090.3	5117.6 ug/L	5117.6 ppb	13:28:10
2	Fe 238.204 Radial†	512.2	536.0	5035.0 ug/L	5035.0 ppb	13:28:10
2	K 766.490 Radial†	29365.3	29219.0	5435.0 ug/L	5435.0 ppb	13:27:50
2	Mg 279.077 IEC†	138.7	144.9	5316.7 ug/L	5316.7 ppb	13:28:10
2	Na 589.592 Radial†	35564.8	38197.7	11774 ug/L	11774 ppb	13:27:50
2	Sr 421.552†	73924.7	78502.3	511.22 ug/L	511.22 ppb	13:27:50
2	Sc 361.383	896189.9	896189.9	102.76 %		13:29:11
2	Y 371.029	783065.9	783065.9	100.21 %		13:29:11
2	Ag 328.068†	113916.4	110556.8	490.38 ug/L	490.38 ppb	13:29:11
2	As 188.979†	1126.5	1126.8	508.43 ug/L	508.43 ppb	13:29:31
2	B 249.677†	20966.1	20711.7	475.26 ug/L	475.26 ppb	13:29:11
2	Ba 233.527†	60189.5	58575.6	503.55 ug/L	503.55 ppb	13:29:11
2	Be 313.107†	1353925.2	1323090.0	499.38 ug/L	499.38 ppb	13:29:11
2	Cd 226.502†	41721.2	40777.9	502.71 ug/L	502.71 ppb	13:29:31
2	Co 228.616†	21896.0	21365.9	511.71 ug/L	511.71 ppb	13:29:31
2	Cr 267.716†	44061.6	42796.6	503.84 ug/L	503.84 ppb	13:29:11
2	Cu 324.752†	177178.5	162571.7	475.64 ug/L	475.64 ppb	13:29:11
2	Mn 257.610†	422464.9	410540.4	498.26 ug/L	498.26 ppb	13:29:11
2	Mo 202.031†	7046.3	6835.6	505.25 ug/L	505.25 ppb	13:29:31
2	Ni 231.604†	19066.9	18448.7	506.68 ug/L	506.68 ppb	13:29:31

2	P 214.914†	4422.1	4082.6	2440.2 ug/L	2440.2 ppb	13:29:31
2	Pb 220.353†	3751.8	3696.2	513.81 ug/L	513.81 ppb	13:29:31
2	S 181.975 Axial†	1005.1	936.6	1418.6 ug/L	1418.6 ppb	13:29:31
2	Sb 206.836†	1433.5	1358.9	512.79 ug/L	512.79 ppb	13:29:31
2	Se 196.026†	803.7	796.2	516.21 ug/L	516.21 ppb	13:29:31
2	Si 251.611†	79815.6	77100.2	2455.0 ug/L	2455.0 ppb	13:29:11
2	Sn 189.927†	2566.7	2496.2	509.28 ug/L	509.28 ppb	13:29:31
2	Ti 334.940†	316147.2	308557.9	487.32 ug/L	487.32 ppb	13:29:11
2	Tl 190.801†	1454.7	1446.0	506.12 ug/L	506.12 ppb	13:29:31
2	U 409.014†	17499.9	17957.6	461.91 ug/L	461.91 ppb	13:29:11
2	V 292.402†	74953.3	74332.9	502.07 ug/L	502.07 ppb	13:29:11
2	Zn 213.857†	51968.9	49908.3	500.42 ug/L	500.42 ppb	13:29:11
2	SiO2†	79958.2	77227.3	5245.4 ug/L	5245.4 ppb	13:30:09
3	Sc Radial	5048.7	5048.7	93.6 %		13:28:15
3	Y RADIAL	5447.1	5447.1	93.83 %		13:28:15
3	Al 396.153Radial†	5971.6	6374.4	4966.1 ug/L	4966.1 ppb	13:28:15
3	Ca 317.933Radial†	2927.6	3107.7	5146.6 ug/L	5146.6 ppb	13:28:35
3	Fe 238.204 Radial†	514.9	541.9	5089.8 ug/L	5089.8 ppb	13:28:35
3	K 766.490 Radial†	29359.6	29389.7	5466.9 ug/L	5466.9 ppb	13:28:15
3	Mg 279.077 IEC†	136.3	143.2	5255.6 ug/L	5255.6 ppb	13:28:35
3	Na 589.592 Radial†	35273.4	38100.6	11744 ug/L	11744 ppb	13:28:15
3	Sr 421.552†	73627.8	78630.3	512.06 ug/L	512.06 ppb	13:28:15
3	Sc 361.383	893544.5	893544.5	102.46 %		13:29:39
3	Y 371.029	781365.9	781365.9	99.993 %		13:29:39
3	Ag 328.068†	113696.0	110669.9	490.89 ug/L	490.89 ppb	13:29:39
3	As 188.979†	1115.8	1119.7	505.25 ug/L	505.25 ppb	13:29:59
3	B 249.677†	21037.2	20841.5	478.27 ug/L	478.27 ppb	13:29:39
3	Ba 233.527†	59902.9	58469.2	502.64 ug/L	502.64 ppb	13:29:39
3	Be 313.107†	1348752.5	1321942.0	498.95 ug/L	498.95 ppb	13:29:39
3	Cd 226.502†	41166.6	40356.9	497.51 ug/L	497.51 ppb	13:29:59
3	Co 228.616†	21575.0	21115.8	505.70 ug/L	505.70 ppb	13:29:59
3	Cr 267.716†	43889.4	42755.4	503.36 ug/L	503.36 ppb	13:29:39
3	Cu 324.752†	177383.4	163282.1	477.72 ug/L	477.72 ppb	13:29:39
3	Mn 257.610†	420770.8	410104.1	497.73 ug/L	497.73 ppb	13:29:39
3	Mo 202.031†	6947.4	6759.5	499.63 ug/L	499.63 ppb	13:29:59
3	Ni 231.604†	18826.4	18268.8	501.74 ug/L	501.74 ppb	13:29:59
3	P 214.914†	4355.3	4030.2	2407.1 ug/L	2407.1 ppb	13:29:59
3	Pb 220.353†	3707.9	3664.2	509.36 ug/L	509.36 ppb	13:29:59
3	S 181.975 Axial†	982.6	917.6	1389.7 ug/L	1389.7 ppb	13:29:59
3	Sb 206.836†	1404.4	1334.6	503.71 ug/L	503.71 ppb	13:29:59
3	Se 196.026†	785.1	780.3	506.48 ug/L	506.48 ppb	13:29:59
3	Si 251.611†	79651.0	77169.5	2457.2 ug/L	2457.2 ppb	13:29:39
3	Sn 189.927†	2520.7	2458.6	501.64 ug/L	501.64 ppb	13:29:59
3	Ti 334.940†	315623.8	308957.9	487.96 ug/L	487.96 ppb	13:29:39
3	Tl 190.801†	1421.5	1417.8	496.33 ug/L	496.33 ppb	13:29:59
3	U 409.014†	17383.4	17894.3	460.27 ug/L	460.27 ppb	13:29:39
3	V 292.402†	74665.9	74268.3	501.55 ug/L	501.55 ppb	13:29:39
3	Zn 213.857†	51567.0	49665.8	497.99 ug/L	497.99 ppb	13:29:39
3	SiO2†	79850.0	77352.0	5254.1 ug/L	5254.1 ppb	13:30:14

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Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	894125.4	102.53 %		0.211			0.21%
Sc Radial	5065.9	93.9 %		0.28			0.30%
Y 371.029	781391.6	99.996 %		0.2126			0.21%
Y RADIAL	5460.2	94.06 %		0.201			0.21%
Ag 328.068†	110723.7	491.12 ug/L		0.876	491.12 ppb	0.876	0.18%
QC value within limits for Ag 328.068 Recovery = 98.22%							
Al 396.153Radial†	6351.8	4948.2 ug/L		15.57	4948.2 ppb	15.57	0.31%
QC value within limits for Al 396.153Radial Recovery = 98.96%							
As 188.979†	1126.1	508.12 ug/L		2.733	508.12 ppb	2.733	0.54%
QC value within limits for As 188.979 Recovery = 101.62%							
B 249.677†	20767.2	476.55 ug/L		1.547	476.55 ppb	1.547	0.32%
QC value within limits for B 249.677 Recovery = 95.31%							
Ba 233.527†	58548.3	503.32 ug/L		0.597	503.32 ppb	0.597	0.12%
QC value within limits for Ba 233.527 Recovery = 100.66%							
Be 313.107†	1322486.0	499.16 ug/L		0.216	499.16 ppb	0.216	0.04%
QC value within limits for Be 313.107 Recovery = 99.83%							
Ca 317.933Radial†	3091.0	5118.9 ug/L		27.12	5118.9 ppb	27.12	0.53%

QC value within limits for Ca 317.933 Radial Recovery = 102.38%							
Cd	226.502†	40602.5	500.54 ug/L	2.707	500.54 ppb	2.707	0.54%
QC value within limits for Cd 226.502 Recovery = 100.11%							
Co	228.616†	21242.8	508.75 ug/L	3.004	508.75 ppb	3.004	0.59%
QC value within limits for Co 228.616 Recovery = 101.75%							
Cr	267.716†	42789.6	503.76 ug/L	0.366	503.76 ppb	0.366	0.07%
QC value within limits for Cr 267.716 Recovery = 100.75%							
Cu	324.752†	163098.0	477.18 ug/L	1.353	477.18 ppb	1.353	0.28%
QC value within limits for Cu 324.752 Recovery = 95.44%							
Fe	238.204 Radial†	538.4	5057.4 ug/L	28.80	5057.4 ppb	28.80	0.57%
QC value within limits for Fe 238.204 Radial Recovery = 101.15%							
K	766.490 Radial†	29274.5	5445.4 ug/L	18.60	5445.4 ppb	18.60	0.34%
QC value within limits for K 766.490 Radial Recovery = 108.91%							
Mg	279.077 IEC†	143.2	5255.1 ug/L	61.89	5255.1 ppb	61.89	1.18%
QC value within limits for Mg 279.077 IEC Recovery = 105.10%							
Mn	257.610†	410563.6	498.29 ug/L	0.571	498.29 ppb	0.571	0.11%
QC value within limits for Mn 257.610 Recovery = 99.66%							
Mo	202.031†	6809.8	503.34 ug/L	3.219	503.34 ppb	3.219	0.64%
QC value within limits for Mo 202.031 Recovery = 100.67%							
Na	589.592 Radial†	38254.2	11791 ug/L	58.1	11791 ppb	58.1	0.49%
QC value greater than the upper limit for Na 589.592 Radial Recovery = 117.91%							
Ni	231.604†	18376.6	504.70 ug/L	2.611	504.70 ppb	2.611	0.52%
QC value within limits for Ni 231.604 Recovery = 100.94%							
P	214.914†	4061.3	2426.6 ug/L	17.31	2426.6 ppb	17.31	0.71%
QC value within limits for P 214.914 Recovery = 97.06%							
Pb	220.353†	3680.6	511.64 ug/L	2.227	511.64 ppb	2.227	0.44%
QC value within limits for Pb 220.353 Recovery = 102.33%							
S	181.975 Axial†	924.9	1400.8 ug/L	15.58	1400.8 ppb	15.58	1.11%
QC value greater than the upper limit for S 181.975 Axial Recovery = 140.08%							
Sb	206.836†	1346.5	508.20 ug/L	4.545	508.20 ppb	4.545	0.89%
QC value within limits for Sb 206.836 Recovery = 101.64%							
Se	196.026†	788.4	511.41 ug/L	4.868	511.41 ppb	4.868	0.95%
QC value within limits for Se 196.026 Recovery = 102.28%							
Si	251.611†	77204.1	2458.3 ug/L	3.98	2458.3 ppb	3.98	0.16%
QC value within limits for Si 251.611 Recovery = 98.33%							
Sn	189.927†	2478.6	505.71 ug/L	3.843	505.71 ppb	3.843	0.76%
QC value within limits for Sn 189.927 Recovery = 101.14%							
Sr	421.552†	78517.9	511.33 ug/L	0.687	511.33 ppb	0.687	0.13%
QC value within limits for Sr 421.552 Recovery = 102.27%							
Ti	334.940†	308974.0	487.98 ug/L	0.672	487.98 ppb	0.672	0.14%
QC value within limits for Ti 334.940 Recovery = 97.60%							
Tl	190.801†	1431.2	500.97 ug/L	4.911	500.97 ppb	4.911	0.98%
QC value within limits for Tl 190.801 Recovery = 100.19%							
U	409.014†	18002.3	463.06 ug/L	3.512	463.06 ppb	3.512	0.76%
QC value within limits for U 409.014 Recovery = 92.61%							
V	292.402†	74317.5	501.94 ug/L	0.343	501.94 ppb	0.343	0.07%
QC value within limits for V 292.402 Recovery = 100.39%							
Zn	213.857†	49812.2	499.46 ug/L	1.290	499.46 ppb	1.290	0.26%
QC value within limits for Zn 213.857 Recovery = 99.89%							
SiO2†		77101.4	5236.9 ug/L	22.66	5236.9 ppb	22.66	0.43%
QC value within limits for SiO2 Recovery = 97.93%							
QC Failed. Continue with analysis.							

Sequence No.: 4

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/25/2010 13:32:25

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	5043.6	5043.6	93.5 %		13:34:17
1	Y RADIAL	5401.2	5401.2	93.04 %		13:34:17
1	Al 396.153Radial†	4.3	0.6	0.4395 ug/L	0.4395 ppb	13:34:37
1	Ca 317.933Radial†	25.9	8.3	13.816 ug/L	13.816 ppb	13:34:37
1	Fe 238.204 Radial†	8.4	1.0	9.0414 ug/L	9.0414 ppb	13:34:37
1	K 766.490 Radial†	2504.1	706.8	131.17 ug/L	131.17 ppb	13:34:17
1	Mg 279.077 IEC†	0.5	-1.9	-69.870 ug/L	-69.870 ppb	13:34:37
1	Na 589.592 Radial†	3199.6	3844.4	1185.0 ug/L	1185.0 ppb	13:34:17
1	Sr 421.552†	13.4	-0.7	-0.0045 ug/L	-0.0045 ppb	13:34:17
1	Sc 361.383	869752.9	869752.9	99.733 %		13:35:34
1	Y 371.029	766761.4	766761.4	98.124 %		13:35:34
1	Ag 328.068†	293.4	-0.5	0.0032 ug/L	0.0032 ppb	13:35:34
1	As 188.979†	-32.1	-1.5	-0.6730 ug/L	-0.6730 ppb	13:35:54
1	B 249.677†	-319.8	-11.0	-0.2532 ug/L	-0.2532 ppb	13:35:54
1	Ba 233.527†	62.7	68.4	0.5869 ug/L	0.5869 ppb	13:35:54
1	Be 313.107†	-5100.6	478.6	0.1804 ug/L	0.1804 ppb	13:35:34
1	Cd 226.502†	-213.2	-34.5	-0.4265 ug/L	-0.4265 ppb	13:35:54
1	Co 228.616†	-72.3	-13.4	-0.3218 ug/L	-0.3218 ppb	13:35:54
1	Cr 267.716†	79.6	0.3	0.0053 ug/L	0.0053 ppb	13:35:54
1	Cu 324.752†	9013.1	-802.5	-2.3461 ug/L	-2.3461 ppb	13:35:34
1	Mn 257.610†	455.4	-101.3	-0.1191 ug/L	-0.1191 ppb	13:35:54
1	Mo 202.031†	20.9	-0.0	-0.0022 ug/L	-0.0022 ppb	13:35:54
1	Ni 231.604†	110.1	5.2	0.1425 ug/L	0.1425 ppb	13:35:54
1	P 214.914†	222.9	3.0	2.3026 ug/L	2.3026 ppb	13:35:54
1	Pb 220.353†	-51.5	-6.3	-0.8681 ug/L	-0.8681 ppb	13:35:54
1	S 181.975 Axial†	272.4	231.7	351.13 ug/L	351.13 ppb	13:35:54
1	Sb 206.836†	40.5	4.5	1.6554 ug/L	1.6554 ppb	13:35:54
1	Se 196.026†	-21.2	-7.2	-4.4445 ug/L	-4.4445 ppb	13:35:54
1	Si 251.611†	506.7	-59.8	-1.9100 ug/L	-1.9100 ppb	13:35:54
1	Sn 189.927†	2.0	0.5	0.1002 ug/L	0.1002 ppb	13:35:54
1	Ti 334.940†	-857.4	57.1	0.0989 ug/L	0.0989 ppb	13:35:34
1	Tl 190.801†	-32.5	-2.1	-0.7412 ug/L	-0.7412 ppb	13:35:54
1	U 409.014†	-1021.5	-95.7	-2.4721 ug/L	-2.4721 ppb	13:35:34
1	V 292.402†	-1373.1	19.5	0.1225 ug/L	0.1225 ppb	13:35:34
1	Zn 213.857†	736.6	76.2	0.7720 ug/L	0.7720 ppb	13:35:54
1	SiO2†	514.4	-63.8	-4.3447 ug/L	-4.3447 ppb	13:36:50
2	Sc Radial	5042.7	5042.7	93.5 %		13:34:42
2	Y RADIAL	5448.3	5448.3	93.85 %		13:34:42
2	Al 396.153Radial†	12.0	8.7	6.7840 ug/L	6.7840 ppb	13:35:02
2	Ca 317.933Radial†	27.1	9.6	15.925 ug/L	15.925 ppb	13:35:02
2	Fe 238.204 Radial†	7.9	0.4	3.6353 ug/L	3.6353 ppb	13:35:02
2	K 766.490 Radial†	2457.3	657.2	121.95 ug/L	121.95 ppb	13:34:42
2	Mg 279.077 IEC†	-0.1	-2.5	-92.809 ug/L	-92.809 ppb	13:35:02
2	Na 589.592 Radial†	3163.5	3806.5	1173.3 ug/L	1173.3 ppb	13:34:42
2	Sr 421.552†	17.1	3.3	0.0212 ug/L	0.0212 ppb	13:34:42
2	Sc 361.383	873606.4	873606.4	100.18 %		13:35:59
2	Y 371.029	769112.8	769112.8	98.425 %		13:35:59
2	Ag 328.068†	309.0	13.8	0.0600 ug/L	0.0600 ppb	13:35:59
2	As 188.979†	-33.4	-2.7	-1.2258 ug/L	-1.2258 ppb	13:36:19
2	B 249.677†	-307.2	3.1	0.0701 ug/L	0.0701 ppb	13:36:19
2	Ba 233.527†	62.3	67.7	0.5803 ug/L	0.5803 ppb	13:36:19
2	Be 313.107†	-5137.0	464.8	0.1755 ug/L	0.1755 ppb	13:35:59
2	Cd 226.502†	-187.0	-7.5	-0.0919 ug/L	-0.0919 ppb	13:36:19
2	Co 228.616†	-56.3	2.9	0.0704 ug/L	0.0704 ppb	13:36:19
2	Cr 267.716†	76.6	-3.1	-0.0369 ug/L	-0.0369 ppb	13:36:19
2	Cu 324.752†	8994.4	-861.0	-2.5195 ug/L	-2.5195 ppb	13:35:59
2	Mn 257.610†	497.2	-61.6	-0.0706 ug/L	-0.0706 ppb	13:36:19
2	Mo 202.031†	28.5	7.4	0.5500 ug/L	0.5500 ppb	13:36:19
2	Ni 231.604†	113.3	7.9	0.2168 ug/L	0.2168 ppb	13:36:19



2	P 214.914†	217.2	-3.7	-1.7990 ug/L	-1.7990 ppb	13:36:19
2	Pb 220.353†	-48.1	-2.6	-0.3629 ug/L	-0.3629 ppb	13:36:19
2	S 181.975 Axial†	273.9	232.0	351.60 ug/L	351.60 ppb	13:36:19
2	Sb 206.836†	28.1	-8.0	-2.8969 ug/L	-2.8969 ppb	13:36:19
2	Se 196.026†	-18.7	-4.5	-2.8200 ug/L	-2.8200 ppb	13:36:19
2	Si 251.611†	490.4	-78.3	-2.5077 ug/L	-2.5077 ppb	13:36:19
2	Sn 189.927†	2.1	0.6	0.1255 ug/L	0.1255 ppb	13:36:19
2	Ti 334.940†	-794.6	123.6	0.2045 ug/L	0.2045 ppb	13:35:59
2	Tl 190.801†	-29.8	0.7	0.2410 ug/L	0.2410 ppb	13:36:19
2	U 409.014†	-889.8	40.2	1.0384 ug/L	1.0384 ppb	13:35:59
2	V 292.402†	-1440.3	-41.5	-0.2693 ug/L	-0.2693 ppb	13:35:59
2	Zn 213.857†	729.3	65.7	0.6658 ug/L	0.6658 ppb	13:36:19
2	SiO2†	497.2	-83.2	-5.6826 ug/L	-5.6826 ppb	13:36:55
2	Sc Radial	5038.5	5038.5	93.4 %		13:35:07
3	Y RADIAL	5469.5	5469.5	94.22 %		13:35:07
3	Al 396.153Radial†	13.0	9.9	7.7068 ug/L	7.7068 ppb	13:35:27
3	Ca 317.933Radial†	24.9	7.3	12.102 ug/L	12.102 ppb	13:35:27
3	Fe 238.204 Radial†	7.5	-0.0	-0.1062 ug/L	-0.1062 ppb	13:35:27
3	K 766.490 Radial†	2423.5	623.3	115.63 ug/L	115.63 ppb	13:35:07
3	Mg 279.077 IEC†	0.2	-2.2	-80.633 ug/L	-80.633 ppb	13:35:27
3	Na 589.592 Radial†	3104.2	3745.9	1154.6 ug/L	1154.6 ppb	13:35:07
3	Sr 421.552†	12.4	-1.7	-0.0114 ug/L	-0.0114 ppb	13:35:07
3	Sc 361.383	864537.8	864537.8	99.135 %		13:36:25
3	Y 371.029	762403.0	762403.0	97.566 %		13:36:25
3	Ag 328.068†	375.1	83.8	0.3730 ug/L	0.3730 ppb	13:36:25
3	As 188.979†	-34.3	-3.9	-1.7653 ug/L	-1.7653 ppb	13:36:45
3	B 249.677†	-305.6	1.5	0.0346 ug/L	0.0346 ppb	13:36:45
3	Ba 233.527†	54.0	60.0	0.5143 ug/L	0.5143 ppb	13:36:45
3	Be 313.107†	-5050.1	498.7	0.1878 ug/L	0.1878 ppb	13:36:25
3	Cd 226.502†	-187.9	-10.3	-0.1283 ug/L	-0.1283 ppb	13:36:45
3	Co 228.616†	-63.5	-5.0	-0.1190 ug/L	-0.1190 ppb	13:36:45
3	Cr 267.716†	70.7	-8.3	-0.0951 ug/L	-0.0951 ppb	13:36:45
3	Cu 324.752†	8803.2	-959.8	-2.8050 ug/L	-2.8050 ppb	13:36:25
3	Mn 257.610†	474.2	-79.6	-0.0933 ug/L	-0.0933 ppb	13:36:45
3	Mo 202.031†	26.4	5.6	0.4111 ug/L	0.4111 ppb	13:36:45
3	Ni 231.604†	99.6	-4.8	-0.1322 ug/L	-0.1322 ppb	13:36:45
3	P 214.914†	222.8	4.2	3.2001 ug/L	3.2001 ppb	13:36:45
3	Pb 220.353†	-49.8	-4.9	-0.6705 ug/L	-0.6705 ppb	13:36:45
3	S 181.975 Axial†	279.5	240.6	364.60 ug/L	364.60 ppb	13:36:45
3	Sb 206.836†	28.7	-7.0	-2.5409 ug/L	-2.5409 ppb	13:36:45
3	Se 196.026†	-17.4	-3.4	-2.1398 ug/L	-2.1398 ppb	13:36:45
3	Si 251.611†	508.0	-55.5	-1.7777 ug/L	-1.7777 ppb	13:36:45
3	Sn 189.927†	6.1	4.7	0.9576 ug/L	0.9576 ppb	13:36:45
3	Ti 334.940†	-911.1	-2.2	0.0071 ug/L	0.0071 ppb	13:36:25
3	Tl 190.801†	-22.9	7.4	2.5609 ug/L	2.5609 ppb	13:36:45
3	U 409.014†	-1126.0	-207.3	-5.3509 ug/L	-5.3509 ppb	13:36:25
3	V 292.402†	-1397.7	-13.6	-0.0965 ug/L	-0.0965 ppb	13:36:25
3	Zn 213.857†	725.9	69.9	0.7113 ug/L	0.7113 ppb	13:36:45
3	SiO2†	524.3	-50.7	-3.4669 ug/L	-3.4669 ppb	13:37:00

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	869299.0	99.681 %		0.5219			0.52%
Sc Radial	5041.6	93.5 %		0.05			0.05%
Y 371.029	766092.4	98.038 %		0.4357			0.44%
Y RADIAL	5439.7	93.70 %		0.603			0.64%
Ag 328.068†	32.4	0.1454 ug/L		0.19911	0.1454 ppb	0.19911	136.94%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	6.4	4.9768 ug/L		3.95635	4.9768 ppb	3.95635	79.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-2.7	-1.2214 ug/L		0.54619	-1.2214 ppb	0.54619	44.72%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-2.1	-0.0495 ug/L		0.17731	-0.0495 ppb	0.17731	358.00%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	65.4	0.5605 ug/L		0.04015	0.5605 ppb	0.04015	7.16%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	480.7	0.1812 ug/L		0.00620	0.1812 ppb	0.00620	3.42%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	8.4	13.948 ug/L		1.9150	13.948 ppb	1.9150	13.73%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-17.4	-0.2156 ug/L	0.18356	-0.2156 ppb	0.18356	85.15%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-5.2	-0.1235 ug/L	0.19612	-0.1235 ppb	0.19612	158.84%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-3.7	-0.0422 ug/L	0.05040	-0.0422 ppb	0.05040	119.37%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-874.4	-2.5569 ug/L	0.23173	-2.5569 ppb	0.23173	9.06%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.4	4.1902 ug/L	4.59898	4.1902 ppb	4.59898	109.76%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	662.4	122.92 ug/L	7.813	122.92 ppb	7.813	6.36%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-2.2	-81.104 ug/L	11.4766	-81.104 ppb	11.4766	14.15%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-80.8	-0.0943 ug/L	0.02428	-0.0943 ppb	0.02428	25.74%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	4.3	0.3196 ug/L	0.28724	0.3196 ppb	0.28724	89.86%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	3798.9	1171.0 ug/L	15.32	1171.0 ppb	15.32	1.31%	
QC value greater than the upper limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	2.8	0.0757 ug/L	0.18386	0.0757 ppb	0.18386	242.94%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	1.2	1.2346 ug/L	2.66520	1.2346 ppb	2.66520	215.88%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-4.6	-0.6338 ug/L	0.25455	-0.6338 ppb	0.25455	40.16%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	234.8	355.78 ug/L	7.641	355.78 ppb	7.641	2.15%	
QC value greater than the upper limit for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-3.5	-1.2608 ug/L	2.53178	-1.2608 ppb	2.53178	200.81%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-5.0	-3.1348 ug/L	1.18413	-3.1348 ppb	1.18413	37.77%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-64.6	-2.0652 ug/L	0.38895	-2.0652 ppb	0.38895	18.83%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	1.9	0.3944 ug/L	0.48789	0.3944 ppb	0.48789	123.70%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	0.3	0.0018 ug/L	0.01720	0.0018 ppb	0.01720	963.46%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	59.5	0.1035 ug/L	0.09879	0.1035 ppb	0.09879	95.46%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	2.0	0.6869 ug/L	1.69563	0.6869 ppb	1.69563	246.86%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-87.6	-2.2615 ug/L	3.19981	-2.2615 ppb	3.19981	141.49%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-11.9	-0.0811 ug/L	0.19637	-0.0811 ppb	0.19637	242.17%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	70.6	0.7164 ug/L	0.05330	0.7164 ppb	0.05330	7.44%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-65.9	-4.4981 ug/L	1.11580	-4.4981 ppb	1.11580	24.81%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 3

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/25/2010 14:02:37

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	5044.2	5044.2	93.5 %		14:04:30
1	Y RADIAL	5467.3	5467.3	94.18 %		14:04:30
1	Al 396.153Radial†	6108.5	6526.4	5084.9 ug/L	5084.9 ppb	14:04:30
1	Ca 317.933Radial†	2942.7	3126.6	5177.9 ug/L	5177.9 ppb	14:04:50
1	Fe 238.204 Radial†	521.1	549.1	5157.1 ug/L	5157.1 ppb	14:04:50
1	K 766.490 Radial†	29861.9	29954.7	5572.1 ug/L	5572.1 ppb	14:04:30
1	Mg 279.077 IEC†	138.7	145.9	5354.7 ug/L	5354.7 ppb	14:04:50
1	Na 589.592 Radial†	35155.9	38008.5	11716 ug/L	11716 ppb	14:04:30
1	Sr 421.552†	76200.5	81450.7	530.43 ug/L	530.43 ppb	14:04:30
1	Sc 361.383	889450.5	889450.5	101.99 %		14:05:47
1	Y 371.029	777537.3	777537.3	99.503 %		14:05:47
1	Ag 328.068†	114864.1	112325.9	498.23 ug/L	498.23 ppb	14:05:52
1	As 188.979†	1132.5	1141.0	514.76 ug/L	514.76 ppb	14:06:12
1	B 249.677†	21290.1	21184.0	486.10 ug/L	486.10 ppb	14:05:52
1	Ba 233.527†	60464.6	59289.1	509.69 ug/L	509.69 ppb	14:05:52
1	Be 313.107†	1366736.9	1345634.1	507.87 ug/L	507.87 ppb	14:05:47
1	Cd 226.502†	42825.7	42168.5	519.86 ug/L	519.86 ppb	14:05:52
1	Co 228.616†	22186.9	21812.6	522.40 ug/L	522.40 ppb	14:05:52
1	Cr 267.716†	44580.7	43630.4	513.65 ug/L	513.65 ppb	14:05:52
1	Cu 324.752†	178797.4	165465.4	484.10 ug/L	484.10 ppb	14:05:52
1	Mn 257.610†	427168.2	418266.7	507.64 ug/L	507.64 ppb	14:05:47
1	Mo 202.031†	6975.8	6818.5	503.99 ug/L	503.99 ppb	14:06:12
1	Ni 231.604†	19294.9	18812.7	516.68 ug/L	516.68 ppb	14:05:52
1	P 214.914†	4425.9	4119.0	2461.0 ug/L	2461.0 ppb	14:06:12
1	Pb 220.353†	3739.6	3711.9	516.01 ug/L	516.01 ppb	14:06:12
1	S 181.975 Axial†	926.3	866.8	1312.7 ug/L	1312.7 ppb	14:06:12
1	Sb 206.836†	1428.2	1364.2	514.78 ug/L	514.78 ppb	14:06:12
1	Se 196.026†	811.1	809.3	524.86 ug/L	524.86 ppb	14:06:12
1	Si 251.611†	81667.3	79504.2	2531.7 ug/L	2531.7 ppb	14:05:52
1	Sn 189.927†	2555.7	2504.3	510.94 ug/L	510.94 ppb	14:06:12
1	Ti 334.940†	311724.9	306553.0	484.14 ug/L	484.14 ppb	14:05:52
1	Tl 190.801†	1446.9	1449.2	507.16 ug/L	507.16 ppb	14:06:12
1	U 409.014†	18476.6	19044.2	489.93 ug/L	489.93 ppb	14:05:52
1	V 292.402†	75929.5	75842.7	512.15 ug/L	512.15 ppb	14:05:52
1	Zn 213.857†	52396.4	50710.6	508.45 ug/L	508.45 ppb	14:05:52
1	SiO2†	81890.1	79711.0	5414.6 ug/L	5414.6 ppb	14:07:20
2	Sc Radial	4911.2	4911.2	91.1 %		14:04:55
2	Y RADIAL	5282.0	5282.0	90.99 %		14:04:55
2	Al 396.153Radial†	5919.2	6495.5	5060.3 ug/L	5060.3 ppb	14:04:55
2	Ca 317.933Radial†	2953.3	3223.6	5338.4 ug/L	5338.4 ppb	14:05:15
2	Fe 238.204 Radial†	523.9	567.3	5327.8 ug/L	5327.8 ppb	14:05:15
2	K 766.490 Radial†	29261.9	30160.5	5610.3 ug/L	5610.3 ppb	14:04:55
2	Mg 279.077 IEC†	138.7	149.9	5501.5 ug/L	5501.5 ppb	14:05:15
2	Na 589.592 Radial†	34256.7	38039.2	11725 ug/L	11725 ppb	14:04:55
2	Sr 421.552†	73713.1	80926.0	527.01 ug/L	527.01 ppb	14:04:55
2	Sc 361.383	884436.6	884436.6	101.42 %		14:06:18
2	Y 371.029	774502.9	774502.9	99.115 %		14:06:18
2	Ag 328.068†	115198.8	113294.4	502.56 ug/L	502.56 ppb	14:06:23
2	As 188.979†	1138.5	1153.2	520.29 ug/L	520.29 ppb	14:06:43
2	B 249.677†	21434.2	21444.4	492.07 ug/L	492.07 ppb	14:06:23
2	Ba 233.527†	60544.8	59704.3	513.27 ug/L	513.27 ppb	14:06:23
2	Be 313.107†	1362677.7	1349228.3	509.23 ug/L	509.23 ppb	14:06:18
2	Cd 226.502†	42802.5	42383.6	522.50 ug/L	522.50 ppb	14:06:23
2	Co 228.616†	22155.7	21905.1	524.62 ug/L	524.62 ppb	14:06:23
2	Cr 267.716†	44702.7	43998.5	517.99 ug/L	517.99 ppb	14:06:23
2	Cu 324.752†	179639.4	167289.4	489.44 ug/L	489.44 ppb	14:06:23
2	Mn 257.610†	424790.9	418297.0	507.69 ug/L	507.69 ppb	14:06:18
2	Mo 202.031†	7036.4	6917.1	511.29 ug/L	511.29 ppb	14:06:43
2	Ni 231.604†	19382.1	19006.0	521.99 ug/L	521.99 ppb	14:06:23

2	P 214.914†	4435.1	4152.7	2480.7 ug/L	2480.7 ppb	14:06:43
2	Pb 220.353†	3751.3	3744.3	520.48 ug/L	520.48 ppb	14:06:43
2	S 181.975 Axial†	929.3	875.0	1325.1 ug/L	1325.1 ppb	14:06:43
2	Sb 206.836†	1437.5	1381.3	521.24 ug/L	521.24 ppb	14:06:43
2	Se 196.026†	815.1	817.8	530.74 ug/L	530.74 ppb	14:06:43
2	Si 251.611†	81929.4	80216.6	2554.4 ug/L	2554.4 ppb	14:06:23
2	Sn 189.927†	2570.0	2532.6	516.74 ug/L	516.74 ppb	14:06:43
2	Ti 334.940†	312548.2	309097.5	488.17 ug/L	488.17 ppb	14:06:23
2	Tl 190.801†	1468.0	1478.0	517.21 ug/L	517.21 ppb	14:06:43
2	U 409.014†	18649.0	19316.9	496.94 ug/L	496.94 ppb	14:06:23
2	V 292.402†	76098.4	76431.3	516.17 ug/L	516.17 ppb	14:06:23
2	Zn 213.857†	52570.1	51173.1	513.07 ug/L	513.07 ppb	14:06:23
2	SiO2†	81882.4	80158.5	5444.9 ug/L	5444.9 ppb	14:07:25
3	Sc Radial	4879.0	4879.0	90.5 %		14:05:20
3	Y RADIAL	5235.5	5235.5	90.19 %		14:05:20
3	Al 396.153Radial†	5892.7	6509.0	5070.8 ug/L	5070.8 ppb	14:05:20
3	Ca 317.933Radial†	2955.9	3247.8	5378.5 ug/L	5378.5 ppb	14:05:40
3	Fe 238.204 Radial†	520.6	567.4	5328.6 ug/L	5328.6 ppb	14:05:40
3	K 766.490 Radial†	29143.9	30241.7	5625.4 ug/L	5625.4 ppb	14:05:20
3	Mg 279.077 IEC†	140.9	153.3	5626.0 ug/L	5626.0 ppb	14:05:40
3	Na 589.592 Radial†	34074.7	38085.6	11739 ug/L	11739 ppb	14:05:20
3	Sr 421.552†	73541.6	81269.3	529.24 ug/L	529.24 ppb	14:05:20
3	Sc 361.383	877553.0	877553.0	100.63 %		14:06:49
3	Y 371.029	767353.0	767353.0	98.200 %		14:06:49
3	Ag 328.068†	114327.7	113319.8	502.68 ug/L	502.68 ppb	14:06:54
3	As 188.979†	1124.4	1148.0	517.96 ug/L	517.96 ppb	14:07:14
3	B 249.677†	21241.7	21418.9	491.48 ug/L	491.48 ppb	14:06:54
3	Ba 233.527†	60251.6	59881.1	514.79 ug/L	514.79 ppb	14:06:54
3	Be 313.107†	1354653.3	1351793.6	510.19 ug/L	510.19 ppb	14:06:49
3	Cd 226.502†	42689.3	42602.2	525.19 ug/L	525.19 ppb	14:06:54
3	Co 228.616†	22111.2	22032.3	527.67 ug/L	527.67 ppb	14:06:54
3	Cr 267.716†	44586.1	44228.4	520.69 ug/L	520.69 ppb	14:06:54
3	Cu 324.752†	177329.9	166383.7	486.79 ug/L	486.79 ppb	14:06:54
3	Mn 257.610†	423453.7	420253.6	510.05 ug/L	510.05 ppb	14:06:49
3	Mo 202.031†	6992.9	6928.2	512.11 ug/L	512.11 ppb	14:07:14
3	Ni 231.604†	19275.1	19049.5	523.19 ug/L	523.19 ppb	14:06:54
3	P 214.914†	4429.2	4181.1	2498.9 ug/L	2498.9 ppb	14:07:14
3	Pb 220.353†	3713.9	3736.1	519.36 ug/L	519.36 ppb	14:07:14
3	S 181.975 Axial†	920.2	873.0	1322.2 ug/L	1322.2 ppb	14:07:14
3	Sb 206.836†	1439.3	1394.3	525.96 ug/L	525.96 ppb	14:07:14
3	Se 196.026†	798.6	807.7	524.41 ug/L	524.41 ppb	14:07:14
3	Si 251.611†	81362.1	80286.5	2556.6 ug/L	2556.6 ppb	14:06:54
3	Sn 189.927†	2545.4	2528.0	515.81 ug/L	515.81 ppb	14:07:14
3	Ti 334.940†	309835.7	308819.3	487.72 ug/L	487.72 ppb	14:06:54
3	Tl 190.801†	1443.4	1464.9	512.65 ug/L	512.65 ppb	14:07:14
3	U 409.014†	18336.7	19150.8	492.64 ug/L	492.64 ppb	14:06:54
3	V 292.402†	75653.7	76577.9	517.15 ug/L	517.15 ppb	14:06:54
3	Zn 213.857†	52255.3	51267.0	514.01 ug/L	514.01 ppb	14:06:54
3	SiO2†	81053.1	79967.8	5431.9 ug/L	5431.9 ppb	14:07:30

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	883813.4	101.35 %	0.685			0.68%
Sc Radial	4944.8	91.7 %	1.62			1.77%
Y 371.029	773131.1	98.939 %	0.6691			0.68%
Y RADIAL	5328.3	91.78 %	2.112			2.30%
Ag 328.068†	112980.0	501.16 ug/L	2.535	501.16 ppb	2.535	0.51%
QC value within limits for Ag 328.068 Recovery = 100.23%						
Al 396.153Radial†	6510.3	5072.0 ug/L	12.32	5072.0 ppb	12.32	0.24%
QC value within limits for Al 396.153Radial Recovery = 101.44%						
As 188.979†	1147.4	517.67 ug/L	2.780	517.67 ppb	2.780	0.54%
QC value within limits for As 188.979 Recovery = 103.53%						
B 249.677†	21349.1	489.89 ug/L	3.288	489.89 ppb	3.288	0.67%
QC value within limits for B 249.677 Recovery = 97.98%						
Ba 233.527†	59624.8	512.58 ug/L	2.615	512.58 ppb	2.615	0.51%
QC value within limits for Ba 233.527 Recovery = 102.52%						
Be 313.107†	1348885.3	509.10 ug/L	1.170	509.10 ppb	1.170	0.23%
QC value within limits for Be 313.107 Recovery = 101.82%						
Ca 317.933Radial†	3199.3	5298.2 ug/L	106.17	5298.2 ppb	106.17	2.00%

QC value within limits for Ca 317.933 Radial Recovery = 105.96%							
Cd 226.502†	42384.8	522.51 ug/L	2.668	522.51 ppb	2.668	0.51%	
QC value within limits for Cd 226.502 Recovery = 104.50%							
Co 228.616†	21916.7	524.90 ug/L	2.646	524.90 ppb	2.646	0.50%	
QC value within limits for Co 228.616 Recovery = 104.98%							
Cr 267.716†	43952.4	517.44 ug/L	3.551	517.44 ppb	3.551	0.69%	
QC value within limits for Cr 267.716 Recovery = 103.49%							
Cu 324.752†	166379.5	486.78 ug/L	2.671	486.78 ppb	2.671	0.55%	
QC value within limits for Cu 324.752 Recovery = 97.36%							
Fe 238.204 Radial†	561.2	5271.2 ug/L	98.82	5271.2 ppb	98.82	1.87%	
QC value within limits for Fe 238.204 Radial Recovery = 105.42%							
K 766.490 Radial†	30119.0	5602.6 ug/L	27.51	5602.6 ppb	27.51	0.49%	
QC value greater than the upper limit for K 766.490 Radial Recovery = 112.05%							
Mg 279.077 IEC†	149.7	5494.1 ug/L	135.80	5494.1 ppb	135.80	2.47%	
QC value within limits for Mg 279.077 IEC Recovery = 109.88%							
Mn 257.610†	418939.1	508.46 ug/L	1.381	508.46 ppb	1.381	0.27%	
QC value within limits for Mn 257.610 Recovery = 101.69%							
Mo 202.031†	6887.9	509.13 ug/L	4.469	509.13 ppb	4.469	0.88%	
QC value within limits for Mo 202.031 Recovery = 101.83%							
Na 589.592 Radial†	38044.4	11727 ug/L	12.0	11727 ppb	12.0	0.10%	
QC value greater than the upper limit for Na 589.592 Radial Recovery = 117.27%							
Ni 231.604†	18956.1	520.62 ug/L	3.462	520.62 ppb	3.462	0.66%	
QC value within limits for Ni 231.604 Recovery = 104.12%							
P 214.914†	4150.9	2480.2 ug/L	18.97	2480.2 ppb	18.97	0.76%	
QC value within limits for P 214.914 Recovery = 99.21%							
Pb 220.353†	3730.8	518.62 ug/L	2.329	518.62 ppb	2.329	0.45%	
QC value within limits for Pb 220.353 Recovery = 103.72%							
S 181.975 Axial†	871.6	1320.0 ug/L	6.49	1320.0 ppb	6.49	0.49%	
QC value greater than the upper limit for S 181.975 Axial Recovery = 132.00%							
Sb 206.836†	1379.9	520.66 ug/L	5.614	520.66 ppb	5.614	1.08%	
QC value within limits for Sb 206.836 Recovery = 104.13%							
Se 196.026†	811.6	526.67 ug/L	3.533	526.67 ppb	3.533	0.67%	
QC value within limits for Se 196.026 Recovery = 105.33%							
Si 251.611†	80002.4	2547.6 ug/L	13.76	2547.6 ppb	13.76	0.54%	
QC value within limits for Si 251.611 Recovery = 101.90%							
Sn 189.927†	2521.6	514.50 ug/L	3.116	514.50 ppb	3.116	0.61%	
QC value within limits for Sn 189.927 Recovery = 102.90%							
Sr 421.552†	81215.3	528.89 ug/L	1.736	528.89 ppb	1.736	0.33%	
QC value within limits for Sr 421.552 Recovery = 105.78%							
Ti 334.940†	308156.6	486.68 ug/L	2.207	486.68 ppb	2.207	0.45%	
QC value within limits for Ti 334.940 Recovery = 97.34%							
Tl 190.801†	1464.0	512.34 ug/L	5.033	512.34 ppb	5.033	0.98%	
QC value within limits for Tl 190.801 Recovery = 102.47%							
U 409.014†	19170.6	493.17 ug/L	3.535	493.17 ppb	3.535	0.72%	
QC value within limits for U 409.014 Recovery = 98.63%							
V 292.402†	76284.0	515.16 ug/L	2.645	515.16 ppb	2.645	0.51%	
QC value within limits for V 292.402 Recovery = 103.03%							
Zn 213.857†	51050.2	511.84 ug/L	2.978	511.84 ppb	2.978	0.58%	
QC value within limits for Zn 213.857 Recovery = 102.37%							
SiO2†	79945.8	5430.4 ug/L	15.19	5430.4 ppb	15.19	0.28%	
QC value within limits for SiO2 Recovery = 101.55%							
QC Failed. Continue with analysis.							

Sequence No.: 4

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/25/2010 14:09:40

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5013.7	5013.7	93.0 %		14:11:32
1	Y RADIAL	5426.5	5426.5	93.48 %		14:11:32
1	Al 396.153Radial†	9.6	6.3	4.8960 ug/L	4.8960 ppb	14:11:52
1	Ca 317.933Radial†	21.8	4.1	6.8114 ug/L	6.8114 ppb	14:11:52
1	Fe 238.204 Radial†	9.3	2.0	18.365 ug/L	18.365 ppb	14:11:52
1	K 766.490 Radial†	2401.3	612.2	113.72 ug/L	113.72 ppb	14:11:32
1	Mg 279.077 IEC†	1.7	-0.6	-20.304 ug/L	-20.304 ppb	14:11:52
1	Na 589.592 Radial†	1867.4	2431.9	749.61 ug/L	749.61 ppb	14:11:32
1	Sr 421.552†	46.5	34.9	0.2274 ug/L	0.2274 ppb	14:11:32
1	Sc 361.383	877745.2	877745.2	100.65 %		14:12:49
1	Y 371.029	773138.7	773138.7	98.940 %		14:12:49
1	Ag 328.068†	374.2	77.2	0.3471 ug/L	0.3471 ppb	14:12:49
1	As 188.979†	-28.3	2.5	1.1132 ug/L	1.1132 ppb	14:13:09
1	B 249.677†	-279.9	31.7	0.7271 ug/L	0.7271 ppb	14:13:09
1	Ba 233.527†	51.8	57.0	0.4890 ug/L	0.4890 ppb	14:13:09
1	Be 313.107†	-5112.0	513.8	0.1940 ug/L	0.1940 ppb	14:12:49
1	Cd 226.502†	-181.3	-0.8	-0.0127 ug/L	-0.0127 ppb	14:13:09
1	Co 228.616†	-61.4	-1.9	-0.0458 ug/L	-0.0458 ppb	14:13:09
1	Cr 267.716†	84.6	4.5	0.0544 ug/L	0.0544 ppb	14:13:09
1	Cu 324.752†	8992.2	-905.6	-2.6475 ug/L	-2.6475 ppb	14:12:49
1	Mn 257.610†	467.0	-93.9	-0.1113 ug/L	-0.1113 ppb	14:13:09
1	Mo 202.031†	22.0	0.8	0.0638 ug/L	0.0638 ppb	14:13:09
1	Ni 231.604†	96.4	-9.5	-0.2607 ug/L	-0.2607 ppb	14:13:09
1	P 214.914†	216.2	-5.7	-3.0531 ug/L	-3.0531 ppb	14:13:09
1	Pb 220.353†	-47.9	-2.2	-0.3076 ug/L	-0.3076 ppb	14:13:09
1	S 181.975 Axial†	208.7	166.0	251.58 ug/L	251.58 ppb	14:13:09
1	Sb 206.836†	35.7	-0.6	-0.2419 ug/L	-0.2419 ppb	14:13:09
1	Se 196.026†	-26.4	-12.2	-7.5358 ug/L	-7.5358 ppb	14:13:09
1	Si 251.611†	491.6	-79.5	-2.5376 ug/L	-2.5376 ppb	14:13:09
1	Sn 189.927†	-3.8	-5.2	-1.0613 ug/L	-1.0613 ppb	14:13:09
1	Ti 334.940†	-769.0	152.8	0.2447 ug/L	0.2447 ppb	14:12:49
1	Tl 190.801†	-44.0	-13.2	-4.6058 ug/L	-4.6058 ppb	14:13:09
1	U 409.014†	-999.3	-64.4	-1.6637 ug/L	-1.6637 ppb	14:12:49
1	V 292.402†	-1411.3	-5.9	-0.0450 ug/L	-0.0450 ppb	14:12:49
1	Zn 213.857†	723.0	56.0	0.5695 ug/L	0.5695 ppb	14:13:09
1	SiO2†	494.1	-88.6	-6.0379 ug/L	-6.0379 ppb	14:14:20
2	Sc Radial	5046.0	5046.0	93.6 %		14:11:57
2	Y RADIAL	5444.4	5444.4	93.78 %		14:11:57
2	Al 396.153Radial†	8.1	4.5	3.5127 ug/L	3.5127 ppb	14:12:17
2	Ca 317.933Radial†	22.6	4.8	7.9465 ug/L	7.9465 ppb	14:12:17
2	Fe 238.204 Radial†	7.0	-0.6	-5.4420 ug/L	-5.4420 ppb	14:12:17
2	K 766.490 Radial†	2243.2	426.7	79.193 ug/L	79.193 ppb	14:11:57
2	Mg 279.077 IEC†	3.4	1.2	43.937 ug/L	43.937 ppb	14:12:17
2	Na 589.592 Radial†	1777.0	2322.5	715.88 ug/L	715.88 ppb	14:11:57
2	Sr 421.552†	8.2	-6.3	-0.0408 ug/L	-0.0408 ppb	14:11:57
2	Sc 361.383	878402.4	878402.4	100.73 %		14:13:14
2	Y 371.029	773848.2	773848.2	99.031 %		14:13:14
2	Ag 328.068†	332.4	35.3	0.1520 ug/L	0.1520 ppb	14:13:14
2	As 188.979†	-32.9	-2.0	-0.9050 ug/L	-0.9050 ppb	14:13:34
2	B 249.677†	-262.8	48.8	1.1257 ug/L	1.1257 ppb	14:13:34
2	Ba 233.527†	42.8	48.0	0.4110 ug/L	0.4110 ppb	14:13:34
2	Be 313.107†	-5131.1	498.7	0.1878 ug/L	0.1878 ppb	14:13:14
2	Cd 226.502†	-203.6	-22.9	-0.2811 ug/L	-0.2811 ppb	14:13:34
2	Co 228.616†	-58.8	0.7	0.0180 ug/L	0.0180 ppb	14:13:34
2	Cr 267.716†	93.6	13.4	0.1572 ug/L	0.1572 ppb	14:13:34
2	Cu 324.752†	9022.6	-882.1	-2.5820 ug/L	-2.5820 ppb	14:13:14
2	Mn 257.610†	479.7	-81.6	-0.1014 ug/L	-0.1014 ppb	14:13:34
2	Mo 202.031†	30.3	9.0	0.6639 ug/L	0.6639 ppb	14:13:34
2	Ni 231.604†	107.0	0.9	0.0255 ug/L	0.0255 ppb	14:13:34

2	P 214.914†	225.4	3.3	2.5695 ug/L	2.5695 ppb	14:13:34
2	Pb 220.353†	-47.1	-1.4	-0.1936 ug/L	-0.1936 ppb	14:13:34
2	S 181.975 Axial†	194.5	151.7	229.86 ug/L	229.86 ppb	14:13:34
2	Sb 206.836†	27.4	-8.8	-3.1998 ug/L	-3.1998 ppb	14:13:34
2	Se 196.026†	-17.6	-3.4	-2.1339 ug/L	-2.1339 ppb	14:13:34
2	Si 251.611†	493.3	-78.2	-2.5055 ug/L	-2.5055 ppb	14:13:34
2	Sn 189.927†	1.2	-0.3	-0.0567 ug/L	-0.0567 ppb	14:13:34
2	Ti 334.940†	-919.7	3.8	0.0025 ug/L	0.0025 ppb	14:13:14
2	Tl 190.801†	-35.0	-4.3	-1.4929 ug/L	-1.4929 ppb	14:13:34
2	U 409.014†	-860.1	74.7	1.9277 ug/L	1.9277 ppb	14:13:14
2	V 292.402†	-1416.7	-10.2	-0.0536 ug/L	-0.0536 ppb	14:13:14
2	Zn 213.857†	746.1	78.4	0.7970 ug/L	0.7970 ppb	14:13:34
2	SiO2†	510.4	-72.9	-4.9814 ug/L	-4.9814 ppb	14:14:40
3	Sc Radial	4988.7	4988.7	92.5 %		14:12:22
3	Y RADIAL	5402.2	5402.2	93.06 %		14:12:22
3	Al 396.153Radial†	3.0	-0.8	-0.6743 ug/L	-0.6743 ppb	14:12:42
3	Ca 317.933Radial†	29.1	12.1	19.956 ug/L	19.956 ppb	14:12:42
3	Fe 238.204 Radial†	9.2	1.9	18.141 ug/L	18.141 ppb	14:12:42
3	K 766.490 Radial†	2268.5	481.6	89.416 ug/L	89.416 ppb	14:12:22
3	Mg 279.077 IEC†	1.3	-1.0	-36.227 ug/L	-36.227 ppb	14:12:42
3	Na 589.592 Radial†	1741.1	2305.5	710.64 ug/L	710.64 ppb	14:12:22
3	Sr 421.552†	28.5	15.7	0.1024 ug/L	0.1024 ppb	14:12:22
3	Sc 361.383	874066.1	874066.1	100.23 %		14:13:39
3	Y 371.029	769718.5	769718.5	98.503 %		14:13:39
3	Ag 328.068†	338.4	43.0	0.1965 ug/L	0.1965 ppb	14:13:39
3	As 188.979†	-34.8	-4.1	-1.8173 ug/L	-1.8173 ppb	14:13:59
3	B 249.677†	-268.1	42.2	0.9711 ug/L	0.9711 ppb	14:13:59
3	Ba 233.527†	59.8	65.1	0.5589 ug/L	0.5589 ppb	14:13:59
3	Be 313.107†	-5023.1	581.1	0.2190 ug/L	0.2190 ppb	14:13:39
3	Cd 226.502†	-190.1	-10.4	-0.1303 ug/L	-0.1303 ppb	14:13:59
3	Co 228.616†	-64.6	-5.4	-0.1281 ug/L	-0.1281 ppb	14:13:59
3	Cr 267.716†	81.8	2.1	0.0252 ug/L	0.0252 ppb	14:13:59
3	Cu 324.752†	8912.4	-947.6	-2.7705 ug/L	-2.7705 ppb	14:13:39
3	Mn 257.610†	467.3	-91.7	-0.1080 ug/L	-0.1080 ppb	14:13:59
3	Mo 202.031†	24.6	3.5	0.2622 ug/L	0.2622 ppb	14:13:59
3	Ni 231.604†	99.6	-5.9	-0.1621 ug/L	-0.1621 ppb	14:13:59
3	P 214.914†	224.4	3.4	2.6362 ug/L	2.6362 ppb	14:13:59
3	Pb 220.353†	-46.3	-0.8	-0.1133 ug/L	-0.1133 ppb	14:13:59
3	S 181.975 Axial†	201.0	159.1	241.12 ug/L	241.12 ppb	14:13:59
3	Sb 206.836†	28.9	-7.2	-2.6130 ug/L	-2.6130 ppb	14:13:59
3	Se 196.026†	-24.5	-10.3	-6.3911 ug/L	-6.3911 ppb	14:13:59
3	Si 251.611†	493.8	-75.2	-2.4045 ug/L	-2.4045 ppb	14:13:59
3	Sn 189.927†	2.0	0.5	0.1007 ug/L	0.1007 ppb	14:13:59
3	Ti 334.940†	-880.7	38.1	0.0666 ug/L	0.0666 ppb	14:13:39
3	Tl 190.801†	-35.5	-4.9	-1.7147 ug/L	-1.7147 ppb	14:13:59
3	U 409.014†	-1001.3	-70.5	-1.8218 ug/L	-1.8218 ppb	14:13:39
3	V 292.402†	-1402.8	-3.4	-0.0257 ug/L	-0.0257 ppb	14:13:39
3	Zn 213.857†	725.9	61.9	0.6289 ug/L	0.6289 ppb	14:13:59
3	SiO2†	517.4	-63.3	-4.3206 ug/L	-4.3206 ppb	14:15:00

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	876737.9	100.53 %		0.268			0.27%
Sc Radial	5016.1	93.0 %		0.53			0.57%
Y 371.029	772235.1	98.825 %		0.2826			0.29%
Y RADIAL	5424.4	93.44 %		0.364			0.39%
Ag 328.068†	51.8	0.2319 ug/L		0.10224	0.2319 ppb	0.10224	44.09%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	3.3	2.5782 ug/L		2.90036	2.5782 ppb	2.90036	112.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-1.2	-0.5364 ug/L		1.49961	-0.5364 ppb	1.49961	279.57%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	40.9	0.9413 ug/L		0.20095	0.9413 ppb	0.20095	21.35%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	56.7	0.4863 ug/L		0.07395	0.4863 ppb	0.07395	15.21%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	531.2	0.2003 ug/L		0.01650	0.2003 ppb	0.01650	8.24%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	7.0	11.571 ug/L		7.2834	11.571 ppb	7.2834	62.94%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-11.4	-0.1414 ug/L	0.13454	-0.1414 ppb	0.13454	95.18%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-2.2	-0.0520 ug/L	0.07324	-0.0520 ppb	0.07324	140.89%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	6.7	0.0789 ug/L	0.06932	0.0789 ppb	0.06932	87.83%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-911.8	-2.6667 ug/L	0.09570	-2.6667 ppb	0.09570	3.59%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	1.1	10.355 ug/L	13.6807	10.355 ppb	13.6807	132.12%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	506.8	94.111 ug/L	17.7384	94.111 ppb	17.7384	18.85%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.1	-4.1979 ug/L	42.43946	-4.1979 ppb	42.43946	>999.9%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-89.1	-0.1069 ug/L	0.00505	-0.1069 ppb	0.00505	4.72%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	4.5	0.3300 ug/L	0.30573	0.3300 ppb	0.30573	92.65%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	2353.3	725.38 ug/L	21.151	725.38 ppb	21.151	2.92%	
QC value greater than the upper limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-4.8	-0.1324 ug/L	0.14539	-0.1324 ppb	0.14539	109.79%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	0.3	0.7176 ug/L	3.26564	0.7176 ppb	3.26564	455.10%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-1.5	-0.2048 ug/L	0.09760	-0.2048 ppb	0.09760	47.65%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	158.9	240.85 ug/L	10.864	240.85 ppb	10.864	4.51%	
QC value greater than the upper limit for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-5.6	-2.0182 ug/L	1.56609	-2.0182 ppb	1.56609	77.60%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-8.6	-5.3536 ug/L	2.84649	-5.3536 ppb	2.84649	53.17%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-77.6	-2.4826 ug/L	0.06944	-2.4826 ppb	0.06944	2.80%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-1.7	-0.3391 ug/L	0.63038	-0.3391 ppb	0.63038	185.90%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	14.8	0.0963 ug/L	0.13420	0.0963 ppb	0.13420	139.31%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	64.9	0.1046 ug/L	0.12548	0.1046 ppb	0.12548	119.94%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-7.5	-2.6045 ug/L	1.73678	-2.6045 ppb	1.73678	66.68%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-20.1	-0.5193 ug/L	2.12059	-0.5193 ppb	2.12059	408.38%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-6.5	-0.0415 ug/L	0.01426	-0.0415 ppb	0.01426	34.39%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	65.4	0.6651 ug/L	0.11800	0.6651 ppb	0.11800	17.74%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-75.0	-5.1133 ug/L	0.86622	-5.1133 ppb	0.86622	16.94%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							



Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/25/2010 15:12:43

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5051.9	5051.9	93.7 %		15:14:35
1	Y RADIAL	5444.6	5444.6	93.79 %		15:14:35
1	Al 396.153Radial†	6043.2	6446.8	5022.6 ug/L	5022.6 ppb	15:14:35
1	Ca 317.933Radial†	2997.1	3179.9	5266.0 ug/L	5266.0 ppb	15:14:55
1	Fe 238.204 Radial†	525.4	552.8	5192.5 ug/L	5192.5 ppb	15:14:55
1	K 766.490 Radial†	29736.8	29772.2	5538.4 ug/L	5538.4 ppb	15:14:35
1	Mg 279.077 IEC†	142.4	149.6	5487.9 ug/L	5487.9 ppb	15:14:55
1	Na 589.592 Radial†	32707.2	35337.0	10892 ug/L	10892 ppb	15:14:35
1	Sr 421.552†	74416.8	79421.7	517.21 ug/L	517.21 ppb	15:14:35
1	Sc 361.383	909793.5	909793.5	104.32 %		15:15:53
1	Y 371.029	794219.8	794219.8	101.64 %		15:15:53
1	Ag 328.068†	116633.3	111503.6	494.61 ug/L	494.61 ppb	15:15:58
1	As 188.979†	1148.5	1131.5	510.61 ug/L	510.61 ppb	15:16:18
1	B 249.677†	21838.6	21243.0	487.47 ug/L	487.47 ppb	15:15:58
1	Ba 233.527†	61667.0	59116.0	508.21 ug/L	508.21 ppb	15:15:58
1	Be 313.107†	1388865.0	1336881.5	504.59 ug/L	504.59 ppb	15:15:53
1	Cd 226.502†	43577.7	41950.4	517.16 ug/L	517.16 ppb	15:15:58
1	Co 228.616†	22530.7	21655.7	518.62 ug/L	518.62 ppb	15:15:58
1	Cr 267.716†	45366.3	43406.1	511.01 ug/L	511.01 ppb	15:15:58
1	Cu 324.752†	181646.9	164276.9	480.63 ug/L	480.63 ppb	15:15:58
1	Mn 257.610†	435338.6	416733.5	505.78 ug/L	505.78 ppb	15:15:53
1	Mo 202.031†	7103.0	6787.5	501.71 ug/L	501.71 ppb	15:16:18
1	Ni 231.604†	19707.9	18785.6	515.94 ug/L	515.94 ppb	15:15:58
1	P 214.914†	4474.9	4068.9	2430.6 ug/L	2430.6 ppb	15:16:18
1	Pb 220.353†	3800.9	3688.8	512.77 ug/L	512.77 ppb	15:16:18
1	S 181.975 Axial†	823.0	747.5	1131.9 ug/L	1131.9 ppb	15:16:18
1	Sb 206.836†	1462.2	1365.5	515.14 ug/L	515.14 ppb	15:16:18
1	Se 196.026†	811.6	792.1	514.18 ug/L	514.18 ppb	15:16:18
1	Si 251.611†	83223.9	79205.8	2522.2 ug/L	2522.2 ppb	15:15:58
1	Sn 189.927†	2608.3	2498.7	509.82 ug/L	509.82 ppb	15:16:18
1	Ti 334.940†	325591.5	313010.8	494.35 ug/L	494.35 ppb	15:15:53
1	Tl 190.801†	1478.9	1448.0	506.87 ug/L	506.87 ppb	15:16:18
1	U 409.014†	18696.6	18850.0	484.91 ug/L	484.91 ppb	15:15:58
1	V 292.402†	77329.1	75519.6	509.95 ug/L	509.95 ppb	15:15:58
1	Zn 213.857†	53308.5	50436.3	505.68 ug/L	505.68 ppb	15:15:58
1	SiO2†	83670.6	79622.4	5408.6 ug/L	5408.6 ppb	15:17:26
2	Sc Radial	5071.0	5071.0	94.0 %		15:15:00
2	Y RADIAL	5464.4	5464.4	94.13 %		15:15:00
2	Al 396.153Radial†	6123.1	6507.5	5070.0 ug/L	5070.0 ppb	15:15:00
2	Ca 317.933Radial†	2984.4	3154.3	5223.7 ug/L	5223.7 ppb	15:15:20
2	Fe 238.204 Radial†	527.9	553.4	5197.8 ug/L	5197.8 ppb	15:15:20
2	K 766.490 Radial†	30011.1	29944.5	5570.5 ug/L	5570.5 ppb	15:15:00
2	Mg 279.077 IEC†	139.4	145.8	5350.3 ug/L	5350.3 ppb	15:15:20
2	Na 589.592 Radial†	32843.8	35350.9	10896 ug/L	10896 ppb	15:15:00
2	Sr 421.552†	75069.7	79817.3	519.79 ug/L	519.79 ppb	15:15:00
2	Sc 361.383	902303.7	902303.7	103.47 %		15:16:24
2	Y 371.029	789541.1	789541.1	101.04 %		15:16:24
2	Ag 328.068†	116634.0	112432.3	498.72 ug/L	498.72 ppb	15:16:29
2	As 188.979†	1143.5	1135.9	512.57 ug/L	512.57 ppb	15:16:49
2	B 249.677†	21831.2	21409.6	491.30 ug/L	491.30 ppb	15:16:29
2	Ba 233.527†	61640.4	59581.0	512.20 ug/L	512.20 ppb	15:16:29
2	Be 313.107†	1387519.9	1346632.1	508.27 ug/L	508.27 ppb	15:16:24
2	Cd 226.502†	43537.7	42258.5	520.96 ug/L	520.96 ppb	15:16:29
2	Co 228.616†	22539.9	21843.9	523.13 ug/L	523.13 ppb	15:16:29
2	Cr 267.716†	45256.7	43661.1	514.02 ug/L	514.02 ppb	15:16:29
2	Cu 324.752†	181641.5	165717.0	484.84 ug/L	484.84 ppb	15:16:29
2	Mn 257.610†	433411.7	418334.9	507.73 ug/L	507.73 ppb	15:16:24
2	Mo 202.031†	7084.0	6825.6	504.52 ug/L	504.52 ppb	15:16:49
2	Ni 231.604†	19633.1	18870.1	518.26 ug/L	518.26 ppb	15:16:29

2	P 214.914†	4467.1	4096.9	2447.1 ug/L	2447.1 ppb	15:16:49
2	Pb 220.353†	3807.6	3725.5	517.87 ug/L	517.87 ppb	15:16:49
2	S 181.975 Axial†	811.2	742.6	1124.5 ug/L	1124.5 ppb	15:16:49
2	Sb 206.836†	1459.6	1374.7	518.59 ug/L	518.59 ppb	15:16:49
2	Se 196.026†	833.6	819.7	531.50 ug/L	531.50 ppb	15:16:49
2	Si 251.611†	83108.9	79756.9	2539.8 ug/L	2539.8 ppb	15:16:29
2	Sn 189.927†	2602.9	2514.3	512.98 ug/L	512.98 ppb	15:16:49
2	Ti 334.940†	323799.2	313869.1	495.71 ug/L	495.71 ppb	15:16:24
2	Tl 190.801†	1490.6	1471.2	514.91 ug/L	514.91 ppb	15:16:49
2	U 409.014†	18701.8	19003.8	488.88 ug/L	488.88 ppb	15:16:29
2	V 292.402†	77240.9	76049.7	513.52 ug/L	513.52 ppb	15:16:29
2	Zn 213.857†	53223.5	50778.3	509.12 ug/L	509.12 ppb	15:16:29
2	SiO2†	83375.1	80002.5	5434.4 ug/L	5434.4 ppb	15:17:31
3	Sc Radial	5075.3	5075.3	94.1 %		15:15:25
3	Y RADIAL	5484.5	5484.5	94.48 %		15:15:25
3	Al 396.153Radial†	6109.5	6487.4	5054.6 ug/L	5054.6 ppb	15:15:25
3	Ca 317.933Radial†	2968.6	3134.9	5191.5 ug/L	5191.5 ppb	15:15:45
3	Fe 238.204 Radial†	523.6	548.4	5150.3 ug/L	5150.3 ppb	15:15:45
3	K 766.490 Radial†	30008.2	29914.3	5564.9 ug/L	5564.9 ppb	15:15:25
3	Mg 279.077 IEC†	139.2	145.5	5340.5 ug/L	5340.5 ppb	15:15:45
3	Na 589.592 Radial†	32973.9	35459.4	10930 ug/L	10930 ppb	15:15:25
3	Sr 421.552†	75107.3	79789.3	519.61 ug/L	519.61 ppb	15:15:25
3	Sc 361.383	908131.7	908131.7	104.13 %		15:16:55
3	Y 371.029	794684.7	794684.7	101.70 %		15:16:55
3	Ag 328.068†	115567.0	110684.2	490.97 ug/L	490.97 ppb	15:17:00
3	As 188.979†	1140.1	1125.5	507.87 ug/L	507.87 ppb	15:17:20
3	B 249.677†	21644.0	21094.4	484.06 ug/L	484.06 ppb	15:17:00
3	Ba 233.527†	60899.3	58487.0	502.80 ug/L	502.80 ppb	15:17:00
3	Be 313.107†	1378829.0	1329680.1	501.87 ug/L	501.87 ppb	15:16:55
3	Cd 226.502†	42923.7	41398.8	510.36 ug/L	510.36 ppb	15:17:00
3	Co 228.616†	22277.6	21452.2	513.75 ug/L	513.75 ppb	15:17:00
3	Cr 267.716†	44793.8	42935.9	505.48 ug/L	505.48 ppb	15:17:00
3	Cu 324.752†	180980.9	163956.0	479.69 ug/L	479.69 ppb	15:17:00
3	Mn 257.610†	430974.6	413306.3	501.62 ug/L	501.62 ppb	15:16:55
3	Mo 202.031†	7058.6	6757.3	499.47 ug/L	499.47 ppb	15:17:20
3	Ni 231.604†	19450.3	18572.8	510.09 ug/L	510.09 ppb	15:17:00
3	P 214.914†	4450.1	4052.9	2420.8 ug/L	2420.8 ppb	15:17:20
3	Pb 220.353†	3778.7	3674.1	510.74 ug/L	510.74 ppb	15:17:20
3	S 181.975 Axial†	811.4	737.8	1117.2 ug/L	1117.2 ppb	15:17:20
3	Sb 206.836†	1451.7	1358.0	512.29 ug/L	512.29 ppb	15:17:20
3	Se 196.026†	821.7	803.2	520.96 ug/L	520.96 ppb	15:17:20
3	Si 251.611†	82333.0	78496.3	2499.6 ug/L	2499.6 ppb	15:17:00
3	Sn 189.927†	2577.5	2473.7	504.72 ug/L	504.72 ppb	15:17:20
3	Ti 334.940†	321454.2	309608.8	488.98 ug/L	488.98 ppb	15:16:55
3	Tl 190.801†	1473.8	1445.8	506.04 ug/L	506.04 ppb	15:17:20
3	U 409.014†	18650.7	18838.8	484.64 ug/L	484.64 ppb	15:17:00
3	V 292.402†	76389.4	74752.8	504.82 ug/L	504.82 ppb	15:17:00
3	Zn 213.857†	52864.6	50103.5	502.35 ug/L	502.35 ppb	15:17:00
3	SiO2†	82954.2	79081.2	5371.8 ug/L	5371.8 ppb	15:17:36

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	906743.0	103.98 %	0.451			0.43%
Sc Radial	5066.1	93.9 %	0.23			0.25%
Y 371.029	792815.2	101.46 %	0.364			0.36%
Y RADIAL	5464.5	94.13 %	0.344			0.37%
Ag 328.068†	111540.0	494.77 ug/L	3.877	494.77 ppb	3.877	0.78%
QC value within limits for Ag 328.068 Recovery = 98.95%						
Al 396.153Radial†	6480.6	5049.1 ug/L	24.14	5049.1 ppb	24.14	0.48%
QC value within limits for Al 396.153Radial Recovery = 100.98%						
As 188.979†	1130.9	510.35 ug/L	2.359	510.35 ppb	2.359	0.46%
QC value within limits for As 188.979 Recovery = 102.07%						
B 249.677†	21249.0	487.61 ug/L	3.619	487.61 ppb	3.619	0.74%
QC value within limits for B 249.677 Recovery = 97.52%						
Ba 233.527†	59061.3	507.74 ug/L	4.718	507.74 ppb	4.718	0.93%
QC value within limits for Ba 233.527 Recovery = 101.55%						
Be 313.107†	1337731.2	504.91 ug/L	3.211	504.91 ppb	3.211	0.64%
QC value within limits for Be 313.107 Recovery = 100.98%						
Ca 317.933Radial†	3156.3	5227.1 ug/L	37.36	5227.1 ppb	37.36	0.71%

QC value within limits for Ca 317.933 Radial Recovery = 104.54%							
Cd 226.502†	41869.3	516.16 ug/L	5.371	516.16 ppb	5.371	1.04%	
QC value within limits for Cd 226.502 Recovery = 103.23%							
Co 228.616†	21650.6	518.50 ug/L	4.689	518.50 ppb	4.689	0.90%	
QC value within limits for Co 228.616 Recovery = 103.70%							
Cr 267.716†	43334.4	510.17 ug/L	4.332	510.17 ppb	4.332	0.85%	
QC value within limits for Cr 267.716 Recovery = 102.03%							
Cu 324.752†	164649.9	481.72 ug/L	2.744	481.72 ppb	2.744	0.57%	
QC value within limits for Cu 324.752 Recovery = 96.34%							
Fe 238.204 Radial†	551.5	5180.2 ug/L	26.04	5180.2 ppb	26.04	0.50%	
QC value within limits for Fe 238.204 Radial Recovery = 103.60%							
K 766.490 Radial†	29877.0	5557.9 ug/L	17.14	5557.9 ppb	17.14	0.31%	
QC value greater than the upper limit for K 766.490 Radial Recovery = 111.16%							
Mg 279.077 IEC†	147.0	5392.9 ug/L	82.42	5392.9 ppb	82.42	1.53%	
QC value within limits for Mg 279.077 IEC Recovery = 107.86%							
Mn 257.610†	416124.9	505.04 ug/L	3.118	505.04 ppb	3.118	0.62%	
QC value within limits for Mn 257.610 Recovery = 101.01%							
Mo 202.031†	6790.1	501.90 ug/L	2.530	501.90 ppb	2.530	0.50%	
QC value within limits for Mo 202.031 Recovery = 100.38%							
Na 589.592 Radial†	35382.4	10906 ug/L	20.7	10906 ppb	20.7	0.19%	
QC value within limits for Na 589.592 Radial Recovery = 109.06%							
Ni 231.604†	18742.8	514.76 ug/L	4.208	514.76 ppb	4.208	0.82%	
QC value within limits for Ni 231.604 Recovery = 102.95%							
P 214.914†	4072.9	2432.8 ug/L	13.32	2432.8 ppb	13.32	0.55%	
QC value within limits for P 214.914 Recovery = 97.31%							
Pb 220.353†	3696.1	513.80 ug/L	3.674	513.80 ppb	3.674	0.72%	
QC value within limits for Pb 220.353 Recovery = 102.76%							
S 181.975 Axial†	742.6	1124.5 ug/L	7.37	1124.5 ppb	7.37	0.65%	
QC value greater than the upper limit for S 181.975 Axial Recovery = 112.45%							
Sb 206.836†	1366.1	515.34 ug/L	3.153	515.34 ppb	3.153	0.61%	
QC value within limits for Sb 206.836 Recovery = 103.07%							
Se 196.026†	805.0	522.21 ug/L	8.728	522.21 ppb	8.728	1.67%	
QC value within limits for Se 196.026 Recovery = 104.44%							
Si 251.611†	79153.0	2520.5 ug/L	20.14	2520.5 ppb	20.14	0.80%	
QC value within limits for Si 251.611 Recovery = 100.82%							
Sn 189.927†	2495.6	509.18 ug/L	4.169	509.18 ppb	4.169	0.82%	
QC value within limits for Sn 189.927 Recovery = 101.84%							
Sr 421.552†	79676.1	518.87 ug/L	1.438	518.87 ppb	1.438	0.28%	
QC value within limits for Sr 421.552 Recovery = 103.77%							
Ti 334.940†	312162.9	493.01 ug/L	3.558	493.01 ppb	3.558	0.72%	
QC value within limits for Ti 334.940 Recovery = 98.60%							
Tl 190.801†	1455.0	509.27 ug/L	4.897	509.27 ppb	4.897	0.96%	
QC value within limits for Tl 190.801 Recovery = 101.85%							
U 409.014†	18897.5	486.14 ug/L	2.370	486.14 ppb	2.370	0.49%	
QC value within limits for U 409.014 Recovery = 97.23%							
V 292.402†	75440.7	509.43 ug/L	4.376	509.43 ppb	4.376	0.86%	
QC value within limits for V 292.402 Recovery = 101.89%							
Zn 213.857†	50439.3	505.72 ug/L	3.381	505.72 ppb	3.381	0.67%	
QC value within limits for Zn 213.857 Recovery = 101.14%							
SiO2†	79568.7	5405.0 ug/L	31.46	5405.0 ppb	31.46	0.58%	
QC value within limits for SiO2 Recovery = 101.07%							
QC Failed. Continue with analysis.							

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/25/2010 15:19:46

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5134.4	5134.4	95.2 %		15:21:38
1	Y RADIAL	5555.1	5555.1	95.69 %		15:21:38
1	Al 396.153Radial†	0.4	-3.7	-2.8731 ug/L	-2.8731 ppb	15:21:58
1	Ca 317.933Radial†	22.6	4.4	7.2248 ug/L	7.2248 ppb	15:21:58
1	Fe 238.204 Radial†	9.9	2.3	21.929 ug/L	21.929 ppb	15:21:58
1	K 766.490 Radial†	2258.2	401.1	74.563 ug/L	74.563 ppb	15:21:38
1	Mg 279.077 IEC†	1.4	-0.9	-32.638 ug/L	-32.638 ppb	15:21:58
1	Na 589.592 Radial†	763.3	1225.1	377.61 ug/L	377.61 ppb	15:21:38
1	Sr 421.552†	9.0	-5.6	-0.0365 ug/L	-0.0365 ppb	15:21:38
1	Sc 361.383	896358.7	896358.7	102.78 %		15:22:55
1	Y 371.029	791939.0	791939.0	101.35 %		15:22:55
1	Ag 328.068†	346.2	42.2	0.2044 ug/L	0.2044 ppb	15:23:00
1	As 188.979†	-30.2	1.2	0.5644 ug/L	0.5644 ppb	15:23:20
1	B 249.677†	-156.6	157.3	3.6238 ug/L	3.6238 ppb	15:23:20
1	Ba 233.527†	50.8	54.9	0.4726 ug/L	0.4726 ppb	15:23:20
1	Be 313.107†	-5066.3	663.7	0.2503 ug/L	0.2503 ppb	15:23:00
1	Cd 226.502†	-183.1	1.1	0.0096 ug/L	0.0096 ppb	15:23:20
1	Co 228.616†	-62.5	-1.8	-0.0422 ug/L	-0.0422 ppb	15:23:20
1	Cr 267.716†	87.4	5.5	0.0698 ug/L	0.0698 ppb	15:23:20
1	Cu 324.752†	8819.0	-1259.6	-3.6779 ug/L	-3.6779 ppb	15:23:00
1	Mn 257.610†	465.1	-105.4	-0.1244 ug/L	-0.1244 ppb	15:23:20
1	Mo 202.031†	25.4	3.7	0.2750 ug/L	0.2750 ppb	15:23:20
1	Ni 231.604†	127.2	18.5	0.5082 ug/L	0.5082 ppb	15:23:20
1	P 214.914†	234.7	7.9	5.6025 ug/L	5.6025 ppb	15:23:20
1	Pb 220.353†	-51.3	-4.5	-0.6222 ug/L	-0.6222 ppb	15:23:20
1	S 181.975 Axial†	99.0	54.9	83.250 ug/L	83.250 ppb	15:23:20
1	Sb 206.836†	40.1	2.9	1.0808 ug/L	1.0808 ppb	15:23:20
1	Se 196.026†	-15.4	-0.9	-0.4903 ug/L	-0.4903 ppb	15:23:20
1	Si 251.611†	497.5	-83.9	-2.6816 ug/L	-2.6816 ppb	15:23:20
1	Sn 189.927†	1.9	0.4	0.0746 ug/L	0.0746 ppb	15:23:20
1	Ti 334.940†	-840.6	99.0	0.1649 ug/L	0.1649 ppb	15:23:00
1	Tl 190.801†	-35.8	-4.3	-1.5058 ug/L	-1.5058 ppb	15:23:20
1	U 409.014†	-1403.1	-436.6	-11.275 ug/L	-11.275 ppb	15:23:00
1	V 292.402†	-1356.5	76.5	0.4880 ug/L	0.4880 ppb	15:23:00
1	Zn 213.857†	742.3	59.8	0.6048 ug/L	0.6048 ppb	15:23:20
1	SiO2†	522.4	-71.3	-4.8647 ug/L	-4.8647 ppb	15:24:41
2	Sc Radial	5075.3	5075.3	94.1 %		15:22:03
2	Y RADIAL	5499.4	5499.4	94.73 %		15:22:03
2	Al 396.153Radial†	5.2	1.4	1.0968 ug/L	1.0968 ppb	15:22:23
2	Ca 317.933Radial†	22.3	4.3	7.1135 ug/L	7.1135 ppb	15:22:23
2	Fe 238.204 Radial†	8.8	1.3	12.421 ug/L	12.421 ppb	15:22:23
2	K 766.490 Radial†	2309.9	483.7	89.951 ug/L	89.951 ppb	15:22:03
2	Mg 279.077 IEC†	1.4	-0.9	-34.532 ug/L	-34.532 ppb	15:22:23
2	Na 589.592 Radial†	684.2	1150.4	354.58 ug/L	354.58 ppb	15:22:03
2	Sr 421.552†	48.8	36.8	0.2393 ug/L	0.2393 ppb	15:22:03
2	Sc 361.383	903128.2	903128.2	103.56 %		15:23:25
2	Y 371.029	797860.2	797860.2	102.10 %		15:23:25
2	Ag 328.068†	273.6	-30.5	-0.1230 ug/L	-0.1230 ppb	15:23:30
2	As 188.979†	-27.0	4.6	2.0544 ug/L	2.0544 ppb	15:23:50
2	B 249.677†	-180.8	135.1	3.1136 ug/L	3.1136 ppb	15:23:50
2	Ba 233.527†	58.0	61.5	0.5280 ug/L	0.5280 ppb	15:23:50
2	Be 313.107†	-5068.8	698.3	0.2634 ug/L	0.2634 ppb	15:23:30
2	Cd 226.502†	-186.7	-1.0	-0.0151 ug/L	-0.0151 ppb	15:23:50
2	Co 228.616†	-63.3	-2.0	-0.0477 ug/L	-0.0477 ppb	15:23:50
2	Cr 267.716†	79.7	-2.5	-0.0261 ug/L	-0.0261 ppb	15:23:50
2	Cu 324.752†	9012.0	-1137.6	-3.3231 ug/L	-3.3231 ppb	15:23:30
2	Mn 257.610†	454.5	-119.0	-0.1417 ug/L	-0.1417 ppb	15:23:50
2	Mo 202.031†	31.4	9.3	0.6844 ug/L	0.6844 ppb	15:23:50
2	Ni 231.604†	99.9	-8.8	-0.2426 ug/L	-0.2426 ppb	15:23:50

2	P 214.914†	224.2	-4.0	-1.8119 ug/L	-1.8119 ppb	15:23:50
2	Pb 220.353†	-42.0	4.8	0.6646 ug/L	0.6646 ppb	15:23:50
2	S 181.975 Axial†	100.6	55.7	84.420 ug/L	84.420 ppb	15:23:50
2	Sb 206.836†	32.3	-4.9	-1.7621 ug/L	-1.7621 ppb	15:23:50
2	Se 196.026†	-19.1	-4.4	-2.6953 ug/L	-2.6953 ppb	15:23:50
2	Si 251.611†	522.6	-63.3	-2.0285 ug/L	-2.0285 ppb	15:23:50
2	Sn 189.927†	-0.3	-1.8	-0.3686 ug/L	-0.3686 ppb	15:23:50
2	Ti 334.940†	-823.2	121.9	0.1998 ug/L	0.1998 ppb	15:23:30
2	Tl 190.801†	-36.3	-4.6	-1.5825 ug/L	-1.5825 ppb	15:23:50
2	U 409.014†	-1279.2	-306.7	-7.9204 ug/L	-7.9204 ppb	15:23:30
2	V 292.402†	-1414.4	30.5	0.1952 ug/L	0.1952 ppb	15:23:30
2	Zn 213.857†	747.8	59.7	0.6088 ug/L	0.6088 ppb	15:23:50
2	SiO2†	512.6	-84.6	-5.7827 ug/L	-5.7827 ppb	15:25:01
3	Sc Radial	5032.7	5032.7	93.3 %		15:22:28
3	Y RADIAL	5426.3	5426.3	93.47 %		15:22:28
3	Al 396.153Radial†	14.1	11.0	8.6148 ug/L	8.6148 ppb	15:22:49
3	Ca 317.933Radial†	28.7	11.4	18.842 ug/L	18.842 ppb	15:22:49
3	Fe 238.204 Radial†	6.6	-1.0	-9.1231 ug/L	-9.1231 ppb	15:22:49
3	K 766.490 Radial†	2297.5	491.3	91.355 ug/L	91.355 ppb	15:22:28
3	Mg 279.077 IEC†	2.4	0.1	4.5127 ug/L	4.5127 ppb	15:22:49
3	Na 589.592 Radial†	687.4	1160.0	357.55 ug/L	357.55 ppb	15:22:28
3	Sr 421.552†	39.2	27.0	0.1754 ug/L	0.1754 ppb	15:22:28
3	Sc 361.383	900917.0	900917.0	103.31 %		15:23:56
3	Y 371.029	794662.5	794662.5	101.69 %		15:23:56
3	Ag 328.068†	385.8	78.9	0.3567 ug/L	0.3567 ppb	15:24:01
3	As 188.979†	-22.1	9.3	4.1522 ug/L	4.1522 ppb	15:24:21
3	B 249.677†	-216.2	100.4	2.3166 ug/L	2.3166 ppb	15:24:21
3	Ba 233.527†	46.1	50.1	0.4314 ug/L	0.4314 ppb	15:24:21
3	Be 313.107†	-5016.8	736.6	0.2776 ug/L	0.2776 ppb	15:24:01
3	Cd 226.502†	-189.2	-3.9	-0.0488 ug/L	-0.0488 ppb	15:24:21
3	Co 228.616†	-55.3	5.5	0.1310 ug/L	0.1310 ppb	15:24:21
3	Cr 267.716†	86.0	3.8	0.0495 ug/L	0.0495 ppb	15:24:21
3	Cu 324.752†	8965.8	-1160.9	-3.3911 ug/L	-3.3911 ppb	15:24:01
3	Mn 257.610†	469.9	-103.0	-0.1261 ug/L	-0.1261 ppb	15:24:21
3	Mo 202.031†	17.3	-4.3	-0.3204 ug/L	-0.3204 ppb	15:24:21
3	Ni 231.604†	97.3	-11.1	-0.3057 ug/L	-0.3057 ppb	15:24:21
3	P 214.914†	214.8	-12.6	-7.1312 ug/L	-7.1312 ppb	15:24:21
3	Pb 220.353†	-54.1	-7.0	-0.9613 ug/L	-0.9613 ppb	15:24:21
3	S 181.975 Axial†	101.2	56.6	85.734 ug/L	85.734 ppb	15:24:21
3	Sb 206.836†	36.1	-1.1	-0.4159 ug/L	-0.4159 ppb	15:24:21
3	Se 196.026†	-18.3	-3.7	-2.3137 ug/L	-2.3137 ppb	15:24:21
3	Si 251.611†	509.0	-75.3	-2.3987 ug/L	-2.3987 ppb	15:24:21
3	Sn 189.927†	-1.0	-2.5	-0.5012 ug/L	-0.5012 ppb	15:24:21
3	Ti 334.940†	-879.7	65.2	0.1098 ug/L	0.1098 ppb	15:24:01
3	Tl 190.801†	-40.8	-9.0	-3.1405 ug/L	-3.1405 ppb	15:24:21
3	U 409.014†	-1379.9	-407.2	-10.511 ug/L	-10.511 ppb	15:24:01
3	V 292.402†	-1299.7	138.2	0.8976 ug/L	0.8976 ppb	15:24:01
3	Zn 213.857†	733.4	47.6	0.4887 ug/L	0.4887 ppb	15:24:21
3	SiO2†	519.4	-76.8	-5.2221 ug/L	-5.2221 ppb	15:25:21

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	900134.6	103.22 %	0.396			0.38%
Sc Radial	5080.8	94.2 %	0.95			1.01%
Y 371.029	794820.6	101.71 %	0.379			0.37%
Y RADIAL	5493.6	94.63 %	1.113			1.18%
Ag 328.068†	30.2	0.1460 ug/L	0.24513	0.1460 ppb	0.24513	167.88%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2.9	2.2795 ug/L	5.83456	2.2795 ppb	5.83456	255.95%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	5.0	2.2570 ug/L	1.80247	2.2570 ppb	1.80247	79.86%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	131.0	3.0180 ug/L	0.65881	3.0180 ppb	0.65881	21.83%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	55.5	0.4773 ug/L	0.04850	0.4773 ppb	0.04850	10.16%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	699.5	0.2638 ug/L	0.01367	0.2638 ppb	0.01367	5.18%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	6.7	11.060 ug/L	6.7395	11.060 ppb	6.7395	60.94%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	-1.2	-0.0181 ug/L	0.02934	-0.0181 ppb	0.02934	161.98%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.6	0.0137 ug/L	0.10159	0.0137 ppb	0.10159	741.63%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	2.2	0.0311 ug/L	0.05055	0.0311 ppb	0.05055	162.71%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-1186.0	-3.4640 ug/L	0.18831	-3.4640 ppb	0.18831	5.44%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	0.9	8.4091 ug/L	15.91021	8.4091 ppb	15.91021	189.20%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	458.7	85.290 ug/L	9.3163	85.290 ppb	9.3163	10.92%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.6	-20.885 ug/L	22.0158	-20.885 ppb	22.0158	105.41%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-109.2	-0.1307 ug/L	0.00956	-0.1307 ppb	0.00956	7.31%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	2.9	0.2130 ug/L	0.50525	0.2130 ppb	0.50525	237.17%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	1178.5	363.25 ug/L	12.524	363.25 ppb	12.524	3.45%
QC value greater than the upper limit for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-0.5	-0.0134 ug/L	0.45281	-0.0134 ppb	0.45281	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-2.9	-1.1135 ug/L	6.39550	-1.1135 ppb	6.39550	574.34%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-2.2	-0.3063 ug/L	0.85777	-0.3063 ppb	0.85777	280.06%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	55.7	84.468 ug/L	1.2427	84.468 ppb	1.2427	1.47%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-1.0	-0.3657 ug/L	1.42212	-0.3657 ppb	1.42212	388.85%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-3.0	-1.8331 ug/L	1.17845	-1.8331 ppb	1.17845	64.29%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	-74.1	-2.3696 ug/L	0.32755	-2.3696 ppb	0.32755	13.82%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-1.3	-0.2651 ug/L	0.30153	-0.2651 ppb	0.30153	113.76%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	19.4	0.1261 ug/L	0.14436	0.1261 ppb	0.14436	114.48%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	95.4	0.1582 ug/L	0.04536	0.1582 ppb	0.04536	28.68%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-6.0	-2.0763 ug/L	0.92248	-2.0763 ppb	0.92248	44.43%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-383.5	-9.9021 ug/L	1.75819	-9.9021 ppb	1.75819	17.76%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	81.7	0.5269 ug/L	0.35281	0.5269 ppb	0.35281	66.96%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	55.7	0.5674 ug/L	0.06820	0.5674 ppb	0.06820	12.02%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	-77.6	-5.2898 ug/L	0.46275	-5.2898 ppb	0.46275	8.75%
QC value within limits for SiO2 Recovery = Not calculated						
QC Failed. Continue with analysis.						

Sequence No.: 15

Sample ID: 1202017559|942466|1

Analyst: HSC

Initial Sample Wt:

Dilution:

User canceled analysis.

Autosampler Location: 28

Date Collected: 1/25/2010 15:27:32

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Analysis Begun

Start Time: 1/25/2010 15:30:31

Plasma On Time: 1/25/2010 06:19:29

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\012510.sif

Batch ID:

Results Data Set: 012510A

Results Library: C:\pe\Optima3\Results\Results.mdb

Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/25/2010 15:30:31

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4868.2	4868.2	90.3 %		15:32:23
1	Y RADIAL	5264.3	5264.3	90.68 %		15:32:23
1	Al 396.153Radial†	5904.7	6536.8	5093.7 ug/L	5093.7 ppb	15:32:23
1	Ca 317.933Radial†	2890.8	3182.8	5270.9 ug/L	5270.9 ppb	15:32:43
1	Fe 238.204 Radial†	509.7	556.6	5226.8 ug/L	5226.8 ppb	15:32:43
1	K 766.490 Radial†	28952.0	30100.7	5599.5 ug/L	5599.5 ppb	15:32:23
1	Mg 279.077 IEC†	134.1	146.2	5363.3 ug/L	5363.3 ppb	15:32:43
1	Na 589.592 Radial†	31775.2	35622.1	10980 ug/L	10980 ppb	15:32:23
1	Sr 421.552†	72523.0	80321.7	523.07 ug/L	523.07 ppb	15:32:23
1	Sc 361.383	911732.5	911732.5	104.55 %		15:33:40
1	Y 371.029	798233.6	798233.6	102.15 %		15:33:40
1	Ag 328.068†	114713.9	109429.9	485.44 ug/L	485.44 ppb	15:33:45
1	As 188.979†	1118.7	1100.7	496.67 ug/L	496.67 ppb	15:34:06
1	B 249.677†	21399.5	20778.4	476.80 ug/L	476.80 ppb	15:33:45
1	Ba 233.527†	59996.5	57392.5	493.40 ug/L	493.40 ppb	15:33:45
1	Be 313.107†	1343970.9	1291108.8	487.30 ug/L	487.30 ppb	15:33:40
1	Cd 226.502†	42229.9	40572.4	500.15 ug/L	500.15 ppb	15:33:45
1	Co 228.616†	21916.1	21021.9	503.46 ug/L	503.46 ppb	15:33:45
1	Cr 267.716†	44078.9	42082.2	495.43 ug/L	495.43 ppb	15:33:45
1	Cu 324.752†	178185.5	160595.8	469.87 ug/L	469.87 ppb	15:33:45
1	Mn 257.610†	419254.2	400461.2	486.05 ug/L	486.05 ppb	15:33:40
1	Mo 202.031†	6929.3	6606.8	488.37 ug/L	488.37 ppb	15:34:06
1	Ni 231.604†	19080.6	18145.5	498.36 ug/L	498.36 ppb	15:33:45
1	P 214.914†	4357.2	3947.2	2357.0 ug/L	2357.0 ppb	15:34:06
1	Pb 220.353†	3676.4	3561.9	495.18 ug/L	495.18 ppb	15:34:06
1	S 181.975 Axial†	789.0	713.3	1080.1 ug/L	1080.1 ppb	15:34:06
1	Sb 206.836†	1402.2	1305.2	492.72 ug/L	492.72 ppb	15:34:06
1	Se 196.026†	792.5	772.1	501.75 ug/L	501.75 ppb	15:34:06
1	Si 251.611†	80834.9	76751.2	2444.0 ug/L	2444.0 ppb	15:33:45
1	Sn 189.927†	2538.1	2426.2	495.06 ug/L	495.06 ppb	15:34:06
1	Ti 334.940†	310545.8	297955.7	470.59 ug/L	470.59 ppb	15:33:45
1	Tl 190.801†	1438.7	1406.6	492.27 ug/L	492.27 ppb	15:34:06
1	U 409.014†	18173.0	18311.1	471.03 ug/L	471.03 ppb	15:33:45
1	V 292.402†	75235.0	73359.0	495.36 ug/L	495.36 ppb	15:33:45
1	Zn 213.857†	51848.2	48930.7	490.57 ug/L	490.57 ppb	15:33:45
1	SiO2†	79131.9	75110.6	5101.7 ug/L	5101.7 ppb	15:35:13
2	Sc Radial	5018.8	5018.8	93.1 %		15:32:48
2	Y RADIAL	5438.0	5438.0	93.67 %		15:32:48
2	Al 396.153Radial†	5944.2	6383.0	4973.4 ug/L	4973.4 ppb	15:32:48

2	Ca 317.933Radial†	2885.2	3080.7	5101.9 ug/L	5101.9 ppb	15:33:08
2	Fe 238.204 Radial†	510.9	540.9	5079.9 ug/L	5079.9 ppb	15:33:08
2	K 766.490 Radial†	29028.9	29220.8	5435.8 ug/L	5435.8 ppb	15:32:48
2	Mg 279.077 IEC†	137.4	145.3	5330.9 ug/L	5330.9 ppb	15:33:08
2	Na 589.592 Radial†	32041.2	34851.5	10742 ug/L	10742 ppb	15:32:48
2	Sr 421.552†	72702.3	78103.4	508.63 ug/L	508.63 ppb	15:32:48
2	Sc 361.383	912805.0	912805.0	104.67 %		15:34:11
2	Y 371.029	798357.3	798357.3	102.17 %		15:34:11
2	Ag 328.068†	113239.6	107892.4	478.60 ug/L	478.60 ppb	15:34:16
2	As 188.979†	1118.9	1099.6	496.08 ug/L	496.08 ppb	15:34:37
2	B 249.677†	21080.8	20449.9	469.26 ug/L	469.26 ppb	15:34:16
2	Ba 233.527†	59046.1	56417.0	485.01 ug/L	485.01 ppb	15:34:16
2	Be 313.107†	1344218.8	1289835.2	486.80 ug/L	486.80 ppb	15:34:11
2	Cd 226.502†	41780.5	40095.6	494.28 ug/L	494.28 ppb	15:34:16
2	Co 228.616†	21669.7	20761.9	497.25 ug/L	497.25 ppb	15:34:16
2	Cr 267.716†	43532.0	41510.1	488.69 ug/L	488.69 ppb	15:34:16
2	Cu 324.752†	174935.7	157290.7	460.19 ug/L	460.19 ppb	15:34:16
2	Mn 257.610†	420002.5	400704.9	486.33 ug/L	486.33 ppb	15:34:11
2	Mo 202.031†	6914.0	6584.5	486.71 ug/L	486.71 ppb	15:34:37
2	Ni 231.604†	18870.5	17923.3	492.25 ug/L	492.25 ppb	15:34:16
2	P 214.914†	4355.7	3940.9	2355.1 ug/L	2355.1 ppb	15:34:37
2	Pb 220.353†	3665.0	3546.9	493.09 ug/L	493.09 ppb	15:34:37
2	S 181.975 Axial†	783.0	706.7	1070.0 ug/L	1070.0 ppb	15:34:37
2	Sb 206.836†	1418.8	1319.5	497.81 ug/L	497.81 ppb	15:34:37
2	Se 196.026†	793.3	772.0	501.18 ug/L	501.18 ppb	15:34:37
2	Si 251.611†	79508.4	75393.0	2400.7 ug/L	2400.7 ppb	15:34:16
2	Sn 189.927†	2517.8	2403.9	490.50 ug/L	490.50 ppb	15:34:37
2	Ti 334.940†	305783.6	293056.9	462.83 ug/L	462.83 ppb	15:34:16
2	Tl 190.801†	1430.5	1397.2	488.97 ug/L	488.97 ppb	15:34:37
2	U 409.014†	17995.8	18121.4	466.17 ug/L	466.17 ppb	15:34:16
2	V 292.402†	74268.1	72350.7	488.64 ug/L	488.64 ppb	15:34:16
2	Zn 213.857†	51265.9	48316.2	484.42 ug/L	484.42 ppb	15:34:16
2	SiO2†	79583.1	75452.7	5125.1 ug/L	5125.1 ppb	15:35:18
3	Sc Radial	5078.5	5078.5	94.2 %		15:33:13
3	Y RADIAL	5466.3	5466.3	94.16 %		15:33:13
3	Al 396.153Radial†	5885.8	6245.8	4866.1 ug/L	4866.1 ppb	15:33:13
3	Ca 317.933Radial†	2902.8	3063.1	5072.6 ug/L	5072.6 ppb	15:33:33
3	Fe 238.204 Radial†	514.8	538.6	5058.6 ug/L	5058.6 ppb	15:33:33
3	K 766.490 Radial†	28915.7	28733.9	5345.2 ug/L	5345.2 ppb	15:33:13
3	Mg 279.077 IEC†	137.6	143.7	5271.8 ug/L	5271.8 ppb	15:33:33
3	Na 589.592 Radial†	31860.1	34254.5	10558 ug/L	10558 ppb	15:33:13
3	Sr 421.552†	72498.4	76968.5	501.24 ug/L	501.24 ppb	15:33:13
3	Sc 361.383	913323.7	913323.7	104.73 %		15:34:42
3	Y 371.029	798202.0	798202.0	102.15 %		15:34:42
3	Ag 328.068†	114306.2	108849.5	482.82 ug/L	482.82 ppb	15:34:47
3	As 188.979†	1100.3	1081.3	487.93 ug/L	487.93 ppb	15:35:08
3	B 249.677†	21243.2	20593.5	472.56 ug/L	472.56 ppb	15:34:47
3	Ba 233.527†	59807.4	57111.9	490.98 ug/L	490.98 ppb	15:34:47
3	Be 313.107†	1346388.0	1291177.1	487.32 ug/L	487.32 ppb	15:34:42
3	Cd 226.502†	42181.0	40455.4	498.73 ug/L	498.73 ppb	15:34:47
3	Co 228.616†	21906.5	20976.2	502.37 ug/L	502.37 ppb	15:34:47
3	Cr 267.716†	43853.5	41793.6	492.03 ug/L	492.03 ppb	15:34:47
3	Cu 324.752†	177085.6	159248.6	465.92 ug/L	465.92 ppb	15:34:47
3	Mn 257.610†	421332.5	401746.9	487.59 ug/L	487.59 ppb	15:34:42
3	Mo 202.031†	6886.9	6554.8	484.51 ug/L	484.51 ppb	15:35:08
3	Ni 231.604†	18962.7	18001.0	494.39 ug/L	494.39 ppb	15:34:47
3	P 214.914†	4316.0	3900.6	2328.9 ug/L	2328.9 ppb	15:35:08
3	Pb 220.353†	3652.2	3532.7	491.09 ug/L	491.09 ppb	15:35:08
3	S 181.975 Axial†	778.9	702.4	1063.5 ug/L	1063.5 ppb	15:35:08
3	Sb 206.836†	1413.3	1313.4	495.50 ug/L	495.50 ppb	15:35:08
3	Se 196.026†	789.9	768.3	498.84 ug/L	498.84 ppb	15:35:08
3	Si 251.611†	80447.9	76246.9	2428.0 ug/L	2428.0 ppb	15:34:47
3	Sn 189.927†	2496.6	2382.4	486.10 ug/L	486.10 ppb	15:35:08
3	Ti 334.940†	309513.1	296452.1	468.19 ug/L	468.19 ppb	15:34:47
3	Tl 190.801†	1428.0	1394.0	487.86 ug/L	487.86 ppb	15:35:08
3	U 409.014†	18284.2	18387.0	473.02 ug/L	473.02 ppb	15:34:47
3	V 292.402†	74892.8	72906.9	492.32 ug/L	492.32 ppb	15:34:47
3	Zn 213.857†	51637.2	48643.0	487.71 ug/L	487.71 ppb	15:34:47
3	SiO2†	79825.6	75641.0	5138.0 ug/L	5138.0 ppb	15:35:23



## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	912620.4	104.65 %	0.093			0.09%
Sc Radial	4988.5	92.5 %	2.01			2.17%
Y 371.029	798264.3	102.16 %	0.010			0.01%
Y RADIAL	5389.5	92.84 %	1.883			2.03%
Ag 328.068†	108723.9	482.28 ug/L	3.453	482.28 ppb	3.453	0.72%
QC value within limits for Ag 328.068 Recovery = 96.46%						
Al 396.153Radial†	6388.5	4977.8 ug/L	113.87	4977.8 ppb	113.87	2.29%
QC value within limits for Al 396.153Radial Recovery = 99.56%						
As 188.979†	1093.9	493.56 ug/L	4.884	493.56 ppb	4.884	0.99%
QC value within limits for As 188.979 Recovery = 98.71%						
B 249.677†	20607.3	472.87 ug/L	3.777	472.87 ppb	3.777	0.80%
QC value within limits for B 249.677 Recovery = 94.57%						
Ba 233.527†	56973.8	489.80 ug/L	4.316	489.80 ppb	4.316	0.88%
QC value within limits for Ba 233.527 Recovery = 97.96%						
Be 313.107†	1290707.0	487.14 ug/L	0.293	487.14 ppb	0.293	0.06%
QC value within limits for Be 313.107 Recovery = 97.43%						
Ca 317.933Radial†	3108.9	5148.5 ug/L	107.07	5148.5 ppb	107.07	2.08%
QC value within limits for Ca 317.933Radial Recovery = 102.97%						
Cd 226.502†	40374.4	497.72 ug/L	3.061	497.72 ppb	3.061	0.61%
QC value within limits for Cd 226.502 Recovery = 99.54%						
Co 228.616†	20920.0	501.03 ug/L	3.316	501.03 ppb	3.316	0.66%
QC value within limits for Co 228.616 Recovery = 100.21%						
Cr 267.716†	41795.3	492.05 ug/L	3.369	492.05 ppb	3.369	0.68%
QC value within limits for Cr 267.716 Recovery = 98.41%						
Cu 324.752†	159045.0	465.32 ug/L	4.864	465.32 ppb	4.864	1.05%
QC value within limits for Cu 324.752 Recovery = 93.06%						
Fe 238.204 Radial†	545.3	5121.8 ug/L	91.55	5121.8 ppb	91.55	1.79%
QC value within limits for Fe 238.204 Radial Recovery = 102.44%						
K 766.490 Radial†	29351.8	5460.2 ug/L	128.91	5460.2 ppb	128.91	2.36%
QC value within limits for K 766.490 Radial Recovery = 109.20%						
Mg 279.077 IEC†	145.0	5322.0 ug/L	46.37	5322.0 ppb	46.37	0.87%
QC value within limits for Mg 279.077 IEC Recovery = 106.44%						
Mn 257.610†	400971.0	486.66 ug/L	0.824	486.66 ppb	0.824	0.17%
QC value within limits for Mn 257.610 Recovery = 97.33%						
Mo 202.031†	6582.1	486.53 ug/L	1.936	486.53 ppb	1.936	0.40%
QC value within limits for Mo 202.031 Recovery = 97.31%						
Na 589.592 Radial†	34909.4	10760 ug/L	211.3	10760 ppb	211.3	1.96%
QC value within limits for Na 589.592 Radial Recovery = 107.60%						
Ni 231.604†	18023.3	495.00 ug/L	3.096	495.00 ppb	3.096	0.63%
QC value within limits for Ni 231.604 Recovery = 99.00%						
P 214.914†	3929.5	2347.0 ug/L	15.72	2347.0 ppb	15.72	0.67%
QC value within limits for P 214.914 Recovery = 93.88%						
Pb 220.353†	3547.1	493.12 ug/L	2.047	493.12 ppb	2.047	0.42%
QC value within limits for Pb 220.353 Recovery = 98.62%						
S 181.975 Axial†	707.4	1071.2 ug/L	8.33	1071.2 ppb	8.33	0.78%
QC value within limits for S 181.975 Axial Recovery = 107.12%						
Sb 206.836†	1312.7	495.34 ug/L	2.547	495.34 ppb	2.547	0.51%
QC value within limits for Sb 206.836 Recovery = 99.07%						
Se 196.026†	770.8	500.59 ug/L	1.546	500.59 ppb	1.546	0.31%
QC value within limits for Se 196.026 Recovery = 100.12%						
Si 251.611†	76130.4	2424.2 ug/L	21.91	2424.2 ppb	21.91	0.90%
QC value within limits for Si 251.611 Recovery = 96.97%						
Sn 189.927†	2404.2	490.55 ug/L	4.480	490.55 ppb	4.480	0.91%
QC value within limits for Sn 189.927 Recovery = 98.11%						
Sr 421.552†	78464.5	510.98 ug/L	11.107	510.98 ppb	11.107	2.17%
QC value within limits for Sr 421.552 Recovery = 102.20%						
Ti 334.940†	295821.6	467.20 ug/L	3.971	467.20 ppb	3.971	0.85%
QC value within limits for Ti 334.940 Recovery = 93.44%						
Tl 190.801†	1399.3	489.70 ug/L	2.294	489.70 ppb	2.294	0.47%
QC value within limits for Tl 190.801 Recovery = 97.94%						
U 409.014†	18273.2	470.07 ug/L	3.525	470.07 ppb	3.525	0.75%
QC value within limits for U 409.014 Recovery = 94.01%						
V 292.402†	72872.2	492.10 ug/L	3.366	492.10 ppb	3.366	0.68%
QC value within limits for V 292.402 Recovery = 98.42%						
Zn 213.857†	48630.0	487.57 ug/L	3.077	487.57 ppb	3.077	0.63%
QC value within limits for Zn 213.857 Recovery = 97.51%						
SiO2†	75401.4	5121.6 ug/L	18.36	5121.6 ppb	18.36	0.36%
QC value within limits for SiO2 Recovery = 95.78%						

Sequence No.: 14  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 1/25/2010 15:37:33  
 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	5105.0	5105.0	94.7 %		15:39:26
1	Y RADIAL	5478.2	5478.2	94.37 %		15:39:26
1	Al 396.153Radial†	11.9	8.5	6.6421 ug/L	6.6421 ppb	15:39:46
1	Ca 317.933Radial†	25.5	7.6	12.549 ug/L	12.549 ppb	15:39:46
1	Fe 238.204 Radial†	5.7	-2.0	-18.842 ug/L	-18.842 ppb	15:39:46
1	K 766.490 Radial†	2249.4	405.6	75.412 ug/L	75.412 ppb	15:39:26
1	Mg 279.077 IEC†	4.0	1.8	67.529 ug/L	67.529 ppb	15:39:46
1	Na 589.592 Radial†	559.9	1014.9	312.82 ug/L	312.82 ppb	15:39:26
1	Sr 421.552†	10.2	-4.3	-0.0278 ug/L	-0.0278 ppb	15:39:26
1	Sc 361.383	861486.5	861486.5	98.786 %		15:40:43
1	Y 371.029	777570.5	777570.5	99.507 %		15:40:43
1	Ag 328.068†	312.0	21.2	0.0830 ug/L	0.0830 ppb	15:40:43
1	As 188.979†	-18.0	12.4	5.5267 ug/L	5.5267 ppb	15:41:03
1	B 249.677†	-181.7	125.8	2.9040 ug/L	2.9040 ppb	15:41:03
1	Ba 233.527†	50.6	56.7	0.4844 ug/L	0.4844 ppb	15:41:03
1	Be 313.107†	-4901.1	631.4	0.2379 ug/L	0.2379 ppb	15:40:43
1	Cd 226.502†	-195.8	-18.9	-0.2308 ug/L	-0.2308 ppb	15:41:03
1	Co 228.616†	-62.5	-4.2	-0.0995 ug/L	-0.0995 ppb	15:41:03
1	Cr 267.716†	107.7	29.5	0.3443 ug/L	0.3443 ppb	15:41:03
1	Cu 324.752†	8820.5	-910.8	-2.6670 ug/L	-2.6670 ppb	15:40:43
1	Mn 257.610†	468.3	-83.9	-0.1063 ug/L	-0.1063 ppb	15:41:03
1	Mo 202.031†	28.0	7.3	0.5369 ug/L	0.5369 ppb	15:41:03
1	Ni 231.604†	104.9	1.0	0.0263 ug/L	0.0263 ppb	15:41:03
1	P 214.914†	209.3	-8.6	-4.8090 ug/L	-4.8090 ppb	15:41:03
1	Pb 220.353†	-54.2	-9.5	-1.3045 ug/L	-1.3045 ppb	15:41:03
1	S 181.975 Axial†	96.1	55.9	84.731 ug/L	84.731 ppb	15:41:03
1	Sb 206.836†	29.0	-6.7	-2.4373 ug/L	-2.4373 ppb	15:41:03
1	Se 196.026†	-15.1	-1.2	-0.8272 ug/L	-0.8272 ppb	15:41:03
1	Si 251.611†	498.5	-63.3	-2.0289 ug/L	-2.0289 ppb	15:41:03
1	Sn 189.927†	-2.1	-3.6	-0.7321 ug/L	-0.7321 ppb	15:41:03
1	Ti 334.940†	-866.5	39.6	0.0577 ug/L	0.0577 ppb	15:40:43
1	Tl 190.801†	-24.1	6.1	2.1100 ug/L	2.1100 ppb	15:41:03
1	U 409.014†	-832.8	85.5	2.2078 ug/L	2.2078 ppb	15:40:43
1	V 292.402†	-1470.2	-92.0	-0.5973 ug/L	-0.5973 ppb	15:40:43
1	Zn 213.857†	733.4	80.1	0.8152 ug/L	0.8152 ppb	15:41:03
1	SiO2†	497.0	-76.5	-5.2252 ug/L	-5.2252 ppb	15:42:14
2	Sc Radial	5060.3	5060.3	93.8 %		15:39:51
2	Y RADIAL	5464.8	5464.8	94.14 %		15:39:51
2	Al 396.153Radial†	11.8	8.5	6.6539 ug/L	6.6539 ppb	15:40:11
2	Ca 317.933Radial†	26.9	9.3	15.343 ug/L	15.343 ppb	15:40:11
2	Fe 238.204 Radial†	8.8	1.3	12.602 ug/L	12.602 ppb	15:40:11
2	K 766.490 Radial†	2348.0	531.6	98.893 ug/L	98.893 ppb	15:39:51
2	Mg 279.077 IEC†	1.9	-0.4	-14.808 ug/L	-14.808 ppb	15:40:11
2	Na 589.592 Radial†	525.1	983.0	303.00 ug/L	303.00 ppb	15:39:51
2	Sr 421.552†	7.2	-7.4	-0.0484 ug/L	-0.0484 ppb	15:39:51
2	Sc 361.383	869436.6	869436.6	99.697 %		15:41:08
2	Y 371.029	783717.8	783717.8	100.29 %		15:41:08
2	Ag 328.068†	287.9	-5.9	-0.0213 ug/L	-0.0213 ppb	15:41:08
2	As 188.979†	-31.3	-0.8	-0.3501 ug/L	-0.3501 ppb	15:41:28
2	B 249.677†	-200.5	108.6	2.5034 ug/L	2.5034 ppb	15:41:28
2	Ba 233.527†	35.2	40.8	0.3503 ug/L	0.3503 ppb	15:41:28
2	Be 313.107†	-5037.5	540.0	0.2037 ug/L	0.2037 ppb	15:41:08
2	Cd 226.502†	-186.9	-8.3	-0.1034 ug/L	-0.1034 ppb	15:41:28
2	Co 228.616†	-67.8	-9.0	-0.2158 ug/L	-0.2158 ppb	15:41:28
2	Cr 267.716†	80.1	0.8	0.0102 ug/L	0.0102 ppb	15:41:28
2	Cu 324.752†	8941.7	-870.8	-2.5470 ug/L	-2.5470 ppb	15:41:08
2	Mn 257.610†	460.1	-96.4	-0.1150 ug/L	-0.1150 ppb	15:41:28
2	Mo 202.031†	20.5	-0.4	-0.0308 ug/L	-0.0308 ppb	15:41:28
2	Ni 231.604†	93.4	-11.5	-0.3171 ug/L	-0.3171 ppb	15:41:28

2	P 214.914†	229.5	9.7	6.5061 ug/L	6.5061 ppb	15:41:28
2	Pb 220.353†	-60.1	-14.9	-2.0667 ug/L	-2.0667 ppb	15:41:28
2	S 181.975 Axial†	87.6	46.5	70.398 ug/L	70.398 ppb	15:41:28
2	Sb 206.836†	42.7	6.8	2.4617 ug/L	2.4617 ppb	15:41:28
2	Se 196.026†	-20.1	-6.0	-3.7221 ug/L	-3.7221 ppb	15:41:28
2	Si 251.611†	492.6	-73.8	-2.3563 ug/L	-2.3563 ppb	15:41:28
2	Sn 189.927†	3.3	1.8	0.3650 ug/L	0.3650 ppb	15:41:28
2	Ti 334.940†	-832.4	81.9	0.1327 ug/L	0.1327 ppb	15:41:08
2	Tl 190.801†	-32.1	-1.7	-0.6063 ug/L	-0.6063 ppb	15:41:28
2	U 409.014†	-936.8	-11.2	-0.2898 ug/L	-0.2898 ppb	15:41:08
2	V 292.402†	-1375.3	16.8	0.1087 ug/L	0.1087 ppb	15:41:08
2	Zn 213.857†	739.8	79.7	0.8106 ug/L	0.8106 ppb	15:41:28
2	SiO2†	498.4	-79.7	-5.4256 ug/L	-5.4256 ppb	15:42:34
3	Sc Radial	5122.0	5122.0	95.0 %		15:40:16
3	Y RADIAL	5507.3	5507.3	94.87 %		15:40:16
3	Al 396.153Radial†	7.0	3.3	2.5632 ug/L	2.5632 ppb	15:40:36
3	Ca 317.933Radial†	29.4	11.6	19.184 ug/L	19.184 ppb	15:40:36
3	Fe 238.204 Radial†	8.9	1.3	12.397 ug/L	12.397 ppb	15:40:36
3	K 766.490 Radial†	2278.7	428.5	79.697 ug/L	79.697 ppb	15:40:16
3	Mg 279.077 IEC†	2.4	0.2	6.1777 ug/L	6.1777 ppb	15:40:36
3	Na 589.592 Radial†	509.4	959.7	295.81 ug/L	295.81 ppb	15:40:16
3	Sr 421.552†	41.6	28.8	0.1874 ug/L	0.1874 ppb	15:40:16
3	Sc 361.383	866859.6	866859.6	99.402 %		15:41:34
3	Y 371.029	779880.1	779880.1	99.803 %		15:41:34
3	Ag 328.068†	389.2	96.9	0.4309 ug/L	0.4309 ppb	15:41:34
3	As 188.979†	-31.2	-0.7	-0.3191 ug/L	-0.3191 ppb	15:41:54
3	B 249.677†	-203.8	104.7	2.4128 ug/L	2.4128 ppb	15:41:54
3	Ba 233.527†	31.5	37.2	0.3195 ug/L	0.3195 ppb	15:41:54
3	Be 313.107†	-5040.9	521.5	0.1966 ug/L	0.1966 ppb	15:41:34
3	Cd 226.502†	-197.1	-19.0	-0.2355 ug/L	-0.2355 ppb	15:41:54
3	Co 228.616†	-73.5	-14.8	-0.3560 ug/L	-0.3560 ppb	15:41:54
3	Cr 267.716†	89.0	10.0	0.1174 ug/L	0.1174 ppb	15:41:54
3	Cu 324.752†	8886.6	-899.6	-2.6319 ug/L	-2.6319 ppb	15:41:34
3	Mn 257.610†	470.8	-84.2	-0.1012 ug/L	-0.1012 ppb	15:41:54
3	Mo 202.031†	19.0	-1.9	-0.1403 ug/L	-0.1403 ppb	15:41:54
3	Ni 231.604†	117.3	12.8	0.3513 ug/L	0.3513 ppb	15:41:54
3	P 214.914†	223.7	4.6	3.3517 ug/L	3.3517 ppb	15:41:54
3	Pb 220.353†	-41.1	4.0	0.5553 ug/L	0.5553 ppb	15:41:54
3	S 181.975 Axial†	81.0	40.1	60.750 ug/L	60.750 ppb	15:41:54
3	Sb 206.836†	27.0	-8.9	-3.2359 ug/L	-3.2359 ppb	15:41:54
3	Se 196.026†	-25.2	-11.2	-6.9884 ug/L	-6.9884 ppb	15:41:54
3	Si 251.611†	501.0	-63.9	-2.0383 ug/L	-2.0383 ppb	15:41:54
3	Sn 189.927†	1.5	-0.0	0.0022 ug/L	0.0022 ppb	15:41:54
3	Ti 334.940†	-869.5	42.0	0.0679 ug/L	0.0679 ppb	15:41:34
3	Tl 190.801†	-29.8	0.5	0.1650 ug/L	0.1650 ppb	15:41:54
3	U 409.014†	-875.7	47.6	1.2270 ug/L	1.2270 ppb	15:41:34
3	V 292.402†	-1351.0	37.1	0.2458 ug/L	0.2458 ppb	15:41:34
3	Zn 213.857†	732.2	74.3	0.7515 ug/L	0.7515 ppb	15:41:54
3	SiO2†	502.0	-74.5	-5.0721 ug/L	-5.0721 ppb	15:42:54

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	865927.5	99.295 %	0.4651			0.47%
Sc Radial	5095.8	94.5 %	0.59			0.63%
Y 371.029	780389.4	99.868 %	0.3974			0.40%
Y RADIAL	5483.4	94.46 %	0.375			0.40%
Ag 328.068†	37.4	0.1642 ug/L	0.23677	0.1642 ppb	0.23677	144.19%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	6.8	5.2864 ug/L	2.35836	5.2864 ppb	2.35836	44.61%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.6	1.6192 ug/L	3.38408	1.6192 ppb	3.38408	209.00%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	113.0	2.6067 ug/L	0.26137	2.6067 ppb	0.26137	10.03%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	44.9	0.3847 ug/L	0.08766	0.3847 ppb	0.08766	22.78%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	564.3	0.2127 ug/L	0.02212	0.2127 ppb	0.02212	10.40%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	9.5	15.692 ug/L	3.3314	15.692 ppb	3.3314	21.23%

QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	-15.4	-0.1899 ug/L	0.07498	-0.1899 ppb	0.07498	39.48%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-9.4	-0.2238 ug/L	0.12844	-0.2238 ppb	0.12844	57.39%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	13.4	0.1573 ug/L	0.17059	0.1573 ppb	0.17059	108.46%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-893.7	-2.6153 ug/L	0.06172	-2.6153 ppb	0.06172	2.36%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.2	2.0525 ug/L	18.09551	2.0525 ppb	18.09551	881.65%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	455.2	84.667 ug/L	12.5050	84.667 ppb	12.5050	14.77%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.5	19.633 ug/L	42.7858	19.633 ppb	42.7858	217.93%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-88.2	-0.1075 ug/L	0.00700	-0.1075 ppb	0.00700	6.51%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	1.6	0.1219 ug/L	0.36351	0.1219 ppb	0.36351	298.10%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	985.9	303.88 ug/L	8.535	303.88 ppb	8.535	2.81%	
QC value greater than the upper limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	0.7	0.0202 ug/L	0.33424	0.0202 ppb	0.33424	>999.9%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	1.9	1.6829 ug/L	5.83923	1.6829 ppb	5.83923	346.97%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-6.8	-0.9386 ug/L	1.34872	-0.9386 ppb	1.34872	143.69%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	47.5	71.960 ug/L	12.0665	71.960 ppb	12.0665	16.77%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-2.9	-1.0705 ug/L	3.08492	-1.0705 ppb	3.08492	288.17%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-6.2	-3.8459 ug/L	3.08248	-3.8459 ppb	3.08248	80.15%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-67.0	-2.1412 ug/L	0.18641	-2.1412 ppb	0.18641	8.71%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-0.6	-0.1217 ug/L	0.55894	-0.1217 ppb	0.55894	459.42%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	5.7	0.0371 ug/L	0.13063	0.0371 ppb	0.13063	352.34%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	54.5	0.0861 ug/L	0.04070	0.0861 ppb	0.04070	47.27%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	1.6	0.5562 ug/L	1.39975	0.5562 ppb	1.39975	251.65%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	40.6	1.0483 ug/L	1.25839	1.0483 ppb	1.25839	120.04%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-12.7	-0.0809 ug/L	0.45243	-0.0809 ppb	0.45243	559.24%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	78.0	0.7925 ug/L	0.03555	0.7925 ppb	0.03555	4.49%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-76.9	-5.2410 ug/L	0.17731	-5.2410 ppb	0.17731	3.38%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 24

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/25/2010 16:48:10

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	4943.5	4943.5	91.7 %		16:50:02
1	Y RADIAL	5330.3	5330.3	91.82 %		16:50:02
1	Al 396.153Radial†	5867.3	6396.4	4983.4 ug/L	4983.4 ppb	16:50:02
1	Ca 317.933Radial†	2939.1	3186.8	5277.6 ug/L	5277.6 ppb	16:50:22
1	Fe 238.204 Radial†	535.7	576.3	5412.2 ug/L	5412.2 ppb	16:50:22
1	K 766.490 Radial†	28907.2	29563.3	5499.1 ug/L	5499.1 ppb	16:50:02
1	Mg 279.077 IEC†	138.0	148.2	5436.5 ug/L	5436.5 ppb	16:50:22
1	Na 589.592 Radial†	35004.4	38608.5	11901 ug/L	11901 ppb	16:50:02
1	Sr 421.552†	75600.0	82454.5	536.96 ug/L	536.96 ppb	16:50:02
1	Sc 361.383	896272.9	896272.9	102.77 %		16:51:20
1	Y 371.029	783905.0	783905.0	100.32 %		16:51:20
1	Ag 328.068†	114641.2	111251.8	493.55 ug/L	493.55 ppb	16:51:25
1	As 188.979†	1110.8	1111.5	501.58 ug/L	501.58 ppb	16:51:45
1	B 249.677†	21087.8	20828.2	477.89 ug/L	477.89 ppb	16:51:25
1	Ba 233.527†	59940.4	58327.8	501.44 ug/L	501.44 ppb	16:51:25
1	Be 313.107†	1364569.8	1333325.3	503.22 ug/L	503.22 ppb	16:51:20
1	Cd 226.502†	42175.6	41216.3	508.08 ug/L	508.08 ppb	16:51:25
1	Co 228.616†	21852.2	21321.4	510.63 ug/L	510.63 ppb	16:51:25
1	Cr 267.716†	44078.1	42808.7	503.98 ug/L	503.98 ppb	16:51:25
1	Cu 324.752†	177819.2	163179.2	477.43 ug/L	477.43 ppb	16:51:25
1	Mn 257.610†	425892.1	413836.9	502.29 ug/L	502.29 ppb	16:51:20
1	Mo 202.031†	6913.5	6705.8	495.69 ug/L	495.69 ppb	16:51:45
1	Ni 231.604†	19094.8	18474.1	507.38 ug/L	507.38 ppb	16:51:25
1	P 214.914†	4342.5	4004.8	2391.2 ug/L	2391.2 ppb	16:51:45
1	Pb 220.353†	3671.3	3617.5	502.86 ug/L	502.86 ppb	16:51:45
1	S 181.975 Axial†	750.2	688.5	1042.6 ug/L	1042.6 ppb	16:51:45
1	Sb 206.836†	1414.9	1340.7	505.94 ug/L	505.94 ppb	16:51:45
1	Se 196.026†	786.4	779.3	506.87 ug/L	506.87 ppb	16:51:45
1	Si 251.611†	80838.0	78087.8	2486.6 ug/L	2486.6 ppb	16:51:25
1	Sn 189.927†	2542.2	2472.1	504.41 ug/L	504.41 ppb	16:51:45
1	Ti 334.940†	310394.7	302932.2	478.43 ug/L	478.43 ppb	16:51:25
1	Tl 190.801†	1433.2	1425.0	498.74 ug/L	498.74 ppb	16:51:45
1	U 409.014†	18406.1	18837.7	484.59 ug/L	484.59 ppb	16:51:25
1	V 292.402†	75283.3	74647.3	504.03 ug/L	504.03 ppb	16:51:25
1	Zn 213.857†	52052.7	49985.2	501.15 ug/L	501.15 ppb	16:51:25
1	SiO2†	80290.2	77543.2	5267.2 ug/L	5267.2 ppb	16:52:52
2	Sc Radial	5047.6	5047.6	93.6 %		16:50:27
2	Y RADIAL	5467.1	5467.1	94.18 %		16:50:27
2	Al 396.153Radial†	5998.9	6405.0	4989.8 ug/L	4989.8 ppb	16:50:27
2	Ca 317.933Radial†	2918.5	3098.7	5131.7 ug/L	5131.7 ppb	16:50:47
2	Fe 238.204 Radial†	528.6	556.7	5228.2 ug/L	5228.2 ppb	16:50:47
2	K 766.490 Radial†	29383.3	29421.7	5472.8 ug/L	5472.8 ppb	16:50:27
2	Mg 279.077 IEC†	139.7	146.9	5389.5 ug/L	5389.5 ppb	16:50:47
2	Na 589.592 Radial†	35440.3	38286.9	11801 ug/L	11801 ppb	16:50:27
2	Sr 421.552†	77102.5	82359.3	536.34 ug/L	536.34 ppb	16:50:27
2	Sc 361.383	884465.4	884465.4	101.42 %		16:51:50
2	Y 371.029	773811.3	773811.3	99.026 %		16:51:50
2	Ag 328.068†	113946.6	112056.1	497.05 ug/L	497.05 ppb	16:51:56
2	As 188.979†	1118.8	1133.8	511.54 ug/L	511.54 ppb	16:52:16
2	B 249.677†	20971.0	20987.0	481.58 ug/L	481.58 ppb	16:51:56
2	Ba 233.527†	59433.9	58607.0	503.84 ug/L	503.84 ppb	16:51:56
2	Be 313.107†	1344700.9	1331459.5	502.52 ug/L	502.52 ppb	16:51:50
2	Cd 226.502†	41990.6	41581.7	512.61 ug/L	512.61 ppb	16:51:56
2	Co 228.616†	21709.8	21464.8	514.08 ug/L	514.08 ppb	16:51:56
2	Cr 267.716†	43912.3	43217.7	508.79 ug/L	508.79 ppb	16:51:56
2	Cu 324.752†	176376.6	164066.5	480.01 ug/L	480.01 ppb	16:51:56
2	Mn 257.610†	419369.1	412937.4	501.18 ug/L	501.18 ppb	16:51:50
2	Mo 202.031†	6941.3	6823.0	504.33 ug/L	504.33 ppb	16:52:16
2	Ni 231.604†	18940.4	18569.8	510.01 ug/L	510.01 ppb	16:51:56

2	P 214.914†	4340.7	4059.4	2424.7 ug/L	2424.7 ppb	16:52:16
2	Pb 220.353†	3659.0	3653.1	507.83 ug/L	507.83 ppb	16:52:16
2	S 181.975 Axial†	753.4	701.4	1062.1 ug/L	1062.1 ppb	16:52:16
2	Sb 206.836†	1428.7	1372.6	517.82 ug/L	517.82 ppb	16:52:16
2	Se 196.026†	794.5	797.5	517.68 ug/L	517.68 ppb	16:52:16
2	Si 251.611†	80173.9	78483.0	2499.1 ug/L	2499.1 ppb	16:51:56
2	Sn 189.927†	2535.3	2498.3	509.73 ug/L	509.73 ppb	16:52:16
2	Ti 334.940†	308378.1	304975.7	481.64 ug/L	481.64 ppb	16:51:56
2	Tl 190.801†	1426.0	1436.5	502.74 ug/L	502.74 ppb	16:52:16
2	U 409.014†	18218.5	18891.8	485.99 ug/L	485.99 ppb	16:51:56
2	V 292.402†	74753.0	75102.2	507.21 ug/L	507.21 ppb	16:51:56
2	Zn 213.857†	51700.3	50313.8	504.47 ug/L	504.47 ppb	16:51:56
2	SiO2†	80132.8	78430.9	5327.4 ug/L	5327.4 ppb	16:52:57
3	Sc Radial	5005.5	5005.5	92.8 %		16:50:52
3	Y RADIAL	5351.3	5351.3	92.18 %		16:50:52
3	Al 396.153Radial†	5885.9	6337.1	4936.6 ug/L	4936.6 ppb	16:50:52
3	Ca 317.933Radial†	2932.6	3140.1	5200.2 ug/L	5200.2 ppb	16:51:12
3	Fe 238.204 Radial†	534.6	567.9	5333.2 ug/L	5333.2 ppb	16:51:12
3	K 766.490 Radial†	29042.6	29318.7	5453.6 ug/L	5453.6 ppb	16:50:52
3	Mg 279.077 IEC†	140.6	149.1	5470.9 ug/L	5470.9 ppb	16:51:12
3	Na 589.592 Radial†	34704.7	37812.8	11655 ug/L	11655 ppb	16:50:52
3	Sr 421.552†	75666.3	81504.6	530.78 ug/L	530.78 ppb	16:50:52
3	Sc 361.383	883441.3	883441.3	101.30 %		16:52:21
3	Y 371.029	774146.9	774146.9	99.069 %		16:52:21
3	Ag 328.068†	114112.0	112349.6	498.38 ug/L	498.38 ppb	16:52:27
3	As 188.979†	1114.4	1130.7	510.18 ug/L	510.18 ppb	16:52:47
3	B 249.677†	21077.9	21116.5	484.54 ug/L	484.54 ppb	16:52:27
3	Ba 233.527†	59490.9	58731.2	504.91 ug/L	504.91 ppb	16:52:27
3	Be 313.107†	1343164.9	1331480.4	502.53 ug/L	502.53 ppb	16:52:21
3	Cd 226.502†	41902.2	41542.4	512.11 ug/L	512.11 ppb	16:52:27
3	Co 228.616†	21758.2	21537.4	515.82 ug/L	515.82 ppb	16:52:27
3	Cr 267.716†	43858.7	43215.0	508.77 ug/L	508.77 ppb	16:52:27
3	Cu 324.752†	176970.7	164854.6	482.32 ug/L	482.32 ppb	16:52:27
3	Mn 257.610†	418431.7	412491.4	500.65 ug/L	500.65 ppb	16:52:21
3	Mo 202.031†	6949.2	6838.7	505.50 ug/L	505.50 ppb	16:52:47
3	Ni 231.604†	18966.3	18617.1	511.31 ug/L	511.31 ppb	16:52:27
3	P 214.914†	4369.6	4092.9	2445.0 ug/L	2445.0 ppb	16:52:47
3	Pb 220.353†	3672.8	3670.9	510.28 ug/L	510.28 ppb	16:52:47
3	S 181.975 Axial†	753.1	702.0	1063.0 ug/L	1063.0 ppb	16:52:47
3	Sb 206.836†	1431.2	1376.7	519.39 ug/L	519.39 ppb	16:52:47
3	Se 196.026†	795.8	799.6	519.37 ug/L	519.37 ppb	16:52:47
3	Si 251.611†	80264.0	78663.6	2504.9 ug/L	2504.9 ppb	16:52:27
3	Sn 189.927†	2550.1	2515.8	513.30 ug/L	513.30 ppb	16:52:47
3	Ti 334.940†	308922.2	305865.3	483.05 ug/L	483.05 ppb	16:52:27
3	Tl 190.801†	1437.0	1449.0	507.11 ug/L	507.11 ppb	16:52:47
3	U 409.014†	18256.6	18950.2	487.49 ug/L	487.49 ppb	16:52:27
3	V 292.402†	74909.8	75342.5	508.82 ug/L	508.82 ppb	16:52:27
3	Zn 213.857†	51719.6	50392.0	505.24 ug/L	505.24 ppb	16:52:27
3	SiO2†	79844.3	78237.7	5314.2 ug/L	5314.2 ppb	16:53:02

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	888059.9	101.83 %	0.818			0.80%
Sc Radial	4998.9	92.7 %	0.97			1.05%
Y 371.029	777287.7	99.471 %	0.7337			0.74%
Y RADIAL	5382.9	92.73 %	1.269			1.37%
Ag 328.068†	111885.8	496.33 ug/L	2.494	496.33 ppb	2.494	0.50%
QC value within limits for Ag 328.068 Recovery = 99.27%						
Al 396.153Radial†	6379.5	4969.9 ug/L	29.07	4969.9 ppb	29.07	0.58%
QC value within limits for Al 396.153Radial Recovery = 99.40%						
As 188.979†	1125.3	507.77 ug/L	5.406	507.77 ppb	5.406	1.06%
QC value within limits for As 188.979 Recovery = 101.55%						
B 249.677†	20977.2	481.34 ug/L	3.329	481.34 ppb	3.329	0.69%
QC value within limits for B 249.677 Recovery = 96.27%						
Ba 233.527†	58555.3	503.40 ug/L	1.775	503.40 ppb	1.775	0.35%
QC value within limits for Ba 233.527 Recovery = 100.68%						
Be 313.107†	1332088.4	502.76 ug/L	0.398	502.76 ppb	0.398	0.08%
QC value within limits for Be 313.107 Recovery = 100.55%						
Ca 317.933Radial†	3141.9	5203.2 ug/L	73.01	5203.2 ppb	73.01	1.40%

QC value within limits for Ca 317.933Radial Recovery = 104.06%							
Cd 226.502†	41446.8	510.94 ug/L	2.483	510.94 ppb	2.483	0.49%	
QC value within limits for Cd 226.502 Recovery = 102.19%							
Co 228.616†	21441.2	513.51 ug/L	2.640	513.51 ppb	2.640	0.51%	
QC value within limits for Co 228.616 Recovery = 102.70%							
Cr 267.716†	43080.5	507.18 ug/L	2.769	507.18 ppb	2.769	0.55%	
QC value within limits for Cr 267.716 Recovery = 101.44%							
Cu 324.752†	164033.4	479.92 ug/L	2.449	479.92 ppb	2.449	0.51%	
QC value within limits for Cu 324.752 Recovery = 95.98%							
Fe 238.204 Radial†	567.0	5324.5 ug/L	92.30	5324.5 ppb	92.30	1.73%	
QC value within limits for Fe 238.204 Radial Recovery = 106.49%							
K 766.490 Radial†	29434.6	5475.2 ug/L	22.82	5475.2 ppb	22.82	0.42%	
QC value within limits for K 766.490 Radial Recovery = 109.50%							
Mg 279.077 IEC†	148.0	5432.3 ug/L	40.86	5432.3 ppb	40.86	0.75%	
QC value within limits for Mg 279.077 IEC Recovery = 108.65%							
Mn 257.610†	413088.6	501.37 ug/L	0.837	501.37 ppb	0.837	0.17%	
QC value within limits for Mn 257.610 Recovery = 100.27%							
Mo 202.031†	6789.2	501.84 ug/L	5.359	501.84 ppb	5.359	1.07%	
QC value within limits for Mo 202.031 Recovery = 100.37%							
Na 589.592 Radial†	38236.1	11786 ug/L	123.4	11786 ppb	123.4	1.05%	
QC value greater than the upper limit for Na 589.592 Radial Recovery = 117.86%							
Ni 231.604†	18553.6	509.57 ug/L	2.001	509.57 ppb	2.001	0.39%	
QC value within limits for Ni 231.604 Recovery = 101.91%							
P 214.914†	4052.4	2420.3 ug/L	27.18	2420.3 ppb	27.18	1.12%	
QC value within limits for P 214.914 Recovery = 96.81%							
Pb 220.353†	3647.2	506.99 ug/L	3.779	506.99 ppb	3.779	0.75%	
QC value within limits for Pb 220.353 Recovery = 101.40%							
S 181.975 Axial†	697.3	1055.9 ug/L	11.53	1055.9 ppb	11.53	1.09%	
QC value within limits for S 181.975 Axial Recovery = 105.59%							
Sb 206.836†	1363.3	514.38 ug/L	7.352	514.38 ppb	7.352	1.43%	
QC value within limits for Sb 206.836 Recovery = 102.88%							
Se 196.026†	792.1	514.64 ug/L	6.783	514.64 ppb	6.783	1.32%	
QC value within limits for Se 196.026 Recovery = 102.93%							
Si 251.611†	78411.5	2496.9 ug/L	9.34	2496.9 ppb	9.34	0.37%	
QC value within limits for Si 251.611 Recovery = 99.87%							
Sn 189.927†	2495.4	509.15 ug/L	4.476	509.15 ppb	4.476	0.88%	
QC value within limits for Sn 189.927 Recovery = 101.83%							
Sr 421.552†	82106.2	534.70 ug/L	3.407	534.70 ppb	3.407	0.64%	
QC value within limits for Sr 421.552 Recovery = 106.94%							
Ti 334.940†	304591.1	481.04 ug/L	2.367	481.04 ppb	2.367	0.49%	
QC value within limits for Ti 334.940 Recovery = 96.21%							
Tl 190.801†	1436.8	502.86 ug/L	4.188	502.86 ppb	4.188	0.83%	
QC value within limits for Tl 190.801 Recovery = 100.57%							
U 409.014†	18893.3	486.02 ug/L	1.452	486.02 ppb	1.452	0.30%	
QC value within limits for U 409.014 Recovery = 97.20%							
V 292.402†	75030.7	506.69 ug/L	2.434	506.69 ppb	2.434	0.48%	
QC value within limits for V 292.402 Recovery = 101.34%							
Zn 213.857†	50230.3	503.62 ug/L	2.174	503.62 ppb	2.174	0.43%	
QC value within limits for Zn 213.857 Recovery = 100.72%							
SiO2†	78070.6	5302.9 ug/L	31.65	5302.9 ppb	31.65	0.60%	
QC value within limits for SiO2 Recovery = 99.17%							
QC Failed. Continue with analysis.							

Sequence No.: 25

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/25/2010 16:55:13

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	5141.1	5141.1	95.3 %		16:57:06
1	Y RADIAL	5537.7	5537.7	95.39 %		16:57:06
1	Al 396.153Radial†	3.5	-0.4	-0.3262 ug/L	-0.3262 ppb	16:57:26
1	Ca 317.933Radial†	27.2	9.2	15.238 ug/L	15.238 ppb	16:57:26
1	Fe 238.204 Radial†	7.7	0.0	0.3427 ug/L	0.3427 ppb	16:57:26
1	K 766.490 Radial†	2257.2	397.0	73.807 ug/L	73.807 ppb	16:57:06
1	Mg 279.077 IEC†	4.6	2.5	90.407 ug/L	90.407 ppb	16:57:26
1	Na 589.592 Radial†	642.2	1097.0	338.14 ug/L	338.14 ppb	16:57:06
1	Sr 421.552†	25.7	12.0	0.0778 ug/L	0.0778 ppb	16:57:06
1	Sc 361.383	909017.0	909017.0	104.24 %		16:58:22
1	Y 371.029	802637.9	802637.9	102.72 %		16:58:22
1	Ag 328.068†	325.5	17.7	0.0906 ug/L	0.0906 ppb	16:58:27
1	As 188.979†	-25.7	6.0	2.6966 ug/L	2.6966 ppb	16:58:47
1	B 249.677†	-265.1	55.4	1.2766 ug/L	1.2766 ppb	16:58:47
1	Ba 233.527†	34.5	38.6	0.3324 ug/L	0.3324 ppb	16:58:47
1	Be 313.107†	-4959.2	835.1	0.3148 ug/L	0.3148 ppb	16:58:27
1	Cd 226.502†	-199.6	-12.3	-0.1538 ug/L	-0.1538 ppb	16:58:47
1	Co 228.616†	-63.6	-1.9	-0.0469 ug/L	-0.0469 ppb	16:58:47
1	Cr 267.716†	81.3	-1.6	-0.0126 ug/L	-0.0126 ppb	16:58:47
1	Cu 324.752†	9008.9	-1196.9	-3.4950 ug/L	-3.4950 ppb	16:58:27
1	Mn 257.610†	484.3	-93.3	-0.1168 ug/L	-0.1168 ppb	16:58:47
1	Mo 202.031†	16.9	-4.9	-0.3581 ug/L	-0.3581 ppb	16:58:47
1	Ni 231.604†	109.9	0.2	0.0047 ug/L	0.0047 ppb	16:58:47
1	P 214.914†	223.1	-6.4	-3.2880 ug/L	-3.2880 ppb	16:58:47
1	Pb 220.353†	-52.7	-5.2	-0.7213 ug/L	-0.7213 ppb	16:58:47
1	S 181.975 Axial†	66.0	21.9	33.160 ug/L	33.160 ppb	16:58:47
1	Sb 206.836†	35.9	-1.6	-0.5678 ug/L	-0.5678 ppb	16:58:47
1	Se 196.026†	-12.2	2.4	1.5177 ug/L	1.5177 ppb	16:58:47
1	Si 251.611†	563.0	-27.8	-0.8836 ug/L	-0.8836 ppb	16:58:47
1	Sn 189.927†	5.0	3.3	0.6690 ug/L	0.6690 ppb	16:58:47
1	Ti 334.940†	-875.2	77.1	0.1218 ug/L	0.1218 ppb	16:58:27
1	Tl 190.801†	-44.5	-12.2	-4.2355 ug/L	-4.2355 ppb	16:58:47
1	U 409.014†	-1454.9	-467.2	-12.062 ug/L	-12.062 ppb	16:58:27
1	V 292.402†	-1336.2	114.3	0.7355 ug/L	0.7355 ppb	16:58:27
1	Zn 213.857†	739.6	47.2	0.4820 ug/L	0.4820 ppb	16:58:47
1	SiO2†	556.0	-46.2	-3.1338 ug/L	-3.1338 ppb	17:00:08
2	Sc Radial	5128.2	5128.2	95.1 %		16:57:31
2	Y RADIAL	5555.1	5555.1	95.69 %		16:57:31
2	Al 396.153Radial†	-2.3	-6.5	-5.0469 ug/L	-5.0469 ppb	16:57:51
2	Ca 317.933Radial†	23.4	5.2	8.6409 ug/L	8.6409 ppb	16:57:51
2	Fe 238.204 Radial†	4.4	-3.5	-32.326 ug/L	-32.326 ppb	16:57:51
2	K 766.490 Radial†	2324.7	473.9	88.152 ug/L	88.152 ppb	16:57:31
2	Mg 279.077 IEC†	1.2	-1.2	-42.320 ug/L	-42.320 ppb	16:57:51
2	Na 589.592 Radial†	513.3	963.1	296.87 ug/L	296.87 ppb	16:57:31
2	Sr 421.552†	26.2	12.5	0.0816 ug/L	0.0816 ppb	16:57:31
2	Sc 361.383	904228.6	904228.6	103.69 %		16:58:52
2	Y 371.029	798910.0	798910.0	102.24 %		16:58:52
2	Ag 328.068†	415.8	106.4	0.4655 ug/L	0.4655 ppb	16:58:58
2	As 188.979†	-23.5	8.0	3.5683 ug/L	3.5683 ppb	16:59:18
2	B 249.677†	-283.4	36.4	0.8447 ug/L	0.8447 ppb	16:59:18
2	Ba 233.527†	36.2	40.4	0.3466 ug/L	0.3466 ppb	16:59:18
2	Be 313.107†	-4986.3	783.8	0.2955 ug/L	0.2955 ppb	16:58:58
2	Cd 226.502†	-190.8	-4.8	-0.0569 ug/L	-0.0569 ppb	16:59:18
2	Co 228.616†	-63.8	-2.4	-0.0584 ug/L	-0.0584 ppb	16:59:18
2	Cr 267.716†	73.3	-8.8	-0.1012 ug/L	-0.1012 ppb	16:59:18
2	Cu 324.752†	8926.4	-1230.7	-3.5989 ug/L	-3.5989 ppb	16:58:58
2	Mn 257.610†	466.7	-107.8	-0.1323 ug/L	-0.1323 ppb	16:59:18
2	Mo 202.031†	18.7	-3.0	-0.2253 ug/L	-0.2253 ppb	16:59:18
2	Ni 231.604†	111.6	2.4	0.0659 ug/L	0.0659 ppb	16:59:18



2	P 214.914†	218.1	-10.2	-5.5716 ug/L	-5.5716 ppb	16:59:18
2	Pb 220.353†	-46.2	0.8	0.1172 ug/L	0.1172 ppb	16:59:18
2	S 181.975 Axial†	58.8	15.3	23.233 ug/L	23.233 ppb	16:59:18
2	Sb 206.836†	35.4	-1.9	-0.6807 ug/L	-0.6807 ppb	16:59:18
2	Se 196.026†	-25.9	-10.9	-6.9111 ug/L	-6.9111 ppb	16:59:18
2	Si 251.611†	540.0	-47.2	-1.5031 ug/L	-1.5031 ppb	16:59:18
2	Sn 189.927†	2.6	1.0	0.2040 ug/L	0.2040 ppb	16:59:18
2	Ti 334.940†	-850.7	96.3	0.1596 ug/L	0.1596 ppb	16:58:58
2	Tl 190.801†	-34.8	-3.1	-1.0802 ug/L	-1.0802 ppb	16:59:18
2	U 409.014†	-1218.2	-246.3	-6.3557 ug/L	-6.3557 ppb	16:58:58
2	V 292.402†	-1369.0	76.0	0.4948 ug/L	0.4948 ppb	16:58:58
2	Zn 213.857†	738.4	49.8	0.5110 ug/L	0.5110 ppb	16:59:18
2	SiO2†	588.9	-11.6	-0.7857 ug/L	-0.7857 ppb	17:00:28
3	Sc Radial	5064.9	5064.9	93.9 %		16:57:56
3	Y RADIAL	5486.6	5486.6	94.51 %		16:57:56
3	Al 396.153Radial†	5.3	1.5	1.1890 ug/L	1.1890 ppb	16:58:16
3	Ca 317.933Radial†	26.0	8.3	13.697 ug/L	13.697 ppb	16:58:16
3	Fe 238.204 Radial†	7.9	0.3	3.2400 ug/L	3.2400 ppb	16:58:16
3	K 766.490 Radial†	2198.2	369.9	68.766 ug/L	68.766 ppb	16:57:56
3	Mg 279.077 IEC†	1.2	-1.2	-42.761 ug/L	-42.761 ppb	16:58:16
3	Na 589.592 Radial†	548.3	1007.2	310.45 ug/L	310.45 ppb	16:57:56
3	Sr 421.552†	26.1	12.8	0.0832 ug/L	0.0832 ppb	16:57:56
3	Sc 361.383	905327.9	905327.9	103.81 %		16:59:23
3	Y 371.029	800056.0	800056.0	102.38 %		16:59:23
3	Ag 328.068†	311.9	5.8	0.0378 ug/L	0.0378 ppb	16:59:28
3	As 188.979†	-30.6	1.1	0.5004 ug/L	0.5004 ppb	16:59:48
3	B 249.677†	-316.0	5.3	0.1214 ug/L	0.1214 ppb	16:59:48
3	Ba 233.527†	43.1	47.0	0.4045 ug/L	0.4045 ppb	16:59:48
3	Be 313.107†	-4975.0	800.5	0.3018 ug/L	0.3018 ppb	16:59:28
3	Cd 226.502†	-188.4	-2.2	-0.0299 ug/L	-0.0299 ppb	16:59:48
3	Co 228.616†	-59.8	1.5	0.0363 ug/L	0.0363 ppb	16:59:48
3	Cr 267.716†	89.5	6.7	0.0836 ug/L	0.0836 ppb	16:59:48
3	Cu 324.752†	9000.2	-1170.1	-3.4169 ug/L	-3.4169 ppb	16:59:28
3	Mn 257.610†	491.7	-84.3	-0.1002 ug/L	-0.1002 ppb	16:59:48
3	Mo 202.031†	26.6	4.5	0.3355 ug/L	0.3355 ppb	16:59:48
3	Ni 231.604†	117.2	7.6	0.2090 ug/L	0.2090 ppb	16:59:48
3	P 214.914†	213.4	-14.9	-8.5634 ug/L	-8.5634 ppb	16:59:48
3	Pb 220.353†	-58.3	-10.8	-1.4937 ug/L	-1.4937 ppb	16:59:48
3	S 181.975 Axial†	63.2	19.5	29.543 ug/L	29.543 ppb	16:59:48
3	Sb 206.836†	30.8	-6.4	-2.3105 ug/L	-2.3105 ppb	16:59:48
3	Se 196.026†	-22.3	-7.4	-4.6335 ug/L	-4.6335 ppb	16:59:48
3	Si 251.611†	554.1	-34.2	-1.0961 ug/L	-1.0961 ppb	16:59:48
3	Sn 189.927†	4.6	3.0	0.6061 ug/L	0.6061 ppb	16:59:48
3	Ti 334.940†	-858.9	89.4	0.1515 ug/L	0.1515 ppb	16:59:28
3	Tl 190.801†	-38.0	-6.2	-2.1438 ug/L	-2.1438 ppb	16:59:48
3	U 409.014†	-1412.3	-431.9	-11.150 ug/L	-11.150 ppb	16:59:28
3	V 292.402†	-1361.6	84.7	0.5465 ug/L	0.5465 ppb	16:59:28
3	Zn 213.857†	732.7	43.5	0.4429 ug/L	0.4429 ppb	16:59:48
3	SiO2†	547.0	-52.7	-3.5993 ug/L	-3.5993 ppb	17:00:48

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	906191.2	103.91 %	0.288			0.28%
Sc Radial	5111.4	94.8 %	0.76			0.80%
Y 371.029	800534.6	102.45 %	0.244			0.24%
Y RADIAL	5526.5	95.20 %	0.614			0.64%
Ag 328.068†	43.3	0.1980 ug/L	0.23317	0.1980 ppb	0.23317	117.79%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-1.8	-1.3947 ug/L	3.25235	-1.3947 ppb	3.25235	233.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	5.0	2.2551 ug/L	1.58088	2.2551 ppb	1.58088	70.10%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	32.4	0.7476 ug/L	0.58365	0.7476 ppb	0.58365	78.07%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	42.0	0.3612 ug/L	0.03818	0.3612 ppb	0.03818	10.57%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	806.5	0.3040 ug/L	0.00982	0.3040 ppb	0.00982	3.23%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	7.6	12.525 ug/L	3.4510	12.525 ppb	3.4510	27.55%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-6.4	-0.0802 ug/L	0.06514	-0.0802 ppb	0.06514	81.26%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-1.0	-0.0230 ug/L	0.05166	-0.0230 ppb	0.05166	224.83%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-1.2	-0.0101 ug/L	0.09240	-0.0101 ppb	0.09240	917.89%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-1199.2	-3.5036 ug/L	0.09130	-3.5036 ppb	0.09130	2.61%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.0	-9.5812 ug/L	19.75101	-9.5812 ppb	19.75101	206.14%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	413.6	76.908 ug/L	10.0582	76.908 ppb	10.0582	13.08%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.0	1.7752 ug/L	76.75754	1.7752 ppb	76.75754	>999.9%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-95.1	-0.1164 ug/L	0.01606	-0.1164 ppb	0.01606	13.79%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-1.1	-0.0826 ug/L	0.36813	-0.0826 ppb	0.36813	445.60%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	1022.4	315.15 ug/L	21.032	315.15 ppb	21.032	6.67%	
QC value greater than the upper limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	3.4	0.0932 ug/L	0.10487	0.0932 ppb	0.10487	112.50%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-10.5	-5.8077 ug/L	2.64562	-5.8077 ppb	2.64562	45.55%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-5.1	-0.6993 ug/L	0.80565	-0.6993 ppb	0.80565	115.21%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	18.9	28.646 ug/L	5.0241	28.646 ppb	5.0241	17.54%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-3.3	-1.1863 ug/L	0.97518	-1.1863 ppb	0.97518	82.20%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-5.3	-3.3423 ug/L	4.36027	-3.3423 ppb	4.36027	130.46%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-36.4	-1.1609 ug/L	0.31476	-1.1609 ppb	0.31476	27.11%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	2.4	0.4931 ug/L	0.25228	0.4931 ppb	0.25228	51.17%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	12.4	0.0808 ug/L	0.00276	0.0808 ppb	0.00276	3.42%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	87.6	0.1443 ug/L	0.01990	0.1443 ppb	0.01990	13.79%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-7.1	-2.4865 ug/L	1.60534	-2.4865 ppb	1.60534	64.56%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-381.8	-9.8559 ug/L	3.06536	-9.8559 ppb	3.06536	31.10%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	91.7	0.5923 ug/L	0.12668	0.5923 ppb	0.12668	21.39%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	46.8	0.4787 ug/L	0.03416	0.4787 ppb	0.03416	7.14%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-36.8	-2.5063 ug/L	1.50814	-2.5063 ppb	1.50814	60.17%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 35

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/25/2010 18:07:33

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	4914.0	4914.0	91.1 %		18:09:25
1	Y RADIAL	5276.2	5276.2	90.89 %		18:09:25
1	Al 396.153Radial†	5948.7	6524.1	5082.2 ug/L	5082.2 ppb	18:09:25
1	Ca 317.933Radial†	2885.0	3146.6	5211.0 ug/L	5211.0 ppb	18:09:45
1	Fe 238.204 Radial†	502.7	543.6	5106.6 ug/L	5106.6 ppb	18:09:45
1	K 766.490 Radial†	30020.7	30974.5	5762.4 ug/L	5762.4 ppb	18:09:25
1	Mg 279.077 IEC†	135.5	146.3	5369.9 ug/L	5369.9 ppb	18:09:45
1	Na 589.592 Radial†	30826.2	34252.5	10558 ug/L	10558 ppb	18:09:25
1	Sr 421.552†	71865.8	78851.5	513.50 ug/L	513.50 ppb	18:09:25
1	Sc 361.383	853302.3	853302.3	97.847 %		18:10:42
1	Y 371.029	745108.6	745108.6	95.353 %		18:10:42
1	Ag 328.068†	114028.2	116242.6	515.52 ug/L	515.52 ppb	18:10:48
1	As 188.979†	1108.3	1163.3	524.86 ug/L	524.86 ppb	18:11:08
1	B 249.677†	23836.5	24670.6	566.45 ug/L	566.45 ppb	18:10:48
1	Ba 233.527†	59772.6	61093.3	525.20 ug/L	525.20 ppb	18:10:48
1	Be 313.107†	1344793.4	1379975.7	520.84 ug/L	520.84 ppb	18:10:42
1	Cd 226.502†	41898.3	42999.5	530.12 ug/L	530.12 ppb	18:10:48
1	Co 228.616†	22003.0	22546.1	539.97 ug/L	539.97 ppb	18:10:48
1	Cr 267.716†	44050.0	44939.7	529.06 ug/L	529.06 ppb	18:10:48
1	Cu 324.752†	179252.6	173357.0	507.18 ug/L	507.18 ppb	18:10:48
1	Mn 257.610†	419385.9	428055.7	519.51 ug/L	519.51 ppb	18:10:42
1	Mo 202.031†	6920.3	7051.5	521.19 ug/L	521.19 ppb	18:11:08
1	Ni 231.604†	19089.2	19403.9	532.92 ug/L	532.92 ppb	18:10:48
1	P 214.914†	4333.4	4208.2	2511.9 ug/L	2511.9 ppb	18:11:08
1	Pb 220.353†	3652.8	3778.6	525.27 ug/L	525.27 ppb	18:11:08
1	S 181.975 Axial†	739.4	714.3	1081.6 ug/L	1081.6 ppb	18:11:08
1	Sb 206.836†	1397.9	1392.6	525.67 ug/L	525.67 ppb	18:11:08
1	Se 196.026†	770.0	801.0	519.56 ug/L	519.56 ppb	18:11:08
1	Si 251.611†	80479.2	81682.0	2601.0 ug/L	2601.0 ppb	18:10:48
1	Sn 189.927†	2521.6	2575.6	525.48 ug/L	525.48 ppb	18:11:08
1	Ti 334.940†	310642.0	318393.8	502.84 ug/L	502.84 ppb	18:10:48
1	Tl 190.801†	1421.0	1482.7	518.93 ug/L	518.93 ppb	18:11:08
1	U 409.014†	18277.8	19608.5	504.46 ug/L	504.46 ppb	18:10:48
1	V 292.402†	75117.9	78167.0	527.90 ug/L	527.90 ppb	18:10:48
1	Zn 213.857†	52038.2	52520.9	526.63 ug/L	526.63 ppb	18:10:48
1	SiO2†	79601.0	80772.9	5486.4 ug/L	5486.4 ppb	18:12:15
2	Sc Radial	4880.7	4880.7	90.5 %		18:09:50
2	Y RADIAL	5243.2	5243.2	90.32 %		18:09:50
2	Al 396.153Radial†	5813.9	6419.7	5001.1 ug/L	5001.1 ppb	18:09:50
2	Ca 317.933Radial†	2888.7	3172.3	5253.6 ug/L	5253.6 ppb	18:10:10
2	Fe 238.204 Radial†	505.7	550.7	5172.5 ug/L	5172.5 ppb	18:10:10
2	K 766.490 Radial†	29477.3	30599.0	5692.5 ug/L	5692.5 ppb	18:09:50
2	Mg 279.077 IEC†	132.2	143.7	5273.1 ug/L	5273.1 ppb	18:10:10
2	Na 589.592 Radial†	30226.0	33820.3	10425 ug/L	10425 ppb	18:09:50
2	Sr 421.552†	70478.3	77856.8	507.02 ug/L	507.02 ppb	18:09:50
2	Sc 361.383	881524.5	881524.5	101.08 %		18:11:13
2	Y 371.029	770912.5	770912.5	98.655 %		18:11:13
2	Ag 328.068†	114233.6	112714.8	499.95 ug/L	499.95 ppb	18:11:19
2	As 188.979†	1124.6	1143.1	515.75 ug/L	515.75 ppb	18:11:39
2	B 249.677†	23821.0	23875.4	548.16 ug/L	548.16 ppb	18:11:19
2	Ba 233.527†	59913.5	59277.0	509.59 ug/L	509.59 ppb	18:11:19
2	Be 313.107†	1349202.2	1340336.0	505.88 ug/L	505.88 ppb	18:11:13
2	Cd 226.502†	41999.7	41728.8	514.44 ug/L	514.44 ppb	18:11:19
2	Co 228.616†	22004.7	21827.9	522.77 ug/L	522.77 ppb	18:11:19
2	Cr 267.716†	44105.6	43553.4	512.74 ug/L	512.74 ppb	18:11:19
2	Cu 324.752†	179382.0	167619.9	490.40 ug/L	490.40 ppb	18:11:19
2	Mn 257.610†	419508.1	414454.5	503.02 ug/L	503.02 ppb	18:11:13
2	Mo 202.031†	6966.4	6870.7	507.85 ug/L	507.85 ppb	18:11:39
2	Ni 231.604†	19151.7	18841.2	517.46 ug/L	517.46 ppb	18:11:19

2	P 214.914†	4359.6	4092.4	2443.2 ug/L	2443.2 ppb	18:11:39
2	Pb 220.353†	3669.2	3675.2	510.91 ug/L	510.91 ppb	18:11:39
2	S 181.975 Axial†	744.2	694.8	1052.1 ug/L	1052.1 ppb	18:11:39
2	Sb 206.836†	1428.5	1377.1	519.57 ug/L	519.57 ppb	18:11:39
2	Se 196.026†	789.1	794.7	515.79 ug/L	515.79 ppb	18:11:39
2	Si 251.611†	80514.7	79083.9	2518.3 ug/L	2518.3 ppb	18:11:19
2	Sn 189.927†	2542.4	2513.7	512.88 ug/L	512.88 ppb	18:11:39
2	Ti 334.940†	311264.5	308845.5	487.78 ug/L	487.78 ppb	18:11:19
2	Tl 190.801†	1442.4	1457.4	510.04 ug/L	510.04 ppb	18:11:39
2	U 409.014†	18491.1	19221.4	494.50 ug/L	494.50 ppb	18:11:19
2	V 292.402†	75350.0	75938.8	512.85 ug/L	512.85 ppb	18:11:19
2	Zn 213.857†	52064.8	50844.5	509.79 ug/L	509.79 ppb	18:11:19
2	SiO2†	81591.7	80137.7	5443.6 ug/L	5443.6 ppb	18:12:20
3	Sc Radial	4890.6	4890.6	90.7 %		18:10:15
3	Y RADIAL	5275.4	5275.4	90.87 %		18:10:15
3	Al 396.153Radial†	5829.6	6424.0	5004.6 ug/L	5004.6 ppb	18:10:15
3	Ca 317.933Radial†	2884.1	3160.8	5234.4 ug/L	5234.4 ppb	18:10:35
3	Fe 238.204 Radial†	507.3	551.4	5178.9 ug/L	5178.9 ppb	18:10:35
3	K 766.490 Radial†	29488.2	30545.1	5682.5 ug/L	5682.5 ppb	18:10:15
3	Mg 279.077 IEC†	134.2	145.6	5342.0 ug/L	5342.0 ppb	18:10:35
3	Na 589.592 Radial†	30225.6	33752.1	10404 ug/L	10404 ppb	18:10:15
3	Sr 421.552†	70314.0	77518.0	504.81 ug/L	504.81 ppb	18:10:15
3	Sc 361.383	883695.2	883695.2	101.33 %		18:11:44
3	Y 371.029	772274.2	772274.2	98.830 %		18:11:44
3	Ag 328.068†	112933.7	111154.4	493.04 ug/L	493.04 ppb	18:11:50
3	As 188.979†	1107.4	1123.4	506.88 ug/L	506.88 ppb	18:12:10
3	B 249.677†	23587.0	23586.6	541.51 ug/L	541.51 ppb	18:11:50
3	Ba 233.527†	59164.8	58392.4	501.99 ug/L	501.99 ppb	18:11:50
3	Be 313.107†	1346731.1	1334618.6	503.71 ug/L	503.71 ppb	18:11:44
3	Cd 226.502†	41527.8	41161.1	507.43 ug/L	507.43 ppb	18:11:50
3	Co 228.616†	21816.6	21588.8	517.05 ug/L	517.05 ppb	18:11:50
3	Cr 267.716†	43650.6	42997.2	506.20 ug/L	506.20 ppb	18:11:50
3	Cu 324.752†	177120.0	164951.7	482.60 ug/L	482.60 ppb	18:11:50
3	Mn 257.610†	419308.5	413238.0	501.54 ug/L	501.54 ppb	18:11:44
3	Mo 202.031†	6940.4	6828.1	504.70 ug/L	504.70 ppb	18:12:10
3	Ni 231.604†	18982.4	18627.6	511.60 ug/L	511.60 ppb	18:11:50
3	P 214.914†	4345.9	4068.2	2429.7 ug/L	2429.7 ppb	18:12:10
3	Pb 220.353†	3659.3	3656.5	508.31 ug/L	508.31 ppb	18:12:10
3	S 181.975 Axial†	739.1	688.0	1041.7 ug/L	1041.7 ppb	18:12:10
3	Sb 206.836†	1418.4	1363.7	514.55 ug/L	514.55 ppb	18:12:10
3	Se 196.026†	770.6	774.5	503.18 ug/L	503.18 ppb	18:12:10
3	Si 251.611†	79701.8	78086.1	2486.4 ug/L	2486.4 ppb	18:11:50
3	Sn 189.927†	2526.7	2492.0	508.45 ug/L	508.45 ppb	18:12:10
3	Ti 334.940†	307304.3	304181.0	480.41 ug/L	480.41 ppb	18:11:50
3	Tl 190.801†	1431.4	1443.1	505.02 ug/L	505.02 ppb	18:12:10
3	U 409.014†	18286.1	18974.2	488.13 ug/L	488.13 ppb	18:11:50
3	V 292.402†	74237.2	74657.5	504.27 ug/L	504.27 ppb	18:11:50
3	Zn 213.857†	51574.7	50234.3	503.66 ug/L	503.66 ppb	18:11:50
3	SiO2†	79606.8	77980.6	5296.7 ug/L	5296.7 ppb	18:12:25

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	872840.7	100.09 %	1.944			1.94%
Sc Radial	4895.1	90.8 %	0.32			0.35%
Y 371.029	762765.1	97.613 %	1.9588			2.01%
Y RADIAL	5264.9	90.69 %	0.324			0.36%
Ag 328.068†	113370.6	502.84 ug/L	11.516	502.84 ppb	11.516	2.29%
QC value within limits for Ag 328.068 Recovery = 100.57%						
Al 396.153Radial†	6456.0	5029.3 ug/L	45.85	5029.3 ppb	45.85	0.91%
QC value within limits for Al 396.153Radial Recovery = 100.59%						
As 188.979†	1143.3	515.83 ug/L	8.991	515.83 ppb	8.991	1.74%
QC value within limits for As 188.979 Recovery = 103.17%						
B 249.677†	24044.2	552.04 ug/L	12.916	552.04 ppb	12.916	2.34%
QC value greater than the upper limit for B 249.677 Recovery = 110.41%						
Ba 233.527†	59587.6	512.26 ug/L	11.833	512.26 ppb	11.833	2.31%
QC value within limits for Ba 233.527 Recovery = 102.45%						
Be 313.107†	1351643.5	510.14 ug/L	9.328	510.14 ppb	9.328	1.83%
QC value within limits for Be 313.107 Recovery = 102.03%						
Ca 317.933Radial†	3159.9	5233.0 ug/L	21.34	5233.0 ppb	21.34	0.41%

QC value within limits for Ca 317.933 Radial Recovery = 104.66%

Cd 226.502†	41963.1	517.33 ug/L	11.620	517.33 ppb	11.620	2.25%
QC value within limits for Cd 226.502 Recovery = 103.47%						
Co 228.616†	21987.6	526.60 ug/L	11.928	526.60 ppb	11.928	2.27%
QC value within limits for Co 228.616 Recovery = 105.32%						
Cr 267.716†	43830.1	516.00 ug/L	11.776	516.00 ppb	11.776	2.28%
QC value within limits for Cr 267.716 Recovery = 103.20%						
Cu 324.752†	168642.9	493.39 ug/L	12.559	493.39 ppb	12.559	2.55%
QC value within limits for Cu 324.752 Recovery = 98.68%						
Fe 238.204 Radial†	548.6	5152.7 ug/L	40.01	5152.7 ppb	40.01	0.78%
QC value within limits for Fe 238.204 Radial Recovery = 103.05%						
K 766.490 Radial†	30706.2	5712.5 ug/L	43.53	5712.5 ppb	43.53	0.76%
QC value greater than the upper limit for K 766.490 Radial Recovery = 114.25%						
Mg 279.077 IEC†	145.2	5328.3 ug/L	49.86	5328.3 ppb	49.86	0.94%
QC value within limits for Mg 279.077 IEC Recovery = 106.57%						
Mn 257.610†	418582.7	508.02 ug/L	9.973	508.02 ppb	9.973	1.96%
QC value within limits for Mn 257.610 Recovery = 101.60%						
Mo 202.031†	6916.7	511.25 ug/L	8.757	511.25 ppb	8.757	1.71%
QC value within limits for Mo 202.031 Recovery = 102.25%						
Na 589.592 Radial†	33941.6	10462 ug/L	83.6	10462 ppb	83.6	0.80%
QC value within limits for Na 589.592 Radial Recovery = 104.62%						
Ni 231.604†	18957.5	520.66 ug/L	11.014	520.66 ppb	11.014	2.12%
QC value within limits for Ni 231.604 Recovery = 104.13%						
P 214.914†	4122.9	2461.6 ug/L	44.07	2461.6 ppb	44.07	1.79%
QC value within limits for P 214.914 Recovery = 98.46%						
Pb 220.353†	3703.5	514.83 ug/L	9.135	514.83 ppb	9.135	1.77%
QC value within limits for Pb 220.353 Recovery = 102.97%						
S 181.975 Axial†	699.0	1058.4 ug/L	20.70	1058.4 ppb	20.70	1.96%
QC value within limits for S 181.975 Axial Recovery = 105.84%						
Sb 206.836†	1377.8	519.93 ug/L	5.571	519.93 ppb	5.571	1.07%
QC value within limits for Sb 206.836 Recovery = 103.99%						
Se 196.026†	790.1	512.84 ug/L	8.578	512.84 ppb	8.578	1.67%
QC value within limits for Se 196.026 Recovery = 102.57%						
Si 251.611†	79617.3	2535.2 ug/L	59.15	2535.2 ppb	59.15	2.33%
QC value within limits for Si 251.611 Recovery = 101.41%						
Sn 189.927†	2527.1	515.60 ug/L	8.835	515.60 ppb	8.835	1.71%
QC value within limits for Sn 189.927 Recovery = 103.12%						
Sr 421.552†	78075.4	508.44 ug/L	4.514	508.44 ppb	4.514	0.89%
QC value within limits for Sr 421.552 Recovery = 101.69%						
Ti 334.940†	310473.5	490.34 ug/L	11.434	490.34 ppb	11.434	2.33%
QC value within limits for Ti 334.940 Recovery = 98.07%						
Tl 190.801†	1461.1	511.33 ug/L	7.048	511.33 ppb	7.048	1.38%
QC value within limits for Tl 190.801 Recovery = 102.27%						
U 409.014†	19268.0	495.70 ug/L	8.232	495.70 ppb	8.232	1.66%
QC value within limits for U 409.014 Recovery = 99.14%						
V 292.402†	76254.4	515.01 ug/L	11.962	515.01 ppb	11.962	2.32%
QC value within limits for V 292.402 Recovery = 103.00%						
Zn 213.857†	51199.9	513.36 ug/L	11.891	513.36 ppb	11.891	2.32%
QC value within limits for Zn 213.857 Recovery = 102.67%						
SiO2†	79630.4	5408.9 ug/L	99.48	5408.9 ppb	99.48	1.84%
QC value within limits for SiO2 Recovery = 101.15%						

QC Failed. Continue with analysis.

Sequence No.: 36

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/25/2010 18:14:36

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Conc. Units	Sample Units	Analysis Time
1	Sc Radial	5144.6	5144.6	95.4 %				18:16:29
1	Y RADIAL	5527.4	5527.4	95.21 %				18:16:29
1	Al 396.153Radial†	6.9	3.1	2.4666 ug/L		2.4666 ppb		18:16:49
1	Ca 317.933Radial†	25.8	7.7	12.775 ug/L		12.775 ppb		18:16:49
1	Fe 238.204 Radial†	5.4	-2.3	-21.840 ug/L		-21.840 ppb		18:16:49
1	K 766.490 Radial†	3161.0	1342.9	250.00 ug/L		250.00 ppb		18:16:29
1	Mg 279.077 IEC†	3.5	1.3	47.526 ug/L		47.526 ppb		18:16:49
1	Na 589.592 Radial†	469.9	915.9	282.33 ug/L		282.33 ppb		18:16:29
1	Sr 421.552†	11.4	-3.1	-0.0202 ug/L		-0.0202 ppb		18:16:29
1	Sc 361.383	895576.4	895576.4	102.69 %				18:17:45
1	Y 371.029	788608.4	788608.4	100.92 %				18:17:45
1	Ag 328.068†	375.7	71.2	0.3144 ug/L		0.3144 ppb		18:17:50
1	As 188.979†	-23.7	7.6	3.3919 ug/L		3.3919 ppb		18:18:10
1	B 249.677†	2010.4	2267.4	52.281 ug/L		52.281 ppb		18:17:50
1	Ba 233.527†	45.7	50.0	0.4294 ug/L		0.4294 ppb		18:18:10
1	Be 313.107†	-4902.2	819.2	0.3089 ug/L		0.3089 ppb		18:17:50
1	Cd 226.502†	-191.8	-7.5	-0.0911 ug/L		-0.0911 ppb		18:18:10
1	Co 228.616†	-61.8	-1.2	-0.0277 ug/L		-0.0277 ppb		18:18:10
1	Cr 267.716†	81.2	-0.4	-0.0020 ug/L		-0.0020 ppb		18:18:10
1	Cu 324.752†	8945.0	-1129.4	-3.3022 ug/L		-3.3022 ppb		18:17:50
1	Mn 257.610†	503.7	-67.4	-0.0859 ug/L		-0.0859 ppb		18:18:10
1	Mo 202.031†	21.4	-0.2	-0.0151 ug/L		-0.0151 ppb		18:18:10
1	Ni 231.604†	119.2	10.8	0.2966 ug/L		0.2966 ppb		18:18:10
1	P 214.914†	219.9	-6.4	-3.2737 ug/L		-3.2737 ppb		18:18:10
1	Pb 220.353†	-49.1	-2.4	-0.3313 ug/L		-0.3313 ppb		18:18:10
1	S 181.975 Axial†	52.4	9.6	14.536 ug/L		14.536 ppb		18:18:10
1	Sb 206.836†	37.0	0.0	0.0232 ug/L		0.0232 ppb		18:18:10
1	Se 196.026†	-10.3	4.1	2.4618 ug/L		2.4618 ppb		18:18:10
1	Si 251.611†	509.9	-71.4	-2.2790 ug/L		-2.2790 ppb		18:18:10
1	Sn 189.927†	5.4	3.8	0.7785 ug/L		0.7785 ppb		18:18:10
1	Ti 334.940†	-821.4	116.9	0.1852 ug/L		0.1852 ppb		18:17:50
1	Tl 190.801†	-38.2	-6.8	-2.3488 ug/L		-2.3488 ppb		18:18:10
1	U 409.014†	-1192.9	-233.1	-6.0155 ug/L		-6.0155 ppb		18:17:50
1	V 292.402†	-1321.9	109.1	0.7191 ug/L		0.7191 ppb		18:17:50
1	Zn 213.857†	743.8	61.9	0.6311 ug/L		0.6311 ppb		18:18:10
1	SiO2†	531.6	-61.9	-4.2154 ug/L		-4.2154 ppb		18:19:31
2	Sc Radial	5020.7	5020.7	93.1 %				18:16:54
2	Y RADIAL	5413.2	5413.2	93.25 %				18:16:54
2	Al 396.153Radial†	0.6	-3.4	-2.6656 ug/L		-2.6656 ppb		18:17:14
2	Ca 317.933Radial†	27.4	10.1	16.732 ug/L		16.732 ppb		18:17:14
2	Fe 238.204 Radial†	5.5	-2.1	-20.073 ug/L		-20.073 ppb		18:17:14
2	K 766.490 Radial†	3166.2	1430.2	266.28 ug/L		266.28 ppb		18:16:54
2	Mg 279.077 IEC†	3.8	1.7	61.417 ug/L		61.417 ppb		18:17:14
2	Na 589.592 Radial†	395.9	848.6	261.56 ug/L		261.56 ppb		18:16:54
2	Sr 421.552†	12.5	-1.6	-0.0106 ug/L		-0.0106 ppb		18:16:54
2	Sc 361.383	896964.3	896964.3	102.85 %				18:18:15
2	Y 371.029	790937.5	790937.5	101.22 %				18:18:15
2	Ag 328.068†	371.7	66.7	0.2965 ug/L		0.2965 ppb		18:18:21
2	As 188.979†	-20.7	10.5	4.6872 ug/L		4.6872 ppb		18:18:41
2	B 249.677†	1944.9	2200.7	50.743 ug/L		50.743 ppb		18:18:21
2	Ba 233.527†	19.1	24.0	0.2069 ug/L		0.2069 ppb		18:18:41
2	Be 313.107†	-4902.0	826.8	0.3116 ug/L		0.3116 ppb		18:18:21
2	Cd 226.502†	-203.2	-18.3	-0.2243 ug/L		-0.2243 ppb		18:18:41
2	Co 228.616†	-54.2	6.4	0.1522 ug/L		0.1522 ppb		18:18:41
2	Cr 267.716†	89.0	7.0	0.0865 ug/L		0.0865 ppb		18:18:41
2	Cu 324.752†	9040.0	-1050.5	-3.0703 ug/L		-3.0703 ppb		18:18:21
2	Mn 257.610†	513.0	-59.2	-0.0763 ug/L		-0.0763 ppb		18:18:41
2	Mo 202.031†	20.7	-0.9	-0.0676 ug/L		-0.0676 ppb		18:18:41
2	Ni 231.604†	120.4	11.8	0.3254 ug/L		0.3254 ppb		18:18:41

2	P 214.914†	216.7	-9.8	-5.4690 ug/L	-5.4690 ppb	18:18:41
2	Pb 220.353†	-41.1	5.5	0.7590 ug/L	0.7590 ppb	18:18:41
2	S 181.975 Axial†	52.9	10.1	15.269 ug/L	15.269 ppb	18:18:41
2	Sb 206.836†	39.7	2.5	0.9152 ug/L	0.9152 ppb	18:18:41
2	Se 196.026†	-9.2	5.1	3.1281 ug/L	3.1281 ppb	18:18:41
2	Si 251.611†	496.8	-84.9	-2.7089 ug/L	-2.7089 ppb	18:18:41
2	Sn 189.927†	-0.4	-1.8	-0.3719 ug/L	-0.3719 ppb	18:18:41
2	Ti 334.940†	-873.6	67.5	0.1071 ug/L	0.1071 ppb	18:18:21
2	Tl 190.801†	-33.4	-2.0	-0.6874 ug/L	-0.6874 ppb	18:18:41
2	U 409.014†	-1256.1	-292.7	-7.5549 ug/L	-7.5549 ppb	18:18:21
2	V 292.402†	-1321.9	111.0	0.7286 ug/L	0.7286 ppb	18:18:21
2	Zn 213.857†	748.0	65.0	0.6611 ug/L	0.6611 ppb	18:18:41
2	SiO2†	517.2	-76.7	-5.2220 ug/L	-5.2220 ppb	18:19:51
3	Sc Radial	5030.9	5030.9	93.3 %		18:17:19
3	Y RADIAL	5393.1	5393.1	92.90 %		18:17:19
3	Al 396.153Radial†	8.5	5.0	3.9031 ug/L	3.9031 ppb	18:17:39
3	Ca 317.933Radial†	28.5	11.2	18.501 ug/L	18.501 ppb	18:17:39
3	Fe 238.204 Radial†	9.6	2.3	21.629 ug/L	21.629 ppb	18:17:39
3	K 766.490 Radial†	3074.5	1325.0	246.67 ug/L	246.67 ppb	18:17:19
3	Mg 279.077 IEC†	2.5	0.3	10.392 ug/L	10.392 ppb	18:17:39
3	Na 589.592 Radial†	437.2	892.0	274.96 ug/L	274.96 ppb	18:17:19
3	Sr 421.552†	29.3	16.4	0.1066 ug/L	0.1066 ppb	18:17:19
3	Sc 361.383	895087.0	895087.0	102.64 %		18:18:46
3	Y 371.029	788582.5	788582.5	100.92 %		18:18:46
3	Ag 328.068†	380.6	76.2	0.3531 ug/L	0.3531 ppb	18:18:51
3	As 188.979†	-30.4	1.0	0.4394 ug/L	0.4394 ppb	18:19:11
3	B 249.677†	1821.9	2084.8	48.066 ug/L	48.066 ppb	18:18:51
3	Ba 233.527†	38.7	43.2	0.3722 ug/L	0.3722 ppb	18:19:11
3	Be 313.107†	-4930.9	788.6	0.2975 ug/L	0.2975 ppb	18:18:51
3	Cd 226.502†	-189.8	-5.6	-0.0739 ug/L	-0.0739 ppb	18:19:11
3	Co 228.616†	-68.2	-7.4	-0.1759 ug/L	-0.1759 ppb	18:19:11
3	Cr 267.716†	79.5	-2.1	-0.0196 ug/L	-0.0196 ppb	18:19:11
3	Cu 324.752†	8958.7	-1111.4	-3.2446 ug/L	-3.2446 ppb	18:18:51
3	Mn 257.610†	487.2	-83.2	-0.0992 ug/L	-0.0992 ppb	18:19:11
3	Mo 202.031†	27.4	5.6	0.4189 ug/L	0.4189 ppb	18:19:11
3	Ni 231.604†	107.0	-1.0	-0.0274 ug/L	-0.0274 ppb	18:19:11
3	P 214.914†	229.8	3.4	2.7566 ug/L	2.7566 ppb	18:19:11
3	Pb 220.353†	-41.5	5.0	0.6929 ug/L	0.6929 ppb	18:19:11
3	S 181.975 Axial†	59.0	16.1	24.376 ug/L	24.376 ppb	18:19:11
3	Sb 206.836†	41.1	4.0	1.4621 ug/L	1.4621 ppb	18:19:11
3	Se 196.026†	-16.9	-2.4	-1.4191 ug/L	-1.4191 ppb	18:19:11
3	Si 251.611†	515.1	-66.1	-2.1157 ug/L	-2.1157 ppb	18:19:11
3	Sn 189.927†	1.6	0.1	0.0162 ug/L	0.0162 ppb	18:19:11
3	Ti 334.940†	-783.7	153.2	0.2483 ug/L	0.2483 ppb	18:18:51
3	Tl 190.801†	-28.4	2.9	0.9934 ug/L	0.9934 ppb	18:19:11
3	U 409.014†	-1367.0	-403.4	-10.416 ug/L	-10.416 ppb	18:18:51
3	V 292.402†	-1359.1	72.1	0.4636 ug/L	0.4636 ppb	18:18:51
3	Zn 213.857†	741.5	60.1	0.6105 ug/L	0.6105 ppb	18:19:11
3	SiO2†	521.2	-71.8	-4.9022 ug/L	-4.9022 ppb	18:20:11

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	895875.9	102.73 %		0.112			0.11%
Sc Radial	5065.4	93.9 %		1.28			1.36%
Y 371.029	789376.1	101.02 %		0.173			0.17%
Y RADIAL	5444.6	93.79 %		1.248			1.33%
Ag 328.068†	71.4	0.3213 ug/L		0.02893	0.3213 ppb	0.02893	9.00%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	1.6	1.2347 ug/L		3.45330	1.2347 ppb	3.45330	279.69%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	6.3	2.8395 ug/L		2.17708	2.8395 ppb	2.17708	76.67%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	2184.3	50.363 ug/L		2.1332	50.363 ppb	2.1332	4.24%
QC value greater than the upper limit for B 249.677 Recovery = Not calculated							
Ba 233.527†	39.1	0.3362 ug/L		0.11552	0.3362 ppb	0.11552	34.36%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	811.5	0.3060 ug/L		0.00747	0.3060 ppb	0.00747	2.44%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	9.7	16.003 ug/L		2.9318	16.003 ppb	2.9318	18.32%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	-10.5	-0.1298 ug/L	0.08234	-0.1298 ppb	0.08234	63.45%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	-0.7	-0.0171 ug/L	0.16430	-0.0171 ppb	0.16430	958.16%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	1.5	0.0216 ug/L	0.05689	0.0216 ppb	0.05689	262.98%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-1097.1	-3.2057 ug/L	0.12074	-3.2057 ppb	0.12074	3.77%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	-0.7	-6.7612 ug/L	24.60247	-6.7612 ppb	24.60247	363.88%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	1366.0	254.32 ug/L	10.492	254.32 ppb	10.492	4.13%
QC value greater than the upper limit for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	1.1	39.778 ug/L	26.3799	39.778 ppb	26.3799	66.32%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-69.9	-0.0871 ug/L	0.01153	-0.0871 ppb	0.01153	13.24%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	1.5	0.1121 ug/L	0.26700	0.1121 ppb	0.26700	238.24%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	885.5	272.95 ug/L	10.526	272.95 ppb	10.526	3.86%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	7.2	0.1982 ug/L	0.19590	0.1982 ppb	0.19590	98.83%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-4.3	-1.9953 ug/L	4.25917	-1.9953 ppb	4.25917	213.46%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	2.7	0.3736 ug/L	0.61129	0.3736 ppb	0.61129	163.63%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	11.9	18.060 ug/L	5.4821	18.060 ppb	5.4821	30.35%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	2.2	0.8001 ug/L	0.72632	0.8001 ppb	0.72632	90.77%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	2.3	1.3903 ug/L	2.45568	1.3903 ppb	2.45568	176.63%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	-74.1	-2.3679 ug/L	0.30644	-2.3679 ppb	0.30644	12.94%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	0.7	0.1409 ug/L	0.58521	0.1409 ppb	0.58521	415.23%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	3.9	0.0252 ug/L	0.07057	0.0252 ppb	0.07057	279.53%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	112.5	0.1802 ug/L	0.07072	0.1802 ppb	0.07072	39.25%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	-2.0	-0.6809 ug/L	1.67110	-0.6809 ppb	1.67110	245.42%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-309.7	-7.9954 ug/L	2.23298	-7.9954 ppb	2.23298	27.93%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	97.4	0.6371 ug/L	0.15035	0.6371 ppb	0.15035	23.60%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	62.3	0.6342 ug/L	0.02543	0.6342 ppb	0.02543	4.01%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		-70.1	-4.7799 ug/L	0.51429	-4.7799 ppb	0.51429	10.76%
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							



Sequence No.: 44

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/25/2010 19:11:00

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	4943.5	4943.5	91.7 %		19:12:52
1	Y RADIAL	5305.3	5305.3	91.39 %		19:12:52
1	Al 396.153Radial†	6239.4	6802.4	5299.9 ug/L	5299.9 ppb	19:12:52
1	Ca 317.933Radial†	3002.5	3256.0	5392.1 ug/L	5392.1 ppb	19:13:12
1	Fe 238.204 Radial†	521.1	560.4	5263.9 ug/L	5263.9 ppb	19:13:12
1	K 766.490 Radial†	30309.4	31093.2	5784.5 ug/L	5784.5 ppb	19:12:52
1	Mg 279.077 IEC†	140.7	151.0	5542.7 ug/L	5542.7 ppb	19:13:12
1	Na 589.592 Radial†	30622.6	33828.8	10427 ug/L	10427 ppb	19:12:52
1	Sr 421.552†	74140.4	80863.0	526.60 ug/L	526.60 ppb	19:12:52
1	Sc 361.383	880478.9	880478.9	100.96 %		19:14:09
1	Y 371.029	769770.2	769770.2	98.509 %		19:14:09
1	Ag 328.068†	118395.8	116971.5	518.80 ug/L	518.80 ppb	19:14:15
1	As 188.979†	1165.5	1185.0	534.63 ug/L	534.63 ppb	19:14:35
1	B 249.677†	22784.7	22877.0	525.07 ug/L	525.07 ppb	19:14:15
1	Ba 233.527†	62139.2	61551.8	529.15 ug/L	529.15 ppb	19:14:15
1	Be 313.107†	1397178.5	1389439.5	524.41 ug/L	524.41 ppb	19:14:09
1	Cd 226.502†	43476.4	43240.8	533.09 ug/L	533.09 ppb	19:14:15
1	Co 228.616†	22702.5	22545.0	539.94 ug/L	539.94 ppb	19:14:15
1	Cr 267.716†	45739.6	45223.6	532.41 ug/L	532.41 ppb	19:14:15
1	Cu 324.752†	186970.7	175346.9	513.00 ug/L	513.00 ppb	19:14:15
1	Mn 257.610†	434774.3	430067.9	521.96 ug/L	521.96 ppb	19:14:09
1	Mo 202.031†	7184.6	7095.0	524.42 ug/L	524.42 ppb	19:14:35
1	Ni 231.604†	19884.7	19589.7	538.02 ug/L	538.02 ppb	19:14:15
1	P 214.914†	4463.8	4200.7	2506.0 ug/L	2506.0 ppb	19:14:35
1	Pb 220.353†	3781.7	3791.0	527.03 ug/L	527.03 ppb	19:14:35
1	S 181.975 Axial†	760.6	711.9	1078.0 ug/L	1078.0 ppb	19:14:35
1	Sb 206.836†	1494.8	1444.5	544.68 ug/L	544.68 ppb	19:14:35
1	Se 196.026†	820.9	827.2	536.44 ug/L	536.44 ppb	19:14:35
1	Si 251.611†	84482.4	83108.3	2646.5 ug/L	2646.5 ppb	19:14:15
1	Sn 189.927†	2615.5	2589.0	528.24 ug/L	528.24 ppb	19:14:35
1	Ti 334.940†	322507.6	320347.1	505.93 ug/L	505.93 ppb	19:14:15
1	Tl 190.801†	1475.1	1491.5	522.03 ug/L	522.03 ppb	19:14:35
1	U 409.014†	19304.6	20048.9	515.81 ug/L	515.81 ppb	19:14:15
1	V 292.402†	78274.4	78923.8	532.98 ug/L	532.98 ppb	19:14:15
1	Zn 213.857†	53916.8	52740.0	528.79 ug/L	528.79 ppb	19:14:15
1	SiO2†	84071.2	82689.4	5616.9 ug/L	5616.9 ppb	19:15:42
2	Sc Radial	4915.9	4915.9	91.2 %		19:13:17
2	Y RADIAL	5291.3	5291.3	91.15 %		19:13:17
2	Al 396.153Radial†	6223.8	6823.4	5316.3 ug/L	5316.3 ppb	19:13:17
2	Ca 317.933Radial†	3037.9	3313.2	5486.9 ug/L	5486.9 ppb	19:13:37
2	Fe 238.204 Radial†	527.5	570.6	5359.2 ug/L	5359.2 ppb	19:13:37
2	K 766.490 Radial†	30163.7	31119.2	5789.4 ug/L	5789.4 ppb	19:13:17
2	Mg 279.077 IEC†	139.8	150.9	5538.8 ug/L	5538.8 ppb	19:13:37
2	Na 589.592 Radial†	30206.0	33559.5	10344 ug/L	10344 ppb	19:13:17
2	Sr 421.552†	73542.4	80661.5	525.28 ug/L	525.28 ppb	19:13:17
2	Sc 361.383	886494.4	886494.4	101.65 %		19:14:40
2	Y 371.029	775575.3	775575.3	99.252 %		19:14:40
2	Ag 328.068†	117497.8	115292.3	511.41 ug/L	511.41 ppb	19:14:46
2	As 188.979†	1170.0	1181.6	533.04 ug/L	533.04 ppb	19:15:06
2	B 249.677†	22596.4	22538.6	517.28 ug/L	517.28 ppb	19:14:46
2	Ba 233.527†	61631.6	60634.8	521.27 ug/L	521.27 ppb	19:14:46
2	Be 313.107†	1409493.4	1392163.8	525.42 ug/L	525.42 ppb	19:14:40
2	Cd 226.502†	43039.4	42518.7	524.16 ug/L	524.16 ppb	19:14:46
2	Co 228.616†	22505.2	22198.2	531.66 ug/L	531.66 ppb	19:14:46
2	Cr 267.716†	45362.3	44545.1	524.42 ug/L	524.42 ppb	19:14:46
2	Cu 324.752†	185420.0	172564.9	504.87 ug/L	504.87 ppb	19:14:46
2	Mn 257.610†	438131.1	430447.9	522.43 ug/L	522.43 ppb	19:14:40
2	Mo 202.031†	7264.6	7125.5	526.68 ug/L	526.68 ppb	19:15:06
2	Ni 231.604†	19673.7	19248.5	528.65 ug/L	528.65 ppb	19:14:46

2	P 214.914†	4523.6	4229.5	2525.5 ug/L	2525.5 ppb	19:15:06
2	Pb 220.353†	3839.0	3821.9	531.33 ug/L	531.33 ppb	19:15:06
2	S 181.975 Axial†	755.7	702.0	1062.9 ug/L	1062.9 ppb	19:15:06
2	Sb 206.836†	1507.0	1446.5	545.49 ug/L	545.49 ppb	19:15:06
2	Se 196.026†	831.2	831.8	539.63 ug/L	539.63 ppb	19:15:06
2	Si 251.611†	83754.4	81824.4	2605.5 ug/L	2605.5 ppb	19:14:46
2	Sn 189.927†	2654.7	2610.0	532.53 ug/L	532.53 ppb	19:15:06
2	Ti 334.940†	319588.7	315308.0	497.99 ug/L	497.99 ppb	19:14:46
2	Tl 190.801†	1480.6	1487.0	520.44 ug/L	520.44 ppb	19:15:06
2	U 409.014†	18962.8	19583.0	503.79 ug/L	503.79 ppb	19:14:46
2	V 292.402†	77732.8	77864.9	525.93 ug/L	525.93 ppb	19:14:46
2	Zn 213.857†	53554.6	52021.3	521.58 ug/L	521.58 ppb	19:14:46
2	SiO2†	84440.3	82487.5	5603.1 ug/L	5603.1 ppb	19:15:47
3	Sc Radial	4986.8	4986.8	92.5 %		19:13:42
3	Y RADIAL	5349.0	5349.0	92.14 %		19:13:42
3	Al 396.153Radial†	6280.2	6787.3	5288.2 ug/L	5288.2 ppb	19:13:42
3	Ca 317.933Radial†	3011.9	3237.8	5361.9 ug/L	5361.9 ppb	19:14:02
3	Fe 238.204 Radial†	526.6	561.5	5274.1 ug/L	5274.1 ppb	19:14:02
3	K 766.490 Radial†	30473.8	30984.0	5764.2 ug/L	5764.2 ppb	19:13:42
3	Mg 279.077 IEC†	138.1	146.9	5391.0 ug/L	5391.0 ppb	19:14:02
3	Na 589.592 Radial†	30639.6	33557.2	10344 ug/L	10344 ppb	19:13:42
3	Sr 421.552†	74220.9	80248.0	522.59 ug/L	522.59 ppb	19:13:42
3	Sc 361.383	883125.8	883125.8	101.27 %		19:15:11
3	Y 371.029	771687.4	771687.4	98.754 %		19:15:11
3	Ag 328.068†	118731.4	116951.4	518.71 ug/L	518.71 ppb	19:15:17
3	As 188.979†	1154.5	1170.7	528.23 ug/L	528.23 ppb	19:15:37
3	B 249.677†	22827.5	22851.6	524.48 ug/L	524.48 ppb	19:15:17
3	Ba 233.527†	62373.6	61598.7	529.55 ug/L	529.55 ppb	19:15:17
3	Be 313.107†	1403088.6	1391128.2	525.05 ug/L	525.05 ppb	19:15:11
3	Cd 226.502†	43582.7	43216.7	532.79 ug/L	532.79 ppb	19:15:17
3	Co 228.616†	22798.4	22572.2	540.59 ug/L	540.59 ppb	19:15:17
3	Cr 267.716†	45858.6	45205.4	532.19 ug/L	532.19 ppb	19:15:17
3	Cu 324.752†	187152.4	174971.3	511.90 ug/L	511.90 ppb	19:15:17
3	Mn 257.610†	437103.0	431076.8	523.19 ug/L	523.19 ppb	19:15:11
3	Mo 202.031†	7181.1	7070.2	522.59 ug/L	522.59 ppb	19:15:37
3	Ni 231.604†	19916.7	19562.3	537.27 ug/L	537.27 ppb	19:15:17
3	P 214.914†	4491.5	4214.8	2515.0 ug/L	2515.0 ppb	19:15:37
3	Pb 220.353†	3816.9	3814.5	530.29 ug/L	530.29 ppb	19:15:37
3	S 181.975 Axial†	760.1	709.2	1073.8 ug/L	1073.8 ppb	19:15:37
3	Sb 206.836†	1484.1	1429.5	539.19 ug/L	539.19 ppb	19:15:37
3	Se 196.026†	815.9	819.8	531.83 ug/L	531.83 ppb	19:15:37
3	Si 251.611†	84602.9	82976.5	2642.3 ug/L	2642.3 ppb	19:15:17
3	Sn 189.927†	2625.3	2591.0	528.64 ug/L	528.64 ppb	19:15:37
3	Ti 334.940†	322697.5	319577.2	504.72 ug/L	504.72 ppb	19:15:17
3	Tl 190.801†	1473.1	1485.2	519.81 ug/L	519.81 ppb	19:15:37
3	U 409.014†	19259.3	19946.9	513.17 ug/L	513.17 ppb	19:15:17
3	V 292.402†	78558.3	78971.8	533.27 ug/L	533.27 ppb	19:15:17
3	Zn 213.857†	54052.2	52713.7	528.53 ug/L	528.53 ppb	19:15:17
3	SiO2†	84480.0	82843.6	5627.4 ug/L	5627.4 ppb	19:15:52

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	883366.3	101.29 %	0.346			0.34%
Sc Radial	4948.7	91.8 %	0.66			0.72%
Y 371.029	772344.3	98.839 %	0.3785			0.38%
Y RADIAL	5315.2	91.56 %	0.519			0.57%
Ag 328.068†	116405.1	516.31 ug/L	4.243	516.31 ppb	4.243	0.82%
QC value within limits for Ag 328.068 Recovery = 103.26%						
Al 396.153Radial†	6804.4	5301.5 ug/L	14.10	5301.5 ppb	14.10	0.27%
QC value within limits for Al 396.153Radial Recovery = 106.03%						
As 188.979†	1179.1	531.97 ug/L	3.332	531.97 ppb	3.332	0.63%
QC value within limits for As 188.979 Recovery = 106.39%						
B 249.677†	22755.7	522.28 ug/L	4.340	522.28 ppb	4.340	0.83%
QC value within limits for B 249.677 Recovery = 104.46%						
Ba 233.527†	61261.8	526.66 ug/L	4.668	526.66 ppb	4.668	0.89%
QC value within limits for Ba 233.527 Recovery = 105.33%						
Be 313.107†	1390910.5	524.96 ug/L	0.509	524.96 ppb	0.509	0.10%
QC value within limits for Be 313.107 Recovery = 104.99%						
Ca 317.933Radial†	3269.0	5413.6 ug/L	65.20	5413.6 ppb	65.20	1.20%

QC value within limits for Ca 317.933 Radial Recovery = 108.27%

Cd 226.502†	42992.1	530.01 ug/L	5.067	530.01 ppb	5.067	0.96%
QC value within limits for Cd 226.502 Recovery = 106.00%						
Co 228.616†	22438.5	537.40 ug/L	4.980	537.40 ppb	4.980	0.93%
QC value within limits for Co 228.616 Recovery = 107.48%						
Cr 267.716†	44991.4	529.67 ug/L	4.549	529.67 ppb	4.549	0.86%
QC value within limits for Cr 267.716 Recovery = 105.93%						
Cu 324.752†	174294.4	509.93 ug/L	4.410	509.93 ppb	4.410	0.86%
QC value within limits for Cu 324.752 Recovery = 101.99%						
Fe 238.204 Radial†	564.2	5299.1 ug/L	52.34	5299.1 ppb	52.34	0.99%
QC value within limits for Fe 238.204 Radial Recovery = 105.98%						
K 766.490 Radial†	31065.4	5779.4 ug/L	13.33	5779.4 ppb	13.33	0.23%
QC value greater than the upper limit for K 766.490 Radial Recovery = 115.59%						
Mg 279.077 IEC†	149.6	5490.8 ug/L	86.46	5490.8 ppb	86.46	1.57%
QC value within limits for Mg 279.077 IEC Recovery = 109.82%						
Mn 257.610†	430530.9	522.52 ug/L	0.621	522.52 ppb	0.621	0.12%
QC value within limits for Mn 257.610 Recovery = 104.50%						
Mo 202.031†	7096.9	524.56 ug/L	2.049	524.56 ppb	2.049	0.39%
QC value within limits for Mo 202.031 Recovery = 104.91%						
Na 589.592 Radial†	33648.5	10372 ug/L	48.1	10372 ppb	48.1	0.46%
QC value within limits for Na 589.592 Radial Recovery = 103.72%						
Ni 231.604†	19466.8	534.65 ug/L	5.206	534.65 ppb	5.206	0.97%
QC value within limits for Ni 231.604 Recovery = 106.93%						
P 214.914†	4215.0	2515.5 ug/L	9.75	2515.5 ppb	9.75	0.39%
QC value within limits for P 214.914 Recovery = 100.62%						
Pb 220.353†	3809.1	529.55 ug/L	2.243	529.55 ppb	2.243	0.42%
QC value within limits for Pb 220.353 Recovery = 105.91%						
S 181.975 Axial†	707.7	1071.6 ug/L	7.75	1071.6 ppb	7.75	0.72%
QC value within limits for S 181.975 Axial Recovery = 107.16%						
Sb 206.836†	1440.2	543.12 ug/L	3.430	543.12 ppb	3.430	0.63%
QC value within limits for Sb 206.836 Recovery = 108.62%						
Se 196.026†	826.2	535.97 ug/L	3.919	535.97 ppb	3.919	0.73%
QC value within limits for Se 196.026 Recovery = 107.19%						
Si 251.611†	82636.4	2631.4 ug/L	22.57	2631.4 ppb	22.57	0.86%
QC value within limits for Si 251.611 Recovery = 105.26%						
Sn 189.927†	2596.7	529.80 ug/L	2.370	529.80 ppb	2.370	0.45%
QC value within limits for Sn 189.927 Recovery = 105.96%						
Sr 421.552†	80590.8	524.82 ug/L	2.042	524.82 ppb	2.042	0.39%
QC value within limits for Sr 421.552 Recovery = 104.96%						
Ti 334.940†	318410.8	502.88 ug/L	4.278	502.88 ppb	4.278	0.85%
QC value within limits for Ti 334.940 Recovery = 100.58%						
Tl 190.801†	1487.9	520.76 ug/L	1.143	520.76 ppb	1.143	0.22%
QC value within limits for Tl 190.801 Recovery = 104.15%						
U 409.014†	19859.6	510.92 ug/L	6.319	510.92 ppb	6.319	1.24%
QC value within limits for U 409.014 Recovery = 102.18%						
V 292.402†	78586.8	530.73 ug/L	4.156	530.73 ppb	4.156	0.78%
QC value within limits for V 292.402 Recovery = 106.15%						
Zn 213.857†	52491.7	526.30 ug/L	4.088	526.30 ppb	4.088	0.78%
QC value within limits for Zn 213.857 Recovery = 105.26%						
SiO2†	82673.5	5615.8 ug/L	12.22	5615.8 ppb	12.22	0.22%
QC value within limits for SiO2 Recovery = 105.02%						

QC Failed. Continue with analysis.

Sequence No.: 45

Sample ID: CCB

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/25/2010 19:18:03

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	5041.9	5041.9	93.5 %		19:19:54
1	Y RADIAL	5424.7	5424.7	93.45 %		19:19:54
1	Al 396.153Radial†	9.3	5.9	4.5930 ug/L	4.5930 ppb	19:20:14
1	Ca 317.933Radial†	21.3	3.4	5.6294 ug/L	5.6294 ppb	19:20:14
1	Fe 238.204 Radial†	6.3	-1.3	-11.713 ug/L	-11.713 ppb	19:20:14
1	K 766.490 Radial†	2769.4	991.5	184.60 ug/L	184.60 ppb	19:19:54
1	Mg 279.077 IEC†	4.3	2.2	79.290 ug/L	79.290 ppb	19:20:14
1	Na 589.592 Radial†	94.5	524.5	161.67 ug/L	161.67 ppb	19:19:54
1	Sr 421.552†	31.4	18.5	0.1206 ug/L	0.1206 ppb	19:19:54
1	Sc 361.383	891893.9	891893.9	102.27 %		19:21:11
1	Y 371.029	787214.2	787214.2	100.74 %		19:21:11
1	Ag 328.068†	431.2	127.0	0.5660 ug/L	0.5660 ppb	19:21:16
1	As 188.979†	-28.1	3.1	1.3976 ug/L	1.3976 ppb	19:21:36
1	B 249.677†	391.3	692.4	15.964 ug/L	15.964 ppb	19:21:36
1	Ba 233.527†	1.6	7.1	0.0607 ug/L	0.0607 ppb	19:21:36
1	Be 313.107†	-4901.9	799.8	0.3019 ug/L	0.3019 ppb	19:21:16
1	Cd 226.502†	-198.1	-14.4	-0.1787 ug/L	-0.1787 ppb	19:21:36
1	Co 228.616†	-41.7	18.3	0.4376 ug/L	0.4376 ppb	19:21:36
1	Cr 267.716†	72.3	-8.8	-0.0994 ug/L	-0.0994 ppb	19:21:36
1	Cu 324.752†	8909.4	-1128.3	-3.2954 ug/L	-3.2954 ppb	19:21:16
1	Mn 257.610†	490.5	-78.3	-0.0994 ug/L	-0.0994 ppb	19:21:36
1	Mo 202.031†	22.8	1.2	0.0890 ug/L	0.0890 ppb	19:21:36
1	Ni 231.604†	132.7	24.5	0.6733 ug/L	0.6733 ppb	19:21:36
1	P 214.914†	201.1	-23.8	-14.116 ug/L	-14.116 ppb	19:21:36
1	Pb 220.353†	-52.0	-5.4	-0.7494 ug/L	-0.7494 ppb	19:21:36
1	S 181.975 Axial†	44.2	1.8	2.7221 ug/L	2.7221 ppb	19:21:36
1	Sb 206.836†	33.1	-3.7	-1.3299 ug/L	-1.3299 ppb	19:21:36
1	Se 196.026†	-14.4	0.0	-0.0084 ug/L	-0.0084 ppb	19:21:36
1	Si 251.611†	550.5	-29.6	-0.9473 ug/L	-0.9473 ppb	19:21:36
1	Sn 189.927†	1.4	-0.1	-0.0220 ug/L	-0.0220 ppb	19:21:36
1	Ti 334.940†	-743.2	190.1	0.2997 ug/L	0.2997 ppb	19:21:16
1	Tl 190.801†	-35.3	-4.1	-1.4130 ug/L	-1.4130 ppb	19:21:36
1	U 409.014†	-1401.4	-441.7	-11.402 ug/L	-11.402 ppb	19:21:16
1	V 292.402†	-1394.7	32.5	0.1991 ug/L	0.1991 ppb	19:21:16
1	Zn 213.857†	706.1	28.1	0.2855 ug/L	0.2855 ppb	19:21:36
1	SiO2†	557.1	-34.9	-2.3764 ug/L	-2.3764 ppb	19:22:57
2	Sc Radial	4988.5	4988.5	92.5 %		19:20:19
2	Y RADIAL	5372.7	5372.7	92.55 %		19:20:19
2	Al 396.153Radial†	18.3	15.7	12.275 ug/L	12.275 ppb	19:20:40
2	Ca 317.933Radial†	19.5	1.7	2.8407 ug/L	2.8407 ppb	19:20:40
2	Fe 238.204 Radial†	5.8	-1.8	-16.842 ug/L	-16.842 ppb	19:20:40
2	K 766.490 Radial†	2624.5	866.5	161.33 ug/L	161.33 ppb	19:20:19
2	Mg 279.077 IEC†	2.3	0.0	1.6911 ug/L	1.6911 ppb	19:20:40
2	Na 589.592 Radial†	57.6	485.7	149.70 ug/L	149.70 ppb	19:20:19
2	Sr 421.552†	36.5	24.4	0.1591 ug/L	0.1591 ppb	19:20:19
2	Sc 361.383	897771.6	897771.6	102.95 %		19:21:41
2	Y 371.029	791765.1	791765.1	101.32 %		19:21:41
2	Ag 328.068†	473.2	165.1	0.7317 ug/L	0.7317 ppb	19:21:46
2	As 188.979†	-32.9	-1.3	-0.6059 ug/L	-0.6059 ppb	19:22:06
2	B 249.677†	379.7	678.5	15.647 ug/L	15.647 ppb	19:22:06
2	Ba 233.527†	5.7	11.0	0.0949 ug/L	0.0949 ppb	19:22:06
2	Be 313.107†	-4958.6	776.1	0.2929 ug/L	0.2929 ppb	19:21:46
2	Cd 226.502†	-187.3	-2.7	-0.0337 ug/L	-0.0337 ppb	19:22:06
2	Co 228.616†	-61.6	-0.8	-0.0188 ug/L	-0.0188 ppb	19:22:06
2	Cr 267.716†	57.5	-23.7	-0.2745 ug/L	-0.2745 ppb	19:22:06
2	Cu 324.752†	8949.5	-1146.4	-3.3496 ug/L	-3.3496 ppb	19:21:46
2	Mn 257.610†	488.6	-83.3	-0.1028 ug/L	-0.1028 ppb	19:22:06
2	Mo 202.031†	27.8	6.0	0.4410 ug/L	0.4410 ppb	19:22:06
2	Ni 231.604†	112.4	3.9	0.1071 ug/L	0.1071 ppb	19:22:06

2	P 214.914†	210.5	-16.1	-9.2750 ug/L	-9.2750 ppb	19:22:06
2	Pb 220.353†	-42.4	4.2	0.5937 ug/L	0.5937 ppb	19:22:06
2	S 181.975 Axial†	43.5	0.8	1.2665 ug/L	1.2665 ppb	19:22:06
2	Sb 206.836†	40.9	3.7	1.3509 ug/L	1.3509 ppb	19:22:06
2	Se 196.026†	-19.3	-4.6	-2.9565 ug/L	-2.9565 ppb	19:22:06
2	Si 251.611†	567.0	-17.1	-0.5523 ug/L	-0.5523 ppb	19:22:06
2	Sn 189.927†	5.1	3.5	0.7069 ug/L	0.7069 ppb	19:22:06
2	Ti 334.940†	-758.5	180.0	0.2888 ug/L	0.2888 ppb	19:21:46
2	Tl 190.801†	-37.5	-5.9	-2.0487 ug/L	-2.0487 ppb	19:22:06
2	U 409.014†	-1332.0	-365.4	-9.4303 ug/L	-9.4303 ppb	19:21:46
2	V 292.402†	-1356.9	78.2	0.5116 ug/L	0.5116 ppb	19:21:46
2	Zn 213.857†	723.7	40.7	0.4171 ug/L	0.4171 ppb	19:22:06
2	SiO2†	579.2	-17.0	-1.1684 ug/L	-1.1684 ppb	19:23:17
3	Sc Radial	5010.9	5010.9	92.9 %		19:20:45
3	Y RADIAL	5428.4	5428.4	93.51 %		19:20:45
3	Al 396.153Radial†	5.8	2.1	1.6294 ug/L	1.6294 ppb	19:21:05
3	Ca 317.933Radial†	22.2	4.5	7.5069 ug/L	7.5069 ppb	19:21:05
3	Fe 238.204 Radial†	7.2	-0.3	-2.9785 ug/L	-2.9785 ppb	19:21:05
3	K 766.490 Radial†	2780.0	1021.2	190.14 ug/L	190.14 ppb	19:20:45
3	Mg 279.077 IEC†	0.7	-1.7	-61.421 ug/L	-61.421 ppb	19:21:05
3	Na 589.592 Radial†	72.0	500.9	154.38 ug/L	154.38 ppb	19:20:45
3	Sr 421.552†	24.2	11.1	0.0719 ug/L	0.0719 ppb	19:20:45
3	Sc 361.383	885102.8	885102.8	101.49 %		19:22:12
3	Y 371.029	779694.4	779694.4	99.779 %		19:22:12
3	Ag 328.068†	406.9	106.3	0.4775 ug/L	0.4775 ppb	19:22:17
3	As 188.979†	-38.4	-7.2	-3.2081 ug/L	-3.2081 ppb	19:22:37
3	B 249.677†	337.9	642.7	14.818 ug/L	14.818 ppb	19:22:37
3	Ba 233.527†	-9.0	-3.4	-0.0284 ug/L	-0.0284 ppb	19:22:37
3	Be 313.107†	-4879.0	785.6	0.2963 ug/L	0.2963 ppb	19:22:17
3	Cd 226.502†	-188.3	-6.3	-0.0790 ug/L	-0.0790 ppb	19:22:37
3	Co 228.616†	-60.8	-0.9	-0.0196 ug/L	-0.0196 ppb	19:22:37
3	Cr 267.716†	77.5	-3.1	-0.0321 ug/L	-0.0321 ppb	19:22:37
3	Cu 324.752†	8875.1	-1095.2	-3.1989 ug/L	-3.1989 ppb	19:22:17
3	Mn 257.610†	485.8	-79.3	-0.0940 ug/L	-0.0940 ppb	19:22:37
3	Mo 202.031†	33.6	12.1	0.8922 ug/L	0.8922 ppb	19:22:37
3	Ni 231.604†	112.7	5.8	0.1588 ug/L	0.1588 ppb	19:22:37
3	P 214.914†	227.1	3.2	2.6368 ug/L	2.6368 ppb	19:22:37
3	Pb 220.353†	-52.6	-6.5	-0.8946 ug/L	-0.8946 ppb	19:22:37
3	S 181.975 Axial†	42.3	0.3	0.4547 ug/L	0.4547 ppb	19:22:37
3	Sb 206.836†	41.3	4.7	1.7148 ug/L	1.7148 ppb	19:22:37
3	Se 196.026†	-20.7	-6.3	-3.9255 ug/L	-3.9255 ppb	19:22:37
3	Si 251.611†	553.4	-22.7	-0.7356 ug/L	-0.7356 ppb	19:22:37
3	Sn 189.927†	2.5	1.0	0.1992 ug/L	0.1992 ppb	19:22:37
3	Ti 334.940†	-806.7	122.0	0.2032 ug/L	0.2032 ppb	19:22:17
3	Tl 190.801†	-36.2	-5.2	-1.8090 ug/L	-1.8090 ppb	19:22:37
3	U 409.014†	-1336.9	-388.7	-10.034 ug/L	-10.034 ppb	19:22:17
3	V 292.402†	-1350.2	66.0	0.4322 ug/L	0.4322 ppb	19:22:17
3	Zn 213.857†	720.6	47.7	0.4862 ug/L	0.4862 ppb	19:22:37
3	SiO2†	546.2	-41.5	-2.8472 ug/L	-2.8472 ppb	19:23:37

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	891589.5	102.24 %	0.727			0.71%
Sc Radial	5013.8	93.0 %	0.50			0.54%
Y 371.029	786224.6	100.61 %	0.780			0.78%
Y RADIAL	5408.6	93.17 %	0.536			0.58%
Ag 328.068†	132.8	0.5917 ug/L	0.12908	0.5917 ppb	0.12908	21.81%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	7.9	6.1658 ug/L	5.49439	6.1658 ppb	5.49439	89.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.8	-0.8054 ug/L	2.30933	-0.8054 ppb	2.30933	286.72%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	671.2	15.476 ug/L	0.5916	15.476 ppb	0.5916	3.82%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.9	0.0424 ug/L	0.06370	0.0424 ppb	0.06370	150.18%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	787.2	0.2970 ug/L	0.00452	0.2970 ppb	0.00452	1.52%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	3.2	5.3257 ug/L	2.34784	5.3257 ppb	2.34784	44.09%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	-7.8	-0.0971 ug/L	0.07421	-0.0971 ppb	0.07421	76.41%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	5.5	0.1331 ug/L	0.26373	0.1331 ppb	0.26373	198.21%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-11.9	-0.1353 ug/L	0.12512	-0.1353 ppb	0.12512	92.45%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-1123.3	-3.2813 ug/L	0.07636	-3.2813 ppb	0.07636	2.33%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	-1.1	-10.511 ug/L	7.0092	-10.511 ppb	7.0092	66.68%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	959.7	178.69 ug/L	15.286	178.69 ppb	15.286	8.55%
QC value greater than the upper limit for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	0.2	6.5199 ug/L	70.47993	6.5199 ppb	70.47993	>999.9%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-80.3	-0.0987 ug/L	0.00447	-0.0987 ppb	0.00447	4.53%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	6.4	0.4740 ug/L	0.40262	0.4740 ppb	0.40262	84.93%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	503.7	155.25 ug/L	6.032	155.25 ppb	6.032	3.89%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	11.4	0.3130 ug/L	0.31303	0.3130 ppb	0.31303	100.00%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-12.2	-6.9180 ug/L	8.62141	-6.9180 ppb	8.62141	124.62%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-2.6	-0.3501 ug/L	0.82055	-0.3501 ppb	0.82055	234.37%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	1.0	1.4811 ug/L	1.14882	1.4811 ppb	1.14882	77.57%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	1.6	0.5786 ug/L	1.66283	0.5786 ppb	1.66283	287.39%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-3.6	-2.2968 ug/L	2.04019	-2.2968 ppb	2.04019	88.83%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	-23.2	-0.7450 ug/L	0.19768	-0.7450 ppb	0.19768	26.53%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	1.4	0.2947 ug/L	0.37370	0.2947 ppb	0.37370	126.82%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	18.0	0.1172 ug/L	0.04367	0.1172 ppb	0.04367	37.27%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	164.0	0.2639 ug/L	0.05283	0.2639 ppb	0.05283	20.02%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	-5.1	-1.7569 ug/L	0.32104	-1.7569 ppb	0.32104	18.27%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-398.6	-10.289 ug/L	1.0105	-10.289 ppb	1.0105	9.82%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	58.9	0.3810 ug/L	0.16244	0.3810 ppb	0.16244	42.64%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	38.8	0.3963 ug/L	0.10194	0.3963 ppb	0.10194	25.73%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		-31.1	-2.1307 ug/L	0.86600	-2.1307 ppb	0.86600	40.64%
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 55

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/25/2010 20:28:40

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	4946.9	4946.9	91.7 %		20:30:32
1	Y RADIAL	5313.7	5313.7	91.53 %		20:30:32
1	Al 396.153Radial†	6372.8	6943.0	5409.6 ug/L	5409.6 ppb	20:30:32
1	Ca 317.933Radial†	3079.7	3337.8	5527.6 ug/L	5527.6 ppb	20:30:52
1	Fe 238.204 Radial†	536.4	576.7	5416.5 ug/L	5416.5 ppb	20:30:52
1	K 766.490 Radial†	30278.6	31036.5	5773.9 ug/L	5773.9 ppb	20:30:32
1	Mg 279.077 IEC†	143.6	154.1	5655.0 ug/L	5655.0 ppb	20:30:52
1	Na 589.592 Radial†	30418.0	33582.5	10351 ug/L	10351 ppb	20:30:32
1	Sr 421.552†	74681.4	81396.1	530.07 ug/L	530.07 ppb	20:30:32
1	Sc 361.383	886657.9	886657.9	101.67 %		20:31:49
1	Y 371.029	775642.4	775642.4	99.261 %		20:31:49
1	Ag 328.068†	120093.9	117824.4	522.63 ug/L	522.63 ppb	20:31:55
1	As 188.979†	1185.5	1196.6	539.85 ug/L	539.85 ppb	20:32:15
1	B 249.677†	22560.7	22499.4	516.33 ug/L	516.33 ppb	20:31:55
1	Ba 233.527†	63198.1	62164.4	534.42 ug/L	534.42 ppb	20:31:55
1	Be 313.107†	1443104.3	1424966.2	537.80 ug/L	537.80 ppb	20:31:49
1	Cd 226.502†	44387.2	43836.6	540.42 ug/L	540.42 ppb	20:31:55
1	Co 228.616†	23067.3	22747.0	544.79 ug/L	544.79 ppb	20:31:55
1	Cr 267.716†	46577.9	45732.4	538.40 ug/L	538.40 ppb	20:31:55
1	Cu 324.752†	188346.6	175409.6	513.19 ug/L	513.19 ppb	20:31:55
1	Mn 257.610†	447929.7	440005.9	534.02 ug/L	534.02 ppb	20:31:49
1	Mo 202.031†	7342.2	7200.5	532.22 ug/L	532.22 ppb	20:32:15
1	Ni 231.604†	20185.5	19748.4	542.38 ug/L	542.38 ppb	20:31:55
1	P 214.914†	4571.2	4275.5	2552.4 ug/L	2552.4 ppb	20:32:15
1	Pb 220.353†	3889.8	3871.2	538.18 ug/L	538.18 ppb	20:32:15
1	S 181.975 Axial†	768.4	714.4	1081.6 ug/L	1081.6 ppb	20:32:15
1	Sb 206.836†	1491.4	1430.8	540.01 ug/L	540.01 ppb	20:32:15
1	Se 196.026†	850.0	850.1	551.33 ug/L	551.33 ppb	20:32:15
1	Si 251.611†	85774.4	83796.0	2668.4 ug/L	2668.4 ppb	20:31:55
1	Sn 189.927†	2678.7	2633.2	537.26 ug/L	537.26 ppb	20:32:15
1	Ti 334.940†	326133.4	321687.2	508.05 ug/L	508.05 ppb	20:31:55
1	Tl 190.801†	1511.1	1516.7	530.82 ug/L	530.82 ppb	20:32:15
1	U 409.014†	19349.8	19960.1	513.49 ug/L	513.49 ppb	20:31:55
1	V 292.402†	79688.9	79774.7	538.74 ug/L	538.74 ppb	20:31:55
1	Zn 213.857†	54913.2	53347.8	534.89 ug/L	534.89 ppb	20:31:55
1	SiO2†	86067.3	84072.4	5710.8 ug/L	5710.8 ppb	20:33:22
2	Sc Radial	4856.4	4856.4	90.1 %		20:30:57
2	Y RADIAL	5212.7	5212.7	89.79 %		20:30:57
2	Al 396.153Radial†	6237.8	6922.6	5393.4 ug/L	5393.4 ppb	20:30:57
2	Ca 317.933Radial†	3070.3	3390.0	5614.0 ug/L	5614.0 ppb	20:31:17
2	Fe 238.204 Radial†	535.6	586.7	5510.4 ug/L	5510.4 ppb	20:31:17
2	K 766.490 Radial†	29632.3	30934.4	5754.9 ug/L	5754.9 ppb	20:30:57
2	Mg 279.077 IEC†	143.5	156.9	5758.1 ug/L	5758.1 ppb	20:31:17
2	Na 589.592 Radial†	29487.1	33167.2	10223 ug/L	10223 ppb	20:30:57
2	Sr 421.552†	72840.7	80870.5	526.64 ug/L	526.64 ppb	20:30:57
2	Sc 361.383	877353.8	877353.8	100.61 %		20:32:20
2	Y 371.029	768053.0	768053.0	98.289 %		20:32:20
2	Ag 328.068†	119620.2	118606.2	526.12 ug/L	526.12 ppb	20:32:26
2	As 188.979†	1193.3	1216.7	548.89 ug/L	548.89 ppb	20:32:46
2	B 249.677†	22460.5	22635.2	519.43 ug/L	519.43 ppb	20:32:26
2	Ba 233.527†	62993.9	62620.5	538.34 ug/L	538.34 ppb	20:32:26
2	Be 313.107†	1426315.4	1423330.5	537.19 ug/L	537.19 ppb	20:32:20
2	Cd 226.502†	44214.4	44127.8	544.00 ug/L	544.00 ppb	20:32:26
2	Co 228.616†	22957.8	22878.8	547.95 ug/L	547.95 ppb	20:32:26
2	Cr 267.716†	46469.3	46110.3	542.85 ug/L	542.85 ppb	20:32:26
2	Cu 324.752†	187281.6	176315.6	515.85 ug/L	515.85 ppb	20:32:26
2	Mn 257.610†	442447.5	439228.8	533.08 ug/L	533.08 ppb	20:32:20
2	Mo 202.031†	7334.9	7269.7	537.35 ug/L	537.35 ppb	20:32:46
2	Ni 231.604†	20151.3	19924.9	547.23 ug/L	547.23 ppb	20:32:26

2	P 214.914†	4560.9	4313.0	2575.1 ug/L	2575.1 ppb	20:32:46
2	Pb 220.353†	3891.6	3913.6	544.05 ug/L	544.05 ppb	20:32:46
2	S 181.975 Axial†	773.5	727.4	1101.4 ug/L	1101.4 ppb	20:32:46
2	Sb 206.836†	1497.8	1452.8	548.14 ug/L	548.14 ppb	20:32:46
2	Se 196.026†	839.8	848.8	550.83 ug/L	550.83 ppb	20:32:46
2	Si 251.611†	85455.5	84373.7	2686.7 ug/L	2686.7 ppb	20:32:26
2	Sn 189.927†	2662.1	2644.6	539.60 ug/L	539.60 ppb	20:32:46
2	Ti 334.940†	325309.4	324269.9	512.14 ug/L	512.14 ppb	20:32:26
2	Tl 190.801†	1517.8	1539.1	538.63 ug/L	538.63 ppb	20:32:46
2	U 409.014†	19067.6	19881.4	511.43 ug/L	511.43 ppb	20:32:26
2	V 292.402†	79495.1	80413.3	543.04 ug/L	543.04 ppb	20:32:26
2	Zn 213.857†	54616.2	53625.4	537.66 ug/L	537.66 ppb	20:32:26
2	SiO2†	85042.7	83951.7	5702.5 ug/L	5702.5 ppb	20:33:27
3	Sc Radial	4835.1	4835.1	89.7 %		20:31:22
3	Y RADIAL	5250.9	5250.9	90.45 %		20:31:22
3	Al 396.153Radial†	6298.2	7020.5	5470.1 ug/L	5470.1 ppb	20:31:22
3	Ca 317.933Radial†	3075.0	3410.3	5647.6 ug/L	5647.6 ppb	20:31:42
3	Fe 238.204 Radial†	532.9	586.3	5506.7 ug/L	5506.7 ppb	20:31:42
3	K 766.490 Radial†	29813.2	31280.9	5819.4 ug/L	5819.4 ppb	20:31:22
3	Mg 279.077 IEC†	145.1	159.5	5851.7 ug/L	5851.7 ppb	20:31:42
3	Na 589.592 Radial†	29650.8	33493.7	10324 ug/L	10324 ppb	20:31:22
3	Sr 421.552†	73095.1	81510.0	530.81 ug/L	530.81 ppb	20:31:22
3	Sc 361.383	876504.3	876504.3	100.51 %		20:32:51
3	Y 371.029	768099.6	768099.6	98.295 %		20:32:51
3	Ag 328.068†	120664.4	119760.3	531.22 ug/L	531.22 ppb	20:32:57
3	As 188.979†	1190.3	1214.9	548.13 ug/L	548.13 ppb	20:33:17
3	B 249.677†	22854.4	23048.7	528.95 ug/L	528.95 ppb	20:32:57
3	Ba 233.527†	63567.9	63252.3	543.77 ug/L	543.77 ppb	20:32:57
3	Be 313.107†	1424822.5	1423219.1	537.16 ug/L	537.16 ppb	20:32:51
3	Cd 226.502†	44613.6	44567.6	549.43 ug/L	549.43 ppb	20:32:57
3	Co 228.616†	23132.4	23074.7	552.62 ug/L	552.62 ppb	20:32:57
3	Cr 267.716†	46868.5	46552.3	548.06 ug/L	548.06 ppb	20:32:57
3	Cu 324.752†	189497.1	178700.3	522.82 ug/L	522.82 ppb	20:32:57
3	Mn 257.610†	440690.7	437907.0	531.48 ug/L	531.48 ppb	20:32:51
3	Mo 202.031†	7304.2	7246.3	535.62 ug/L	535.62 ppb	20:33:17
3	Ni 231.604†	20259.5	20051.9	550.72 ug/L	550.72 ppb	20:32:57
3	P 214.914†	4568.0	4324.4	2580.8 ug/L	2580.8 ppb	20:33:17
3	Pb 220.353†	3873.8	3899.6	542.13 ug/L	542.13 ppb	20:33:17
3	S 181.975 Axial†	757.7	712.5	1078.8 ug/L	1078.8 ppb	20:33:17
3	Sb 206.836†	1495.2	1451.6	547.68 ug/L	547.68 ppb	20:33:17
3	Se 196.026†	831.1	841.0	545.91 ug/L	545.91 ppb	20:33:17
3	Si 251.611†	86091.3	85088.6	2709.6 ug/L	2709.6 ppb	20:32:57
3	Sn 189.927†	2661.3	2646.3	539.96 ug/L	539.96 ppb	20:33:17
3	Ti 334.940†	328459.8	327717.7	517.58 ug/L	517.58 ppb	20:32:57
3	Tl 190.801†	1521.3	1544.1	540.37 ug/L	540.37 ppb	20:33:17
3	U 409.014†	19274.9	20106.1	517.22 ug/L	517.22 ppb	20:32:57
3	V 292.402†	80265.1	81256.0	548.64 ug/L	548.64 ppb	20:32:57
3	Zn 213.857†	55130.8	54190.0	543.33 ug/L	543.33 ppb	20:32:57
3	SiO2†	86312.4	85296.8	5794.1 ug/L	5794.1 ppb	20:33:32

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	880172.0	100.93 %	0.646			0.64%
Sc Radial	4879.5	90.5 %	1.10			1.22%
Y 371.029	770598.3	98.615 %	0.5590			0.57%
Y RADIAL	5259.1	90.59 %	0.878			0.97%
Ag 328.068†	118730.3	526.66 ug/L	4.323	526.66 ppb	4.323	0.82%
QC value within limits for Ag 328.068 Recovery = 105.33%						
Al 396.153Radial†	6962.0	5424.4 ug/L	40.43	5424.4 ppb	40.43	0.75%
QC value within limits for Al 396.153Radial Recovery = 108.49%						
As 188.979†	1209.4	545.62 ug/L	5.018	545.62 ppb	5.018	0.92%
QC value within limits for As 188.979 Recovery = 109.12%						
B 249.677†	22727.8	521.57 ug/L	6.579	521.57 ppb	6.579	1.26%
QC value within limits for B 249.677 Recovery = 104.31%						
Ba 233.527†	62679.1	538.84 ug/L	4.697	538.84 ppb	4.697	0.87%
QC value within limits for Ba 233.527 Recovery = 107.77%						
Be 313.107†	1423838.6	537.38 ug/L	0.359	537.38 ppb	0.359	0.07%
QC value within limits for Be 313.107 Recovery = 107.48%						
Ca 317.933Radial†	3379.4	5596.4 ug/L	61.90	5596.4 ppb	61.90	1.11%



QC value greater than the upper limit for Ca 317.933Radial Recovery = 111.93%							
Cd 226.502†	44177.3	544.62 ug/L	4.536	544.62 ppb	4.536	0.83%	
QC value within limits for Cd 226.502 Recovery = 108.92%							
Co 228.616†	22900.2	548.45 ug/L	3.940	548.45 ppb	3.940	0.72%	
QC value within limits for Co 228.616 Recovery = 109.69%							
Cr 267.716†	46131.7	543.10 ug/L	4.832	543.10 ppb	4.832	0.89%	
QC value within limits for Cr 267.716 Recovery = 108.62%							
Cu 324.752†	176808.5	517.29 ug/L	4.974	517.29 ppb	4.974	0.96%	
QC value within limits for Cu 324.752 Recovery = 103.46%							
Fe 238.204 Radial†	583.2	5477.9 ug/L	53.22	5477.9 ppb	53.22	0.97%	
QC value within limits for Fe 238.204 Radial Recovery = 109.56%							
K 766.490 Radial†	31083.9	5782.8 ug/L	33.14	5782.8 ppb	33.14	0.57%	
QC value greater than the upper limit for K 766.490 Radial Recovery = 115.66%							
Mg 279.077 IEC†	156.8	5754.9 ug/L	98.37	5754.9 ppb	98.37	1.71%	
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 115.10%							
Mn 257.610†	439047.2	532.86 ug/L	1.287	532.86 ppb	1.287	0.24%	
QC value within limits for Mn 257.610 Recovery = 106.57%							
Mo 202.031†	7238.8	535.06 ug/L	2.606	535.06 ppb	2.606	0.49%	
QC value within limits for Mo 202.031 Recovery = 107.01%							
Na 589.592 Radial†	33414.5	10300 ug/L	67.4	10300 ppb	67.4	0.65%	
QC value within limits for Na 589.592 Radial Recovery = 103.00%							
Ni 231.604†	19908.4	546.78 ug/L	4.187	546.78 ppb	4.187	0.77%	
QC value within limits for Ni 231.604 Recovery = 109.36%							
P 214.914†	4304.3	2569.4 ug/L	15.01	2569.4 ppb	15.01	0.58%	
QC value within limits for P 214.914 Recovery = 102.78%							
Pb 220.353†	3894.8	541.45 ug/L	2.993	541.45 ppb	2.993	0.55%	
QC value within limits for Pb 220.353 Recovery = 108.29%							
S 181.975 Axial†	718.1	1087.3 ug/L	12.32	1087.3 ppb	12.32	1.13%	
QC value within limits for S 181.975 Axial Recovery = 108.73%							
Sb 206.836†	1445.1	545.27 ug/L	4.568	545.27 ppb	4.568	0.84%	
QC value within limits for Sb 206.836 Recovery = 109.05%							
Se 196.026†	846.6	549.35 ug/L	2.994	549.35 ppb	2.994	0.54%	
QC value within limits for Se 196.026 Recovery = 109.87%							
Si 251.611†	84419.4	2688.2 ug/L	20.65	2688.2 ppb	20.65	0.77%	
QC value within limits for Si 251.611 Recovery = 107.53%							
Sn 189.927†	2641.4	538.94 ug/L	1.467	538.94 ppb	1.467	0.27%	
QC value within limits for Sn 189.927 Recovery = 107.79%							
Sr 421.552†	81258.9	529.17 ug/L	2.222	529.17 ppb	2.222	0.42%	
QC value within limits for Sr 421.552 Recovery = 105.83%							
Ti 334.940†	324558.3	512.59 ug/L	4.777	512.59 ppb	4.777	0.93%	
QC value within limits for Ti 334.940 Recovery = 102.52%							
Tl 190.801†	1533.3	536.61 ug/L	5.087	536.61 ppb	5.087	0.95%	
QC value within limits for Tl 190.801 Recovery = 107.32%							
U 409.014†	19982.6	514.05 ug/L	2.935	514.05 ppb	2.935	0.57%	
QC value within limits for U 409.014 Recovery = 102.81%							
V 292.402†	80481.3	543.47 ug/L	4.966	543.47 ppb	4.966	0.91%	
QC value within limits for V 292.402 Recovery = 108.69%							
Zn 213.857†	53721.1	538.63 ug/L	4.305	538.63 ppb	4.305	0.80%	
QC value within limits for Zn 213.857 Recovery = 107.73%							
SiO2†	84440.3	5735.8 ug/L	50.68	5735.8 ppb	50.68	0.88%	
QC value within limits for SiO2 Recovery = 107.26%							
QC Failed. Continue with analysis.							

Sequence No.: 56

Sample ID: CCB

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/25/2010 20:35:42

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5029.4	5029.4	93.3 %		20:37:34
1	Y RADIAL	5404.1	5404.1	93.09 %		20:37:34
1	Al 396.153Radial†	7.3	3.7	2.9040 ug/L	2.9040 ppb	20:37:54
1	Ca 317.933Radial†	19.1	1.1	1.8272 ug/L	1.8272 ppb	20:37:54
1	Fe 238.204 Radial†	6.0	-1.6	-14.717 ug/L	-14.717 ppb	20:37:54
1	K 766.490 Radial†	2598.3	815.4	151.86 ug/L	151.86 ppb	20:37:34
1	Mg 279.077 IEC†	0.4	-2.0	-74.052 ug/L	-74.052 ppb	20:37:54
1	Na 589.592 Radial†	-328.8	70.8	21.836 ug/L	21.836 ppb	20:37:34
1	Sr 421.552†	37.2	24.8	0.1615 ug/L	0.1615 ppb	20:37:34
1	Sc 361.383	897578.6	897578.6	102.92 %		20:38:51
1	Y 371.029	791945.9	791945.9	101.35 %		20:38:51
1	Ag 328.068†	416.6	110.1	0.4901 ug/L	0.4901 ppb	20:38:56
1	As 188.979†	-30.9	0.7	0.2901 ug/L	0.2901 ppb	20:39:16
1	B 249.677†	4.2	313.8	7.2369 ug/L	7.2369 ppb	20:39:16
1	Ba 233.527†	15.8	20.9	0.1791 ug/L	0.1791 ppb	20:39:16
1	Be 313.107†	-4952.6	780.9	0.2944 ug/L	0.2944 ppb	20:38:56
1	Cd 226.502†	-190.4	-5.7	-0.0711 ug/L	-0.0711 ppb	20:39:16
1	Co 228.616†	-54.2	6.4	0.1541 ug/L	0.1541 ppb	20:39:16
1	Cr 267.716†	58.9	-22.3	-0.2584 ug/L	-0.2584 ppb	20:39:16
1	Cu 324.752†	9056.7	-1040.3	-3.0387 ug/L	-3.0387 ppb	20:38:56
1	Mn 257.610†	594.2	19.4	0.0251 ug/L	0.0251 ppb	20:39:16
1	Mo 202.031†	19.8	-1.8	-0.1312 ug/L	-0.1312 ppb	20:39:16
1	Ni 231.604†	113.4	5.0	0.1364 ug/L	0.1364 ppb	20:39:16
1	P 214.914†	219.9	-6.8	-3.6359 ug/L	-3.6359 ppb	20:39:16
1	Pb 220.353†	-41.1	5.4	0.7536 ug/L	0.7536 ppb	20:39:16
1	S 181.975 Axial†	40.5	-2.0	-3.0993 ug/L	-3.0993 ppb	20:39:16
1	Sb 206.836†	29.9	-7.0	-2.5736 ug/L	-2.5736 ppb	20:39:16
1	Se 196.026†	-16.9	-2.3	-1.4983 ug/L	-1.4983 ppb	20:39:16
1	Si 251.611†	590.1	5.4	0.1727 ug/L	0.1727 ppb	20:39:16
1	Sn 189.927†	-6.6	-7.9	-1.6018 ug/L	-1.6018 ppb	20:39:16
1	Ti 334.940†	-859.1	82.1	0.1407 ug/L	0.1407 ppb	20:38:56
1	Tl 190.801†	-36.4	-4.9	-1.6887 ug/L	-1.6887 ppb	20:39:16
1	U 409.014†	-1369.8	-402.4	-10.386 ug/L	-10.386 ppb	20:38:56
1	V 292.402†	-1393.6	42.3	0.2607 ug/L	0.2607 ppb	20:38:56
1	Zn 213.857†	734.0	50.8	0.5185 ug/L	0.5185 ppb	20:39:16
1	SiO2†	582.9	-13.2	-0.8956 ug/L	-0.8956 ppb	20:40:37
2	Sc Radial	5019.2	5019.2	93.1 %		20:37:59
2	Y RADIAL	5404.4	5404.4	93.10 %		20:37:59
2	Al 396.153Radial†	8.7	5.3	4.1604 ug/L	4.1604 ppb	20:38:19
2	Ca 317.933Radial†	20.4	2.6	4.2556 ug/L	4.2556 ppb	20:38:19
2	Fe 238.204 Radial†	6.4	-1.2	-11.056 ug/L	-11.056 ppb	20:38:19
2	K 766.490 Radial†	2426.6	636.5	118.55 ug/L	118.55 ppb	20:37:59
2	Mg 279.077 IEC†	-0.3	-2.8	-101.37 ug/L	-101.37 ppb	20:38:19
2	Na 589.592 Radial†	-362.1	34.3	10.580 ug/L	10.580 ppb	20:37:59
2	Sr 421.552†	-0.4	-15.5	-0.1008 ug/L	-0.1008 ppb	20:37:59
2	Sc 361.383	887412.9	887412.9	101.76 %		20:39:21
2	Y 371.029	783792.9	783792.9	100.30 %		20:39:21
2	Ag 328.068†	479.4	176.5	0.7847 ug/L	0.7847 ppb	20:39:26
2	As 188.979†	-24.1	6.9	3.0891 ug/L	3.0891 ppb	20:39:46
2	B 249.677†	-8.0	301.8	6.9604 ug/L	6.9604 ppb	20:39:46
2	Ba 233.527†	14.1	19.4	0.1667 ug/L	0.1667 ppb	20:39:46
2	Be 313.107†	-4896.9	780.5	0.2943 ug/L	0.2943 ppb	20:39:26
2	Cd 226.502†	-200.6	-17.9	-0.2218 ug/L	-0.2218 ppb	20:39:46
2	Co 228.616†	-52.5	7.5	0.1789 ug/L	0.1789 ppb	20:39:46
2	Cr 267.716†	80.2	-0.7	-0.0032 ug/L	-0.0032 ppb	20:39:46
2	Cu 324.752†	8930.3	-1063.7	-3.1067 ug/L	-3.1067 ppb	20:39:26
2	Mn 257.610†	601.5	33.2	0.0433 ug/L	0.0433 ppb	20:39:46
2	Mo 202.031†	18.8	-2.5	-0.1884 ug/L	-0.1884 ppb	20:39:46
2	Ni 231.604†	118.3	11.0	0.3032 ug/L	0.3032 ppb	20:39:46

2	P 214.914†	208.6	-15.5	-8.9908 ug/L	-8.9908 ppb	20:39:46
2	Pb 220.353†	-39.3	6.8	0.9417 ug/L	0.9417 ppb	20:39:46
2	S 181.975 Axial†	42.2	0.0	0.0646 ug/L	0.0646 ppb	20:39:46
2	Sb 206.836†	35.8	-0.9	-0.3420 ug/L	-0.3420 ppb	20:39:46
2	Se 196.026†	-12.3	2.0	1.1864 ug/L	1.1864 ppb	20:39:46
2	Si 251.611†	575.1	-2.8	-0.0876 ug/L	-0.0876 ppb	20:39:46
2	Sn 189.927†	-1.3	-2.8	-0.5659 ug/L	-0.5659 ppb	20:39:46
2	Ti 334.940†	-829.6	101.5	0.1740 ug/L	0.1740 ppb	20:39:26
2	Tl 190.801†	-27.6	3.4	1.1681 ug/L	1.1681 ppb	20:39:46
2	U 409.014†	-1372.6	-420.3	-10.851 ug/L	-10.851 ppb	20:39:26
2	V 292.402†	-1350.3	69.3	0.4379 ug/L	0.4379 ppb	20:39:26
2	Zn 213.857†	732.6	57.6	0.5860 ug/L	0.5860 ppb	20:39:46
2	SiO2†	601.3	11.3	0.7778 ug/L	0.7778 ppb	20:40:57
3	Sc Radial	4955.8	4955.8	91.9 %		20:38:24
3	Y RADIAL	5353.9	5353.9	92.23 %		20:38:24
3	Al 396.153Radial†	9.5	6.2	4.8278 ug/L	4.8278 ppb	20:38:44
3	Ca 317.933Radial†	24.0	6.7	11.171 ug/L	11.171 ppb	20:38:44
3	Fe 238.204 Radial†	9.3	2.1	19.466 ug/L	19.466 ppb	20:38:44
3	K 766.490 Radial†	2534.7	787.5	146.67 ug/L	146.67 ppb	20:38:24
3	Mg 279.077 IEC†	1.5	-0.8	-29.295 ug/L	-29.295 ppb	20:38:44
3	Na 589.592 Radial†	-389.1	-0.0	-0.0055 ug/L	-0.0055 ppb	20:38:24
3	Sr 421.552†	44.4	33.3	0.2168 ug/L	0.2168 ppb	20:38:24
3	Sc 361.383	888235.6	888235.6	101.85 %		20:39:51
3	Y 371.029	785101.7	785101.7	100.47 %		20:39:51
3	Ag 328.068†	443.2	140.5	0.6388 ug/L	0.6388 ppb	20:39:56
3	As 188.979†	-26.7	4.4	1.9921 ug/L	1.9921 ppb	20:40:16
3	B 249.677†	-22.1	288.0	6.6370 ug/L	6.6370 ppb	20:40:16
3	Ba 233.527†	-5.8	-0.2	0.0000 ug/L	0.0000 ppb	20:40:16
3	Be 313.107†	-4912.0	770.1	0.2906 ug/L	0.2906 ppb	20:39:56
3	Cd 226.502†	-202.5	-19.6	-0.2457 ug/L	-0.2457 ppb	20:40:16
3	Co 228.616†	-67.7	-7.4	-0.1760 ug/L	-0.1760 ppb	20:40:16
3	Cr 267.716†	89.1	8.0	0.1006 ug/L	0.1006 ppb	20:40:16
3	Cu 324.752†	9011.7	-992.0	-2.8934 ug/L	-2.8934 ppb	20:39:56
3	Mn 257.610†	580.1	11.6	0.0172 ug/L	0.0172 ppb	20:40:16
3	Mo 202.031†	29.8	8.2	0.6065 ug/L	0.6065 ppb	20:40:16
3	Ni 231.604†	123.2	15.7	0.4310 ug/L	0.4310 ppb	20:40:16
3	P 214.914†	217.8	-6.7	-3.5842 ug/L	-3.5842 ppb	20:40:16
3	Pb 220.353†	-49.0	-2.7	-0.3695 ug/L	-0.3695 ppb	20:40:16
3	S 181.975 Axial†	38.9	-3.2	-4.7966 ug/L	-4.7966 ppb	20:40:16
3	Sb 206.836†	34.2	-2.5	-0.8800 ug/L	-0.8800 ppb	20:40:16
3	Se 196.026†	-13.7	0.7	0.4775 ug/L	0.4775 ppb	20:40:16
3	Si 251.611†	577.7	-0.8	-0.0317 ug/L	-0.0317 ppb	20:40:16
3	Sn 189.927†	3.4	1.9	0.3847 ug/L	0.3847 ppb	20:40:16
3	Ti 334.940†	-766.0	164.8	0.2702 ug/L	0.2702 ppb	20:39:56
3	Tl 190.801†	-38.3	-7.2	-2.4847 ug/L	-2.4847 ppb	20:40:16
3	U 409.014†	-1493.0	-537.3	-13.875 ug/L	-13.875 ppb	20:39:56
3	V 292.402†	-1343.9	76.8	0.4900 ug/L	0.4900 ppb	20:39:56
3	Zn 213.857†	732.4	56.7	0.5731 ug/L	0.5731 ppb	20:40:16
3	SiO2†	598.0	7.6	0.4981 ug/L	0.4981 ppb	20:41:17

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	891075.7	102.18 %	0.647			0.63%
Sc Radial	5001.5	92.7 %	0.74			0.80%
Y 371.029	786946.8	100.71 %	0.560			0.56%
Y RADIAL	5387.5	92.80 %	0.500			0.54%
Ag 328.068†	142.4	0.6378 ug/L	0.14734	0.6378 ppb	0.14734	23.10%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	5.1	3.9641 ug/L	0.97685	3.9641 ppb	0.97685	24.64%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	4.0	1.7904 ug/L	1.41036	1.7904 ppb	1.41036	78.77%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	301.2	6.9448 ug/L	0.30025	6.9448 ppb	0.30025	4.32%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	13.3	0.1153 ug/L	0.09999	0.1153 ppb	0.09999	86.76%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	777.2	0.2931 ug/L	0.00215	0.2931 ppb	0.00215	0.73%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	3.5	5.7511 ug/L	4.84786	5.7511 ppb	4.84786	84.29%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-14.4	-0.1795 ug/L	0.09469	-0.1795 ppb	0.09469	52.75%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	2.2	0.0523 ug/L	0.19811	0.0523 ppb	0.19811	378.56%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-5.0	-0.0536 ug/L	0.18476	-0.0536 ppb	0.18476	344.50%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-1032.0	-3.0129 ug/L	0.10893	-3.0129 ppb	0.10893	3.62%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.2	-2.1023 ug/L	18.76830	-2.1023 ppb	18.76830	892.76%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	746.5	139.02 ug/L	17.924	139.02 ppb	17.924	12.89%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-1.9	-68.238 ug/L	36.3864	-68.238 ppb	36.3864	53.32%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	21.4	0.0285 ug/L	0.01339	0.0285 ppb	0.01339	46.95%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	1.3	0.0956 ug/L	0.44331	0.0956 ppb	0.44331	463.57%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	35.0	10.804 ug/L	10.9224	10.804 ppb	10.9224	101.10%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	10.6	0.2902 ug/L	0.14773	0.2902 ppb	0.14773	50.91%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-9.7	-5.4036 ug/L	3.10669	-5.4036 ppb	3.10669	57.49%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	3.2	0.4419 ug/L	0.70902	0.4419 ppb	0.70902	160.44%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-1.7	-2.6104 ug/L	2.46717	-2.6104 ppb	2.46717	94.51%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-3.5	-1.2652 ug/L	1.16457	-1.2652 ppb	1.16457	92.05%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	0.1	0.0552 ug/L	1.39126	0.0552 ppb	1.39126	>999.9%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	0.6	0.0178 ug/L	0.13700	0.0178 ppb	0.13700	769.12%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-2.9	-0.5943 ug/L	0.99358	-0.5943 ppb	0.99358	167.18%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	14.2	0.0925 ug/L	0.16965	0.0925 ppb	0.16965	183.38%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	116.1	0.1950 ug/L	0.06726	0.1950 ppb	0.06726	34.50%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-2.9	-1.0018 ug/L	1.92086	-1.0018 ppb	1.92086	191.75%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-453.4	-11.704 ug/L	1.8944	-11.704 ppb	1.8944	16.19%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	62.8	0.3962 ug/L	0.12019	0.3962 ppb	0.12019	30.34%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	55.0	0.5592 ug/L	0.03584	0.5592 ppb	0.03584	6.41%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	1.9	0.1268 ug/L	0.89637	0.1268 ppb	0.89637	706.87%	
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: 1/25/2010 21:47:46

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4947.0	4947.0	91.7 %		21:49:38
1	Y RADIAL	5333.5	5333.5	91.87 %		21:49:38
1	Al 396.153Radial†	6261.6	6821.8	5314.9 ug/L	5314.9 ppb	21:49:38
1	Ca 317.933Radial†	3093.8	3353.2	5553.1 ug/L	5553.1 ppb	21:49:58
1	Fe 238.204 Radial†	533.6	573.6	5387.7 ug/L	5387.7 ppb	21:49:58
1	K 766.490 Radial†	29632.0	30331.6	5642.8 ug/L	5642.8 ppb	21:49:38
1	Mg 279.077 IEC†	144.0	154.5	5670.9 ug/L	5670.9 ppb	21:49:58
1	Na 589.592 Radial†	28845.1	31867.8	9822.8 ug/L	9822.8 ppb	21:49:38
1	Sr 421.552†	72221.4	78714.4	512.60 ug/L	512.60 ppb	21:49:38
1	Sc 361.383	895420.6	895420.6	102.68 %		21:50:56
1	Y 371.029	785498.2	785498.2	100.52 %		21:50:56
1	Ag 328.068†	120271.2	116841.2	518.27 ug/L	518.27 ppb	21:51:01
1	As 188.979†	1197.5	1196.9	539.95 ug/L	539.95 ppb	21:51:21
1	B 249.677†	22315.0	22043.0	505.83 ug/L	505.83 ppb	21:51:01
1	Ba 233.527†	63128.9	61488.6	528.61 ug/L	528.61 ppb	21:51:01
1	Be 313.107†	1430895.0	1399185.2	528.08 ug/L	528.08 ppb	21:50:56
1	Cd 226.502†	44386.9	43409.0	535.14 ug/L	535.14 ppb	21:51:01
1	Co 228.616†	22975.8	22435.9	537.34 ug/L	537.34 ppb	21:51:01
1	Cr 267.716†	46639.8	45344.4	533.83 ug/L	533.83 ppb	21:51:01
1	Cu 324.752†	187510.3	172782.3	505.51 ug/L	505.51 ppb	21:51:01
1	Mn 257.610†	442113.3	430029.7	521.92 ug/L	521.92 ppb	21:50:56
1	Mo 202.031†	7361.8	7148.8	528.41 ug/L	528.41 ppb	21:51:21
1	Ni 231.604†	20139.4	19509.1	535.81 ug/L	535.81 ppb	21:51:01
1	P 214.914†	4563.1	4223.6	2521.7 ug/L	2521.7 ppb	21:51:21
1	Pb 220.353†	3896.0	3839.8	533.80 ug/L	533.80 ppb	21:51:21
1	S 181.975 Axial†	766.0	704.7	1066.9 ug/L	1066.9 ppb	21:51:21
1	Sb 206.836†	1494.5	1419.5	535.71 ug/L	535.71 ppb	21:51:21
1	Se 196.026†	840.7	832.9	540.41 ug/L	540.41 ppb	21:51:21
1	Si 251.611†	85519.0	82721.6	2634.1 ug/L	2634.1 ppb	21:51:01
1	Sn 189.927†	2674.6	2603.4	531.19 ug/L	531.19 ppb	21:51:21
1	Ti 334.940†	325713.8	318139.4	502.46 ug/L	502.46 ppb	21:51:01
1	Tl 190.801†	1540.0	1530.3	535.50 ug/L	535.50 ppb	21:51:21
1	U 409.014†	19200.6	19628.6	504.94 ug/L	504.94 ppb	21:51:01
1	V 292.402†	79807.9	79123.6	534.34 ug/L	534.34 ppb	21:51:01
1	Zn 213.857†	54809.9	52718.7	528.58 ug/L	528.58 ppb	21:51:01
1	SiO2†	84870.2	82078.1	5575.1 ug/L	5575.1 ppb	21:52:28
2	Sc Radial	4982.5	4982.5	92.4 %		21:50:03
2	Y RADIAL	5367.8	5367.8	92.47 %		21:50:03
2	Al 396.153Radial†	6339.8	6857.7	5343.3 ug/L	5343.3 ppb	21:50:03
2	Ca 317.933Radial†	3103.4	3339.5	5530.5 ug/L	5530.5 ppb	21:50:23
2	Fe 238.204 Radial†	533.7	569.6	5349.8 ug/L	5349.8 ppb	21:50:23
2	K 766.490 Radial†	29795.7	30278.4	5633.0 ug/L	5633.0 ppb	21:50:03
2	Mg 279.077 IEC†	143.2	152.6	5600.3 ug/L	5600.3 ppb	21:50:23
2	Na 589.592 Radial†	28951.9	31759.0	9789.3 ug/L	9789.3 ppb	21:50:03
2	Sr 421.552†	72818.3	78798.8	513.15 ug/L	513.15 ppb	21:50:03
2	Sc 361.383	901402.4	901402.4	103.36 %		21:51:26
2	Y 371.029	789731.2	789731.2	101.06 %		21:51:26
2	Ag 328.068†	121677.0	117423.9	520.84 ug/L	520.84 ppb	21:51:32
2	As 188.979†	1178.0	1170.3	528.08 ug/L	528.08 ppb	21:51:52
2	B 249.677†	22686.5	22258.1	510.78 ug/L	510.78 ppb	21:51:32
2	Ba 233.527†	64185.7	62103.1	533.89 ug/L	533.89 ppb	21:51:32
2	Be 313.107†	1441426.4	1400125.9	528.44 ug/L	528.44 ppb	21:51:26
2	Cd 226.502†	45065.1	43778.2	539.71 ug/L	539.71 ppb	21:51:32
2	Co 228.616†	23349.8	22649.2	542.43 ug/L	542.43 ppb	21:51:32
2	Cr 267.716†	47268.5	45651.2	537.45 ug/L	537.45 ppb	21:51:32
2	Cu 324.752†	190100.1	174075.9	509.29 ug/L	509.29 ppb	21:51:32
2	Mn 257.610†	446180.6	431107.3	523.22 ug/L	523.22 ppb	21:51:26
2	Mo 202.031†	7332.2	7072.6	522.78 ug/L	522.78 ppb	21:51:52
2	Ni 231.604†	20469.0	19697.9	540.99 ug/L	540.99 ppb	21:51:32

2	P 214.914†	4587.7	4217.9	2517.4 ug/L	2517.4 ppb	21:51:52
2	Pb 220.353†	3936.2	3853.6	535.71 ug/L	535.71 ppb	21:51:52
2	S 181.975 Axial†	766.0	699.7	1059.3 ug/L	1059.3 ppb	21:51:52
2	Sb 206.836†	1482.4	1398.2	527.78 ug/L	527.78 ppb	21:51:52
2	Se 196.026†	843.8	830.4	538.77 ug/L	538.77 ppb	21:51:52
2	Si 251.611†	86856.9	83463.3	2657.9 ug/L	2657.9 ppb	21:51:32
2	Sn 189.927†	2674.9	2586.4	527.73 ug/L	527.73 ppb	21:51:52
2	Ti 334.940†	330418.4	320585.8	506.32 ug/L	506.32 ppb	21:51:32
2	Tl 190.801†	1527.5	1508.3	527.84 ug/L	527.84 ppb	21:51:52
2	U 409.014†	19490.5	19784.9	508.97 ug/L	508.97 ppb	21:51:32
2	V 292.402†	80881.6	79646.6	537.75 ug/L	537.75 ppb	21:51:32
2	Zn 213.857†	55645.5	53172.9	533.14 ug/L	533.14 ppb	21:51:32
2	SiO2†	85798.6	82427.8	5599.1 ug/L	5599.1 ppb	21:52:33
3	Sc Radial	4991.1	4991.1	92.6 %		21:50:28
3	Y RADIAL	5391.4	5391.4	92.87 %		21:50:28
3	Al 396.153Radial†	6309.9	6813.6	5308.4 ug/L	5308.4 ppb	21:50:28
3	Ca 317.933Radial†	3087.5	3316.6	5492.5 ug/L	5492.5 ppb	21:50:48
3	Fe 238.204 Radial†	528.7	563.2	5290.1 ug/L	5290.1 ppb	21:50:48
3	K 766.490 Radial†	29698.1	30117.3	5603.0 ug/L	5603.0 ppb	21:50:28
3	Mg 279.077 IEC†	142.2	151.2	5548.2 ug/L	5548.2 ppb	21:50:48
3	Na 589.592 Radial†	28969.7	31724.3	9778.5 ug/L	9778.5 ppb	21:50:28
3	Sr 421.552†	72822.7	78667.7	512.30 ug/L	512.30 ppb	21:50:28
3	Sc 361.383	889561.0	889561.0	102.00 %		21:51:57
3	Y 371.029	779493.4	779493.4	99.753 %		21:51:57
3	Ag 328.068†	119338.0	116697.9	517.61 ug/L	517.61 ppb	21:52:03
3	As 188.979†	1187.2	1194.5	538.83 ug/L	538.83 ppb	21:52:23
3	B 249.677†	22237.5	22110.1	507.39 ug/L	507.39 ppb	21:52:03
3	Ba 233.527†	62726.0	61498.6	528.69 ug/L	528.69 ppb	21:52:03
3	Be 313.107†	1423972.0	1401577.8	528.97 ug/L	528.97 ppb	21:51:57
3	Cd 226.502†	44200.6	43511.2	536.41 ug/L	536.41 ppb	21:52:03
3	Co 228.616†	22888.5	22497.7	538.83 ug/L	538.83 ppb	21:52:03
3	Cr 267.716†	46474.3	45481.4	535.44 ug/L	535.44 ppb	21:52:03
3	Cu 324.752†	185380.2	171897.0	502.92 ug/L	502.92 ppb	21:52:03
3	Mn 257.610†	440651.5	431432.9	523.61 ug/L	523.61 ppb	21:51:57
3	Mo 202.031†	7331.4	7166.3	529.69 ug/L	529.69 ppb	21:52:23
3	Ni 231.604†	20045.1	19545.8	536.82 ug/L	536.82 ppb	21:52:03
3	P 214.914†	4570.1	4259.8	2544.7 ug/L	2544.7 ppb	21:52:23
3	Pb 220.353†	3900.6	3869.3	537.90 ug/L	537.90 ppb	21:52:23
3	S 181.975 Axial†	768.9	712.4	1078.6 ug/L	1078.6 ppb	21:52:23
3	Sb 206.836†	1489.8	1424.5	537.58 ug/L	537.58 ppb	21:52:23
3	Se 196.026†	843.4	840.9	545.13 ug/L	545.13 ppb	21:52:23
3	Si 251.611†	84851.1	82615.5	2630.7 ug/L	2630.7 ppb	21:52:03
3	Sn 189.927†	2660.2	2606.4	531.80 ug/L	531.80 ppb	21:52:23
3	Ti 334.940†	323089.4	317656.2	501.69 ug/L	501.69 ppb	21:52:03
3	Tl 190.801†	1531.6	1532.0	536.06 ug/L	536.06 ppb	21:52:23
3	U 409.014†	19044.2	19598.4	504.17 ug/L	504.17 ppb	21:52:03
3	V 292.402†	79302.5	79140.2	534.48 ug/L	534.48 ppb	21:52:03
3	Zn 213.857†	54525.1	52791.1	529.32 ug/L	529.32 ppb	21:52:03
3	SiO2†	85353.3	83096.2	5644.4 ug/L	5644.4 ppb	21:52:38

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	895461.3	102.68 %	0.679			0.66%
Sc Radial	4973.5	92.2 %	0.43			0.47%
Y 371.029	784907.6	100.45 %	0.658			0.66%
Y RADIAL	5364.2	92.40 %	0.502			0.54%
Ag 328.068†	116987.7	518.91 ug/L	1.705	518.91 ppb	1.705	0.33%
QC value within limits for Ag 328.068 Recovery = 103.78%						
Al 396.153Radial†	6831.0	5322.2 ug/L	18.56	5322.2 ppb	18.56	0.35%
QC value within limits for Al 396.153Radial Recovery = 106.44%						
As 188.979†	1187.3	535.62 ug/L	6.558	535.62 ppb	6.558	1.22%
QC value within limits for As 188.979 Recovery = 107.12%						
B 249.677†	22137.1	508.00 ug/L	2.532	508.00 ppb	2.532	0.50%
QC value within limits for B 249.677 Recovery = 101.60%						
Ba 233.527†	61696.8	530.40 ug/L	3.022	530.40 ppb	3.022	0.57%
QC value within limits for Ba 233.527 Recovery = 106.08%						
Be 313.107†	1400296.3	528.50 ug/L	0.452	528.50 ppb	0.452	0.09%
QC value within limits for Be 313.107 Recovery = 105.70%						
Ca 317.933Radial†	3336.5	5525.4 ug/L	30.66	5525.4 ppb	30.66	0.55%

QC value greater than the upper limit for Ca 317.933Radial Recovery = 110.51%							
Cd	226.502†	43566.1	537.09 ug/L	2.354	537.09 ppb	2.354	0.44%
QC value within limits for Cd 226.502 Recovery = 107.42%							
Co	228.616†	22527.6	539.53 ug/L	2.617	539.53 ppb	2.617	0.49%
QC value within limits for Co 228.616 Recovery = 107.91%							
Cr	267.716†	45492.3	535.57 ug/L	1.809	535.57 ppb	1.809	0.34%
QC value within limits for Cr 267.716 Recovery = 107.11%							
Cu	324.752†	172918.4	505.91 ug/L	3.206	505.91 ppb	3.206	0.63%
QC value within limits for Cu 324.752 Recovery = 101.18%							
Fe	238.204 Radial†	568.8	5342.5 ug/L	49.18	5342.5 ppb	49.18	0.92%
QC value within limits for Fe 238.204 Radial Recovery = 106.85%							
K	766.490 Radial†	30242.4	5626.3 ug/L	20.76	5626.3 ppb	20.76	0.37%
QC value greater than the upper limit for K 766.490 Radial Recovery = 112.53%							
Mg	279.077 IEC†	152.8	5606.5 ug/L	61.58	5606.5 ppb	61.58	1.10%
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 112.13%							
Mn	257.610†	430856.6	522.92 ug/L	0.889	522.92 ppb	0.889	0.17%
QC value within limits for Mn 257.610 Recovery = 104.58%							
Mo	202.031†	7129.2	526.96 ug/L	3.677	526.96 ppb	3.677	0.70%
QC value within limits for Mo 202.031 Recovery = 105.39%							
Na	589.592 Radial†	31783.7	9796.9 ug/L	23.08	9796.9 ppb	23.08	0.24%
QC value within limits for Na 589.592 Radial Recovery = 97.97%							
Ni	231.604†	19584.3	537.87 ug/L	2.749	537.87 ppb	2.749	0.51%
QC value within limits for Ni 231.604 Recovery = 107.57%							
P	214.914†	4233.8	2527.9 ug/L	14.68	2527.9 ppb	14.68	0.58%
QC value within limits for P 214.914 Recovery = 101.12%							
Pb	220.353†	3854.2	535.80 ug/L	2.050	535.80 ppb	2.050	0.38%
QC value within limits for Pb 220.353 Recovery = 107.16%							
S	181.975 Axial†	705.6	1068.3 ug/L	9.73	1068.3 ppb	9.73	0.91%
QC value within limits for S 181.975 Axial Recovery = 106.83%							
Sb	206.836†	1414.1	533.69 ug/L	5.203	533.69 ppb	5.203	0.97%
QC value within limits for Sb 206.836 Recovery = 106.74%							
Se	196.026†	834.7	541.44 ug/L	3.302	541.44 ppb	3.302	0.61%
QC value within limits for Se 196.026 Recovery = 108.29%							
Si	251.611†	82933.5	2640.9 ug/L	14.79	2640.9 ppb	14.79	0.56%
QC value within limits for Si 251.611 Recovery = 105.64%							
Sn	189.927†	2598.7	530.24 ug/L	2.194	530.24 ppb	2.194	0.41%
QC value within limits for Sn 189.927 Recovery = 106.05%							
Sr	421.552†	78727.0	512.68 ug/L	0.433	512.68 ppb	0.433	0.08%
QC value within limits for Sr 421.552 Recovery = 102.54%							
Ti	334.940†	318793.8	503.49 ug/L	2.480	503.49 ppb	2.480	0.49%
QC value within limits for Ti 334.940 Recovery = 100.70%							
Tl	190.801†	1523.5	533.13 ug/L	4.594	533.13 ppb	4.594	0.86%
QC value within limits for Tl 190.801 Recovery = 106.63%							
U	409.014†	19670.6	506.03 ug/L	2.580	506.03 ppb	2.580	0.51%
QC value within limits for U 409.014 Recovery = 101.21%							
V	292.402†	79303.4	535.52 ug/L	1.931	535.52 ppb	1.931	0.36%
QC value within limits for V 292.402 Recovery = 107.10%							
Zn	213.857†	52894.2	530.35 ug/L	2.447	530.35 ppb	2.447	0.46%
QC value within limits for Zn 213.857 Recovery = 106.07%							
SiO2†		82534.0	5606.2 ug/L	35.19	5606.2 ppb	35.19	0.63%
QC value within limits for SiO2 Recovery = 104.84%							
QC Failed. Continue with analysis.							

Sequence No.: 67

Sample ID: CCB

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/25/2010 21:54:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5368.6	5368.6	99.6 %		21:56:40
1	Y RADIAL	5779.1	5779.1	99.55 %		21:56:40
1	Al 396.153Radial†	11.0	7.0	5.4713 ug/L	5.4713 ppb	21:57:00
1	Ca 317.933Radial†	25.8	6.5	10.769 ug/L	10.769 ppb	21:57:00
1	Fe 238.204 Radial†	7.4	-0.6	-5.4950 ug/L	-5.4950 ppb	21:57:00
1	K 766.490 Radial†	2449.6	490.0	91.260 ug/L	91.260 ppb	21:56:40
1	Mg 279.077 IEC†	1.9	-0.5	-19.017 ug/L	-19.017 ppb	21:57:00
1	Na 589.592 Radial†	-456.8	-35.4	-10.924 ug/L	-10.924 ppb	21:56:40
1	Sr 421.552†	40.4	25.5	0.1662 ug/L	0.1662 ppb	21:56:40
1	Sc 361.383	907695.3	907695.3	104.08 %		21:57:57
1	Y 371.029	802221.6	802221.6	102.66 %		21:57:57
1	Ag 328.068†	432.5	120.9	0.5421 ug/L	0.5421 ppb	21:58:02
1	As 188.979†	-29.5	2.2	1.0047 ug/L	1.0047 ppb	21:58:22
1	B 249.677†	-209.3	108.6	2.5049 ug/L	2.5049 ppb	21:58:22
1	Ba 233.527†	28.5	32.8	0.2830 ug/L	0.2830 ppb	21:58:22
1	Be 313.107†	-4928.6	857.5	0.3238 ug/L	0.3238 ppb	21:58:02
1	Cd 226.502†	-185.2	1.3	0.0151 ug/L	0.0151 ppb	21:58:22
1	Co 228.616†	-50.3	10.7	0.2563 ug/L	0.2563 ppb	21:58:22
1	Cr 267.716†	88.0	5.0	0.0635 ug/L	0.0635 ppb	21:58:22
1	Cu 324.752†	9014.9	-1178.6	-3.4427 ug/L	-3.4427 ppb	21:58:02
1	Mn 257.610†	607.3	25.5	0.0312 ug/L	0.0312 ppb	21:58:22
1	Mo 202.031†	28.2	6.0	0.4432 ug/L	0.4432 ppb	21:58:22
1	Ni 231.604†	112.9	3.2	0.0888 ug/L	0.0888 ppb	21:58:22
1	P 214.914†	211.2	-17.6	-10.227 ug/L	-10.227 ppb	21:58:22
1	Pb 220.353†	-64.7	-16.8	-2.3246 ug/L	-2.3246 ppb	21:58:22
1	S 181.975 Axial†	45.4	2.2	3.3341 ug/L	3.3341 ppb	21:58:22
1	Sb 206.836†	34.1	-3.3	-1.1930 ug/L	-1.1930 ppb	21:58:22
1	Se 196.026†	-22.3	-7.3	-4.5990 ug/L	-4.5990 ppb	21:58:22
1	Si 251.611†	584.0	-6.8	-0.2230 ug/L	-0.2230 ppb	21:58:22
1	Sn 189.927†	2.7	1.1	0.2248 ug/L	0.2248 ppb	21:58:22
1	Ti 334.940†	-695.0	249.1	0.4010 ug/L	0.4010 ppb	21:58:02
1	Tl 190.801†	-22.1	9.2	3.2053 ug/L	3.2053 ppb	21:58:22
1	U 409.014†	-1385.0	-402.2	-10.382 ug/L	-10.382 ppb	21:58:02
1	V 292.402†	-1343.6	105.4	0.6887 ug/L	0.6887 ppb	21:58:02
1	Zn 213.857†	727.8	37.0	0.3783 ug/L	0.3783 ppb	21:58:22
1	SiO2†	555.7	-45.7	-3.1231 ug/L	-3.1231 ppb	21:59:28
2	Sc Radial	5138.2	5138.2	95.3 %		21:57:05
2	Y RADIAL	5508.0	5508.0	94.88 %		21:57:05
2	Al 396.153Radial†	2.6	-1.3	-1.0686 ug/L	-1.0686 ppb	21:57:25
2	Ca 317.933Radial†	19.6	1.2	2.0193 ug/L	2.0193 ppb	21:57:25
2	Fe 238.204 Radial†	5.9	-1.8	-16.725 ug/L	-16.725 ppb	21:57:25
2	K 766.490 Radial†	2587.2	744.7	138.71 ug/L	138.71 ppb	21:57:05
2	Mg 279.077 IEC†	-0.4	-2.9	-104.60 ug/L	-104.60 ppb	21:57:25
2	Na 589.592 Radial†	-450.5	-49.4	-15.229 ug/L	-15.229 ppb	21:57:05
2	Sr 421.552†	7.0	-7.7	-0.0504 ug/L	-0.0504 ppb	21:57:05
2	Sc 361.383	936454.6	936454.6	107.38 %		21:58:27
2	Y 371.029	827364.1	827364.1	105.88 %		21:58:27
2	Ag 328.068†	407.6	84.9	0.3796 ug/L	0.3796 ppb	21:58:32
2	As 188.979†	-28.9	3.7	1.6589 ug/L	1.6589 ppb	21:58:52
2	B 249.677†	-186.5	136.0	3.1389 ug/L	3.1389 ppb	21:58:52
2	Ba 233.527†	11.6	16.3	0.1399 ug/L	0.1399 ppb	21:58:52
2	Be 313.107†	-4843.0	1082.7	0.4083 ug/L	0.4083 ppb	21:58:32
2	Cd 226.502†	-202.3	-9.1	-0.1125 ug/L	-0.1125 ppb	21:58:52
2	Co 228.616†	-55.1	7.8	0.1881 ug/L	0.1881 ppb	21:58:52
2	Cr 267.716†	75.3	-9.4	-0.1059 ug/L	-0.1059 ppb	21:58:52
2	Cu 324.752†	8906.4	-1545.6	-4.5168 ug/L	-4.5168 ppb	21:58:32
2	Mn 257.610†	570.2	-26.9	-0.0301 ug/L	-0.0301 ppb	21:58:52
2	Mo 202.031†	34.7	11.3	0.8316 ug/L	0.8316 ppb	21:58:52
2	Ni 231.604†	131.9	17.6	0.4826 ug/L	0.4826 ppb	21:58:52



2	P 214.914†	194.2	-39.7	-23.690 ug/L	-23.690 ppb	21:58:52
2	Pb 220.353†	-48.9	-0.2	-0.0186 ug/L	-0.0186 ppb	21:58:52
2	S 181.975 Axial†	38.0	-6.0	-9.0713 ug/L	-9.0713 ppb	21:58:52
2	Sb 206.836†	24.5	-13.3	-4.8032 ug/L	-4.8032 ppb	21:58:52
2	Se 196.026†	-16.0	-0.8	-0.5594 ug/L	-0.5594 ppb	21:58:52
2	Si 251.611†	550.0	-55.7	-1.7887 ug/L	-1.7887 ppb	21:58:52
2	Sn 189.927†	3.9	2.1	0.4326 ug/L	0.4326 ppb	21:58:52
2	Ti 334.940†	-831.4	142.6	0.2389 ug/L	0.2389 ppb	21:58:32
2	Tl 190.801†	-37.5	-4.5	-1.5538 ug/L	-1.5538 ppb	21:58:52
2	U 409.014†	-1453.4	-425.0	-10.970 ug/L	-10.970 ppb	21:58:32
2	V 292.402†	-1424.8	69.4	0.4535 ug/L	0.4535 ppb	21:58:32
2	Zn 213.857†	735.7	22.8	0.2350 ug/L	0.2350 ppb	21:58:52
2	SiO2†	581.5	-38.0	-2.6125 ug/L	-2.6125 ppb	21:59:33
3	Sc Radial	5123.4	5123.4	95.0 %		21:57:30
3	Y RADIAL	5535.8	5535.8	95.36 %		21:57:30
3	Al 396.153Radial†	6.7	3.0	2.3197 ug/L	2.3197 ppb	21:57:50
3	Ca 317.933Radial†	24.8	6.8	11.181 ug/L	11.181 ppb	21:57:50
3	Fe 238.204 Radial†	7.3	-0.3	-2.8379 ug/L	-2.8379 ppb	21:57:50
3	K 766.490 Radial†	2455.6	614.1	114.38 ug/L	114.38 ppb	21:57:30
3	Mg 279.077 IEC†	1.2	-1.2	-43.515 ug/L	-43.515 ppb	21:57:50
3	Na 589.592 Radial†	-491.4	-93.9	-28.936 ug/L	-28.936 ppb	21:57:30
3	Sr 421.552†	14.0	-0.3	-0.0022 ug/L	-0.0022 ppb	21:57:30
3	Sc 361.383	915324.0	915324.0	104.96 %		21:58:57
3	Y 371.029	809265.4	809265.4	103.56 %		21:58:57
3	Ag 328.068†	445.4	129.7	0.5823 ug/L	0.5823 ppb	21:59:02
3	As 188.979†	-27.2	4.7	2.1108 ug/L	2.1108 ppb	21:59:22
3	B 249.677†	-216.1	103.8	2.3933 ug/L	2.3933 ppb	21:59:22
3	Ba 233.527†	11.6	16.5	0.1433 ug/L	0.1433 ppb	21:59:22
3	Be 313.107†	-4824.7	996.0	0.3756 ug/L	0.3756 ppb	21:59:02
3	Cd 226.502†	-198.4	-9.8	-0.1222 ug/L	-0.1222 ppb	21:59:22
3	Co 228.616†	-58.9	2.9	0.0708 ug/L	0.0708 ppb	21:59:22
3	Cr 267.716†	87.8	4.1	0.0535 ug/L	0.0535 ppb	21:59:22
3	Cu 324.752†	8866.8	-1391.9	-4.0664 ug/L	-4.0664 ppb	21:59:02
3	Mn 257.610†	555.3	-28.9	-0.0335 ug/L	-0.0335 ppb	21:59:22
3	Mo 202.031†	31.9	9.4	0.6912 ug/L	0.6912 ppb	21:59:22
3	Ni 231.604†	125.1	13.9	0.3827 ug/L	0.3827 ppb	21:59:22
3	P 214.914†	202.3	-27.8	-16.418 ug/L	-16.418 ppb	21:59:22
3	Pb 220.353†	-68.4	-19.8	-2.7376 ug/L	-2.7376 ppb	21:59:22
3	S 181.975 Axial†	39.0	-4.2	-6.4266 ug/L	-6.4266 ppb	21:59:22
3	Sb 206.836†	14.0	-22.7	-8.2356 ug/L	-8.2356 ppb	21:59:22
3	Se 196.026†	-14.1	0.7	0.4147 ug/L	0.4147 ppb	21:59:22
3	Si 251.611†	555.0	-39.2	-1.2584 ug/L	-1.2584 ppb	21:59:22
3	Sn 189.927†	5.5	3.8	0.7669 ug/L	0.7669 ppb	21:59:22
3	Ti 334.940†	-804.2	150.6	0.2475 ug/L	0.2475 ppb	21:59:02
3	Tl 190.801†	-37.6	-5.4	-1.8677 ug/L	-1.8677 ppb	21:59:22
3	U 409.014†	-1404.4	-409.5	-10.573 ug/L	-10.573 ppb	21:59:02
3	V 292.402†	-1345.7	114.2	0.7496 ug/L	0.7496 ppb	21:59:02
3	Zn 213.857†	731.8	34.9	0.3566 ug/L	0.3566 ppb	21:59:22
3	SiO2†	559.2	-46.8	-3.2064 ug/L	-3.2064 ppb	21:59:38

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	919824.6	105.48 %		1.708			1.62%
Sc Radial	5210.1	96.6 %		2.55			2.64%
Y 371.029	812950.4	104.03 %		1.660			1.60%
Y RADIAL	5607.6	96.60 %		2.569			2.66%
Ag 328.068†	111.8	0.5013 ug/L		0.10732	0.5013 ppb	0.10732	21.41%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	2.9	2.2408 ug/L		3.27064	2.2408 ppb	3.27064	145.96%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	3.6	1.5915 ug/L		0.55615	1.5915 ppb	0.55615	34.95%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	116.2	2.6790 ug/L		0.40215	2.6790 ppb	0.40215	15.01%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	21.9	0.1887 ug/L		0.08162	0.1887 ppb	0.08162	43.25%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	978.8	0.3693 ug/L		0.04257	0.3693 ppb	0.04257	11.53%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	4.8	7.9900 ug/L		5.17488	7.9900 ppb	5.17488	64.77%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	-5.9	-0.0732 ug/L	0.07667	-0.0732 ppb	0.07667	104.73%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	7.1	0.1717 ug/L	0.09382	0.1717 ppb	0.09382	54.64%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-0.1	0.0037 ug/L	0.09504	0.0037 ppb	0.09504	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-1372.0	-4.0086 ug/L	0.53939	-4.0086 ppb	0.53939	13.46%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.9	-8.3526 ug/L	7.37140	-8.3526 ppb	7.37140	88.25%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	616.3	114.78 ug/L	23.729	114.78 ppb	23.729	20.67%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-1.5	-55.710 ug/L	44.0748	-55.710 ppb	44.0748	79.11%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-10.1	-0.0108 ug/L	0.03640	-0.0108 ppb	0.03640	336.91%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	8.9	0.6553 ug/L	0.19665	0.6553 ppb	0.19665	30.01%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-59.6	-18.363 ug/L	9.4059	-18.363 ppb	9.4059	51.22%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	11.6	0.3180 ug/L	0.20473	0.3180 ppb	0.20473	64.38%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-28.4	-16.778 ug/L	6.7386	-16.778 ppb	6.7386	40.16%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-12.3	-1.6936 ug/L	1.46521	-1.6936 ppb	1.46521	86.51%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-2.7	-4.0546 ug/L	6.53397	-4.0546 ppb	6.53397	161.15%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-13.1	-4.7439 ug/L	3.52170	-4.7439 ppb	3.52170	74.24%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-2.5	-1.5812 ug/L	2.65849	-1.5812 ppb	2.65849	168.13%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	-33.9	-1.0900 ug/L	0.79632	-1.0900 ppb	0.79632	73.05%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.3	0.4748 ug/L	0.27349	0.4748 ppb	0.27349	57.60%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	5.8	0.0379 ug/L	0.11372	0.0379 ppb	0.11372	300.39%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	180.7	0.2958 ug/L	0.09120	0.2958 ppb	0.09120	30.83%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-0.2	-0.0721 ug/L	2.84261	-0.0721 ppb	2.84261	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-412.2	-10.641 ug/L	0.2998	-10.641 ppb	0.2998	2.82%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	96.3	0.6306 ug/L	0.15635	0.6306 ppb	0.15635	24.79%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	31.5	0.3233 ug/L	0.07728	0.3233 ppb	0.07728	23.90%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	-43.5	-2.9806 ug/L	0.32151	-2.9806 ppb	0.32151	10.79%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 76

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/25/2010 22:59:02

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	5144.1	5144.1	95.4 %		23:00:54
1	Y RADIAL	5530.8	5530.8	95.27 %		23:00:54
1	Al 396.153Radial†	6337.7	6640.0	5173.2 ug/L	5173.2 ppb	23:00:54
1	Ca 317.933Radial†	3134.9	3267.1	5410.5 ug/L	5410.5 ppb	23:01:14
1	Fe 238.204 Radial†	551.6	570.3	5355.7 ug/L	5355.7 ppb	23:01:14
1	K 766.490 Radial†	29705.2	29170.5	5426.6 ug/L	5426.6 ppb	23:00:54
1	Mg 279.077 IEC†	149.8	154.6	5673.8 ug/L	5673.8 ppb	23:01:14
1	Na 589.592 Radial†	30570.0	32471.2	10009 ug/L	10009 ppb	23:00:54
1	Sr 421.552†	74454.8	78039.0	508.21 ug/L	508.21 ppb	23:00:54
1	Sc 361.383	915234.9	915234.9	104.95 %		23:02:12
1	Y 371.029	803642.2	803642.2	102.84 %		23:02:12
1	Ag 328.068†	119920.7	113971.3	505.57 ug/L	505.57 ppb	23:02:17
1	As 188.979†	1184.8	1159.6	523.14 ug/L	523.14 ppb	23:02:37
1	B 249.677†	22163.9	21428.5	491.71 ug/L	491.71 ppb	23:02:17
1	Ba 233.527†	62719.4	59767.4	513.82 ug/L	513.82 ppb	23:02:17
1	Be 313.107†	1430532.1	1368668.9	516.55 ug/L	516.55 ppb	23:02:12
1	Cd 226.502†	44163.2	42260.0	520.97 ug/L	520.97 ppb	23:02:17
1	Co 228.616†	22788.2	21772.7	521.47 ug/L	521.47 ppb	23:02:17
1	Cr 267.716†	46415.8	44147.6	519.75 ug/L	519.75 ppb	23:02:17
1	Cu 324.752†	186297.2	167672.8	490.57 ug/L	490.57 ppb	23:02:17
1	Mn 257.610†	440635.0	419299.2	508.90 ug/L	508.90 ppb	23:02:12
1	Mo 202.031†	7358.0	6990.0	516.67 ug/L	516.67 ppb	23:02:37
1	Ni 231.604†	20055.9	19004.9	521.96 ug/L	521.96 ppb	23:02:17
1	P 214.914†	4601.9	4164.3	2487.8 ug/L	2487.8 ppb	23:02:37
1	Pb 220.353†	3925.8	3786.0	526.30 ug/L	526.30 ppb	23:02:37
1	S 181.975 Axial†	768.1	690.5	1045.5 ug/L	1045.5 ppb	23:02:37
1	Sb 206.836†	1487.1	1380.9	521.24 ug/L	521.24 ppb	23:02:37
1	Se 196.026†	844.7	819.0	531.57 ug/L	531.57 ppb	23:02:37
1	Si 251.611†	85064.0	80484.9	2562.9 ug/L	2562.9 ppb	23:02:17
1	Sn 189.927†	2667.1	2539.9	518.23 ug/L	518.23 ppb	23:02:37
1	Ti 334.940†	323005.6	308691.2	487.52 ug/L	487.52 ppb	23:02:17
1	Tl 190.801†	1536.8	1494.8	523.07 ug/L	523.07 ppb	23:02:37
1	U 409.014†	18975.9	19009.6	488.99 ug/L	488.99 ppb	23:02:17
1	V 292.402†	79330.8	76986.2	519.92 ug/L	519.92 ppb	23:02:17
1	Zn 213.857†	54599.5	51362.5	514.98 ug/L	514.98 ppb	23:02:17
1	SiO2†	85013.8	80425.4	5462.9 ug/L	5462.9 ppb	23:03:44
2	Sc Radial	5179.1	5179.1	96.0 %		23:01:19
2	Y RADIAL	5551.4	5551.4	95.63 %		23:01:19
2	Al 396.153Radial†	6324.7	6581.5	5127.2 ug/L	5127.2 ppb	23:01:19
2	Ca 317.933Radial†	3132.3	3242.1	5369.1 ug/L	5369.1 ppb	23:01:39
2	Fe 238.204 Radial†	549.9	564.6	5302.6 ug/L	5302.6 ppb	23:01:39
2	K 766.490 Radial†	29649.4	28901.6	5376.5 ug/L	5376.5 ppb	23:01:19
2	Mg 279.077 IEC†	148.3	152.0	5578.1 ug/L	5578.1 ppb	23:01:39
2	Na 589.592 Radial†	30647.5	32334.9	9966.8 ug/L	9966.8 ppb	23:01:19
2	Sr 421.552†	74427.2	77481.8	504.58 ug/L	504.58 ppb	23:01:19
2	Sc 361.383	914721.1	914721.1	104.89 %		23:02:43
2	Y 371.029	803177.8	803177.8	102.78 %		23:02:43
2	Ag 328.068†	120242.7	114342.5	507.21 ug/L	507.21 ppb	23:02:48
2	As 188.979†	1212.3	1186.4	535.14 ug/L	535.14 ppb	23:03:08
2	B 249.677†	22247.0	21519.6	493.81 ug/L	493.81 ppb	23:02:48
2	Ba 233.527†	63191.3	60250.8	517.97 ug/L	517.97 ppb	23:02:48
2	Be 313.107†	1432285.9	1371106.5	517.47 ug/L	517.47 ppb	23:02:43
2	Cd 226.502†	44731.2	42825.1	527.95 ug/L	527.95 ppb	23:02:48
2	Co 228.616†	22937.0	21926.7	525.16 ug/L	525.16 ppb	23:02:48
2	Cr 267.716†	46817.8	44555.7	524.55 ug/L	524.55 ppb	23:02:48
2	Cu 324.752†	185456.1	166970.6	488.51 ug/L	488.51 ppb	23:02:48
2	Mn 257.610†	441120.1	419997.5	509.74 ug/L	509.74 ppb	23:02:43
2	Mo 202.031†	7399.5	7033.5	519.88 ug/L	519.88 ppb	23:03:08
2	Ni 231.604†	20284.6	19233.7	528.25 ug/L	528.25 ppb	23:02:48

2	P 214.914†	4591.7	4157.1	2483.8 ug/L	2483.8 ppb	23:03:08
2	Pb 220.353†	3939.4	3801.2	528.40 ug/L	528.40 ppb	23:03:08
2	S 181.975 Axial†	774.5	697.0	1055.3 ug/L	1055.3 ppb	23:03:08
2	Sb 206.836†	1476.0	1371.1	517.84 ug/L	517.84 ppb	23:03:08
2	Se 196.026†	850.5	825.0	535.16 ug/L	535.16 ppb	23:03:08
2	Si 251.611†	85266.2	80723.3	2570.4 ug/L	2570.4 ppb	23:02:48
2	Sn 189.927†	2693.0	2565.9	523.53 ug/L	523.53 ppb	23:03:08
2	Ti 334.940†	324005.8	309817.7	489.30 ug/L	489.30 ppb	23:02:48
2	Tl 190.801†	1554.1	1512.2	529.09 ug/L	529.09 ppb	23:03:08
2	U 409.014†	19060.1	19100.1	491.33 ug/L	491.33 ppb	23:02:48
2	V 292.402†	79935.1	77604.8	524.10 ug/L	524.10 ppb	23:02:48
2	Zn 213.857†	54987.0	51761.2	518.98 ug/L	518.98 ppb	23:02:48
2	SiO2†	84834.5	80300.0	5454.3 ug/L	5454.3 ppb	23:03:49
3	Sc Radial	5107.7	5107.7	94.7 %		23:01:44
3	Y RADIAL	5483.1	5483.1	94.45 %		23:01:44
3	Al 396.153Radial†	6249.5	6594.2	5137.5 ug/L	5137.5 ppb	23:01:44
3	Ca 317.933Radial†	3097.2	3250.7	5383.3 ug/L	5383.3 ppb	23:02:04
3	Fe 238.204 Radial†	543.6	565.9	5314.4 ug/L	5314.4 ppb	23:02:04
3	K 766.490 Radial†	29491.8	29166.9	5425.9 ug/L	5425.9 ppb	23:01:44
3	Mg 279.077 IEC†	145.1	150.8	5533.2 ug/L	5533.2 ppb	23:02:04
3	Na 589.592 Radial†	30438.0	32559.8	10036 ug/L	10036 ppb	23:01:44
3	Sr 421.552†	74081.1	78199.9	509.25 ug/L	509.25 ppb	23:01:44
3	Sc 361.383	924499.2	924499.2	106.01 %		23:03:14
3	Y 371.029	810247.9	810247.9	103.69 %		23:03:14
3	Ag 328.068†	119755.8	112670.7	499.82 ug/L	499.82 ppb	23:03:19
3	As 188.979†	1200.7	1163.3	524.73 ug/L	524.73 ppb	23:03:39
3	B 249.677†	22209.6	21260.0	487.84 ug/L	487.84 ppb	23:03:19
3	Ba 233.527†	62845.9	59287.9	509.70 ug/L	509.70 ppb	23:03:19
3	Be 313.107†	1443782.0	1367508.3	516.10 ug/L	516.10 ppb	23:03:14
3	Cd 226.502†	44460.4	42118.6	519.22 ug/L	519.22 ppb	23:03:19
3	Co 228.616†	22860.0	21622.8	517.88 ug/L	517.88 ppb	23:03:19
3	Cr 267.716†	46629.2	43905.6	516.90 ug/L	516.90 ppb	23:03:19
3	Cu 324.752†	184943.7	164617.1	481.63 ug/L	481.63 ppb	23:03:19
3	Mn 257.610†	446568.8	420689.2	510.59 ug/L	510.59 ppb	23:03:14
3	Mo 202.031†	7365.3	6926.6	511.99 ug/L	511.99 ppb	23:03:39
3	Ni 231.604†	20109.1	18863.6	518.08 ug/L	518.08 ppb	23:03:19
3	P 214.914†	4594.4	4113.4	2458.0 ug/L	2458.0 ppb	23:03:39
3	Pb 220.353†	3920.9	3743.9	520.46 ug/L	520.46 ppb	23:03:39
3	S 181.975 Axial†	774.9	689.6	1044.1 ug/L	1044.1 ppb	23:03:39
3	Sb 206.836†	1486.8	1366.4	515.84 ug/L	515.84 ppb	23:03:39
3	Se 196.026†	838.9	805.4	522.96 ug/L	522.96 ppb	23:03:39
3	Si 251.611†	84998.2	79610.7	2535.0 ug/L	2535.0 ppb	23:03:19
3	Sn 189.927†	2682.3	2528.7	515.96 ug/L	515.96 ppb	23:03:39
3	Ti 334.940†	322900.5	305508.0	482.51 ug/L	482.51 ppb	23:03:19
3	Tl 190.801†	1530.1	1473.9	515.76 ug/L	515.76 ppb	23:03:39
3	U 409.014†	18912.5	18768.6	482.78 ug/L	482.78 ppb	23:03:19
3	V 292.402†	79481.8	76371.2	515.76 ug/L	515.76 ppb	23:03:19
3	Zn 213.857†	54709.7	50945.2	510.80 ug/L	510.80 ppb	23:03:19
3	SiO2†	85042.7	79640.9	5409.6 ug/L	5409.6 ppb	23:03:54

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	918151.7	105.28 %		0.631			0.60%
Sc Radial	5143.6	95.4 %		0.66			0.69%
Y 371.029	805689.3	103.11 %		0.506			0.49%
Y RADIAL	5521.8	95.12 %		0.604			0.63%
Ag 328.068†	113661.5	504.20 ug/L		3.882	504.20 ppb	3.882	0.77%
QC value within limits for Ag 328.068 Recovery = 100.84%							
Al 396.153Radial†	6605.2	5145.9 ug/L		24.14	5145.9 ppb	24.14	0.47%
QC value within limits for Al 396.153Radial Recovery = 102.92%							
As 188.979†	1169.8	527.67 ug/L		6.520	527.67 ppb	6.520	1.24%
QC value within limits for As 188.979 Recovery = 105.53%							
B 249.677†	21402.7	491.12 ug/L		3.027	491.12 ppb	3.027	0.62%
QC value within limits for B 249.677 Recovery = 98.22%							
Ba 233.527†	59768.7	513.83 ug/L		4.138	513.83 ppb	4.138	0.81%
QC value within limits for Ba 233.527 Recovery = 102.77%							
Be 313.107†	1369094.6	516.71 ug/L		0.699	516.71 ppb	0.699	0.14%
QC value within limits for Be 313.107 Recovery = 103.34%							
Ca 317.933Radial†	3253.3	5387.6 ug/L		21.05	5387.6 ppb	21.05	0.39%

QC value within limits for Ca 317.933 Radial Recovery = 107.75%							
Cd 226.502†	42401.2	522.71 ug/L	4.615	522.71 ppb	4.615	0.88%	
QC value within limits for Cd 226.502 Recovery = 104.54%							
Co 228.616†	21774.1	521.50 ug/L	3.641	521.50 ppb	3.641	0.70%	
QC value within limits for Co 228.616 Recovery = 104.30%							
Cr 267.716†	44203.0	520.40 ug/L	3.867	520.40 ppb	3.867	0.74%	
QC value within limits for Cr 267.716 Recovery = 104.08%							
Cu 324.752†	166420.1	486.90 ug/L	4.681	486.90 ppb	4.681	0.96%	
QC value within limits for Cu 324.752 Recovery = 97.38%							
Fe 238.204 Radial†	566.9	5324.2 ug/L	27.85	5324.2 ppb	27.85	0.52%	
QC value within limits for Fe 238.204 Radial Recovery = 106.48%							
K 766.490 Radial†	29079.7	5409.7 ug/L	28.71	5409.7 ppb	28.71	0.53%	
QC value within limits for K 766.490 Radial Recovery = 108.19%							
Mg 279.077 IEC†	152.5	5595.0 ug/L	71.82	5595.0 ppb	71.82	1.28%	
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 111.90%							
Mn 257.610†	419995.3	509.74 ug/L	0.844	509.74 ppb	0.844	0.17%	
QC value within limits for Mn 257.610 Recovery = 101.95%							
Mo 202.031†	6983.4	516.18 ug/L	3.968	516.18 ppb	3.968	0.77%	
QC value within limits for Mo 202.031 Recovery = 103.24%							
Na 589.592 Radial†	32455.3	10004 ug/L	34.9	10004 ppb	34.9	0.35%	
QC value within limits for Na 589.592 Radial Recovery = 100.04%							
Ni 231.604†	19034.0	522.76 ug/L	5.130	522.76 ppb	5.130	0.98%	
QC value within limits for Ni 231.604 Recovery = 104.55%							
P 214.914†	4145.0	2476.5 ug/L	16.18	2476.5 ppb	16.18	0.65%	
QC value within limits for P 214.914 Recovery = 99.06%							
Pb 220.353†	3777.0	525.06 ug/L	4.116	525.06 ppb	4.116	0.78%	
QC value within limits for Pb 220.353 Recovery = 105.01%							
S 181.975 Axial†	692.3	1048.3 ug/L	6.15	1048.3 ppb	6.15	0.59%	
QC value within limits for S 181.975 Axial Recovery = 104.83%							
Sb 206.836†	1372.8	518.31 ug/L	2.732	518.31 ppb	2.732	0.53%	
QC value within limits for Sb 206.836 Recovery = 103.66%							
Se 196.026†	816.4	529.90 ug/L	6.273	529.90 ppb	6.273	1.18%	
QC value within limits for Se 196.026 Recovery = 105.98%							
Si 251.611†	80272.9	2556.1 ug/L	18.65	2556.1 ppb	18.65	0.73%	
QC value within limits for Si 251.611 Recovery = 102.24%							
Sn 189.927†	2544.8	519.24 ug/L	3.885	519.24 ppb	3.885	0.75%	
QC value within limits for Sn 189.927 Recovery = 103.85%							
Sr 421.552†	77906.9	507.35 ug/L	2.454	507.35 ppb	2.454	0.48%	
QC value within limits for Sr 421.552 Recovery = 101.47%							
Ti 334.940†	308005.6	486.44 ug/L	3.524	486.44 ppb	3.524	0.72%	
QC value within limits for Ti 334.940 Recovery = 97.29%							
Tl 190.801†	1493.6	522.64 ug/L	6.671	522.64 ppb	6.671	1.28%	
QC value within limits for Tl 190.801 Recovery = 104.53%							
U 409.014†	18959.4	487.70 ug/L	4.416	487.70 ppb	4.416	0.91%	
QC value within limits for U 409.014 Recovery = 97.54%							
V 292.402†	76987.4	519.93 ug/L	4.171	519.93 ppb	4.171	0.80%	
QC value within limits for V 292.402 Recovery = 103.99%							
Zn 213.857†	51356.3	514.92 ug/L	4.090	514.92 ppb	4.090	0.79%	
QC value within limits for Zn 213.857 Recovery = 102.98%							
SiO2†	80122.1	5442.3 ug/L	28.61	5442.3 ppb	28.61	0.53%	
QC value within limits for SiO2 Recovery = 101.77%							
QC Failed. Continue with analysis.							

Sequence No.: 77

Sample ID: CCB

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/25/2010 23:06:04

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5039.3	5039.3	93.4 %		23:07:56
1	Y RADIAL	5413.2	5413.2	93.25 %		23:07:56
1	Al 396.153Radial†	14.1	11.0	8.6065 ug/L	8.6065 ppb	23:08:16
1	Ca 317.933Radial†	17.3	-0.8	-1.4074 ug/L	-1.4074 ppb	23:08:16
1	Fe 238.204 Radial†	7.3	-0.3	-2.3963 ug/L	-2.3963 ppb	23:08:16
1	K 766.490 Radial†	2472.4	675.2	125.78 ug/L	125.78 ppb	23:07:56
1	Mg 279.077 IEC†	1.7	-0.6	-22.668 ug/L	-22.668 ppb	23:08:16
1	Na 589.592 Radial†	-557.5	-173.2	-53.376 ug/L	-53.376 ppb	23:07:56
1	Sr 421.552†	7.0	-7.6	-0.0495 ug/L	-0.0495 ppb	23:07:56
1	Sc 361.383	897172.9	897172.9	102.88 %		23:09:13
1	Y 371.029	793990.4	793990.4	101.61 %		23:09:13
1	Ag 328.068†	420.1	113.7	0.5130 ug/L	0.5130 ppb	23:09:18
1	As 188.979†	-31.1	0.4	0.1870 ug/L	0.1870 ppb	23:09:38
1	B 249.677†	-204.2	111.2	2.5637 ug/L	2.5637 ppb	23:09:38
1	Ba 233.527†	22.1	27.0	0.2324 ug/L	0.2324 ppb	23:09:38
1	Be 313.107†	-4719.0	1005.8	0.3794 ug/L	0.3794 ppb	23:09:18
1	Cd 226.502†	-206.3	-21.3	-0.2639 ug/L	-0.2639 ppb	23:09:38
1	Co 228.616†	-54.6	6.0	0.1445 ug/L	0.1445 ppb	23:09:38
1	Cr 267.716†	80.1	-1.7	-0.0136 ug/L	-0.0136 ppb	23:09:38
1	Cu 324.752†	8786.1	-1299.4	-3.7944 ug/L	-3.7944 ppb	23:09:18
1	Mn 257.610†	542.9	-30.2	-0.0360 ug/L	-0.0360 ppb	23:09:38
1	Mo 202.031†	30.7	8.8	0.6522 ug/L	0.6522 ppb	23:09:38
1	Ni 231.604†	136.3	27.2	0.7485 ug/L	0.7485 ppb	23:09:38
1	P 214.914†	203.7	-22.5	-13.197 ug/L	-13.197 ppb	23:09:38
1	Pb 220.353†	-51.2	-4.4	-0.6026 ug/L	-0.6026 ppb	23:09:38
1	S 181.975 Axial†	39.4	-3.1	-4.6995 ug/L	-4.6995 ppb	23:09:38
1	Sb 206.836†	25.1	-11.7	-4.2414 ug/L	-4.2414 ppb	23:09:38
1	Se 196.026†	-24.7	-9.9	-6.2203 ug/L	-6.2203 ppb	23:09:38
1	Si 251.611†	545.3	-37.9	-1.2177 ug/L	-1.2177 ppb	23:09:38
1	Sn 189.927†	0.4	-1.1	-0.2279 ug/L	-0.2279 ppb	23:09:38
1	Ti 334.940†	-762.8	175.4	0.2844 ug/L	0.2844 ppb	23:09:18
1	Tl 190.801†	-33.6	-2.1	-0.7427 ug/L	-0.7427 ppb	23:09:38
1	U 409.014†	-1477.0	-507.2	-13.094 ug/L	-13.094 ppb	23:09:18
1	V 292.402†	-1362.8	71.5	0.4606 ug/L	0.4606 ppb	23:09:18
1	Zn 213.857†	742.1	59.0	0.5970 ug/L	0.5970 ppb	23:09:38
1	SiO2†	558.2	-37.0	-2.5396 ug/L	-2.5396 ppb	23:10:59
2	Sc Radial	5109.5	5109.5	94.7 %		23:08:21
2	Y RADIAL	5503.7	5503.7	94.81 %		23:08:21
2	Al 396.153Radial†	16.4	13.3	10.366 ug/L	10.366 ppb	23:08:41
2	Ca 317.933Radial†	22.8	4.7	7.7624 ug/L	7.7624 ppb	23:08:41
2	Fe 238.204 Radial†	7.2	-0.4	-4.0554 ug/L	-4.0554 ppb	23:08:41
2	K 766.490 Radial†	2473.1	639.5	119.12 ug/L	119.12 ppb	23:08:21
2	Mg 279.077 IEC†	1.8	-0.5	-19.368 ug/L	-19.368 ppb	23:08:41
2	Na 589.592 Radial†	-507.6	-112.4	-34.639 ug/L	-34.639 ppb	23:08:21
2	Sr 421.552†	-4.5	-19.8	-0.1290 ug/L	-0.1290 ppb	23:08:21
2	Sc 361.383	892036.4	892036.4	102.29 %		23:09:43
2	Y 371.029	789354.8	789354.8	101.02 %		23:09:43
2	Ag 328.068†	457.9	153.1	0.6837 ug/L	0.6837 ppb	23:09:48
2	As 188.979†	-33.3	-1.9	-0.8545 ug/L	-0.8545 ppb	23:10:08
2	B 249.677†	-221.3	93.3	2.1515 ug/L	2.1515 ppb	23:10:08
2	Ba 233.527†	13.5	18.7	0.1610 ug/L	0.1610 ppb	23:10:08
2	Be 313.107†	-4946.8	756.7	0.2856 ug/L	0.2856 ppb	23:09:48
2	Cd 226.502†	-196.1	-12.4	-0.1548 ug/L	-0.1548 ppb	23:10:08
2	Co 228.616†	-44.0	16.0	0.3842 ug/L	0.3842 ppb	23:10:08
2	Cr 267.716†	77.3	-4.0	-0.0421 ug/L	-0.0421 ppb	23:10:08
2	Cu 324.752†	8798.1	-1238.4	-3.6171 ug/L	-3.6171 ppb	23:09:48
2	Mn 257.610†	564.9	-5.6	-0.0065 ug/L	-0.0065 ppb	23:10:08
2	Mo 202.031†	28.7	7.0	0.5165 ug/L	0.5165 ppb	23:10:08
2	Ni 231.604†	132.8	24.6	0.6750 ug/L	0.6750 ppb	23:10:08

2	P 214.914†	202.4	-22.6	-13.302 ug/L	-13.302 ppb	23:10:08
2	Pb 220.353†	-65.3	-18.5	-2.5566 ug/L	-2.5566 ppb	23:10:08
2	S 181.975 Axial†	36.6	-5.7	-8.5751 ug/L	-8.5751 ppb	23:10:08
2	Sb 206.836†	38.1	1.2	0.4161 ug/L	0.4161 ppb	23:10:08
2	Se 196.026†	-16.7	-2.3	-1.4262 ug/L	-1.4262 ppb	23:10:08
2	Si 251.611†	539.4	-40.6	-1.3035 ug/L	-1.3035 ppb	23:10:08
2	Sn 189.927†	-3.8	-5.2	-1.0491 ug/L	-1.0491 ppb	23:10:08
2	Ti 334.940†	-754.9	178.8	0.2902 ug/L	0.2902 ppb	23:09:48
2	Tl 190.801†	-47.2	-15.7	-5.4505 ug/L	-5.4505 ppb	23:10:08
2	U 409.014†	-1409.8	-449.8	-11.611 ug/L	-11.611 ppb	23:09:48
2	V 292.402†	-1386.2	41.1	0.2587 ug/L	0.2587 ppb	23:09:48
2	Zn 213.857†	735.8	57.0	0.5774 ug/L	0.5774 ppb	23:10:08
2	SiO2†	563.6	-28.6	-1.9616 ug/L	-1.9616 ppb	23:11:19
3	Sc Radial	5053.9	5053.9	93.7 %		23:08:46
3	Y RADIAL	5449.5	5449.5	93.87 %		23:08:46
3	Al 396.153Radial†	7.4	3.8	2.9259 ug/L	2.9259 ppb	23:09:06
3	Ca 317.933Radial†	22.7	4.9	8.1005 ug/L	8.1005 ppb	23:09:06
3	Fe 238.204 Radial†	8.5	1.1	10.261 ug/L	10.261 ppb	23:09:06
3	K 766.490 Radial†	2417.2	608.6	113.36 ug/L	113.36 ppb	23:08:46
3	Mg 279.077 IEC†	0.2	-2.2	-80.639 ug/L	-80.639 ppb	23:09:06
3	Na 589.592 Radial†	-523.2	-134.9	-41.589 ug/L	-41.589 ppb	23:08:46
3	Sr 421.552†	0.6	-14.4	-0.0937 ug/L	-0.0937 ppb	23:08:46
3	Sc 361.383	897418.2	897418.2	102.91 %		23:10:13
3	Y 371.029	794371.2	794371.2	101.66 %		23:10:13
3	Ag 328.068†	392.2	86.5	0.3914 ug/L	0.3914 ppb	23:10:18
3	As 188.979†	-31.8	-0.3	-0.1286 ug/L	-0.1286 ppb	23:10:38
3	B 249.677†	-213.6	102.1	2.3516 ug/L	2.3516 ppb	23:10:38
3	Ba 233.527†	24.4	29.2	0.2510 ug/L	0.2510 ppb	23:10:38
3	Be 313.107†	-4823.8	905.2	0.3416 ug/L	0.3416 ppb	23:10:18
3	Cd 226.502†	-193.1	-8.4	-0.1057 ug/L	-0.1057 ppb	23:10:38
3	Co 228.616†	-44.5	15.8	0.3802 ug/L	0.3802 ppb	23:10:38
3	Cr 267.716†	88.7	6.7	0.0822 ug/L	0.0822 ppb	23:10:38
3	Cu 324.752†	8904.7	-1186.4	-3.4661 ug/L	-3.4661 ppb	23:10:18
3	Mn 257.610†	592.7	18.1	0.0262 ug/L	0.0262 ppb	23:10:38
3	Mo 202.031†	29.6	7.7	0.5709 ug/L	0.5709 ppb	23:10:38
3	Ni 231.604†	133.0	24.0	0.6597 ug/L	0.6597 ppb	23:10:38
3	P 214.914†	212.1	-14.4	-8.2567 ug/L	-8.2567 ppb	23:10:38
3	Pb 220.353†	-55.6	-8.7	-1.2018 ug/L	-1.2018 ppb	23:10:38
3	S 181.975 Axial†	39.7	-2.8	-4.2950 ug/L	-4.2950 ppb	23:10:38
3	Sb 206.836†	31.7	-5.2	-1.8847 ug/L	-1.8847 ppb	23:10:38
3	Se 196.026†	-17.0	-2.4	-1.4556 ug/L	-1.4556 ppb	23:10:38
3	Si 251.611†	547.3	-36.1	-1.1601 ug/L	-1.1601 ppb	23:10:38
3	Sn 189.927†	2.5	0.9	0.1910 ug/L	0.1910 ppb	23:10:38
3	Ti 334.940†	-753.5	184.6	0.3029 ug/L	0.3029 ppb	23:10:18
3	Tl 190.801†	-35.2	-3.7	-1.2928 ug/L	-1.2928 ppb	23:10:38
3	U 409.014†	-1283.9	-319.2	-8.2413 ug/L	-8.2413 ppb	23:10:18
3	V 292.402†	-1430.4	6.2	0.0304 ug/L	0.0304 ppb	23:10:18
3	Zn 213.857†	720.3	37.6	0.3801 ug/L	0.3801 ppb	23:10:38
3	SiO2†	564.3	-31.2	-2.1385 ug/L	-2.1385 ppb	23:11:39

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	895542.5	102.69 %	0.348			0.34%
Sc Radial	5067.6	94.0 %	0.69			0.73%
Y 371.029	792572.1	101.43 %	0.357			0.35%
Y RADIAL	5455.5	93.97 %	0.785			0.83%
Ag 328.068†	117.8	0.5294 ug/L	0.14681	0.5294 ppb	0.14681	27.73%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	9.4	7.2994 ug/L	3.88838	7.2994 ppb	3.88838	53.27%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.6	-0.2654 ug/L	0.53404	-0.2654 ppb	0.53404	201.22%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	102.2	2.3556 ug/L	0.20613	2.3556 ppb	0.20613	8.75%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	25.0	0.2148 ug/L	0.04748	0.2148 ppb	0.04748	22.10%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	889.2	0.3355 ug/L	0.04719	0.3355 ppb	0.04719	14.06%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	2.9	4.8185 ug/L	5.39440	4.8185 ppb	5.39440	111.95%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-14.0	-0.1748 ug/L	0.08102	-0.1748 ppb	0.08102	46.35%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	12.6	0.3029 ug/L	0.13724	0.3029 ppb	0.13724	45.30%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	0.3	0.0088 ug/L	0.06509	0.0088 ppb	0.06509	738.51%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-1241.4	-3.6258 ug/L	0.16436	-3.6258 ppb	0.16436	4.53%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.1	1.2698 ug/L	7.83088	1.2698 ppb	7.83088	616.68%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	641.1	119.42 ug/L	6.214	119.42 ppb	6.214	5.20%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-1.1	-40.892 ug/L	34.4618	-40.892 ppb	34.4618	84.28%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-5.9	-0.0054 ug/L	0.03112	-0.0054 ppb	0.03112	577.26%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	7.9	0.5799 ug/L	0.06828	0.5799 ppb	0.06828	11.78%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-140.2	-43.201 ug/L	9.4723	-43.201 ppb	9.4723	21.93%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	25.3	0.6944 ug/L	0.04746	0.6944 ppb	0.04746	6.84%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-19.8	-11.586 ug/L	2.8834	-11.586 ppb	2.8834	24.89%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-10.5	-1.4537 ug/L	1.00105	-1.4537 ppb	1.00105	68.86%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-3.9	-5.8565 ug/L	2.36301	-5.8565 ppb	2.36301	40.35%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-5.2	-1.9034 ug/L	2.32879	-1.9034 ppb	2.32879	122.35%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-4.9	-3.0340 ug/L	2.75943	-3.0340 ppb	2.75943	90.95%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-38.2	-1.2271 ug/L	0.07220	-1.2271 ppb	0.07220	5.88%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-1.8	-0.3620 ug/L	0.63082	-0.3620 ppb	0.63082	174.25%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-13.9	-0.0907 ug/L	0.03985	-0.0907 ppb	0.03985	43.92%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	179.6	0.2925 ug/L	0.00942	0.2925 ppb	0.00942	3.22%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-7.2	-2.4954 ug/L	2.57397	-2.4954 ppb	2.57397	103.15%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-425.4	-10.982 ug/L	2.4868	-10.982 ppb	2.4868	22.64%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	39.6	0.2499 ug/L	0.21524	0.2499 ppb	0.21524	86.13%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	51.2	0.5182 ug/L	0.11999	0.5182 ppb	0.11999	23.16%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-32.3	-2.2133 ug/L	0.29613	-2.2133 ppb	0.29613	13.38%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.



Sequence No.: 78

Sample ID: 1202011905|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 79

Date Collected: 1/25/2010 23:13:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011905|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4940.6	4940.6	91.6 %		23:15:41
1	Y RADIAL	5335.5	5335.5	91.91 %		23:15:41
1	Al 396.153Radial†	19.4	17.1	13.446 ug/L	13.446 ppb	23:16:01
1	Ca 317.933Radial†	30.9	14.4	23.771 ug/L	23.771 ppb	23:16:01
1	Fe 238.204 Radial†	19.3	13.1	122.31 ug/L	122.31 ppb	23:16:01
1	K 766.490 Radial†	2552.2	815.2	151.83 ug/L	151.83 ppb	23:15:41
1	Mg 279.077 IEC†	0.1	-2.3	-83.222 ug/L	-83.222 ppb	23:16:01
1	Na 589.592 Radial†	-477.4	-97.7	-30.101 ug/L	-30.101 ppb	23:15:41
1	Sr 421.552†	34.8	22.9	0.1490 ug/L	0.1490 ppb	23:15:41
1	Sc 361.383	881999.1	881999.1	101.14 %		23:16:58
1	Y 371.029	780569.0	780569.0	99.891 %		23:16:58
1	Ag 328.068†	424.1	124.7	0.5996 ug/L	0.5996 ppb	23:17:03
1	As 188.979†	-33.9	-2.8	-1.2350 ug/L	-1.2350 ppb	23:17:23
1	B 249.677†	-239.6	72.8	1.6589 ug/L	1.6589 ppb	23:17:23
1	Ba 233.527†	90.3	94.8	0.8171 ug/L	0.8171 ppb	23:17:23
1	Be 313.107†	-4778.9	867.7	0.3290 ug/L	0.3290 ppb	23:17:03
1	Cd 226.502†	-174.3	6.9	0.0702 ug/L	0.0702 ppb	23:17:23
1	Co 228.616†	-50.3	9.3	0.2174 ug/L	0.2174 ppb	23:17:23
1	Cr 267.716†	101.6	20.9	0.2536 ug/L	0.2536 ppb	23:17:23
1	Cu 324.752†	8651.1	-1286.0	-3.7494 ug/L	-3.7494 ppb	23:17:03
1	Mn 257.610†	1467.9	893.4	1.0992 ug/L	1.0992 ppb	23:17:23
1	Mo 202.031†	14.8	-6.4	-0.4663 ug/L	-0.4663 ppb	23:17:23
1	Ni 231.604†	131.7	25.0	0.6870 ug/L	0.6870 ppb	23:17:23
1	P 214.914†	218.1	-4.8	-2.3366 ug/L	-2.3366 ppb	23:17:23
1	Pb 220.353†	-44.8	1.1	0.1476 ug/L	0.1476 ppb	23:17:23
1	S 181.975 Axial†	42.6	0.7	1.0590 ug/L	1.0590 ppb	23:17:23
1	Sb 206.836†	28.7	-7.6	-2.7708 ug/L	-2.7708 ppb	23:17:23
1	Se 196.026†	-15.3	-1.1	-0.2708 ug/L	-0.2708 ppb	23:17:23
1	Si 251.611†	907.2	329.0	10.509 ug/L	10.509 ppb	23:17:23
1	Sn 189.927†	5.4	3.8	0.7833 ug/L	0.7833 ppb	23:17:23
1	Ti 334.940†	-283.4	636.6	1.0207 ug/L	1.0207 ppb	23:17:03
1	Tl 190.801†	-30.3	0.5	0.1868 ug/L	0.1868 ppb	23:17:23
1	U 409.014†	-1396.4	-452.2	-11.689 ug/L	-11.689 ppb	23:17:03
1	V 292.402†	-1366.7	44.9	0.2496 ug/L	0.2496 ppb	23:17:03
1	Zn 213.857†	1146.8	471.6	4.7583 ug/L	4.7583 ppb	23:17:23
1	SiO2†	911.2	321.4	21.897 ug/L	21.897 ppb	23:18:29
2	Sc Radial	4874.0	4874.0	90.4 %		23:16:07
2	Y RADIAL	5289.6	5289.6	91.12 %		23:16:07
2	Al 396.153Radial†	10.3	7.4	5.7837 ug/L	5.7837 ppb	23:16:27
2	Ca 317.933Radial†	30.2	14.0	23.174 ug/L	23.174 ppb	23:16:27
2	Fe 238.204 Radial†	18.2	12.1	113.52 ug/L	113.52 ppb	23:16:27
2	K 766.490 Radial†	2573.1	876.3	163.22 ug/L	163.22 ppb	23:16:07
2	Mg 279.077 IEC†	3.3	1.3	46.745 ug/L	46.745 ppb	23:16:27
2	Na 589.592 Radial†	-521.8	-153.9	-47.439 ug/L	-47.439 ppb	23:16:07
2	Sr 421.552†	24.2	11.8	0.0765 ug/L	0.0765 ppb	23:16:07
2	Sc 361.383	886546.0	886546.0	101.66 %		23:17:28
2	Y 371.029	785731.7	785731.7	100.55 %		23:17:28
2	Ag 328.068†	473.3	171.0	0.7998 ug/L	0.7998 ppb	23:17:33
2	As 188.979†	-29.0	2.1	0.9699 ug/L	0.9699 ppb	23:17:54
2	B 249.677†	-278.5	35.8	0.8060 ug/L	0.8060 ppb	23:17:54
2	Ba 233.527†	96.2	100.1	0.8621 ug/L	0.8621 ppb	23:17:54
2	Be 313.107†	-4714.2	955.5	0.3620 ug/L	0.3620 ppb	23:17:33
2	Cd 226.502†	-173.8	8.3	0.0890 ug/L	0.0890 ppb	23:17:54
2	Co 228.616†	-50.0	9.9	0.2321 ug/L	0.2321 ppb	23:17:54
2	Cr 267.716†	128.9	47.3	0.5627 ug/L	0.5627 ppb	23:17:54
2	Cu 324.752†	8705.8	-1276.0	-3.7207 ug/L	-3.7207 ppb	23:17:33
2	Mn 257.610†	1478.1	896.1	1.0962 ug/L	1.0962 ppb	23:17:54
2	Mo 202.031†	16.0	-5.3	-0.3851 ug/L	-0.3851 ppb	23:17:54
2	Ni 231.604†	135.3	27.8	0.7650 ug/L	0.7650 ppb	23:17:54

2	P 214.914†	212.6	-11.4	-6.3916 ug/L	-6.3916 ppb	23:17:54
2	Pb 220.353†	-74.4	-27.8	-3.8566 ug/L	-3.8566 ppb	23:17:54
2	S 181.975 Axial†	47.2	5.0	7.6146 ug/L	7.6146 ppb	23:17:54
2	Sb 206.836†	36.0	-0.7	-0.2564 ug/L	-0.2564 ppb	23:17:54
2	Se 196.026†	-15.1	-0.8	-0.1303 ug/L	-0.1303 ppb	23:17:54
2	Si 251.611†	900.1	317.5	10.139 ug/L	10.139 ppb	23:17:54
2	Sn 189.927†	0.6	-0.9	-0.1799 ug/L	-0.1799 ppb	23:17:54
2	Ti 334.940†	-325.4	596.7	0.9469 ug/L	0.9469 ppb	23:17:33
2	Tl 190.801†	-33.4	-2.4	-0.8079 ug/L	-0.8079 ppb	23:17:54
2	U 409.014†	-1405.1	-453.6	-11.725 ug/L	-11.725 ppb	23:17:33
2	V 292.402†	-1407.5	11.7	0.0335 ug/L	0.0335 ppb	23:17:33
2	Zn 213.857†	1141.2	460.2	4.6439 ug/L	4.6439 ppb	23:17:54
2	SiO2†	939.5	344.6	23.476 ug/L	23.476 ppb	23:18:34
3	Sc Radial	4992.7	4992.7	92.6 %		23:16:32
3	Y RADIAL	5384.7	5384.7	92.76 %		23:16:32
3	Al 396.153Radial†	32.5	31.0	24.316 ug/L	24.316 ppb	23:16:52
3	Ca 317.933Radial†	32.0	15.2	25.233 ug/L	25.233 ppb	23:16:52
3	Fe 238.204 Radial†	21.9	15.7	146.66 ug/L	146.66 ppb	23:16:52
3	K 766.490 Radial†	2545.9	779.3	145.15 ug/L	145.15 ppb	23:16:32
3	Mg 279.077 IEC†	4.1	2.1	75.812 ug/L	75.812 ppb	23:16:52
3	Na 589.592 Radial†	-493.5	-109.6	-33.795 ug/L	-33.795 ppb	23:16:32
3	Sr 421.552†	19.6	6.2	0.0399 ug/L	0.0399 ppb	23:16:32
3	Sc 361.383	882588.8	882588.8	101.21 %		23:17:59
3	Y 371.029	781597.2	781597.2	100.02 %		23:17:59
3	Ag 328.068†	497.8	197.3	0.9267 ug/L	0.9267 ppb	23:18:04
3	As 188.979†	-30.9	0.1	0.1022 ug/L	0.1022 ppb	23:18:24
3	B 249.677†	-264.0	48.9	1.1020 ug/L	1.1020 ppb	23:18:24
3	Ba 233.527†	106.8	111.0	0.9567 ug/L	0.9567 ppb	23:18:24
3	Be 313.107†	-4779.7	870.0	0.3299 ug/L	0.3299 ppb	23:18:04
3	Cd 226.502†	-179.1	2.3	0.0112 ug/L	0.0112 ppb	23:18:24
3	Co 228.616†	-40.2	19.4	0.4593 ug/L	0.4593 ppb	23:18:24
3	Cr 267.716†	125.6	44.6	0.5321 ug/L	0.5321 ppb	23:18:24
3	Cu 324.752†	8696.2	-1247.1	-3.6346 ug/L	-3.6346 ppb	23:18:04
3	Mn 257.610†	1459.9	884.6	1.0844 ug/L	1.0844 ppb	23:18:24
3	Mo 202.031†	18.2	-3.0	-0.2120 ug/L	-0.2120 ppb	23:18:24
3	Ni 231.604†	130.9	24.1	0.6609 ug/L	0.6609 ppb	23:18:24
3	P 214.914†	216.1	-6.9	-3.6903 ug/L	-3.6903 ppb	23:18:24
3	Pb 220.353†	-52.5	-6.5	-0.9019 ug/L	-0.9019 ppb	23:18:24
3	S 181.975 Axial†	44.7	2.7	4.1363 ug/L	4.1363 ppb	23:18:24
3	Sb 206.836†	30.7	-5.7	-2.0719 ug/L	-2.0719 ppb	23:18:24
3	Se 196.026†	-24.7	-10.3	-5.9466 ug/L	-5.9466 ppb	23:18:24
3	Si 251.611†	910.6	331.8	10.596 ug/L	10.596 ppb	23:18:24
3	Sn 189.927†	5.3	3.8	0.7737 ug/L	0.7737 ppb	23:18:24
3	Ti 334.940†	-296.2	624.1	0.9880 ug/L	0.9880 ppb	23:18:04
3	Tl 190.801†	-36.4	-5.5	-1.8904 ug/L	-1.8904 ppb	23:18:24
3	U 409.014†	-1382.9	-437.9	-11.323 ug/L	-11.323 ppb	23:18:04
3	V 292.402†	-1375.8	36.9	0.1998 ug/L	0.1998 ppb	23:18:04
3	Zn 213.857†	1157.4	481.3	4.8545 ug/L	4.8545 ppb	23:18:24
3	SiO2†	912.6	322.1	21.942 ug/L	21.942 ppb	23:18:39

Mean Data: 1202011905|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	883711.3	101.33 %		0.284				0.28%
Sc Radial	4935.8	91.5 %		1.10				1.21%
Y 371.029	782632.6	100.16 %		0.350				0.35%
Y RADIAL	5336.6	91.93 %		0.819				0.89%
Ag 328.068†	164.3	0.7754 ug/L		0.16488	0.7754 ppb		0.16488	21.26%
Al 396.153Radial†	18.5	14.515 ug/L		9.3122	14.515 ppb		9.3122	64.15%
As 188.979†	-0.2	-0.0543 ug/L		1.11078	-0.0543 ppb		1.11078	>999.9%
B 249.677†	52.5	1.1890 ug/L		0.43303	1.1890 ppb		0.43303	36.42%
Ba 233.527†	102.0	0.8786 ug/L		0.07124	0.8786 ppb		0.07124	8.11%
Be 313.107†	897.7	0.3403 ug/L		0.01879	0.3403 ppb		0.01879	5.52%
Ca 317.933Radial†	14.5	24.060 ug/L		1.0595	24.060 ppb		1.0595	4.40%
Cd 226.502†	5.8	0.0568 ug/L		0.04063	0.0568 ppb		0.04063	71.52%
Co 228.616†	12.8	0.3030 ug/L		0.13560	0.3030 ppb		0.13560	44.76%
Cr 267.716†	37.6	0.4494 ug/L		0.17032	0.4494 ppb		0.17032	37.89%
Cu 324.752†	-1269.7	-3.7016 ug/L		0.05976	-3.7016 ppb		0.05976	1.61%
Fe 238.204 Radial†	13.6	127.50 ug/L		17.164	127.50 ppb		17.164	13.46%
K 766.490 Radial†	823.6	153.40 ug/L		9.140	153.40 ppb		9.140	5.96%

Mg 279.077 IEC†	0.4	13.112 ug/L	84.6838	13.112 ppb	84.6838	645.86%
Mn 257.610†	891.4	1.0933 ug/L	0.00783	1.0933 ppb	0.00783	0.72%
Mo 202.031†	-4.9	-0.3545 ug/L	0.12987	-0.3545 ppb	0.12987	36.64%
Na 589.592 Radial†	-120.4	-37.112 ug/L	9.1323	-37.112 ppb	9.1323	24.61%
Ni 231.604†	25.6	0.7043 ug/L	0.05419	0.7043 ppb	0.05419	7.69%
P 214.914†	-7.7	-4.1395 ug/L	2.06448	-4.1395 ppb	2.06448	49.87%
Pb 220.353†	-11.0	-1.5370 ug/L	2.07630	-1.5370 ppb	2.07630	135.09%
S 181.975 Axial†	2.8	4.2699 ug/L	3.27986	4.2699 ppb	3.27986	76.81%
Sb 206.836†	-4.7	-1.6997 ug/L	1.29786	-1.6997 ppb	1.29786	76.36%
Se 196.026†	-4.1	-2.1159 ug/L	3.31825	-2.1159 ppb	3.31825	156.82%
Si 251.611†	326.1	10.415 ug/L	0.2423	10.415 ppb	0.2423	2.33%
Sn 189.927†	2.2	0.4590 ug/L	0.55335	0.4590 ppb	0.55335	120.54%
Sr 421.552†	13.6	0.0885 ug/L	0.05549	0.0885 ppb	0.05549	62.73%
Ti 334.940†	619.2	0.9852 ug/L	0.03700	0.9852 ppb	0.03700	3.76%
Tl 190.801†	-2.4	-0.8372 ug/L	1.03890	-0.8372 ppb	1.03890	124.10%
U 409.014†	-447.9	-11.579 ug/L	0.2222	-11.579 ppb	0.2222	1.92%
V 292.402†	31.2	0.1610 ug/L	0.11317	0.1610 ppb	0.11317	70.31%
Zn 213.857†	471.0	4.7522 ug/L	0.10545	4.7522 ppb	0.10545	2.22%
SiO2†	329.3	22.438 ug/L	0.8986	22.438 ppb	0.8986	4.00%

Sequence No.: 79

Sample ID: 1202011910|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 80

Date Collected: 1/25/2010 23:20:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011910|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5204.4	5204.4	96.5 %		23:23:04
1	Y RADIAL	6168.8	6168.8	106.3 %		23:23:04
1	Al 396.153Radial†	112917.0	116999.3	91570 ug/L	91570 ppb	23:22:44
1	Ca 317.933Radial†	61065.4	63255.9	104760 ug/L	104760 ppb	23:22:44
1	Fe 238.204 Radial†	17697.7	18330.1	171680 ug/L	171680 ppb	23:22:44
1	K 766.490 Radial†	222267.3	228340.4	42488 ug/L	42488 ppb	23:22:44
1	Mg 279.077 IEC†	1053.0	1088.7	39778 ug/L	39778 ppb	23:23:04
1	Na 589.592 Radial†	29083.5	30559.4	9419.5 ug/L	9419.5 ppb	23:22:44
1	Sr 421.552†	338967.0	351218.9	2286.6 ug/L	2286.6 ppb	23:22:44
1	Sc 361.383	914823.1	914823.1	104.90 %		23:24:05
1	Y 371.029	878732.6	878732.6	112.45 %		23:24:05
1	Ag 328.068†	58579.1	55547.3	303.98 ug/L	303.98 ppb	23:24:05
1	As 188.979†	2348.3	2269.2	1101.5 ug/L	1101.5 ppb	23:24:10
1	B 249.677†	67403.9	64564.1	1458.1 ug/L	1458.1 ppb	23:24:05
1	Ba 233.527†	241233.9	229967.6	1979.9 ug/L	1979.9 ppb	23:24:05
1	Be 313.107†	2220476.7	2122316.4	811.60 ug/L	811.60 ppb	23:24:05
1	Cd 226.502†	52855.4	50565.0	606.59 ug/L	606.59 ppb	23:24:10
1	Co 228.616†	41287.7	39417.5	931.01 ug/L	931.01 ppb	23:24:10
1	Cr 267.716†	213575.9	203516.9	2398.2 ug/L	2398.2 ppb	23:24:05
1	Cu 324.752†	663740.3	622886.9	1831.6 ug/L	1831.6 ppb	23:24:05
1	Mn 257.610†	4455750.9	4246995.4	5166.8 ug/L	5166.8 ppb	23:24:05
1	Mo 202.031†	6993.6	6645.8	505.35 ug/L	505.35 ppb	23:24:10
1	Ni 231.604†	51542.3	49028.7	1346.8 ug/L	1346.8 ppb	23:24:10
1	P 214.914†	14150.0	13268.4	7763.1 ug/L	7763.1 ppb	23:24:10
1	Pb 220.353†	6140.7	5899.1	822.71 ug/L	822.71 ppb	23:24:10
1	S 181.975 Axial†	2840.0	2665.9	4023.0 ug/L	4023.0 ppb	23:24:10
1	Sb 206.836†	3800.9	3587.2	1319.1 ug/L	1319.1 ppb	23:24:10
1	Se 196.026†	4129.5	3950.6	3044.8 ug/L	3044.8 ppb	23:24:10
1	Si 251.611†	1253724.9	1194575.9	38127 ug/L	38127 ppb	23:24:05
1	Sn 189.927†	5188.5	4944.6	1025.9 ug/L	1025.9 ppb	23:24:10
1	Ti 334.940†	3607952.4	3440285.4	5444.9 ug/L	5444.9 ppb	23:24:05
1	Tl 190.801†	3543.7	3408.6	1248.7 ug/L	1248.7 ppb	23:24:10
1	U 409.014†	-8729.6	-7393.2	-215.79 ug/L	-215.79 ppb	23:24:05
1	V 292.402†	188513.4	181101.3	1182.6 ug/L	1182.6 ppb	23:24:05
1	Zn 213.857†	608133.0	579055.3	5828.9 ug/L	5828.9 ppb	23:24:05
1	SiO2†	1252054.3	1192971.7	81228 ug/L	81228 ppb	23:24:45
2	Sc Radial	5186.8	5186.8	96.2 %		23:23:29
2	Y RADIAL	6122.0	6122.0	105.5 %		23:23:29
2	Al 396.153Radial†	112870.1	117347.7	91843 ug/L	91843 ppb	23:23:09
2	Ca 317.933Radial†	61133.5	63541.5	105230 ug/L	105230 ppb	23:23:09
2	Fe 238.204 Radial†	17734.9	18431.1	172620 ug/L	172620 ppb	23:23:09
2	K 766.490 Radial†	222331.5	229188.9	42646 ug/L	42646 ppb	23:23:09
2	Mg 279.077 IEC†	1057.3	1096.9	40076 ug/L	40076 ppb	23:23:29
2	Na 589.592 Radial†	29162.9	30744.2	9476.5 ug/L	9476.5 ppb	23:23:09
2	Sr 421.552†	338774.7	352211.4	2293.1 ug/L	2293.1 ppb	23:23:09
2	Sc 361.383	913122.1	913122.1	104.71 %		23:24:19
2	Y 371.029	876468.6	876468.6	112.16 %		23:24:19
2	Ag 328.068†	58398.2	55478.6	303.98 ug/L	303.98 ppb	23:24:19
2	As 188.979†	2372.5	2296.5	1114.0 ug/L	1114.0 ppb	23:24:25
2	B 249.677†	67260.2	64546.5	1457.5 ug/L	1457.5 ppb	23:24:19
2	Ba 233.527†	240731.5	229916.2	1979.5 ug/L	1979.5 ppb	23:24:19
2	Be 313.107†	2214882.5	2120916.9	811.07 ug/L	811.07 ppb	23:24:19
2	Cd 226.502†	53157.7	50947.5	611.21 ug/L	611.21 ppb	23:24:25
2	Co 228.616†	41428.4	39625.3	935.99 ug/L	935.99 ppb	23:24:25
2	Cr 267.716†	213327.2	203658.7	2399.9 ug/L	2399.9 ppb	23:24:19
2	Cu 324.752†	662194.0	622588.8	1830.7 ug/L	1830.7 ppb	23:24:19
2	Mn 257.610†	4449085.5	4248542.4	5168.8 ug/L	5168.8 ppb	23:24:19
2	Mo 202.031†	7027.5	6690.6	508.73 ug/L	508.73 ppb	23:24:25
2	Ni 231.604†	51709.1	49279.6	1353.7 ug/L	1353.7 ppb	23:24:25

2	P 214.914†	14275.7	13413.5	7852.6 ug/L	7852.6 ppb	23:24:25
2	Pb 220.353†	6155.0	5923.8	826.11 ug/L	826.11 ppb	23:24:25
2	S 181.975 Axial†	2863.9	2693.7	4065.2 ug/L	4065.2 ppb	23:24:25
2	Sb 206.836†	3816.4	3608.8	1327.0 ug/L	1327.0 ppb	23:24:25
2	Se 196.026†	4105.1	3934.7	3038.0 ug/L	3038.0 ppb	23:24:25
2	Si 251.611†	1250496.2	1193718.8	38099 ug/L	38099 ppb	23:24:19
2	Sn 189.927†	5171.3	4937.4	1024.5 ug/L	1024.5 ppb	23:24:25
2	Ti 334.940†	3599561.3	3438678.8	5442.4 ug/L	5442.4 ppb	23:24:19
2	Tl 190.801†	3520.0	3392.2	1243.0 ug/L	1243.0 ppb	23:24:25
2	U 409.014†	-8671.8	-7353.5	-214.88 ug/L	-214.88 ppb	23:24:19
2	V 292.402†	188059.9	181002.9	1181.9 ug/L	1181.9 ppb	23:24:19
2	Zn 213.857†	607401.9	579437.1	5832.7 ug/L	5832.7 ppb	23:24:19
2	SiO2†	1261353.7	1204076.6	81984 ug/L	81984 ppb	23:24:51
3	Sc Radial	5261.7	5261.7	97.6 %		23:23:54
3	Y RADIAL	6216.2	6216.2	107.1 %		23:23:54
3	Al 396.153Radial†	113946.3	116780.5	91399 ug/L	91399 ppb	23:23:34
3	Ca 317.933Radial†	61537.8	63051.2	104420 ug/L	104420 ppb	23:23:34
3	Fe 238.204 Radial†	17856.4	18293.1	171330 ug/L	171330 ppb	23:23:34
3	K 766.490 Radial†	223946.8	227554.5	42342 ug/L	42342 ppb	23:23:34
3	Mg 279.077 IEC†	1062.1	1086.2	39684 ug/L	39684 ppb	23:23:54
3	Na 589.592 Radial†	29328.2	30482.1	9395.7 ug/L	9395.7 ppb	23:23:34
3	Sr 421.552†	342040.2	350545.1	2282.2 ug/L	2282.2 ppb	23:23:34
3	Sc 361.383	916809.1	916809.1	105.13 %		23:24:34
3	Y 371.029	879995.5	879995.5	112.61 %		23:24:34
3	Ag 328.068†	58788.3	55625.4	304.22 ug/L	304.22 ppb	23:24:34
3	As 188.979†	2373.5	2288.3	1110.0 ug/L	1110.0 ppb	23:24:39
3	B 249.677†	67619.9	64630.4	1459.6 ug/L	1459.6 ppb	23:24:34
3	Ba 233.527†	241809.7	230017.2	1980.4 ug/L	1980.4 ppb	23:24:34
3	Be 313.107†	2225310.7	2122329.3	811.61 ug/L	811.61 ppb	23:24:34
3	Cd 226.502†	53159.6	50745.2	608.85 ug/L	608.85 ppb	23:24:39
3	Co 228.616†	41517.1	39550.5	934.21 ug/L	934.21 ppb	23:24:39
3	Cr 267.716†	214161.1	203632.6	2399.5 ug/L	2399.5 ppb	23:24:34
3	Cu 324.752†	666282.5	623934.4	1834.6 ug/L	1834.6 ppb	23:24:34
3	Mn 257.610†	4467549.8	4249017.6	5169.3 ug/L	5169.3 ppb	23:24:34
3	Mo 202.031†	7063.0	6697.4	509.13 ug/L	509.13 ppb	23:24:39
3	Ni 231.604†	51727.1	49098.0	1348.7 ug/L	1348.7 ppb	23:24:39
3	P 214.914†	14258.5	13342.3	7808.6 ug/L	7808.6 ppb	23:24:39
3	Pb 220.353†	6208.2	5950.7	829.85 ug/L	829.85 ppb	23:24:39
3	S 181.975 Axial†	2842.8	2662.7	4018.2 ug/L	4018.2 ppb	23:24:39
3	Sb 206.836†	3837.9	3614.6	1329.2 ug/L	1329.2 ppb	23:24:39
3	Se 196.026†	4129.9	3942.5	3038.6 ug/L	3038.6 ppb	23:24:39
3	Si 251.611†	1257413.4	1195495.5	38156 ug/L	38156 ppb	23:24:34
3	Sn 189.927†	5209.6	4954.0	1027.8 ug/L	1027.8 ppb	23:24:39
3	Ti 334.940†	3616887.6	3441334.4	5446.5 ug/L	5446.5 ppb	23:24:34
3	Tl 190.801†	3543.8	3401.3	1246.2 ug/L	1246.2 ppb	23:24:39
3	U 409.014†	-8740.0	-7385.0	-215.54 ug/L	-215.54 ppb	23:24:34
3	V 292.402†	189070.9	181242.3	1183.7 ug/L	1183.7 ppb	23:24:34
3	Zn 213.857†	610167.5	579734.8	5835.8 ug/L	5835.8 ppb	23:24:34
3	SiO2†	1233032.7	1172292.7	79820 ug/L	79820 ppb	23:24:57

Mean Data: 1202011910|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	914918.1	104.91 %		0.212				0.20%
Sc Radial	5217.6	96.8 %		0.73				0.75%
Y 371.029	878398.9	112.41 %		0.229				0.20%
Y RADIAL	6169.0	106.3 %		0.81				0.76%
Ag 328.068†	55550.5	304.06 ug/L		0.141	304.06 ppb		0.141	0.05%
Al 396.153Radial†	117042.5	91604 ug/L		223.9	91604 ppb		223.9	0.24%
As 188.979†	2284.7	1108.5 ug/L		6.35	1108.5 ppb		6.35	0.57%
B 249.677†	64580.4	1458.4 ug/L		1.11	1458.4 ppb		1.11	0.08%
Ba 233.527†	229967.0	1979.9 ug/L		0.42	1979.9 ppb		0.42	0.02%
Be 313.107†	2121854.2	811.43 ug/L		0.310	811.43 ppb		0.310	0.04%
Ca 317.933Radial†	63282.9	104800 ug/L		407.8	104800 ppb		407.8	0.39%
Cd 226.502†	50752.5	608.88 ug/L		2.312	608.88 ppb		2.312	0.38%
Co 228.616†	39531.1	933.74 ug/L		2.520	933.74 ppb		2.520	0.27%
Cr 267.716†	203602.7	2399.2 ug/L		0.89	2399.2 ppb		0.89	0.04%
Cu 324.752†	623136.7	1832.3 ug/L		2.04	1832.3 ppb		2.04	0.11%
Fe 238.204 Radial†	18351.4	171880 ug/L		668.6	171880 ppb		668.6	0.39%
K 766.490 Radial†	228361.3	42492 ug/L		152.1	42492 ppb		152.1	0.36%

Mg 279.077 IEC†	1090.6	39846 ug/L	204.9	39846 ppb	204.9	0.51%
Mn 257.610†	4248185.1	5168.3 ug/L	1.29	5168.3 ppb	1.29	0.02%
Mo 202.031†	6677.9	507.74 ug/L	2.076	507.74 ppb	2.076	0.41%
Na 589.592 Radial†	30595.2	9430.5 ug/L	41.52	9430.5 ppb	41.52	0.44%
Ni 231.604†	49135.4	1349.7 ug/L	3.56	1349.7 ppb	3.56	0.26%
P 214.914†	13341.4	7808.1 ug/L	44.75	7808.1 ppb	44.75	0.57%
Pb 220.353†	5924.5	826.22 ug/L	3.573	826.22 ppb	3.573	0.43%
S 181.975 Axial†	2674.1	4035.5 ug/L	25.83	4035.5 ppb	25.83	0.64%
Sb 206.836†	3603.6	1325.1 ug/L	5.30	1325.1 ppb	5.30	0.40%
Se 196.026†	3942.6	3040.5 ug/L	3.78	3040.5 ppb	3.78	0.12%
Si 251.611†	1194596.7	38128 ug/L	28.4	38128 ppb	28.4	0.07%
Sn 189.927†	4945.3	1026.1 ug/L	1.62	1026.1 ppb	1.62	0.16%
Sr 421.552†	351325.1	2287.3 ug/L	5.46	2287.3 ppb	5.46	0.24%
Ti 334.940†	3440099.6	5444.6 ug/L	2.08	5444.6 ppb	2.08	0.04%
Tl 190.801†	3400.7	1245.9 ug/L	2.86	1245.9 ppb	2.86	0.23%
U 409.014†	-7377.2	-215.40 ug/L	0.472	-215.40 ppb	0.472	0.22%
V 292.402†	181115.5	1182.7 ug/L	0.89	1182.7 ppb	0.89	0.08%
Zn 213.857†	579409.0	5832.5 ug/L	3.45	5832.5 ppb	3.45	0.06%
SiO2†	1189780.3	81011 ug/L	1098.5	81011 ppb	1098.5	1.36%

Sequence No.: 80

Sample ID: 244144001|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 81

Date Collected: 1/25/2010 23:27:07

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144001|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Conc. Units	Sample Units	Analysis Time
1	Sc Radial	5119.7	5119.7	94.9 %				23:29:20
1	Y RADIAL	6126.5	6126.5	105.5 %				23:29:20
1	Al 396.153Radial†	135062.7	142262.1	111370 ug/L		111370 ppb		23:29:00
1	Ca 317.933Radial†	11424.6	12014.6	19897 ug/L		19897 ppb		23:29:00
1	Fe 238.204 Radial†	12778.5	13452.0	125970 ug/L		125970 ppb		23:29:00
1	K 766.490 Radial†	100939.5	104352.4	19427 ug/L		19427 ppb		23:29:00
1	Mg 279.077 IEC†	516.0	541.1	19723 ug/L		19723 ppb		23:29:20
1	Na 589.592 Radial†	1230.3	1719.3	529.93 ug/L		529.93 ppb		23:29:00
1	Sr 421.552†	34838.9	36682.0	238.75 ug/L		238.75 ppb		23:29:00
1	Sc 361.383	914772.6	914772.6	104.90 %				23:30:19
1	Y 371.029	895431.9	895431.9	114.59 %				23:30:19
1	Ag 328.068†	-8237.4	-8147.5	5.9335 ug/L		5.9335 ppb		23:30:44
1	As 188.979†	-39.5	-7.0	71.945 ug/L		71.945 ppb		23:30:44
1	B 249.677†	1673.1	1904.7	23.233 ug/L		23.233 ppb		23:30:24
1	Ba 233.527†	268703.4	256167.7	2201.2 ug/L		2201.2 ppb		23:30:24
1	Be 313.107†	-16117.2	-9772.2	8.2590 ug/L		8.2590 ppb		23:30:24
1	Cd 226.502†	1146.1	1271.8	2.6955 ug/L		2.6955 ppb		23:30:44
1	Co 228.616†	3410.7	3310.6	67.420 ug/L		67.420 ppb		23:30:44
1	Cr 267.716†	12208.2	11558.8	138.84 ug/L		138.84 ppb		23:30:44
1	Cu 324.752†	30211.7	18961.9	62.253 ug/L		62.253 ppb		23:30:24
1	Mn 257.610†	4221974.1	4024364.2	4893.1 ug/L		4893.1 ppb		23:30:19
1	Mo 202.031†	-49.1	-67.8	5.0059 ug/L		5.0059 ppb		23:30:44
1	Ni 231.604†	3894.8	3607.8	99.099 ug/L		99.099 ppb		23:30:44
1	P 214.914†	1941.3	1630.2	926.37 ug/L		926.37 ppb		23:30:44
1	Pb 220.353†	964.3	964.7	145.75 ug/L		145.75 ppb		23:30:44
1	S 181.975 Axial†	557.5	490.1	721.83 ug/L		721.83 ppb		23:30:44
1	Sb 206.836†	93.3	52.9	2.4748 ug/L		2.4748 ppb		23:30:44
1	Se 196.026†	-757.5	-708.0	-19.044 ug/L		-19.044 ppb		23:30:44
1	Si 251.611†	1367945.3	1303531.3	41611 ug/L		41611 ppb		23:30:19
1	Sn 189.927†	-106.4	-102.9	-15.826 ug/L		-15.826 ppb		23:30:44
1	Ti 334.940†	3490918.9	3328904.3	5260.0 ug/L		5260.0 ppb		23:30:19
1	Tl 190.801†	-238.4	-196.8	-2.3594 ug/L		-2.3594 ppb		23:30:44
1	U 409.014†	-8954.8	-7608.4	-211.09 ug/L		-211.09 ppb		23:30:24
1	V 292.402†	43421.2	42790.9	261.14 ug/L		261.14 ppb		23:30:24
1	Zn 213.857†	27996.4	26027.4	250.32 ug/L		250.32 ppb		23:30:44
1	SiO2†	1369407.3	1304913.5	88865 ug/L		88865 ppb		23:31:55
2	Sc Radial	5118.8	5118.8	94.9 %				23:29:46
2	Y RADIAL	6137.9	6137.9	105.7 %				23:29:46
2	Al 396.153Radial†	135446.8	142690.0	111710 ug/L		111710 ppb		23:29:26
2	Ca 317.933Radial†	11414.5	12005.9	19882 ug/L		19882 ppb		23:29:26
2	Fe 238.204 Radial†	12714.0	13386.2	125350 ug/L		125350 ppb		23:29:26
2	K 766.490 Radial†	100865.2	104291.5	19416 ug/L		19416 ppb		23:29:26
2	Mg 279.077 IEC†	525.3	551.0	20089 ug/L		20089 ppb		23:29:46
2	Na 589.592 Radial†	1263.9	1754.9	540.94 ug/L		540.94 ppb		23:29:26
2	Sr 421.552†	34901.7	36754.1	239.22 ug/L		239.22 ppb		23:29:26
2	Sc 361.383	913354.5	913354.5	104.73 %				23:30:51
2	Y 371.029	894910.9	894910.9	114.52 %				23:30:51
2	Ag 328.068†	-8176.1	-8101.2	5.9556 ug/L		5.9556 ppb		23:31:16
2	As 188.979†	-37.3	-5.0	72.667 ug/L		72.667 ppb		23:31:16
2	B 249.677†	1733.1	1964.5	24.714 ug/L		24.714 ppb		23:30:56
2	Ba 233.527†	271437.5	259176.0	2227.0 ug/L		2227.0 ppb		23:30:56
2	Be 313.107†	-16400.4	-10066.4	8.1370 ug/L		8.1370 ppb		23:30:56
2	Cd 226.502†	1107.0	1236.3	2.3191 ug/L		2.3191 ppb		23:31:16
2	Co 228.616†	3384.4	3290.5	66.971 ug/L		66.971 ppb		23:31:16
2	Cr 267.716†	12145.3	11516.9	138.35 ug/L		138.35 ppb		23:31:16
2	Cu 324.752†	30371.6	19159.3	62.801 ug/L		62.801 ppb		23:30:56
2	Mn 257.610†	4212276.4	4021354.1	4889.4 ug/L		4889.4 ppb		23:30:51
2	Mo 202.031†	-55.1	-73.7	4.5274 ug/L		4.5274 ppb		23:31:16
2	Ni 231.604†	3859.5	3579.8	98.329 ug/L		98.329 ppb		23:31:16

2	P 214.914†	1941.4	1633.2	928.69 ug/L	928.69 ppb	23:31:16
2	Pb 220.353†	983.0	983.9	148.55 ug/L	148.55 ppb	23:31:16
2	S 181.975 Axial†	557.5	490.9	722.97 ug/L	722.97 ppb	23:31:16
2	Sb 206.836†	68.2	29.1	-6.2273 ug/L	-6.2273 ppb	23:31:16
2	Se 196.026†	-766.4	-717.7	-27.098 ug/L	-27.098 ppb	23:31:16
2	Si 251.611†	1362763.5	1300608.5	41518 ug/L	41518 ppb	23:30:51
2	Sn 189.927†	-118.8	-114.9	-18.270 ug/L	-18.270 ppb	23:31:16
2	Ti 334.940†	3482268.0	3325811.5	5255.1 ug/L	5255.1 ppb	23:30:51
2	Tl 190.801†	-255.9	-213.8	-8.3355 ug/L	-8.3355 ppb	23:31:16
2	U 409.014†	-9164.6	-7821.9	-216.53 ug/L	-216.53 ppb	23:30:56
2	V 292.402†	43843.3	43258.2	264.34 ug/L	264.34 ppb	23:30:56
2	Zn 213.857†	27864.2	25942.6	249.52 ug/L	249.52 ppb	23:31:16
2	SiO2†	1379902.4	1316961.2	89685 ug/L	89685 ppb	23:32:01
3	Sc Radial	5153.7	5153.7	95.6 %		23:30:11
3	Y RADIAL	6185.0	6185.0	106.5 %		23:30:11
3	Al 396.153Radial†	136362.8	142683.8	111700 ug/L	111700 ppb	23:29:51
3	Ca 317.933Radial†	11497.5	12011.5	19892 ug/L	19892 ppb	23:29:51
3	Fe 238.204 Radial†	12789.6	13374.8	125250 ug/L	125250 ppb	23:29:51
3	K 766.490 Radial†	101285.3	104012.7	19364 ug/L	19364 ppb	23:29:51
3	Mg 279.077 IEC†	532.3	554.6	20222 ug/L	20222 ppb	23:30:11
3	Na 589.592 Radial†	1192.8	1671.6	515.23 ug/L	515.23 ppb	23:29:51
3	Sr 421.552†	34964.1	36570.9	238.03 ug/L	238.03 ppb	23:29:51
3	Sc 361.383	914942.0	914942.0	104.92 %		23:31:23
3	Y 371.029	896210.5	896210.5	114.69 %		23:31:23
3	Ag 328.068†	-8163.5	-8075.7	6.0134 ug/L	6.0134 ppb	23:31:49
3	As 188.979†	-49.4	-16.5	67.350 ug/L	67.350 ppb	23:31:49
3	B 249.677†	1639.3	1872.2	22.603 ug/L	22.603 ppb	23:31:28
3	Ba 233.527†	269005.8	256408.6	2203.2 ug/L	2203.2 ppb	23:31:28
3	Be 313.107†	-16260.3	-9905.7	8.1619 ug/L	8.1619 ppb	23:31:28
3	Cd 226.502†	1123.6	1250.3	2.5039 ug/L	2.5039 ppb	23:31:49
3	Co 228.616†	3387.9	3288.3	66.939 ug/L	66.939 ppb	23:31:49
3	Cr 267.716†	12168.8	11519.2	138.36 ug/L	138.36 ppb	23:31:49
3	Cu 324.752†	29970.0	18726.2	61.525 ug/L	61.525 ppb	23:31:28
3	Mn 257.610†	4206497.2	4008867.2	4874.2 ug/L	4874.2 ppb	23:31:23
3	Mo 202.031†	-60.7	-78.9	4.1306 ug/L	4.1306 ppb	23:31:49
3	Ni 231.604†	3878.9	3591.9	98.663 ug/L	98.663 ppb	23:31:49
3	P 214.914†	1940.1	1628.7	926.24 ug/L	926.24 ppb	23:31:49
3	Pb 220.353†	963.9	964.1	145.81 ug/L	145.81 ppb	23:31:49
3	S 181.975 Axial†	557.3	489.8	721.42 ug/L	721.42 ppb	23:31:49
3	Sb 206.836†	72.9	33.4	-4.6076 ug/L	-4.6076 ppb	23:31:49
3	Se 196.026†	-762.2	-712.4	-24.146 ug/L	-24.146 ppb	23:31:49
3	Si 251.611†	1362275.9	1297886.0	41431 ug/L	41431 ppb	23:31:23
3	Sn 189.927†	-117.5	-113.5	-17.984 ug/L	-17.984 ppb	23:31:49
3	Ti 334.940†	3477886.8	3315866.5	5239.4 ug/L	5239.4 ppb	23:31:23
3	Tl 190.801†	-243.8	-201.9	-4.3704 ug/L	-4.3704 ppb	23:31:49
3	U 409.014†	-8968.2	-7619.5	-211.29 ug/L	-211.29 ppb	23:31:28
3	V 292.402†	43309.4	42676.6	260.51 ug/L	260.51 ppb	23:31:28
3	Zn 213.857†	27861.5	25893.9	249.04 ug/L	249.04 ppb	23:31:49
3	SiO2†	1374058.1	1309104.6	89150 ug/L	89150 ppb	23:32:07

Mean Data: 244144001|940180|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity		Units		Conc. Units		
Sc 361.383	914356.4	104.85	%	0.100			0.10%
Sc Radial	5130.7	95.1	%	0.37			0.39%
Y 371.029	895517.8	114.60	%	0.084			0.07%
Y RADIAL	6149.8	105.9	%	0.53			0.50%
Ag 328.068†	-8108.1	5.9675	ug/L	0.04126	5.9675 ppb	0.04126	0.69%
Al 396.153Radial†	142545.3	111590	ug/L	192.0	111590 ppb	192.0	0.17%
As 188.979†	-9.5	70.654	ug/L	2.8842	70.654 ppb	2.8842	4.08%
B 249.677†	1913.8	23.517	ug/L	1.0836	23.517 ppb	1.0836	4.61%
Ba 233.527†	257250.7	2210.5	ug/L	14.33	2210.5 ppb	14.33	0.65%
Be 313.107†	-9914.8	8.1860	ug/L	0.06442	8.1860 ppb	0.06442	0.79%
Ca 317.933Radial†	12010.6	19890	ug/L	7.3	19890 ppb	7.3	0.04%
Cd 226.502†	1252.8	2.5062	ug/L	0.18824	2.5062 ppb	0.18824	7.51%
Co 228.616†	3296.4	67.110	ug/L	0.2691	67.110 ppb	0.2691	0.40%
Cr 267.716†	11531.7	138.52	ug/L	0.283	138.52 ppb	0.283	0.20%
Cu 324.752†	18949.1	62.193	ug/L	0.6399	62.193 ppb	0.6399	1.03%
Fe 238.204 Radial†	13404.3	125520	ug/L	390.1	125520 ppb	390.1	0.31%
K 766.490 Radial†	104218.9	19402	ug/L	33.7	19402 ppb	33.7	0.17%



Mg 279.077 IEC†	548.9	20011 ug/L	258.1	20011 ppb	258.1	1.29%
Mn 257.610†	4018195.2	4885.6 ug/L	10.00	4885.6 ppb	10.00	0.20%
Mo 202.031†	-73.5	4.5546 ug/L	0.43825	4.5546 ppb	0.43825	9.62%
Na 589.592 Radial†	1715.2	528.70 ug/L	12.897	528.70 ppb	12.897	2.44%
Ni 231.604†	3593.2	98.697 ug/L	0.3859	98.697 ppb	0.3859	0.39%
P 214.914†	1630.7	927.10 ug/L	1.380	927.10 ppb	1.380	0.15%
Pb 220.353†	970.9	146.70 ug/L	1.596	146.70 ppb	1.596	1.09%
S 181.975 Axial†	490.3	722.08 ug/L	0.806	722.08 ppb	0.806	0.11%
Sb 206.836†	38.4	-2.7867 ug/L	4.62796	-2.7867 ppb	4.62796	166.07%
Se 196.026†	-712.7	-23.429 ug/L	4.0742	-23.429 ppb	4.0742	17.39%
Si 251.611†	1300675.3	41520 ug/L	90.1	41520 ppb	90.1	0.22%
Sn 189.927†	-110.4	-17.360 ug/L	1.3365	-17.360 ppb	1.3365	7.70%
Sr 421.552†	36669.0	238.67 ug/L	0.601	238.67 ppb	0.601	0.25%
Ti 334.940†	3323527.4	5251.5 ug/L	10.78	5251.5 ppb	10.78	0.21%
Tl 190.801†	-204.2	-5.0218 ug/L	3.04085	-5.0218 ppb	3.04085	60.55%
U 409.014†	-7683.3	-212.97 ug/L	3.084	-212.97 ppb	3.084	1.45%
V 292.402†	42908.6	262.00 ug/L	2.056	262.00 ppb	2.056	0.78%
Zn 213.857†	25954.7	249.63 ug/L	0.645	249.63 ppb	0.645	0.26%
SiO2†	1310326.4	89233 ug/L	416.5	89233 ppb	416.5	0.47%

Sequence No.: 81  
 Sample ID: 1202011906|940180|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 82  
 Date Collected: 1/25/2010 23:34:17  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Replicate Data: 1202011906|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5145.8	5145.8	95.4 %		23:36:30
1	Y RADIAL	6082.5	6082.5	104.8 %		23:36:30
1	Al 396.153Radial†	140220.3	146945.8	115040 ug/L	115040 ppb	23:36:10
1	Ca 317.933Radial†	11279.1	11801.0	19543 ug/L	19543 ppb	23:36:10
1	Fe 238.204 Radial†	12318.6	12901.7	120820 ug/L	120820 ppb	23:36:10
1	K 766.490 Radial†	96676.3	99345.4	18495 ug/L	18495 ppb	23:36:10
1	Mg 279.077 IEC†	512.9	535.1	19509 ug/L	19509 ppb	23:36:30
1	Na 589.592 Radial†	1398.8	1889.3	582.35 ug/L	582.35 ppb	23:36:10
1	Sr 421.552†	33643.5	35243.1	229.38 ug/L	229.38 ppb	23:36:10
1	Sc 361.383	926140.6	926140.6	106.20 %		23:37:29
1	Y 371.029	893937.1	893937.1	114.40 %		23:37:29
1	Ag 328.068†	-7738.7	-7581.6	6.6483 ug/L	6.6483 ppb	23:37:54
1	As 188.979†	-60.8	-26.6	63.634 ug/L	63.634 ppb	23:37:54
1	B 249.677†	1528.3	1748.8	20.497 ug/L	20.497 ppb	23:37:34
1	Ba 233.527†	265834.7	250322.1	2150.9 ug/L	2150.9 ppb	23:37:34
1	Be 313.107†	-21994.7	-15118.0	6.6850 ug/L	6.6850 ppb	23:37:34
1	Cd 226.502†	1063.9	1181.0	2.1244 ug/L	2.1244 ppb	23:37:54
1	Co 228.616†	3121.2	2998.1	59.573 ug/L	59.573 ppb	23:37:54
1	Cr 267.716†	16065.2	15047.9	179.73 ug/L	179.73 ppb	23:37:54
1	Cu 324.752†	32392.2	20661.6	66.938 ug/L	66.938 ppb	23:37:34
1	Mn 257.610†	3766331.4	3545915.2	4312.3 ug/L	4312.3 ppb	23:37:29
1	Mo 202.031†	1.6	-19.5	8.1691 ug/L	8.1691 ppb	23:37:54
1	Ni 231.604†	4630.6	4255.0	116.89 ug/L	116.89 ppb	23:37:54
1	P 214.914†	1799.7	1474.1	833.70 ug/L	833.70 ppb	23:37:54
1	Pb 220.353†	790.5	789.7	122.78 ug/L	122.78 ppb	23:37:54
1	S 181.975 Axial†	533.9	461.3	677.55 ug/L	677.55 ppb	23:37:54
1	Sb 206.836†	87.7	46.5	-0.6101 ug/L	-0.6101 ppb	23:37:54
1	Se 196.026†	-723.6	-667.3	-10.360 ug/L	-10.360 ppb	23:37:54
1	Si 251.611†	1325548.8	1247602.4	39826 ug/L	39826 ppb	23:37:29
1	Sn 189.927†	-84.9	-81.4	-11.582 ug/L	-11.582 ppb	23:37:54
1	Ti 334.940†	3664372.3	3451382.6	5453.4 ug/L	5453.4 ppb	23:37:29
1	Tl 190.801†	-237.3	-192.9	-2.0978 ug/L	-2.0978 ppb	23:37:54
1	U 490.014†	-7990.3	-6595.3	-184.44 ug/L	-184.44 ppb	23:37:34
1	V 292.402†	40252.0	39298.6	238.50 ug/L	238.50 ppb	23:37:34
1	Zn 213.857†	29363.4	26987.0	260.40 ug/L	260.40 ppb	23:37:54
1	SiO2†	1328540.1	1250407.4	85153 ug/L	85153 ppb	23:39:05
2	Sc Radial	5131.3	5131.3	95.2 %		23:36:56
2	Y RADIAL	6079.8	6079.8	104.7 %		23:36:56
2	Al 396.153Radial†	140882.1	148054.6	115910 ug/L	115910 ppb	23:36:36
2	Ca 317.933Radial†	11312.3	11869.2	19656 ug/L	19656 ppb	23:36:36
2	Fe 238.204 Radial†	12329.4	12949.4	121260 ug/L	121260 ppb	23:36:36
2	K 766.490 Radial†	97260.5	100244.4	18662 ug/L	18662 ppb	23:36:36
2	Mg 279.077 IEC†	511.9	535.6	19527 ug/L	19527 ppb	23:36:56
2	Na 589.592 Radial†	1350.5	1842.6	567.97 ug/L	567.97 ppb	23:36:36
2	Sr 421.552†	33702.2	35404.0	230.43 ug/L	230.43 ppb	23:36:36
2	Sc 361.383	928927.3	928927.3	106.52 %		23:38:01
2	Y 371.029	897624.2	897624.2	114.87 %		23:38:01
2	Ag 328.068†	-7646.6	-7473.3	7.2531 ug/L	7.2531 ppb	23:38:26
2	As 188.979†	-47.1	-13.6	69.029 ug/L	69.029 ppb	23:38:26
2	B 249.677†	1487.2	1705.9	19.436 ug/L	19.436 ppb	23:38:06
2	Ba 233.527†	263810.5	247671.0	2128.1 ug/L	2128.1 ppb	23:38:06
2	Be 313.107†	-22384.2	-15421.5	6.4320 ug/L	6.4320 ppb	23:38:06
2	Cd 226.502†	1050.0	1165.0	1.8819 ug/L	1.8819 ppb	23:38:26
2	Co 228.616†	3113.7	2982.2	59.302 ug/L	59.302 ppb	23:38:26
2	Cr 267.716†	16084.9	15021.0	179.41 ug/L	179.41 ppb	23:38:26
2	Cu 324.752†	32111.4	20306.4	65.921 ug/L	65.921 ppb	23:38:06
2	Mn 257.610†	3733733.6	3504673.3	4262.3 ug/L	4262.3 ppb	23:38:01
2	Mo 202.031†	-3.2	-24.0	7.8718 ug/L	7.8718 ppb	23:38:26
2	Ni 231.604†	4635.2	4246.3	116.65 ug/L	116.65 ppb	23:38:26

2	F 214.914†	1796.2	1465.8	828.57 ug/L	828.57 ppb	23:38:26
2	Pb 220.353†	800.4	796.8	123.90 ug/L	123.90 ppb	23:38:26
2	S 181.975 Axial†	535.3	461.2	677.20 ug/L	677.20 ppb	23:38:26
2	Sb 206.836†	100.9	58.7	3.9871 ug/L	3.9871 ppb	23:38:26
2	Se 196.026†	-721.8	-663.5	-6.4849 ug/L	-6.4849 ppb	23:38:26
2	Si 251.611†	1313564.3	1232607.0	39347 ug/L	39347 ppb	23:38:01
2	Sn 189.927†	-83.0	-79.4	-11.153 ug/L	-11.153 ppb	23:38:26
2	Ti 334.940†	3634195.4	3412701.5	5392.4 ug/L	5392.4 ppb	23:38:01
2	Tl 190.801†	-246.8	-201.2	-5.7162 ug/L	-5.7162 ppb	23:38:26
2	U 409.014†	-7858.0	-6448.6	-180.70 ug/L	-180.70 ppb	23:38:06
2	V 292.402†	39886.7	38841.9	235.46 ug/L	235.46 ppb	23:38:06
2	Zn 213.857†	29316.7	26860.2	259.08 ug/L	259.08 ppb	23:38:26
2	SiO2†	1326599.3	1244832.6	84773 ug/L	84773 ppb	23:39:11
3	Sc Radial	5185.0	5185.0	96.1 %		23:37:21
3	Y RADIAL	6151.9	6151.9	106.0 %		23:37:21
3	Al 396.153Radial†	143096.0	148823.6	116510 ug/L	116510 ppb	23:37:01
3	Ca 317.933Radial†	11470.3	11910.3	19724 ug/L	19724 ppb	23:37:01
3	Fe 238.204 Radial†	12565.7	13061.0	122310 ug/L	122310 ppb	23:37:01
3	K 766.490 Radial†	98573.5	100551.1	18720 ug/L	18720 ppb	23:37:01
3	Mg 279.077 IEC†	515.3	533.5	19449 ug/L	19449 ppb	23:37:21
3	Na 589.592 Radial†	1425.2	1905.6	587.39 ug/L	587.39 ppb	23:37:01
3	Sr 421.552†	34405.6	35768.6	232.80 ug/L	232.80 ppb	23:37:01
3	Sc 361.383	934292.1	934292.1	107.13 %		23:38:33
3	Y 371.029	901763.6	901763.6	115.40 %		23:38:33
3	Ag 328.068†	-7713.7	-7494.6	7.4961 ug/L	7.4961 ppb	23:38:59
3	As 188.979†	-64.2	-29.3	62.556 ug/L	62.556 ppb	23:38:59
3	B 249.677†	1497.1	1707.1	19.295 ug/L	19.295 ppb	23:38:38
3	Ba 233.527†	264687.9	247067.8	2123.0 ug/L	2123.0 ppb	23:38:38
3	Be 313.107†	-22133.3	-15066.7	6.6416 ug/L	6.6416 ppb	23:38:38
3	Cd 226.502†	1039.0	1149.1	1.5765 ug/L	1.5765 ppb	23:38:59
3	Co 228.616†	3113.7	2965.4	58.814 ug/L	58.814 ppb	23:38:59
3	Cr 267.716†	16060.5	14911.5	178.15 ug/L	178.15 ppb	23:38:59
3	Cu 324.752†	32275.0	20286.1	65.918 ug/L	65.918 ppb	23:38:38
3	Mn 257.610†	3778778.1	3526590.8	4289.0 ug/L	4289.0 ppb	23:38:33
3	Mo 202.031†	10.0	-11.7	8.8672 ug/L	8.8672 ppb	23:38:59
3	Ni 231.604†	4643.4	4229.0	116.17 ug/L	116.17 ppb	23:38:59
3	P 214.914†	1803.8	1463.2	826.31 ug/L	826.31 ppb	23:38:59
3	Pb 220.353†	808.1	799.7	124.34 ug/L	124.34 ppb	23:38:59
3	S 181.975 Axial†	542.5	464.9	682.78 ug/L	682.78 ppb	23:38:59
3	Sb 206.836†	88.4	46.5	-0.4997 ug/L	-0.4997 ppb	23:38:59
3	Se 196.026†	-717.3	-655.5	2.0539 ug/L	2.0539 ppb	23:38:59
3	Si 251.611†	1329755.5	1240638.9	39603 ug/L	39603 ppb	23:38:33
3	Sn 189.927†	-75.8	-72.2	-9.6551 ug/L	-9.6551 ppb	23:38:59
3	Ti 334.940†	3677902.3	3433907.1	5425.9 ug/L	5425.9 ppb	23:38:33
3	Tl 190.801†	-238.5	-192.2	-2.1636 ug/L	-2.1636 ppb	23:38:59
3	U 409.014†	-7981.5	-6521.5	-182.70 ug/L	-182.70 ppb	23:38:38
3	V 292.402†	40041.8	38771.7	234.81 ug/L	234.81 ppb	23:38:38
3	Zn 213.857†	29350.9	26734.1	257.71 ug/L	257.71 ppb	23:38:59
3	SiO2†	1321735.8	1233141.6	83977 ug/L	83977 ppb	23:39:17

Mean Data: 1202011906|940180|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
	Intensity	Units	Units		Units			
Sc 361.383	929786.7	106.62	%	0.475				0.45%
Sc Radial	5154.1	95.6	%	0.52				0.54%
Y 371.029	897775.0	114.89	%	0.501				0.44%
Y RADIAL	6104.7	105.2	%	0.70				0.67%
Ag 328.068†	-7516.5	7.1325	ug/L	0.43655	7.1325	ppb	0.43655	6.12%
Al 396.153Radial†	147941.3	115820	ug/L	739.0	115820	ppb	739.0	0.64%
As 188.979†	-23.2	65.073	ug/L	3.4682	65.073	ppb	3.4682	5.33%
B 249.677†	1720.6	19.743	ug/L	0.6570	19.743	ppb	0.6570	3.33%
Ba 233.527†	248353.6	2134.0	ug/L	14.83	2134.0	ppb	14.83	0.69%
Be 313.107†	-15202.1	6.5862	ug/L	0.13531	6.5862	ppb	0.13531	2.05%
Ca 317.933Radial†	11860.2	19641	ug/L	91.4	19641	ppb	91.4	0.47%
Cd 226.502†	1165.0	1.8610	ug/L	0.27456	1.8610	ppb	0.27456	14.75%
Co 228.616†	2981.9	59.230	ug/L	0.3844	59.230	ppb	0.3844	0.65%
Cr 267.716†	14993.5	179.10	ug/L	0.836	179.10	ppb	0.836	0.47%
Cu 324.752†	20418.1	66.259	ug/L	0.5883	66.259	ppb	0.5883	0.89%
Fe 238.204 Radial†	12970.7	121460	ug/L	765.2	121460	ppb	765.2	0.63%
K 766.490 Radial†	100047.0	18626	ug/L	116.7	18626	ppb	116.7	0.63%

Mg 279.077 IEC†	534.7	19495 ug/L	40.8	19495 ppb	40.8	0.21%
Mn 257.610†	3525726.4	4287.8 ug/L	25.01	4287.8 ppb	25.01	0.58%
Mo 202.031†	-18.4	8.3027 ug/L	0.51098	8.3027 ppb	0.51098	6.15%
Na 589.592 Radial†	1879.2	579.24 ug/L	10.077	579.24 ppb	10.077	1.74%
Ni 231.604†	4243.4	116.57 ug/L	0.364	116.57 ppb	0.364	0.31%
P 214.914†	1467.7	829.53 ug/L	3.784	829.53 ppb	3.784	0.46%
Pb 220.353†	795.4	123.68 ug/L	0.805	123.68 ppb	0.805	0.65%
S 181.975 Axial†	462.5	679.18 ug/L	3.127	679.18 ppb	3.127	0.46%
Sb 206.836†	50.6	0.9591 ug/L	2.62290	0.9591 ppb	2.62290	273.47%
Se 196.026†	-662.1	-4.9303 ug/L	6.35120	-4.9303 ppb	6.35120	128.82%
Si 251.611†	1240282.8	39592 ug/L	239.5	39592 ppb	239.5	0.61%
Sn 189.927†	-77.7	-10.797 ug/L	1.0114	-10.797 ppb	1.0114	9.37%
Sr 421.552†	35471.9	230.87 ug/L	1.753	230.87 ppb	1.753	0.76%
Ti 334.940†	3432663.7	5423.9 ug/L	30.60	5423.9 ppb	30.60	0.56%
Tl 190.801†	-195.4	-3.3259 ug/L	2.07037	-3.3259 ppb	2.07037	62.25%
U 409.014†	-6521.8	-182.61 ug/L	1.871	-182.61 ppb	1.871	1.02%
V 292.402†	38970.7	236.25 ug/L	1.969	236.25 ppb	1.969	0.83%
Zn 213.857†	26860.4	259.06 ug/L	1.348	259.06 ppb	1.348	0.52%
SiO2†	1242793.9	84634 ug/L	600.1	84634 ppb	600.1	0.71%

Sequence No.: 82

Sample ID: 1202011908|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 83

Date Collected: 1/25/2010 23:41:27

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011908|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5203.0	5203.0	96.5 %		23:43:41
1	Y RADIAL	6169.2	6169.2	106.3 %		23:43:41
1	Al 396.153Radial†	242526.5	251367.0	196760 ug/L	196760 ppb	23:43:21
1	Ca 317.933Radial†	14191.4	14689.6	24327 ug/L	24327 ppb	23:43:21
1	Fe 238.204 Radial†	14551.9	15074.6	141180 ug/L	141180 ppb	23:43:21
1	K 766.490 Radial†	140403.9	143553.6	26725 ug/L	26725 ppb	23:43:21
1	Mg 279.077 IEC†	726.1	750.2	27385 ug/L	27385 ppb	23:43:41
1	Na 589.592 Radial†	16156.2	17168.8	5292.0 ug/L	5292.0 ppb	23:43:21
1	Sr 421.552†	106994.2	110881.1	721.96 ug/L	721.96 ppb	23:43:21
1	Sc 361.383	878799.9	878799.9	100.77 %		23:44:45
1	Y 371.029	901282.2	901282.2	115.34 %		23:44:39
1	Ag 328.068†	105076.4	103978.0	506.53 ug/L	506.53 ppb	23:44:45
1	As 188.979†	1088.3	1110.6	590.27 ug/L	590.27 ppb	23:45:05
1	B 249.677†	22436.4	22574.5	495.95 ug/L	495.95 ppb	23:44:45
1	Ba 233.527†	326646.7	324153.5	2785.8 ug/L	2785.8 ppb	23:44:45
1	Be 313.107†	1392155.0	1387098.3	538.45 ug/L	538.45 ppb	23:44:39
1	Cd 226.502†	41030.5	40895.9	490.12 ug/L	490.12 ppb	23:45:05
1	Co 228.616†	23792.9	23669.9	552.02 ug/L	552.02 ppb	23:45:05
1	Cr 267.716†	55414.3	54910.9	649.41 ug/L	649.41 ppb	23:44:45
1	Cu 324.752†	210070.4	198623.8	588.42 ug/L	588.42 ppb	23:44:45
1	Mn 257.610†	3684846.9	3656101.4	4447.6 ug/L	4447.6 ppb	23:44:39
1	Mo 202.031†	6260.9	6191.9	468.51 ug/L	468.51 ppb	23:45:05
1	Ni 231.604†	21774.7	21502.9	590.58 ug/L	590.58 ppb	23:45:05
1	P 214.914†	3001.6	2758.1	1535.6 ug/L	1535.6 ppb	23:45:05
1	Pb 220.353†	4426.4	4438.0	644.74 ug/L	644.74 ppb	23:45:05
1	S 181.975 Axial†	4150.5	4077.3	6142.4 ug/L	6142.4 ppb	23:45:05
1	Sb 206.836†	988.4	944.7	338.35 ug/L	338.35 ppb	23:45:05
1	Se 196.026†	-47.4	-33.0	460.08 ug/L	460.08 ppb	23:45:05
1	Si 251.611†	1439713.4	1428132.3	45583 ug/L	45583 ppb	23:44:39
1	Sn 189.927†	2466.3	2445.9	504.25 ug/L	504.25 ppb	23:45:05
1	Ti 334.940†	4514391.5	4480775.0	7079.3 ug/L	7079.3 ppb	23:44:39
1	Tl 190.801†	1207.8	1229.1	503.39 ug/L	503.39 ppb	23:45:05
1	U 409.014†	10588.4	11436.0	277.70 ug/L	277.70 ppb	23:44:45
1	V 292.402†	117335.5	117834.2	764.56 ug/L	764.56 ppb	23:44:45
1	Zn 213.857†	82869.5	81573.2	806.80 ug/L	806.80 ppb	23:44:45
1	SiO2†	1428895.7	1417385.6	96511 ug/L	96511 ppb	23:46:16
2	Sc Radial	5278.4	5278.4	97.9 %		23:44:06
2	Y RADIAL	6227.4	6227.4	107.3 %		23:44:06
2	Al 396.153Radial†	243975.2	249254.8	195110 ug/L	195110 ppb	23:43:46
2	Ca 317.933Radial†	14349.4	14640.8	24246 ug/L	24246 ppb	23:43:46
2	Fe 238.204 Radial†	14644.5	14953.6	140050 ug/L	140050 ppb	23:43:46
2	K 766.490 Radial†	140969.7	142052.1	26445 ug/L	26445 ppb	23:43:46
2	Mg 279.077 IEC†	724.7	738.0	26938 ug/L	26938 ppb	23:44:06
2	Na 589.592 Radial†	16294.0	17070.3	5261.7 ug/L	5261.7 ppb	23:43:46
2	Sr 421.552†	107463.5	109775.8	714.76 ug/L	714.76 ppb	23:43:46
2	Sc 361.383	884010.4	884010.4	101.37 %		23:45:17
2	Y 371.029	885008.8	885008.8	113.26 %		23:45:12
2	Ag 328.068†	106014.6	104288.9	507.54 ug/L	507.54 ppb	23:45:17
2	As 188.979†	1076.4	1092.5	580.62 ug/L	580.62 ppb	23:45:37
2	B 249.677†	22771.9	22774.2	500.75 ug/L	500.75 ppb	23:45:17
2	Ba 233.527†	329435.7	324994.3	2792.9 ug/L	2792.9 ppb	23:45:17
2	Be 313.107†	1372025.8	1359098.2	527.57 ug/L	527.57 ppb	23:45:12
2	Cd 226.502†	40995.4	40621.3	486.85 ug/L	486.85 ppb	23:45:37
2	Co 228.616†	23757.2	23495.6	548.17 ug/L	548.17 ppb	23:45:37
2	Cr 267.716†	55709.8	54878.3	649.01 ug/L	649.01 ppb	23:45:17
2	Cu 324.752†	212445.2	199737.8	591.62 ug/L	591.62 ppb	23:45:17
2	Mn 257.610†	3636267.1	3586624.6	4363.2 ug/L	4363.2 ppb	23:45:12
2	Mo 202.031†	6220.1	6115.1	462.74 ug/L	462.74 ppb	23:45:37
2	Ni 231.604†	21735.2	21336.5	586.01 ug/L	586.01 ppb	23:45:37

2	P 214.914†	2978.6	2717.9	1510.5 ug/L	1510.5 ppb	23:45:37
2	Pb 220.353†	4409.5	4395.4	638.58 ug/L	638.58 ppb	23:45:37
2	S 181.975 Axial†	4138.6	4041.4	6088.2 ug/L	6088.2 ppb	23:45:37
2	Sb 206.836†	988.4	939.0	336.61 ug/L	336.61 ppb	23:45:37
2	Se 196.026†	-42.1	-27.4	459.70 ug/L	459.70 ppb	23:45:37
2	Si 251.611†	1419253.6	1399527.7	44670 ug/L	44670 ppb	23:45:12
2	Sn 189.927†	2468.1	2433.3	501.65 ug/L	501.65 ppb	23:45:37
2	Ti 334.940†	4445444.5	4386354.0	6930.1 ug/L	6930.1 ppb	23:45:12
2	Tl 190.801†	1210.9	1225.0	500.35 ug/L	500.35 ppb	23:45:37
2	U 409.014†	10558.7	11344.7	275.47 ug/L	275.47 ppb	23:45:17
2	V 292.402†	118218.7	118019.2	766.02 ug/L	766.02 ppb	23:45:17
2	Zn 213.857†	83683.7	81891.7	810.15 ug/L	810.15 ppb	23:45:17
2	SiO2†	1429353.7	1409479.9	95973 ug/L	95973 ppb	23:46:22
3	Sc Radial	5125.7	5125.7	95.0 %		23:44:31
3	Y RADIAL	6059.8	6059.8	104.4 %		23:44:31
3	Al 396.153Radial†	246049.7	258864.4	202630 ug/L	202630 ppb	23:44:11
3	Ca 317.933Radial†	14491.7	15227.3	25217 ug/L	25217 ppb	23:44:11
3	Fe 238.204 Radial†	14753.5	15514.1	145290 ug/L	145290 ppb	23:44:11
3	K 766.490 Radial†	142031.9	147460.9	27452 ug/L	27452 ppb	23:44:11
3	Mg 279.077 IEC†	727.9	763.4	27866 ug/L	27866 ppb	23:44:31
3	Na 589.592 Radial†	16363.8	17639.7	5437.2 ug/L	5437.2 ppb	23:44:11
3	Sr 421.552†	108535.4	114174.8	743.40 ug/L	743.40 ppb	23:44:11
3	Sc 361.383	887555.7	887555.7	101.77 %		23:45:49
3	Y 371.029	890704.7	890704.7	113.99 %		23:45:44
3	Ag 328.068†	106944.2	104784.6	511.41 ug/L	511.41 ppb	23:45:49
3	As 188.979†	1080.9	1092.7	582.24 ug/L	582.24 ppb	23:46:09
3	B 249.677†	22927.5	22837.3	501.37 ug/L	501.37 ppb	23:45:49
3	Ba 233.527†	330808.3	325044.8	2793.5 ug/L	2793.5 ppb	23:45:49
3	Be 313.107†	1380506.7	1362024.7	528.75 ug/L	528.75 ppb	23:45:44
3	Cd 226.502†	40772.1	40240.4	481.61 ug/L	481.61 ppb	23:46:09
3	Co 228.616†	23618.8	23266.0	542.52 ug/L	542.52 ppb	23:46:09
3	Cr 267.716†	56012.7	54956.4	650.03 ug/L	650.03 ppb	23:45:49
3	Cu 324.752†	214958.9	201370.5	596.67 ug/L	596.67 ppb	23:45:49
3	Mn 257.610†	3665377.5	3600898.6	4381.0 ug/L	4381.0 ppb	23:45:44
3	Mo 202.031†	6213.9	6084.5	460.91 ug/L	460.91 ppb	23:46:09
3	Ni 231.604†	21611.0	21128.8	580.31 ug/L	580.31 ppb	23:46:09
3	P 214.914†	2989.7	2717.1	1506.7 ug/L	1506.7 ppb	23:46:09
3	Pb 220.353†	4375.9	4345.0	632.70 ug/L	632.70 ppb	23:46:09
3	S 181.975 Axial†	4126.7	4013.4	6044.3 ug/L	6044.3 ppb	23:46:09
3	Sb 206.836†	997.2	943.8	338.10 ug/L	338.10 ppb	23:46:09
3	Se 196.026†	-50.3	-35.3	472.60 ug/L	472.60 ppb	23:46:09
3	Si 251.611†	1432799.2	1407244.5	44916 ug/L	44916 ppb	23:45:44
3	Sn 189.927†	2472.1	2427.5	500.71 ug/L	500.71 ppb	23:46:09
3	Ti 334.940†	4484213.9	4406930.0	6962.7 ug/L	6962.7 ppb	23:45:44
3	Tl 190.801†	1224.8	1234.0	503.84 ug/L	503.84 ppb	23:46:09
3	U 409.014†	10792.9	11533.2	279.74 ug/L	279.74 ppb	23:45:49
3	V 292.402†	118775.7	118100.7	765.76 ug/L	765.76 ppb	23:45:49
3	Zn 213.857†	84005.5	81878.2	809.54 ug/L	809.54 ppb	23:45:49
3	SiO2†	1427622.8	1402146.7	95474 ug/L	95474 ppb	23:46:27

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Mean Data: 1202011908|940180|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity		Units		Conc. Units		
Sc 361.383	883455.3	101.30	%	0.505			0.50%
Sc Radial	5202.4	96.5	%	1.42			1.47%
Y 371.029	892331.9	114.19	%	1.057			0.93%
Y RADIAL	6152.1	106.0	%	1.47			1.38%
Ag 328.068†	104350.5	508.49	ug/L	2.576	508.49 ppb	2.576	0.51%
Al 396.153Radial†	253162.0	198170	ug/L	3953.6	198170 ppb	3953.6	2.00%
As 188.979†	1098.6	584.38	ug/L	5.170	584.38 ppb	5.170	0.88%
B 249.677†	22728.7	499.36	ug/L	2.967	499.36 ppb	2.967	0.59%
Ba 233.527†	324730.8	2790.7	ug/L	4.33	2790.7 ppb	4.33	0.16%
Be 313.107†	1369407.1	531.59	ug/L	5.973	531.59 ppb	5.973	1.12%
Ca 317.933Radial†	14852.6	24597	ug/L	538.9	24597 ppb	538.9	2.19%
Cd 226.502†	40585.8	486.19	ug/L	4.295	486.19 ppb	4.295	0.88%
Co 228.616†	23477.2	547.57	ug/L	4.780	547.57 ppb	4.780	0.87%
Cr 267.716†	54915.2	649.48	ug/L	0.513	649.48 ppb	0.513	0.08%
Cu 324.752†	199910.7	592.24	ug/L	4.161	592.24 ppb	4.161	0.70%
Fe 238.204 Radial†	15180.8	142170	ug/L	2761.8	142170 ppb	2761.8	1.94%
K 766.490 Radial†	144355.5	26874	ug/L	519.8	26874 ppb	519.8	1.93%

Mg 279.077 IEC†	750.5	27397 ug/L	463.9	27397 ppb	463.9	1.69%
Mn 257.610†	3614541.5	4397.3 ug/L	44.47	4397.3 ppb	44.47	1.01%
Mo 202.031†	6130.5	464.05 ug/L	3.966	464.05 ppb	3.966	0.85%
Na 589.592 Radial†	17292.9	5330.3 ug/L	93.81	5330.3 ppb	93.81	1.76%
Ni 231.604†	21322.7	585.64 ug/L	5.147	585.64 ppb	5.147	0.88%
P 214.914†	2731.0	1517.6 ug/L	15.73	1517.6 ppb	15.73	1.04%
Pb 220.353†	4392.8	638.67 ug/L	6.017	638.67 ppb	6.017	0.94%
S 181.975 Axial†	4044.0	6091.6 ug/L	49.10	6091.6 ppb	49.10	0.81%
Sb 206.836†	942.5	337.69 ug/L	0.939	337.69 ppb	0.939	0.28%
Se 196.026†	-31.9	464.13 ug/L	7.340	464.13 ppb	7.340	1.58%
Si 251.611†	1411634.8	45056 ug/L	472.4	45056 ppb	472.4	1.05%
Sn 189.927†	2435.6	502.20 ug/L	1.836	502.20 ppb	1.836	0.37%
Sr 421.552†	111610.6	726.70 ug/L	14.900	726.70 ppb	14.900	2.05%
Ti 334.940†	4424686.3	6990.7 ug/L	78.41	6990.7 ppb	78.41	1.12%
Tl 190.801†	1229.3	502.53 ug/L	1.897	502.53 ppb	1.897	0.38%
U 409.014†	11437.9	277.64 ug/L	2.134	277.64 ppb	2.134	0.77%
V 292.402†	117984.7	765.44 ug/L	0.780	765.44 ppb	0.780	0.10%
Zn 213.857†	81781.0	808.83 ug/L	1.786	808.83 ppb	1.786	0.22%
SiO2†	1409670.7	95986 ug/L	518.9	95986 ppb	518.9	0.54%

Sequence No.: 83

Sample ID: 1202011909|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 84

Date Collected: 1/25/2010 23:48:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011909|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5215.5	5215.5	96.7 %		23:50:52
1	Y RADIAL	6116.9	6116.9	105.4 %		23:50:52
1	Al 396.153Radial†	223488.0	231080.4	180880 ug/L	180880 ppb	23:50:32
1	Ca 317.933Radial†	14188.4	14651.3	24263 ug/L	24263 ppb	23:50:32
1	Fe 238.204 Radial†	13195.5	13636.0	127710 ug/L	127710 ppb	23:50:32
1	K 766.490 Radial†	130927.9	133407.5	24835 ug/L	24835 ppb	23:50:32
1	Mg 279.077 IEC†	684.9	705.8	25770 ug/L	25770 ppb	23:50:52
1	Na 589.592 Radial†	16421.9	17403.5	5364.4 ug/L	5364.4 ppb	23:50:32
1	Sr 421.552†	105508.4	109079.7	710.22 ug/L	710.22 ppb	23:50:32
1	Sc 361.383	920121.7	920121.7	105.51 %		23:51:51
1	Y 371.029	877664.1	877664.1	112.32 %		23:51:51
1	Ag 328.068†	106116.2	100280.7	485.61 ug/L	485.61 ppb	23:51:56
1	As 188.979†	1081.1	1055.3	553.35 ug/L	553.35 ppb	23:52:16
1	B 249.677†	22424.8	21563.5	474.91 ug/L	474.91 ppb	23:51:56
1	Ba 233.527†	299242.2	283622.8	2437.6 ug/L	2437.6 ppb	23:51:56
1	Be 313.107†	1380165.5	1313692.8	508.44 ug/L	508.44 ppb	23:51:51
1	Cd 226.502†	41010.1	39048.0	468.71 ug/L	468.71 ppb	23:52:16
1	Co 228.616†	23649.8	22474.0	525.58 ug/L	525.58 ppb	23:52:16
1	Cr 267.716†	54696.9	51761.4	612.02 ug/L	612.02 ppb	23:51:56
1	Cu 324.752†	210874.7	190024.1	562.54 ug/L	562.54 ppb	23:51:56
1	Mn 257.610†	3402999.3	3224753.5	3923.1 ug/L	3923.1 ppb	23:51:51
1	Mo 202.031†	6331.1	5979.5	451.78 ug/L	451.78 ppb	23:52:16
1	Ni 231.604†	21767.3	20525.5	563.74 ug/L	563.74 ppb	23:52:16
1	P 214.914†	3422.8	3023.6	1712.0 ug/L	1712.0 ppb	23:52:16
1	Pb 220.353†	4328.8	4148.1	602.44 ug/L	602.44 ppb	23:52:16
1	S 181.975 Axial†	4108.2	3852.3	5804.3 ug/L	5804.3 ppb	23:52:16
1	Sb 206.836†	1019.4	930.2	335.71 ug/L	335.71 ppb	23:52:16
1	Se 196.026†	63.0	73.8	481.24 ug/L	481.24 ppb	23:52:16
1	Si 251.611†	1441273.4	1365449.3	43582 ug/L	43582 ppb	23:51:51
1	Sn 189.927†	2466.4	2336.1	481.66 ug/L	481.66 ppb	23:52:16
1	Ti 334.940†	4030625.3	3821082.7	6037.2 ug/L	6037.2 ppb	23:51:51
1	Tl 190.801†	1241.1	1206.8	484.73 ug/L	484.73 ppb	23:52:16
1	U 409.014†	11503.8	11831.6	289.53 ug/L	289.53 ppb	23:51:56
1	V 292.402†	112857.3	108360.7	704.27 ug/L	704.27 ppb	23:51:56
1	Zn 213.857†	79436.6	74626.5	738.05 ug/L	738.05 ppb	23:51:56
1	SiO2†	1455769.5	1379176.8	93910 ug/L	93910 ppb	23:53:28
2	Sc Radial	5194.5	5194.5	96.3 %		23:51:17
2	Y RADIAL	6082.0	6082.0	104.8 %		23:51:17
2	Al 396.153Radial†	224629.3	233198.7	182540 ug/L	182540 ppb	23:50:57
2	Ca 317.933Radial†	14190.3	14712.5	24365 ug/L	24365 ppb	23:50:57
2	Fe 238.204 Radial†	13163.0	13657.4	127910 ug/L	127910 ppb	23:50:57
2	K 766.490 Radial†	131548.0	134598.2	25057 ug/L	25057 ppb	23:50:57
2	Mg 279.077 IEC†	675.4	698.8	25513 ug/L	25513 ppb	23:51:17
2	Na 589.592 Radial†	16410.4	17460.1	5381.8 ug/L	5381.8 ppb	23:50:57
2	Sr 421.552†	105876.1	109902.0	715.58 ug/L	715.58 ppb	23:50:57
2	Sc 361.383	924821.4	924821.4	106.05 %		23:52:23
2	Y 371.029	882053.6	882053.6	112.88 %		23:52:23
2	Ag 328.068†	107513.6	101087.3	489.23 ug/L	489.23 ppb	23:52:29
2	As 188.979†	1084.3	1053.1	552.39 ug/L	552.39 ppb	23:52:49
2	B 249.677†	22808.9	21817.8	480.76 ug/L	480.76 ppb	23:52:29
2	Ba 233.527†	302665.6	285409.6	2453.0 ug/L	2453.0 ppb	23:52:29
2	Be 313.107†	1385563.5	1312135.6	507.84 ug/L	507.84 ppb	23:52:23
2	Cd 226.502†	40578.9	38443.9	461.24 ug/L	461.24 ppb	23:52:49
2	Co 228.616†	23376.6	22102.5	516.69 ug/L	516.69 ppb	23:52:49
2	Cr 267.716†	55214.9	51986.4	614.67 ug/L	614.67 ppb	23:52:29
2	Cu 324.752†	213947.2	191905.7	568.05 ug/L	568.05 ppb	23:52:29
2	Mn 257.610†	3417207.0	3221760.7	3919.5 ug/L	3919.5 ppb	23:52:23
2	Mo 202.031†	6248.8	5871.4	443.81 ug/L	443.81 ppb	23:52:49
2	Ni 231.604†	21537.4	20203.8	554.91 ug/L	554.91 ppb	23:52:49



2	P 214.914†	3375.5	2962.5	1673.1 ug/L	1673.1 ppb	23:52:49
2	Pb 220.353†	4265.4	4067.6	591.59 ug/L	591.59 ppb	23:52:49
2	S 181.975 Axial†	4065.5	3792.3	5713.1 ug/L	5713.1 ppb	23:52:49
2	Sb 206.836†	1016.9	922.9	332.76 ug/L	332.76 ppb	23:52:49
2	Se 196.026†	48.1	59.5	473.04 ug/L	473.04 ppb	23:52:49
2	Si 251.611†	1445431.0	1362427.9	43486 ug/L	43486 ppb	23:52:23
2	Sn 189.927†	2436.5	2296.1	473.52 ug/L	473.52 ppb	23:52:49
2	Ti 334.940†	4045139.4	3815355.9	6028.2 ug/L	6028.2 ppb	23:52:23
2	Tl 190.801†	1254.2	1213.1	486.89 ug/L	486.89 ppb	23:52:49
2	U 409.014†	11776.5	12033.3	294.71 ug/L	294.71 ppb	23:52:29
2	V 292.402†	113971.5	108867.8	707.52 ug/L	707.52 ppb	23:52:29
2	Zn 213.857†	80315.2	75072.4	742.59 ug/L	742.59 ppb	23:52:29
2	SiO2†	1434920.3	1352505.1	92094 ug/L	92094 ppb	23:53:33
3	Sc Radial	5252.1	5252.1	97.4 %		23:51:42
3	Y RADIAL	6153.0	6153.0	106.0 %		23:51:42
3	Al 396.153Radial†	221760.8	227693.4	178230 ug/L	178230 ppb	23:51:22
3	Ca 317.933Radial†	14044.1	14400.7	23848 ug/L	23848 ppb	23:51:22
3	Fe 238.204 Radial†	13030.1	13370.9	125220 ug/L	125220 ppb	23:51:22
3	K 766.490 Radial†	129825.9	131330.8	24449 ug/L	24449 ppb	23:51:22
3	Mg 279.077 IEC†	680.9	696.7	25439 ug/L	25439 ppb	23:51:42
3	Na 589.592 Radial†	16179.1	17035.6	5251.0 ug/L	5251.0 ppb	23:51:22
3	Sr 421.552†	104391.1	107170.7	697.79 ug/L	697.79 ppb	23:51:22
3	Sc 361.383	921568.6	921568.6	105.68 %		23:52:56
3	Y 371.029	880081.7	880081.7	112.63 %		23:52:56
3	Ag 328.068†	106773.5	100744.8	486.86 ug/L	486.86 ppb	23:53:01
3	As 188.979†	1067.9	1041.2	546.35 ug/L	546.35 ppb	23:53:21
3	B 249.677†	22759.1	21846.5	481.85 ug/L	481.85 ppb	23:53:01
3	Ba 233.527†	301172.6	285004.1	2449.4 ug/L	2449.4 ppb	23:53:01
3	Be 313.107†	1378958.0	1310496.3	507.20 ug/L	507.20 ppb	23:52:56
3	Cd 226.502†	40779.1	38768.4	465.52 ug/L	465.52 ppb	23:53:21
3	Co 228.616†	23459.6	22258.8	520.49 ug/L	520.49 ppb	23:53:21
3	Cr 267.716†	54882.7	51855.8	613.08 ug/L	613.08 ppb	23:53:01
3	Cu 324.752†	213216.9	191926.8	567.97 ug/L	567.97 ppb	23:53:01
3	Mn 257.610†	3394582.8	3211725.0	3907.1 ug/L	3907.1 ppb	23:52:56
3	Mo 202.031†	6276.0	5917.9	447.03 ug/L	447.03 ppb	23:53:21
3	Ni 231.604†	21686.4	20416.5	560.75 ug/L	560.75 ppb	23:53:21
3	P 214.914†	3390.3	2987.7	1689.9 ug/L	1689.9 ppb	23:53:21
3	Pb 220.353†	4278.5	4094.1	594.61 ug/L	594.61 ppb	23:53:21
3	S 181.975 Axial†	4066.0	3806.3	5735.1 ug/L	5735.1 ppb	23:53:21
3	Sb 206.836†	1012.7	922.2	332.72 ug/L	332.72 ppb	23:53:21
3	Se 196.026†	52.9	64.2	466.83 ug/L	466.83 ppb	23:53:21
3	Si 251.611†	1438361.5	1360549.0	43426 ug/L	43426 ppb	23:52:56
3	Sn 189.927†	2446.7	2313.8	477.02 ug/L	477.02 ppb	23:53:21
3	Ti 334.940†	4026742.8	3811410.7	6021.9 ug/L	6021.9 ppb	23:52:56
3	Tl 190.801†	1242.5	1206.3	484.37 ug/L	484.37 ppb	23:53:21
3	U 409.014†	11617.8	11922.5	292.16 ug/L	292.16 ppb	23:53:01
3	V 292.402†	113205.4	108522.2	705.65 ug/L	705.65 ppb	23:53:01
3	Zn 213.857†	79935.3	74980.2	741.88 ug/L	741.88 ppb	23:53:01
3	SiO2†	1441648.1	1363647.4	92852 ug/L	92852 ppb	23:53:39

Mean Data: 1202011909|940180|1

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Sc 361.383	922170.6	105.74 %	0.276			0.26%
Sc Radial	5220.7	96.8 %	0.54			0.56%
Y 371.029	879933.1	112.61 %	0.281			0.25%
Y RADIAL	6117.3	105.4 %	0.61			0.58%
Ag 328.068†	100704.3	487.23 ug/L	1.843	487.23 ppb	1.843	0.38%
Al 396.153Radial†	230657.5	180550 ug/L	2174.0	180550 ppb	2174.0	1.20%
As 188.979†	1049.9	550.70 ug/L	3.797	550.70 ppb	3.797	0.69%
B 249.677†	21742.6	479.17 ug/L	3.734	479.17 ppb	3.734	0.78%
Ba 233.527†	284678.8	2446.7 ug/L	8.03	2446.7 ppb	8.03	0.33%
Be 313.107†	1312108.2	507.83 ug/L	0.619	507.83 ppb	0.619	0.12%
Ca 317.933Radial†	14588.2	24159 ug/L	273.6	24159 ppb	273.6	1.13%
Cd 226.502†	38753.5	465.16 ug/L	3.751	465.16 ppb	3.751	0.81%
Co 228.616†	22278.4	520.92 ug/L	4.462	520.92 ppb	4.462	0.86%
Cr 267.716†	51867.8	613.26 ug/L	1.335	613.26 ppb	1.335	0.22%
Cu 324.752†	191285.5	566.19 ug/L	3.160	566.19 ppb	3.160	0.56%
Fe 238.204 Radial†	13554.8	126950 ug/L	1494.6	126950 ppb	1494.6	1.18%
K 766.490 Radial†	133112.2	24780 ug/L	307.9	24780 ppb	307.9	1.24%

Mg 279.077 IEC†	700.4	25574 ug/L	173.8	25574 ppb	173.8	0.68%
Mn 257.610†	3219413.1	3916.6 ug/L	8.41	3916.6 ppb	8.41	0.21%
Mo 202.031†	5922.9	447.54 ug/L	4.009	447.54 ppb	4.009	0.90%
Na 589.592 Radial†	17299.7	5332.4 ug/L	71.05	5332.4 ppb	71.05	1.33%
Ni 231.604†	20381.9	559.80 ug/L	4.494	559.80 ppb	4.494	0.80%
P 214.914†	2991.3	1691.7 ug/L	19.49	1691.7 ppb	19.49	1.15%
Pb 220.353†	4103.3	596.22 ug/L	5.601	596.22 ppb	5.601	0.94%
S 181.975 Axial†	3816.9	5750.8 ug/L	47.59	5750.8 ppb	47.59	0.83%
Sb 206.836†	925.1	333.73 ug/L	1.713	333.73 ppb	1.713	0.51%
Se 196.026†	65.8	473.70 ug/L	7.229	473.70 ppb	7.229	1.53%
Si 251.611†	1362808.7	43498 ug/L	78.9	43498 ppb	78.9	0.18%
Sn 189.927†	2315.4	477.40 ug/L	4.082	477.40 ppb	4.082	0.86%
Sr 421.552†	108717.5	707.87 ug/L	9.124	707.87 ppb	9.124	1.29%
Ti 334.940†	3815949.8	6029.1 ug/L	7.69	6029.1 ppb	7.69	0.13%
Tl 190.801†	1208.7	485.33 ug/L	1.360	485.33 ppb	1.360	0.28%
U 409.014†	11929.1	292.14 ug/L	2.589	292.14 ppb	2.589	0.89%
V 292.402†	108583.6	705.81 ug/L	1.631	705.81 ppb	1.631	0.23%
Zn 213.857†	74893.0	740.84 ug/L	2.442	740.84 ppb	2.442	0.33%
Sio2†	1365109.8	92952 ug/L	912.1	92952 ppb	912.1	0.98%

Sequence No.: 84

Sample ID: 1202011907|940180|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 85

Date Collected: 1/25/2010 23:55:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011907|940180|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5049.3	5049.3	93.6 %		23:57:44
1	Y RADIAL	5566.9	5566.9	95.89 %		23:57:44
1	Al 396.153Radial†	27198.5	29044.3	22738 ug/L	22738 ppb	23:57:44
1	Ca 317.933Radial†	2358.6	2499.6	4139.5 ug/L	4139.5 ppb	23:58:04
1	Fe 238.204 Radial†	2726.1	2903.5	27190 ug/L	27190 ppb	23:58:04
1	K 766.490 Radial†	22358.2	21908.2	4078.7 ug/L	4078.7 ppb	23:57:44
1	Mg 279.077 IEC†	113.0	118.3	4313.3 ug/L	4313.3 ppb	23:58:04
1	Na 589.592 Radial†	-218.7	189.8	58.516 ug/L	58.516 ppb	23:57:44
1	Sr 421.552†	7146.3	7617.3	49.578 ug/L	49.578 ppb	23:57:44
1	Sc 361.383	882143.9	882143.9	101.15 %		23:59:01
1	Y 371.029	794537.7	794537.7	101.68 %		23:59:01
1	Ag 328.068†	-1426.1	-1704.4	1.5278 ug/L	1.5278 ppb	23:59:06
1	As 188.979†	-26.7	4.2	17.878 ug/L	17.878 ppb	23:59:26
1	B 249.677†	267.5	574.2	8.7744 ug/L	8.7744 ppb	23:59:06
1	Ba 233.527†	55746.5	55115.8	473.60 ug/L	473.60 ppb	23:59:06
1	Be 313.107†	-7281.4	-1605.5	1.9178 ug/L	1.9178 ppb	23:59:06
1	Cd 226.502†	67.0	245.5	0.2224 ug/L	0.2224 ppb	23:59:26
1	Co 228.616†	658.2	709.7	14.486 ug/L	14.486 ppb	23:59:26
1	Cr 267.716†	2637.4	2527.8	30.359 ug/L	30.359 ppb	23:59:06
1	Cu 324.752†	12963.3	2975.7	10.173 ug/L	10.173 ppb	23:59:06
1	Mn 257.610†	886741.7	876065.0	1065.2 ug/L	1065.2 ppb	23:59:01
1	Mo 202.031†	5.6	-15.5	1.0142 ug/L	1.0142 ppb	23:59:26
1	Ni 231.604†	894.9	779.4	21.409 ug/L	21.409 ppb	23:59:26
1	P 214.914†	559.4	332.5	188.27 ug/L	188.27 ppb	23:59:26
1	Pb 220.353†	172.4	215.8	32.226 ug/L	32.226 ppb	23:59:26
1	S 181.975 Axial†	141.7	98.7	145.37 ug/L	145.37 ppb	23:59:26
1	Sb 206.836†	34.8	-1.6	-4.1418 ug/L	-4.1418 ppb	23:59:26
1	Se 196.026†	-169.0	-153.0	-4.2920 ug/L	-4.2920 ppb	23:59:26
1	Si 251.611†	277740.3	274003.0	8746.7 ug/L	8746.7 ppb	23:59:01
1	Sn 189.927†	-36.1	-37.2	-6.4917 ug/L	-6.4917 ppb	23:59:26
1	Ti 334.940†	710507.0	703316.0	1111.3 ug/L	1111.3 ppb	23:59:01
1	Tl 190.801†	-81.7	-50.3	-3.3863 ug/L	-3.3863 ppb	23:59:26
1	U 409.014†	-2954.5	-1992.2	-54.599 ug/L	-54.599 ppb	23:59:01
1	V 292.402†	7888.5	9194.7	56.099 ug/L	56.099 ppb	23:59:06
1	Zn 213.857†	6463.6	5727.6	55.144 ug/L	55.144 ppb	23:59:06
1	SiO2†	281722.2	277927.8	18927 ug/L	18927 ppb	00:00:33
2	Sc Radial	5127.2	5127.2	95.1 %		23:58:09
2	Y RADIAL	5660.4	5660.4	97.50 %		23:58:09
2	Al 396.153Radial†	27580.9	29005.4	22707 ug/L	22707 ppb	23:58:09
2	Ca 317.933Radial†	2335.8	2437.4	4036.5 ug/L	4036.5 ppb	23:58:29
2	Fe 238.204 Radial†	2723.1	2856.1	26746 ug/L	26746 ppb	23:58:29
2	K 766.490 Radial†	22571.8	21770.2	4053.0 ug/L	4053.0 ppb	23:58:09
2	Mg 279.077 IEC†	110.4	113.7	4145.9 ug/L	4145.9 ppb	23:58:29
2	Na 589.592 Radial†	-209.2	203.3	62.676 ug/L	62.676 ppb	23:58:09
2	Sr 421.552†	7263.4	7624.5	49.626 ug/L	49.626 ppb	23:58:09
2	Sc 361.383	881207.0	881207.0	101.05 %		23:59:32
2	Y 371.029	793947.5	793947.5	101.60 %		23:59:32
2	Ag 328.068†	-1469.8	-1749.2	1.1860 ug/L	1.1860 ppb	23:59:37
2	As 188.979†	-34.4	-3.4	14.370 ug/L	14.370 ppb	23:59:57
2	B 249.677†	233.3	540.5	8.0713 ug/L	8.0713 ppb	23:59:37
2	Ba 233.527†	55378.4	54810.1	470.96 ug/L	470.96 ppb	23:59:37
2	Be 313.107†	-7166.1	-1499.1	1.9555 ug/L	1.9555 ppb	23:59:37
2	Cd 226.502†	86.7	265.1	0.5102 ug/L	0.5102 ppb	23:59:57
2	Co 228.616†	659.5	711.7	14.539 ug/L	14.539 ppb	23:59:57
2	Cr 267.716†	2665.0	2557.8	30.702 ug/L	30.702 ppb	23:59:37
2	Cu 324.752†	12842.1	2869.3	9.8375 ug/L	9.8375 ppb	23:59:37
2	Mn 257.610†	883449.1	873738.4	1062.3 ug/L	1062.3 ppb	23:59:32
2	Mo 202.031†	4.5	-16.6	0.8972 ug/L	0.8972 ppb	23:59:57
2	Ni 231.604†	915.6	800.8	21.998 ug/L	21.998 ppb	23:59:57

2	P 214.914†	557.5	331.2	187.82 ug/L	187.82 ppb	23:59:57
2	Pb 220.353†	167.1	210.7	31.562 ug/L	31.562 ppb	23:59:57
2	S 181.975 Axial†	142.7	99.8	146.96 ug/L	146.96 ppb	23:59:57
2	Sb 206.836†	33.6	-2.8	-4.5735 ug/L	-4.5735 ppb	23:59:57
2	Se 196.026†	-173.4	-157.5	-8.5809 ug/L	-8.5809 ppb	23:59:57
2	Si 251.611†	277003.9	273566.2	8732.7 ug/L	8732.7 ppb	23:59:32
2	Sn 189.927†	-37.4	-38.5	-6.7700 ug/L	-6.7700 ppb	23:59:57
2	Ti 334.940†	709073.9	702644.6	1110.2 ug/L	1110.2 ppb	23:59:32
2	Tl 190.801†	-82.4	-51.1	-3.6876 ug/L	-3.6876 ppb	23:59:57
2	U 409.014†	-2865.1	-1906.9	-52.346 ug/L	-52.346 ppb	23:59:32
2	V 292.402†	7870.1	9184.8	56.098 ug/L	56.098 ppb	23:59:37
2	Zn 213.857†	6429.2	5700.3	54.907 ug/L	54.907 ppb	23:59:37
2	SiO2†	279505.6	276030.3	18798 ug/L	18798 ppb	00:00:38
3	Sc Radial	5028.4	5028.4	93.2 %		23:58:34
3	Y RADIAL	5591.1	5591.1	96.31 %		23:58:34
3	Al 396.153Radial†	27200.7	29167.7	22834 ug/L	22834 ppb	23:58:34
3	Ca 317.933Radial†	2335.5	2485.3	4115.9 ug/L	4115.9 ppb	23:58:54
3	Fe 238.204 Radial†	2722.3	2911.6	27265 ug/L	27265 ppb	23:58:54
3	K 766.490 Radial†	22383.9	22035.3	4102.3 ug/L	4102.3 ppb	23:58:34
3	Mg 279.077 IEC†	112.9	118.6	4325.1 ug/L	4325.1 ppb	23:58:54
3	Na 589.592 Radial†	-181.3	229.0	70.576 ug/L	70.576 ppb	23:58:34
3	Sr 421.552†	7128.5	7630.0	49.661 ug/L	49.661 ppb	23:58:34
3	Sc 361.383	886738.2	886738.2	101.68 %		00:00:02
3	Y 371.029	799997.1	799997.1	102.38 %		00:00:02
3	Ag 328.068†	-1428.5	-1699.5	1.5724 ug/L	1.5724 ppb	00:00:07
3	As 188.979†	-37.3	-6.0	13.268 ug/L	13.268 ppb	00:00:27
3	B 249.677†	166.0	472.9	6.4269 ug/L	6.4269 ppb	00:00:07
3	Ba 233.527†	55705.5	54790.0	470.81 ug/L	470.81 ppb	00:00:07
3	Be 313.107†	-7233.0	-1520.6	1.9387 ug/L	1.9387 ppb	00:00:07
3	Cd 226.502†	66.4	244.5	0.2028 ug/L	0.2028 ppb	00:00:27
3	Co 228.616†	677.1	725.0	14.858 ug/L	14.858 ppb	00:00:27
3	Cr 267.716†	2657.7	2534.2	30.435 ug/L	30.435 ppb	00:00:07
3	Cu 324.752†	12805.6	2754.2	9.5292 ug/L	9.5292 ppb	00:00:07
3	Mn 257.610†	886976.0	871753.4	1059.9 ug/L	1059.9 ppb	00:00:02
3	Mo 202.031†	4.4	-16.7	0.9344 ug/L	0.9344 ppb	00:00:27
3	Ni 231.604†	903.8	783.6	21.524 ug/L	21.524 ppb	00:00:27
3	P 214.914†	559.2	329.4	186.40 ug/L	186.40 ppb	00:00:27
3	Pb 220.353†	135.2	178.4	27.055 ug/L	27.055 ppb	00:00:27
3	S 181.975 Axial†	141.6	97.8	144.00 ug/L	144.00 ppb	00:00:27
3	Sb 206.836†	38.8	2.1	-2.7734 ug/L	-2.7734 ppb	00:00:27
3	Se 196.026†	-175.1	-158.1	-7.2340 ug/L	-7.2340 ppb	00:00:27
3	Si 251.611†	277901.0	272738.5	8706.3 ug/L	8706.3 ppb	00:00:02
3	Sn 189.927†	-39.9	-40.7	-7.2142 ug/L	-7.2142 ppb	00:00:27
3	Ti 334.940†	711054.6	700215.3	1106.4 ug/L	1106.4 ppb	00:00:02
3	Tl 190.801†	-82.9	-51.0	-3.6950 ug/L	-3.6950 ppb	00:00:27
3	U 409.014†	-2955.7	-1978.4	-54.250 ug/L	-54.250 ppb	00:00:02
3	V 292.402†	7873.3	9139.4	55.724 ug/L	55.724 ppb	00:00:07
3	Zn 213.857†	6478.1	5708.6	54.945 ug/L	54.945 ppb	00:00:07
3	SiO2†	277803.9	272631.3	18566 ug/L	18566 ppb	00:00:43

Mean Data: 1202011907|940180|5

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Sc 361.383	883363.0	101.29 %	0.339			0.34%
Sc Radial	5068.3	94.0 %	0.97			1.03%
Y 371.029	796160.8	101.89 %	0.427			0.42%
Y RADIAL	5606.1	96.57 %	0.836			0.87%
Ag 328.068†	-1717.7	1.4287 ug/L	0.21139	1.4287 ppb	0.21139	14.80%
Al 396.153Radial†	29072.5	22760 ug/L	66.3	22760 ppb	66.3	0.29%
As 188.979†	-1.7	15.172 ug/L	2.4074	15.172 ppb	2.4074	15.87%
B 249.677†	529.2	7.7575 ug/L	1.20479	7.7575 ppb	1.20479	15.53%
Ba 233.527†	54905.3	471.79 ug/L	1.569	471.79 ppb	1.569	0.33%
Be 313.107†	-1541.7	1.9373 ug/L	0.01888	1.9373 ppb	0.01888	0.97%
Ca 317.933Radial†	2474.1	4097.3 ug/L	53.95	4097.3 ppb	53.95	1.32%
Cd 226.502†	251.7	0.3118 ug/L	0.17213	0.3118 ppb	0.17213	55.20%
Co 228.616†	715.5	14.628 ug/L	0.2013	14.628 ppb	0.2013	1.38%
Cr 267.716†	2540.0	30.499 ug/L	0.1804	30.499 ppb	0.1804	0.59%
Cu 324.752†	2866.4	9.8467 ug/L	0.32221	9.8467 ppb	0.32221	3.27%
Fe 238.204 Radial†	2890.4	27067 ug/L	280.7	27067 ppb	280.7	1.04%
K 766.490 Radial†	21904.6	4078.0 ug/L	24.68	4078.0 ppb	24.68	0.61%

Mg 279.077 IEC†	116.9	4261.4 ug/L	100.22	4261.4 ppb	100.22	2.35%
Mn 257.610†	873852.3	1062.5 ug/L	2.62	1062.5 ppb	2.62	0.25%
Mo 202.031†	-16.3	0.9486 ug/L	0.05981	0.9486 ppb	0.05981	6.30%
Na 589.592 Radial†	207.4	63.923 ug/L	6.1255	63.923 ppb	6.1255	9.58%
Ni 231.604†	788.0	21.644 ug/L	0.3121	21.644 ppb	0.3121	1.44%
P 214.914†	331.0	187.50 ug/L	0.974	187.50 ppb	0.974	0.52%
Pb 220.353†	201.6	30.281 ug/L	2.8138	30.281 ppb	2.8138	9.29%
S 181.975 Axial†	98.8	145.44 ug/L	1.481	145.44 ppb	1.481	1.02%
Sb 206.836†	-0.8	-3.8296 ug/L	0.93980	-3.8296 ppb	0.93980	24.54%
Se 196.026†	-156.2	-6.7023 ug/L	2.19332	-6.7023 ppb	2.19332	32.72%
Si 251.611†	273435.9	8728.6 ug/L	20.50	8728.6 ppb	20.50	0.23%
Sn 189.927†	-38.8	-6.8253 ug/L	0.36445	-6.8253 ppb	0.36445	5.34%
Sr 421.552†	7623.9	49.622 ug/L	0.0417	49.622 ppb	0.0417	0.08%
Ti 334.940†	702058.6	1109.3 ug/L	2.58	1109.3 ppb	2.58	0.23%
Tl 190.801†	-50.8	-3.5896 ug/L	0.17616	-3.5896 ppb	0.17616	4.91%
U 409.014†	-1959.2	-53.731 ug/L	1.2123	-53.731 ppb	1.2123	2.26%
V 292.402†	9173.0	55.974 ug/L	0.2163	55.974 ppb	0.2163	0.39%
Zn 213.857†	5712.2	54.999 ug/L	0.1269	54.999 ppb	0.1269	0.23%
SiO2†	275529.8	18764 ug/L	182.7	18764 ppb	182.7	0.97%

Sequence No.: 85

Sample ID: 244144002|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 86

Date Collected: 1/26/2010 00:02:55

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144002|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5111.9	5111.9	94.8 %		00:05:09
1	Y RADIAL	6125.4	6125.4	105.5 %		00:05:09
1	Al 396.153Radial†	161307.5	170163.9	133210 ug/L	133210 ppb	00:04:49
1	Ca 317.933Radial†	12383.3	13044.1	21602 ug/L	21602 ppb	00:04:49
1	Fe 238.204 Radial†	14236.4	15010.3	140560 ug/L	140560 ppb	00:04:49
1	K 766.490 Radial†	106086.4	109942.9	20468 ug/L	20468 ppb	00:04:49
1	Mg 279.077 IEC†	620.1	651.7	23768 ug/L	23768 ppb	00:05:09
1	Na 589.592 Radial†	2318.9	2869.7	884.54 ug/L	884.54 ppb	00:04:49
1	Sr 421.552†	42092.8	44389.8	288.94 ug/L	288.94 ppb	00:04:49
1	Sc 361.383	916610.1	916610.1	105.11 %		00:06:06
1	Y 371.029	898676.6	898676.6	115.01 %		00:06:06
1	Ag 328.068†	-9353.9	-9194.0	5.9957 ug/L	5.9957 ppb	00:06:11
1	As 188.979†	-58.9	-25.4	63.783 ug/L	63.783 ppb	00:06:31
1	B 249.677†	1317.8	1563.5	13.029 ug/L	13.029 ppb	00:06:11
1	Ba 233.527†	204667.7	194729.6	1674.8 ug/L	1674.8 ppb	00:06:11
1	Be 313.107†	-11628.5	-5470.8	8.9980 ug/L	8.9980 ppb	00:06:11
1	Cd 226.502†	1162.8	1285.5	1.3454 ug/L	1.3454 ppb	00:06:31
1	Co 228.616†	2907.8	2825.6	56.160 ug/L	56.160 ppb	00:06:31
1	Cr 267.716†	10722.3	10121.8	122.22 ug/L	122.22 ppb	00:06:11
1	Cu 324.752†	29154.2	17898.0	59.923 ug/L	59.923 ppb	00:06:11
1	Mn 257.610†	2837746.6	2699319.4	3287.1 ug/L	3287.1 ppb	00:06:06
1	Mo 202.031†	-64.5	-82.4	5.0849 ug/L	5.0849 ppb	00:06:31
1	Ni 231.604†	3416.6	3145.3	86.396 ug/L	86.396 ppb	00:06:31
1	P 214.914†	2169.9	1844.0	1053.3 ug/L	1053.3 ppb	00:06:31
1	Pb 220.353†	783.9	791.2	125.01 ug/L	125.01 ppb	00:06:31
1	S 181.975 Axial†	394.6	334.1	481.34 ug/L	481.34 ppb	00:06:31
1	Sb 206.836†	69.2	29.8	-4.9224 ug/L	-4.9224 ppb	00:06:31
1	Se 196.026†	-828.0	-773.7	-10.438 ug/L	-10.438 ppb	00:06:31
1	Si 251.611†	1375572.2	1308173.4	41759 ug/L	41759 ppb	00:06:06
1	Sn 189.927†	-110.6	-106.7	-16.089 ug/L	-16.089 ppb	00:06:31
1	Ti 334.940†	3239771.8	3083287.3	4871.9 ug/L	4871.9 ppb	00:06:06
1	Tl 190.801†	-213.0	-172.2	-4.6136 ug/L	-4.6136 ppb	00:06:31
1	U 409.014†	-9734.5	-8333.1	-231.42 ug/L	-231.42 ppb	00:06:06
1	V 292.402†	41785.5	41151.7	248.54 ug/L	248.54 ppb	00:06:11
1	Zn 213.857†	30409.3	28269.6	271.67 ug/L	271.67 ppb	00:06:11
1	SiO2†	1367597.3	1300574.2	88569 ug/L	88569 ppb	00:07:40
2	Sc Radial	5163.0	5163.0	95.7 %		00:05:34
2	Y RADIAL	6189.8	6189.8	106.6 %		00:05:34
2	Al 396.153Radial†	162054.9	169261.4	132510 ug/L	132510 ppb	00:05:14
2	Ca 317.933Radial†	12416.0	12949.1	21444 ug/L	21444 ppb	00:05:14
2	Fe 238.204 Radial†	14292.4	14920.3	139720 ug/L	139720 ppb	00:05:14
2	K 766.490 Radial†	106341.0	109101.9	20312 ug/L	20312 ppb	00:05:14
2	Mg 279.077 IEC†	634.5	660.4	24087 ug/L	24087 ppb	00:05:34
2	Na 589.592 Radial†	2350.4	2878.4	887.22 ug/L	887.22 ppb	00:05:14
2	Sr 421.552†	42206.6	44069.5	286.85 ug/L	286.85 ppb	00:05:14
2	Sc 361.383	920220.3	920220.3	105.52 %		00:06:37
2	Y 371.029	902230.9	902230.9	115.46 %		00:06:37
2	Ag 328.068†	-9515.8	-9312.6	5.2156 ug/L	5.2156 ppb	00:06:42
2	As 188.979†	-39.1	-6.4	72.041 ug/L	72.041 ppb	00:07:02
2	B 249.677†	1285.1	1527.6	12.342 ug/L	12.342 ppb	00:06:42
2	Ba 233.527†	208502.0	197599.4	1699.3 ug/L	1699.3 ppb	00:06:42
2	Be 313.107†	-11891.2	-5676.3	8.9119 ug/L	8.9119 ppb	00:06:42
2	Cd 226.502†	1161.5	1280.0	1.3645 ug/L	1.3645 ppb	00:07:02
2	Co 228.616†	2861.3	2770.7	54.877 ug/L	54.877 ppb	00:07:02
2	Cr 267.716†	10848.6	10201.5	123.15 ug/L	123.15 ppb	00:06:42
2	Cu 324.752†	29735.6	18340.2	61.170 ug/L	61.170 ppb	00:06:42
2	Mn 257.610†	2844022.6	2694675.1	3281.4 ug/L	3281.4 ppb	00:06:37
2	Mo 202.031†	-66.3	-83.8	4.9100 ug/L	4.9100 ppb	00:07:02
2	Ni 231.604†	3399.4	3116.3	85.601 ug/L	85.601 ppb	00:07:02

2	P 214.914†	2166.7	1832.9	1046.7 ug/L	1046.7 ppb	00:07:02
2	Pb 220.353†	751.8	757.9	120.32 ug/L	120.32 ppb	00:07:02
2	S 181.975 Axial†	388.5	326.8	470.44 ug/L	470.44 ppb	00:07:02
2	Sb 206.836†	91.0	50.2	2.5165 ug/L	2.5165 ppb	00:07:02
2	Se 196.026†	-827.2	-769.9	-10.887 ug/L	-10.887 ppb	00:07:02
2	Si 251.611†	1377724.3	1305078.6	41660 ug/L	41660 ppb	00:06:37
2	Sn 189.927†	-105.9	-101.9	-15.140 ug/L	-15.140 ppb	00:07:02
2	Ti 334.940†	3249985.9	3080874.5	4868.0 ug/L	4868.0 ppb	00:06:37
2	Tl 190.801†	-196.8	-156.0	0.9401 ug/L	0.9401 ppb	00:07:02
2	U 409.014†	-9629.0	-8196.7	-227.81 ug/L	-227.81 ppb	00:06:37
2	V 292.402†	42585.6	41753.9	252.69 ug/L	252.69 ppb	00:06:42
2	Zn 213.857†	31013.8	28729.0	276.40 ug/L	276.40 ppb	00:06:42
2	SiO2†	1376876.2	1304263.2	88820 ug/L	88820 ppb	00:07:46
3	Sc Radial	5165.5	5165.5	95.8 %		00:05:59
3	Y RADIAL	6181.2	6181.2	106.5 %		00:05:59
3	Al 396.153Radial†	160462.3	167516.6	131140 ug/L	131140 ppb	00:05:39
3	Ca 317.933Radial†	12271.7	12792.1	21184 ug/L	21184 ppb	00:05:39
3	Fe 238.204 Radial†	14160.1	14775.0	138360 ug/L	138360 ppb	00:05:39
3	K 766.490 Radial†	105248.3	107907.3	20089 ug/L	20089 ppb	00:05:39
3	Mg 279.077 IEC†	631.9	657.3	23977 ug/L	23977 ppb	00:05:59
3	Na 589.592 Radial†	2293.7	2818.0	868.60 ug/L	868.60 ppb	00:05:39
3	Sr 421.552†	41736.3	43557.1	283.52 ug/L	283.52 ppb	00:05:39
3	Sc 361.383	913819.2	913819.2	104.79 %		00:07:08
3	Y 371.029	894972.8	894972.8	114.53 %		00:07:08
3	Ag 328.068†	-9413.5	-9278.1	4.9264 ug/L	4.9264 ppb	00:07:14
3	As 188.979†	-41.7	-9.2	70.622 ug/L	70.622 ppb	00:07:34
3	B 249.677†	1249.8	1502.4	11.979 ug/L	11.979 ppb	00:07:14
3	Ba 233.527†	206313.9	196895.4	1693.3 ug/L	1693.3 ppb	00:07:14
3	Be 313.107†	-11494.3	-5376.5	9.0603 ug/L	9.0603 ppb	00:07:14
3	Cd 226.502†	1150.1	1276.8	1.4664 ug/L	1.4664 ppb	00:07:34
3	Co 228.616†	2879.4	2807.0	55.730 ug/L	55.730 ppb	00:07:34
3	Cr 267.716†	10832.1	10257.7	123.78 ug/L	123.78 ppb	00:07:14
3	Cu 324.752†	29270.0	18093.2	60.376 ug/L	60.376 ppb	00:07:14
3	Mn 257.610†	2837267.0	2707107.5	3296.3 ug/L	3296.3 ppb	00:07:08
3	Mo 202.031†	-64.5	-82.6	4.8901 ug/L	4.8901 ppb	00:07:34
3	Ni 231.604†	3385.2	3125.3	85.847 ug/L	85.847 ppb	00:07:34
3	P 214.914†	2173.6	1853.8	1060.6 ug/L	1060.6 ppb	00:07:34
3	Pb 220.353†	766.0	776.4	122.72 ug/L	122.72 ppb	00:07:34
3	S 181.975 Axial†	386.0	327.0	470.92 ug/L	470.92 ppb	00:07:34
3	Sb 206.836†	71.8	32.4	-4.0055 ug/L	-4.0055 ppb	00:07:34
3	Se 196.026†	-825.2	-773.4	-17.681 ug/L	-17.681 ppb	00:07:34
3	Si 251.611†	1374887.9	1311517.4	41866 ug/L	41866 ppb	00:07:08
3	Sn 189.927†	-111.3	-107.7	-16.389 ug/L	-16.389 ppb	00:07:34
3	Ti 334.940†	3237759.5	3090780.9	4883.7 ug/L	4883.7 ppb	00:07:08
3	Tl 190.801†	-203.4	-163.6	-1.5089 ug/L	-1.5089 ppb	00:07:34
3	U 409.014†	-9565.0	-8199.5	-227.73 ug/L	-227.73 ppb	00:07:08
3	V 292.402†	42127.7	41599.6	251.84 ug/L	251.84 ppb	00:07:14
3	Zn 213.857†	30608.4	28547.9	274.70 ug/L	274.70 ppb	00:07:14
3	SiO2†	1363418.5	1300560.3	88568 ug/L	88568 ppb	00:07:52

Mean Data: 244144002|940180|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
	Intensity		Units		Units			
Sc 361.383	916883.2	105.14	%	0.368				0.35%
Sc Radial	5146.8	95.4	%	0.56				0.59%
Y 371.029	898626.8	115.00	%	0.464				0.40%
Y RADIAL	6165.4	106.2	%	0.60				0.57%
Ag 328.068†	-9261.6	5.3792	ug/L	0.55309	5.3792	ppb	0.55309	10.28%
Al 396.153Radial†	168980.6	132290	ug/L	1053.6	132290	ppb	1053.6	0.80%
As 188.979†	-13.6	68.815	ug/L	4.4156	68.815	ppb	4.4156	6.42%
B 249.677†	1531.1	12.450	ug/L	0.5330	12.450	ppb	0.5330	4.28%
Ba 233.527†	196408.1	1689.1	ug/L	12.81	1689.1	ppb	12.81	0.76%
Be 313.107†	-5507.8	8.9901	ug/L	0.07454	8.9901	ppb	0.07454	0.83%
Ca 317.933Radial†	12928.4	21410	ug/L	210.8	21410	ppb	210.8	0.98%
Cd 226.502†	1280.8	1.3921	ug/L	0.06504	1.3921	ppb	0.06504	4.67%
Co 228.616†	2801.1	55.589	ug/L	0.6533	55.589	ppb	0.6533	1.18%
Cr 267.716†	10193.7	123.05	ug/L	0.784	123.05	ppb	0.784	0.64%
Cu 324.752†	18110.5	60.490	ug/L	0.6314	60.490	ppb	0.6314	1.04%
Fe 238.204 Radial†	14901.9	139550	ug/L	1112.1	139550	ppb	1112.1	0.80%
K 766.490 Radial†	108984.1	20290	ug/L	190.4	20290	ppb	190.4	0.94%

Mg 279.077 IEC†	656.5	23944 ug/L	161.7	23944 ppb	161.7	0.68%
Mn 257.610†	2700367.3	3288.3 ug/L	7.54	3288.3 ppb	7.54	0.23%
Mo 202.031†	-83.0	4.9617 ug/L	0.10717	4.9617 ppb	0.10717	2.16%
Na 589.592 Radial†	2855.3	880.12 ug/L	10.067	880.12 ppb	10.067	1.14%
Ni 231.604†	3129.0	85.948 ug/L	0.4072	85.948 ppb	0.4072	0.47%
P 214.914†	1843.6	1053.5 ug/L	6.96	1053.5 ppb	6.96	0.66%
Pb 220.353†	775.1	122.69 ug/L	2.343	122.69 ppb	2.343	1.91%
S 181.975 Axial†	329.3	474.23 ug/L	6.157	474.23 ppb	6.157	1.30%
Sb 206.836†	37.5	-2.1371 ug/L	4.05614	-2.1371 ppb	4.05614	189.79%
Se 196.026†	-772.3	-13.002 ug/L	4.0584	-13.002 ppb	4.0584	31.21%
Si 251.611†	1308256.4	41762 ug/L	102.8	41762 ppb	102.8	0.25%
Sn 189.927†	-105.4	-15.873 ug/L	0.6520	-15.873 ppb	0.6520	4.11%
Sr 421.552†	44005.5	286.44 ug/L	2.734	286.44 ppb	2.734	0.95%
Ti 334.940†	3084980.9	4874.5 ug/L	8.14	4874.5 ppb	8.14	0.17%
Tl 190.801†	-163.9	-1.7275 ug/L	2.78331	-1.7275 ppb	2.78331	161.12%
U 409.014†	-8243.1	-228.99 ug/L	2.110	-228.99 ppb	2.110	0.92%
V 292.402†	41501.7	251.02 ug/L	2.193	251.02 ppb	2.193	0.87%
Zn 213.857†	28515.5	274.25 ug/L	2.397	274.25 ppb	2.397	0.87%
SiO2†	1301799.2	88653 ug/L	145.3	88653 ppb	145.3	0.16%



Sequence No.: 86

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/26/2010 00:10:03

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5095.7	5095.7	94.5 %		00:11:54
1	Y RADIAL	5487.3	5487.3	94.52 %		00:11:54
1	Al 396.153Radial†	6343.7	6709.4	5226.2 ug/L	5226.2 ppb	00:11:54
1	Ca 317.933Radial†	3163.3	3328.3	5511.8 ug/L	5511.8 ppb	00:12:14
1	Fe 238.204 Radial†	543.9	567.6	5332.0 ug/L	5332.0 ppb	00:12:14
1	K 766.490 Radial†	29634.9	29391.7	5467.7 ug/L	5467.7 ppb	00:11:54
1	Mg 279.077 IEC†	148.5	154.7	5678.0 ug/L	5678.0 ppb	00:12:14
1	Na 589.592 Radial†	30108.2	32286.5	9951.9 ug/L	9951.9 ppb	00:11:54
1	Sr 421.552†	74216.8	78527.7	511.39 ug/L	511.39 ppb	00:11:54
1	Sc 361.383	878292.7	878292.7	100.71 %		00:13:12
1	Y 371.029	771876.9	771876.9	98.779 %		00:13:12
1	Ag 328.068†	121438.0	120284.0	533.50 ug/L	533.50 ppb	00:13:17
1	As 188.979†	1209.9	1231.9	555.70 ug/L	555.70 ppb	00:13:37
1	B 249.677†	22680.2	22829.5	523.92 ug/L	523.92 ppb	00:13:17
1	Ba 233.527†	64109.4	63661.2	547.28 ug/L	547.28 ppb	00:13:17
1	Be 313.107†	1463117.3	1458356.4	550.40 ug/L	550.40 ppb	00:13:12
1	Cd 226.502†	45256.4	45115.4	556.21 ug/L	556.21 ppb	00:13:17
1	Co 228.616†	23287.2	23181.4	555.19 ug/L	555.19 ppb	00:13:17
1	Cr 267.716†	47701.6	47284.5	556.67 ug/L	556.67 ppb	00:13:17
1	Cu 324.752†	189248.9	178069.9	520.97 ug/L	520.97 ppb	00:13:17
1	Mn 257.610†	449238.4	445501.5	540.68 ug/L	540.68 ppb	00:13:12
1	Mo 202.031†	7416.1	7342.6	542.71 ug/L	542.71 ppb	00:13:37
1	Ni 231.604†	20636.9	20385.6	559.89 ug/L	559.89 ppb	00:13:17
1	P 214.914†	4609.3	4356.2	2601.1 ug/L	2601.1 ppb	00:13:37
1	Pb 220.353†	3956.7	3974.0	552.42 ug/L	552.42 ppb	00:13:37
1	S 181.975 Axial†	770.2	723.4	1095.3 ug/L	1095.3 ppb	00:13:37
1	Sb 206.836†	1481.6	1435.1	542.01 ug/L	542.01 ppb	00:13:37
1	Se 196.026†	843.4	851.5	551.95 ug/L	551.95 ppb	00:13:37
1	Si 251.611†	86671.6	85490.4	2722.3 ug/L	2722.3 ppb	00:13:17
1	Sn 189.927†	2722.1	2701.4	551.15 ug/L	551.15 ppb	00:13:37
1	Ti 334.940†	329862.3	328444.8	518.72 ug/L	518.72 ppb	00:13:17
1	Tl 190.801†	1557.4	1576.9	551.80 ug/L	551.80 ppb	00:13:37
1	U 409.014†	19390.2	20181.5	519.17 ug/L	519.17 ppb	00:13:17
1	V 292.402†	81268.6	82089.8	554.32 ug/L	554.32 ppb	00:13:17
1	Zn 213.857†	55822.0	54764.6	549.11 ug/L	549.11 ppb	00:13:17
1	SiO2†	86076.6	84887.9	5766.1 ug/L	5766.1 ppb	00:14:44
2	Sc Radial	4983.6	4983.6	92.4 %		00:12:19
2	Y RADIAL	5318.4	5318.4	91.61 %		00:12:19
2	Al 396.153Radial†	6449.1	6974.5	5433.9 ug/L	5433.9 ppb	00:12:19
2	Ca 317.933Radial†	3165.7	3406.3	5641.0 ug/L	5641.0 ppb	00:12:40
2	Fe 238.204 Radial†	551.5	588.8	5529.8 ug/L	5529.8 ppb	00:12:40
2	K 766.490 Radial†	30045.7	30541.9	5681.8 ug/L	5681.8 ppb	00:12:19
2	Mg 279.077 IEC†	150.3	160.2	5879.0 ug/L	5879.0 ppb	00:12:40
2	Na 589.592 Radial†	30560.9	33493.4	10324 ug/L	10324 ppb	00:12:19
2	Sr 421.552†	75576.4	81766.4	532.48 ug/L	532.48 ppb	00:12:19
2	Sc 361.383	888464.4	888464.4	101.88 %		00:13:43
2	Y 371.029	780199.7	780199.7	99.844 %		00:13:43
2	Ag 328.068†	119986.9	117479.3	521.16 ug/L	521.16 ppb	00:13:48
2	As 188.979†	1206.2	1214.6	547.87 ug/L	547.87 ppb	00:14:08
2	B 249.677†	22413.2	22309.5	511.94 ug/L	511.94 ppb	00:13:48
2	Ba 233.527†	63325.2	62162.7	534.41 ug/L	534.41 ppb	00:13:48
2	Be 313.107†	1480350.6	1458639.6	550.47 ug/L	550.47 ppb	00:13:43
2	Cd 226.502†	44794.2	44147.3	544.24 ug/L	544.24 ppb	00:13:48
2	Co 228.616†	23046.5	22680.4	543.21 ug/L	543.21 ppb	00:13:48
2	Cr 267.716†	47106.2	46157.8	543.41 ug/L	543.41 ppb	00:13:48
2	Cu 324.752†	186357.5	173080.6	506.39 ug/L	506.39 ppb	00:13:48
2	Mn 257.610†	455351.8	446395.3	541.77 ug/L	541.77 ppb	00:13:43
2	Mo 202.031†	7447.8	7289.4	538.80 ug/L	538.80 ppb	00:14:08
2	Ni 231.604†	20339.8	19859.4	545.43 ug/L	545.43 ppb	00:13:48

2	P 214.914†	4645.5	4339.3	2593.3 ug/L	2593.3 ppb	00:14:08
2	Pb 220.353†	3980.3	3952.2	549.43 ug/L	549.43 ppb	00:14:08
2	S 181.975 Axial†	775.9	720.2	1090.4 ug/L	1090.4 ppb	00:14:08
2	Sb 206.836†	1493.4	1429.8	539.90 ug/L	539.90 ppb	00:14:08
2	Se 196.026†	849.6	848.0	550.41 ug/L	550.41 ppb	00:14:08
2	Si 251.611†	85359.8	83217.5	2649.8 ug/L	2649.8 ppb	00:13:48
2	Sn 189.927†	2719.7	2668.1	544.38 ug/L	544.38 ppb	00:14:08
2	Ti 334.940†	325064.1	319985.4	505.36 ug/L	505.36 ppb	00:13:48
2	Tl 190.801†	1547.4	1549.3	542.19 ug/L	542.19 ppb	00:14:08
2	U 409.014†	19048.3	19625.5	504.82 ug/L	504.82 ppb	00:13:48
2	V 292.402†	80146.3	80064.4	540.73 ug/L	540.73 ppb	00:13:48
2	Zn 213.857†	55214.7	53534.0	536.75 ug/L	536.75 ppb	00:13:48
2	SiO2†	86199.1	84029.7	5707.8 ug/L	5707.8 ppb	00:14:49
3	Sc Radial	4908.1	4908.1	91.0 %		00:12:45
3	Y RADIAL	5299.1	5299.1	91.28 %		00:12:45
3	Al 396.153Radial†	6425.7	7056.0	5497.5 ug/L	5497.5 ppb	00:12:45
3	Ca 317.933Radial†	3168.6	3462.0	5733.3 ug/L	5733.3 ppb	00:13:05
3	Fe 238.204 Radial†	550.3	556.6	5603.7 ug/L	5603.7 ppb	00:13:05
3	K 766.490 Radial†	29666.8	30625.3	5697.3 ug/L	5697.3 ppb	00:12:45
3	Mg 279.077 IEC†	145.7	157.7	5787.0 ug/L	5787.0 ppb	00:13:05
3	Na 589.592 Radial†	30218.3	33625.2	10364 ug/L	10364 ppb	00:12:45
3	Sr 421.552†	74889.0	82268.0	535.75 ug/L	535.75 ppb	00:12:45
3	Sc 361.383	879132.7	879132.7	100.81 %		00:14:14
3	Y 371.029	771742.1	771742.1	98.761 %		00:14:14
3	Ag 328.068†	120587.0	119324.6	529.34 ug/L	529.34 ppb	00:14:19
3	As 188.979†	1203.8	1224.7	552.50 ug/L	552.50 ppb	00:14:39
3	B 249.677†	22507.0	22636.1	519.43 ug/L	519.43 ppb	00:14:19
3	Ba 233.527†	63822.5	63315.8	544.32 ug/L	544.32 ppb	00:14:19
3	Be 313.107†	1465742.1	1459571.9	550.84 ug/L	550.84 ppb	00:14:14
3	Cd 226.502†	45300.2	45115.9	556.18 ug/L	556.18 ppb	00:14:19
3	Co 228.616†	23152.0	23025.2	551.46 ug/L	551.46 ppb	00:14:19
3	Cr 267.716†	47640.4	47178.6	555.42 ug/L	555.42 ppb	00:14:19
3	Cu 324.752†	186837.4	175498.3	513.46 ug/L	513.46 ppb	00:14:19
3	Mn 257.610†	451096.5	446918.4	542.42 ug/L	542.42 ppb	00:14:14
3	Mo 202.031†	7434.8	7354.1	543.59 ug/L	543.59 ppb	00:14:39
3	Ni 231.604†	20543.1	20272.9	556.79 ug/L	556.79 ppb	00:14:19
3	P 214.914†	4622.4	4364.8	2607.8 ug/L	2607.8 ppb	00:14:39
3	Pb 220.353†	3967.5	3981.1	553.43 ug/L	553.43 ppb	00:14:39
3	S 181.975 Axial†	771.1	723.5	1095.5 ug/L	1095.5 ppb	00:14:39
3	Sb 206.836†	1491.8	1443.8	545.18 ug/L	545.18 ppb	00:14:39
3	Se 196.026†	840.8	848.2	550.76 ug/L	550.76 ppb	00:14:39
3	Si 251.611†	86055.4	84796.8	2700.2 ug/L	2700.2 ppb	00:14:19
3	Sn 189.927†	2715.0	2691.7	549.21 ug/L	549.21 ppb	00:14:39
3	Ti 334.940†	327283.2	325573.4	514.20 ug/L	514.20 ppb	00:14:19
3	Tl 190.801†	1550.3	1568.3	548.81 ug/L	548.81 ppb	00:14:39
3	U 409.014†	19270.0	20043.9	515.59 ug/L	515.59 ppb	00:14:19
3	V 292.402†	80793.6	81541.5	550.64 ug/L	550.64 ppb	00:14:19
3	Zn 213.857†	55640.9	54532.0	546.76 ug/L	546.76 ppb	00:14:19
3	SiO2†	86560.9	85286.6	5793.2 ug/L	5793.2 ppb	00:14:55

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	881963.3	101.13 %	0.647			0.64%
Sc Radial	4995.8	92.6 %	1.75			1.89%
Y 371.029	774606.2	99.128 %	0.6200			0.63%
Y RADIAL	5368.3	92.47 %	1.784			1.93%
Ag 328.068†	119029.3	528.00 ug/L	6.279	528.00 ppb	6.279	1.19%
QC value within limits for Ag 328.068 Recovery = 105.60%						
Al 396.153Radial†	6913.3	5385.9 ug/L	141.89	5385.9 ppb	141.89	2.63%
QC value within limits for Al 396.153Radial Recovery = 107.72%						
As 188.979†	1223.7	552.03 ug/L	3.936	552.03 ppb	3.936	0.71%
QC value greater than the upper limit for As 188.979 Recovery = 110.41%						
B 249.677†	22591.7	518.43 ug/L	6.055	518.43 ppb	6.055	1.17%
QC value within limits for B 249.677 Recovery = 103.69%						
Ba 233.527†	63046.6	542.01 ug/L	6.742	542.01 ppb	6.742	1.24%
QC value within limits for Ba 233.527 Recovery = 108.40%						
Be 313.107†	1458856.0	550.57 ug/L	0.239	550.57 ppb	0.239	0.04%
QC value greater than the upper limit for Be 313.107 Recovery = 110.11%						
Ca 317.933Radial†	3398.9	5628.7 ug/L	111.26	5628.7 ppb	111.26	1.98%

QC value greater than the upper limit for Ca 317.933Radial Recovery = 112.57%							
Cd	226.502†	44792.9	552.21 ug/L	6.904	552.21 ppb	6.904	1.25%
QC value greater than the upper limit for Cd 226.502 Recovery = 110.44%							
Co	228.616†	22962.4	549.95 ug/L	6.130	549.95 ppb	6.130	1.11%
QC value within limits for Co 228.616 Recovery = 109.99%							
Cr	267.716†	46873.6	551.84 ug/L	7.322	551.84 ppb	7.322	1.33%
QC value greater than the upper limit for Cr 267.716 Recovery = 110.37%							
Cu	324.752†	175549.6	513.61 ug/L	7.290	513.61 ppb	7.290	1.42%
QC value within limits for Cu 324.752 Recovery = 102.72%							
Fe	238.204 Radial†	584.4	5488.5 ug/L	140.45	5488.5 ppb	140.45	2.56%
QC value within limits for Fe 238.204 Radial Recovery = 109.77%							
K	766.490 Radial†	30186.3	5615.6 ug/L	128.29	5615.6 ppb	128.29	2.28%
QC value greater than the upper limit for K 766.490 Radial Recovery = 112.31%							
Mg	279.077 IEC†	157.5	5781.4 ug/L	100.60	5781.4 ppb	100.60	1.74%
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 115.63%							
Mn	257.610†	446271.7	541.62 ug/L	0.880	541.62 ppb	0.880	0.16%
QC value within limits for Mn 257.610 Recovery = 108.32%							
Mo	202.031†	7328.7	541.70 ug/L	2.550	541.70 ppb	2.550	0.47%
QC value within limits for Mo 202.031 Recovery = 108.34%							
Na	589.592 Radial†	33135.1	10213 ug/L	227.4	10213 ppb	227.4	2.23%
QC value within limits for Na 589.592 Radial Recovery = 102.13%							
Ni	231.604†	20172.6	554.04 ug/L	7.611	554.04 ppb	7.611	1.37%
QC value greater than the upper limit for Ni 231.604 Recovery = 110.81%							
P	214.914†	4353.5	2600.7 ug/L	7.23	2600.7 ppb	7.23	0.28%
QC value within limits for P 214.914 Recovery = 104.03%							
Pb	220.353†	3969.1	551.76 ug/L	2.084	551.76 ppb	2.084	0.38%
QC value greater than the upper limit for Pb 220.353 Recovery = 110.35%							
S	181.975 Axial†	722.4	1093.7 ug/L	2.89	1093.7 ppb	2.89	0.26%
QC value within limits for S 181.975 Axial Recovery = 109.37%							
Sb	206.836†	1436.2	542.36 ug/L	2.654	542.36 ppb	2.654	0.49%
QC value within limits for Sb 206.836 Recovery = 108.47%							
Se	196.026†	849.2	551.04 ug/L	0.808	551.04 ppb	0.808	0.15%
QC value greater than the upper limit for Se 196.026 Recovery = 110.21%							
Si	251.611†	84501.6	2690.8 ug/L	37.16	2690.8 ppb	37.16	1.38%
QC value within limits for Si 251.611 Recovery = 107.63%							
Sn	189.927†	2687.1	548.25 ug/L	3.485	548.25 ppb	3.485	0.64%
QC value within limits for Sn 189.927 Recovery = 109.65%							
Sr	421.552†	80854.0	526.54 ug/L	13.221	526.54 ppb	13.221	2.51%
QC value within limits for Sr 421.552 Recovery = 105.31%							
Ti	334.940†	324667.9	512.76 ug/L	6.792	512.76 ppb	6.792	1.32%
QC value within limits for Ti 334.940 Recovery = 102.55%							
Tl	190.801†	1564.8	547.60 ug/L	4.918	547.60 ppb	4.918	0.90%
QC value within limits for Tl 190.801 Recovery = 109.52%							
U	409.014†	19950.3	513.19 ug/L	7.467	513.19 ppb	7.467	1.45%
QC value within limits for U 409.014 Recovery = 102.64%							
V	292.402†	81231.9	548.56 ug/L	7.027	548.56 ppb	7.027	1.28%
QC value within limits for V 292.402 Recovery = 109.71%							
Zn	213.857†	54276.9	544.21 ug/L	6.561	544.21 ppb	6.561	1.21%
QC value within limits for Zn 213.857 Recovery = 108.84%							
SiO2†		84734.7	5755.7 ug/L	43.67	5755.7 ppb	43.67	0.76%
QC value within limits for SiO2 Recovery = 107.63%							
QC Failed. Continue with analysis.							

Sequence No.: 87

Sample ID: CCB

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/26/2010 00:17:05

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5171.4	5171.4	95.9 %		00:18:56
1	Y RADIAL	5576.3	5576.3	96.06 %		00:18:56
1	Al 396.153Radial†	13.6	10.1	7.9190 ug/L	7.9190 ppb	00:19:16
1	Ca 317.933Radial†	21.0	2.5	4.1021 ug/L	4.1021 ppb	00:19:16
1	Fe 238.204 Radial†	6.2	-1.5	-14.213 ug/L	-14.213 ppb	00:19:16
1	K 766.490 Radial†	2577.9	717.6	133.68 ug/L	133.68 ppb	00:18:56
1	Mg 279.077 IEC†	4.2	2.0	73.137 ug/L	73.137 ppb	00:19:16
1	Na 589.592 Radial†	-605.6	-208.1	-64.148 ug/L	-64.148 ppb	00:18:56
1	Sr 421.552†	6.8	-7.9	-0.0517 ug/L	-0.0517 ppb	00:18:56
1	Sc 361.383	893891.6	893891.6	102.50 %		00:20:13
1	Y 371.029	792886.2	792886.2	101.47 %		00:20:13
1	Ag 328.068†	499.1	192.3	0.8549 ug/L	0.8549 ppb	00:20:18
1	As 188.979†	-34.2	-2.8	-1.2412 ug/L	-1.2412 ppb	00:20:38
1	B 249.677†	-110.3	202.1	4.6605 ug/L	4.6605 ppb	00:20:38
1	Ba 233.527†	35.3	39.9	0.3429 ug/L	0.3429 ppb	00:20:38
1	Be 313.107†	-4818.0	892.3	0.3367 ug/L	0.3367 ppb	00:20:18
1	Cd 226.502†	-186.9	-3.1	-0.0383 ug/L	-0.0383 ppb	00:20:38
1	Co 228.616†	-51.9	8.5	0.2029 ug/L	0.2029 ppb	00:20:38
1	Cr 267.716†	84.9	3.3	0.0445 ug/L	0.0445 ppb	00:20:38
1	Cu 324.752†	8908.8	-1148.3	-3.3538 ug/L	-3.3538 ppb	00:20:18
1	Mn 257.610†	612.7	39.9	0.0439 ug/L	0.0439 ppb	00:20:38
1	Mo 202.031†	24.4	2.8	0.2035 ug/L	0.2035 ppb	00:20:38
1	Ni 231.604†	124.0	15.7	0.4308 ug/L	0.4308 ppb	00:20:38
1	P 214.914†	204.3	-21.2	-12.465 ug/L	-12.465 ppb	00:20:38
1	Pb 220.353†	-52.8	-6.1	-0.8385 ug/L	-0.8385 ppb	00:20:38
1	S 181.975 Axial†	36.0	-6.3	-9.4980 ug/L	-9.4980 ppb	00:20:38
1	Sb 206.836†	22.5	-14.1	-5.1380 ug/L	-5.1380 ppb	00:20:38
1	Se 196.026†	-15.2	-0.7	-0.4925 ug/L	-0.4925 ppb	00:20:38
1	Si 251.611†	577.9	-4.1	-0.1349 ug/L	-0.1349 ppb	00:20:38
1	Sn 189.927†	0.2	-1.3	-0.2568 ug/L	-0.2568 ppb	00:20:38
1	Ti 334.940†	-759.8	175.6	0.2771 ug/L	0.2771 ppb	00:20:18
1	Tl 190.801†	-35.8	-4.5	-1.5607 ug/L	-1.5607 ppb	00:20:38
1	U 409.014†	-1415.6	-452.5	-11.680 ug/L	-11.680 ppb	00:20:18
1	V 292.402†	-1338.2	90.7	0.5884 ug/L	0.5884 ppb	00:20:18
1	Zn 213.857†	756.7	75.9	0.7706 ug/L	0.7706 ppb	00:20:38
1	SiO2†	577.6	-16.0	-1.0981 ug/L	-1.0981 ppb	00:21:59
2	Sc Radial	5051.5	5051.5	93.7 %		00:19:21
2	Y RADIAL	5435.7	5435.7	93.63 %		00:19:21
2	Al 396.153Radial†	6.0	2.4	1.8323 ug/L	1.8323 ppb	00:19:41
2	Ca 317.933Radial†	19.8	1.8	2.9357 ug/L	2.9357 ppb	00:19:41
2	Fe 238.204 Radial†	10.1	2.8	25.855 ug/L	25.855 ppb	00:19:41
2	K 766.490 Radial†	2625.6	832.4	155.05 ug/L	155.05 ppb	00:19:21
2	Mg 279.077 IEC†	2.0	-0.3	-11.352 ug/L	-11.352 ppb	00:19:41
2	Na 589.592 Radial†	-569.9	-185.0	-57.023 ug/L	-57.023 ppb	00:19:21
2	Sr 421.552†	10.5	-3.8	-0.0250 ug/L	-0.0250 ppb	00:19:21
2	Sc 361.383	897750.5	897750.5	102.94 %		00:20:43
2	Y 371.029	794868.8	794868.8	101.72 %		00:20:43
2	Ag 328.068†	437.4	130.3	0.5944 ug/L	0.5944 ppb	00:20:48
2	As 188.979†	-25.8	5.6	2.5173 ug/L	2.5173 ppb	00:21:08
2	B 249.677†	-141.3	172.5	3.9718 ug/L	3.9718 ppb	00:21:08
2	Ba 233.527†	23.9	28.7	0.2483 ug/L	0.2483 ppb	00:21:08
2	Be 313.107†	-4777.9	951.5	0.3589 ug/L	0.3589 ppb	00:20:48
2	Cd 226.502†	-186.6	-2.0	-0.0295 ug/L	-0.0295 ppb	00:21:08
2	Co 228.616†	-47.2	13.2	0.3160 ug/L	0.3160 ppb	00:21:08
2	Cr 267.716†	78.3	-3.5	-0.0350 ug/L	-0.0350 ppb	00:21:08
2	Cu 324.752†	8754.0	-1336.0	-3.9010 ug/L	-3.9010 ppb	00:20:48
2	Mn 257.610†	606.4	31.2	0.0409 ug/L	0.0409 ppb	00:21:08
2	Mo 202.031†	29.6	7.7	0.5711 ug/L	0.5711 ppb	00:21:08
2	Ni 231.604†	135.7	26.6	0.7304 ug/L	0.7304 ppb	00:21:08

2	P 214.914†	203.3	-23.0	-13.511 ug/L	-13.511 ppb	00:21:08
2	Pb 220.353†	-67.5	-20.2	-2.7925 ug/L	-2.7925 ppb	00:21:08
2	S 181.975 Axial†	43.4	0.8	1.1999 ug/L	1.1999 ppb	00:21:08
2	Sb 206.836†	23.9	-12.9	-4.6507 ug/L	-4.6507 ppb	00:21:08
2	Se 196.026†	-20.0	-5.3	-3.2234 ug/L	-3.2234 ppb	00:21:08
2	Si 251.611†	577.7	-6.8	-0.2235 ug/L	-0.2235 ppb	00:21:08
2	Sn 189.927†	7.6	5.9	1.2022 ug/L	1.2022 ppb	00:21:08
2	Ti 334.940†	-773.2	165.8	0.2683 ug/L	0.2683 ppb	00:20:48
2	Tl 190.801†	-34.9	-3.4	-1.1901 ug/L	-1.1901 ppb	00:21:08
2	U 409.014†	-1417.8	-448.8	-11.589 ug/L	-11.589 ppb	00:20:48
2	V 292.402†	-1346.8	88.0	0.5679 ug/L	0.5679 ppb	00:20:48
2	Zn 213.857†	740.8	57.3	0.5774 ug/L	0.5774 ppb	00:21:08
2	SiO2†	580.8	-15.4	-1.0609 ug/L	-1.0609 ppb	00:22:19
3	Sc Radial	5068.0	5068.0	94.0 %		00:19:46
3	Y RADIAL	5469.4	5469.4	94.21 %		00:19:46
3	Al 396.153Radial†	18.1	15.2	11.860 ug/L	11.860 ppb	00:20:06
3	Ca 317.933Radial†	23.0	5.1	8.4652 ug/L	8.4652 ppb	00:20:06
3	Fe 238.204 Radial†	6.7	-0.9	-8.7630 ug/L	-8.7630 ppb	00:20:06
3	K 766.490 Radial†	2456.2	643.0	119.78 ug/L	119.78 ppb	00:19:46
3	Mg 279.077 IEC†	1.0	-1.3	-49.381 ug/L	-49.381 ppb	00:20:06
3	Na 589.592 Radial†	-597.6	-212.5	-65.501 ug/L	-65.501 ppb	00:19:46
3	Sr 421.552†	13.4	-0.8	-0.0054 ug/L	-0.0054 ppb	00:19:46
3	Sc 361.383	906155.3	906155.3	103.91 %		00:21:13
3	Y 371.029	802247.4	802247.4	102.67 %		00:21:13
3	Ag 328.068†	402.2	92.5	0.4160 ug/L	0.4160 ppb	00:21:19
3	As 188.979†	-21.3	10.2	4.5532 ug/L	4.5532 ppb	00:21:39
3	B 249.677†	-154.1	161.4	3.7224 ug/L	3.7224 ppb	00:21:39
3	Ba 233.527†	13.4	18.4	0.1580 ug/L	0.1580 ppb	00:21:39
3	Be 313.107†	-4778.9	993.6	0.3749 ug/L	0.3749 ppb	00:21:19
3	Cd 226.502†	-178.2	7.7	0.0940 ug/L	0.0940 ppb	00:21:39
3	Co 228.616†	-43.7	17.0	0.4059 ug/L	0.4059 ppb	00:21:39
3	Cr 267.716†	91.4	8.4	0.1046 ug/L	0.1046 ppb	00:21:39
3	Cu 324.752†	8753.7	-1415.2	-4.1339 ug/L	-4.1339 ppb	00:21:19
3	Mn 257.610†	599.9	19.4	0.0247 ug/L	0.0247 ppb	00:21:39
3	Mo 202.031†	23.9	1.9	0.1426 ug/L	0.1426 ppb	00:21:39
3	Ni 231.604†	118.6	8.9	0.2436 ug/L	0.2436 ppb	00:21:39
3	P 214.914†	206.8	-21.5	-12.488 ug/L	-12.488 ppb	00:21:39
3	Pb 220.353†	-54.9	-7.5	-1.0271 ug/L	-1.0271 ppb	00:21:39
3	S 181.975 Axial†	43.6	0.5	0.8126 ug/L	0.8126 ppb	00:21:39
3	Sb 206.836†	15.8	-20.8	-7.5785 ug/L	-7.5785 ppb	00:21:39
3	Se 196.026†	-17.8	-3.0	-1.9153 ug/L	-1.9153 ppb	00:21:39
3	Si 251.611†	570.2	-19.2	-0.6142 ug/L	-0.6142 ppb	00:21:39
3	Sn 189.927†	-2.4	-3.8	-0.7752 ug/L	-0.7752 ppb	00:21:39
3	Ti 334.940†	-745.0	199.9	0.3264 ug/L	0.3264 ppb	00:21:19
3	Tl 190.801†	-29.1	2.5	0.8715 ug/L	0.8715 ppb	00:21:39
3	U 409.014†	-1467.9	-484.2	-12.499 ug/L	-12.499 ppb	00:21:19
3	V 292.402†	-1398.1	50.8	0.3165 ug/L	0.3165 ppb	00:21:19
3	Zn 213.857†	749.5	59.0	0.6015 ug/L	0.6015 ppb	00:21:39
3	SiO2†	586.6	-15.1	-1.0308 ug/L	-1.0308 ppb	00:22:39

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	899265.8	103.12 %		0.719				0.70%
Sc Radial	5097.0	94.5 %		1.21				1.28%
Y 371.029	796667.5	101.95 %		0.631				0.62%
Y RADIAL	5493.8	94.64 %		1.265				1.34%
Ag 328.068†	138.4	0.6218 ug/L		0.22071	0.6218 ppb		0.22071	35.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.2	7.2038 ug/L		5.05204	7.2038 ppb		5.05204	70.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.3	1.9431 ug/L		2.93955	1.9431 ppb		2.93955	151.28%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	178.7	4.1182 ug/L		0.48592	4.1182 ppb		0.48592	11.80%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	29.0	0.2497 ug/L		0.09245	0.2497 ppb		0.09245	37.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	945.8	0.3568 ug/L		0.01920	0.3568 ppb		0.01920	5.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.1	5.1676 ug/L		2.91470	5.1676 ppb		2.91470	56.40%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	0.9	0.0087 ug/L	0.07398	0.0087 ppb	0.07398	847.11%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	12.9	0.3083 ug/L	0.10170	0.3083 ppb	0.10170	32.99%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	2.8	0.0380 ug/L	0.07000	0.0380 ppb	0.07000	184.04%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-1299.8	-3.7962 ug/L	0.40047	-3.7962 ppb	0.40047	10.55%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.1	0.9597 ug/L	21.73127	0.9597 ppb	21.73127	>999.9%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	731.0	136.17 ug/L	17.768	136.17 ppb	17.768	13.05%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.1	4.1347 ug/L	62.70963	4.1347 ppb	62.70963	>999.9%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	30.2	0.0365 ug/L	0.01033	0.0365 ppb	0.01033	28.31%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	4.1	0.3057 ug/L	0.23182	0.3057 ppb	0.23182	75.83%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-201.9	-62.224 ug/L	4.5549	-62.224 ppb	4.5549	7.32%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	17.0	0.4683 ug/L	0.24553	0.4683 ppb	0.24553	52.43%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-21.9	-12.821 ug/L	0.5972	-12.821 ppb	0.5972	4.66%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-11.2	-1.5527 ug/L	1.07783	-1.5527 ppb	1.07783	69.42%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-1.6	-2.4952 ug/L	6.06772	-2.4952 ppb	6.06772	243.18%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-15.9	-5.7891 ug/L	1.56876	-5.7891 ppb	1.56876	27.10%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-3.0	-1.8771 ug/L	1.36585	-1.8771 ppb	1.36585	72.76%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-10.0	-0.3242 ug/L	0.25505	-0.3242 ppb	0.25505	78.67%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	0.3	0.0567 ug/L	1.02527	0.0567 ppb	1.02527	>999.9%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-4.2	-0.0274 ug/L	0.02326	-0.0274 ppb	0.02326	84.96%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	180.4	0.2906 ug/L	0.03129	0.2906 ppb	0.03129	10.77%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-1.8	-0.6265 ug/L	1.31040	-0.6265 ppb	1.31040	209.17%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-461.8	-11.923 ug/L	0.5011	-11.923 ppb	0.5011	4.20%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	76.5	0.4909 ug/L	0.15143	0.4909 ppb	0.15143	30.85%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	64.0	0.6498 ug/L	0.10527	0.6498 ppb	0.10527	16.20%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-15.5	-1.0633 ug/L	0.03367	-1.0633 ppb	0.03367	3.17%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 88

Sample ID: 244144003|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 87

Date Collected: 1/26/2010 00:24:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144003|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5110.0	5110.0	94.8 %		00:27:02
1	Y RADIAL	6209.8	6209.8	107.0 %		00:27:02
1	Al 396.153Radial†	121236.5	127941.3	100160 ug/L	100160 ppb	00:26:42
1	Ca 317.933Radial†	12758.6	13445.3	22266 ug/L	22266 ppb	00:26:42
1	Fe 238.204 Radial†	11907.8	12558.7	117600 ug/L	117600 ppb	00:26:42
1	K 766.490 Radial†	93010.1	96186.3	17906 ug/L	17906 ppb	00:26:42
1	Mg 279.077 IEC†	465.1	488.4	17801 ug/L	17801 ppb	00:27:02
1	Na 589.592 Radial†	1302.6	1798.0	554.22 ug/L	554.22 ppb	00:26:42
1	Sr 421.552†	36754.2	38773.0	252.35 ug/L	252.35 ppb	00:26:42
1	Sc 361.383	911613.4	911613.4	104.53 %		00:28:01
1	Y 371.029	906628.0	906628.0	116.02 %		00:28:01
1	Ag 328.068†	-7403.4	-7376.9	6.4494 ug/L	6.4494 ppb	00:28:21
1	As 188.979†	-49.4	-16.6	62.554 ug/L	62.554 ppb	00:28:21
1	B 249.677†	1178.1	1436.7	13.836 ug/L	13.836 ppb	00:28:01
1	Ba 233.527†	366946.1	351037.4	3014.4 ug/L	3014.4 ppb	00:28:01
1	Be 313.107†	-17914.7	-11545.0	6.7696 ug/L	6.7696 ppb	00:28:01
1	Cd 226.502†	998.2	1134.1	1.8646 ug/L	1.8646 ppb	00:28:21
1	Co 228.616†	2860.5	2795.5	56.345 ug/L	56.345 ppb	00:28:21
1	Cr 267.716†	15291.1	14548.4	173.79 ug/L	173.79 ppb	00:28:21
1	Cu 324.752†	52546.5	40427.9	124.62 ug/L	124.62 ppb	00:28:01
1	Mn 257.610†	3500112.1	3347757.0	4071.6 ug/L	4071.6 ppb	00:28:01
1	Mo 202.031†	-24.6	-44.5	6.1049 ug/L	6.1049 ppb	00:28:21
1	Ni 231.604†	4220.8	3932.5	108.03 ug/L	108.03 ppb	00:28:21
1	P 214.914†	2114.7	1802.4	1024.7 ug/L	1024.7 ppb	00:28:21
1	Pb 220.353†	939.3	943.9	141.29 ug/L	141.29 ppb	00:28:21
1	S 181.975 Axial†	653.0	583.3	865.18 ug/L	865.18 ppb	00:28:21
1	Sb 206.836†	80.6	41.1	-0.6358 ug/L	-0.6358 ppb	00:28:21
1	Se 196.026†	-699.1	-654.7	-14.071 ug/L	-14.071 ppb	00:28:21
1	Si 251.611†	1358585.0	1299096.2	41469 ug/L	41469 ppb	00:28:01
1	Sn 189.927†	-125.1	-121.2	-19.319 ug/L	-19.319 ppb	00:28:21
1	Ti 334.940†	3239362.2	3099790.3	4898.5 ug/L	4898.5 ppb	00:28:01
1	Tl 190.801†	-225.6	-185.3	-5.1749 ug/L	-5.1749 ppb	00:28:21
1	U 409.014†	-9491.7	-8151.5	-224.24 ug/L	-224.24 ppb	00:28:01
1	V 292.402†	37441.7	37214.2	225.53 ug/L	225.53 ppb	00:28:01
1	Zn 213.857†	34761.1	32591.3	317.38 ug/L	317.38 ppb	00:28:01
1	SiO2†	1349546.9	1290438.5	87879 ug/L	87879 ppb	00:29:21
2	Sc Radial	5094.7	5094.7	94.5 %		00:27:27
2	Y RADIAL	6173.2	6173.2	106.3 %		00:27:27
2	Al 396.153Radial†	118109.6	125014.4	97869 ug/L	97869 ppb	00:27:07
2	Ca 317.933Radial†	12518.9	13231.8	21913 ug/L	21913 ppb	00:27:07
2	Fe 238.204 Radial†	11654.9	12328.7	115450 ug/L	115450 ppb	00:27:07
2	K 766.490 Radial†	91129.2	94489.2	17590 ug/L	17590 ppb	00:27:07
2	Mg 279.077 IEC†	468.4	493.4	17984 ug/L	17984 ppb	00:27:27
2	Na 589.592 Radial†	1243.2	1739.3	536.11 ug/L	536.11 ppb	00:27:07
2	Sr 421.552†	35685.1	37757.5	245.74 ug/L	245.74 ppb	00:27:07
2	Sc 361.383	910935.6	910935.6	104.46 %		00:28:28
2	Y 371.029	906150.2	906150.2	115.96 %		00:28:28
2	Ag 328.068†	-7456.5	-7433.0	5.5031 ug/L	5.5031 ppb	00:28:48
2	As 188.979†	-42.1	-9.6	65.072 ug/L	65.072 ppb	00:28:48
2	B 249.677†	1205.2	1463.5	14.803 ug/L	14.803 ppb	00:28:28
2	Ba 233.527†	365451.9	349868.1	3004.3 ug/L	3004.3 ppb	00:28:28
2	Be 313.107†	-18125.1	-11759.1	6.6655 ug/L	6.6655 ppb	00:28:28
2	Cd 226.502†	1018.1	1153.9	2.3318 ug/L	2.3318 ppb	00:28:48
2	Co 228.616†	2872.4	2808.9	56.715 ug/L	56.715 ppb	00:28:48
2	Cr 267.716†	15390.0	14654.0	174.99 ug/L	174.99 ppb	00:28:48
2	Cu 324.752†	52425.0	40348.9	124.27 ug/L	124.27 ppb	00:28:28
2	Mn 257.610†	3486371.6	3337094.1	4058.5 ug/L	4058.5 ppb	00:28:28
2	Mo 202.031†	-17.7	-38.0	6.4175 ug/L	6.4175 ppb	00:28:48
2	Ni 231.604†	4220.1	3934.9	108.09 ug/L	108.09 ppb	00:28:48

2	P 214.914†	2120.3	1809.3	1030.2 ug/L	1030.2 ppb	00:28:48
2	Pb 220.353†	952.1	956.9	142.80 ug/L	142.80 ppb	00:28:48
2	S 181.975 Axial†	656.5	587.1	871.49 ug/L	871.49 ppb	00:28:48
2	Sb 206.836†	77.3	38.0	-1.7207 ug/L	-1.7207 ppb	00:28:48
2	Se 196.026†	-716.1	-671.4	-31.789 ug/L	-31.789 ppb	00:28:48
2	Si 251.611†	1353415.4	1295114.3	41342 ug/L	41342 ppb	00:28:28
2	Sn 189.927†	-123.0	-119.2	-19.014 ug/L	-19.014 ppb	00:28:48
2	Ti 334.940†	3230131.4	3093259.2	4888.2 ug/L	4888.2 ppb	00:28:28
2	Tl 190.801†	-224.1	-184.1	-4.8752 ug/L	-4.8752 ppb	00:28:48
2	U 409.014†	-9303.1	-7977.7	-219.51 ug/L	-219.51 ppb	00:28:28
2	V 292.402†	37311.2	37115.9	225.22 ug/L	225.22 ppb	00:28:28
2	Zn 213.857†	34654.8	32514.2	316.80 ug/L	316.80 ppb	00:28:28
2	SiO2†	1346009.7	1288012.8	87714 ug/L	87714 ppb	00:29:27
3	Sc Radial	5137.6	5137.6	95.3 %		00:27:52
3	Y RADIAL	6235.8	6235.8	107.4 %		00:27:52
3	Al 396.153Radial†	119606.1	125542.3	98282 ug/L	98282 ppb	00:27:32
3	Ca 317.933Radial†	12661.3	13270.7	21977 ug/L	21977 ppb	00:27:32
3	Fe 238.204 Radial†	11731.1	12305.7	115240 ug/L	115240 ppb	00:27:32
3	K 766.490 Radial†	91699.8	94283.4	17551 ug/L	17551 ppb	00:27:32
3	Mg 279.077 IEC†	468.3	489.2	17830 ug/L	17830 ppb	00:27:52
3	Na 589.592 Radial†	1281.2	1768.2	545.03 ug/L	545.03 ppb	00:27:32
3	Sr 421.552†	36089.7	37867.0	246.45 ug/L	246.45 ppb	00:27:32
3	Sc 361.383	920843.1	920843.1	105.59 %		00:28:54
3	Y 371.029	916111.5	916111.5	117.24 %		00:28:54
3	Ag 328.068†	-7434.5	-7335.4	5.8609 ug/L	5.8609 ppb	00:29:15
3	As 188.979†	-46.0	-13.0	63.541 ug/L	63.541 ppb	00:29:15
3	B 249.677†	1115.0	1365.6	12.586 ug/L	12.586 ppb	00:28:54
3	Ba 233.527†	369890.6	350307.5	3008.1 ug/L	3008.1 ppb	00:28:54
3	Be 313.107†	-18422.9	-11854.5	6.6305 ug/L	6.6305 ppb	00:28:54
3	Cd 226.502†	1007.1	1133.0	2.0962 ug/L	2.0962 ppb	00:29:15
3	Co 228.616†	2844.9	2753.3	55.390 ug/L	55.390 ppb	00:29:15
3	Cr 267.716†	15372.1	14478.5	172.92 ug/L	172.92 ppb	00:29:15
3	Cu 324.752†	52881.6	40241.4	123.95 ug/L	123.95 ppb	00:28:54
3	Mn 257.610†	3524662.7	3337447.1	4058.9 ug/L	4058.9 ppb	00:28:54
3	Mo 202.031†	-14.6	-34.9	6.6293 ug/L	6.6293 ppb	00:29:15
3	Ni 231.604†	4222.6	3893.7	106.96 ug/L	106.96 ppb	00:29:15
3	P 214.914†	2100.3	1768.6	1005.2 ug/L	1005.2 ppb	00:29:15
3	Pb 220.353†	942.8	938.3	140.33 ug/L	140.33 ppb	00:29:15
3	S 181.975 Axial†	654.3	578.2	857.88 ug/L	857.88 ppb	00:29:15
3	Sb 206.836†	88.7	48.0	1.9299 ug/L	1.9299 ppb	00:29:15
3	Se 196.026†	-705.4	-653.9	-21.540 ug/L	-21.540 ppb	00:29:15
3	Si 251.611†	1369006.2	1295939.0	41369 ug/L	41369 ppb	00:28:54
3	Sn 189.927†	-120.9	-116.0	-18.352 ug/L	-18.352 ppb	00:29:15
3	Ti 334.940†	3265523.5	3093506.0	4888.6 ug/L	4888.6 ppb	00:28:54
3	Tl 190.801†	-221.3	-179.1	-3.1262 ug/L	-3.1262 ppb	00:29:15
3	U 409.014†	-9289.7	-7869.3	-216.68 ug/L	-216.68 ppb	00:28:54
3	V 292.402†	37729.7	37127.9	225.33 ug/L	225.33 ppb	00:28:54
3	Zn 213.857†	34980.2	32465.4	316.34 ug/L	316.34 ppb	00:28:54
3	SiO2†	1355018.5	1282680.4	87351 ug/L	87351 ppb	00:29:33

Mean Data: 244144003|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	914464.1	104.86 %		0.635				0.61%
Sc Radial	5114.1	94.8 %		0.40				0.42%
Y 371.029	909629.9	116.41 %		0.719				0.62%
Y RADIAL	6206.3	106.9 %		0.54				0.51%
Ag 328.068†	-7381.8	5.9378 ug/L		0.47786	5.9378 ppb		0.47786	8.05%
Al 396.153Radial†	126166.0	98770 ug/L		1221.2	98770 ppb		1221.2	1.24%
As 188.979†	-13.1	63.722 ug/L		1.2687	63.722 ppb		1.2687	1.99%
B 249.677†	1421.9	13.741 ug/L		1.1116	13.741 ppb		1.1116	8.09%
Ba 233.527†	350404.4	3008.9 ug/L		5.10	3008.9 ppb		5.10	0.17%
Be 313.107†	-11719.5	6.6885 ug/L		0.07234	6.6885 ppb		0.07234	1.08%
Ca 317.933Radial†	13315.9	22052 ug/L		188.3	22052 ppb		188.3	0.85%
Cd 226.502†	1140.3	2.0975 ug/L		0.23362	2.0975 ppb		0.23362	11.14%
Co 228.616†	2785.9	56.150 ug/L		0.6836	56.150 ppb		0.6836	1.22%
Cr 267.716†	14560.3	173.90 ug/L		1.039	173.90 ppb		1.039	0.60%
Cu 324.752†	40339.4	124.28 ug/L		0.338	124.28 ppb		0.338	0.27%
Fe 238.204 Radial†	12397.7	116100 ug/L		1310.1	116100 ppb		1310.1	1.13%
K 766.490 Radial†	94986.3	17682 ug/L		194.4	17682 ppb		194.4	1.10%



Mg 279.077 IEC†	490.3	17872 ug/L	98.0	17872 ppb	98.0	0.55%
Mn 257.610†	3340766.1	4063.0 ug/L	7.48	4063.0 ppb	7.48	0.18%
Mo 202.031†	-39.1	6.3839 ug/L	0.26377	6.3839 ppb	0.26377	4.13%
Na 589.592 Radial†	1768.5	545.12 ug/L	9.055	545.12 ppb	9.055	1.66%
Ni 231.604†	3920.3	107.70 ug/L	0.635	107.70 ppb	0.635	0.59%
P 214.914†	1793.4	1020.0 ug/L	13.10	1020.0 ppb	13.10	1.28%
Pb 220.353†	946.3	141.47 ug/L	1.242	141.47 ppb	1.242	0.88%
S 181.975 Axial†	582.9	864.85 ug/L	6.808	864.85 ppb	6.808	0.79%
Sb 206.836†	42.4	-0.1422 ug/L	1.87472	-0.1422 ppb	1.87472	>999.9%
Se 196.026†	-660.0	-22.467 ug/L	8.8952	-22.467 ppb	8.8952	39.59%
Si 251.611†	1296716.5	41393 ug/L	67.1	41393 ppb	67.1	0.16%
Sn 189.927†	-118.8	-18.895 ug/L	0.4944	-18.895 ppb	0.4944	2.62%
Sr 421.552†	38132.5	248.18 ug/L	3.629	248.18 ppb	3.629	1.46%
Ti 334.940†	3095518.5	4891.8 ug/L	5.88	4891.8 ppb	5.88	0.12%
Tl 190.801†	-182.8	-4.3921 ug/L	1.10649	-4.3921 ppb	1.10649	25.19%
U 409.014†	-7999.5	-220.14 ug/L	3.819	-220.14 ppb	3.819	1.73%
V 292.402†	37152.6	225.36 ug/L	0.157	225.36 ppb	0.157	0.07%
Zn 213.857†	32523.6	316.84 ug/L	0.518	316.84 ppb	0.518	0.16%
SiO2†	1287043.9	87648 ug/L	270.3	87648 ppb	270.3	0.31%

Sequence No.: 89

Sample ID: 244144004|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 88

Date Collected: 1/26/2010 00:31:44

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144004|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5164.1	5164.1	95.8 %		00:33:57
1	Y RADIAL	6166.6	6166.6	106.2 %		00:33:57
1	Al 396.153Radial†	182091.0	190149.2	148860 ug/L	148860 ppb	00:33:37
1	Ca 317.933Radial†	11692.4	12190.7	20189 ug/L	20189 ppb	00:33:37
1	Fe 238.204 Radial†	13699.4	14297.9	133890 ug/L	133890 ppb	00:33:37
1	K 766.490 Radial†	98215.5	100593.5	18727 ug/L	18727 ppb	00:33:37
1	Mg 279.077 IEC†	602.5	626.8	22860 ug/L	22860 ppb	00:33:57
1	Na 589.592 Radial†	2181.0	2700.9	832.52 ug/L	832.52 ppb	00:33:37
1	Sr 421.552†	39833.9	41582.5	270.66 ug/L	270.66 ppb	00:33:37
1	Sc 361.383	886111.9	886111.9	101.61 %		00:34:55
1	Y 371.029	865231.0	865231.0	110.73 %		00:34:55
1	Ag 328.068†	-9469.4	-9614.0	2.1372 ug/L	2.1372 ppb	00:35:01
1	As 188.979†	-51.1	-19.6	75.563 ug/L	75.563 ppb	00:35:21
1	B 249.677†	1194.1	1484.9	12.288 ug/L	12.288 ppb	00:35:01
1	Ba 233.527†	234213.6	230509.6	1981.5 ug/L	1981.5 ppb	00:35:01
1	Be 313.107†	-19262.7	-13364.8	8.8464 ug/L	8.8464 ppb	00:35:01
1	Cd 226.502†	1203.4	1363.6	2.9930 ug/L	2.9930 ppb	00:35:21
1	Co 228.616†	2978.9	2990.7	57.758 ug/L	57.758 ppb	00:35:21
1	Cr 267.716†	9428.8	9199.9	111.30 ug/L	111.30 ppb	00:35:01
1	Cu 324.752†	30381.1	20060.2	65.895 ug/L	65.895 ppb	00:35:01
1	Mn 257.610†	2881660.4	2835462.2	3451.6 ug/L	3451.6 ppb	00:34:55
1	Mo 202.031†	-80.1	-99.9	3.2599 ug/L	3.2599 ppb	00:35:21
1	Ni 231.604†	3050.1	2896.5	79.556 ug/L	79.556 ppb	00:35:21
1	P 214.914†	1743.6	1495.5	845.13 ug/L	845.13 ppb	00:35:21
1	Pb 220.353†	845.2	877.2	140.88 ug/L	140.88 ppb	00:35:21
1	S 181.975 Axial†	343.7	296.9	422.02 ug/L	422.02 ppb	00:35:21
1	Sb 206.836†	83.8	46.5	-3.5307 ug/L	-3.5307 ppb	00:35:21
1	Se 196.026†	-830.2	-802.9	-49.801 ug/L	-49.801 ppb	00:35:21
1	Si 251.611†	1335735.0	1314011.5	41946 ug/L	41946 ppb	00:34:55
1	Sn 189.927†	-114.6	-114.3	-17.956 ug/L	-17.956 ppb	00:35:21
1	Ti 334.940†	3931285.6	3869938.0	6114.5 ug/L	6114.5 ppb	00:34:55
1	Tl 190.801†	-231.3	-197.2	-2.2921 ug/L	-2.2921 ppb	00:35:21
1	U 409.014†	-9387.2	-8310.0	-230.04 ug/L	-230.04 ppb	00:34:55
1	V 292.402†	45454.9	46131.2	281.35 ug/L	281.35 ppb	00:35:01
1	Zn 213.857†	28219.4	27110.2	260.62 ug/L	260.62 ppb	00:35:01
1	SiO2†	1346417.2	1324512.8	90199 ug/L	90199 ppb	00:36:31
2	Sc Radial	5107.9	5107.9	94.7 %		00:34:22
2	Y RADIAL	6102.9	6102.9	105.1 %		00:34:22
2	Al 396.153Radial†	185983.8	196351.8	153720 ug/L	153720 ppb	00:34:02
2	Ca 317.933Radial†	11859.2	12501.2	20703 ug/L	20703 ppb	00:34:02
2	Fe 238.204 Radial†	14017.4	14791.1	138510 ug/L	138510 ppb	00:34:02
2	K 766.490 Radial†	99621.2	103206.3	19214 ug/L	19214 ppb	00:34:02
2	Mg 279.077 IEC†	607.3	638.8	23297 ug/L	23297 ppb	00:34:22
2	Na 589.592 Radial†	2156.3	2700.0	832.22 ug/L	832.22 ppb	00:34:02
2	Sr 421.552†	40483.0	42725.7	278.11 ug/L	278.11 ppb	00:34:02
2	Sc 361.383	918346.8	918346.8	105.31 %		00:35:27
2	Y 371.029	896563.4	896563.4	114.74 %		00:35:27
2	Ag 328.068†	-9336.9	-9161.1	5.5743 ug/L	5.5743 ppb	00:35:33
2	As 188.979†	-55.1	-21.7	74.847 ug/L	74.847 ppb	00:35:53
2	B 249.677†	1166.2	1417.2	9.9852 ug/L	9.9852 ppb	00:35:33
2	Ba 233.527†	233432.6	221677.0	1905.8 ug/L	1905.8 ppb	00:35:33
2	Be 313.107†	-19630.2	-13048.4	8.7392 ug/L	8.7392 ppb	00:35:33
2	Cd 226.502†	1182.2	1301.9	1.7545 ug/L	1.7545 ppb	00:35:53
2	Co 228.616†	2965.7	2875.3	55.101 ug/L	55.101 ppb	00:35:53
2	Cr 267.716†	9446.4	8890.9	107.74 ug/L	107.74 ppb	00:35:33
2	Cu 324.752†	30265.8	18901.2	62.745 ug/L	62.745 ppb	00:35:33
2	Mn 257.610†	2933437.9	2785083.7	3391.0 ug/L	3391.0 ppb	00:35:27
2	Mo 202.031†	-82.6	-99.4	3.6548 ug/L	3.6548 ppb	00:35:53
2	Ni 231.604†	3031.6	2773.6	76.179 ug/L	76.179 ppb	00:35:53

2	P 214.914†	1724.2	1416.8	794.50 ug/L	794.50 ppb	00:35:53
2	Pb 220.353†	789.3	794.9	130.08 ug/L	130.08 ppb	00:35:53
2	S 181.975 Axial†	329.4	271.4	382.55 ug/L	382.55 ppb	00:35:53
2	Sb 206.836†	89.9	49.3	-2.1844 ug/L	-2.1844 ppb	00:35:53
2	Se 196.026†	-819.4	-764.0	-9.9037 ug/L	-9.9037 ppb	00:35:53
2	Si 251.611†	1362235.2	1293033.4	41276 ug/L	41276 ppb	00:35:27
2	Sn 189.927†	-111.5	-107.4	-16.394 ug/L	-16.394 ppb	00:35:53
2	Ti 334.940†	4007844.1	3806832.5	6014.9 ug/L	6014.9 ppb	00:35:27
2	Tl 190.801†	-223.3	-181.5	2.0614 ug/L	2.0614 ppb	00:35:53
2	U 409.014†	-9461.3	-8056.1	-224.01 ug/L	-224.01 ppb	00:35:27
2	V 292.402†	45454.1	44560.3	270.34 ug/L	270.34 ppb	00:35:33
2	Zn 213.857†	28246.7	26161.2	250.60 ug/L	250.60 ppb	00:35:33
2	SiO2†	1378031.4	1308022.1	89076 ug/L	89076 ppb	00:36:37
3	Sc Radial	5146.5	5146.5	95.4 %		00:34:47
3	Y RADIAL	6128.4	6128.4	105.6 %		00:34:47
3	Al 396.153Radial†	182851.1	191595.2	149990 ug/L	149990 ppb	00:34:27
3	Ca 317.933Radial†	11752.7	12295.6	20362 ug/L	20362 ppb	00:34:27
3	Fe 238.204 Radial†	13828.0	14481.5	135610 ug/L	135610 ppb	00:34:27
3	K 766.490 Radial†	98535.4	101279.0	18855 ug/L	18855 ppb	00:34:27
3	Mg 279.077 IEC†	603.4	629.8	22971 ug/L	22971 ppb	00:34:47
3	Na 589.592 Radial†	2149.4	2675.6	824.71 ug/L	824.71 ppb	00:34:27
3	Sr 421.552†	39810.5	41700.2	271.43 ug/L	271.43 ppb	00:34:27
3	Sc 361.383	860394.0	860394.0	98.660 %		00:35:59
3	Y 371.029	847270.1	847270.1	108.43 %		00:35:59
3	Ag 328.068†	-9563.1	-9987.5	1.1176 ug/L	1.1176 ppb	00:36:05
3	As 188.979†	-71.5	-41.9	69.703 ug/L	69.703 ppb	00:36:25
3	B 249.677†	1235.9	1562.4	13.789 ug/L	13.789 ppb	00:36:05
3	Ba 233.527†	236995.3	240219.0	2064.8 ug/L	2064.8 ppb	00:36:05
3	Be 313.107†	-19768.4	-14444.1	9.4087 ug/L	9.4087 ppb	00:36:05
3	Cd 226.502†	1206.6	1402.2	3.2905 ug/L	3.2905 ppb	00:36:25
3	Co 228.616†	3005.1	3105.0	59.613 ug/L	59.613 ppb	00:36:25
3	Cr 267.716†	9633.3	9684.6	117.06 ug/L	117.06 ppb	00:36:05
3	Cu 324.752†	30561.2	21136.4	69.146 ug/L	69.146 ppb	00:36:05
3	Mn 257.610†	2991019.0	3031076.7	3689.1 ug/L	3689.1 ppb	00:35:59
3	Mo 202.031†	-71.9	-93.9	3.8321 ug/L	3.8321 ppb	00:36:25
3	Ni 231.604†	3108.9	3045.8	83.658 ug/L	83.658 ppb	00:36:25
3	P 214.914†	1754.6	1557.9	882.16 ug/L	882.16 ppb	00:36:25
3	Pb 220.353†	828.7	885.3	142.08 ug/L	142.08 ppb	00:36:25
3	S 181.975 Axial†	330.4	293.5	416.68 ug/L	416.68 ppb	00:36:25
3	Sb 206.836†	93.8	59.0	-0.3026 ug/L	-0.3026 ppb	00:36:25
3	Se 196.026†	-850.4	-847.9	-72.127 ug/L	-72.127 ppb	00:36:25
3	Si 251.611†	1382395.8	1400599.7	44710 ug/L	44710 ppb	00:35:59
3	Sn 189.927†	-106.1	-109.0	-16.828 ug/L	-16.828 ppb	00:36:25
3	Ti 334.940†	4083674.6	4140044.5	6541.3 ug/L	6541.3 ppb	00:35:59
3	Tl 190.801†	-241.0	-213.8	-3.4433 ug/L	-3.4433 ppb	00:36:25
3	U 409.014†	-9893.8	-9099.6	-250.64 ug/L	-250.64 ppb	00:35:59
3	V 292.402†	46152.7	48175.7	294.24 ug/L	294.24 ppb	00:36:05
3	Zn 213.857†	28583.7	28309.5	272.55 ug/L	272.55 ppb	00:36:05
3	SiO2†	1359898.6	1377785.4	93827 ug/L	93827 ppb	00:36:43

Mean Data: 244144004|940180|1

Analyte	Mean Corrected	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888284.2	101.86	%	3.330				3.27%
Sc Radial	5139.5	95.3	%	0.53				0.56%
Y 371.029	869688.2	111.30	%	3.193				2.87%
Y RADIAL	6132.6	105.6	%	0.55				0.52%
Ag 328.068†	-9587.5	2.9430	ug/L	2.33509	2.9430	ppb	2.33509	79.34%
Al 396.153Radial†	192698.7	150860	ug/L	2540.6	150860	ppb	2540.6	1.68%
As 188.979†	-27.7	73.371	ug/L	3.1968	73.371	ppb	3.1968	4.36%
B 249.677†	1488.1	12.021	ug/L	1.9158	12.021	ppb	1.9158	15.94%
Ba 233.527†	230801.9	1984.0	ug/L	79.52	1984.0	ppb	79.52	4.01%
Be 313.107†	-13619.1	8.9981	ug/L	0.35959	8.9981	ppb	0.35959	4.00%
Ca 317.933Radial†	12329.2	20418	ug/L	261.6	20418	ppb	261.6	1.28%
Cd 226.502†	1355.9	2.6793	ug/L	0.81462	2.6793	ppb	0.81462	30.40%
Co 228.616†	2990.3	57.491	ug/L	2.2677	57.491	ppb	2.2677	3.94%
Cr 267.716†	9258.5	112.03	ug/L	4.703	112.03	ppb	4.703	4.20%
Cu 324.752†	20032.6	65.929	ug/L	3.2007	65.929	ppb	3.2007	4.85%
Fe 238.204 Radial†	14523.5	136000	ug/L	2334.2	136000	ppb	2334.2	1.72%
K 766.490 Radial†	101692.9	18932	ug/L	252.3	18932	ppb	252.3	1.33%

Mg 279.077 IEC†	631.8	23043 ug/L	227.3	23043 ppb	227.3	0.99%
Mn 257.610†	2883874.2	3510.6 ug/L	157.55	3510.6 ppb	157.55	4.49%
Mo 202.031†	-97.7	3.5823 ug/L	0.29289	3.5823 ppb	0.29289	8.18%
Na 589.592 Radial†	2692.1	829.81 ug/L	4.425	829.81 ppb	4.425	0.53%
Ni 231.604†	2905.3	79.798 ug/L	3.7451	79.798 ppb	3.7451	4.69%
P 214.914†	1490.1	840.60 ug/L	44.004	840.60 ppb	44.004	5.23%
Pb 220.353†	852.5	137.68 ug/L	6.612	137.68 ppb	6.612	4.80%
S 181.975 Axial†	287.3	407.08 ug/L	21.417	407.08 ppb	21.417	5.26%
Sb 206.836†	51.6	-2.0059 ug/L	1.62142	-2.0059 ppb	1.62142	80.83%
Se 196.026†	-804.9	-43.944 ug/L	31.5222	-43.944 ppb	31.5222	71.73%
Si 251.611†	1335881.5	42644 ug/L	1820.2	42644 ppb	1820.2	4.27%
Sn 189.927†	-110.2	-17.059 ug/L	0.8063	-17.059 ppb	0.8063	4.73%
Sr 421.552†	42002.8	273.40 ug/L	4.093	273.40 ppb	4.093	1.50%
Ti 334.940†	3938938.3	6223.6 ug/L	279.62	6223.6 ppb	279.62	4.49%
Tl 190.801†	-197.5	-1.2247 ug/L	2.90344	-1.2247 ppb	2.90344	237.08%
U 409.014†	-8488.6	-234.90 ug/L	13.963	-234.90 ppb	13.963	5.94%
V 292.402†	46289.1	281.98 ug/L	11.964	281.98 ppb	11.964	4.24%
Zn 213.857†	27193.6	261.26 ug/L	10.991	261.26 ppb	10.991	4.21%
SiO2†	1336773.4	91034 ug/L	2483.0	91034 ppb	2483.0	2.73%

Sequence No.: 90

Sample ID: 244144005|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 89

Date Collected: 1/26/2010 00:38:54

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144005|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5229.7	5229.7	97.0 %		00:41:07
1	Y RADIAL	6308.0	6308.0	108.7 %		00:41:07
1	Al 396.153Radial†	113061.8	116582.2	91268 ug/L	91268 ppb	00:40:47
1	Ca 317.933Radial†	10013.7	10306.5	17068 ug/L	17068 ppb	00:40:47
1	Fe 238.204 Radial†	11302.6	11646.9	109070 ug/L	109070 ppb	00:40:47
1	K 766.490 Radial†	74972.0	75338.4	14025 ug/L	14025 ppb	00:40:47
1	Mg 279.077 IEC†	417.6	428.2	15598 ug/L	15598 ppb	00:41:07
1	Na 589.592 Radial†	1631.0	2105.2	648.91 ug/L	648.91 ppb	00:40:47
1	Sr 421.552†	28854.1	29738.5	193.55 ug/L	193.55 ppb	00:40:47
1	Sc 361.383	894702.1	894702.1	102.59 %		00:42:05
1	Y 371.029	887866.7	887866.7	113.62 %		00:42:05
1	Ag 328.068†	-7412.7	-7519.9	3.0880 ug/L	3.0880 ppb	00:42:10
1	As 188.979†	-54.9	-22.9	58.763 ug/L	58.763 ppb	00:42:30
1	B 249.677†	831.3	1120.0	7.9430 ug/L	7.9430 ppb	00:42:10
1	Ba 233.527†	566822.2	552494.2	4741.7 ug/L	4741.7 ppb	00:42:05
1	Be 313.107†	-20765.6	-14647.7	5.8659 ug/L	5.8659 ppb	00:42:10
1	Cd 226.502†	967.4	1122.2	2.5860 ug/L	2.5860 ppb	00:42:30
1	Co 228.616†	2468.5	2465.1	49.164 ug/L	49.164 ppb	00:42:30
1	Cr 267.716†	11411.5	11043.4	132.39 ug/L	132.39 ppb	00:42:10
1	Cu 324.752†	102421.0	89991.3	269.17 ug/L	269.17 ppb	00:42:10
1	Mn 257.610†	3070356.7	2992157.5	3639.6 ug/L	3639.6 ppb	00:42:05
1	Mo 202.031†	-24.8	-45.2	5.3335 ug/L	5.3335 ppb	00:42:30
1	Ni 231.604†	3203.6	3017.3	82.884 ug/L	82.884 ppb	00:42:30
1	P 214.914†	2485.2	2201.8	1248.3 ug/L	1248.3 ppb	00:42:30
1	Pb 220.353†	1290.2	1303.0	189.77 ug/L	189.77 ppb	00:42:30
1	S 181.975 Axial†	571.3	515.4	764.01 ug/L	764.01 ppb	00:42:30
1	Sb 206.836†	74.1	36.2	-2.7505 ug/L	-2.7505 ppb	00:42:30
1	Se 196.026†	-680.5	-649.2	-39.442 ug/L	-39.442 ppb	00:42:30
1	Si 251.611†	1262025.8	1229544.5	39249 ug/L	39249 ppb	00:42:05
1	Sn 189.927†	-102.9	-101.8	-16.307 ug/L	-16.307 ppb	00:42:30
1	Ti 334.940†	3255006.8	3173613.1	5014.7 ug/L	5014.7 ppb	00:42:05
1	Tl 190.801†	-202.5	-166.9	0.2045 ug/L	0.2045 ppb	00:42:30
1	U 409.014†	-8712.3	-7563.5	-207.99 ug/L	-207.99 ppb	00:42:05
1	V 292.402†	35819.5	36310.0	220.62 ug/L	220.62 ppb	00:42:10
1	Zn 213.857†	30775.5	29335.0	285.23 ug/L	285.23 ppb	00:42:10
1	SiO2†	1261068.7	1228600.0	83668 ug/L	83668 ppb	00:43:38
2	Sc Radial	4974.9	4974.9	92.3 %		00:41:32
2	Y RADIAL	6015.5	6015.5	103.6 %		00:41:32
2	Al 396.153Radial†	114829.8	124470.8	97443 ug/L	97443 ppb	00:41:12
2	Ca 317.933Radial†	10138.5	10970.7	18168 ug/L	18168 ppb	00:41:12
2	Fe 238.204 Radial†	11532.8	12493.4	116990 ug/L	116990 ppb	00:41:12
2	K 766.490 Radial†	76094.5	80515.3	14988 ug/L	14988 ppb	00:41:12
2	Mg 279.077 IEC†	420.3	453.2	16510 ug/L	16510 ppb	00:41:32
2	Na 589.592 Radial†	1746.5	2316.6	714.06 ug/L	714.06 ppb	00:41:12
2	Sr 421.552†	29474.0	31934.6	207.85 ug/L	207.85 ppb	00:41:12
2	Sc 361.383	893883.4	893883.4	102.50 %		00:42:36
2	Y 371.029	887019.7	887019.7	113.51 %		00:42:36
2	Ag 328.068†	-7557.5	-7667.8	5.0084 ug/L	5.0084 ppb	00:42:41
2	As 188.979†	-51.0	-19.1	62.290 ug/L	62.290 ppb	00:43:01
2	B 249.677†	967.4	1253.5	9.7339 ug/L	9.7339 ppb	00:42:41
2	Ba 233.527†	567621.2	553779.8	4753.0 ug/L	4753.0 ppb	00:42:36
2	Be 313.107†	-21030.9	-14925.1	5.7601 ug/L	5.7601 ppb	00:42:41
2	Cd 226.502†	956.5	1112.4	1.6469 ug/L	1.6469 ppb	00:43:01
2	Co 228.616†	2478.5	2477.1	49.340 ug/L	49.340 ppb	00:43:01
2	Cr 267.716†	11670.9	11306.6	135.65 ug/L	135.65 ppb	00:42:41
2	Cu 324.752†	104700.9	92307.0	276.36 ug/L	276.36 ppb	00:42:41
2	Mn 257.610†	3074319.0	2998764.4	3648.3 ug/L	3648.3 ppb	00:42:36
2	Mo 202.031†	-39.4	-59.5	4.9072 ug/L	4.9072 ppb	00:43:01
2	Ni 231.604†	3224.2	3040.3	83.516 ug/L	83.516 ppb	00:43:01

2	P 214.914†	2473.7	2192.9	1236.6 ug/L	1236.6 ppb	00:43:01
2	Pb 220.353†	1307.1	1320.6	192.80 ug/L	192.80 ppb	00:43:01
2	S 181.975 Axial†	565.7	510.5	755.35 ug/L	755.35 ppb	00:43:01
2	Sb 206.836†	70.7	32.9	-3.9126 ug/L	-3.9126 ppb	00:43:01
2	Se 196.026†	-684.1	-653.3	-15.385 ug/L	-15.385 ppb	00:43:01
2	Si 251.611†	1261682.0	1230335.9	39275 ug/L	39275 ppb	00:42:36
2	Sn 189.927†	-96.7	-95.8	-14.793 ug/L	-14.793 ppb	00:43:01
2	Ti 334.940†	3251652.3	3173246.4	5014.1 ug/L	5014.1 ppb	00:42:36
2	Tl 190.801†	-213.6	-177.9	-3.6049 ug/L	-3.6049 ppb	00:43:01
2	U 409.014†	-8746.7	-7604.8	-209.97 ug/L	-209.97 ppb	00:42:36
2	V 292.402†	36511.6	37017.2	224.18 ug/L	224.18 ppb	00:42:41
2	Zn 213.857†	31370.7	29943.1	290.60 ug/L	290.60 ppb	00:42:41
2	SiO2†	1261697.9	1230339.7	83786 ug/L	83786 ppb	00:43:44
3	Sc Radial	4954.7	4954.7	91.9 %		00:41:57
3	Y RADIAL	6013.6	6013.6	103.6 %		00:41:57
3	Al 396.153Radial†	114059.8	124139.6	97184 ug/L	97184 ppb	00:41:37
3	Ca 317.933Radial†	10066.4	10937.0	18112 ug/L	18112 ppb	00:41:37
3	Fe 238.204 Radial†	11464.5	12470.0	116770 ug/L	116770 ppb	00:41:37
3	K 766.490 Radial†	75250.2	79932.3	14880 ug/L	14880 ppb	00:41:37
3	Mg 279.077 IEC†	424.5	459.6	16743 ug/L	16743 ppb	00:41:57
3	Na 589.592 Radial†	1669.5	2240.5	690.59 ug/L	690.59 ppb	00:41:37
3	Sr 421.552†	29214.7	31782.5	206.85 ug/L	206.85 ppb	00:41:37
3	Sc 361.383	894806.3	894806.3	102.61 %		00:43:07
3	Y 371.029	886787.5	886787.5	113.48 %		00:43:07
3	Ag 328.068†	-7592.8	-7694.6	4.8170 ug/L	4.8170 ppb	00:43:12
3	As 188.979†	-54.5	-22.5	60.715 ug/L	60.715 ppb	00:43:32
3	B 249.677†	997.6	1282.0	10.427 ug/L	10.427 ppb	00:43:12
3	Ba 233.527†	568370.0	553938.4	4754.3 ug/L	4754.3 ppb	00:43:07
3	Be 313.107†	-20778.9	-14658.3	5.8611 ug/L	5.8611 ppb	00:43:12
3	Cd 226.502†	937.5	1093.0	1.4290 ug/L	1.4290 ppb	00:43:32
3	Co 228.616†	2459.5	2456.1	48.840 ug/L	48.840 ppb	00:43:32
3	Cr 267.716†	11544.0	11171.3	134.05 ug/L	134.05 ppb	00:43:12
3	Cu 324.752†	104478.0	91984.4	275.41 ug/L	275.41 ppb	00:43:12
3	Mn 257.610†	3076168.4	2997473.1	3646.7 ug/L	3646.7 ppb	00:43:07
3	Mo 202.031†	-38.0	-58.1	4.9906 ug/L	4.9906 ppb	00:43:32
3	Ni 231.604†	3193.7	3007.3	82.609 ug/L	82.609 ppb	00:43:32
3	P 214.914†	2479.9	2196.4	1239.1 ug/L	1239.1 ppb	00:43:32
3	Pb 220.353†	1286.1	1298.8	189.74 ug/L	189.74 ppb	00:43:32
3	S 181.975 Axial†	568.0	512.2	758.03 ug/L	758.03 ppb	00:43:32
3	Sb 206.836†	67.7	29.9	-5.0427 ug/L	-5.0427 ppb	00:43:32
3	Se 196.026†	-676.1	-644.8	-10.829 ug/L	-10.829 ppb	00:43:32
3	Si 251.611†	1262875.9	1230229.8	39271 ug/L	39271 ppb	00:43:07
3	Sn 189.927†	-111.3	-110.0	-17.682 ug/L	-17.682 ppb	00:43:32
3	Ti 334.940†	3255152.1	3173385.2	5014.3 ug/L	5014.3 ppb	00:43:07
3	Tl 190.801†	-225.8	-189.5	-7.6603 ug/L	-7.6603 ppb	00:43:32
3	U 409.014†	-8854.6	-7701.2	-212.43 ug/L	-212.43 ppb	00:43:07
3	V 292.402†	36349.4	36822.3	222.92 ug/L	222.92 ppb	00:43:12
3	Zn 213.857†	31264.1	29807.7	289.26 ug/L	289.26 ppb	00:43:12
3	SiO2†	1268109.7	1235319.0	84125 ug/L	84125 ppb	00:43:50

Mean Data: 244144005|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	894464.0	102.57 %	%	0.058			0.06%
Sc Radial	5053.1	93.7 %	%	2.84			3.03%
Y 371.029	887224.6	113.54 %	%	0.073			0.06%
Y RADIAL	6112.4	105.3 %	%	2.92			2.77%
Ag 328.068†	-7627.4	4.3045 ug/L	ug/L	1.05786	4.3045 ppb	1.05786	24.58%
Al 396.153Radial†	121730.8	95298 ug/L	ug/L	3493.1	95298 ppb	3493.1	3.67%
As 188.979†	-21.5	60.589 ug/L	ug/L	1.7665	60.589 ppb	1.7665	2.92%
B 249.677†	1218.5	9.3681 ug/L	ug/L	1.28192	9.3681 ppb	1.28192	13.68%
Ba 233.527†	553404.1	4749.6 ug/L	ug/L	6.93	4749.6 ppb	6.93	0.15%
Be 313.107†	-14743.7	5.8290 ug/L	ug/L	0.05973	5.8290 ppb	0.05973	1.02%
Ca 317.933Radial†	10738.0	17783 ug/L	ug/L	619.6	17783 ppb	619.6	3.48%
Cd 226.502†	1109.2	1.8873 ug/L	ug/L	0.61484	1.8873 ppb	0.61484	32.58%
Co 228.616†	2466.1	49.114 ug/L	ug/L	0.2536	49.114 ppb	0.2536	0.52%
Cr 267.716†	11173.8	134.03 ug/L	ug/L	1.628	134.03 ppb	1.628	1.21%
Cu 324.752†	91427.6	273.65 ug/L	ug/L	3.908	273.65 ppb	3.908	1.43%
Fe 238.204 Radial†	12203.4	114280 ug/L	ug/L	4514.8	114280 ppb	4514.8	3.95%
K 766.490 Radial†	78595.3	14631 ug/L	ug/L	527.9	14631 ppb	527.9	3.61%

Mg 279.077 IEC†	447.0	16284 ug/L	605.0	16284 ppb	605.0	3.72%
Mn 257.610†	2996131.7	3644.9 ug/L	4.66	3644.9 ppb	4.66	0.13%
Mo 202.031†	-54.2	5.0771 ug/L	0.22593	5.0771 ppb	0.22593	4.45%
Na 589.592 Radial†	2220.8	684.52 ug/L	32.996	684.52 ppb	32.996	4.82%
Ni 231.604†	3021.6	83.003 ug/L	0.4651	83.003 ppb	0.4651	0.56%
P 214.914†	2197.0	1241.3 ug/L	6.18	1241.3 ppb	6.18	0.50%
Pb 220.353†	1307.4	190.77 ug/L	1.755	190.77 ppb	1.755	0.92%
S 181.975 Axial†	512.7	759.13 ug/L	4.436	759.13 ppb	4.436	0.58%
Sb 206.836†	33.0	-3.9019 ug/L	1.14612	-3.9019 ppb	1.14612	29.37%
Se 196.026†	-649.1	-21.886 ug/L	15.3745	-21.886 ppb	15.3745	70.25%
Si 251.611†	1230036.7	39265 ug/L	13.7	39265 ppb	13.7	0.03%
Sn 189.927†	-102.5	-16.261 ug/L	1.4450	-16.261 ppb	1.4450	8.89%
Sr 421.552†	31151.9	202.75 ug/L	7.982	202.75 ppb	7.982	3.94%
Ti 334.940†	3173414.9	5014.4 ug/L	0.26	5014.4 ppb	0.26	0.01%
Tl 190.801†	-178.1	-3.6869 ug/L	3.93302	-3.6869 ppb	3.93302	106.68%
U 409.014†	-7623.2	-210.13 ug/L	2.223	-210.13 ppb	2.223	1.06%
V 292.402†	36716.5	222.57 ug/L	1.804	222.57 ppb	1.804	0.81%
Zn 213.857†	29695.3	288.37 ug/L	2.794	288.37 ppb	2.794	0.97%
SiO2†	1231419.6	83860 ug/L	237.5	83860 ppb	237.5	0.28%

Sequence No.: 91

Sample ID: 244144006|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 90

Date Collected: 1/26/2010 00:46:02

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144006|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5367.5	5367.5	99.5 %		00:48:15
1	Y RADIAL	6391.8	6391.8	110.1 %		00:48:15
1	Al 396.153Radial†	128361.4	128961.6	100960 ug/L	100960 ppb	00:47:55
1	Ca 317.933Radial†	12096.5	12134.1	20095 ug/L	20095 ppb	00:47:55
1	Fe 238.204 Radial†	12149.4	12198.6	114230 ug/L	114230 ppb	00:47:55
1	K 766.490 Radial†	93984.4	92456.2	17212 ug/L	17212 ppb	00:47:55
1	Mg 279.077 IEC†	496.1	496.0	18083 ug/L	18083 ppb	00:48:15
1	Na 589.592 Radial†	1410.4	1840.4	567.27 ug/L	567.27 ppb	00:47:55
1	Sr 421.552†	35219.3	35370.1	230.21 ug/L	230.21 ppb	00:47:55
1	Sc 361.383	929118.1	929118.1	106.54 %		00:49:12
1	Y 371.029	910730.4	910730.4	116.55 %		00:49:12
1	Ag 328.068†	-7730.0	-7550.0	4.6595 ug/L	4.6595 ppb	00:49:18
1	As 188.979†	-37.9	-4.9	66.050 ug/L	66.050 ppb	00:49:38
1	B 249.677†	1219.9	1454.7	14.792 ug/L	14.792 ppb	00:49:18
1	Ba 233.527†	230707.4	216549.2	1861.0 ug/L	1861.0 ppb	00:49:18
1	Be 313.107†	-18304.0	-11587.5	6.5047 ug/L	6.5047 ppb	00:49:18
1	Cd 226.502†	1031.4	1147.4	2.4137 ug/L	2.4137 ppb	00:49:38
1	Co 228.616†	3022.2	2895.8	58.414 ug/L	58.414 ppb	00:49:38
1	Cr 267.716†	26549.5	24840.1	294.75 ug/L	294.75 ppb	00:49:18
1	Cu 324.752†	36243.4	24178.7	76.881 ug/L	76.881 ppb	00:49:18
1	Mn 257.610†	3910950.5	3670290.6	4462.5 ug/L	4462.5 ppb	00:49:12
1	Mo 202.031†	-34.8	-53.7	5.1380 ug/L	5.1380 ppb	00:49:38
1	Ni 231.604†	6128.1	5646.6	155.13 ug/L	155.13 ppb	00:49:38
1	P 214.914†	2531.3	2155.4	1256.0 ug/L	1256.0 ppb	00:49:38
1	Pb 220.353†	1065.1	1045.1	155.78 ug/L	155.78 ppb	00:49:38
1	S 181.975 Axial†	539.7	465.2	686.05 ug/L	686.05 ppb	00:49:38
1	Sb 206.836†	79.6	38.7	-1.1418 ug/L	-1.1418 ppb	00:49:38
1	Se 196.026†	-721.1	-662.8	-30.213 ug/L	-30.213 ppb	00:49:38
1	Si 251.611†	1263375.2	1185245.8	37835 ug/L	37835 ppb	00:49:12
1	Sn 189.927†	-110.7	-105.4	-16.490 ug/L	-16.490 ppb	00:49:38
1	Ti 334.940†	3227617.0	3030383.2	4788.5 ug/L	4788.5 ppb	00:49:12
1	Tl 190.801†	-246.7	-201.0	-9.7110 ug/L	-9.7110 ppb	00:49:38
1	U 409.014†	-8077.7	-6653.2	-185.44 ug/L	-185.44 ppb	00:49:12
1	V 292.402†	40811.9	39702.6	242.74 ug/L	242.74 ppb	00:49:18
1	Zn 213.857†	25714.8	23473.8	225.25 ug/L	225.25 ppb	00:49:18
1	SiO2†	1267030.0	1188664.6	80948 ug/L	80948 ppb	00:50:46
2	Sc Radial	5385.4	5385.4	99.9 %		00:48:40
2	Y RADIAL	6422.2	6422.2	110.6 %		00:48:40
2	Al 396.153Radial†	128699.2	128871.0	100890 ug/L	100890 ppb	00:48:20
2	Ca 317.933Radial†	12179.8	12177.0	20166 ug/L	20166 ppb	00:48:20
2	Fe 238.204 Radial†	12223.9	12232.6	114550 ug/L	114550 ppb	00:48:20
2	K 766.490 Radial†	94288.5	92446.6	17210 ug/L	17210 ppb	00:48:20
2	Mg 279.077 IEC†	498.0	496.3	18093 ug/L	18093 ppb	00:48:40
2	Na 589.592 Radial†	1384.1	1809.4	557.71 ug/L	557.71 ppb	00:48:20
2	Sr 421.552†	35219.1	35252.2	229.44 ug/L	229.44 ppb	00:48:20
2	Sc 361.383	942662.2	942662.2	108.09 %		00:49:43
2	Y 371.029	923163.1	923163.1	118.14 %		00:49:43
2	Ag 328.068†	-7939.5	-7639.6	4.3649 ug/L	4.3649 ppb	00:49:49
2	As 188.979†	-34.5	-1.3	67.757 ug/L	67.757 ppb	00:50:09
2	B 249.677†	1167.8	1390.1	13.252 ug/L	13.252 ppb	00:49:49
2	Ba 233.527†	233113.6	215664.0	1853.5 ug/L	1853.5 ppb	00:49:49
2	Be 313.107†	-18228.9	-11271.2	6.6248 ug/L	6.6248 ppb	00:49:49
2	Cd 226.502†	1009.9	1113.5	1.9620 ug/L	1.9620 ppb	00:50:09
2	Co 228.616†	3045.6	2876.6	57.946 ug/L	57.946 ppb	00:50:09
2	Cr 267.716†	26823.4	24735.4	293.52 ug/L	293.52 ppb	00:49:49
2	Cu 324.752†	36481.1	23909.8	76.112 ug/L	76.112 ppb	00:49:49
2	Mn 257.610†	3966019.1	3668493.1	4460.4 ug/L	4460.4 ppb	00:49:43
2	Mo 202.031†	-38.8	-56.9	4.9292 ug/L	4.9292 ppb	00:50:09
2	Ni 231.604†	6147.2	5581.6	153.35 ug/L	153.35 ppb	00:50:09



2	P 214.914†	2537.0	2126.5	1238.0 ug/L	1238.0 ppb	00:50:09
2	Pb 220.353†	1062.6	1028.4	153.43 ug/L	153.43 ppb	00:50:09
2	S 181.975 Axial†	537.6	455.9	672.04 ug/L	672.04 ppb	00:50:09
2	Sb 206.836†	75.4	33.7	-2.9493 ug/L	-2.9493 ppb	00:50:09
2	Se 196.026†	-699.8	-633.3	-10.721 ug/L	-10.721 ppb	00:50:09
2	Si 251.611†	1283153.4	1186505.3	37875 ug/L	37875 ppb	00:49:43
2	Sn 189.927†	-112.8	-105.8	-16.565 ug/L	-16.565 ppb	00:50:09
2	Ti 334.940†	3274988.8	3030680.6	4789.0 ug/L	4789.0 ppb	00:49:43
2	Tl 190.801†	-239.0	-190.6	-6.0808 ug/L	-6.0808 ppb	00:50:09
2	U 409.014†	-8324.8	-6773.0	-188.57 ug/L	-188.57 ppb	00:49:43
2	V 292.402†	41228.2	39537.4	241.59 ug/L	241.59 ppb	00:49:49
2	Zn 213.857†	25968.3	23361.5	224.10 ug/L	224.10 ppb	00:49:49
2	SiO2†	1290953.9	1193710.1	81292 ug/L	81292 ppb	00:50:52
3	Sc Radial	5359.2	5359.2	99.4 %		00:49:05
3	Y RADIAL	6401.4	6401.4	110.3 %		00:49:05
3	Al 396.153Radial†	129697.1	130505.3	102170 ug/L	102170 ppb	00:48:45
3	Ca 317.933Radial†	12191.2	12248.2	20284 ug/L	20284 ppb	00:48:45
3	Fe 238.204 Radial†	12259.2	12328.0	115440 ug/L	115440 ppb	00:48:45
3	K 766.490 Radial†	94663.9	93286.2	17366 ug/L	17366 ppb	00:48:45
3	Mg 279.077 IEC†	495.1	495.8	18073 ug/L	18073 ppb	00:49:05
3	Na 589.592 Radial†	1396.6	1828.7	563.68 ug/L	563.68 ppb	00:48:45
3	Sr 421.552†	35518.9	35726.3	232.52 ug/L	232.52 ppb	00:48:45
3	Sc 361.383	942558.7	942558.7	108.08 %		00:50:15
3	Y 371.029	922632.1	922632.1	118.07 %		00:50:15
3	Ag 328.068†	-7966.1	-7665.0	4.5354 ug/L	4.5354 ppb	00:50:20
3	As 188.979†	-36.7	-3.3	67.026 ug/L	67.026 ppb	00:50:40
3	B 249.677†	1171.0	1393.1	13.177 ug/L	13.177 ppb	00:50:20
3	Ba 233.527†	232142.3	214789.0	1846.0 ug/L	1846.0 ppb	00:50:20
3	Be 313.107†	-18210.1	-11255.6	6.6274 ug/L	6.6274 ppb	00:50:20
3	Cd 226.502†	1015.8	1119.1	1.9377 ug/L	1.9377 ppb	00:50:40
3	Co 228.616†	3038.0	2869.8	57.773 ug/L	57.773 ppb	00:50:40
3	Cr 267.716†	26675.7	24601.5	291.96 ug/L	291.96 ppb	00:50:20
3	Cu 324.752†	36794.6	24203.5	77.018 ug/L	77.018 ppb	00:50:20
3	Mn 257.610†	3960004.3	3663331.0	4454.2 ug/L	4454.2 ppb	00:50:15
3	Mo 202.031†	-31.4	-50.0	5.5072 ug/L	5.5072 ppb	00:50:40
3	Ni 231.604†	6128.2	5564.7	152.88 ug/L	152.88 ppb	00:50:40
3	P 214.914†	2503.7	2095.9	1218.4 ug/L	1218.4 ppb	00:50:40
3	Pb 220.353†	1061.6	1027.6	153.51 ug/L	153.51 ppb	00:50:40
3	S 181.975 Axial†	546.2	464.0	684.03 ug/L	684.03 ppb	00:50:40
3	Sb 206.836†	84.3	42.0	0.0526 ug/L	0.0526 ppb	00:50:40
3	Se 196.026†	-715.9	-648.3	-17.052 ug/L	-17.052 ppb	00:50:40
3	Si 251.611†	1281146.8	1184779.1	37820 ug/L	37820 ppb	00:50:15
3	Sn 189.927†	-115.1	-108.0	-16.968 ug/L	-16.968 ppb	00:50:40
3	Ti 334.940†	3273633.0	3029758.9	4787.6 ug/L	4787.6 ppb	00:50:15
3	Tl 190.801†	-234.8	-186.8	-4.8038 ug/L	-4.8038 ppb	00:50:40
3	U 409.014†	-8280.7	-6733.0	-187.63 ug/L	-187.63 ppb	00:50:15
3	V 292.402†	41047.8	39374.7	240.38 ug/L	240.38 ppb	00:50:20
3	Zn 213.857†	25865.7	23269.2	223.08 ug/L	223.08 ppb	00:50:20
3	SiO2†	1272187.7	1176478.3	80118 ug/L	80118 ppb	00:50:58

Mean Data: 244144006|940180|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
Sc 361.383	938113.0	107.57	%	0.893				0.83%
Sc Radial	5370.7	99.6	%	0.25				0.25%
Y 371.029	918841.9	117.59	%	0.900				0.77%
Y RADIAL	6405.1	110.3	%	0.27				0.24%
Ag 328.068†	-7618.2	4.5200	ug/L	0.14790	4.5200	ppb	0.14790	3.27%
Al 396.153Radial†	129446.0	101340	ug/L	719.1	101340	ppb	719.1	0.71%
As 188.979†	-3.2	66.944	ug/L	0.8567	66.944	ppb	0.8567	1.28%
B 249.677†	1412.6	13.740	ug/L	0.9116	13.740	ppb	0.9116	6.63%
Ba 233.527†	215667.4	1853.5	ug/L	7.53	1853.5	ppb	7.53	0.41%
Be 313.107†	-11371.4	6.5856	ug/L	0.07014	6.5856	ppb	0.07014	1.06%
Ca 317.933Radial†	12186.4	20181	ug/L	95.4	20181	ppb	95.4	0.47%
Cd 226.502†	1126.7	2.1045	ug/L	0.26806	2.1045	ppb	0.26806	12.74%
Co 228.616†	2880.7	58.044	ug/L	0.3317	58.044	ppb	0.3317	0.57%
Cr 267.716†	24725.7	293.41	ug/L	1.395	293.41	ppb	1.395	0.48%
Cu 324.752†	24097.3	76.670	ug/L	0.4882	76.670	ppb	0.4882	0.64%
Fe 238.204 Radial†	12253.1	114740	ug/L	628.1	114740	ppb	628.1	0.55%
K 766.490 Radial†	92729.7	17263	ug/L	89.7	17263	ppb	89.7	0.52%

Mg 279.077 IEC†	496.0	18083 ug/L	10.1	18083 ppb	10.1	0.06%
Mn 257.610†	3667371.6	4459.0 ug/L	4.32	4459.0 ppb	4.32	0.10%
Mo 202.031†	-53.6	5.1915 ug/L	0.29267	5.1915 ppb	0.29267	5.64%
Na 589.592 Radial†	1826.2	562.89 ug/L	4.829	562.89 ppb	4.829	0.86%
Ni 231.604†	5597.6	153.79 ug/L	1.188	153.79 ppb	1.188	0.77%
P 214.914†	2125.9	1237.5 ug/L	18.78	1237.5 ppb	18.78	1.52%
Pb 220.353†	1033.7	154.24 ug/L	1.337	154.24 ppb	1.337	0.87%
S 181.975 Axial†	461.7	680.71 ug/L	7.573	680.71 ppb	7.573	1.11%
Sb 206.836†	38.1	-1.3462 ug/L	1.51135	-1.3462 ppb	1.51135	112.27%
Se 196.026†	-648.1	-19.329 ug/L	9.9433	-19.329 ppb	9.9433	51.44%
Si 251.611†	1185510.1	37844 ug/L	28.5	37844 ppb	28.5	0.08%
Sn 189.927†	-106.4	-16.674 ug/L	0.2572	-16.674 ppb	0.2572	1.54%
Sr 421.552†	35449.5	230.72 ug/L	1.607	230.72 ppb	1.607	0.70%
Ti 334.940†	3030274.2	4788.4 ug/L	0.73	4788.4 ppb	0.73	0.02%
Tl 190.801†	-192.8	-6.8652 ug/L	2.54593	-6.8652 ppb	2.54593	37.08%
U 409.014†	-6719.7	-187.21 ug/L	1.604	-187.21 ppb	1.604	0.86%
V 292.402†	39538.2	241.57 ug/L	1.180	241.57 ppb	1.180	0.49%
Zn 213.857†	23368.2	224.14 ug/L	1.087	224.14 ppb	1.087	0.49%
SiO2†	1186284.3	80786 ug/L	603.3	80786 ppb	603.3	0.75%

Sequence No.: 92

Sample ID: 244144007|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 91

Date Collected: 1/26/2010 00:53:09

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144007|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5202.4	5202.4	96.5 %		00:55:22
1	Y RADIAL	6358.4	6358.4	109.5 %		00:55:22
1	Al 396.153Radial†	208986.6	216629.3	169590 ug/L	169590 ppb	00:55:02
1	Ca 317.933Radial†	14132.3	14630.0	24228 ug/L	24228 ppb	00:55:02
1	Fe 238.204 Radial†	14819.8	15354.0	143780 ug/L	143780 ppb	00:55:02
1	K 766.490 Radial†	103551.1	105369.4	19616 ug/L	19616 ppb	00:55:02
1	Mg 279.077 IEC†	627.2	647.8	23620 ug/L	23620 ppb	00:55:22
1	Na 589.592 Radial†	2409.2	2920.7	900.26 ug/L	900.26 ppb	00:55:02
1	Sr 421.552†	43329.2	44899.6	292.24 ug/L	292.24 ppb	00:55:02
1	Sc 361.383	927110.6	927110.6	106.31 %		00:56:21
1	Y 371.029	923711.3	923711.3	118.21 %		00:56:21
1	Ag 328.068†	-9729.3	-9446.4	6.0248 ug/L	6.0248 ppb	00:56:26
1	As 188.979†	-57.7	-23.6	77.208 ug/L	77.208 ppb	00:56:46
1	B 249.677†	1452.5	1676.0	15.080 ug/L	15.080 ppb	00:56:26
1	Ba 233.527†	271053.5	254969.3	2191.5 ug/L	2191.5 ppb	00:56:26
1	Be 313.107†	-18179.9	-11507.9	9.8365 ug/L	9.8365 ppb	00:56:26
1	Cd 226.502†	1298.3	1400.5	2.4333 ug/L	2.4333 ppb	00:56:46
1	Co 228.616†	3249.7	3115.9	60.443 ug/L	60.443 ppb	00:56:46
1	Cr 267.716†	9787.0	9126.5	110.63 ug/L	110.63 ppb	00:56:46
1	Cu 324.752†	32578.1	20804.5	68.595 ug/L	68.595 ppb	00:56:26
1	Mn 257.610†	3293535.1	3097473.4	3770.4 ug/L	3770.4 ppb	00:56:21
1	Mo 202.031†	-91.3	-106.9	3.5540 ug/L	3.5540 ppb	00:56:46
1	Ni 231.604†	3596.7	3277.9	90.037 ug/L	90.037 ppb	00:56:46
1	P 214.914†	1892.1	1559.2	881.43 ug/L	881.43 ppb	00:56:46
1	Pb 220.353†	876.6	869.9	143.42 ug/L	143.42 ppb	00:56:46
1	S 181.975 Axial†	422.8	356.3	508.15 ug/L	508.15 ppb	00:56:46
1	Sb 206.836†	90.1	48.7	-3.4831 ug/L	-3.4831 ppb	00:56:46
1	Se 196.026†	-880.3	-813.9	-22.661 ug/L	-22.661 ppb	00:56:46
1	Si 251.611†	1383113.1	1300443.8	41513 ug/L	41513 ppb	00:56:21
1	Sn 189.927†	-128.2	-122.1	-18.764 ug/L	-18.764 ppb	00:56:46
1	Ti 334.940†	4199365.5	3951008.5	6243.1 ug/L	6243.1 ppb	00:56:21
1	Tl 190.801†	-248.8	-203.6	-1.9527 ug/L	-1.9527 ppb	00:56:46
1	U 409.014†	-9743.7	-8236.8	-229.28 ug/L	-229.28 ppb	00:56:26
1	V 292.402†	47648.5	46216.4	280.35 ug/L	280.35 ppb	00:56:26
1	Zn 213.857†	29844.6	27410.7	262.63 ug/L	262.63 ppb	00:56:46
1	SiO2†	1372616.9	1290558.9	87887 ug/L	87887 ppb	00:57:57
2	Sc Radial	5251.7	5251.7	97.4 %		00:55:47
2	Y RADIAL	6408.0	6408.0	110.4 %		00:55:47
2	Al 396.153Radial†	209188.6	214801.5	168160 ug/L	168160 ppb	00:55:27
2	Ca 317.933Radial†	14096.5	14455.7	23939 ug/L	23939 ppb	00:55:27
2	Fe 238.204 Radial†	14853.6	15244.4	142760 ug/L	142760 ppb	00:55:27
2	K 766.490 Radial†	103400.0	104205.8	19399 ug/L	19399 ppb	00:55:27
2	Mg 279.077 IEC†	626.1	640.5	23353 ug/L	23353 ppb	00:55:47
2	Na 589.592 Radial†	2358.9	2845.6	877.11 ug/L	877.11 ppb	00:55:27
2	Sr 421.552†	43277.3	44424.3	289.14 ug/L	289.14 ppb	00:55:27
2	Sc 361.383	920149.2	920149.2	105.51 %		00:56:53
2	Y 371.029	916778.7	916778.7	117.32 %		00:56:53
2	Ag 328.068†	-9838.9	-9619.5	4.9453 ug/L	4.9453 ppb	00:56:58
2	As 188.979†	-55.4	-21.9	77.831 ug/L	77.831 ppb	00:57:18
2	B 249.677†	1393.6	1630.5	14.198 ug/L	14.198 ppb	00:56:58
2	Ba 233.527†	270260.4	256146.6	2201.6 ug/L	2201.6 ppb	00:56:58
2	Be 313.107†	-18163.1	-11621.4	9.8141 ug/L	9.8141 ppb	00:56:58
2	Cd 226.502†	1262.7	1376.0	2.2368 ug/L	2.2368 ppb	00:57:18
2	Co 228.616†	3234.8	3124.8	60.658 ug/L	60.658 ppb	00:57:18
2	Cr 267.716†	9732.0	9144.0	110.82 ug/L	110.82 ppb	00:57:18
2	Cu 324.752†	32713.1	21164.3	69.597 ug/L	69.597 ppb	00:56:58
2	Mn 257.610†	3278306.9	3106479.0	3781.2 ug/L	3781.2 ppb	00:56:53
2	Mo 202.031†	-92.8	-109.0	3.3165 ug/L	3.3165 ppb	00:57:18
2	Ni 231.604†	3589.4	3296.6	90.551 ug/L	90.551 ppb	00:57:18

2	P 214.914†	1879.5	1560.8	882.71 ug/L	882.71 ppb	00:57:18
2	Pb 220.353†	855.3	856.0	141.28 ug/L	141.28 ppb	00:57:18
2	S 181.975 Axial†	424.4	360.8	515.29 ug/L	515.29 ppb	00:57:18
2	Sb 206.836†	88.1	47.5	-3.8991 ug/L	-3.8991 ppb	00:57:18
2	Se 196.026†	-880.2	-820.2	-30.031 ug/L	-30.031 ppb	00:57:18
2	Si 251.611†	1374296.1	1301930.2	41560 ug/L	41560 ppb	00:56:53
2	Sn 189.927†	-115.8	-111.2	-16.607 ug/L	-16.607 ppb	00:57:18
2	Ti 334.940†	4173840.3	3956701.5	6252.1 ug/L	6252.1 ppb	00:56:53
2	Tl 190.801†	-244.6	-201.3	-1.0478 ug/L	-1.0478 ppb	00:57:18
2	U 409.014†	-9869.9	-8425.8	-234.04 ug/L	-234.04 ppb	00:56:58
2	V 292.402†	47597.5	46507.1	282.41 ug/L	282.41 ppb	00:56:58
2	Zn 213.857†	29699.6	27485.6	263.48 ug/L	263.48 ppb	00:57:18
2	SiO2†	1376790.8	1304283.0	88822 ug/L	88822 ppb	00:58:02
3	Sc Radial	5267.1	5267.1	97.7 %		00:56:12
3	Y RADIAL	6424.0	6424.0	110.7 %		00:56:12
3	Al 396.153Radial†	210484.0	215500.1	168710 ug/L	168710 ppb	00:55:52
3	Ca 317.933Radial†	14148.1	14466.2	23957 ug/L	23957 ppb	00:55:52
3	Fe 238.204 Radial†	14925.0	15272.9	143020 ug/L	143020 ppb	00:55:52
3	K 766.490 Radial†	103721.4	104224.6	19402 ug/L	19402 ppb	00:55:52
3	Mg 279.077 IEC†	634.7	647.4	23608 ug/L	23608 ppb	00:56:12
3	Na 589.592 Radial†	2380.8	2861.0	881.86 ug/L	881.86 ppb	00:55:52
3	Sr 421.552†	43447.5	44468.8	289.43 ug/L	289.43 ppb	00:55:52
3	Sc 361.383	925443.2	925443.2	106.12 %		00:57:25
3	Y 371.029	922758.6	922758.6	118.09 %		00:57:25
3	Ag 328.068†	-9839.3	-9566.5	5.2613 ug/L	5.2613 ppb	00:57:30
3	As 188.979†	-47.1	-13.7	81.387 ug/L	81.387 ppb	00:57:50
3	B 249.677†	1413.9	1642.1	14.422 ug/L	14.422 ppb	00:57:30
3	Ba 233.527†	272748.1	257025.5	2209.1 ug/L	2209.1 ppb	00:57:30
3	Be 313.107†	-18726.0	-12053.3	9.6123 ug/L	9.6123 ppb	00:57:30
3	Cd 226.502†	1295.2	1399.8	2.5032 ug/L	2.5032 ppb	00:57:50
3	Co 228.616†	3259.0	3130.1	60.821 ug/L	60.821 ppb	00:57:50
3	Cr 267.716†	9751.9	9110.1	110.42 ug/L	110.42 ppb	00:57:50
3	Cu 324.752†	32808.9	21077.2	69.354 ug/L	69.354 ppb	00:57:30
3	Mn 257.610†	3281978.8	3092165.3	3763.9 ug/L	3763.9 ppb	00:57:25
3	Mo 202.031†	-87.5	-103.5	3.7447 ug/L	3.7447 ppb	00:57:50
3	Ni 231.604†	3613.8	3300.2	90.648 ug/L	90.648 ppb	00:57:50
3	P 214.914†	1891.8	1562.2	883.52 ug/L	883.52 ppb	00:57:50
3	Pb 220.353†	872.1	867.2	142.93 ug/L	142.93 ppb	00:57:50
3	S 181.975 Axial†	424.4	358.5	511.74 ug/L	511.74 ppb	00:57:50
3	Sb 206.836†	96.7	55.1	-1.1192 ug/L	-1.1192 ppb	00:57:50
3	Se 196.026†	-884.8	-819.6	-28.797 ug/L	-28.797 ppb	00:57:50
3	Si 251.611†	1377628.7	1297619.7	41422 ug/L	41422 ppb	00:57:25
3	Sn 189.927†	-133.8	-127.5	-19.930 ug/L	-19.930 ppb	00:57:50
3	Ti 334.940†	4186272.5	3945787.6	6234.8 ug/L	6234.8 ppb	00:57:25
3	Tl 190.801†	-239.5	-195.2	0.8517 ug/L	0.8517 ppb	00:57:50
3	U 409.014†	-9783.1	-8290.4	-230.58 ug/L	-230.58 ppb	00:57:30
3	V 292.402†	47850.0	46487.0	282.28 ug/L	282.28 ppb	00:57:30
3	Zn 213.857†	29714.4	27338.6	261.97 ug/L	261.97 ppb	00:57:50
3	SiO2†	1371649.9	1291974.0	87984 ug/L	87984 ppb	00:58:08

Mean Data: 244144007|940180|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
	Intensity		Units			Units		
Sc 361.383	924234.4	105.98	%	0.417				0.39%
Sc Radial	5240.4	97.2	%	0.63				0.65%
Y 371.029	921082.9	117.87	%	0.481				0.41%
Y RADIAL	6396.8	110.2	%	0.59				0.53%
Ag 328.068†	-9544.1	5.4105	ug/L	0.55498	5.4105	ppb	0.55498	10.26%
Al 396.153Radial†	215643.6	168820	ug/L	722.0	168820	ppb	722.0	0.43%
As 188.979†	-19.7	78.808	ug/L	2.2545	78.808	ppb	2.2545	2.86%
B 249.677†	1649.5	14.566	ug/L	0.4583	14.566	ppb	0.4583	3.15%
Ba 233.527†	256047.1	2200.7	ug/L	8.84	2200.7	ppb	8.84	0.40%
Be 313.107†	-11727.6	9.7543	ug/L	0.12346	9.7543	ppb	0.12346	1.27%
Ca 317.933Radial†	14517.3	24041	ug/L	161.9	24041	ppb	161.9	0.67%
Cd 226.502†	1392.1	2.3911	ug/L	0.13810	2.3911	ppb	0.13810	5.78%
Co 228.616†	3123.6	60.641	ug/L	0.1897	60.641	ppb	0.1897	0.31%
Cr 267.716†	9126.9	110.62	ug/L	0.198	110.62	ppb	0.198	0.18%
Cu 324.752†	21015.4	69.182	ug/L	0.5222	69.182	ppb	0.5222	0.75%
Fe 238.204 Radial†	15290.5	143190	ug/L	532.4	143190	ppb	532.4	0.37%
K 766.490 Radial†	104599.9	19472	ug/L	124.1	19472	ppb	124.1	0.64%

Mg 279.077 IEC†	645.2	23527 ug/L	150.8	23527 ppb	150.8	0.64%
Mn 257.610†	3098705.9	3771.8 ug/L	8.76	3771.8 ppb	8.76	0.23%
Mo 202.031†	-106.5	3.5384 ug/L	0.21454	3.5384 ppb	0.21454	6.06%
Na 589.592 Radial†	2875.8	886.41 ug/L	12.229	886.41 ppb	12.229	1.38%
Ni 231.604†	3291.6	90.412 ug/L	0.3284	90.412 ppb	0.3284	0.36%
P 214.914†	1560.8	882.55 ug/L	1.055	882.55 ppb	1.055	0.12%
Pb 220.353†	864.4	142.54 ug/L	1.123	142.54 ppb	1.123	0.79%
S 181.975 Axial†	358.5	511.73 ug/L	3.572	511.73 ppb	3.572	0.70%
Sb 206.836†	50.4	-2.8338 ug/L	1.49942	-2.8338 ppb	1.49942	52.91%
Se 196.026†	-817.9	-27.163 ug/L	3.9471	-27.163 ppb	3.9471	14.53%
Si 251.611†	1299997.9	41498 ug/L	69.9	41498 ppb	69.9	0.17%
Sn 189.927†	-120.3	-18.434 ug/L	1.6861	-18.434 ppb	1.6861	9.15%
Sr 421.552†	44597.6	290.27 ug/L	1.709	290.27 ppb	1.709	0.59%
Ti 334.940†	3951165.9	6243.3 ug/L	8.63	6243.3 ppb	8.63	0.14%
Tl 190.801†	-200.0	-0.7162 ug/L	1.43130	-0.7162 ppb	1.43130	199.83%
U 409.014†	-8317.6	-231.30 ug/L	2.462	-231.30 ppb	2.462	1.06%
V 292.402†	46403.5	281.68 ug/L	1.152	281.68 ppb	1.152	0.41%
Zn 213.857†	27411.6	262.70 ug/L	0.759	262.70 ppb	0.759	0.29%
SiO2†	1295605.3	88231 ug/L	514.0	88231 ppb	514.0	0.58%

Sequence No.: 93

Sample ID: 244144008|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 92

Date Collected: 1/26/2010 01:00:20

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144008|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5199.3	5199.3	96.4 %			01:02:33
1	Y RADIAL	6231.6	6231.6	107.3 %			01:02:33
1	Al 396.153Radial†	149092.2	154635.3	121060 ug/L		121060 ppb	01:02:13
1	Ca 317.933Radial†	15392.1	15945.4	26407 ug/L		26407 ppb	01:02:13
1	Fe 238.204 Radial†	12941.8	13415.3	125630 ug/L		125630 ppb	01:02:13
1	K 766.490 Radial†	93792.0	95311.1	17741 ug/L		17741 ppb	01:02:13
1	Mg 279.077 IEC†	561.4	579.9	21147 ug/L		21147 ppb	01:02:33
1	Na 589.592 Radial†	1950.8	2446.8	754.19 ug/L		754.19 ppb	01:02:13
1	Sr 421.552†	45402.9	47077.1	306.40 ug/L		306.40 ppb	01:02:13
1	Sc 361.383	913034.4	913034.4	104.70 %			01:03:31
1	Y 371.029	895363.5	895363.5	114.58 %			01:03:31
1	Ag 328.068†	-8620.4	-8528.4	4.0676 ug/L		4.0676 ppb	01:03:37
1	As 188.979†	-55.6	-22.4	70.526 ug/L		70.526 ppb	01:03:57
1	B 249.677†	1131.4	1390.3	11.441 ug/L		11.441 ppb	01:03:37
1	Ba 233.527†	283394.8	270687.7	2325.7 ug/L		2325.7 ppb	01:03:37
1	Be 313.107†	-21117.3	-14577.2	7.9089 ug/L		7.9089 ppb	01:03:37
1	Cd 226.502†	1111.2	1240.6	2.3378 ug/L		2.3378 ppb	01:03:57
1	Co 228.616†	3225.0	3139.4	62.042 ug/L		62.042 ppb	01:03:57
1	Cr 267.716†	10991.5	10418.9	125.44 ug/L		125.44 ppb	01:03:37
1	Cu 324.752†	32127.5	20846.6	67.752 ug/L		67.752 ppb	01:03:37
1	Mn 257.610†	3550715.2	3390879.1	4124.6 ug/L		4124.6 ppb	01:03:31
1	Mo 202.031†	-64.9	-83.1	3.9315 ug/L		3.9315 ppb	01:03:57
1	Ni 231.604†	3437.1	3177.7	87.281 ug/L		87.281 ppb	01:03:57
1	P 214.914†	1904.0	1598.0	907.97 ug/L		907.97 ppb	01:03:57
1	Pb 220.353†	848.8	856.1	132.93 ug/L		132.93 ppb	01:03:57
1	S 181.975 Axial†	506.2	442.1	647.35 ug/L		647.35 ppb	01:03:57
1	Sb 206.836†	81.0	41.3	-4.2580 ug/L		-4.2580 ppb	01:03:57
1	Se 196.026†	-766.8	-718.3	-25.966 ug/L		-25.966 ppb	01:03:57
1	Si 251.611†	1137821.7	1086213.2	34674 ug/L		34674 ppb	01:03:31
1	Sn 189.927†	-143.8	-138.8	-22.142 ug/L		-22.142 ppb	01:03:57
1	Ti 334.940†	3910344.5	3735850.8	5903.7 ug/L		5903.7 ppb	01:03:31
1	Tl 190.801†	-245.8	-204.3	-3.2896 ug/L		-3.2896 ppb	01:03:57
1	U 409.014†	-9147.3	-7808.4	-216.18 ug/L		-216.18 ppb	01:03:31
1	V 292.402†	43646.8	43085.2	262.48 ug/L		262.48 ppb	01:03:37
1	Zn 213.857†	29525.2	27538.5	265.70 ug/L		265.70 ppb	01:03:37
1	SiO2†	1130660.9	1079362.1	73505 ug/L		73505 ppb	01:05:07
2	Sc Radial	5188.2	5188.2	96.2 %			01:02:58
2	Y RADIAL	6218.8	6218.8	107.1 %			01:02:58
2	Al 396.153Radial†	153057.3	159088.5	124540 ug/L		124540 ppb	01:02:38
2	Ca 317.933Radial†	15693.7	16293.2	26982 ug/L		26982 ppb	01:02:38
2	Fe 238.204 Radial†	13180.1	13691.8	128220 ug/L		128220 ppb	01:02:38
2	K 766.490 Radial†	95980.5	97794.6	18204 ug/L		18204 ppb	01:02:38
2	Mg 279.077 IEC†	561.1	580.8	21178 ug/L		21178 ppb	01:02:58
2	Na 589.592 Radial†	2013.6	2516.4	775.65 ug/L		775.65 ppb	01:02:38
2	Sr 421.552†	46663.6	48488.6	315.59 ug/L		315.59 ppb	01:02:38
2	Sc 361.383	910573.2	910573.2	104.41 %			01:04:03
2	Y 371.029	893662.9	893662.9	114.36 %			01:04:03
2	Ag 328.068†	-8576.7	-8508.7	4.9816 ug/L		4.9816 ppb	01:04:09
2	As 188.979†	-53.2	-20.3	72.012 ug/L		72.012 ppb	01:04:29
2	B 249.677†	1194.1	1453.3	12.470 ug/L		12.470 ppb	01:04:09
2	Ba 233.527†	280088.7	268253.1	2304.9 ug/L		2304.9 ppb	01:04:09
2	Be 313.107†	-21353.9	-14858.3	7.7837 ug/L		7.7837 ppb	01:04:09
2	Cd 226.502†	1116.1	1248.1	2.1620 ug/L		2.1620 ppb	01:04:29
2	Co 228.616†	3246.4	3168.2	62.705 ug/L		62.705 ppb	01:04:29
2	Cr 267.716†	10853.5	10315.1	124.27 ug/L		124.27 ppb	01:04:09
2	Cu 324.752†	31743.5	20561.8	67.058 ug/L		67.058 ppb	01:04:09
2	Mn 257.610†	3529029.2	3379276.6	4110.8 ug/L		4110.8 ppb	01:04:03
2	Mo 202.031†	-54.5	-73.2	4.8659 ug/L		4.8659 ppb	01:04:29
2	Ni 231.604†	3423.5	3173.5	87.165 ug/L		87.165 ppb	01:04:29

2	P 214.914†	1881.3	1581.3	896.54 ug/L	896.54 ppb	01:04:29
2	Pb 220.353†	850.1	859.5	133.90 ug/L	133.90 ppb	01:04:29
2	S 181.975 Axial†	517.2	453.9	664.57 ug/L	664.57 ppb	01:04:29
2	Sb 206.836†	86.8	47.1	-2.0999 ug/L	-2.0999 ppb	01:04:29
2	Se 196.026†	-785.5	-738.2	-29.658 ug/L	-29.658 ppb	01:04:29
2	Si 251.611†	1131724.5	1083311.3	34581 ug/L	34581 ppb	01:04:03
2	Sn 189.927†	-128.5	-124.6	-19.120 ug/L	-19.120 ppb	01:04:29
2	Ti 334.940†	3894166.4	3730451.9	5895.2 ug/L	5895.2 ppb	01:04:03
2	Tl 190.801†	-234.1	-193.7	0.2544 ug/L	0.2544 ppb	01:04:29
2	U 409.014†	-9288.4	-7967.2	-220.57 ug/L	-220.57 ppb	01:04:03
2	V 292.402†	43273.6	42840.4	260.49 ug/L	260.49 ppb	01:04:09
2	Zn 213.857†	29289.0	27388.5	263.94 ug/L	263.94 ppb	01:04:09
2	SiO2†	1136230.3	1087615.0	74067 ug/L	74067 ppb	01:05:13
3	Sc Radial	5149.9	5149.9	95.5 %		01:03:23
3	Y RADIAL	6165.7	6165.7	106.2 %		01:03:23
3	Al 396.153Radial†	153668.8	160909.4	125970 ug/L	125970 ppb	01:03:03
3	Ca 317.933Radial†	15728.0	16450.2	27242 ug/L	27242 ppb	01:03:03
3	Fe 238.204 Radial†	13219.3	13834.5	129550 ug/L	129550 ppb	01:03:03
3	K 766.490 Radial†	96163.3	98726.3	18377 ug/L	18377 ppb	01:03:03
3	Mg 279.077 IEC†	563.0	587.2	21411 ug/L	21411 ppb	01:03:23
3	Na 589.592 Radial†	2007.3	2525.3	778.40 ug/L	778.40 ppb	01:03:03
3	Sr 421.552†	46763.7	48953.3	318.62 ug/L	318.62 ppb	01:03:03
3	Sc 361.383	916091.8	916091.8	105.05 %		01:04:35
3	Y 371.029	898178.2	898178.2	114.94 %		01:04:35
3	Ag 328.068†	-8642.6	-8522.0	5.3502 ug/L	5.3502 ppb	01:04:41
3	As 188.979†	-50.9	-17.8	73.426 ug/L	73.426 ppb	01:05:01
3	B 249.677†	1261.3	1510.4	13.570 ug/L	13.570 ppb	01:04:41
3	Ba 233.527†	282502.0	268934.5	2310.8 ug/L	2310.8 ppb	01:04:41
3	Be 313.107†	-21457.6	-14833.8	7.7879 ug/L	7.7879 ppb	01:04:41
3	Cd 226.502†	1113.0	1238.8	1.9091 ug/L	1.9091 ppb	01:05:01
3	Co 228.616†	3248.8	3151.8	62.298 ug/L	62.298 ppb	01:05:01
3	Cr 267.716†	11006.0	10397.7	125.26 ug/L	125.26 ppb	01:04:41
3	Cu 324.752†	32183.8	20797.8	67.817 ug/L	67.817 ppb	01:04:41
3	Mn 257.610†	3550762.3	3379605.5	4111.3 ug/L	4111.3 ppb	01:04:35
3	Mo 202.031†	-61.9	-79.9	4.4780 ug/L	4.4780 ppb	01:05:01
3	Ni 231.604†	3423.9	3154.1	86.633 ug/L	86.633 ppb	01:05:01
3	P 214.914†	1910.3	1598.1	906.07 ug/L	906.07 ppb	01:05:01
3	Pb 220.353†	837.9	843.0	131.80 ug/L	131.80 ppb	01:05:01
3	S 181.975 Axial†	512.9	446.9	653.64 ug/L	653.64 ppb	01:05:01
3	Sb 206.836†	82.6	42.6	-3.7780 ug/L	-3.7780 ppb	01:05:01
3	Se 196.026†	-784.6	-732.8	-21.756 ug/L	-21.756 ppb	01:05:01
3	Si 251.611†	1138627.4	1083353.3	34583 ug/L	34583 ppb	01:04:35
3	Sn 189.927†	-142.8	-137.5	-21.680 ug/L	-21.680 ppb	01:05:01
3	Ti 334.940†	3916312.7	3729067.4	5893.0 ug/L	5893.0 ppb	01:04:35
3	Tl 190.801†	-240.3	-198.2	-1.3264 ug/L	-1.3264 ppb	01:05:01
3	U 409.014†	-9236.2	-7864.0	-218.06 ug/L	-218.06 ppb	01:04:35
3	V 292.402†	43531.3	42836.1	260.27 ug/L	260.27 ppb	01:04:41
3	Zn 213.857†	29461.7	27383.9	263.76 ug/L	263.76 ppb	01:04:41
3	SiO2†	1134018.4	1078954.1	73477 ug/L	73477 ppb	01:05:19

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Mean Data: 244144008|940180|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	913233.1	104.72	%	0.317			0.30%
Sc Radial	5179.1	96.0	%	0.48			0.50%
Y 371.029	895734.9	114.63	%	0.292			0.25%
Y RADIAL	6205.4	106.9	%	0.60			0.56%
Ag 328.068†	-8519.7	4.7998	ug/L	0.66037	4.7998 ppb	0.66037	13.76%
Al 396.153Radial†	158211.1	123860	ug/L	2526.9	123860 ppb	2526.9	2.04%
As 188.979†	-20.2	71.988	ug/L	1.4500	71.988 ppb	1.4500	2.01%
B 249.677†	1451.3	12.494	ug/L	1.0646	12.494 ppb	1.0646	8.52%
Ba 233.527†	269291.7	2313.8	ug/L	10.72	2313.8 ppb	10.72	0.46%
Be 313.107†	-14756.5	7.8268	ug/L	0.07110	7.8268 ppb	0.07110	0.91%
Ca 317.933Radial†	16229.6	26877	ug/L	427.8	26877 ppb	427.8	1.59%
Cd 226.502†	1242.5	2.1363	ug/L	0.21547	2.1363 ppb	0.21547	10.09%
Co 228.616†	3153.1	62.348	ug/L	0.3340	62.348 ppb	0.3340	0.54%
Cr 267.716†	10377.2	124.99	ug/L	0.631	124.99 ppb	0.631	0.51%
Cu 324.752†	20735.4	67.542	ug/L	0.4210	67.542 ppb	0.4210	0.62%
Fe 238.204 Radial†	13647.2	127800	ug/L	1996.2	127800 ppb	1996.2	1.56%
K 766.490 Radial†	97277.3	18107	ug/L	328.7	18107 ppb	328.7	1.82%

Mg 279.077 IEC†	582.6	21245 ug/L	144.1	21245 ppb	144.1	0.68%
Mn 257.610†	3383253.7	4115.6 ug/L	7.83	4115.6 ppb	7.83	0.19%
Mo 202.031†	-78.7	4.4252 ug/L	0.46943	4.4252 ppb	0.46943	10.61%
Na 589.592 Radial†	2496.2	769.41 ug/L	13.256	769.41 ppb	13.256	1.72%
Ni 231.604†	3168.4	87.026 ug/L	0.3452	87.026 ppb	0.3452	0.40%
P 214.914†	1592.5	903.53 ug/L	6.127	903.53 ppb	6.127	0.68%
Pb 220.353†	852.9	132.88 ug/L	1.053	132.88 ppb	1.053	0.79%
S 181.975 Axial†	447.6	655.19 ug/L	8.712	655.19 ppb	8.712	1.33%
Sb 206.836†	43.7	-3.3786 ug/L	1.13313	-3.3786 ppb	1.13313	33.54%
Se 196.026†	-729.8	-25.793 ug/L	3.9535	-25.793 ppb	3.9535	15.33%
Si 251.611†	1084292.6	34613 ug/L	53.1	34613 ppb	53.1	0.15%
Sn 189.927†	-133.6	-20.981 ug/L	1.6281	-20.981 ppb	1.6281	7.76%
Sr 421.552†	48173.0	313.54 ug/L	6.360	313.54 ppb	6.360	2.03%
Ti 334.940†	3731790.0	5897.3 ug/L	5.61	5897.3 ppb	5.61	0.10%
Tl 190.801†	-198.7	-1.4539 ug/L	1.77542	-1.4539 ppb	1.77542	122.12%
U 409.014†	-7879.8	-218.27 ug/L	2.203	-218.27 ppb	2.203	1.01%
V 292.402†	42920.6	261.08 ug/L	1.221	261.08 ppb	1.221	0.47%
Zn 213.857†	27436.9	264.47 ug/L	1.073	264.47 ppb	1.073	0.41%
Sio2†	1081977.0	73683 ug/L	332.8	73683 ppb	332.8	0.45%



Sequence No.: 94

Sample ID: 244144009|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 93

Date Collected: 1/26/2010 01:07:30

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144009|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5256.3	5256.3	97.5 %		01:09:43
1	Y RADIAL	6593.8	6593.8	113.6 %		01:09:43
1	Al 396.153Radial†	216552.0	222170.0	173930 ug/L	173930 ppb	01:09:23
1	Ca 317.933Radial†	13774.6	14112.8	23372 ug/L	23372 ppb	01:09:23
1	Fe 238.204 Radial†	13938.1	14291.9	133830 ug/L	133830 ppb	01:09:23
1	K 766.490 Radial†	101332.5	101992.7	18987 ug/L	18987 ppb	01:09:23
1	Mg 279.077 IEC†	655.4	670.1	24448 ug/L	24448 ppb	01:09:43
1	Na 589.592 Radial†	3363.2	3873.8	1194.1 ug/L	1194.1 ppb	01:09:23
1	Sr 421.552†	43864.8	44988.5	292.82 ug/L	292.82 ppb	01:09:23
1	Sc 361.383	911790.6	911790.6	104.55 %		01:10:41
1	Y 371.029	940995.0	940995.0	120.42 %		01:10:41
1	Ag 328.068†	-9301.4	-9190.9	3.8182 ug/L	3.8182 ppb	01:10:46
1	As 188.979†	-31.8	0.2	75.222 ug/L	75.222 ppb	01:11:06
1	B 249.677†	1267.0	1521.5	13.188 ug/L	13.188 ppb	01:10:46
1	Ba 233.527†	246266.5	235545.9	2024.6 ug/L	2024.6 ppb	01:10:46
1	Be 313.107†	-8080.5	-2135.7	10.664 ug/L	10.664 ppb	01:10:46
1	Cd 226.502†	1146.0	1275.4	1.9034 ug/L	1.9034 ppb	01:11:06
1	Co 228.616†	2378.3	2333.7	44.277 ug/L	44.277 ppb	01:11:06
1	Cr 267.716†	9195.3	8715.3	105.56 ug/L	105.56 ppb	01:10:46
1	Cu 324.752†	32804.3	21535.8	70.233 ug/L	70.233 ppb	01:10:46
1	Mn 257.610†	2284529.3	2184468.5	2661.9 ug/L	2661.9 ppb	01:10:41
1	Mo 202.031†	-70.1	-88.1	4.1602 ug/L	4.1602 ppb	01:11:06
1	Ni 231.604†	3177.1	2933.5	80.582 ug/L	80.582 ppb	01:11:06
1	P 214.914†	1834.8	1534.4	874.67 ug/L	874.67 ppb	01:11:06
1	Pb 220.353†	731.5	745.1	127.99 ug/L	127.99 ppb	01:11:06
1	S 181.975 Axial†	345.1	288.7	404.92 ug/L	404.92 ppb	01:11:06
1	Sb 206.836†	78.2	38.7	-3.6053 ug/L	-3.6053 ppb	01:11:06
1	Se 196.026†	-833.7	-783.3	-36.112 ug/L	-36.112 ppb	01:11:06
1	Si 251.611†	1278655.7	1222395.8	39021 ug/L	39021 ppb	01:10:41
1	Sn 189.927†	-118.1	-114.5	-17.509 ug/L	-17.509 ppb	01:11:06
1	Ti 334.940†	3342269.8	3197613.7	5052.7 ug/L	5052.7 ppb	01:10:41
1	Tl 190.801†	-208.8	-169.2	-5.0049 ug/L	-5.0049 ppb	01:11:06
1	U 409.014†	-11379.9	-9955.7	-272.51 ug/L	-272.51 ppb	01:10:41
1	V 292.402†	40689.8	40313.8	243.68 ug/L	243.68 ppb	01:10:46
1	Zn 213.857†	29964.2	27996.7	269.58 ug/L	269.58 ppb	01:10:46
1	SiO2†	1263728.5	1208107.1	82272 ug/L	82272 ppb	01:12:14
2	Sc Radial	5262.0	5262.0	97.6 %		01:10:08
2	Y RADIAL	6611.6	6611.6	113.9 %		01:10:08
2	Al 396.153Radial†	217897.0	223304.5	174820 ug/L	174820 ppb	01:09:48
2	Ca 317.933Radial†	13872.2	14197.4	23512 ug/L	23512 ppb	01:09:48
2	Fe 238.204 Radial†	13980.6	14319.8	134100 ug/L	134100 ppb	01:09:48
2	K 766.490 Radial†	102028.4	102591.7	19099 ug/L	19099 ppb	01:09:48
2	Mg 279.077 IEC†	659.3	673.3	24567 ug/L	24567 ppb	01:10:08
2	Na 589.592 Radial†	3379.8	3887.1	1198.1 ug/L	1198.1 ppb	01:09:48
2	Sr 421.552†	44028.6	45107.1	293.59 ug/L	293.59 ppb	01:09:48
2	Sc 361.383	935834.6	935834.6	107.31 %		01:11:12
2	Y 371.029	960360.3	960360.3	122.90 %		01:11:12
2	Ag 328.068†	-9113.2	-8787.0	5.6381 ug/L	5.6381 ppb	01:11:17
2	As 188.979†	-35.8	-2.8	72.635 ug/L	72.635 ppb	01:11:37
2	B 249.677†	1168.2	1398.4	10.309 ug/L	10.309 ppb	01:11:17
2	Ba 233.527†	243734.9	227135.1	1952.4 ug/L	1952.4 ppb	01:11:17
2	Be 313.107†	-8160.7	-2011.9	10.364 ug/L	10.364 ppb	01:11:17
2	Cd 226.502†	1139.8	1241.4	1.4572 ug/L	1.4572 ppb	01:11:37
2	Co 228.616†	2386.1	2282.6	43.335 ug/L	43.335 ppb	01:11:37
2	Cr 267.716†	9136.0	8434.1	102.24 ug/L	102.24 ppb	01:11:17
2	Cu 324.752†	32619.0	20557.0	67.380 ug/L	67.380 ppb	01:11:17
2	Mn 257.610†	2272728.6	2117332.8	2580.5 ug/L	2580.5 ppb	01:11:12
2	Mo 202.031†	-71.1	-87.3	4.2452 ug/L	4.2452 ppb	01:11:37
2	Ni 231.604†	3177.2	2855.4	78.438 ug/L	78.438 ppb	01:11:37

2	P 214.914†	1821.7	1477.0	839.68 ug/L	839.68 ppb	01:11:37
2	Pb 220.353†	746.2	740.7	127.55 ug/L	127.55 ppb	01:11:37
2	S 181.975 Axial†	341.0	276.4	386.06 ug/L	386.06 ppb	01:11:37
2	Sb 206.836†	76.2	35.0	-4.5235 ug/L	-4.5235 ppb	01:11:37
2	Se 196.026†	-816.1	-746.4	-12.125 ug/L	-12.125 ppb	01:11:37
2	Si 251.611†	1274707.0	1187295.1	37901 ug/L	37901 ppb	01:11:12
2	Sn 189.927†	-131.5	-124.0	-19.424 ug/L	-19.424 ppb	01:11:37
2	Ti 334.940†	3326732.1	3101003.3	4900.1 ug/L	4900.1 ppb	01:11:12
2	Tl 190.801†	-205.0	-160.5	-3.6316 ug/L	-3.6316 ppb	01:11:37
2	U 409.014†	-11432.0	-9724.7	-266.57 ug/L	-266.57 ppb	01:11:12
2	V 292.402†	40245.4	38899.8	234.39 ug/L	234.39 ppb	01:11:17
2	Zn 213.857†	29667.1	26983.6	259.33 ug/L	259.33 ppb	01:11:17
2	SiO2†	1268627.3	1181617.9	80468 ug/L	80468 ppb	01:12:20
3	Sc Radial	5159.4	5159.4	95.7 %		01:10:33
3	Y RADIAL	6514.3	6514.3	112.2 %		01:10:33
3	Al 396.153Radial†	220375.2	230335.7	180320 ug/L	180320 ppb	01:10:13
3	Ca 317.933Radial†	14012.6	14626.8	24223 ug/L	24223 ppb	01:10:13
3	Fe 238.204 Radial†	14146.0	14777.6	138380 ug/L	138380 ppb	01:10:13
3	K 766.490 Radial†	103202.5	105898.4	19714 ug/L	19714 ppb	01:10:13
3	Mg 279.077 IEC†	660.9	688.3	25114 ug/L	25114 ppb	01:10:33
3	Na 589.592 Radial†	3457.7	4037.5	1244.5 ug/L	1244.5 ppb	01:10:13
3	Sr 421.552†	44531.5	46530.0	302.86 ug/L	302.86 ppb	01:10:13
3	Sc 361.383	919173.3	919173.3	105.40 %		01:11:43
3	Y 371.029	945385.0	945385.0	120.98 %		01:11:43
3	Ag 328.068†	-9259.4	-9079.6	5.7562 ug/L	5.7562 ppb	01:11:48
3	As 188.979†	-35.6	-3.1	74.273 ug/L	74.273 ppb	01:12:08
3	B 249.677†	1159.9	1410.2	9.8834 ug/L	9.8834 ppb	01:11:48
3	Ba 233.527†	244480.0	231959.1	1993.9 ug/L	1993.9 ppb	01:11:48
3	Be 313.107†	-7959.0	-1958.4	10.595 ug/L	10.595 ppb	01:11:48
3	Cd 226.502†	1101.0	1223.9	0.7974 ug/L	0.7974 ppb	01:12:08
3	Co 228.616†	2367.0	2304.8	43.627 ug/L	43.627 ppb	01:12:08
3	Cr 267.716†	9199.5	8648.6	104.86 ug/L	104.86 ppb	01:11:48
3	Cu 324.752†	32606.1	21095.8	69.187 ug/L	69.187 ppb	01:11:48
3	Mn 257.610†	2276931.3	2159710.0	2632.3 ug/L	2632.3 ppb	01:11:43
3	Mo 202.031†	-82.6	-99.4	3.6910 ug/L	3.6910 ppb	01:12:08
3	Ni 231.604†	3148.2	2881.6	79.157 ug/L	79.157 ppb	01:12:08
3	P 214.914†	1814.4	1500.9	852.11 ug/L	852.11 ppb	01:12:08
3	Pb 220.353†	726.0	734.2	127.43 ug/L	127.43 ppb	01:12:08
3	S 181.975 Axial†	345.7	286.6	400.53 ug/L	400.53 ppb	01:12:08
3	Sb 206.836†	84.3	43.9	-1.6056 ug/L	-1.6056 ppb	01:12:08
3	Se 196.026†	-819.0	-762.9	-7.9271 ug/L	-7.9271 ppb	01:12:08
3	Si 251.611†	1276716.1	1210732.9	38649 ug/L	38649 ppb	01:11:43
3	Sn 189.927†	-120.6	-115.9	-17.597 ug/L	-17.597 ppb	01:12:08
3	Ti 334.940†	3329506.4	3159828.8	4993.1 ug/L	4993.1 ppb	01:11:43
3	Tl 190.801†	-193.1	-152.7	0.1031 ug/L	0.1031 ppb	01:12:08
3	U 409.014†	-11482.1	-9965.3	-273.27 ug/L	-273.27 ppb	01:11:43
3	V 292.402†	40468.9	39791.7	239.60 ug/L	239.60 ppb	01:11:48
3	Zn 213.857†	29805.8	27616.3	265.30 ug/L	265.30 ppb	01:11:48
3	SiO2†	1288296.6	1221708.4	83198 ug/L	83198 ppb	01:12:26

Mean Data: 244144009|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	922266.1	105.76 %		1.412			1.34%
Sc Radial	5225.9	96.9 %		1.07			1.10%
Y 371.029	948913.4	121.43 %		1.299			1.07%
Y RADIAL	6573.2	113.2 %		0.89			0.79%
Ag 328.068†	-9019.2	5.0708 ug/L		1.08642	5.0708 ppb	1.08642	21.42%
Al 396.153Radial†	225270.1	176350 ug/L		3463.0	176350 ppb	3463.0	1.96%
As 188.979†	-1.9	74.043 ug/L		1.3088	74.043 ppb	1.3088	1.77%
B 249.677†	1443.4	11.127 ug/L		1.7978	11.127 ppb	1.7978	16.16%
Ba 233.527†	231546.7	1990.3 ug/L		36.21	1990.3 ppb	36.21	1.82%
Be 313.107†	-2035.3	10.541 ug/L		0.1571	10.541 ppb	0.1571	1.49%
Ca 317.933Radial†	14312.3	23702 ug/L		456.5	23702 ppb	456.5	1.93%
Cd 226.502†	1246.9	1.3860 ug/L		0.55643	1.3860 ppb	0.55643	40.15%
Co 228.616†	2307.0	43.746 ug/L		0.4823	43.746 ppb	0.4823	1.10%
Cr 267.716†	8599.3	104.22 ug/L		1.748	104.22 ppb	1.748	1.68%
Cu 324.752†	21062.9	68.933 ug/L		1.4433	68.933 ppb	1.4433	2.09%
Fe 238.204 Radial†	14463.1	135440 ug/L		2554.2	135440 ppb	2554.2	1.89%
K 766.490 Radial†	103494.3	19267 ug/L		391.6	19267 ppb	391.6	2.03%

Mg 279.077 IEC†	677.2	24710 ug/L	355.3	24710 ppb	355.3	1.44%
Mn 257.610†	2153837.1	2624.9 ug/L	41.21	2624.9 ppb	41.21	1.57%
Mo 202.031†	-91.6	4.0321 ug/L	0.29849	4.0321 ppb	0.29849	7.40%
Na 589.592 Radial†	3932.8	1212.2 ug/L	28.01	1212.2 ppb	28.01	2.31%
Ni 231.604†	2890.2	79.393 ug/L	1.0914	79.393 ppb	1.0914	1.37%
P 214.914†	1504.1	855.49 ug/L	17.739	855.49 ppb	17.739	2.07%
Pb 220.353†	740.0	127.65 ug/L	0.293	127.65 ppb	0.293	0.23%
S 181.975 Axial†	283.9	397.17 ug/L	9.867	397.17 ppb	9.867	2.48%
Sb 206.836†	39.2	-3.2448 ug/L	1.49195	-3.2448 ppb	1.49195	45.98%
Se 196.026†	-764.2	-18.721 ug/L	15.2061	-18.721 ppb	15.2061	81.22%
Si 251.611†	1206807.9	38523 ug/L	570.7	38523 ppb	570.7	1.48%
Sn 189.927†	-118.1	-18.177 ug/L	1.0808	-18.177 ppb	1.0808	5.95%
Sr 421.552†	45541.9	296.42 ug/L	5.583	296.42 ppb	5.583	1.88%
Ti 334.940†	3152815.2	4982.0 ug/L	76.91	4982.0 ppb	76.91	1.54%
Tl 190.801†	-160.8	-2.8444 ug/L	2.64342	-2.8444 ppb	2.64342	92.93%
U 409.014†	-9881.9	-270.78 ug/L	3.672	-270.78 ppb	3.672	1.36%
V 292.402†	39668.4	239.22 ug/L	4.653	239.22 ppb	4.653	1.95%
Zn 213.857†	27532.2	264.74 ug/L	5.151	264.74 ppb	5.151	1.95%
SiO2†	1203811.2	81980 ug/L	1388.4	81980 ppb	1388.4	1.69%

Sequence No.: 95

Sample ID: 244144010|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 94

Date Collected: 1/26/2010 01:14:37

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144010|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5220.0	5220.0	96.8 %			01:16:50
1	Y RADIAL	6240.7	6240.7	107.5 %			01:16:50
1	Al 396.153Radial†	172904.8	178622.6	139840 ug/L		139840 ppb	01:16:30
1	Ca 317.933Radial†	14073.4	14519.8	24046 ug/L		24046 ppb	01:16:30
1	Fe 238.204 Radial†	14677.5	15155.2	141920 ug/L		141920 ppb	01:16:30
1	K 766.490 Radial†	113447.5	115231.1	21452 ug/L		21452 ppb	01:16:30
1	Mg 279.077 IEC†	630.4	648.9	23664 ug/L		23664 ppb	01:16:50
1	Na 589.592 Radial†	1730.0	2210.6	681.39 ug/L		681.39 ppb	01:16:30
1	Sr 421.552†	45095.3	46572.6	303.13 ug/L		303.13 ppb	01:16:30
1	Sc 361.383	913594.9	913594.9	104.76 %			01:17:49
1	Y 371.029	894059.9	894059.9	114.41 %			01:17:49
1	Ag 328.068†	-9551.7	-9412.2	5.6144 ug/L		5.6144 ppb	01:17:54
1	As 188.979†	-56.1	-22.9	76.618 ug/L		76.618 ppb	01:18:14
1	B 249.677†	1513.0	1753.9	17.169 ug/L		17.169 ppb	01:17:54
1	Ba 233.527†	257878.5	246165.0	2116.0 ug/L		2116.0 ppb	01:17:54
1	Be 313.107†	-23160.3	-16515.0	7.8282 ug/L		7.8282 ppb	01:17:54
1	Cd 226.502†	1272.2	1393.7	2.5438 ug/L		2.5438 ppb	01:18:14
1	Co 228.616†	3364.8	3270.9	64.254 ug/L		64.254 ppb	01:18:14
1	Cr 267.716†	10734.6	10167.2	122.84 ug/L		122.84 ppb	01:18:14
1	Cu 324.752†	31058.6	19807.4	65.572 ug/L		65.572 ppb	01:17:54
1	Mn 257.610†	3494340.2	3334985.4	4058.3 ug/L		4058.3 ppb	01:17:49
1	Mo 202.031†	-93.0	-109.8	3.1942 ug/L		3.1942 ppb	01:18:14
1	Ni 231.604†	3507.4	3242.7	89.067 ug/L		89.067 ppb	01:18:14
1	P 214.914†	1890.2	1583.8	891.31 ug/L		891.31 ppb	01:18:14
1	Pb 220.353†	878.9	884.3	139.24 ug/L		139.24 ppb	01:18:14
1	S 181.975 Axial†	501.6	437.4	636.70 ug/L		636.70 ppb	01:18:14
1	Sb 206.836†	86.2	46.2	-3.4049 ug/L		-3.4049 ppb	01:18:14
1	Se 196.026†	-876.0	-822.1	-35.800 ug/L		-35.800 ppb	01:18:14
1	Si 251.611†	1285727.9	1226731.4	39159 ug/L		39159 ppb	01:17:49
1	Sn 189.927†	-127.0	-122.7	-18.945 ug/L		-18.945 ppb	01:18:14
1	Ti 334.940†	4102339.7	3916829.8	6189.0 ug/L		6189.0 ppb	01:17:49
1	Tl 190.801†	-257.8	-215.6	-5.2435 ug/L		-5.2435 ppb	01:18:14
1	U 409.014†	-9059.3	-7719.1	-215.73 ug/L		-215.73 ppb	01:17:54
1	V 292.402†	48924.4	48097.3	293.24 ug/L		293.24 ppb	01:17:54
1	Zn 213.857†	29750.6	27736.3	266.12 ug/L		266.12 ppb	01:18:14
1	SiO2†	1290213.1	1231001.1	83831 ug/L		83831 ppb	01:19:24
2	Sc Radial	5210.2	5210.2	96.6 %			01:17:15
2	Y RADIAL	6209.5	6209.5	107.0 %			01:17:15
2	Al 396.153Radial†	174747.4	180865.5	141590 ug/L		141590 ppb	01:16:55
2	Ca 317.933Radial†	14202.9	14681.1	24313 ug/L		24313 ppb	01:16:55
2	Fe 238.204 Radial†	14850.4	15362.7	143860 ug/L		143860 ppb	01:16:55
2	K 766.490 Radial†	114534.1	116576.1	21703 ug/L		21703 ppb	01:16:55
2	Mg 279.077 IEC†	632.0	651.7	23765 ug/L		23765 ppb	01:17:15
2	Na 589.592 Radial†	1783.5	2269.4	699.51 ug/L		699.51 ppb	01:16:55
2	Sr 421.552†	45561.2	47142.3	306.84 ug/L		306.84 ppb	01:16:55
2	Sc 361.383	918324.9	918324.9	105.30 %			01:18:21
2	Y 371.029	897836.7	897836.7	114.90 %			01:18:21
2	Ag 328.068†	-9656.4	-9464.7	6.0175 ug/L		6.0175 ppb	01:18:26
2	As 188.979†	-49.3	-16.2	80.046 ug/L		80.046 ppb	01:18:46
2	B 249.677†	1617.6	1845.8	18.972 ug/L		18.972 ppb	01:18:26
2	Ba 233.527†	261339.2	248183.5	2133.3 ug/L		2133.3 ppb	01:18:26
2	Be 313.107†	-23297.4	-16531.3	7.8180 ug/L		7.8180 ppb	01:18:26
2	Cd 226.502†	1264.4	1380.0	2.1734 ug/L		2.1734 ppb	01:18:46
2	Co 228.616†	3384.5	3273.1	64.293 ug/L		64.293 ppb	01:18:46
2	Cr 267.716†	10729.1	10109.3	122.20 ug/L		122.20 ppb	01:18:46
2	Cu 324.752†	31717.2	20280.2	67.060 ug/L		67.060 ppb	01:18:26
2	Mn 257.610†	3515568.4	3337964.2	4062.1 ug/L		4062.1 ppb	01:18:21
2	Mo 202.031†	-78.9	-96.0	4.3691 ug/L		4.3691 ppb	01:18:46
2	Ni 231.604†	3506.3	3224.5	88.566 ug/L		88.566 ppb	01:18:46

2	P 214.914†	1903.2	1586.8	891.81 ug/L	891.81 ppb	01:18:46
2	Pb 220.353†	885.7	886.4	139.73 ug/L	139.73 ppb	01:18:46
2	S 181.975 Axial†	498.1	431.6	627.62 ug/L	627.62 ppb	01:18:46
2	Sb 206.836†	91.9	51.3	-1.5188 ug/L	-1.5188 ppb	01:18:46
2	Se 196.026†	-861.6	-804.1	-18.017 ug/L	-18.017 ppb	01:18:46
2	Si 251.611†	1293494.9	1227785.8	39193 ug/L	39193 ppb	01:18:21
2	Sn 189.927†	-120.3	-115.7	-17.451 ug/L	-17.451 ppb	01:18:46
2	Ti 334.940†	4122375.9	3915687.2	6187.3 ug/L	6187.3 ppb	01:18:21
2	Tl 190.801†	-256.3	-212.9	-4.3101 ug/L	-4.3101 ppb	01:18:46
2	U 409.014†	-9201.1	-7809.2	-218.27 ug/L	-218.27 ppb	01:18:26
2	V 292.402†	49448.8	48354.8	294.68 ug/L	294.68 ppb	01:18:26
2	Zn 213.857†	29702.9	27544.7	263.99 ug/L	263.99 ppb	01:18:46
2	SiO2†	1287528.2	1222107.8	83226 ug/L	83226 ppb	01:19:30
3	Sc Radial	5223.4	5223.4	96.9 %		01:17:40
3	Y RADIAL	6237.0	6237.0	107.4 %		01:17:40
3	Al 396.153Radial†	175255.0	180933.3	141650 ug/L	141650 ppb	01:17:20
3	Ca 317.933Radial†	14257.4	14700.3	24345 ug/L	24345 ppb	01:17:20
3	Fe 238.204 Radial†	14874.8	15349.0	143730 ug/L	143730 ppb	01:17:20
3	K 766.490 Radial†	115048.0	116807.7	21746 ug/L	21746 ppb	01:17:20
3	Mg 279.077 IEC†	633.3	651.4	23754 ug/L	23754 ppb	01:17:40
3	Na 589.592 Radial†	1806.9	2288.9	705.52 ug/L	705.52 ppb	01:17:20
3	Sr 421.552†	45745.1	47213.3	307.31 ug/L	307.31 ppb	01:17:20
3	Sc 361.383	907185.0	907185.0	104.03 %		01:18:53
3	Y 371.029	886955.2	886955.2	113.51 %		01:18:53
3	Ag 328.068†	-9676.0	-9596.2	5.4185 ug/L	5.4185 ppb	01:18:58
3	As 188.979†	-56.6	-23.8	76.655 ug/L	76.655 ppb	01:19:18
3	B 249.677†	1607.6	1855.1	19.203 ug/L	19.203 ppb	01:18:58
3	Ba 233.527†	261278.6	251172.7	2159.0 ug/L	2159.0 ppb	01:18:58
3	Be 313.107†	-23315.4	-16820.3	7.7153 ug/L	7.7153 ppb	01:18:58
3	Cd 226.502†	1271.3	1401.4	2.4499 ug/L	2.4499 ppb	01:19:18
3	Co 228.616†	3404.7	3332.0	65.712 ug/L	65.712 ppb	01:19:18
3	Cr 267.716†	10760.1	10264.2	124.03 ug/L	124.03 ppb	01:19:18
3	Cu 324.752†	31761.8	20692.9	68.263 ug/L	68.263 ppb	01:18:58
3	Mn 257.610†	3472049.6	3337125.2	4061.1 ug/L	4061.1 ppb	01:18:53
3	Mo 202.031†	-73.7	-91.9	4.6613 ug/L	4.6613 ppb	01:19:18
3	Ni 231.604†	3513.9	3272.6	89.888 ug/L	89.888 ppb	01:19:18
3	P 214.914†	1909.9	1615.5	909.46 ug/L	909.46 ppb	01:19:18
3	Pb 220.353†	881.3	892.5	140.60 ug/L	140.60 ppb	01:19:18
3	S 181.975 Axial†	511.6	450.4	656.03 ug/L	656.03 ppb	01:19:18
3	Sb 206.836†	96.0	56.2	0.2856 ug/L	0.2856 ppb	01:19:18
3	Se 196.026†	-865.2	-817.6	-26.877 ug/L	-26.877 ppb	01:19:18
3	Si 251.611†	1277126.4	1227134.3	39172 ug/L	39172 ppb	01:18:53
3	Sn 189.927†	-117.8	-114.7	-17.250 ug/L	-17.250 ppb	01:19:18
3	Ti 334.940†	4074156.2	3917405.3	6190.0 ug/L	6190.0 ppb	01:18:53
3	Tl 190.801†	-260.7	-220.1	-6.8134 ug/L	-6.8134 ppb	01:19:18
3	U 409.014†	-9305.6	-8017.0	-223.63 ug/L	-223.63 ppb	01:18:58
3	V 292.402†	49532.4	49011.8	299.07 ug/L	299.07 ppb	01:18:58
3	Zn 213.857†	29857.1	28039.3	269.00 ug/L	269.00 ppb	01:19:18
3	SiO2†	1281062.9	1230906.9	83825 ug/L	83825 ppb	01:19:36

Mean Data: 244144010|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	913034.9	104.70 %		0.641				0.61%
Sc Radial	5217.8	96.8 %		0.13				0.13%
Y 371.029	892950.6	114.27 %		0.707				0.62%
Y RADIAL	6229.1	107.3 %		0.29				0.27%
Ag 328.068†	-9491.0	5.6835 ug/L		0.30544	5.6835 ppb		0.30544	5.37%
Al 396.153Radial†	180140.5	141020 ug/L		1029.4	141020 ppb		1029.4	0.73%
As 188.979†	-21.0	77.773 ug/L		1.9688	77.773 ppb		1.9688	2.53%
B 249.677†	1818.3	18.448 ug/L		1.1137	18.448 ppb		1.1137	6.04%
Ba 233.527†	248507.1	2136.1 ug/L		21.64	2136.1 ppb		21.64	1.01%
Be 313.107†	-16622.2	7.7871 ug/L		0.06245	7.7871 ppb		0.06245	0.80%
Ca 317.933Radial†	14633.7	24234 ug/L		164.2	24234 ppb		164.2	0.68%
Cd 226.502†	1391.7	2.3890 ug/L		0.19256	2.3890 ppb		0.19256	8.06%
Co 228.616†	3292.0	64.753 ug/L		0.8308	64.753 ppb		0.8308	1.28%
Cr 267.716†	10180.2	123.02 ug/L		0.927	123.02 ppb		0.927	0.75%
Cu 324.752†	20260.2	66.965 ug/L		1.3479	66.965 ppb		1.3479	2.01%
Fe 238.204 Radial†	15289.0	143170 ug/L		1086.9	143170 ppb		1086.9	0.76%
K 766.490 Radial†	116205.0	21634 ug/L		158.5	21634 ppb		158.5	0.73%

Mg 279.077 IEC†	650.7	23727 ug/L	55.5	23727 ppb	55.5	0.23%
Mn 257.610†	3336691.6	4060.5 ug/L	1.97	4060.5 ppb	1.97	0.05%
Mo 202.031†	-99.2	4.0749 ug/L	0.77654	4.0749 ppb	0.77654	19.06%
Na 589.592 Radial†	2256.3	695.47 ug/L	12.563	695.47 ppb	12.563	1.81%
Ni 231.604†	3246.6	89.173 ug/L	0.6675	89.173 ppb	0.6675	0.75%
P 214.914†	1595.4	897.53 ug/L	10.338	897.53 ppb	10.338	1.15%
Pb 220.353†	887.8	139.86 ug/L	0.688	139.86 ppb	0.688	0.49%
S 181.975 Axial†	439.8	640.12 ug/L	14.512	640.12 ppb	14.512	2.27%
Sb 206.836†	51.2	-1.5461 ug/L	1.84539	-1.5461 ppb	1.84539	119.36%
Se 196.026†	-814.6	-26.898 ug/L	8.8917	-26.898 ppb	8.8917	33.06%
Si 251.611†	1227217.1	39175 ug/L	17.0	39175 ppb	17.0	0.04%
Sn 189.927†	-117.7	-17.882 ug/L	0.9259	-17.882 ppb	0.9259	5.18%
Sr 421.552†	46976.1	305.76 ug/L	2.286	305.76 ppb	2.286	0.75%
Ti 334.940†	3916640.8	6188.8 ug/L	1.38	6188.8 ppb	1.38	0.02%
Tl 190.801†	-216.2	-5.4557 ug/L	1.26507	-5.4557 ppb	1.26507	23.19%
U 409.014†	-7848.4	-219.21 ug/L	4.032	-219.21 ppb	4.032	1.84%
V 292.402†	48488.0	295.66 ug/L	3.038	295.66 ppb	3.038	1.03%
Zn 213.857†	27773.4	266.37 ug/L	2.512	266.37 ppb	2.512	0.94%
SiO2†	1228005.3	83627 ug/L	347.8	83627 ppb	347.8	0.42%

Sequence No.: 96

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/26/2010 01:21:48

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	4949.7	4949.7	91.8 %		01:23:39
1	Y RADIAL	5330.0	5330.0	91.81 %		01:23:39
1	Al 396.153Radial†	6473.1	7048.4	5492.2 ug/L	5492.2 ppb	01:23:39
1	Ca 317.933Radial†	3135.8	3397.1	5625.7 ug/L	5625.7 ppb	01:23:59
1	Fe 238.204 Radial†	528.5	567.7	5332.2 ug/L	5332.2 ppb	01:23:59
1	K 766.490 Radial†	29670.1	30355.0	5647.3 ug/L	5647.3 ppb	01:23:39
1	Mg 279.077 IEC†	147.6	158.4	5812.7 ug/L	5812.7 ppb	01:23:59
1	Na 589.592 Radial†	27745.6	30652.3	9448.1 ug/L	9448.1 ppb	01:23:39
1	Sr 421.552†	72148.5	78591.1	511.80 ug/L	511.80 ppb	01:23:39
1	Sc 361.383	905857.1	905857.1	103.87 %		01:24:57
1	Y 371.029	796295.9	796295.9	101.90 %		01:24:57
1	Ag 328.068†	120874.6	116072.6	514.87 ug/L	514.87 ppb	01:25:02
1	As 188.979†	1216.3	1201.6	541.98 ug/L	541.98 ppb	01:25:22
1	B 249.677†	22400.2	21874.6	501.97 ug/L	501.97 ppb	01:25:02
1	Ba 233.527†	63386.6	61028.4	524.66 ug/L	524.66 ppb	01:25:02
1	Be 313.107†	1470544.9	1421300.7	536.39 ug/L	536.39 ppb	01:24:57
1	Cd 226.502†	44907.8	43412.4	535.19 ug/L	535.19 ppb	01:25:02
1	Co 228.616†	22975.3	22177.6	531.17 ug/L	531.17 ppb	01:25:02
1	Cr 267.716†	47128.1	45291.1	533.21 ug/L	533.21 ppb	01:25:02
1	Cu 324.752†	187271.6	170448.5	498.68 ug/L	498.68 ppb	01:25:02
1	Mn 257.610†	451388.0	433997.7	526.72 ug/L	526.72 ppb	01:24:57
1	Mo 202.031†	7480.7	7180.7	530.76 ug/L	530.76 ppb	01:25:22
1	Ni 231.604†	20322.3	19459.2	534.44 ug/L	534.44 ppb	01:25:02
1	P 214.914†	4658.9	4264.7	2548.7 ug/L	2548.7 ppb	01:25:22
1	Pb 220.353†	3996.4	3892.7	541.19 ug/L	541.19 ppb	01:25:22
1	S 181.975 Axial†	780.1	709.6	1074.4 ug/L	1074.4 ppb	01:25:22
1	Sb 206.836†	1484.3	1392.9	526.19 ug/L	526.19 ppb	01:25:22
1	Se 196.026†	851.7	834.1	541.01 ug/L	541.01 ppb	01:25:22
1	Si 251.611†	85828.6	82060.1	2613.0 ug/L	2613.0 ppb	01:25:02
1	Sn 189.927†	2737.4	2633.8	537.41 ug/L	537.41 ppb	01:25:22
1	Ti 334.940†	325964.5	314726.0	497.07 ug/L	497.07 ppb	01:25:02
1	Tl 190.801†	1563.5	1535.7	537.38 ug/L	537.38 ppb	01:25:22
1	U 409.014†	19063.9	19281.5	495.99 ug/L	495.99 ppb	01:25:02
1	V 292.402†	80363.7	78763.2	531.97 ug/L	531.97 ppb	01:25:02
1	Zn 213.857†	55275.9	52552.4	526.92 ug/L	526.92 ppb	01:25:02
1	SiO2†	85292.0	81531.9	5537.9 ug/L	5537.9 ppb	01:26:29
2	Sc Radial	4976.9	4976.9	92.3 %		01:24:04
2	Y RADIAL	5360.5	5360.5	92.34 %		01:24:04
2	Al 396.153Radial†	6504.6	7044.0	5488.2 ug/L	5488.2 ppb	01:24:04
2	Ca 317.933Radial†	3157.4	3401.9	5633.7 ug/L	5633.7 ppb	01:24:24
2	Fe 238.204 Radial†	528.6	564.7	5304.8 ug/L	5304.8 ppb	01:24:24
2	K 766.490 Radial†	29834.1	30356.1	5647.5 ug/L	5647.5 ppb	01:24:04
2	Mg 279.077 IEC†	150.8	161.0	5908.5 ug/L	5908.5 ppb	01:24:24
2	Na 589.592 Radial†	27914.4	30670.0	9453.6 ug/L	9453.6 ppb	01:24:04
2	Sr 421.552†	72879.6	78953.7	514.16 ug/L	514.16 ppb	01:24:04
2	Sc 361.383	888931.2	888931.2	101.93 %		01:25:28
2	Y 371.029	780296.3	780296.3	99.856 %		01:25:28
2	Ag 328.068†	122930.7	120305.4	533.58 ug/L	533.58 ppb	01:25:33
2	As 188.979†	1220.3	1227.8	553.86 ug/L	553.86 ppb	01:25:53
2	B 249.677†	22800.8	22678.2	520.44 ug/L	520.44 ppb	01:25:33
2	Ba 233.527†	64836.6	63612.8	546.86 ug/L	546.86 ppb	01:25:33
2	Be 313.107†	1480457.4	1457981.3	550.25 ug/L	550.25 ppb	01:25:28
2	Cd 226.502†	45771.3	45082.8	555.81 ug/L	555.81 ppb	01:25:33
2	Co 228.616†	23551.1	23163.7	554.77 ug/L	554.77 ppb	01:25:33
2	Cr 267.716†	48127.4	47135.4	554.92 ug/L	554.92 ppb	01:25:33
2	Cu 324.752†	190847.6	177389.5	518.98 ug/L	518.98 ppb	01:25:33
2	Mn 257.610†	455931.4	446729.2	542.15 ug/L	542.15 ppb	01:25:28
2	Mo 202.031†	7504.7	7341.4	542.62 ug/L	542.62 ppb	01:25:53
2	Ni 231.604†	20795.1	20295.6	557.41 ug/L	557.41 ppb	01:25:33

2	P 214.914†	4674.5	4365.3	2607.2 ug/L	2607.2 ppb	01:25:53
2	Pb 220.353†	3977.4	3947.3	548.78 ug/L	548.78 ppb	01:25:53
2	S 181.975 Axial†	779.2	723.0	1094.7 ug/L	1094.7 ppb	01:25:53
2	Sb 206.836†	1518.3	1453.4	548.57 ug/L	548.57 ppb	01:25:53
2	Se 196.026†	864.0	861.7	558.23 ug/L	558.23 ppb	01:25:53
2	Si 251.611†	87570.9	85342.7	2717.6 ug/L	2717.6 ppb	01:25:33
2	Sn 189.927†	2723.3	2670.2	544.81 ug/L	544.81 ppb	01:25:53
2	Ti 334.940†	333056.5	327658.7	517.48 ug/L	517.48 ppb	01:25:33
2	Tl 190.801†	1556.6	1557.6	545.09 ug/L	545.09 ppb	01:25:53
2	U 409.014†	19352.1	19913.8	512.26 ug/L	512.26 ppb	01:25:33
2	V 292.402†	81940.6	81783.3	552.27 ug/L	552.27 ppb	01:25:33
2	Zn 213.857†	56428.1	54695.9	548.43 ug/L	548.43 ppb	01:25:33
2	SiO2†	86245.0	84030.2	5707.7 ug/L	5707.7 ppb	01:26:34
3	Sc Radial	5026.5	5026.5	93.2 %		01:24:29
3	Y RADIAL	5427.3	5427.3	93.49 %		01:24:29
3	Al 396.153Radial†	6544.8	7017.7	5468.6 ug/L	5468.6 ppb	01:24:29
3	Ca 317.933Radial†	3142.4	3352.0	5551.1 ug/L	5551.1 ppb	01:24:50
3	Fe 238.204 Radial†	530.2	560.8	5267.2 ug/L	5267.2 ppb	01:24:50
3	K 766.490 Radial†	29882.7	30089.6	5598.0 ug/L	5598.0 ppb	01:24:29
3	Mg 279.077 IEC†	145.3	153.5	5631.3 ug/L	5631.3 ppb	01:24:50
3	Na 589.592 Radial†	27978.9	30441.0	9383.0 ug/L	9383.0 ppb	01:24:29
3	Sr 421.552†	73255.0	78577.9	511.71 ug/L	511.71 ppb	01:24:29
3	Sc 361.383	911659.3	911659.3	104.54 %		01:25:59
3	Y 371.029	801083.2	801083.2	102.52 %		01:25:59
3	Ag 328.068†	122027.7	116434.9	516.45 ug/L	516.45 ppb	01:26:04
3	As 188.979†	1213.1	1191.1	537.29 ug/L	537.29 ppb	01:26:24
3	B 249.677†	22659.6	21985.4	504.53 ug/L	504.53 ppb	01:26:04
3	Ba 233.527†	64126.2	61347.5	527.40 ug/L	527.40 ppb	01:26:04
3	Be 313.107†	1457757.3	1400058.2	528.40 ug/L	528.40 ppb	01:25:59
3	Cd 226.502†	45315.6	43527.4	536.62 ug/L	536.62 ppb	01:26:04
3	Co 228.616†	23270.5	22319.2	534.54 ug/L	534.54 ppb	01:26:04
3	Cr 267.716†	47579.1	45433.9	534.89 ug/L	534.89 ppb	01:26:04
3	Cu 324.752†	189256.7	171200.0	500.88 ug/L	500.88 ppb	01:26:04
3	Mn 257.610†	447712.0	427715.6	519.10 ug/L	519.10 ppb	01:25:59
3	Mo 202.031†	7405.9	7063.4	522.09 ug/L	522.09 ppb	01:26:24
3	Ni 231.604†	20542.5	19545.3	536.81 ug/L	536.81 ppb	01:26:04
3	P 214.914†	4618.0	4197.0	2506.2 ug/L	2506.2 ppb	01:26:24
3	Pb 220.353†	3951.5	3825.3	531.82 ug/L	531.82 ppb	01:26:24
3	S 181.975 Axial†	769.2	694.4	1051.3 ug/L	1051.3 ppb	01:26:24
3	Sb 206.836†	1486.9	1386.3	523.47 ug/L	523.47 ppb	01:26:24
3	Se 196.026†	844.1	821.6	532.95 ug/L	532.95 ppb	01:26:24
3	Si 251.611†	86765.7	82430.6	2624.9 ug/L	2624.9 ppb	01:26:04
3	Sn 189.927†	2705.9	2587.0	527.85 ug/L	527.85 ppb	01:26:24
3	Ti 334.940†	329601.3	316207.7	499.41 ug/L	499.41 ppb	01:26:04
3	Tl 190.801†	1534.1	1497.9	524.21 ug/L	524.21 ppb	01:26:24
3	U 409.014†	19349.6	19438.0	500.03 ug/L	500.03 ppb	01:26:04
3	V 292.402†	81115.2	78989.6	533.37 ug/L	533.37 ppb	01:26:04
3	Zn 213.857†	55795.9	52711.1	528.52 ug/L	528.52 ppb	01:26:04
3	SiO2†	86418.3	82086.6	5575.9 ug/L	5575.9 ppb	01:26:40

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	902149.2	103.45 %	1.354			1.31%
Sc Radial	4984.4	92.4 %	0.72			0.78%
Y 371.029	792558.4	101.43 %	1.393			1.37%
Y RADIAL	5372.6	92.55 %	0.857			0.93%
Ag 328.068†	117604.3	521.63 ug/L	10.378	521.63 ppb	10.378	1.99%
QC value within limits for Ag 328.068 Recovery = 104.33%						
Al 396.153Radial†	7036.7	5483.0 ug/L	12.64	5483.0 ppb	12.64	0.23%
QC value within limits for Al 396.153Radial Recovery = 109.66%						
As 188.979†	1206.8	544.38 ug/L	8.538	544.38 ppb	8.538	1.57%
QC value within limits for As 188.979 Recovery = 108.88%						
B 249.677†	22179.4	508.98 ug/L	10.006	508.98 ppb	10.006	1.97%
QC value within limits for B 249.677 Recovery = 101.80%						
Ba 233.527†	61996.2	532.97 ug/L	12.108	532.97 ppb	12.108	2.27%
QC value within limits for Ba 233.527 Recovery = 106.59%						
Be 313.107†	1426446.7	538.35 ug/L	11.058	538.35 ppb	11.058	2.05%
QC value within limits for Be 313.107 Recovery = 107.67%						
Ca 317.933Radial†	3383.6	5603.5 ug/L	45.56	5603.5 ppb	45.56	0.81%



QC value greater than the upper limit for Ca 317.933 Radial Recovery = 112.07%

Cd	226.502†	44007.5	542.54 ug/L	11.513	542.54 ppb	11.513	2.12%
QC value within limits for Cd 226.502 Recovery = 108.51%							
Co	228.616†	22553.5	540.16 ug/L	12.763	540.16 ppb	12.763	2.36%
QC value within limits for Co 228.616 Recovery = 108.03%							
Cr	267.716†	45953.5	541.00 ug/L	12.078	541.00 ppb	12.078	2.23%
QC value within limits for Cr 267.716 Recovery = 108.20%							
Cu	324.752†	173012.6	506.18 ug/L	11.139	506.18 ppb	11.139	2.20%
QC value within limits for Cu 324.752 Recovery = 101.24%							
Fe	238.204 Radial†	564.4	5301.4 ug/L	32.64	5301.4 ppb	32.64	0.62%
QC value within limits for Fe 238.204 Radial Recovery = 106.03%							
K	766.490 Radial†	30266.9	5630.9 ug/L	28.56	5630.9 ppb	28.56	0.51%
QC value greater than the upper limit for K 766.490 Radial Recovery = 112.62%							
Mg	279.077 IEC†	157.6	5784.2 ug/L	140.76	5784.2 ppb	140.76	2.43%
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 115.68%							
Mn	257.610†	436147.5	529.32 ug/L	11.747	529.32 ppb	11.747	2.22%
QC value within limits for Mn 257.610 Recovery = 105.86%							
Mo	202.031†	7195.2	531.82 ug/L	10.310	531.82 ppb	10.310	1.94%
QC value within limits for Mo 202.031 Recovery = 106.36%							
Na	589.592 Radial†	30587.8	9428.2 ug/L	39.28	9428.2 ppb	39.28	0.42%
QC value within limits for Na 589.592 Radial Recovery = 94.28%							
Ni	231.604†	19766.7	542.89 ug/L	12.635	542.89 ppb	12.635	2.33%
QC value within limits for Ni 231.604 Recovery = 108.58%							
P	214.914†	4275.7	2554.0 ug/L	50.69	2554.0 ppb	50.69	1.98%
QC value within limits for P 214.914 Recovery = 102.16%							
Pb	220.353†	3888.5	540.60 ug/L	8.494	540.60 ppb	8.494	1.57%
QC value within limits for Pb 220.353 Recovery = 108.12%							
S	181.975 Axial†	709.0	1073.5 ug/L	21.68	1073.5 ppb	21.68	2.02%
QC value within limits for S 181.975 Axial Recovery = 107.35%							
Sb	206.836†	1410.9	532.74 ug/L	13.775	532.74 ppb	13.775	2.59%
QC value within limits for Sb 206.836 Recovery = 106.55%							
Se	196.026†	839.1	544.06 ug/L	12.914	544.06 ppb	12.914	2.37%
QC value within limits for Se 196.026 Recovery = 108.81%							
Si	251.611†	83277.8	2651.8 ug/L	57.28	2651.8 ppb	57.28	2.16%
QC value within limits for Si 251.611 Recovery = 106.07%							
Sn	189.927†	2630.3	536.69 ug/L	8.502	536.69 ppb	8.502	1.58%
QC value within limits for Sn 189.927 Recovery = 107.34%							
Sr	421.552†	78707.6	512.56 ug/L	1.389	512.56 ppb	1.389	0.27%
QC value within limits for Sr 421.552 Recovery = 102.51%							
Ti	334.940†	319530.8	504.65 ug/L	11.168	504.65 ppb	11.168	2.21%
QC value within limits for Ti 334.940 Recovery = 100.93%							
Tl	190.801†	1530.4	535.56 ug/L	10.556	535.56 ppb	10.556	1.97%
QC value within limits for Tl 190.801 Recovery = 107.11%							
U	409.014†	19544.4	502.76 ug/L	8.475	502.76 ppb	8.475	1.69%
QC value within limits for U 409.014 Recovery = 100.55%							
V	292.402†	79845.4	539.20 ug/L	11.340	539.20 ppb	11.340	2.10%
QC value within limits for V 292.402 Recovery = 107.84%							
Zn	213.857†	53319.8	534.63 ug/L	11.985	534.63 ppb	11.985	2.24%
QC value within limits for Zn 213.857 Recovery = 106.93%							
SiO2†		82549.6	5607.1 ug/L	89.12	5607.1 ppb	89.12	1.59%
QC value within limits for SiO2 Recovery = 104.86%							

QC Failed. Continue with analysis.

Sequence No.: 97

Sample ID: CCB

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/26/2010 01:28:49

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4978.6	4978.6	92.3 %		01:30:41
1	Y RADIAL	5353.5	5353.5	92.22 %		01:30:41
1	Al 396.153Radial†	5.6	2.0	1.5590 ug/L	1.5590 ppb	01:31:01
1	Ca 317.933Radial†	22.0	4.4	7.3526 ug/L	7.3526 ppb	01:31:01
1	Fe 238.204 Radial†	7.4	-0.1	-0.4858 ug/L	-0.4858 ppb	01:31:01
1	K 766.490 Radial†	2535.8	776.0	144.56 ug/L	144.56 ppb	01:30:41
1	Mg 279.077 IEC†	0.3	-2.1	-76.047 ug/L	-76.047 ppb	01:31:01
1	Na 589.592 Radial†	-612.6	-240.2	-74.025 ug/L	-74.025 ppb	01:30:41
1	Sr 421.552†	28.0	15.3	0.0993 ug/L	0.0993 ppb	01:30:41
1	Sc 361.383	887865.0	887865.0	101.81 %		01:31:58
1	Y 371.029	786986.1	786986.1	100.71 %		01:31:58
1	Ag 328.068†	490.1	186.8	0.8330 ug/L	0.8330 ppb	01:32:03
1	As 188.979†	-27.3	3.8	1.7178 ug/L	1.7178 ppb	01:32:23
1	B 249.677†	-226.5	87.2	2.0104 ug/L	2.0104 ppb	01:32:23
1	Ba 233.527†	7.9	13.3	0.1156 ug/L	0.1156 ppb	01:32:23
1	Be 313.107†	-4710.8	965.7	0.3644 ug/L	0.3644 ppb	01:32:03
1	Cd 226.502†	-201.2	-18.3	-0.2273 ug/L	-0.2273 ppb	01:32:23
1	Co 228.616†	-51.1	8.9	0.2132 ug/L	0.2132 ppb	01:32:23
1	Cr 267.716†	67.4	-13.3	-0.1517 ug/L	-0.1517 ppb	01:32:23
1	Cu 324.752†	8736.7	-1258.4	-3.6768 ug/L	-3.6768 ppb	01:32:03
1	Mn 257.610†	608.9	40.2	0.0518 ug/L	0.0518 ppb	01:32:23
1	Mo 202.031†	24.8	3.3	0.2418 ug/L	0.2418 ppb	01:32:23
1	Ni 231.604†	119.9	12.5	0.3429 ug/L	0.3429 ppb	01:32:23
1	P 214.914†	201.0	-23.1	-13.598 ug/L	-13.598 ppb	01:32:23
1	Pb 220.353†	-54.7	-8.4	-1.1541 ug/L	-1.1541 ppb	01:32:23
1	S 181.975 Axial†	41.2	-0.9	-1.3437 ug/L	-1.3437 ppb	01:32:23
1	Sb 206.836†	21.9	-14.6	-5.3045 ug/L	-5.3045 ppb	01:32:23
1	Se 196.026†	-20.8	-6.4	-3.9898 ug/L	-3.9898 ppb	01:32:23
1	Si 251.611†	557.1	-20.7	-0.6653 ug/L	-0.6653 ppb	01:32:23
1	Sn 189.927†	-1.4	-2.8	-0.5786 ug/L	-0.5786 ppb	01:32:23
1	Ti 334.940†	-725.2	204.5	0.3341 ug/L	0.3341 ppb	01:32:03
1	Tl 190.801†	-35.2	-4.1	-1.4183 ug/L	-1.4183 ppb	01:32:23
1	U 409.014†	-1287.0	-335.6	-8.6631 ug/L	-8.6631 ppb	01:31:58
1	V 292.402†	-1302.0	117.4	0.7677 ug/L	0.7677 ppb	01:32:03
1	Zn 213.857†	749.9	74.2	0.7535 ug/L	0.7535 ppb	01:32:23
1	SiO2†	558.9	-30.6	-2.0892 ug/L	-2.0892 ppb	01:33:44
2	Sc Radial	4888.3	4888.3	90.6 %		01:31:06
2	Y RADIAL	5275.7	5275.7	90.88 %		01:31:06
2	Al 396.153Radial†	10.1	7.1	5.5001 ug/L	5.5001 ppb	01:31:26
2	Ca 317.933Radial†	25.7	8.9	14.793 ug/L	14.793 ppb	01:31:26
2	Fe 238.204 Radial†	5.3	-2.2	-20.768 ug/L	-20.768 ppb	01:31:26
2	K 766.490 Radial†	2554.0	846.9	157.78 ug/L	157.78 ppb	01:31:06
2	Mg 279.077 IEC†	5.6	3.7	136.80 ug/L	136.80 ppb	01:31:26
2	Na 589.592 Radial†	-659.3	-303.9	-93.687 ug/L	-93.687 ppb	01:31:06
2	Sr 421.552†	6.2	-8.2	-0.0534 ug/L	-0.0534 ppb	01:31:06
2	Sc 361.383	883012.2	883012.2	101.25 %		01:32:28
2	Y 371.029	782803.3	782803.3	100.18 %		01:32:28
2	Ag 328.068†	433.5	133.5	0.5929 ug/L	0.5929 ppb	01:32:33
2	As 188.979†	-33.8	-2.7	-1.2190 ug/L	-1.2190 ppb	01:32:53
2	B 249.677†	-232.2	80.4	1.8564 ug/L	1.8564 ppb	01:32:53
2	Ba 233.527†	16.1	21.3	0.1819 ug/L	0.1819 ppb	01:32:53
2	Be 313.107†	-4788.8	863.3	0.3256 ug/L	0.3256 ppb	01:32:33
2	Cd 226.502†	-193.7	-12.1	-0.1488 ug/L	-0.1488 ppb	01:32:53
2	Co 228.616†	-65.7	-5.8	-0.1385 ug/L	-0.1385 ppb	01:32:53
2	Cr 267.716†	84.2	3.7	0.0485 ug/L	0.0485 ppb	01:32:53
2	Cu 324.752†	8880.6	-1069.1	-3.1203 ug/L	-3.1203 ppb	01:32:33
2	Mn 257.610†	582.0	16.9	0.0128 ug/L	0.0128 ppb	01:32:53
2	Mo 202.031†	30.4	9.0	0.6615 ug/L	0.6615 ppb	01:32:53
2	Ni 231.604†	146.0	38.9	1.0700 ug/L	1.0700 ppb	01:32:53

2	P 214.914†	210.4	-12.7	-7.2687 ug/L	-7.2687 ppb	01:32:53
2	Pb 220.353†	-59.7	-13.5	-1.8702 ug/L	-1.8702 ppb	01:32:53
2	S 181.975 Axial†	35.4	-6.4	-9.6889 ug/L	-9.6889 ppb	01:32:53
2	Sb 206.836†	28.4	-8.0	-2.8984 ug/L	-2.8984 ppb	01:32:53
2	Se 196.026†	-20.4	-6.1	-3.8769 ug/L	-3.8769 ppb	01:32:53
2	Si 251.611†	554.4	-20.4	-0.6597 ug/L	-0.6597 ppb	01:32:53
2	Sn 189.927†	-1.3	-2.7	-0.5578 ug/L	-0.5578 ppb	01:32:53
2	Ti 334.940†	-791.1	135.5	0.2116 ug/L	0.2116 ppb	01:32:33
2	Tl 190.801†	-29.7	1.1	0.3979 ug/L	0.3979 ppb	01:32:53
2	U 409.014†	-1541.0	-593.4	-15.317 ug/L	-15.317 ppb	01:32:28
2	V 292.402†	-1446.9	-32.7	-0.2323 ug/L	-0.2323 ppb	01:32:33
2	Zn 213.857†	749.8	78.2	0.7900 ug/L	0.7900 ppb	01:32:53
2	SiO2†	567.0	-19.6	-1.3561 ug/L	-1.3561 ppb	01:34:04
3	Sc Radial	4922.3	4922.3	91.3 %		01:31:31
3	Y RADIAL	5302.2	5302.2	91.34 %		01:31:31
3	Al 396.153Radial†	11.0	8.0	6.2289 ug/L	6.2289 ppb	01:31:51
3	Ca 317.933Radial†	22.2	4.9	8.1084 ug/L	8.1084 ppb	01:31:51
3	Fe 238.204 Radial†	9.0	1.9	17.397 ug/L	17.397 ppb	01:31:51
3	K 766.490 Radial†	2560.3	834.3	155.42 ug/L	155.42 ppb	01:31:31
3	Mg 279.077 IEC†	1.7	-0.5	-19.306 ug/L	-19.306 ppb	01:31:51
3	Na 589.592 Radial†	-629.5	-266.2	-82.063 ug/L	-82.063 ppb	01:31:31
3	Sr 421.552†	23.6	10.9	0.0706 ug/L	0.0706 ppb	01:31:31
3	Sc 361.383	881069.7	881069.7	101.03 %		01:32:58
3	Y 371.029	781667.3	781667.3	100.03 %		01:32:58
3	Ag 328.068†	438.8	139.7	0.6295 ug/L	0.6295 ppb	01:33:03
3	As 188.979†	-30.5	0.4	0.1881 ug/L	0.1881 ppb	01:33:24
3	B 249.677†	-241.2	71.0	1.6331 ug/L	1.6331 ppb	01:33:24
3	Ba 233.527†	20.8	26.0	0.2236 ug/L	0.2236 ppb	01:33:24
3	Be 313.107†	-4757.5	883.9	0.3335 ug/L	0.3335 ppb	01:33:03
3	Cd 226.502†	-193.0	-11.8	-0.1492 ug/L	-0.1492 ppb	01:33:24
3	Co 228.616†	-52.8	6.8	0.1641 ug/L	0.1641 ppb	01:33:24
3	Cr 267.716†	76.2	-4.1	-0.0442 ug/L	-0.0442 ppb	01:33:24
3	Cu 324.752†	8792.8	-1136.6	-3.3187 ug/L	-3.3187 ppb	01:33:03
3	Mn 257.610†	586.4	22.5	0.0298 ug/L	0.0298 ppb	01:33:24
3	Mo 202.031†	28.9	7.6	0.5636 ug/L	0.5636 ppb	01:33:24
3	Ni 231.604†	122.8	16.3	0.4481 ug/L	0.4481 ppb	01:33:24
3	P 214.914†	200.3	-22.3	-13.185 ug/L	-13.185 ppb	01:33:24
3	Pb 220.353†	-60.9	-14.9	-2.0559 ug/L	-2.0559 ppb	01:33:24
3	S 181.975 Axial†	39.4	-2.4	-3.6792 ug/L	-3.6792 ppb	01:33:24
3	Sb 206.836†	25.6	-10.7	-3.8953 ug/L	-3.8953 ppb	01:33:24
3	Se 196.026†	-14.9	-0.7	-0.3807 ug/L	-0.3807 ppb	01:33:24
3	Si 251.611†	557.4	-16.3	-0.5258 ug/L	-0.5258 ppb	01:33:24
3	Sn 189.927†	-0.0	-1.5	-0.3107 ug/L	-0.3107 ppb	01:33:24
3	Ti 334.940†	-754.0	170.5	0.2766 ug/L	0.2766 ppb	01:33:03
3	Tl 190.801†	-25.9	4.8	1.6751 ug/L	1.6751 ppb	01:33:24
3	U 409.014†	-1347.9	-405.6	-10.474 ug/L	-10.474 ppb	01:32:58
3	V 292.402†	-1422.0	-11.2	-0.0900 ug/L	-0.0900 ppb	01:33:03
3	Zn 213.857†	732.8	63.0	0.6371 ug/L	0.6371 ppb	01:33:24
3	SiO2†	571.2	-14.2	-0.9846 ug/L	-0.9846 ppb	01:34:24

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	883982.3	101.37 %		0.401			0.40%
Sc Radial	4929.7	91.4 %		0.85			0.93%
Y 371.029	783818.9	100.31 %		0.358			0.36%
Y RADIAL	5310.5	91.48 %		0.681			0.74%
Ag 328.068†	153.3	0.6851 ug/L		0.12932	0.6851 ppb	0.12932	18.88%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	5.7	4.4293 ug/L		2.51236	4.4293 ppb	2.51236	56.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	0.5	0.2290 ug/L		1.46883	0.2290 ppb	1.46883	641.54%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	79.5	1.8333 ug/L		0.18969	1.8333 ppb	0.18969	10.35%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	20.2	0.1737 ug/L		0.05450	0.1737 ppb	0.05450	31.37%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	904.3	0.3412 ug/L		0.02053	0.3412 ppb	0.02053	6.02%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	6.1	10.085 ug/L		4.0950	10.085 ppb	4.0950	40.61%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	-14.1	-0.1751 ug/L	0.04522	-0.1751 ppb	0.04522	25.83%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	3.3	0.0796 ug/L	0.19045	0.0796 ppb	0.19045	239.33%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-4.6	-0.0491 ug/L	0.10020	-0.0491 ppb	0.10020	203.98%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-1154.7	-3.3719 ug/L	0.28201	-3.3719 ppb	0.28201	8.36%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	-0.1	-1.2857 ug/L	19.09533	-1.2857 ppb	19.09533	>999.9%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	819.1	152.59 ug/L	7.049	152.59 ppb	7.049	4.62%
QC value greater than the upper limit for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	0.4	13.817 ug/L	110.2232	13.817 ppb	110.2232	797.75%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	26.5	0.0315 ug/L	0.01955	0.0315 ppb	0.01955	62.09%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	6.6	0.4889 ug/L	0.21958	0.4889 ppb	0.21958	44.91%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-270.1	-83.259 ug/L	9.8852	-83.259 ppb	9.8852	11.87%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	22.6	0.6203 ug/L	0.39297	0.6203 ppb	0.39297	63.35%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-19.4	-11.351 ug/L	3.5410	-11.351 ppb	3.5410	31.20%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-12.3	-1.6934 ug/L	0.47620	-1.6934 ppb	0.47620	28.12%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-3.2	-4.9039 ug/L	4.30531	-4.9039 ppb	4.30531	87.79%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	-11.1	-4.0327 ug/L	1.20890	-4.0327 ppb	1.20890	29.98%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-4.4	-2.7491 ug/L	2.05189	-2.7491 ppb	2.05189	74.64%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	-19.1	-0.6169 ug/L	0.07899	-0.6169 ppb	0.07899	12.80%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-2.4	-0.4824 ug/L	0.14903	-0.4824 ppb	0.14903	30.89%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	6.0	0.0388 ug/L	0.08116	0.0388 ppb	0.08116	209.04%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	170.2	0.2741 ug/L	0.06129	0.2741 ppb	0.06129	22.36%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	0.6	0.2183 ug/L	1.55450	0.2183 ppb	1.55450	712.23%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-444.9	-11.485 ug/L	3.4404	-11.485 ppb	3.4404	29.96%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	24.5	0.1485 ug/L	0.54096	0.1485 ppb	0.54096	364.38%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	71.8	0.7268 ug/L	0.07986	0.7268 ppb	0.07986	10.99%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		-21.5	-1.4766 ug/L	0.56209	-1.4766 ppb	0.56209	38.07%
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 98

Sample ID: 244144011|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 95

Date Collected: 1/26/2010 01:36:33

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144011|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Conc. Units	Sample Units	Analysis Time
1	Sc Radial	5158.8	5158.8	95.7 %				01:38:46
1	Y RADIAL	6125.6	6125.6	105.5 %				01:38:46
1	Al 396.153Radial†	160433.9	167705.7	131290 ug/L		131290 ppb		01:38:26
1	Ca 317.933Radial†	12331.5	12871.4	21316 ug/L		21316 ppb		01:38:26
1	Fe 238.204 Radial†	14399.2	15044.1	140880 ug/L		140880 ppb		01:38:26
1	K 766.490 Radial†	109277.1	112262.3	20900 ug/L		20900 ppb		01:38:26
1	Mg 279.077 IEC†	637.0	663.4	24198 ug/L		24198 ppb		01:38:46
1	Na 589.592 Radial†	2296.8	2824.4	870.57 ug/L		870.57 ppb		01:38:26
1	Sr 421.552†	42426.3	44335.4	288.58 ug/L		288.58 ppb		01:38:26
1	Sc 361.383	919368.3	919368.3	105.42 %				01:39:45
1	Y 371.029	892374.5	892374.5	114.20 %				01:39:45
1	Ag 328.068†	-9387.9	-9199.6	6.1640 ug/L		6.1640 ppb		01:39:50
1	As 188.979†	-52.7	-19.3	71.910 ug/L		71.910 ppb		01:40:10
1	B 249.677†	1388.6	1626.9	14.436 ug/L		14.436 ppb		01:39:50
1	Ba 233.527†	245809.5	233171.0	2004.5 ug/L		2004.5 ppb		01:39:50
1	Be 313.107†	-18407.4	-11867.7	7.9905 ug/L		7.9905 ppb		01:39:50
1	Cd 226.502†	1222.3	1338.6	1.9629 ug/L		1.9629 ppb		01:40:10
1	Co 228.616†	2969.2	2875.5	56.224 ug/L		56.224 ppb		01:40:10
1	Cr 267.716†	9293.5	8735.9	105.96 ug/L		105.96 ppb		01:39:50
1	Cu 324.752†	30966.4	19533.8	64.727 ug/L		64.727 ppb		01:39:50
1	Mn 257.610†	2971186.1	2817795.2	3430.9 ug/L		3430.9 ppb		01:39:45
1	Mo 202.031†	-70.7	-88.1	4.6843 ug/L		4.6843 ppb		01:40:10
1	Ni 231.604†	3173.2	2904.7	79.784 ug/L		79.784 ppb		01:40:10
1	P 214.914†	1912.7	1593.8	896.40 ug/L		896.40 ppb		01:40:10
1	Pb 220.353†	775.0	780.5	123.09 ug/L		123.09 ppb		01:40:10
1	S 181.975 Axial†	452.0	387.4	562.47 ug/L		562.47 ppb		01:40:10
1	Sb 206.836†	76.1	36.2	-4.5759 ug/L		-4.5759 ppb		01:40:10
1	Se 196.026†	-849.0	-791.3	-20.518 ug/L		-20.518 ppb		01:40:10
1	Si 251.611†	1382140.3	1310477.3	41833 ug/L		41833 ppb		01:39:45
1	Sn 189.927†	-118.1	-113.5	-17.516 ug/L		-17.516 ppb		01:40:10
1	Ti 334.940†	3661520.8	3474094.9	5489.2 ug/L		5489.2 ppb		01:39:45
1	Tl 190.801†	-243.3	-200.3	-8.6410 ug/L		-8.6410 ppb		01:40:10
1	U 409.014†	-9880.5	-8443.8	-234.28 ug/L		-234.28 ppb		01:39:45
1	V 292.402†	45196.3	44267.8	268.61 ug/L		268.61 ppb		01:39:50
1	Zn 213.857†	30462.0	28232.7	271.30 ug/L		271.30 ppb		01:39:50
1	SiO2†	1375947.4	1304591.3	88843 ug/L		88843 ppb		01:41:20
2	Sc Radial	5137.9	5137.9	95.3 %				01:39:11
2	Y RADIAL	6091.3	6091.3	104.9 %				01:39:11
2	Al 396.153Radial†	159922.4	167849.8	131400 ug/L		131400 ppb		01:38:51
2	Ca 317.933Radial†	12310.8	12902.0	21366 ug/L		21366 ppb		01:38:51
2	Fe 238.204 Radial†	14428.8	15136.4	141740 ug/L		141740 ppb		01:38:51
2	K 766.490 Radial†	109759.8	113232.8	21081 ug/L		21081 ppb		01:38:51
2	Mg 279.077 IEC†	633.1	662.1	24148 ug/L		24148 ppb		01:39:11
2	Na 589.592 Radial†	2331.8	2870.9	884.90 ug/L		884.90 ppb		01:38:51
2	Sr 421.552†	42408.1	44496.3	289.63 ug/L		289.63 ppb		01:38:51
2	Sc 361.383	915822.0	915822.0	105.02 %				01:40:17
2	Y 371.029	888597.4	888597.4	113.72 %				01:40:17
2	Ag 328.068†	-9614.3	-9449.7	5.3506 ug/L		5.3506 ppb		01:40:22
2	As 188.979†	-53.1	-19.9	71.800 ug/L		71.800 ppb		01:40:42
2	B 249.677†	1327.6	1573.9	13.074 ug/L		13.074 ppb		01:40:22
2	Ba 233.527†	248115.2	236269.4	2031.1 ug/L		2031.1 ppb		01:40:22
2	Be 313.107†	-18552.7	-12073.8	7.8980 ug/L		7.8980 ppb		01:40:22
2	Cd 226.502†	1208.3	1329.8	1.7650 ug/L		1.7650 ppb		01:40:42
2	Co 228.616†	2966.1	2883.5	56.428 ug/L		56.428 ppb		01:40:42
2	Cr 267.716†	9393.7	8865.5	107.51 ug/L		107.51 ppb		01:40:22
2	Cu 324.752†	31019.2	19697.8	65.252 ug/L		65.252 ppb		01:40:22
2	Mn 257.610†	2959538.5	2817617.4	3430.7 ug/L		3430.7 ppb		01:40:17
2	Mo 202.031†	-74.7	-92.1	4.4533 ug/L		4.4533 ppb		01:40:42
2	Ni 231.604†	3140.9	2885.6	79.258 ug/L		79.258 ppb		01:40:42

2	P 214.914†	1928.1	1615.5	909.09 ug/L	909.09 ppb	01:40:42
2	Pb 220.353†	768.6	777.2	122.57 ug/L	122.57 ppb	01:40:42
2	S 181.975 Axial†	448.6	385.8	560.00 ug/L	560.00 ppb	01:40:42
2	Sb 206.836†	78.5	38.7	-3.5932 ug/L	-3.5932 ppb	01:40:42
2	Se 196.026†	-832.7	-778.8	-9.8685 ug/L	-9.8685 ppb	01:40:42
2	Si 251.611†	1375665.0	1309388.1	41798 ug/L	41798 ppb	01:40:17
2	Sn 189.927†	-116.4	-112.4	-17.254 ug/L	-17.254 ppb	01:40:42
2	Ti 334.940†	3643047.2	3469952.8	5482.7 ug/L	5482.7 ppb	01:40:17
2	Tl 190.801†	-230.1	-188.6	-4.6401 ug/L	-4.6401 ppb	01:40:42
2	U 409.014†	-9795.4	-8399.0	-233.23 ug/L	-233.23 ppb	01:40:17
2	V 292.402†	45442.1	44667.8	271.15 ug/L	271.15 ppb	01:40:22
2	Zn 213.857†	30784.9	28652.1	275.46 ug/L	275.46 ppb	01:40:22
2	SiO2†	1367058.7	1301181.2	88611 ug/L	88611 ppb	01:41:26
3	Sc Radial	5173.1	5173.1	95.9 %		01:39:37
3	Y RADIAL	6136.6	6136.6	105.7 %		01:39:37
3	Al 396.153Radial†	159206.5	165962.8	129930 ug/L	129930 ppb	01:39:17
3	Ca 317.933Radial†	12308.6	12811.8	21217 ug/L	21217 ppb	01:39:17
3	Fe 238.204 Radial†	14332.5	14933.1	139840 ug/L	139840 ppb	01:39:17
3	K 766.490 Radial†	108747.0	111394.1	20739 ug/L	20739 ppb	01:39:17
3	Mg 279.077 IEC†	630.8	655.2	23897 ug/L	23897 ppb	01:39:37
3	Na 589.592 Radial†	2336.6	2859.2	881.30 ug/L	881.30 ppb	01:39:17
3	Sr 421.552†	42179.5	43955.5	286.11 ug/L	286.11 ppb	01:39:17
3	Sc 361.383	911737.0	911737.0	104.55 %		01:40:49
3	Y 371.029	884227.3	884227.3	113.16 %		01:40:49
3	Ag 328.068†	-9610.8	-9487.3	4.5846 ug/L	4.5846 ppb	01:40:54
3	As 188.979†	-50.4	-17.6	72.478 ug/L	72.478 ppb	01:41:14
3	B 249.677†	1374.9	1624.8	14.555 ug/L	14.555 ppb	01:40:54
3	Ba 233.527†	249484.5	238637.7	2051.3 ug/L	2051.3 ppb	01:40:54
3	Be 313.107†	-18439.6	-12044.7	7.9341 ug/L	7.9341 ppb	01:40:54
3	Cd 226.502†	1213.6	1340.0	2.0877 ug/L	2.0877 ppb	01:41:14
3	Co 228.616†	2967.0	2897.0	56.765 ug/L	56.765 ppb	01:41:14
3	Cr 267.716†	9492.9	9000.5	109.06 ug/L	109.06 ppb	01:40:54
3	Cu 324.752†	31301.6	20100.3	66.330 ug/L	66.330 ppb	01:40:54
3	Mn 257.610†	2958132.0	2828898.8	3444.2 ug/L	3444.2 ppb	01:40:49
3	Mo 202.031†	-63.1	-81.4	5.0991 ug/L	5.0991 ppb	01:41:14
3	Ni 231.604†	3169.2	2926.0	80.369 ug/L	80.369 ppb	01:41:14
3	P 214.914†	1929.9	1625.5	916.24 ug/L	916.24 ppb	01:41:14
3	Pb 220.353†	791.7	802.6	125.95 ug/L	125.95 ppb	01:41:14
3	S 181.975 Axial†	442.1	381.4	553.74 ug/L	553.74 ppb	01:41:14
3	Sb 206.836†	79.2	39.7	-3.2263 ug/L	-3.2263 ppb	01:41:14
3	Se 196.026†	-841.0	-790.4	-23.462 ug/L	-23.462 ppb	01:41:14
3	Si 251.611†	1373623.8	1313304.8	41923 ug/L	41923 ppb	01:40:49
3	Sn 189.927†	-108.0	-104.7	-15.758 ug/L	-15.758 ppb	01:41:14
3	Ti 334.940†	3634103.4	3476940.9	5493.7 ug/L	5493.7 ppb	01:40:49
3	Tl 190.801†	-234.4	-193.7	-6.2479 ug/L	-6.2479 ppb	01:41:14
3	U 409.014†	-9860.2	-8502.8	-235.69 ug/L	-235.69 ppb	01:40:49
3	V 292.402†	45706.7	45114.8	274.40 ug/L	274.40 ppb	01:40:54
3	Zn 213.857†	30904.3	28897.6	278.12 ug/L	278.12 ppb	01:40:54
3	SiO2†	1361494.0	1301691.0	88645 ug/L	88645 ppb	01:41:32

Mean Data: 244144011|940180|1

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	915642.4	105.00 %		0.438			0.42%
Sc Radial	5156.6	95.6 %		0.33			0.34%
Y 371.029	888399.7	113.69 %		0.522			0.46%
Y RADIAL	6117.8	105.4 %		0.41			0.39%
Ag 328.068†	-9378.9	5.3664 ug/L		0.78982	5.3664 ppb	0.78982	14.72%
Al 396.153Radial†	167172.8	130870 ug/L		822.2	130870 ppb	822.2	0.63%
As 188.979†	-18.9	72.063 ug/L		0.3636	72.063 ppb	0.3636	0.50%
B 249.677†	1608.5	14.022 ug/L		0.8232	14.022 ppb	0.8232	5.87%
Ba 233.527†	236026.1	2028.9 ug/L		23.50	2028.9 ppb	23.50	1.16%
Be 313.107†	-11995.4	7.9409 ug/L		0.04660	7.9409 ppb	0.04660	0.59%
Ca 317.933Radial†	12861.7	21300 ug/L		75.9	21300 ppb	75.9	0.36%
Cd 226.502†	1336.2	1.9386 ug/L		0.16271	1.9386 ppb	0.16271	8.39%
Co 228.616†	2885.4	56.472 ug/L		0.2734	56.472 ppb	0.2734	0.48%
Cr 267.716†	8867.3	107.51 ug/L		1.550	107.51 ppb	1.550	1.44%
Cu 324.752†	19777.3	65.437 ug/L		0.8174	65.437 ppb	0.8174	1.25%
Fe 238.204 Radial†	15037.9	140820 ug/L		953.2	140820 ppb	953.2	0.68%
K 766.490 Radial†	112296.4	20907 ug/L		171.3	20907 ppb	171.3	0.82%

Mg 279.077 IEC†	660.2	24081 ug/L	161.5	24081 ppb	161.5	0.67%
Mn 257.610†	2821437.1	3435.3 ug/L	7.76	3435.3 ppb	7.76	0.23%
Mo 202.031†	-87.2	4.7456 ug/L	0.32722	4.7456 ppb	0.32722	6.90%
Na 589.592 Radial†	2851.5	878.92 ug/L	7.455	878.92 ppb	7.455	0.85%
Ni 231.604†	2905.5	79.804 ug/L	0.5558	79.804 ppb	0.5558	0.70%
P 214.914†	1611.6	907.24 ug/L	10.051	907.24 ppb	10.051	1.11%
Pb 220.353†	786.8	123.87 ug/L	1.822	123.87 ppb	1.822	1.47%
S 181.975 Axial†	384.9	558.74 ug/L	4.502	558.74 ppb	4.502	0.81%
Sb 206.836†	38.2	-3.7985 ug/L	0.69782	-3.7985 ppb	0.69782	18.37%
Se 196.026†	-786.8	-17.949 ug/L	7.1514	-17.949 ppb	7.1514	39.84%
Si 251.611†	1311056.7	41851 ug/L	64.5	41851 ppb	64.5	0.15%
Sn 189.927†	-110.2	-16.842 ug/L	0.9486	-16.842 ppb	0.9486	5.63%
Sr 421.552†	44262.4	288.11 ug/L	1.808	288.11 ppb	1.808	0.63%
Ti 334.940†	3473662.9	5488.6 ug/L	5.55	5488.6 ppb	5.55	0.10%
Tl 190.801†	-194.2	-6.5096 ug/L	2.01327	-6.5096 ppb	2.01327	30.93%
U 409.014†	-8448.5	-234.40 ug/L	1.237	-234.40 ppb	1.237	0.53%
V 292.402†	44683.5	271.39 ug/L	2.901	271.39 ppb	2.901	1.07%
Zn 213.857†	28594.2	274.96 ug/L	3.437	274.96 ppb	3.437	1.25%
SiO2†	1302487.9	88700 ug/L	125.3	88700 ppb	125.3	0.14%

Sequence No.: 99  
 Sample ID: 244144012|940180|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 96  
 Date Collected: 1/26/2010 01:43:44  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: 244144012|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5184.7	5184.7	96.1 %		01:45:57
1	Y RADIAL	6119.1	6119.1	105.4 %		01:45:57
1	Al 396.153Radial†	99125.0	103098.6	80711 ug/L	80711 ppb	01:45:37
1	Ca 317.933Radial†	10662.9	11071.4	18335 ug/L	18335 ppb	01:45:37
1	Fe 238.204 Radial†	10186.7	10587.5	99146 ug/L	99146 ppb	01:45:37
1	K 766.490 Radial†	86576.3	88079.8	16398 ug/L	16398 ppb	01:45:37
1	Mg 279.077 IEC†	409.3	423.3	15430 ug/L	15430 ppb	01:45:57
1	Na 589.592 Radial†	1304.5	1780.3	548.74 ug/L	548.74 ppb	01:45:37
1	Sr 421.552†	30150.5	31345.3	204.01 ug/L	204.01 ppb	01:45:37
1	Sc 361.383	936326.6	936326.6	107.37 %		01:46:55
1	Y 371.029	906474.4	906474.4	116.00 %		01:46:55
1	Ag 328.068†	-6711.8	-6545.8	4.0072 ug/L	4.0072 ppb	01:47:00
1	As 188.979†	-46.4	-12.6	56.013 ug/L	56.013 ppb	01:47:20
1	B 249.677†	1144.6	1375.8	15.459 ug/L	15.459 ppb	01:47:00
1	Ba 233.527†	218894.7	203880.0	1751.8 ug/L	1751.8 ppb	01:47:00
1	Be 313.107†	-21755.4	-14669.8	4.5464 ug/L	4.5464 ppb	01:47:00
1	Cd 226.502†	841.4	962.9	1.8028 ug/L	1.8028 ppb	01:47:20
1	Co 228.616†	2463.6	2353.6	46.204 ug/L	46.204 ppb	01:47:20
1	Cr 267.716†	57199.5	53195.0	627.79 ug/L	627.79 ppb	01:47:00
1	Cu 324.752†	36842.2	24474.4	76.936 ug/L	76.936 ppb	01:47:00
1	Mn 257.610†	2685347.0	2500525.2	3042.2 ug/L	3042.2 ppb	01:46:55
1	Mo 202.031†	82.0	55.3	12.000 ug/L	12.000 ppb	01:47:20
1	Ni 231.604†	12381.7	11426.8	313.99 ug/L	313.99 ppb	01:47:00
1	P 214.914†	2361.4	1978.9	1153.4 ug/L	1153.4 ppb	01:47:20
1	Pb 220.353†	747.6	741.7	110.86 ug/L	110.86 ppb	01:47:20
1	S 181.975 Axial†	677.0	589.2	877.78 ug/L	877.78 ppb	01:47:20
1	Sb 206.836†	92.2	49.8	4.3997 ug/L	4.3997 ppb	01:47:20
1	Se 196.026†	-609.8	-553.9	-13.298 ug/L	-13.298 ppb	01:47:20
1	Si 251.611†	1265515.5	1178110.0	37607 ug/L	37607 ppb	01:46:55
1	Sn 189.927†	-113.2	-106.9	-17.318 ug/L	-17.318 ppb	01:47:20
1	Ti 334.940†	3013937.3	2808042.9	4437.1 ug/L	4437.1 ppb	01:46:55
1	Tl 190.801†	-210.4	-165.5	-6.9087 ug/L	-6.9087 ppb	01:47:20
1	U 409.014†	-7263.0	-5836.1	-163.37 ug/L	-163.37 ppb	01:46:55
1	V 292.402†	33226.6	32342.9	196.25 ug/L	196.25 ppb	01:47:00
1	Zn 213.857†	35392.1	32301.2	314.98 ug/L	314.98 ppb	01:47:00
1	SiO2†	1255928.6	1169169.4	79620 ug/L	79620 ppb	01:48:28
2	Sc Radial	5240.4	5240.4	97.2 %		01:46:22
2	Y RADIAL	6179.6	6179.6	106.4 %		01:46:22
2	Al 396.153Radial†	99378.4	102263.8	80058 ug/L	80058 ppb	01:46:02
2	Ca 317.933Radial†	10710.4	11002.5	18221 ug/L	18221 ppb	01:46:02
2	Fe 238.204 Radial†	10212.1	10501.0	98336 ug/L	98336 ppb	01:46:02
2	K 766.490 Radial†	87023.3	87582.9	16305 ug/L	16305 ppb	01:46:02
2	Mg 279.077 IEC†	405.5	414.9	15124 ug/L	15124 ppb	01:46:22
2	Na 589.592 Radial†	1297.9	1759.0	542.18 ug/L	542.18 ppb	01:46:02
2	Sr 421.552†	30297.5	31163.3	202.82 ug/L	202.82 ppb	01:46:02
2	Sc 361.383	944695.9	944695.9	108.33 %		01:47:26
2	Y 371.029	912225.5	912225.5	116.74 %		01:47:26
2	Ag 328.068†	-6508.3	-6302.6	4.7978 ug/L	4.7978 ppb	01:47:31
2	As 188.979†	-52.8	-18.1	52.712 ug/L	52.712 ppb	01:47:51
2	B 249.677†	1210.5	1427.2	16.779 ug/L	16.779 ppb	01:47:31
2	Ba 233.527†	215655.8	199083.9	1710.7 ug/L	1710.7 ppb	01:47:31
2	Be 313.107†	-21385.0	-14148.3	4.5770 ug/L	4.5770 ppb	01:47:31
2	Cd 226.502†	824.8	940.7	1.6076 ug/L	1.6076 ppb	01:47:51
2	Co 228.616†	2427.9	2300.4	45.083 ug/L	45.083 ppb	01:47:51
2	Cr 267.716†	56376.9	51963.7	613.29 ug/L	613.29 ppb	01:47:31
2	Cu 324.752†	36716.4	24054.3	75.664 ug/L	75.664 ppb	01:47:31
2	Mn 257.610†	2670150.8	2464339.4	2998.3 ug/L	2998.3 ppb	01:47:26
2	Mo 202.031†	92.2	64.0	12.580 ug/L	12.580 ppb	01:47:51
2	Ni 231.604†	12204.7	11161.3	306.69 ug/L	306.69 ppb	01:47:31



2	P 214.914†	2333.7	1933.8	1126.3 ug/L	1126.3 ppb	01:47:51
2	Pb 220.353†	708.1	699.1	104.88 ug/L	104.88 ppb	01:47:51
2	S 181.975 Axial†	662.9	570.5	849.63 ug/L	849.63 ppb	01:47:51
2	Sb 206.836†	112.8	68.1	11.315 ug/L	11.315 ppb	01:47:51
2	Se 196.026†	-594.6	-534.8	-4.0661 ug/L	-4.0661 ppb	01:47:51
2	Si 251.611†	1256224.5	1159091.1	37000 ug/L	37000 ppb	01:47:26
2	Sn 189.927†	-105.9	-99.3	-15.794 ug/L	-15.794 ppb	01:47:51
2	Ti 334.940†	2990791.4	2761807.2	4364.1 ug/L	4364.1 ppb	01:47:26
2	Tl 190.801†	-192.4	-147.1	-1.3147 ug/L	-1.3147 ppb	01:47:51
2	U 409.014†	-7348.5	-5855.1	-163.74 ug/L	-163.74 ppb	01:47:26
2	V 292.402†	32682.2	31566.2	191.27 ug/L	191.27 ppb	01:47:31
2	Zn 213.857†	34896.5	31551.7	307.53 ug/L	307.53 ppb	01:47:31
2	SiO2†	1275425.9	1176804.8	80140 ug/L	80140 ppb	01:48:34
3	Sc Radial	5118.3	5118.3	94.9 %		01:46:47
3	Y RADIAL	6073.9	6073.9	104.6 %		01:46:47
3	Al 396.153Radial†	100431.4	105812.7	82836 ug/L	82836 ppb	01:46:27
3	Ca 317.933Radial†	10779.7	11338.4	18777 ug/L	18777 ppb	01:46:27
3	Fe 238.204 Radial†	10315.4	10860.5	101700 ug/L	101700 ppb	01:46:27
3	K 766.490 Radial†	87648.0	90377.3	16825 ug/L	16825 ppb	01:46:27
3	Mg 279.077 IEC†	407.7	427.1	15568 ug/L	15568 ppb	01:46:47
3	Na 589.592 Radial†	1352.9	1848.8	569.86 ug/L	569.86 ppb	01:46:27
3	Sr 421.552†	30666.2	32295.5	210.19 ug/L	210.19 ppb	01:46:27
3	Sc 361.383	955451.7	955451.7	109.56 %		01:47:57
3	Y 371.029	921853.1	921853.1	117.97 %		01:47:57
3	Ag 328.068†	-6558.2	-6280.6	5.9669 ug/L	5.9669 ppb	01:48:02
3	As 188.979†	-52.7	-17.5	53.497 ug/L	53.497 ppb	01:48:22
3	B 249.677†	1187.9	1393.9	15.467 ug/L	15.467 ppb	01:48:02
3	Ba 233.527†	215015.0	196258.0	1686.5 ug/L	1686.5 ppb	01:48:02
3	Be 313.107†	-21513.2	-14043.2	4.5399 ug/L	4.5399 ppb	01:48:02
3	Cd 226.502†	841.5	947.4	1.3395 ug/L	1.3395 ppb	01:48:22
3	Co 228.616†	2435.8	2282.3	44.662 ug/L	44.662 ppb	01:48:22
3	Cr 267.716†	56272.9	51282.9	605.34 ug/L	605.34 ppb	01:48:02
3	Cu 324.752†	36413.3	23396.1	73.915 ug/L	73.915 ppb	01:48:02
3	Mn 257.610†	2674054.7	2440154.4	2969.3 ug/L	2969.3 ppb	01:47:57
3	Mo 202.031†	85.0	56.5	12.294 ug/L	12.294 ppb	01:48:22
3	Ni 231.604†	12153.6	10987.8	301.92 ug/L	301.92 ppb	01:48:02
3	P 214.914†	2338.3	1913.7	1112.2 ug/L	1112.2 ppb	01:48:22
3	Pb 220.353†	726.3	708.3	106.45 ug/L	106.45 ppb	01:48:22
3	S 181.975 Axial†	663.9	564.5	840.06 ug/L	840.06 ppb	01:48:22
3	Sb 206.836†	98.7	54.0	6.3217 ug/L	6.3217 ppb	01:48:22
3	Se 196.026†	-600.2	-533.8	7.8829 ug/L	7.8829 ppb	01:48:22
3	Si 251.611†	1263078.1	1152291.9	36783 ug/L	36783 ppb	01:47:57
3	Sn 189.927†	-96.6	-89.6	-13.693 ug/L	-13.693 ppb	01:48:22
3	Ti 334.940†	3001419.0	2740427.1	4330.4 ug/L	4330.4 ppb	01:47:57
3	Tl 190.801†	-195.5	-147.9	-2.0021 ug/L	-2.0021 ppb	01:48:22
3	U 409.014†	-7341.1	-5772.0	-161.96 ug/L	-161.96 ppb	01:47:57
3	V 292.402†	32681.2	31225.6	188.56 ug/L	188.56 ppb	01:48:02
3	Zn 213.857†	34974.0	31259.8	304.28 ug/L	304.28 ppb	01:48:02
3	SiO2†	1255867.5	1145698.9	78022 ug/L	78022 ppb	01:48:40

Mean Data: 244144012|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	945491.4	108.42 %		1.099			1.01%
Sc Radial	5181.1	96.1 %		1.13			1.18%
Y 371.029	913517.7	116.90 %		0.994			0.85%
Y RADIAL	6124.2	105.5 %		0.91			0.87%
Ag 328.068†	-6376.3	4.9240 ug/L		0.98591	4.9240 ppb	0.98591	20.02%
Al 396.153Radial†	103725.0	81202 ug/L		1452.6	81202 ppb	1452.6	1.79%
As 188.979†	-16.1	54.074 ug/L		1.7241	54.074 ppb	1.7241	3.19%
B 249.677†	1398.9	15.902 ug/L		0.7600	15.902 ppb	0.7600	4.78%
Ba 233.527†	199740.6	1716.3 ug/L		33.02	1716.3 ppb	33.02	1.92%
Be 313.107†	-14287.1	4.5544 ug/L		0.01980	4.5544 ppb	0.01980	0.43%
Ca 317.933Radial†	11137.4	18444 ug/L		293.8	18444 ppb	293.8	1.59%
Cd 226.502†	950.3	1.5833 ug/L		0.23260	1.5833 ppb	0.23260	14.69%
Co 228.616†	2312.1	45.316 ug/L		0.7967	45.316 ppb	0.7967	1.76%
Cr 267.716†	52147.2	615.47 ug/L		11.381	615.47 ppb	11.381	1.85%
Cu 324.752†	23974.9	75.505 ug/L		1.5165	75.505 ppb	1.5165	2.01%
Fe 238.204 Radial†	10649.7	99728 ug/L		1757.4	99728 ppb	1757.4	1.76%
K 766.490 Radial†	88680.0	16509 ug/L		277.6	16509 ppb	277.6	1.68%

Mg 279.077 IEC†	421.8	15374 ug/L	227.5	15374 ppb	227.5	1.48%
Mn 257.610†	2468339.7	3003.3 ug/L	36.74	3003.3 ppb	36.74	1.22%
Mo 202.031†	58.6	12.292 ug/L	0.2900	12.292 ppb	0.2900	2.36%
Na 589.592 Radial†	1796.0	553.59 ug/L	14.465	553.59 ppb	14.465	2.61%
Ni 231.604†	11192.0	307.54 ug/L	6.077	307.54 ppb	6.077	1.98%
P 214.914†	1942.1	1130.6 ug/L	20.99	1130.6 ppb	20.99	1.86%
Pb 220.353†	716.4	107.40 ug/L	3.096	107.40 ppb	3.096	2.88%
S 181.975 Axial†	574.7	855.82 ug/L	19.607	855.82 ppb	19.607	2.29%
Sb 206.836†	57.3	7.3453 ug/L	3.56928	7.3453 ppb	3.56928	48.59%
Se 196.026†	-540.8	-3.1605 ug/L	10.61965	-3.1605 ppb	10.61965	336.01%
Si 251.611†	1163164.4	37130 ug/L	427.2	37130 ppb	427.2	1.15%
Sn 189.927†	-98.6	-15.602 ug/L	1.8204	-15.602 ppb	1.8204	11.67%
Sr 421.552†	31601.4	205.67 ug/L	3.957	205.67 ppb	3.957	1.92%
Ti 334.940†	2770092.4	4377.2 ug/L	54.57	4377.2 ppb	54.57	1.25%
Tl 190.801†	-153.5	-3.4085 ug/L	3.05066	-3.4085 ppb	3.05066	89.50%
U 409.014†	-5821.1	-163.02 ug/L	0.939	-163.02 ppb	0.939	0.58%
V 292.402†	31711.6	192.02 ug/L	3.900	192.02 ppb	3.900	2.03%
Zn 213.857†	31704.2	308.93 ug/L	5.486	308.93 ppb	5.486	1.78%
SiO2†	1163891.0	79261 ug/L	1103.9	79261 ppb	1103.9	1.39%

Sequence No.: 100

Sample ID: 244144013|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 97

Date Collected: 1/26/2010 01:50:52

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144013|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Conc. Units	Sample Units	Analysis Time
1	Sc Radial	5341.6	5341.6	99.1 %				01:53:06
1	Y RADIAL	6508.6	6508.6	112.1 %				01:53:06
1	Al 396.153Radial†	194318.2	196174.6	153580 ug/L		153580 ppb		01:52:46
1	Ca 317.933Radial†	13602.1	13713.0	22709 ug/L		22709 ppb		01:52:46
1	Fe 238.204 Radial†	14892.4	15026.9	140720 ug/L		140720 ppb		01:52:46
1	K 766.490 Radial†	103620.5	102642.0	19108 ug/L		19108 ppb		01:52:46
1	Mg 279.077 IEC†	600.7	604.0	22019 ug/L		22019 ppb		01:53:06
1	Na 589.592 Radial†	2136.1	2579.9	795.21 ug/L		795.21 ppb		01:52:46
1	Sr 421.552†	42198.1	42587.1	277.19 ug/L		277.19 ppb		01:52:46
1	Sc 361.383	924909.0	924909.0	106.06 %				01:54:05
1	Y 371.029	922278.9	922278.9	118.03 %				01:54:05
1	Ag 328.068†	-9880.6	-9610.8	4.3365 ug/L		4.3365 ppb		01:54:10
1	As 188.979†	-51.8	-18.2	79.222 ug/L		79.222 ppb		01:54:30
1	B 249.677†	1436.5	1664.2	15.306 ug/L		15.306 ppb		01:54:10
1	Ba 233.527†	256932.2	242261.5	2082.4 ug/L		2082.4 ppb		01:54:10
1	Be 313.107†	-20003.2	-13267.8	9.2574 ug/L		9.2574 ppb		01:54:10
1	Cd 226.502†	1264.7	1371.7	2.3925 ug/L		2.3925 ppb		01:54:30
1	Co 228.616†	3233.6	3108.0	60.170 ug/L		60.170 ppb		01:54:30
1	Cr 267.716†	10039.2	9386.3	113.63 ug/L		113.63 ppb		01:54:10
1	Cu 324.752†	31806.6	20150.0	66.525 ug/L		66.525 ppb		01:54:10
1	Mn 257.610†	3329176.4	3138453.2	3819.9 ug/L		3819.9 ppb		01:54:05
1	Mo 202.031†	-77.2	-93.8	4.2661 ug/L		4.2661 ppb		01:54:30
1	Ni 231.604†	3574.5	3265.1	89.684 ug/L		89.684 ppb		01:54:30
1	P 214.914†	1962.0	1629.4	923.84 ug/L		923.84 ppb		01:54:30
1	Pb 220.353†	835.0	832.6	135.11 ug/L		135.11 ppb		01:54:30
1	S 181.975 Axial†	399.7	335.5	479.60 ug/L		479.60 ppb		01:54:30
1	Sb 206.836†	91.7	50.4	-2.5602 ug/L		-2.5602 ppb		01:54:30
1	Se 196.026†	-892.9	-827.8	-42.454 ug/L		-42.454 ppb		01:54:30
1	Si 251.611†	1268723.4	1195684.9	38168 ug/L		38168 ppb		01:54:05
1	Sn 189.927†	-117.2	-112.0	-16.994 ug/L		-16.994 ppb		01:54:30
1	Ti 334.940†	4214152.2	3974353.2	6279.9 ug/L		6279.9 ppb		01:54:05
1	Tl 190.801†	-241.1	-196.8	0.9367 ug/L		0.9367 ppb		01:54:30
1	U 409.014†	-10231.0	-8718.0	-241.36 ug/L		-241.36 ppb		01:54:05
1	V 292.402†	47439.0	46125.5	280.11 ug/L		280.11 ppb		01:54:10
1	Zn 213.857†	30487.5	28083.7	269.74 ug/L		269.74 ppb		01:54:10
1	SiO2†	1263587.3	1190830.5	81096 ug/L		81096 ppb		01:55:40
2	Sc Radial	5283.0	5283.0	98.0 %				01:53:31
2	Y RADIAL	6430.1	6430.1	110.8 %				01:53:31
2	Al 396.153Radial†	193209.5	197218.7	154390 ug/L		154390 ppb		01:53:11
2	Ca 317.933Radial†	13558.8	13821.0	22888 ug/L		22888 ppb		01:53:11
2	Fe 238.204 Radial†	14833.4	15133.5	141720 ug/L		141720 ppb		01:53:11
2	K 766.490 Radial†	102831.4	102996.8	19174 ug/L		19174 ppb		01:53:11
2	Mg 279.077 IEC†	607.4	617.6	22516 ug/L		22516 ppb		01:53:31
2	Na 589.592 Radial†	2023.1	2488.6	767.06 ug/L		767.06 ppb		01:53:11
2	Sr 421.552†	41709.1	42560.4	277.01 ug/L		277.01 ppb		01:53:11
2	Sc 361.383	931255.5	931255.5	106.79 %				01:54:37
2	Y 371.029	928228.8	928228.8	118.79 %				01:54:37
2	Ag 328.068†	-9920.8	-9585.0	4.7548 ug/L		4.7548 ppb		01:54:42
2	As 188.979†	-48.6	-14.9	80.918 ug/L		80.918 ppb		01:55:02
2	B 249.677†	1454.0	1671.3	15.309 ug/L		15.309 ppb		01:54:42
2	Ba 233.527†	255421.3	239195.6	2056.2 ug/L		2056.2 ppb		01:54:42
2	Be 313.107†	-20226.4	-13348.3	9.2251 ug/L		9.2251 ppb		01:54:42
2	Cd 226.502†	1270.9	1369.4	2.2606 ug/L		2.2606 ppb		01:55:02
2	Co 228.616†	3234.7	3088.2	59.671 ug/L		59.671 ppb		01:55:02
2	Cr 267.716†	10030.3	9313.4	112.78 ug/L		112.78 ppb		01:54:42
2	Cu 324.752†	31441.1	19603.4	64.977 ug/L		64.977 ppb		01:54:42
2	Mn 257.610†	3346819.1	3133582.5	3814.0 ug/L		3814.0 ppb		01:54:37
2	Mo 202.031†	-78.5	-94.5	4.2932 ug/L		4.2932 ppb		01:55:02
2	Ni 231.604†	3592.4	3258.9	89.513 ug/L		89.513 ppb		01:55:02

2	P 214.914†	1947.7	1603.4	907.44 ug/L	907.44 ppb	01:55:02
2	Pb 220.353†	832.9	825.4	134.18 ug/L	134.18 ppb	01:55:02
2	S 181.975 Axial†	414.9	347.2	497.20 ug/L	497.20 ppb	01:55:02
2	Sb 206.836†	77.9	36.9	-7.4900 ug/L	-7.4900 ppb	01:55:02
2	Se 196.026†	-871.1	-801.6	-22.748 ug/L	-22.748 ppb	01:55:02
2	Si 251.611†	1276557.6	1194868.9	38142 ug/L	38142 ppb	01:54:37
2	Sn 189.927†	-119.1	-113.1	-17.164 ug/L	-17.164 ppb	01:55:02
2	Ti 334.940†	4242456.6	3973780.1	6279.0 ug/L	6279.0 ppb	01:54:37
2	Tl 190.801†	-256.5	-209.7	-3.5536 ug/L	-3.5536 ppb	01:55:02
2	U 409.014†	-10184.4	-8608.7	-238.65 ug/L	-238.65 ppb	01:54:37
2	V 292.402†	47212.4	45608.5	276.54 ug/L	276.54 ppb	01:54:42
2	Zn 213.857†	30354.6	27763.4	266.41 ug/L	266.41 ppb	01:54:42
2	SiO2†	1261450.2	1180709.9	80406 ug/L	80406 ppb	01:55:46
3	Sc Radial	5309.3	5309.3	98.5 %		01:53:56
3	Y RADIAL	6468.1	6468.1	111.4 %		01:53:56
3	Al 396.153Radial†	192565.0	195587.9	153120 ug/L	153120 ppb	01:53:36
3	Ca 317.933Radial†	13442.6	13634.5	22580 ug/L	22580 ppb	01:53:36
3	Fe 238.204 Radial†	14762.5	14986.5	140340 ug/L	140340 ppb	01:53:36
3	K 766.490 Radial†	102409.3	102048.4	18998 ug/L	18998 ppb	01:53:36
3	Mg 279.077 IEC†	610.7	617.9	22526 ug/L	22526 ppb	01:53:56
3	Na 589.592 Radial†	2059.4	2515.1	775.25 ug/L	775.25 ppb	01:53:36
3	Sr 421.552†	41625.4	42264.6	275.09 ug/L	275.09 ppb	01:53:36
3	Sc 361.383	931244.0	931244.0	106.78 %		01:55:09
3	Y 371.029	929150.5	929150.5	118.91 %		01:55:09
3	Ag 328.068†	-9832.5	-9502.4	4.6754 ug/L	4.6754 ppb	01:55:14
3	As 188.979†	-62.0	-27.4	74.945 ug/L	74.945 ppb	01:55:34
3	B 249.677†	1307.9	1534.5	12.379 ug/L	12.379 ppb	01:55:14
3	Ba 233.527†	254585.1	238415.5	2049.4 ug/L	2049.4 ppb	01:55:14
3	Be 313.107†	-20415.7	-13525.8	9.1436 ug/L	9.1436 ppb	01:55:14
3	Cd 226.502†	1267.7	1366.4	2.3645 ug/L	2.3645 ppb	01:55:34
3	Co 228.616†	3226.7	3080.7	59.523 ug/L	59.523 ppb	01:55:34
3	Cr 267.716†	10020.8	9304.6	112.65 ug/L	112.65 ppb	01:55:14
3	Cu 324.752†	31279.9	19452.8	64.467 ug/L	64.467 ppb	01:55:14
3	Mn 257.610†	3341154.0	3128316.0	3807.5 ug/L	3807.5 ppb	01:55:09
3	Mo 202.031†	-73.8	-90.2	4.5026 ug/L	4.5026 ppb	01:55:34
3	Ni 231.604†	3569.3	3237.2	88.918 ug/L	88.918 ppb	01:55:34
3	P 214.914†	1944.5	1600.5	906.48 ug/L	906.48 ppb	01:55:34
3	Pb 220.353†	854.8	845.9	136.88 ug/L	136.88 ppb	01:55:34
3	S 181.975 Axial†	405.5	338.3	484.00 ug/L	484.00 ppb	01:55:34
3	Sb 206.836†	94.1	52.1	-1.9315 ug/L	-1.9315 ppb	01:55:34
3	Se 196.026†	-884.5	-814.2	-35.259 ug/L	-35.259 ppb	01:55:34
3	Si 251.611†	1274512.1	1192968.1	38082 ug/L	38082 ppb	01:55:09
3	Sn 189.927†	-118.6	-112.5	-17.127 ug/L	-17.127 ppb	01:55:34
3	Ti 334.940†	4238053.7	3969705.9	6272.5 ug/L	6272.5 ppb	01:55:09
3	Tl 190.801†	-247.3	-201.1	-0.6667 ug/L	-0.6667 ppb	01:55:34
3	U 409.014†	-10425.7	-8834.8	-244.33 ug/L	-244.33 ppb	01:55:09
3	V 292.402†	46963.2	45375.7	275.19 ug/L	275.19 ppb	01:55:14
3	Zn 213.857†	30251.4	27667.0	265.57 ug/L	265.57 ppb	01:55:14
3	SiO2†	1268056.0	1186910.5	80829 ug/L	80829 ppb	01:55:52

Mean Data: 244144013|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	929136.2	106.54	%	0.420			0.39%
Sc Radial	5311.3	98.5	%	0.54			0.55%
Y 371.029	926552.7	118.57	%	0.477			0.40%
Y RADIAL	6468.9	111.4	%	0.68			0.61%
Ag 328.068†	-9566.1	4.5889	ug/L	0.22217	4.5889 ppb	0.22217	4.84%
Al 396.153Radial†	196327.1	153700	ug/L	646.7	153700 ppb	646.7	0.42%
As 188.979†	-20.2	78.362	ug/L	3.0785	78.362 ppb	3.0785	3.93%
B 249.677†	1623.3	14.331	ug/L	1.6908	14.331 ppb	1.6908	11.80%
Ba 233.527†	239957.6	2062.7	ug/L	17.44	2062.7 ppb	17.44	0.85%
Be 313.107†	-13380.6	9.2087	ug/L	0.05866	9.2087 ppb	0.05866	0.64%
Ca 317.933Radial†	13722.9	22726	ug/L	155.1	22726 ppb	155.1	0.68%
Cd 226.502†	1369.2	2.3392	ug/L	0.06951	2.3392 ppb	0.06951	2.97%
Co 228.616†	3092.3	59.788	ug/L	0.3389	59.788 ppb	0.3389	0.57%
Cr 267.716†	9334.8	113.02	ug/L	0.528	113.02 ppb	0.528	0.47%
Cu 324.752†	19735.4	65.323	ug/L	1.0718	65.323 ppb	1.0718	1.64%
Fe 238.204 Radial†	15049.0	140920	ug/L	711.1	140920 ppb	711.1	0.50%
K 766.490 Radial†	102562.4	19093	ug/L	89.2	19093 ppb	89.2	0.47%

Mg 279.077 IEC†	613.2	22354 ug/L	290.3	22354 ppb	290.3	1.30%
Mn 257.610†	3133450.6	3813.8 ug/L	6.18	3813.8 ppb	6.18	0.16%
Mo 202.031†	-92.8	4.3539 ug/L	0.12942	4.3539 ppb	0.12942	2.97%
Na 589.592 Radial†	2527.9	779.17 ug/L	14.482	779.17 ppb	14.482	1.86%
Ni 231.604†	3253.7	89.372 ug/L	0.4018	89.372 ppb	0.4018	0.45%
P 214.914†	1611.1	912.59 ug/L	9.757	912.59 ppb	9.757	1.07%
Pb 220.353†	834.6	135.39 ug/L	1.372	135.39 ppb	1.372	1.01%
S 181.975 Axial†	340.3	486.93 ug/L	9.156	486.93 ppb	9.156	1.88%
Sb 206.836†	46.5	-3.9939 ug/L	3.04399	-3.9939 ppb	3.04399	76.22%
Se 196.026†	-814.5	-33.487 ug/L	9.9715	-33.487 ppb	9.9715	29.78%
Si 251.611†	1194507.3	38131 ug/L	44.5	38131 ppb	44.5	0.12%
Sn 189.927†	-112.5	-17.095 ug/L	0.0891	-17.095 ppb	0.0891	0.52%
Sr 421.552†	42470.7	276.43 ug/L	1.165	276.43 ppb	1.165	0.42%
Ti 334.940†	3972613.0	6277.1 ug/L	4.03	6277.1 ppb	4.03	0.06%
Tl 190.801†	-202.5	-1.0945 ug/L	2.27553	-1.0945 ppb	2.27553	207.90%
U 409.014†	-8720.5	-241.45 ug/L	2.841	-241.45 ppb	2.841	1.18%
V 292.402†	45703.3	277.28 ug/L	2.545	277.28 ppb	2.545	0.92%
Zn 213.857†	27838.0	267.24 ug/L	2.206	267.24 ppb	2.206	0.83%
SiO2†	1186150.3	80777 ug/L	347.5	80777 ppb	347.5	0.43%

Sequence No.: 101

Sample ID: 244144014|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 98

Date Collected: 1/26/2010 01:58:03

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144014|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5292.3	5292.3	98.1 %		02:00:17
1	Y RADIAL	6240.4	6240.4	107.5 %		02:00:17
1	Al 396.153Radial†	108704.0	110763.4	86712 ug/L	86712 ppb	01:59:57
1	Ca 317.933Radial†	11295.6	11490.6	19029 ug/L	19029 ppb	01:59:57
1	Fe 238.204 Radial†	12020.2	12240.3	114620 ug/L	114620 ppb	01:59:57
1	K 766.490 Radial†	84425.2	84057.2	15648 ug/L	15648 ppb	01:59:57
1	Mg 279.077 IEC†	437.8	443.7	16162 ug/L	16162 ppb	02:00:17
1	Na 589.592 Radial†	1217.5	1664.0	512.91 ug/L	512.91 ppb	01:59:57
1	Sr 421.552†	33940.8	34570.0	225.00 ug/L	225.00 ppb	01:59:57
1	Sc 361.383	924347.2	924347.2	105.99 %		02:01:16
1	Y 371.029	894866.4	894866.4	114.52 %		02:01:16
1	Ag 328.068†	-7385.7	-7262.7	6.0345 ug/L	6.0345 ppb	02:01:41
1	As 188.979†	-32.5	-0.0	71.320 ug/L	71.320 ppb	02:01:41
1	B 249.677†	1076.4	1325.2	11.749 ug/L	11.749 ppb	02:01:21
1	Ba 233.527†	206979.1	195280.4	1678.7 ug/L	1678.7 ppb	02:01:21
1	Be 313.107†	-23313.7	-16402.5	5.4826 ug/L	5.4826 ppb	02:01:21
1	Cd 226.502†	990.8	1114.1	2.0285 ug/L	2.0285 ppb	02:01:41
1	Co 228.616†	2906.1	2800.9	55.264 ug/L	55.264 ppb	02:01:41
1	Cr 267.716†	42890.0	40385.1	477.53 ug/L	477.53 ppb	02:01:21
1	Cu 324.752†	31283.2	19674.5	63.718 ug/L	63.718 ppb	02:01:21
1	Mn 257.610†	3395871.9	3203285.3	3896.2 ug/L	3896.2 ppb	02:01:16
1	Mo 202.031†	132.5	104.0	16.801 ug/L	16.801 ppb	02:01:41
1	Ni 231.604†	9973.0	9303.8	255.64 ug/L	255.64 ppb	02:01:41
1	P 214.914†	2174.8	1831.3	1053.7 ug/L	1053.7 ppb	02:01:41
1	Pb 220.353†	877.0	872.8	128.84 ug/L	128.84 ppb	02:01:41
1	S 181.975 Axial†	714.1	632.3	942.02 ug/L	942.02 ppb	02:01:41
1	Sb 206.836†	107.7	65.6	8.1955 ug/L	8.1955 ppb	02:01:41
1	Se 196.026†	-701.6	-647.8	-20.428 ug/L	-20.428 ppb	02:01:41
1	Si 251.611†	1204927.3	1136223.6	36270 ug/L	36270 ppb	02:01:16
1	Sn 189.927†	-110.2	-105.4	-16.654 ug/L	-16.654 ppb	02:01:41
1	Ti 334.940†	3444890.3	3251006.6	5137.0 ug/L	5137.0 ppb	02:01:16
1	Tl 190.801†	-229.0	-185.5	-4.1140 ug/L	-4.1140 ppb	02:01:41
1	U 409.014†	-7597.5	-6239.4	-175.21 ug/L	-175.21 ppb	02:01:21
1	V 292.402†	39679.6	38832.1	236.60 ug/L	236.60 ppb	02:01:21
1	Zn 213.857†	25620.9	23509.7	224.96 ug/L	224.96 ppb	02:01:41
1	SiO2†	1210529.4	1141497.1	77736 ug/L	77736 ppb	02:02:51
2	Sc Radial	5276.3	5276.3	97.8 %		02:00:42
2	Y RADIAL	6211.0	6211.0	107.0 %		02:00:42
2	Al 396.153Radial†	109688.5	112105.0	87762 ug/L	87762 ppb	02:00:22
2	Ca 317.933Radial†	11372.5	11604.1	19217 ug/L	19217 ppb	02:00:22
2	Fe 238.204 Radial†	12128.7	12388.3	116010 ug/L	116010 ppb	02:00:22
2	K 766.490 Radial†	84627.4	84524.3	15735 ug/L	15735 ppb	02:00:22
2	Mg 279.077 IEC†	439.8	447.1	16285 ug/L	16285 ppb	02:00:42
2	Na 589.592 Radial†	1188.6	1638.2	504.94 ug/L	504.94 ppb	02:00:22
2	Sr 421.552†	34126.4	34864.5	226.92 ug/L	226.92 ppb	02:00:22
2	Sc 361.383	926054.2	926054.2	106.19 %		02:01:48
2	Y 371.029	897998.7	897998.7	114.92 %		02:01:48
2	Ag 328.068†	-7343.7	-7210.2	6.6987 ug/L	6.6987 ppb	02:02:13
2	As 188.979†	-28.9	3.4	72.874 ug/L	72.874 ppb	02:02:13
2	B 249.677†	1026.6	1276.5	10.402 ug/L	10.402 ppb	02:01:53
2	Ba 233.527†	204802.2	192870.4	1658.0 ug/L	1658.0 ppb	02:01:53
2	Be 313.107†	-23240.8	-16293.4	5.4425 ug/L	5.4425 ppb	02:01:53
2	Cd 226.502†	1005.5	1126.2	2.0340 ug/L	2.0340 ppb	02:02:13
2	Co 228.616†	2894.7	2785.0	54.929 ug/L	54.929 ppb	02:02:13
2	Cr 267.716†	42444.2	39890.8	471.74 ug/L	471.74 ppb	02:01:53
2	Cu 324.752†	30898.5	19257.8	62.569 ug/L	62.569 ppb	02:01:53
2	Mn 257.610†	3377389.4	3179974.4	3868.0 ug/L	3868.0 ppb	02:01:48
2	Mo 202.031†	112.8	85.2	15.527 ug/L	15.527 ppb	02:02:13
2	Ni 231.604†	9891.7	9209.9	253.06 ug/L	253.06 ppb	02:02:13

2	P 214.914†	2152.2	1806.3	1037.5 ug/L	1037.5 ppb	02:02:13
2	Pb 220.353†	869.7	864.3	127.77 ug/L	127.77 ppb	02:02:13
2	S 181.975 Axial†	719.0	635.7	946.94 ug/L	946.94 ppb	02:02:13
2	Sb 206.836†	106.6	64.3	7.7974 ug/L	7.7974 ppb	02:02:13
2	Se 196.026†	-701.9	-646.9	-15.219 ug/L	-15.219 ppb	02:02:13
2	Si 251.611†	1198608.9	1128177.9	36013 ug/L	36013 ppb	02:01:48
2	Sn 189.927†	-118.9	-113.5	-18.243 ug/L	-18.243 ppb	02:02:13
2	Ti 334.940†	3427224.3	3228379.3	5101.3 ug/L	5101.3 ppb	02:01:48
2	Tl 190.801†	-227.1	-183.3	-3.7778 ug/L	-3.7778 ppb	02:02:13
2	U 409.014†	-7381.1	-6022.3	-169.75 ug/L	-169.75 ppb	02:01:53
2	V 292.402†	39408.5	38507.8	234.27 ug/L	234.27 ppb	02:01:53
2	Zn 213.857†	25456.3	23310.2	222.82 ug/L	222.82 ppb	02:02:13
2	SiO2†	1206658.1	1135746.3	77344 ug/L	77344 ppb	02:02:57
3	Sc Radial	5261.0	5261.0	97.6 %		02:01:07
3	Y RADIAL	6207.1	6207.1	106.9 %		02:01:07
3	Al 396.153Radial†	110399.9	113160.1	88588 ug/L	88588 ppb	02:00:47
3	Ca 317.933Radial†	11432.8	11699.7	19375 ug/L	19375 ppb	02:00:47
3	Fe 238.204 Radial†	12174.3	12471.2	116790 ug/L	116790 ppb	02:00:47
3	K 766.490 Radial†	85405.2	85573.0	15930 ug/L	15930 ppb	02:00:47
3	Mg 279.077 IEC†	441.1	449.7	16382 ug/L	16382 ppb	02:01:07
3	Na 589.592 Radial†	1174.1	1626.9	501.47 ug/L	501.47 ppb	02:00:47
3	Sr 421.552†	34258.1	35100.9	228.46 ug/L	228.46 ppb	02:00:47
3	Sc 361.383	932916.7	932916.7	106.98 %		02:02:20
3	Y 371.029	902968.7	902968.7	115.55 %		02:02:20
3	Ag 328.068†	-7336.3	-7152.5	7.2055 ug/L	7.2055 ppb	02:02:45
3	As 188.979†	-24.1	8.1	75.237 ug/L	75.237 ppb	02:02:45
3	B 249.677†	994.2	1239.1	9.4146 ug/L	9.4146 ppb	02:02:25
3	Ba 233.527†	206975.3	193483.1	1663.3 ug/L	1663.3 ppb	02:02:25
3	Be 313.107†	-23046.8	-15951.0	5.5962 ug/L	5.5962 ppb	02:02:25
3	Cd 226.502†	987.1	1101.9	1.6536 ug/L	1.6536 ppb	02:02:45
3	Co 228.616†	2892.4	2762.8	54.363 ug/L	54.363 ppb	02:02:45
3	Cr 267.716†	42942.3	40062.3	473.77 ug/L	473.77 ppb	02:02:25
3	Cu 324.752†	31051.3	19186.6	62.403 ug/L	62.403 ppb	02:02:25
3	Mn 257.610†	3412683.9	3189571.3	3879.8 ug/L	3879.8 ppb	02:02:20
3	Mo 202.031†	104.1	76.3	14.932 ug/L	14.932 ppb	02:02:45
3	Ni 231.604†	9903.2	9152.1	251.47 ug/L	251.47 ppb	02:02:45
3	P 214.914†	2180.0	1817.3	1044.1 ug/L	1044.1 ppb	02:02:45
3	Pb 220.353†	875.4	863.7	127.78 ug/L	127.78 ppb	02:02:45
3	S 181.975 Axial†	727.7	638.9	951.62 ug/L	951.62 ppb	02:02:45
3	Sb 206.836†	107.7	64.7	7.9290 ug/L	7.9290 ppb	02:02:45
3	Se 196.026†	-688.4	-629.4	-1.6819 ug/L	-1.6819 ppb	02:02:45
3	Si 251.611†	1210685.9	1131164.3	36109 ug/L	36109 ppb	02:02:20
3	Sn 189.927†	-100.1	-95.0	-14.444 ug/L	-14.444 ppb	02:02:45
3	Ti 334.940†	3459988.2	3235265.4	5112.2 ug/L	5112.2 ppb	02:02:20
3	Tl 190.801†	-222.5	-177.5	-1.6133 ug/L	-1.6133 ppb	02:02:45
3	U 409.014†	-7584.8	-6161.6	-173.44 ug/L	-173.44 ppb	02:02:25
3	V 292.402†	39716.8	38522.9	234.23 ug/L	234.23 ppb	02:02:25
3	Zn 213.857†	25542.8	23214.7	221.79 ug/L	221.79 ppb	02:02:45
3	SiO2†	1207441.7	1128120.1	76825 ug/L	76825 ppb	02:03:03

Mean Data: 244144014|940180|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
	Intensity		Units			Units		
Sc 361.383	927772.7	106.39	%	0.520				0.49%
Sc Radial	5276.5	97.8	%	0.29				0.30%
Y 371.029	898611.3	115.00	%	0.523				0.45%
Y RADIAL	6219.5	107.1	%	0.31				0.29%
Ag 328.068†	-7208.5	6.6462	ug/L	0.58728	6.6462	ppb	0.58728	8.84%
Al 396.153Radial†	112009.5	87687	ug/L	940.4	87687	ppb	940.4	1.07%
As 188.979†	3.8	73.144	ug/L	1.9721	73.144	ppb	1.9721	2.70%
B 249.677†	1280.2	10.522	ug/L	1.1719	10.522	ppb	1.1719	11.14%
Ba 233.527†	193878.0	1666.7	ug/L	10.72	1666.7	ppb	10.72	0.64%
Be 313.107†	-16215.7	5.5071	ug/L	0.07969	5.5071	ppb	0.07969	1.45%
Ca 317.933Radial†	11598.2	19207	ug/L	173.4	19207	ppb	173.4	0.90%
Cd 226.502†	1114.1	1.9054	ug/L	0.21804	1.9054	ppb	0.21804	11.44%
Co 228.616†	2782.9	54.852	ug/L	0.4553	54.852	ppb	0.4553	0.83%
Cr 267.716†	40112.7	474.35	ug/L	2.938	474.35	ppb	2.938	0.62%
Cu 324.752†	19372.9	62.896	ug/L	0.7159	62.896	ppb	0.7159	1.14%
Fe 238.204 Radial†	12366.6	115810	ug/L	1095.0	115810	ppb	1095.0	0.95%
K 766.490 Radial†	84718.2	15771	ug/L	144.5	15771	ppb	144.5	0.92%

Mg 279.077 IEC†	446.8	16276 ug/L	110.1	16276 ppb	110.1	0.68%
Mn 257.610†	3190943.7	3881.3 ug/L	14.14	3881.3 ppb	14.14	0.36%
Mo 202.031†	88.5	15.753 ug/L	0.9549	15.753 ppb	0.9549	6.06%
Na 589.592 Radial†	1643.0	506.44 ug/L	5.863	506.44 ppb	5.863	1.16%
Ni 231.604†	9221.9	253.39 ug/L	2.103	253.39 ppb	2.103	0.83%
P 214.914†	1818.3	1045.1 ug/L	8.13	1045.1 ppb	8.13	0.78%
Pb 220.353†	866.9	128.13 ug/L	0.616	128.13 ppb	0.616	0.48%
S 181.975 Axial†	635.6	946.86 ug/L	4.803	946.86 ppb	4.803	0.51%
Sb 206.836†	64.8	7.9739 ug/L	0.20281	7.9739 ppb	0.20281	2.54%
Se 196.026†	-641.4	-12.443 ug/L	9.6766	-12.443 ppb	9.6766	77.77%
Si 251.611†	1131855.2	36131 ug/L	129.8	36131 ppb	129.8	0.36%
Sn 189.927†	-104.6	-16.447 ug/L	1.9078	-16.447 ppb	1.9078	11.60%
Sr 421.552†	34845.1	226.79 ug/L	1.731	226.79 ppb	1.731	0.76%
Ti 334.940†	3238217.1	5116.8 ug/L	18.31	5116.8 ppb	18.31	0.36%
Tl 190.801†	-182.1	-3.1684 ug/L	1.35720	-3.1684 ppb	1.35720	42.84%
U 409.014†	-6141.1	-172.80 ug/L	2.785	-172.80 ppb	2.785	1.61%
V 292.402†	38620.9	235.03 ug/L	1.356	235.03 ppb	1.356	0.58%
Zn 213.857†	23344.9	223.19 ug/L	1.614	223.19 ppb	1.614	0.72%
SiO2†	1135121.2	77301 ug/L	457.0	77301 ppb	457.0	0.59%



Sequence No.: 102

Sample ID: 244144015|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 99

Date Collected: 1/26/2010 02:05:15

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144015|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5272.2	5272.2	97.8 %			02:07:29
1	Y RADIAL	6165.4	6165.4	106.2 %			02:07:29
1	Al 396.153Radial†	91462.7	93549.5	73236 ug/L		73236 ppb	02:07:09
1	Ca 317.933Radial†	11179.6	11415.8	18905 ug/L		18905 ppb	02:07:09
1	Fe 238.204 Radial†	9914.8	10133.5	94894 ug/L		94894 ppb	02:07:09
1	K 766.490 Radial†	81541.5	81435.0	15160 ug/L		15160 ppb	02:07:09
1	Mg 279.077 IEC†	387.1	393.5	14341 ug/L		14341 ppb	02:07:29
1	Na 589.592 Radial†	725.0	1164.9	359.07 ug/L		359.07 ppb	02:07:09
1	Sr 421.552†	29550.3	30210.8	196.61 ug/L		196.61 ppb	02:07:09
1	Sc 361.383	941940.9	941940.9	108.01 %			02:08:27
1	Y 371.029	906161.1	906161.1	115.96 %			02:08:27
1	Ag 328.068†	-6087.5	-5930.6	5.3222 ug/L		5.3222 ppb	02:08:47
1	As 188.979†	-41.9	-8.2	56.072 ug/L		56.072 ppb	02:08:47
1	B 249.677†	874.7	1119.5	10.248 ug/L		10.248 ppb	02:08:27
1	Ba 233.527†	197517.6	182873.2	1571.6 ug/L		1571.6 ppb	02:08:27
1	Be 313.107†	-21523.1	-14333.9	4.4302 ug/L		4.4302 ppb	02:08:27
1	Cd 226.502†	837.5	954.7	2.0060 ug/L		2.0060 ppb	02:08:47
1	Co 228.616†	2367.6	2251.0	44.147 ug/L		44.147 ppb	02:08:47
1	Cr 267.716†	14830.1	13650.6	162.72 ug/L		162.72 ppb	02:08:47
1	Cu 324.752†	39085.7	26347.0	82.186 ug/L		82.186 ppb	02:08:27
1	Mn 257.610†	2915363.3	2698574.0	3282.1 ug/L		3282.1 ppb	02:08:27
1	Mo 202.031†	43.0	18.8	8.9779 ug/L		8.9779 ppb	02:08:47
1	Ni 231.604†	4098.1	3688.9	101.34 ug/L		101.34 ppb	02:08:47
1	P 214.914†	2399.2	2000.7	1167.5 ug/L		1167.5 ppb	02:08:47
1	Pb 220.353†	838.6	821.8	120.76 ug/L		120.76 ppb	02:08:47
1	S 181.975 Axial†	724.5	629.4	940.15 ug/L		940.15 ppb	02:08:47
1	Sb 206.836†	66.4	25.4	-4.2514 ug/L		-4.2514 ppb	02:08:47
1	Se 196.026†	-589.3	-531.5	-13.831 ug/L		-13.831 ppb	02:08:47
1	Si 251.611†	1250653.8	1157325.4	36944 ug/L		36944 ppb	02:08:27
1	Sn 189.927†	-110.0	-103.4	-16.584 ug/L		-16.584 ppb	02:08:47
1	Ti 334.940†	2958906.7	2740362.4	4330.5 ug/L		4330.5 ppb	02:08:27
1	Tl 190.801†	-189.2	-144.6	0.6265 ug/L		0.6265 ppb	02:08:47
1	U 409.014†	-7076.9	-5623.5	-156.36 ug/L		-156.36 ppb	02:08:27
1	V 292.402†	33139.6	32078.0	195.34 ug/L		195.34 ppb	02:08:27
1	Zn 213.857†	25132.5	22606.1	218.69 ug/L		218.69 ppb	02:08:47
1	SiO2†	1249134.0	1155906.6	78717 ug/L		78717 ppb	02:09:47
2	Sc Radial	5364.3	5364.3	99.5 %			02:07:54
2	Y RADIAL	6271.2	6271.2	108.0 %			02:07:54
2	Al 396.153Radial†	92421.8	92908.1	72734 ug/L		72734 ppb	02:07:34
2	Ca 317.933Radial†	11318.7	11359.4	18812 ug/L		18812 ppb	02:07:34
2	Fe 238.204 Radial†	9995.4	10040.4	94023 ug/L		94023 ppb	02:07:34
2	K 766.490 Radial†	82240.4	80706.2	15024 ug/L		15024 ppb	02:07:34
2	Mg 279.077 IEC†	383.7	383.3	13967 ug/L		13967 ppb	02:07:54
2	Na 589.592 Radial†	756.9	1184.3	365.04 ug/L		365.04 ppb	02:07:34
2	Sr 421.552†	29873.4	30016.9	195.35 ug/L		195.35 ppb	02:07:34
2	Sc 361.383	932215.6	932215.6	106.90 %			02:08:54
2	Y 371.029	896889.5	896889.5	114.78 %			02:08:54
2	Ag 328.068†	-6117.7	-6017.6	4.6616 ug/L		4.6616 ppb	02:09:14
2	As 188.979†	-61.0	-26.5	47.720 ug/L		47.720 ppb	02:09:14
2	B 249.677†	881.3	1134.1	10.725 ug/L		10.725 ppb	02:08:54
2	Ba 233.527†	195896.8	183264.8	1574.9 ug/L		1574.9 ppb	02:08:54
2	Be 313.107†	-21457.9	-14480.8	4.3863 ug/L		4.3863 ppb	02:08:54
2	Cd 226.502†	824.7	950.7	2.0478 ug/L		2.0478 ppb	02:09:14
2	Co 228.616†	2369.9	2276.1	44.749 ug/L		44.749 ppb	02:09:14
2	Cr 267.716†	14872.9	13833.9	164.86 ug/L		164.86 ppb	02:09:14
2	Cu 324.752†	38678.2	26343.3	82.131 ug/L		82.131 ppb	02:08:54
2	Mn 257.610†	2894260.7	2706991.2	3292.2 ug/L		3292.2 ppb	02:08:54
2	Mo 202.031†	41.4	17.7	8.8308 ug/L		8.8308 ppb	02:09:14
2	Ni 231.604†	4113.4	3742.8	102.82 ug/L		102.82 ppb	02:09:14

2	P 214.914†	2408.5	2032.6	1187.8 ug/L	1187.8 ppb	02:09:14
2	Pb 220.353†	848.1	838.8	123.09 ug/L	123.09 ppb	02:09:14
2	S 181.975 Axial†	741.5	652.2	974.84 ug/L	974.84 ppb	02:09:14
2	Sb 206.836†	76.3	35.3	-0.7033 ug/L	-0.7033 ppb	02:09:14
2	Se 196.026†	-579.1	-527.7	-14.348 ug/L	-14.348 ppb	02:09:14
2	Si 251.611†	1240778.8	1160167.0	37035 ug/L	37035 ppb	02:08:54
2	Sn 189.927†	-118.7	-112.6	-18.488 ug/L	-18.488 ppb	02:09:14
2	Ti 334.940†	2931755.4	2743541.8	4335.6 ug/L	4335.6 ppb	02:08:54
2	Tl 190.801†	-208.9	-165.0	-6.3580 ug/L	-6.3580 ppb	02:09:14
2	U 409.014†	-7148.3	-5758.6	-159.75 ug/L	-159.75 ppb	02:08:54
2	V 292.402†	32836.4	32114.4	195.68 ug/L	195.68 ppb	02:08:54
2	Zn 213.857†	25217.1	22928.0	222.02 ug/L	222.02 ppb	02:09:14
2	SiO2†	1235354.6	1155081.1	78661 ug/L	78661 ppb	02:09:53
3	Sc Radial	5278.9	5278.9	97.9 %		02:08:19
3	Y RADIAL	6179.3	6179.3	106.4 %		02:08:19
3	Al 396.153Radial†	90733.2	92686.5	72560 ug/L	72560 ppb	02:07:59
3	Ca 317.933Radial†	11144.2	11365.2	18821 ug/L	18821 ppb	02:07:59
3	Fe 238.204 Radial†	9801.4	10004.8	93690 ug/L	93690 ppb	02:07:59
3	K 766.490 Radial†	80767.7	80539.4	14993 ug/L	14993 ppb	02:07:59
3	Mg 279.077 IEC†	390.0	396.0	14434 ug/L	14434 ppb	02:08:19
3	Na 589.592 Radial†	694.9	1133.2	349.30 ug/L	349.30 ppb	02:07:59
3	Sr 421.552†	29256.1	29872.2	194.41 ug/L	194.41 ppb	02:07:59
3	Sc 361.383	927844.0	927844.0	106.39 %		02:09:21
3	Y 371.029	891605.4	891605.4	114.10 %		02:09:21
3	Ag 328.068†	-6074.3	-6003.8	4.6109 ug/L	4.6109 ppb	02:09:41
3	As 188.979†	-52.1	-18.4	51.256 ug/L	51.256 ppb	02:09:41
3	B 249.677†	886.7	1143.1	10.985 ug/L	10.985 ppb	02:09:21
3	Ba 233.527†	194830.7	183126.2	1573.7 ug/L	1573.7 ppb	02:09:21
3	Be 313.107†	-21106.4	-14245.1	4.4696 ug/L	4.4696 ppb	02:09:21
3	Cd 226.502†	840.2	968.9	2.3076 ug/L	2.3076 ppb	02:09:41
3	Co 228.616†	2371.5	2288.0	45.045 ug/L	45.045 ppb	02:09:41
3	Cr 267.716†	14873.4	13899.9	165.62 ug/L	165.62 ppb	02:09:41
3	Cu 324.752†	38555.7	26398.6	82.273 ug/L	82.273 ppb	02:09:21
3	Mn 257.610†	2880564.7	2706875.2	3292.0 ug/L	3292.0 ppb	02:09:21
3	Mo 202.031†	45.7	21.9	9.1126 ug/L	9.1126 ppb	02:09:41
3	Ni 231.604†	4112.1	3759.7	103.29 ug/L	103.29 ppb	02:09:41
3	P 214.914†	2430.5	2063.9	1207.4 ug/L	1207.4 ppb	02:09:41
3	Pb 220.353†	856.5	850.4	124.70 ug/L	124.70 ppb	02:09:41
3	S 181.975 Axial†	734.7	649.1	970.17 ug/L	970.17 ppb	02:09:41
3	Sb 206.836†	70.7	30.4	-2.4634 ug/L	-2.4634 ppb	02:09:41
3	Se 196.026†	-570.7	-522.3	-12.097 ug/L	-12.097 ppb	02:09:41
3	Si 251.611†	1234601.8	1159830.1	37024 ug/L	37024 ppb	02:09:21
3	Sn 189.927†	-114.0	-108.6	-17.687 ug/L	-17.687 ppb	02:09:41
3	Ti 334.940†	2916382.6	2742015.0	4333.1 ug/L	4333.1 ppb	02:09:21
3	Tl 190.801†	-203.8	-161.1	-5.0248 ug/L	-5.0248 ppb	02:09:41
3	U 409.014†	-6925.0	-5580.3	-155.11 ug/L	-155.11 ppb	02:09:21
3	V 292.402†	32692.7	32124.0	195.82 ug/L	195.82 ppb	02:09:21
3	Zn 213.857†	25202.6	23025.5	223.03 ug/L	223.03 ppb	02:09:41
3	SiO2†	1231917.8	1157295.8	78812 ug/L	78812 ppb	02:09:59

Mean Data: 244144015|940180|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
Sc 361.383	934000.2	107.10	%	0.827				0.77%
Sc Radial	5305.1	98.4	%	0.95				0.97%
Y 371.029	898218.7	114.95	%	0.943				0.82%
Y RADIAL	6205.3	106.9	%	0.99				0.93%
Ag 328.068†	-5984.0	4.8649	ug/L	0.39686	4.8649	ppb	0.39686	8.16%
Al 396.153Radial†	93048.0	72843	ug/L	350.9	72843	ppb	350.9	0.48%
As 188.979†	-17.7	51.683	ug/L	4.1927	51.683	ppb	4.1927	8.11%
B 249.677†	1132.2	10.653	ug/L	0.3736	10.653	ppb	0.3736	3.51%
Ba 233.527†	183088.1	1573.4	ug/L	1.69	1573.4	ppb	1.69	0.11%
Be 313.107†	-14353.3	4.4287	ug/L	0.04167	4.4287	ppb	0.04167	0.94%
Ca 317.933Radial†	11380.1	18846	ug/L	51.4	18846	ppb	51.4	0.27%
Cd 226.502†	958.1	2.1205	ug/L	0.16340	2.1205	ppb	0.16340	7.71%
Co 228.616†	2271.7	44.647	ug/L	0.4574	44.647	ppb	0.4574	1.02%
Cr 267.716†	13794.8	164.40	ug/L	1.507	164.40	ppb	1.507	0.92%
Cu 324.752†	26363.0	82.197	ug/L	0.0714	82.197	ppb	0.0714	0.09%
Fe 238.204 Radial†	10059.6	94202	ug/L	621.9	94202	ppb	621.9	0.66%
K 766.490 Radial†	80893.5	15059	ug/L	88.7	15059	ppb	88.7	0.59%

Mg 279.077 IEC†	390.9	14247 ug/L	247.1	14247 ppb	247.1	1.73%
Mn 257.610†	2704146.8	3288.8 ug/L	5.80	3288.8 ppb	5.80	0.18%
Mo 202.031†	19.5	8.9738 ug/L	0.14092	8.9738 ppb	0.14092	1.57%
Na 589.592 Radial†	1160.8	357.81 ug/L	7.942	357.81 ppb	7.942	2.22%
Ni 231.604†	3730.5	102.48 ug/L	1.016	102.48 ppb	1.016	0.99%
P 214.914†	2032.4	1187.6 ug/L	19.97	1187.6 ppb	19.97	1.68%
Pb 220.353†	837.0	122.85 ug/L	1.982	122.85 ppb	1.982	1.61%
S 181.975 Axial†	643.6	961.72 ug/L	18.827	961.72 ppb	18.827	1.96%
Sb 206.836†	30.4	-2.4727 ug/L	1.77406	-2.4727 ppb	1.77406	71.75%
Se 196.026†	-527.1	-13.425 ug/L	1.1791	-13.425 ppb	1.1791	8.78%
Si 251.611†	1159107.5	37001 ug/L	49.6	37001 ppb	49.6	0.13%
Sn 189.927†	-108.2	-17.586 ug/L	0.9562	-17.586 ppb	0.9562	5.44%
Sr 421.552†	30033.3	195.46 ug/L	1.106	195.46 ppb	1.106	0.57%
Ti 334.940†	2741973.1	4333.1 ug/L	2.52	4333.1 ppb	2.52	0.06%
Tl 190.801†	-156.9	-3.5854 ug/L	3.70803	-3.5854 ppb	3.70803	103.42%
U 409.014†	-5654.1	-157.07 ug/L	2.401	-157.07 ppb	2.401	1.53%
V 292.402†	32105.5	195.61 ug/L	0.250	195.61 ppb	0.250	0.13%
Zn 213.857†	22853.2	221.24 ug/L	2.274	221.24 ppb	2.274	1.03%
SiO2†	1156094.5	78730 ug/L	76.2	78730 ppb	76.2	0.10%

Sequence No.: 103

Sample ID: 244144016|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 100

Date Collected: 1/26/2010 02:12:10

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144016|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5285.5	5285.5	98.0	%		02:14:24
1	Y RADIAL	6282.9	6282.9	108.2	%		02:14:24
1	Al 396.153Radial†	115268.3	117603.3	92067	ug/L	92067 ppb	02:14:04
1	Ca 317.933Radial†	11630.0	11846.6	19619	ug/L	19619 ppb	02:14:04
1	Fe 238.204 Radial†	10828.0	11039.7	103380	ug/L	103380 ppb	02:14:04
1	K 766.490 Radial†	83590.3	83316.0	15510	ug/L	15510 ppb	02:14:04
1	Mg 279.077 IEC†	409.5	415.4	15136	ug/L	15136 ppb	02:14:24
1	Na 589.592 Radial†	1101.2	1546.9	476.80	ug/L	476.80 ppb	02:14:04
1	Sr 421.552†	30025.6	30619.9	199.27	ug/L	199.27 ppb	02:14:04
1	Sc 361.383	936660.2	936660.2	107.41	%		02:15:22
1	Y 371.029	915427.9	915427.9	117.15	%		02:15:22
1	Ag 328.068†	-6845.5	-6668.1	4.8965	ug/L	4.8965 ppb	02:15:42
1	As 188.979†	-41.6	-8.1	60.083	ug/L	60.083 ppb	02:15:42
1	B 249.677†	879.5	1128.6	9.0675	ug/L	9.0675 ppb	02:15:22
1	Ba 233.527†	206377.0	192152.8	1651.4	ug/L	1651.4 ppb	02:15:22
1	Be 313.107†	-20169.5	-13186.0	5.3838	ug/L	5.3838 ppb	02:15:22
1	Cd 226.502†	939.4	1053.9	2.3647	ug/L	2.3647 ppb	02:15:42
1	Co 228.616†	2538.4	2422.4	47.653	ug/L	47.653 ppb	02:15:42
1	Cr 267.716†	20657.8	19153.9	227.63	ug/L	227.63 ppb	02:15:42
1	Cu 324.752†	65759.4	51385.6	155.91	ug/L	155.91 ppb	02:15:22
1	Mn 257.610†	3049461.6	2838643.3	3452.8	ug/L	3452.8 ppb	02:15:22
1	Mo 202.031†	21.2	-1.3	8.1597	ug/L	8.1597 ppb	02:15:42
1	Ni 231.604†	5216.4	4751.5	130.54	ug/L	130.54 ppb	02:15:42
1	P 214.914†	2493.2	2100.8	1212.9	ug/L	1212.9 ppb	02:15:42
1	Pb 220.353†	886.8	871.0	130.76	ug/L	130.76 ppb	02:15:42
1	S 181.975 Axial†	722.9	631.7	940.07	ug/L	940.07 ppb	02:15:42
1	Sb 206.836†	81.5	39.9	-0.0228	ug/L	-0.0228 ppb	02:15:42
1	Se 196.026†	-660.9	-601.3	-28.205	ug/L	-28.205 ppb	02:15:42
1	Si 251.611†	1215668.0	1131279.7	36112	ug/L	36112 ppb	02:15:22
1	Sn 189.927†	-110.5	-104.4	-16.537	ug/L	-16.537 ppb	02:15:42
1	Ti 334.940†	3098435.5	2885715.1	4560.2	ug/L	4560.2 ppb	02:15:22
1	Tl 190.801†	-206.9	-162.2	-2.7913	ug/L	-2.7913 ppb	02:15:42
1	U 409.014†	-8417.7	-6908.7	-190.65	ug/L	-190.65 ppb	02:15:22
1	V 292.402†	35284.0	34247.5	208.22	ug/L	208.22 ppb	02:15:22
1	Zn 213.857†	25768.4	23329.3	224.89	ug/L	224.89 ppb	02:15:42
1	SiO2†	1207580.7	1123738.4	76527	ug/L	76527 ppb	02:16:42
2	Sc Radial	5239.0	5239.0	97.1	%		02:14:49
2	Y RADIAL	6244.7	6244.7	107.6	%		02:14:49
2	Al 396.153Radial†	114442.0	117795.5	92217	ug/L	92217 ppb	02:14:29
2	Ca 317.933Radial†	11502.4	11820.5	19575	ug/L	19575 ppb	02:14:29
2	Fe 238.204 Radial†	10740.1	11047.2	103450	ug/L	103450 ppb	02:14:29
2	K 766.490 Radial†	82717.9	83174.0	15483	ug/L	15483 ppb	02:14:29
2	Mg 279.077 IEC†	408.0	417.5	15214	ug/L	15214 ppb	02:14:49
2	Na 589.592 Radial†	1075.1	1530.0	471.60	ug/L	471.60 ppb	02:14:29
2	Sr 421.552†	29805.6	30664.9	199.57	ug/L	199.57 ppb	02:14:29
2	Sc 361.383	937958.7	937958.7	107.55	%		02:15:49
2	Y 371.029	916021.5	916021.5	117.23	%		02:15:49
2	Ag 328.068†	-6835.1	-6649.6	5.0005	ug/L	5.0005 ppb	02:16:09
2	As 188.979†	-37.4	-4.1	61.791	ug/L	61.791 ppb	02:16:09
2	B 249.677†	940.7	1184.3	10.341	ug/L	10.341 ppb	02:15:49
2	Ba 233.527†	206595.2	192089.7	1650.9	ug/L	1650.9 ppb	02:15:49
2	Be 313.107†	-20125.3	-13118.9	5.3884	ug/L	5.3884 ppb	02:15:49
2	Cd 226.502†	926.8	1040.9	2.1978	ug/L	2.1978 ppb	02:16:09
2	Co 228.616†	2541.9	2422.4	47.672	ug/L	47.672 ppb	02:16:09
2	Cr 267.716†	20757.0	19219.5	228.40	ug/L	228.40 ppb	02:16:09
2	Cu 324.752†	65532.1	51089.4	155.05	ug/L	155.05 ppb	02:15:49
2	Mn 257.610†	3050907.8	2836057.2	3449.7	ug/L	3449.7 ppb	02:15:49
2	Mo 202.031†	27.0	4.1	8.5649	ug/L	8.5649 ppb	02:16:09
2	Ni 231.604†	5235.2	4762.2	130.84	ug/L	130.84 ppb	02:16:09

2	P 214.914†	2518.8	2121.4	1225.8 ug/L	1225.8 ppb	02:16:09
2	Pb 220.353†	903.0	884.9	132.71 ug/L	132.71 ppb	02:16:09
2	S 181.975 Axial†	718.0	626.2	931.69 ug/L	931.69 ppb	02:16:09
2	Sb 206.836†	86.5	44.4	1.6170 ug/L	1.6170 ppb	02:16:09
2	Se 196.026†	-654.8	-594.7	-23.847 ug/L	-23.847 ppb	02:16:09
2	Si 251.611†	1215354.4	1129421.2	36053 ug/L	36053 ppb	02:15:49
2	Sn 189.927†	-123.0	-115.8	-18.879 ug/L	-18.879 ppb	02:16:09
2	Ti 334.940†	3096521.6	2879941.8	4551.0 ug/L	4551.0 ppb	02:15:49
2	Tl 190.801†	-201.9	-157.3	-1.1744 ug/L	-1.1744 ppb	02:16:09
2	U 409.014†	-8529.9	-7002.3	-193.07 ug/L	-193.07 ppb	02:15:49
2	V 292.402†	35232.0	34153.6	207.60 ug/L	207.60 ppb	02:15:49
2	Zn 213.857†	25939.4	23455.1	226.16 ug/L	226.16 ppb	02:16:09
2	SiO2†	1206073.2	1120780.3	76325 ug/L	76325 ppb	02:16:48
3	Sc Radial	5259.1	5259.1	97.5 %		02:15:14
3	Y RADIAL	6251.8	6251.8	107.7 %		02:15:14
3	Al 396.153Radial†	115831.6	118771.4	92981 ug/L	92981 ppb	02:14:54
3	Ca 317.933Radial†	11642.6	11919.1	19739 ug/L	19739 ppb	02:14:54
3	Fe 238.204 Radial†	10815.7	11082.5	103780 ug/L	103780 ppb	02:14:54
3	K 766.490 Radial†	83698.1	83854.7	15610 ug/L	15610 ppb	02:14:54
3	Mg 279.077 IEC†	406.1	414.0	15083 ug/L	15083 ppb	02:15:14
3	Na 589.592 Radial†	1132.4	1584.5	488.40 ug/L	488.40 ppb	02:14:54
3	Sr 421.552†	30228.3	30981.5	201.63 ug/L	201.63 ppb	02:14:54
3	Sc 361.383	924353.6	924353.6	105.99 %		02:16:16
3	Y 371.029	903233.3	903233.3	115.59 %		02:16:16
3	Ag 328.068†	-6776.7	-6688.0	4.9390 ug/L	4.9390 ppb	02:16:36
3	As 188.979†	-43.2	-10.2	59.253 ug/L	59.253 ppb	02:16:36
3	B 249.677†	807.9	1071.9	7.6946 ug/L	7.6946 ppb	02:16:16
3	Ba 233.527†	204118.7	192580.4	1655.1 ug/L	1655.1 ppb	02:16:16
3	Be 313.107†	-19727.9	-13019.4	5.4451 ug/L	5.4451 ppb	02:16:16
3	Cd 226.502†	944.9	1070.7	2.5314 ug/L	2.5314 ppb	02:16:36
3	Co 228.616†	2527.3	2443.4	48.150 ug/L	48.150 ppb	02:16:36
3	Cr 267.716†	20654.2	19406.6	230.61 ug/L	230.61 ppb	02:16:36
3	Cu 324.752†	64558.9	51068.1	155.00 ug/L	155.00 ppb	02:16:16
3	Mn 257.610†	3017224.5	2846029.7	3461.8 ug/L	3461.8 ppb	02:16:16
3	Mo 202.031†	6.9	-14.5	7.2208 ug/L	7.2208 ppb	02:16:36
3	Ni 231.604†	5190.5	4791.7	131.65 ug/L	131.65 ppb	02:16:36
3	P 214.914†	2497.2	2135.4	1234.4 ug/L	1234.4 ppb	02:16:36
3	Pb 220.353†	867.9	864.2	129.97 ug/L	129.97 ppb	02:16:36
3	S 181.975 Axial†	711.4	629.8	937.06 ug/L	937.06 ppb	02:16:36
3	Sb 206.836†	86.1	45.2	1.8705 ug/L	1.8705 ppb	02:16:36
3	Se 196.026†	-647.5	-596.8	-24.033 ug/L	-24.033 ppb	02:16:36
3	Si 251.611†	1200838.3	1132357.8	36147 ug/L	36147 ppb	02:16:16
3	Sn 189.927†	-110.8	-106.0	-16.849 ug/L	-16.849 ppb	02:16:36
3	Ti 334.940†	3057310.6	2885323.4	4559.6 ug/L	4559.6 ppb	02:16:16
3	Tl 190.801†	-203.7	-161.7	-2.5837 ug/L	-2.5837 ppb	02:16:36
3	U 409.014†	-8442.7	-7036.7	-194.01 ug/L	-194.01 ppb	02:16:16
3	V 292.402†	34804.8	34232.7	208.04 ug/L	208.04 ppb	02:16:16
3	Zn 213.857†	25785.1	23664.5	228.24 ug/L	228.24 ppb	02:16:36
3	SiO2†	1211531.1	1142434.2	77800 ug/L	77800 ppb	02:16:54

Mean Data: 244144016|940180|1

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	932990.9	106.98 %		0.861				0.80%
Sc Radial	5261.2	97.6 %		0.43				0.44%
Y 371.029	911560.9	116.65 %		0.924				0.79%
Y RADIAL	6259.8	107.8 %		0.35				0.32%
Ag 328.068†	-6668.6	4.9453 ug/L		0.05230	4.9453 ppb		0.05230	1.06%
Al 396.153Radial†	118056.7	92422 ug/L		490.4	92422 ppb		490.4	0.53%
As 188.979†	-7.5	60.376 ug/L		1.2941	60.376 ppb		1.2941	2.14%
B 249.677†	1128.3	9.0343 ug/L		1.32344	9.0343 ppb		1.32344	14.65%
Ba 233.527†	192274.3	1652.5 ug/L		2.30	1652.5 ppb		2.30	0.14%
Be 313.107†	-13108.1	5.4058 ug/L		0.03418	5.4058 ppb		0.03418	0.63%
Ca 317.933Radial†	11862.1	19644 ug/L		84.6	19644 ppb		84.6	0.43%
Cd 226.502†	1055.2	2.3646 ug/L		0.16681	2.3646 ppb		0.16681	7.05%
Co 228.616†	2429.4	47.825 ug/L		0.2814	47.825 ppb		0.2814	0.59%
Cr 267.716†	19260.0	228.88 ug/L		1.547	228.88 ppb		1.547	0.68%
Cu 324.752†	51181.0	155.32 ug/L		0.511	155.32 ppb		0.511	0.33%
Fe 238.204 Radial†	11056.5	103540 ug/L		214.2	103540 ppb		214.2	0.21%
K 766.490 Radial†	83448.2	15534 ug/L		66.8	15534 ppb		66.8	0.43%

Mg 279.077 IEC†	415.6	15144 ug/L	65.6	15144 ppb	65.6	0.43%
Mn 257.610†	2840243.4	3454.8 ug/L	6.30	3454.8 ppb	6.30	0.18%
Mo 202.031†	-3.9	7.9818 ug/L	0.68950	7.9818 ppb	0.68950	8.64%
Na 589.592 Radial†	1553.8	478.93 ug/L	8.602	478.93 ppb	8.602	1.80%
Ni 231.604†	4768.5	131.01 ug/L	0.572	131.01 ppb	0.572	0.44%
P 214.914†	2119.2	1224.4 ug/L	10.86	1224.4 ppb	10.86	0.89%
Pb 220.353†	873.4	131.15 ug/L	1.411	131.15 ppb	1.411	1.08%
S 181.975 Axial†	629.2	936.27 ug/L	4.246	936.27 ppb	4.246	0.45%
Sb 206.836†	43.1	1.1549 ug/L	1.02776	1.1549 ppb	1.02776	88.99%
Se 196.026†	-597.6	-25.362 ug/L	2.4644	-25.362 ppb	2.4644	9.72%
Si 251.611†	1131019.6	36104 ug/L	47.4	36104 ppb	47.4	0.13%
Sn 189.927†	-108.7	-17.422 ug/L	1.2714	-17.422 ppb	1.2714	7.30%
Sr 421.552†	30755.4	200.15 ug/L	1.283	200.15 ppb	1.283	0.64%
Ti 334.940†	2883660.1	4556.9 ug/L	5.11	4556.9 ppb	5.11	0.11%
Tl 190.801†	-160.4	-2.1831 ug/L	0.87973	-2.1831 ppb	0.87973	40.30%
U 409.014†	-6982.6	-192.58 ug/L	1.733	-192.58 ppb	1.733	0.90%
V 292.402†	34211.3	207.95 ug/L	0.321	207.95 ppb	0.321	0.15%
Zn 213.857†	23483.0	226.43 ug/L	1.689	226.43 ppb	1.689	0.75%
SiO2†	1128984.3	76884 ug/L	799.6	76884 ppb	799.6	1.04%

Sequence No.: 104

Sample ID: 244144017|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 1/26/2010 02:19:05

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144017|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5153.7	5153.7	95.6 %		02:21:19
1	Y RADIAL	6219.6	6219.6	107.1 %		02:21:19
1	Al 396.153Radial†	102803.3	107568.0	84211 ug/L	84211 ppb	02:20:59
1	Ca 317.933Radial†	10292.7	10750.8	17804 ug/L	17804 ppb	02:20:59
1	Fe 238.204 Radial†	10994.8	11496.8	107660 ug/L	107660 ppb	02:20:59
1	K 766.490 Radial†	70508.8	71808.9	13367 ug/L	13367 ppb	02:20:59
1	Mg 279.077 IEC†	376.1	391.2	14242 ug/L	14242 ppb	02:21:19
1	Na 589.592 Radial†	1852.0	2361.3	727.82 ug/L	727.82 ppb	02:20:59
1	Sr 421.552†	28617.3	29929.8	194.79 ug/L	194.79 ppb	02:20:59
1	Sc 361.383	930947.2	930947.2	106.75 %		02:22:16
1	Y 371.029	918860.7	918860.7	117.59 %		02:22:16
1	Ag 328.068†	-6953.8	-6808.7	5.6613 ug/L	5.6613 ppb	02:22:22
1	As 188.979†	-50.2	-16.3	56.483 ug/L	56.483 ppb	02:22:42
1	B 249.677†	679.0	945.8	4.1708 ug/L	4.1708 ppb	02:22:22
1	Ba 233.527†	567144.7	531286.0	4559.7 ug/L	4559.7 ppb	02:22:16
1	Be 313.107†	-20263.5	-13389.3	5.0657 ug/L	5.0657 ppb	02:22:22
1	Cd 226.502†	903.7	1025.8	1.5433 ug/L	1.5433 ppb	02:22:42
1	Co 228.616†	2316.6	2229.2	44.626 ug/L	44.626 ppb	02:22:42
1	Cr 267.716†	11292.2	10498.6	125.93 ug/L	125.93 ppb	02:22:22
1	Cu 324.752†	75147.7	60555.9	182.97 ug/L	182.97 ppb	02:22:22
1	Mn 257.610†	2992231.3	2802455.5	3409.4 ug/L	3409.4 ppb	02:22:16
1	Mo 202.031†	-26.9	-46.2	5.1578 ug/L	5.1578 ppb	02:22:42
1	Ni 231.604†	3223.8	2914.7	80.067 ug/L	80.067 ppb	02:22:42
1	P 214.914†	3105.6	2688.7	1566.8 ug/L	1566.8 ppb	02:22:42
1	Pb 220.353†	1507.5	1457.5	209.88 ug/L	209.88 ppb	02:22:42
1	S 181.975 Axial†	595.8	516.7	767.35 ug/L	767.35 ppb	02:22:42
1	Sb 206.836†	79.8	38.7	0.1310 ug/L	0.1310 ppb	02:22:42
1	Se 196.026†	-636.8	-582.4	-2.7624 ug/L	-2.7624 ppb	02:22:42
1	Si 251.611†	1223497.6	1145560.1	36568 ug/L	36568 ppb	02:22:16
1	Sn 189.927†	-99.6	-94.8	-14.785 ug/L	-14.785 ppb	02:22:42
1	Ti 334.940†	3007642.8	2818367.1	4453.6 ug/L	4453.6 ppb	02:22:16
1	Tl 190.801†	-215.9	-171.7	-7.1783 ug/L	-7.1783 ppb	02:22:42
1	U 409.014†	-8576.0	-7105.2	-195.98 ug/L	-195.98 ppb	02:22:16
1	V 292.402†	33849.3	33105.0	200.06 ug/L	200.06 ppb	02:22:22
1	Zn 213.857†	30143.7	27575.2	267.71 ug/L	267.71 ppb	02:22:22
1	SiO2†	1223257.4	1145323.5	77997 ug/L	77997 ppb	02:23:50
2	Sc Radial	5303.2	5303.2	98.3 %		02:21:44
2	Y RADIAL	6342.1	6342.1	109.2 %		02:21:44
2	Al 396.153Radial†	101095.2	102797.8	80476 ug/L	80476 ppb	02:21:24
2	Ca 317.933Radial†	10172.8	10325.2	17099 ug/L	17099 ppb	02:21:24
2	Fe 238.204 Radial†	10854.4	11029.6	103290 ug/L	103290 ppb	02:21:24
2	K 766.490 Radial†	69528.6	68731.8	12794 ug/L	12794 ppb	02:21:24
2	Mg 279.077 IEC†	371.3	375.2	13660 ug/L	13660 ppb	02:21:44
2	Na 589.592 Radial†	1803.9	2257.7	695.91 ug/L	695.91 ppb	02:21:24
2	Sr 421.552†	28071.6	28530.5	185.68 ug/L	185.68 ppb	02:21:24
2	Sc 361.383	922413.8	922413.8	105.77 %		02:22:48
2	Y 371.029	908988.8	908988.8	116.33 %		02:22:48
2	Ag 328.068†	-6916.6	-6833.8	4.1536 ug/L	4.1536 ppb	02:22:53
2	As 188.979†	-47.1	-13.9	56.635 ug/L	56.635 ppb	02:23:13
2	B 249.677†	773.4	1040.9	7.0739 ug/L	7.0739 ppb	02:22:53
2	Ba 233.527†	563329.7	532594.1	4570.8 ug/L	4570.8 ppb	02:22:48
2	Be 313.107†	-20115.0	-13424.5	5.0747 ug/L	5.0747 ppb	02:22:53
2	Cd 226.502†	889.3	1020.1	1.9237 ug/L	1.9237 ppb	02:23:13
2	Co 228.616†	2316.1	2248.8	45.142 ug/L	45.142 ppb	02:23:13
2	Cr 267.716†	11264.3	10570.1	126.69 ug/L	126.69 ppb	02:22:53
2	Cu 324.752†	75051.7	61116.4	184.38 ug/L	184.38 ppb	02:22:53
2	Mn 257.610†	2973445.7	2810626.1	3418.9 ug/L	3418.9 ppb	02:22:48
2	Mo 202.031†	-27.6	-47.2	4.7379 ug/L	4.7379 ppb	02:23:13
2	Ni 231.604†	3191.5	2912.1	79.996 ug/L	79.996 ppb	02:23:13

2	P 214.914†	3075.4	2687.1	1568.1 ug/L	1568.1 ppb	02:23:13
2	Pb 220.353†	1516.1	1478.8	212.43 ug/L	212.43 ppb	02:23:13
2	S 181.975 Axial†	587.0	513.6	763.29 ug/L	763.29 ppb	02:23:13
2	Sb 206.836†	71.0	31.1	-2.6977 ug/L	-2.6977 ppb	02:23:13
2	Se 196.026†	-628.7	-580.3	-16.165 ug/L	-16.165 ppb	02:23:13
2	Si 251.611†	1216200.2	1149263.9	36687 ug/L	36687 ppb	02:22:48
2	Sn 189.927†	-102.7	-98.6	-15.741 ug/L	-15.741 ppb	02:23:13
2	Ti 334.940†	2986636.1	2824571.4	4463.4 ug/L	4463.4 ppb	02:22:48
2	Tl 190.801†	-198.4	-157.1	-1.9631 ug/L	-1.9631 ppb	02:23:13
2	U 409.014†	-8700.6	-7297.3	-200.44 ug/L	-200.44 ppb	02:22:48
2	V 292.402†	33792.3	33344.5	202.26 ug/L	202.26 ppb	02:22:53
2	Zn 213.857†	30125.7	27819.4	270.60 ug/L	270.60 ppb	02:22:53
2	SiO2†	1226223.2	1158728.3	78909 ug/L	78909 ppb	02:23:56
3	Sc Radial	5255.1	5255.1	97.4 %		02:22:09
3	Y RADIAL	6312.1	6312.1	108.7 %		02:22:09
3	Al 396.153Radial†	102542.3	105223.5	82375 ug/L	82375 ppb	02:21:49
3	Ca 317.933Radial†	10294.6	10544.8	17463 ug/L	17463 ppb	02:21:49
3	Fe 238.204 Radial†	10966.9	11246.1	105310 ug/L	105310 ppb	02:21:49
3	K 766.490 Radial†	70290.5	70160.6	13060 ug/L	13060 ppb	02:21:49
3	Mg 279.077 IEC†	368.7	376.0	13686 ug/L	13686 ppb	02:22:09
3	Na 589.592 Radial†	1784.0	2254.1	694.78 ug/L	694.78 ppb	02:21:49
3	Sr 421.552†	28481.3	29212.1	190.12 ug/L	190.12 ppb	02:21:49
3	Sc 361.383	933529.1	933529.1	107.05 %		02:23:19
3	Y 371.029	918678.5	918678.5	117.57 %		02:23:19
3	Ag 328.068†	-7090.9	-6918.8	4.4156 ug/L	4.4156 ppb	02:23:24
3	As 188.979†	-46.6	-12.9	57.108 ug/L	57.108 ppb	02:23:44
3	B 249.677†	787.9	1045.7	6.8567 ug/L	6.8567 ppb	02:23:24
3	Ba 233.527†	562453.5	525434.2	4509.5 ug/L	4509.5 ppb	02:23:19
3	Be 313.107†	-20138.4	-13219.9	5.0316 ug/L	5.0316 ppb	02:23:24
3	Cd 226.502†	892.7	1013.2	1.6300 ug/L	1.6300 ppb	02:23:44
3	Co 228.616†	2307.9	2215.0	44.386 ug/L	44.386 ppb	02:23:44
3	Cr 267.716†	11255.4	10435.0	125.13 ug/L	125.13 ppb	02:23:24
3	Cu 324.752†	75378.4	60576.7	182.90 ug/L	182.90 ppb	02:23:24
3	Mn 257.610†	2969741.1	2773693.5	3374.3 ug/L	3374.3 ppb	02:23:19
3	Mo 202.031†	-34.1	-52.9	4.4787 ug/L	4.4787 ppb	02:23:44
3	Ni 231.604†	3163.7	2850.2	78.295 ug/L	78.295 ppb	02:23:44
3	P 214.914†	3079.3	2656.1	1548.1 ug/L	1548.1 ppb	02:23:44
3	Pb 220.353†	1501.1	1447.7	208.35 ug/L	208.35 ppb	02:23:44
3	S 181.975 Axial†	599.0	518.1	769.80 ug/L	769.80 ppb	02:23:44
3	Sb 206.836†	59.4	19.4	-6.7426 ug/L	-6.7426 ppb	02:23:44
3	Se 196.026†	-640.5	-584.3	-11.797 ug/L	-11.797 ppb	02:23:44
3	Si 251.611†	1214303.0	1133800.9	36193 ug/L	36193 ppb	02:23:19
3	Sn 189.927†	-92.4	-87.8	-13.452 ug/L	-13.452 ppb	02:23:44
3	Ti 334.940†	2986759.9	2791066.7	4410.5 ug/L	4410.5 ppb	02:23:19
3	Tl 190.801†	-199.9	-156.3	-2.3293 ug/L	-2.3293 ppb	02:23:44
3	U 409.014†	-8436.2	-6952.4	-191.77 ug/L	-191.77 ppb	02:23:19
3	V 292.402†	33889.0	33054.5	200.10 ug/L	200.10 ppb	02:23:24
3	Zn 213.857†	30163.2	27515.4	267.34 ug/L	267.34 ppb	02:23:24
3	SiO2†	1215346.9	1134764.4	77277 ug/L	77277 ppb	02:24:02

Mean Data: 244144017|940180|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	928963.4	106.52 %		0.667			0.63%
Sc Radial	5237.3	97.1 %		1.42			1.46%
Y 371.029	915509.3	117.16 %		0.723			0.62%
Y RADIAL	6291.3	108.4 %		1.10			1.02%
Ag 328.068†	-6853.7	4.7435 ug/L		0.80556	4.7435 ppb	0.80556	16.98%
Al 396.153Radial†	105196.4	82354 ug/L		1867.3	82354 ppb	1867.3	2.27%
As 188.979†	-14.4	56.742 ug/L		0.3258	56.742 ppb	0.3258	0.57%
B 249.677†	1010.8	6.0338 ug/L		1.61707	6.0338 ppb	1.61707	26.80%
Ba 233.527†	529771.5	4546.7 ug/L		32.69	4546.7 ppb	32.69	0.72%
Be 313.107†	-13344.6	5.0573 ug/L		0.02275	5.0573 ppb	0.02275	0.45%
Ca 317.933Radial†	10540.3	17455 ug/L		352.5	17455 ppb	352.5	2.02%
Cd 226.502†	1019.7	1.6990 ug/L		0.19937	1.6990 ppb	0.19937	11.73%
Co 228.616†	2231.0	44.718 ug/L		0.3866	44.718 ppb	0.3866	0.86%
Cr 267.716†	10501.2	125.91 ug/L		0.778	125.91 ppb	0.778	0.62%
Cu 324.752†	60749.7	183.42 ug/L		0.834	183.42 ppb	0.834	0.45%
Fe 238.204 Radial†	11257.5	105420 ug/L		2189.7	105420 ppb	2189.7	2.08%
K 766.490 Radial†	70233.8	13074 ug/L		286.7	13074 ppb	286.7	2.19%



Mg 279.077 IEC†	380.8	13862 ug/L	328.6	13862 ppb	328.6	2.37%
Mn 257.610†	2795591.7	3400.8 ug/L	23.49	3400.8 ppb	23.49	0.69%
Mo 202.031†	-48.7	4.7915 ug/L	0.34270	4.7915 ppb	0.34270	7.15%
Na 589.592 Radial†	2291.0	706.17 ug/L	18.762	706.17 ppb	18.762	2.66%
Ni 231.604†	2892.3	79.453 ug/L	1.0030	79.453 ppb	1.0030	1.26%
P 214.914†	2677.3	1561.0 ug/L	11.23	1561.0 ppb	11.23	0.72%
Pb 220.353†	1461.3	210.22 ug/L	2.064	210.22 ppb	2.064	0.98%
S 181.975 Axial†	516.2	766.81 ug/L	3.288	766.81 ppb	3.288	0.43%
Sb 206.836†	29.8	-3.1031 ug/L	3.45467	-3.1031 ppb	3.45467	111.33%
Se 196.026†	-582.3	-10.241 ug/L	6.8355	-10.241 ppb	6.8355	66.74%
Si 251.611†	1142875.0	36483 ug/L	257.7	36483 ppb	257.7	0.71%
Sn 189.927†	-93.7	-14.659 ug/L	1.1501	-14.659 ppb	1.1501	7.85%
Sr 421.552†	29224.1	190.20 ug/L	4.554	190.20 ppb	4.554	2.39%
Ti 334.940†	2811335.1	4442.5 ug/L	28.14	4442.5 ppb	28.14	0.63%
Tl 190.801†	-161.7	-3.8236 ug/L	2.91104	-3.8236 ppb	2.91104	76.13%
U 409.014†	-7118.3	-196.07 ug/L	4.339	-196.07 ppb	4.339	2.21%
V 292.402†	33168.0	200.81 ug/L	1.259	200.81 ppb	1.259	0.63%
Zn 213.857†	27636.7	268.55 ug/L	1.785	268.55 ppb	1.785	0.66%
SiO2†	1146272.1	78061 ug/L	817.9	78061 ppb	817.9	1.05%

Sequence No.: 105

Sample ID: 244144018|940180|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 102

Date Collected: 1/26/2010 02:26:13

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244144018|940180|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5349.1	5349.1	99.2 %		02:28:27
1	Y RADIAL	6507.8	6507.8	112.1 %		02:28:27
1	Al 396.153Radial†	195004.3	196590.2	153900 ug/L	153900 ppb	02:28:07
1	Ca 317.933Radial†	13847.2	13940.7	23087 ug/L	23087 ppb	02:28:07
1	Fe 238.204 Radial†	14243.4	14351.5	134390 ug/L	134390 ppb	02:28:07
1	K 766.490 Radial†	107177.2	106080.4	19748 ug/L	19748 ppb	02:28:07
1	Mg 279.077 IEC†	615.4	618.0	22538 ug/L	22538 ppb	02:28:27
1	Na 589.592 Radial†	2166.9	2607.9	803.85 ug/L	803.85 ppb	02:28:07
1	Sr 421.552†	45093.3	45445.9	295.80 ug/L	295.80 ppb	02:28:07
1	Sc 361.383	918749.8	918749.8	105.35 %		02:29:26
1	Y 371.029	918183.1	918183.1	117.50 %		02:29:26
1	Ag 328.068†	-9551.9	-9361.3	3.3278 ug/L	3.3278 ppb	02:29:31
1	As 188.979†	-50.0	-16.8	76.607 ug/L	76.607 ppb	02:29:51
1	B 249.677†	1312.5	1555.5	13.844 ug/L	13.844 ppb	02:29:31
1	Ba 233.527†	280413.6	266174.2	2287.3 ug/L	2287.3 ppb	02:29:31
1	Be 313.107†	-18345.1	-11820.4	9.3407 ug/L	9.3407 ppb	02:29:31
1	Cd 226.502†	1198.4	1316.8	2.3634 ug/L	2.3634 ppb	02:29:51
1	Co 228.616†	2967.3	2875.6	55.223 ug/L	55.223 ppb	02:29:51
1	Cr 267.716†	9964.9	9379.1	113.40 ug/L	113.40 ppb	02:29:31
1	Cu 324.752†	31104.2	19684.4	64.832 ug/L	64.832 ppb	02:29:31
1	Mn 257.610†	3043373.6	2888212.7	3515.7 ug/L	3515.7 ppb	02:29:26
1	Mo 202.031†	-70.0	-87.5	4.2448 ug/L	4.2448 ppb	02:29:51
1	Ni 231.604†	3329.6	3055.2	83.920 ug/L	83.920 ppb	02:29:51
1	P 214.914†	1959.0	1638.9	935.18 ug/L	935.18 ppb	02:29:51
1	Pb 220.353†	836.7	839.5	136.74 ug/L	136.74 ppb	02:29:51
1	S 181.975 Axial†	413.7	351.3	503.52 ug/L	503.52 ppb	02:29:51
1	Sb 206.836†	101.1	59.9	1.3468 ug/L	1.3468 ppb	02:29:51
1	Se 196.026†	-857.8	-800.2	-46.088 ug/L	-46.088 ppb	02:29:51
1	Si 251.611†	1126754.1	1068947.2	34123 ug/L	34123 ppb	02:29:26
1	Sn 189.927†	-122.0	-117.3	-18.117 ug/L	-18.117 ppb	02:29:51
1	Ti 334.940†	4050431.2	3845586.7	6076.5 ug/L	6076.5 ppb	02:29:26
1	Tl 190.801†	-243.5	-200.7	-3.4824 ug/L	-3.4824 ppb	02:29:51
1	U 409.014†	-10438.4	-8979.6	-247.39 ug/L	-247.39 ppb	02:29:26
1	V 292.402†	44763.3	43885.6	266.32 ug/L	266.32 ppb	02:29:31
1	Zn 213.857†	29371.6	27217.2	261.63 ug/L	261.63 ppb	02:29:31
1	SiO2†	1124745.7	1067029.2	72665 ug/L	72665 ppb	02:31:01
2	Sc Radial	5264.3	5264.3	97.6 %		02:28:52
2	Y RADIAL	6424.7	6424.7	110.7 %		02:28:52
2	Al 396.153Radial†	179935.1	184321.3	144300 ug/L	144300 ppb	02:28:32
2	Ca 317.933Radial†	12792.7	13085.4	21670 ug/L	21670 ppb	02:28:32
2	Fe 238.204 Radial†	13111.7	13423.5	125700 ug/L	125700 ppb	02:28:32
2	K 766.490 Radial†	98765.6	99204.7	18468 ug/L	18468 ppb	02:28:32
2	Mg 279.077 IEC†	616.8	629.5	22968 ug/L	22968 ppb	02:28:52
2	Na 589.592 Radial†	1923.0	2393.3	737.69 ug/L	737.69 ppb	02:28:32
2	Sr 421.552†	41318.1	42311.1	275.40 ug/L	275.40 ppb	02:28:32
2	Sc 361.383	920883.0	920883.0	105.60 %		02:29:58
2	Y 371.029	920005.4	920005.4	117.74 %		02:29:58
2	Ag 328.068†	-9537.9	-9327.1	0.6743 ug/L	0.6743 ppb	02:30:03
2	As 188.979†	-66.2	-32.0	67.693 ug/L	67.693 ppb	02:30:23
2	B 249.677†	1215.8	1461.0	13.078 ug/L	13.078 ppb	02:30:03
2	Ba 233.527†	278310.2	263565.6	2264.6 ug/L	2264.6 ppb	02:30:03
2	Be 313.107†	-18193.4	-11636.4	9.3937 ug/L	9.3937 ppb	02:30:03
2	Cd 226.502†	1202.9	1318.4	3.2808 ug/L	3.2808 ppb	02:30:23
2	Co 228.616†	2945.6	2848.6	54.706 ug/L	54.706 ppb	02:30:23
2	Cr 267.716†	9855.0	9253.1	111.75 ug/L	111.75 ppb	02:30:03
2	Cu 324.752†	31048.3	19563.1	64.014 ug/L	64.014 ppb	02:30:03
2	Mn 257.610†	3043382.8	2881529.8	3506.7 ug/L	3506.7 ppb	02:29:58
2	Mo 202.031†	-67.7	-85.2	3.7262 ug/L	3.7262 ppb	02:30:23
2	Ni 231.604†	3281.1	3001.9	82.455 ug/L	82.455 ppb	02:30:23

2	P 214.914†	1934.9	1611.9	923.07 ug/L	923.07 ppb	02:30:23
2	Pb 220.353†	824.3	826.0	133.63 ug/L	133.63 ppb	02:30:23
2	S 181.975 Axial†	408.0	345.0	495.84 ug/L	495.84 ppb	02:30:23
2	Sb 206.836†	80.0	39.7	-5.9489 ug/L	-5.9489 ppb	02:30:23
2	Se 196.026†	-847.4	-788.4	-68.091 ug/L	-68.091 ppb	02:30:23
2	Si 251.611†	1127380.4	1067062.9	34063 ug/L	34063 ppb	02:29:58
2	Sn 189.927†	-118.7	-113.9	-17.792 ug/L	-17.792 ppb	02:30:23
2	Ti 334.940†	4055031.7	3841037.5	6069.1 ug/L	6069.1 ppb	02:29:58
2	Tl 190.801†	-223.5	-181.2	3.1941 ug/L	3.1941 ppb	02:30:23
2	U 409.014†	-10247.0	-8775.4	-241.13 ug/L	-241.13 ppb	02:29:58
2	V 292.402†	44667.5	43696.4	266.36 ug/L	266.36 ppb	02:30:03
2	Zn 213.857†	29274.9	27061.1	260.90 ug/L	260.90 ppb	02:30:03
2	SiO2†	1125101.1	1064892.8	72519 ug/L	72519 ppb	02:31:07
3	Sc Radial	5243.7	5243.7	97.2 %		02:29:17
3	Y RADIAL	6392.0	6392.0	110.1 %		02:29:17
3	Al 396.153Radial†	197103.1	202699.9	158690 ug/L	158690 ppb	02:28:57
3	Ca 317.933Radial†	13971.3	14348.9	23763 ug/L	23763 ppb	02:28:57
3	Fe 238.204 Radial†	14341.0	14740.5	138040 ug/L	138040 ppb	02:28:57
3	K 766.490 Radial†	107936.2	109032.6	20298 ug/L	20298 ppb	02:28:57
3	Mg 279.077 IEC†	617.6	632.8	23076 ug/L	23076 ppb	02:29:17
3	Na 589.592 Radial†	2154.1	2638.7	813.33 ug/L	813.33 ppb	02:28:57
3	Sr 421.552†	45300.6	46572.8	303.14 ug/L	303.14 ppb	02:28:57
3	Sc 361.383	917847.9	917847.9	105.25 %		02:30:30
3	Y 371.029	917523.6	917523.6	117.42 %		02:30:30
3	Ag 328.068†	-9520.7	-9340.6	4.5911 ug/L	4.5911 ppb	02:30:35
3	As 188.979†	-50.2	-17.1	77.250 ug/L	77.250 ppb	02:30:55
3	B 249.677†	1232.2	1480.5	11.522 ug/L	11.522 ppb	02:30:35
3	Ba 233.527†	278878.5	264977.1	2277.1 ug/L	2277.1 ppb	02:30:35
3	Be 313.107†	-18470.0	-11956.2	9.2664 ug/L	9.2664 ppb	02:30:35
3	Cd 226.502†	1217.0	1335.6	2.2184 ug/L	2.2184 ppb	02:30:55
3	Co 228.616†	2972.2	2883.0	55.363 ug/L	55.363 ppb	02:30:55
3	Cr 267.716†	9918.9	9344.8	113.07 ug/L	113.07 ppb	02:30:35
3	Cu 324.752†	30822.1	19445.3	64.325 ug/L	64.325 ppb	02:30:35
3	Mn 257.610†	3031374.8	2879651.1	3505.6 ug/L	3505.6 ppb	02:30:30
3	Mo 202.031†	-78.3	-95.4	3.9516 ug/L	3.9516 ppb	02:30:55
3	Ni 231.604†	3292.5	3023.1	83.036 ug/L	83.036 ppb	02:30:55
3	P 214.914†	1950.5	1632.8	929.73 ug/L	929.73 ppb	02:30:55
3	Pb 220.353†	809.3	814.3	133.93 ug/L	133.93 ppb	02:30:55
3	S 181.975 Axial†	407.9	346.1	494.82 ug/L	494.82 ppb	02:30:55
3	Sb 206.836†	93.4	52.7	-1.3414 ug/L	-1.3414 ppb	02:30:55
3	Se 196.026†	-853.1	-796.5	-31.428 ug/L	-31.428 ppb	02:30:55
3	Si 251.611†	1122713.2	1066158.8	34034 ug/L	34034 ppb	02:30:30
3	Sn 189.927†	-132.3	-127.2	-19.979 ug/L	-19.979 ppb	02:30:55
3	Ti 334.940†	4039668.2	3839138.5	6066.3 ug/L	6066.3 ppb	02:30:30
3	Tl 190.801†	-236.9	-194.6	-1.4979 ug/L	-1.4979 ppb	02:30:55
3	U 409.014†	-10424.2	-8975.8	-247.71 ug/L	-247.71 ppb	02:30:30
3	V 292.402†	44787.9	43950.7	266.24 ug/L	266.24 ppb	02:30:35
3	Zn 213.857†	29274.5	27152.3	260.63 ug/L	260.63 ppb	02:30:35
3	SiO2†	1121208.4	1064717.4	72507 ug/L	72507 ppb	02:31:13

Mean Data: 244144018|940180|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
Sc 361.383	919160.2	105.40	%	0.179				0.17%
Sc Radial	5285.7	98.0	%	1.04				1.06%
Y 371.029	918570.7	117.55	%	0.165				0.14%
Y RADIAL	6441.5	111.0	%	1.03				0.93%
Ag 328.068†	-9343.0	2.8644	ug/L	1.99909	2.8644	ppb	1.99909	69.79%
Al 396.153Radial†	194537.1	152300	ug/L	7327.4	152300	ppb	7327.4	4.81%
As 188.979†	-22.0	73.850	ug/L	5.3421	73.850	ppb	5.3421	7.23%
B 249.677†	1499.0	12.815	ug/L	1.1832	12.815	ppb	1.1832	9.23%
Ba 233.527†	264905.6	2276.3	ug/L	11.34	2276.3	ppb	11.34	0.50%
Be 313.107†	-11804.3	9.3336	ug/L	0.06392	9.3336	ppb	0.06392	0.68%
Ca 317.933Radial†	13791.7	22840	ug/L	1067.8	22840	ppb	1067.8	4.68%
Cd 226.502†	1323.6	2.6209	ug/L	0.57614	2.6209	ppb	0.57614	21.98%
Co 228.616†	2869.1	55.098	ug/L	0.3463	55.098	ppb	0.3463	0.63%
Cr 267.716†	9325.7	112.74	ug/L	0.875	112.74	ppb	0.875	0.78%
Cu 324.752†	19564.3	64.391	ug/L	0.4129	64.391	ppb	0.4129	0.64%
Fe 238.204 Radial†	14171.8	132710	ug/L	6335.8	132710	ppb	6335.8	4.77%
K 766.490 Radial†	104772.6	19505	ug/L	938.9	19505	ppb	938.9	4.81%

Mg 279.077 IEC†	626.8	22861 ug/L	284.9	22861 ppb	284.9	1.25%
Mn 257.610†	2883131.2	3509.4 ug/L	5.52	3509.4 ppb	5.52	0.16%
Mo 202.031†	-89.4	3.9742 ug/L	0.26003	3.9742 ppb	0.26003	6.54%
Na 589.592 Radial†	2546.6	784.96 ug/L	41.209	784.96 ppb	41.209	5.25%
Ni 231.604†	3026.7	83.137 ug/L	0.7375	83.137 ppb	0.7375	0.89%
P 214.914†	1627.9	929.32 ug/L	6.067	929.32 ppb	6.067	0.65%
Pb 220.353†	826.6	134.77 ug/L	1.719	134.77 ppb	1.719	1.28%
S 181.975 Axial†	347.5	498.06 ug/L	4.758	498.06 ppb	4.758	0.96%
Sb 206.836†	50.8	-1.9812 ug/L	3.68969	-1.9812 ppb	3.68969	186.24%
Se 196.026†	-795.0	-48.536 ug/L	18.4533	-48.536 ppb	18.4533	38.02%
Si 251.611†	1067389.6	34073 ug/L	45.4	34073 ppb	45.4	0.13%
Sn 189.927†	-119.5	-18.629 ug/L	1.1802	-18.629 ppb	1.1802	6.33%
Sr 421.552†	44776.6	291.45 ug/L	14.374	291.45 ppb	14.374	4.93%
Ti 334.940†	3841920.9	6070.6 ug/L	5.25	6070.6 ppb	5.25	0.09%
Tl 190.801†	-192.1	-0.5954 ug/L	3.42855	-0.5954 ppb	3.42855	575.85%
U 409.014†	-8910.3	-245.41 ug/L	3.713	-245.41 ppb	3.713	1.51%
V 292.402†	43844.3	266.31 ug/L	0.060	266.31 ppb	0.060	0.02%
Zn 213.857†	27143.5	261.05 ug/L	0.518	261.05 ppb	0.518	0.20%
SiO2†	1065546.4	72564 ug/L	87.6	72564 ppb	87.6	0.12%

Sequence No.: 106

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/26/2010 02:33:24

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	5115.6	5115.6	94.9 %		02:35:16
1	Y RADIAL	5511.5	5511.5	94.94 %		02:35:16
1	Al 396.153Radial†	6489.3	6836.8	5326.3 ug/L	5326.3 ppb	02:35:16
1	Ca 317.933Radial†	3205.4	3359.7	5563.9 ug/L	5563.9 ppb	02:35:36
1	Fe 238.204 Radial†	554.3	576.3	5413.1 ug/L	5413.1 ppb	02:35:36
1	K 766.490 Radial†	29904.3	29553.8	5497.8 ug/L	5497.8 ppb	02:35:16
1	Mg 279.077 IEC†	152.6	158.5	5816.0 ug/L	5816.0 ppb	02:35:36
1	Na 589.592 Radial†	31243.1	33359.1	10282 ug/L	10282 ppb	02:35:16
1	Sr 421.552†	76783.1	80927.9	527.02 ug/L	527.02 ppb	02:35:16
1	Sc 361.383	905511.2	905511.2	103.83 %		02:36:33
1	Y 371.029	795530.0	795530.0	101.81 %		02:36:33
1	Ag 328.068†	122477.3	117660.6	521.92 ug/L	521.92 ppb	02:36:38
1	As 188.979†	1238.8	1223.6	552.01 ug/L	552.01 ppb	02:36:59
1	B 249.677†	22644.9	22118.5	507.55 ug/L	507.55 ppb	02:36:38
1	Ba 233.527†	64697.3	62314.0	535.70 ug/L	535.70 ppb	02:36:38
1	Be 313.107†	1480459.2	1431389.7	540.23 ug/L	540.23 ppb	02:36:33
1	Cd 226.502†	45848.3	44334.7	546.56 ug/L	546.56 ppb	02:36:38
1	Co 228.616†	23531.1	22721.4	544.17 ug/L	544.17 ppb	02:36:38
1	Cr 267.716†	48047.1	46193.6	543.83 ug/L	543.83 ppb	02:36:38
1	Cu 324.752†	189505.2	172668.5	505.18 ug/L	505.18 ppb	02:36:38
1	Mn 257.610†	454870.5	437517.7	531.00 ug/L	531.00 ppb	02:36:33
1	Mo 202.031†	7547.6	7247.9	535.73 ug/L	535.73 ppb	02:36:59
1	Ni 231.604†	20756.8	19885.1	546.14 ug/L	546.14 ppb	02:36:38
1	P 214.914†	4709.8	4315.4	2578.8 ug/L	2578.8 ppb	02:36:59
1	Pb 220.353†	4025.8	3922.6	545.29 ug/L	545.29 ppb	02:36:59
1	S 181.975 Axial†	778.4	708.2	1072.3 ug/L	1072.3 ppb	02:36:59
1	Sb 206.836†	1513.8	1421.9	536.88 ug/L	536.88 ppb	02:36:59
1	Se 196.026†	867.5	849.6	550.97 ug/L	550.97 ppb	02:36:59
1	Si 251.611†	87273.6	83483.3	2658.3 ug/L	2658.3 ppb	02:36:38
1	Sn 189.927†	2761.4	2658.0	542.32 ug/L	542.32 ppb	02:36:59
1	Ti 334.940†	338144.1	326575.8	515.77 ug/L	515.77 ppb	02:36:33
1	Tl 190.801†	1576.4	1548.7	542.01 ug/L	542.01 ppb	02:36:59
1	U 409.014†	19505.1	19713.5	507.11 ug/L	507.11 ppb	02:36:38
1	V 292.402†	81658.8	80040.0	540.54 ug/L	540.54 ppb	02:36:38
1	Zn 213.857†	56363.5	53620.1	537.63 ug/L	537.63 ppb	02:36:38
1	SiO2†	87777.4	83956.8	5702.9 ug/L	5702.9 ppb	02:38:06
2	Sc Radial	5127.7	5127.7	95.1 %		02:35:41
2	Y RADIAL	5488.7	5488.7	94.55 %		02:35:41
2	Al 396.153Radial†	6517.7	6850.5	5337.0 ug/L	5337.0 ppb	02:35:41
2	Ca 317.933Radial†	3229.8	3377.4	5593.2 ug/L	5593.2 ppb	02:36:01
2	Fe 238.204 Radial†	561.3	582.3	5468.7 ug/L	5468.7 ppb	02:36:01
2	K 766.490 Radial†	29908.3	29483.5	5484.7 ug/L	5484.7 ppb	02:35:41
2	Mg 279.077 IEC†	149.2	154.5	5669.0 ug/L	5669.0 ppb	02:36:01
2	Na 589.592 Radial†	31116.9	33148.6	10218 ug/L	10218 ppb	02:35:41
2	Sr 421.552†	76649.5	80596.2	524.86 ug/L	524.86 ppb	02:35:41
2	Sc 361.383	904402.3	904402.3	103.71 %		02:37:04
2	Y 371.029	795163.3	795163.3	101.76 %		02:37:04
2	Ag 328.068†	122187.0	117525.2	521.34 ug/L	521.34 ppb	02:37:10
2	As 188.979†	1233.4	1219.9	550.39 ug/L	550.39 ppb	02:37:30
2	B 249.677†	22654.7	22154.7	508.38 ug/L	508.38 ppb	02:37:10
2	Ba 233.527†	64371.7	62076.5	533.67 ug/L	533.67 ppb	02:37:10
2	Be 313.107†	1488575.7	1440964.4	543.85 ug/L	543.85 ppb	02:37:04
2	Cd 226.502†	45630.0	44178.4	544.63 ug/L	544.63 ppb	02:37:10
2	Co 228.616†	23368.8	22592.6	541.07 ug/L	541.07 ppb	02:37:10
2	Cr 267.716†	47949.9	46156.5	543.39 ug/L	543.39 ppb	02:37:10
2	Cu 324.752†	189199.9	172597.8	504.98 ug/L	504.98 ppb	02:37:10
2	Mn 257.610†	456493.0	439619.3	533.56 ug/L	533.56 ppb	02:37:04
2	Mo 202.031†	7543.3	7252.6	536.08 ug/L	536.08 ppb	02:37:30
2	Ni 231.604†	20645.1	19802.0	543.86 ug/L	543.86 ppb	02:37:10

2	P 214.914†	4695.9	4307.5	2573.9 ug/L	2573.9 ppb	02:37:30
2	Pb 220.353†	4020.5	3922.2	545.24 ug/L	545.24 ppb	02:37:30
2	S 181.975 Axial†	785.1	715.6	1083.5 ug/L	1083.5 ppb	02:37:30
2	Sb 206.836†	1519.5	1429.2	539.53 ug/L	539.53 ppb	02:37:30
2	Se 196.026†	862.1	845.4	548.56 ug/L	548.56 ppb	02:37:30
2	Si 251.611†	86840.8	83169.1	2648.3 ug/L	2648.3 ppb	02:37:10
2	Sn 189.927†	2755.3	2655.3	541.78 ug/L	541.78 ppb	02:37:30
2	Ti 334.940†	340466.1	329214.1	519.95 ug/L	519.95 ppb	02:37:04
2	Tl 190.801†	1570.2	1544.6	540.64 ug/L	540.64 ppb	02:37:30
2	U 409.014†	19314.5	19552.6	502.95 ug/L	502.95 ppb	02:37:10
2	V 292.402†	81493.5	79977.1	540.10 ug/L	540.10 ppb	02:37:10
2	Zn 213.857†	56081.1	53414.3	535.56 ug/L	535.56 ppb	02:37:10
2	SiO2†	87411.2	83707.4	5685.9 ug/L	5685.9 ppb	02:38:11
3	Sc Radial	5211.5	5211.5	96.6 %		02:36:06
3	Y RADIAL	5564.3	5564.3	95.85 %		02:36:06
3	Al 396.153Radial†	6625.5	6851.8	5338.1 ug/L	5338.1 ppb	02:36:06
3	Ca 317.933Radial†	3209.2	3301.5	5467.4 ug/L	5467.4 ppb	02:36:26
3	Fe 238.204 Radial†	560.0	571.4	5367.4 ug/L	5367.4 ppb	02:36:26
3	K 766.490 Radial†	30267.5	29349.5	5459.8 ug/L	5459.8 ppb	02:36:06
3	Mg 279.077 IEC†	152.4	155.3	5697.9 ug/L	5697.9 ppb	02:36:26
3	Na 589.592 Radial†	31540.3	33060.5	10190 ug/L	10190 ppb	02:36:06
3	Sr 421.552†	77607.2	80291.1	522.87 ug/L	522.87 ppb	02:36:06
3	Sc 361.383	905970.5	905970.5	103.89 %		02:37:36
3	Y 371.029	796222.2	796222.2	101.89 %		02:37:36
3	Ag 328.068†	123242.4	118337.2	524.90 ug/L	524.90 ppb	02:37:41
3	As 188.979†	1218.7	1203.8	543.14 ug/L	543.14 ppb	02:38:01
3	B 249.677†	22964.9	22415.5	514.40 ug/L	514.40 ppb	02:37:41
3	Ba 233.527†	65099.8	62669.9	538.76 ug/L	538.76 ppb	02:37:41
3	Be 313.107†	1490569.5	1440399.0	543.63 ug/L	543.63 ppb	02:37:36
3	Cd 226.502†	46055.7	44512.0	548.76 ug/L	548.76 ppb	02:37:41
3	Co 228.616†	23585.5	22762.2	545.13 ug/L	545.13 ppb	02:37:41
3	Cr 267.716†	48353.2	46464.8	547.02 ug/L	547.02 ppb	02:37:41
3	Cu 324.752†	191175.0	174183.3	509.61 ug/L	509.61 ppb	02:37:41
3	Mn 257.610†	457345.1	439677.5	533.62 ug/L	533.62 ppb	02:37:36
3	Mo 202.031†	7530.8	7228.1	534.26 ug/L	534.26 ppb	02:38:01
3	Ni 231.604†	20940.3	20051.6	550.71 ug/L	550.71 ppb	02:37:41
3	P 214.914†	4675.5	4280.1	2556.0 ug/L	2556.0 ppb	02:38:01
3	Pb 220.353†	4016.1	3911.3	543.73 ug/L	543.73 ppb	02:38:01
3	S 181.975 Axial†	788.9	718.0	1087.2 ug/L	1087.2 ppb	02:38:01
3	Sb 206.836†	1498.1	1406.0	531.02 ug/L	531.02 ppb	02:38:01
3	Se 196.026†	855.6	837.7	543.40 ug/L	543.40 ppb	02:38:01
3	Si 251.611†	87773.7	83922.1	2672.4 ug/L	2672.4 ppb	02:37:41
3	Sn 189.927†	2738.9	2634.9	537.61 ug/L	537.61 ppb	02:38:01
3	Ti 334.940†	340485.2	328664.2	519.06 ug/L	519.06 ppb	02:37:36
3	Tl 190.801†	1567.6	1539.5	538.82 ug/L	538.82 ppb	02:38:01
3	U 409.014†	19438.6	19639.9	505.21 ug/L	505.21 ppb	02:37:41
3	V 292.402†	82241.2	80560.8	543.98 ug/L	543.98 ppb	02:37:41
3	Zn 213.857†	56630.2	53849.3	539.92 ug/L	539.92 ppb	02:37:41
3	SiO2†	87273.5	83429.0	5667.0 ug/L	5667.0 ppb	02:38:17

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	905294.6	103.81 %		0.092			0.09%
Sc Radial	5151.6	95.5 %		0.97			1.01%
Y 371.029	795638.5	101.82 %		0.069			0.07%
Y RADIAL	5521.5	95.11 %		0.668			0.70%
Ag 328.068†	117841.0	522.72 ug/L		1.911	522.72 ppb	1.911	0.37%
QC value within limits for Ag 328.068 Recovery = 104.54%							
Al 396.153Radial†	6846.4	5333.8 ug/L		6.53	5333.8 ppb	6.53	0.12%
QC value within limits for Al 396.153Radial Recovery = 106.68%							
As 188.979†	1215.8	548.51 ug/L		4.721	548.51 ppb	4.721	0.86%
QC value within limits for As 188.979 Recovery = 109.70%							
B 249.677†	22229.6	510.11 ug/L		3.739	510.11 ppb	3.739	0.73%
QC value within limits for B 249.677 Recovery = 102.02%							
Ba 233.527†	62353.5	536.04 ug/L		2.564	536.04 ppb	2.564	0.48%
QC value within limits for Ba 233.527 Recovery = 107.21%							
Be 313.107†	1437584.4	542.57 ug/L		2.028	542.57 ppb	2.028	0.37%
QC value within limits for Be 313.107 Recovery = 108.51%							
Ca 317.933Radial†	3346.2	5541.5 ug/L		65.80	5541.5 ppb	65.80	1.19%

QC value greater than the upper limit for Ca 317.933Radial Recovery = 110.83%							
Cd	226.502†	44341.7	546.65 ug/L	2.066	546.65 ppb	2.066	0.38%
QC value within limits for Cd 226.502 Recovery = 109.33%							
Co	228.616†	22692.1	543.46 ug/L	2.121	543.46 ppb	2.121	0.39%
QC value within limits for Co 228.616 Recovery = 108.69%							
Cr	267.716†	46271.6	544.75 ug/L	1.981	544.75 ppb	1.981	0.36%
QC value within limits for Cr 267.716 Recovery = 108.95%							
Cu	324.752†	173149.9	506.59 ug/L	2.618	506.59 ppb	2.618	0.52%
QC value within limits for Cu 324.752 Recovery = 101.32%							
Fe	238.204 Radial†	576.7	5416.4 ug/L	50.72	5416.4 ppb	50.72	0.94%
QC value within limits for Fe 238.204 Radial Recovery = 108.33%							
K	766.490 Radial†	29462.3	5480.8 ug/L	19.29	5480.8 ppb	19.29	0.35%
QC value within limits for K 766.490 Radial Recovery = 109.62%							
Mg	279.077 IEC†	156.1	5727.6 ug/L	77.89	5727.6 ppb	77.89	1.36%
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 114.55%							
Mn	257.610†	438938.2	532.72 ug/L	1.496	532.72 ppb	1.496	0.28%
QC value within limits for Mn 257.610 Recovery = 106.54%							
Mo	202.031†	7242.9	535.35 ug/L	0.967	535.35 ppb	0.967	0.18%
QC value within limits for Mo 202.031 Recovery = 107.07%							
Na	589.592 Radial†	33189.4	10230 ug/L	47.3	10230 ppb	47.3	0.46%
QC value within limits for Na 589.592 Radial Recovery = 102.30%							
Ni	231.604†	19912.9	546.90 ug/L	3.493	546.90 ppb	3.493	0.64%
QC value within limits for Ni 231.604 Recovery = 109.38%							
P	214.914†	4301.0	2569.6 ug/L	12.00	2569.6 ppb	12.00	0.47%
QC value within limits for P 214.914 Recovery = 102.78%							
Pb	220.353†	3918.7	544.75 ug/L	0.888	544.75 ppb	0.888	0.16%
QC value within limits for Pb 220.353 Recovery = 108.95%							
S	181.975 Axial†	714.0	1081.0 ug/L	7.73	1081.0 ppb	7.73	0.72%
QC value within limits for S 181.975 Axial Recovery = 108.10%							
Sb	206.836†	1419.0	535.81 ug/L	4.353	535.81 ppb	4.353	0.81%
QC value within limits for Sb 206.836 Recovery = 107.16%							
Se	196.026†	844.2	547.64 ug/L	3.867	547.64 ppb	3.867	0.71%
QC value within limits for Se 196.026 Recovery = 109.53%							
Si	251.611†	83524.8	2659.7 ug/L	12.08	2659.7 ppb	12.08	0.45%
QC value within limits for Si 251.611 Recovery = 106.39%							
Sn	189.927†	2649.4	540.57 ug/L	2.578	540.57 ppb	2.578	0.48%
QC value within limits for Sn 189.927 Recovery = 108.11%							
Sr	421.552†	80605.0	524.92 ug/L	2.074	524.92 ppb	2.074	0.40%
QC value within limits for Sr 421.552 Recovery = 104.98%							
Ti	334.940†	328151.4	518.26 ug/L	2.205	518.26 ppb	2.205	0.43%
QC value within limits for Ti 334.940 Recovery = 103.65%							
Tl	190.801†	1544.3	540.49 ug/L	1.596	540.49 ppb	1.596	0.30%
QC value within limits for Tl 190.801 Recovery = 108.10%							
U	409.014†	19635.3	505.09 ug/L	2.081	505.09 ppb	2.081	0.41%
QC value within limits for U 409.014 Recovery = 101.02%							
V	292.402†	80192.6	541.54 ug/L	2.127	541.54 ppb	2.127	0.39%
QC value within limits for V 292.402 Recovery = 108.31%							
Zn	213.857†	53627.9	537.70 ug/L	2.180	537.70 ppb	2.180	0.41%
QC value within limits for Zn 213.857 Recovery = 107.54%							
SiO2†		83697.7	5685.2 ug/L	17.96	5685.2 ppb	17.96	0.32%
QC value within limits for SiO2 Recovery = 106.32%							
QC Failed. Continue with analysis.							

Sequence No.: 107

Sample ID: CCB

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/26/2010 02:40:26

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	5101.3	5101.3	94.6 %		02:42:18
1	Y RADIAL	5510.4	5510.4	94.92 %		02:42:18
1	Al 396.153Radial†	8.2	4.5	3.5462 ug/L	3.5462 ppb	02:42:38
1	Ca 317.933Radial†	23.4	5.3	8.8278 ug/L	8.8278 ppb	02:42:38
1	Fe 238.204 Radial†	8.7	1.2	10.776 ug/L	10.776 ppb	02:42:38
1	K 766.490 Radial†	2434.7	603.2	112.37 ug/L	112.37 ppb	02:42:18
1	Mg 279.077 IEC†	0.9	-1.5	-53.592 ug/L	-53.592 ppb	02:42:38
1	Na 589.592 Radial†	-678.3	-293.6	-90.511 ug/L	-90.511 ppb	02:42:18
1	Sr 421.552†	4.1	-10.7	-0.0699 ug/L	-0.0699 ppb	02:42:18
1	Sc 361.383	905338.6	905338.6	103.81 %		02:43:35
1	Y 371.029	803411.4	803411.4	102.81 %		02:43:35
1	Ag 328.068†	537.8	223.4	0.9997 ug/L	0.9997 ppb	02:43:40
1	As 188.979†	-31.2	0.6	0.2836 ug/L	0.2836 ppb	02:44:00
1	B 249.677†	-214.3	103.3	2.3793 ug/L	2.3793 ppb	02:44:00
1	Ba 233.527†	25.7	30.2	0.2608 ug/L	0.2608 ppb	02:44:00
1	Be 313.107†	-4842.3	928.4	0.3502 ug/L	0.3502 ppb	02:43:40
1	Cd 226.502†	-169.6	15.9	0.1932 ug/L	0.1932 ppb	02:44:00
1	Co 228.616†	-60.7	0.6	0.0148 ug/L	0.0148 ppb	02:44:00
1	Cr 267.716†	78.2	-4.2	-0.0438 ug/L	-0.0438 ppb	02:44:00
1	Cu 324.752†	8958.3	-1210.6	-3.5350 ug/L	-3.5350 ppb	02:43:40
1	Mn 257.610†	600.9	20.9	0.0286 ug/L	0.0286 ppb	02:44:00
1	Mo 202.031†	26.4	4.4	0.3226 ug/L	0.3226 ppb	02:44:00
1	Ni 231.604†	130.0	20.0	0.5488 ug/L	0.5488 ppb	02:44:00
1	P 214.914†	193.2	-34.4	-20.670 ug/L	-20.670 ppb	02:44:00
1	Pb 220.353†	-69.6	-21.7	-2.9990 ug/L	-2.9990 ppb	02:44:00
1	S 181.975 Axial†	38.2	-4.6	-6.9868 ug/L	-6.9868 ppb	02:44:00
1	Sb 206.836†	26.7	-10.4	-3.7670 ug/L	-3.7670 ppb	02:44:00
1	Se 196.026†	-20.9	-6.0	-3.7177 ug/L	-3.7177 ppb	02:44:00
1	Si 251.611†	556.8	-31.6	-1.0122 ug/L	-1.0122 ppb	02:44:00
1	Sn 189.927†	0.9	-0.7	-0.1342 ug/L	-0.1342 ppb	02:44:00
1	Ti 334.940†	-795.5	150.5	0.2482 ug/L	0.2482 ppb	02:43:40
1	Tl 190.801†	-31.2	0.4	0.1357 ug/L	0.1357 ppb	02:44:00
1	U 409.014†	-1410.5	-430.1	-11.106 ug/L	-11.106 ppb	02:43:40
1	V 292.402†	-1347.2	98.6	0.6375 ug/L	0.6375 ppb	02:43:40
1	Zn 213.857†	754.3	64.3	0.6502 ug/L	0.6502 ppb	02:44:00
1	SiO2†	565.5	-34.9	-2.3847 ug/L	-2.3847 ppb	02:45:21
2	Sc Radial	5135.0	5135.0	95.2 %		02:42:43
2	Y RADIAL	5547.8	5547.8	95.57 %		02:42:43
2	Al 396.153Radial†	4.8	0.9	0.6770 ug/L	0.6770 ppb	02:43:03
2	Ca 317.933Radial†	20.6	2.3	3.8160 ug/L	3.8160 ppb	02:43:03
2	Fe 238.204 Radial†	6.9	-0.8	-7.1831 ug/L	-7.1831 ppb	02:43:03
2	K 766.490 Radial†	2495.5	650.1	121.10 ug/L	121.10 ppb	02:42:43
2	Mg 279.077 IEC†	-0.1	-2.5	-91.919 ug/L	-91.919 ppb	02:43:03
2	Na 589.592 Radial†	-607.6	-214.8	-66.197 ug/L	-66.197 ppb	02:42:43
2	Sr 421.552†	13.2	-1.2	-0.0077 ug/L	-0.0077 ppb	02:42:43
2	Sc 361.383	906237.3	906237.3	103.92 %		02:44:05
2	Y 371.029	804633.4	804633.4	102.97 %		02:44:05
2	Ag 328.068†	353.9	46.0	0.2114 ug/L	0.2114 ppb	02:44:10
2	As 188.979†	-28.6	3.1	1.3761 ug/L	1.3761 ppb	02:44:30
2	B 249.677†	-237.3	81.3	1.8766 ug/L	1.8766 ppb	02:44:30
2	Ba 233.527†	31.8	36.1	0.3099 ug/L	0.3099 ppb	02:44:30
2	Be 313.107†	-4787.3	986.0	0.3718 ug/L	0.3718 ppb	02:44:10
2	Cd 226.502†	-191.0	-4.5	-0.0572 ug/L	-0.0572 ppb	02:44:30
2	Co 228.616†	-58.1	3.2	0.0774 ug/L	0.0774 ppb	02:44:30
2	Cr 267.716†	90.4	7.5	0.0930 ug/L	0.0930 ppb	02:44:30
2	Cu 324.752†	8937.9	-1238.7	-3.6173 ug/L	-3.6173 ppb	02:44:10
2	Mn 257.610†	610.1	29.2	0.0385 ug/L	0.0385 ppb	02:44:30
2	Mo 202.031†	34.7	12.3	0.9098 ug/L	0.9098 ppb	02:44:30
2	Ni 231.604†	137.2	26.8	0.7351 ug/L	0.7351 ppb	02:44:30



2	P 214.914†	207.4	-20.9	-12.259 ug/L	-12.259 ppb	02:44:30
2	Pb 220.353†	-52.3	-4.9	-0.6744 ug/L	-0.6744 ppb	02:44:30
2	S 181.975 Axial†	40.5	-2.4	-3.6180 ug/L	-3.6180 ppb	02:44:30
2	Sb 206.836†	37.7	0.2	0.0778 ug/L	0.0778 ppb	02:44:30
2	Se 196.026†	-20.0	-5.2	-3.2709 ug/L	-3.2709 ppb	02:44:30
2	Si 251.611†	572.4	-17.1	-0.5562 ug/L	-0.5562 ppb	02:44:30
2	Sn 189.927†	-3.0	-4.4	-0.8856 ug/L	-0.8856 ppb	02:44:30
2	Ti 334.940†	-822.6	125.2	0.2116 ug/L	0.2116 ppb	02:44:10
2	Tl 190.801†	-31.3	0.3	0.1170 ug/L	0.1170 ppb	02:44:30
2	U 409.014†	-1489.7	-505.0	-13.038 ug/L	-13.038 ppb	02:44:10
2	V 292.402†	-1432.5	17.8	0.1056 ug/L	0.1056 ppb	02:44:10
2	Zn 213.857†	748.6	58.1	0.5884 ug/L	0.5884 ppb	02:44:30
2	SiO2†	615.5	12.7	0.8412 ug/L	0.8412 ppb	02:45:41
3	Sc Radial	5079.6	5079.6	94.2 %		02:43:08
3	Y RADIAL	5501.8	5501.8	94.77 %		02:43:08
3	Al 396.153Radial†	9.2	5.6	4.3917 ug/L	4.3917 ppb	02:43:28
3	Ca 317.933Radial†	24.7	6.9	11.355 ug/L	11.355 ppb	02:43:28
3	Fe 238.204 Radial†	6.4	-1.2	-11.479 ug/L	-11.479 ppb	02:43:28
3	K 766.490 Radial†	2603.4	793.3	147.77 ug/L	147.77 ppb	02:43:08
3	Mg 279.077 IEC†	0.9	-1.5	-54.981 ug/L	-54.981 ppb	02:43:28
3	Na 589.592 Radial†	-620.5	-235.4	-72.551 ug/L	-72.551 ppb	02:43:08
3	Sr 421.552†	29.0	15.7	0.1022 ug/L	0.1022 ppb	02:43:08
3	Sc 361.383	918971.2	918971.2	105.38 %		02:44:35
3	Y 371.029	814936.8	814936.8	104.29 %		02:44:35
3	Ag 328.068†	460.4	142.3	0.6366 ug/L	0.6366 ppb	02:44:40
3	As 188.979†	-26.3	5.7	2.5470 ug/L	2.5470 ppb	02:45:00
3	B 249.677†	-237.0	84.8	1.9558 ug/L	1.9558 ppb	02:45:00
3	Ba 233.527†	12.2	17.1	0.1473 ug/L	0.1473 ppb	02:45:00
3	Be 313.107†	-4784.5	1052.5	0.3971 ug/L	0.3971 ppb	02:44:40
3	Cd 226.502†	-189.9	-0.9	-0.0127 ug/L	-0.0127 ppb	02:45:00
3	Co 228.616†	-46.7	14.8	0.3543 ug/L	0.3543 ppb	02:45:00
3	Cr 267.716†	75.4	-7.9	-0.0874 ug/L	-0.0874 ppb	02:45:00
3	Cu 324.752†	8733.0	-1552.3	-4.5344 ug/L	-4.5344 ppb	02:44:40
3	Mn 257.610†	628.9	38.9	0.0482 ug/L	0.0482 ppb	02:45:00
3	Mo 202.031†	27.6	5.2	0.3821 ug/L	0.3821 ppb	02:45:00
3	Ni 231.604†	138.2	25.9	0.7109 ug/L	0.7109 ppb	02:45:00
3	P 214.914†	197.2	-33.4	-19.795 ug/L	-19.795 ppb	02:45:00
3	Pb 220.353†	-63.7	-15.1	-2.0879 ug/L	-2.0879 ppb	02:45:00
3	S 181.975 Axial†	33.8	-9.3	-14.070 ug/L	-14.070 ppb	02:45:00
3	Sb 206.836†	29.3	-8.2	-2.9993 ug/L	-2.9993 ppb	02:45:00
3	Se 196.026†	-21.9	-6.7	-4.2444 ug/L	-4.2444 ppb	02:45:00
3	Si 251.611†	568.0	-28.9	-0.9287 ug/L	-0.9287 ppb	02:45:00
3	Sn 189.927†	-5.4	-6.6	-1.3469 ug/L	-1.3469 ppb	02:45:00
3	Ti 334.940†	-756.3	199.1	0.3267 ug/L	0.3267 ppb	02:44:40
3	Tl 190.801†	-35.6	-3.3	-1.1425 ug/L	-1.1425 ppb	02:45:00
3	U 409.014†	-1550.9	-543.2	-14.023 ug/L	-14.023 ppb	02:44:40
3	V 292.402†	-1387.2	79.8	0.5108 ug/L	0.5108 ppb	02:44:40
3	Zn 213.857†	739.5	39.4	0.4016 ug/L	0.4016 ppb	02:45:00
3	SiO2†	771.8	152.8	10.395 ug/L	10.395 ppb	02:46:01

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	910182.4	104.37 %		0.874			0.84%
Sc Radial	5105.3	94.7 %		0.52			0.55%
Y 371.029	807660.5	103.36 %		0.810			0.78%
Y RADIAL	5520.0	95.09 %		0.422			0.44%
Ag 328.068†	137.2	0.6159 ug/L		0.39455	0.6159 ppb	0.39455	64.06%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	3.7	2.8716 ug/L		1.94710	2.8716 ppb	1.94710	67.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	3.1	1.4023 ug/L		1.13193	1.4023 ppb	1.13193	80.72%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	89.8	2.0706 ug/L		0.27030	2.0706 ppb	0.27030	13.05%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	27.8	0.2393 ug/L		0.08337	0.2393 ppb	0.08337	34.84%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	988.9	0.3730 ug/L		0.02348	0.3730 ppb	0.02348	6.29%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	4.8	7.9996 ug/L		3.83710	7.9996 ppb	3.83710	47.97%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd	226.502†	3.5	0.0411 ug/L	0.13357	0.0411 ppb	0.13357 325.02%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co	228.616†	6.2	0.1488 ug/L	0.18067	0.1488 ppb	0.18067 121.40%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr	267.716†	-1.6	-0.0127 ug/L	0.09413	-0.0127 ppb	0.09413 739.17%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu	324.752†	-1333.9	-3.8956 ug/L	0.55477	-3.8956 ppb	0.55477 14.24%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe	238.204 Radial†	-0.3	-2.6287 ug/L	11.80597	-2.6287 ppb	11.80597 449.11%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K	766.490 Radial†	682.2	127.08 ug/L	18.441	127.08 ppb	18.441 14.51%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg	279.077 IEC†	-1.8	-66.831 ug/L	21.7383	-66.831 ppb	21.7383 32.53%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn	257.610†	29.6	0.0384 ug/L	0.00984	0.0384 ppb	0.00984 25.60%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo	202.031†	7.3	0.5382 ug/L	0.32322	0.5382 ppb	0.32322 60.06%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na	589.592 Radial†	-247.9	-76.420 ug/L	12.6103	-76.420 ppb	12.6103 16.50%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni	231.604†	24.2	0.6649 ug/L	0.10129	0.6649 ppb	0.10129 15.23%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P	214.914†	-29.6	-17.575 ug/L	4.6245	-17.575 ppb	4.6245 26.31%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb	220.353†	-13.9	-1.9204 ug/L	1.17129	-1.9204 ppb	1.17129 60.99%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S	181.975 Axial†	-5.4	-8.2250 ug/L	5.33500	-8.2250 ppb	5.33500 64.86%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb	206.836†	-6.1	-2.2295 ug/L	2.03471	-2.2295 ppb	2.03471 91.26%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se	196.026†	-6.0	-3.7443 ug/L	0.48732	-3.7443 ppb	0.48732 13.01%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si	251.611†	-25.9	-0.8323 ug/L	0.24277	-0.8323 ppb	0.24277 29.17%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn	189.927†	-3.9	-0.7889 ug/L	0.61211	-0.7889 ppb	0.61211 77.59%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr	421.552†	1.3	0.0082 ug/L	0.08714	0.0082 ppb	0.08714 >999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti	334.940†	158.3	0.2622 ug/L	0.05882	0.2622 ppb	0.05882 22.44%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl	190.801†	-0.9	-0.2966 ug/L	0.73266	-0.2966 ppb	0.73266 247.02%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U	409.014†	-492.8	-12.722 ug/L	1.4843	-12.722 ppb	1.4843 11.67%
QC value within limits for U 409.014 Recovery = Not calculated						
V	292.402†	65.4	0.4180 ug/L	0.27786	0.4180 ppb	0.27786 66.48%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn	213.857†	53.9	0.5467 ug/L	0.12942	0.5467 ppb	0.12942 23.67%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†		43.5	2.9506 ug/L	6.64592	2.9506 ppb	6.64592 225.24%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

## Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Friday, January 15, 2010 12:11:42

Sample Description:

Method File: C:\elandata\Method\daily2.mth

Dataset File: c:\elandata\Dataset\090811\Sample.358

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		561.8		561.811		19.640		3.5
Mg	24.0		10019.3		10019.313		125.740		1.3
Co	58.9		23669.0		23668.995		330.169		1.4
Rh	102.9		44514.2		44514.249		357.944		0.8
In	114.9		61105.0		61105.009		383.776		0.6
Pb	208.0		21363.2		21363.162		98.479		0.5
[> Ba	137.9		50046.0		50045.984		424.733		0.8
[ Ba++	69.0		807.6		0.016		0.000		2.0
[> Ce	139.9		58723.3		58723.258		619.580		1.1
[ CeO	155.9		987.4		0.017		0.000		2.0
Bkgd	220.0		9.2		9.200		1.823		19.8

### Current Optimization File Data

Current Value	Description
0.86	Nebulizer Gas Flow
9.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	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	9	9.0	512.0
Co	59	9	9.0	18118.1
In	115	9	9.8	45625.4

## ICPMS #4 TUNING REPORT

File Name: default2.tun  
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	599	2060	0.700
Be	9.0	9.1	2050	2045	0.709
Mg	24.0	24.0	5681	2075	0.766
Mg	25.0	25.0	5919	2080	0.703
Mg	26.0	26.0	6161	2085	0.750
Co	58.9	58.9	14184	2140	0.730
Rh	102.9	102.9	24868	2230	0.714
In	114.9	114.9	27779	2255	0.722
Ce	139.9	139.9	33854	2310	0.692
Pb	206.0	206.0	49936	2500	0.749
Pb	207.0	207.0	50089	2380	0.649
Pb	208.0	208.0	50448	2570	0.643
U	238.1	238.0	57684	2510	0.679

## ICPMS#4 - Summary Report

Sample ID: Blank  
 Sample Date/Time: Friday, January 15, 2010 23:32:42  
 Sample Type:  
 Sample Description:  
 Number of Replicates: 3  
 Batch ID:  
 Method File: c:\elandata\Method\6020.mth  
 Dataset File: C:\elandata\Dataset\100115\Blank.120

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		26	
Be	9		ug/L		2	
B	11		ug/L		56	
Na	23		ug/L		7669	
Mg	24		ug/L		1000	
Al	27		ug/L		3334	
P	31		ug/L		1599	
K	39		ug/L		270878	
Ca	43		ug/L		337	
> Sc	45		ug/L		219408	
Ti	47		ug/L		145	
V	51		ug/L		-553	
Cr	52		ug/L		2204	
Cr	53		ug/L		116877	
Mn	55		ug/L		704	
Fe	57		ug/L		4049	
Co	59		ug/L		118	
Ni	60		ug/L		35	
Cu	63		ug/L		58	
Cu	65		ug/L		43	
Zn	66		ug/L		50	
Zn	67		ug/L		4766	
Zn	68		ug/L		366	
> Ge	74		ug/L		114972	
As	75		ug/L		150	
Se	77		ug/L		4334	
Se	82		ug/L		13	
Kr	83		ug/L		31	
Sr	88		ug/L		85	
Y	89		ug/L		19	
Zr	90		ug/L		178	
Mo	98		ug/L		25	
Ag	107		ug/L		45	
Cd	111		ug/L		14	
Cd	114		ug/L		22	
> In	115		ug/L		75118	
Sn	120		ug/L		130	
Sb	121		ug/L		124	
Sb	123		ug/L		135	
Ba	135		ug/L		19	
Ba	137		ug/L		25	
Ho	165		ug/L		6	
> Lu	175		ug/L		64583	
Tl	205		ug/L		70	
Pb	208		ug/L		265	
Bi	209		ug/L		21	
Th	232		ug/L		186	
U	238		ug/L		75	

Sample ID: Blank  
 Report Date/Time: Friday, January 15, 2010 23:35:31  
 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	0.9996
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: Blank

Report Date/Time: Friday, January 15, 2010 23:35:31

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## 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				
	Bi	209				
	Th	232				
[	U	238				

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Friday, January 15, 2010 23:35:31

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## ICPMS#4 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Friday, January 15, 2010 23:38:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\Standard 1.121

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.000	ug/L	0.410	1799	0.008
Be	9	10.000	ug/L	3.151	445	0.002
B	11	20.000	ug/L	1.952	1009	0.004
Na	23	1000.000	ug/L	5.236	1066836	4.886
Mg	24	1000.000	ug/L	3.610	700456	3.227
Al	27	1000.000	ug/L	1.989	1035226	4.761
P	31	1000.000	ug/L	1.024	56373	0.253
K	39	1000.000	ug/L	3.746	2066761	8.300
Ca	43	1000.000	ug/L	2.296	3944	0.017
> Sc	45		ug/L		216720	216719.685
Ti	47	10.000	ug/L	1.470	1882	0.008
V	51	10.000	ug/L	21.964	14683	0.070
Cr	52	10.000	ug/L	1.107	19281	0.079
Cr	53		ug/L		145135	0.137
Mn	55	10.000	ug/L	1.937	28425	0.128
Fe	57	1000.000	ug/L	1.990	60818	0.262
Co	59	10.000	ug/L	2.617	21278	0.098
Ni	60	10.000	ug/L	4.494	4468	0.020
Cu	63		ug/L		10113	0.046
Cu	65	10.000	ug/L	2.026	4828	0.022
Zn	66	10.000	ug/L	1.656	2497	0.022
Zn	67		ug/L		6329	0.015
Zn	68		ug/L		2177	0.016
> Ge	74		ug/L		113045	113044.994
As	75	10.000	ug/L	4.675	3009	0.025
Se	77		ug/L		5822	0.014
Se	82	10.000	ug/L	4.859	320	0.003
Kr	83		ug/L		33	0.000
Sr	88	10.000	ug/L	0.318	44743	0.596
Y	89		ug/L		26	0.000
Zr	90	10.000	ug/L	1.630	23906	0.317
Mo	98	10.000	ug/L	0.810	10071	0.134
Ag	107	10.000	ug/L	1.194	16773	0.223
Cd	111	10.000	ug/L	2.246	3906	0.052
Cd	114		ug/L		9294	0.124
> In	115		ug/L		74883	74883.019
Sn	120	10.000	ug/L	0.431	17923	0.238
Sb	121	10.000	ug/L	2.207	13226	0.175
Sb	123		ug/L		10119	0.133
Ba	135		ug/L		4064	0.064
Ba	137	10.000	ug/L	0.882	6939	0.110
Ho	165		ug/L		7	0.000
> Lu	175		ug/L		62987	62986.855
Tl	205	10.000	ug/L	0.832	9647	0.152
Pb	208	10.000	ug/L	0.987	38886	0.613
Bi	209		ug/L		17	-0.000
Th	232	10.000	ug/L	1.225	47295	0.748
U	238	10.000	ug/L	2.042	47872	0.759

Sample ID: Standard 1

Report Date/Time: Friday, January 15, 2010 23:41:39

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	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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: Standard 1

Report Date/Time: Friday, January 15, 2010 23:41:39

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## 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					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Friday, January 15, 2010 23:41:39

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## ICPMS#4 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Friday, January 15, 2010 23:45:03

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\Standard 2.122

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	100.012	ug/L	0.447	18121	0.083
Be	9	100.006	ug/L	1.449	4491	0.021
B	11	199.940	ug/L	2.901	9386	0.043
Na	23	9998.677	ug/L	0.420	10534918	48.212
Mg	24	10003.266	ug/L	6.292	7284103	33.365
Al	27	10003.554	ug/L	3.477	10787135	49.379
P	31	9998.127	ug/L	2.087	543387	2.482
K	39	9992.022	ug/L	2.003	17038334	76.808
Ca	43	9996.833	ug/L	0.596	35587	0.161
> Sc	45		ug/L		218358	218357.842
Ti	47	99.956	ug/L	1.840	16914	0.077
V	51	100.078	ug/L	2.108	165940	0.763
Cr	52	99.945	ug/L	2.353	165462	0.748
Cr	53		ug/L		145320	0.133
Mn	55	99.962	ug/L	1.206	269813	1.233
Fe	57	9995.391	ug/L	1.600	551119	2.506
Co	59	99.971	ug/L	1.705	207309	0.949
Ni	60	99.959	ug/L	1.745	42937	0.197
Cu	63		ug/L		97005	0.444
Cu	65	99.972	ug/L	0.921	46916	0.215
Zn	66	99.968	ug/L	1.061	23980	0.210
Zn	67		ug/L		9175	0.039
Zn	68		ug/L		17446	0.150
> Ge	74		ug/L		114098	114098.305
As	75	99.993	ug/L	3.478	28837	0.251
Se	77		ug/L		7390	0.027
Se	82	99.919	ug/L	0.162	2880	0.025
Kr	83		ug/L		39	0.000
Sr	88	100.004	ug/L	0.765	442837	5.991
Y	89		ug/L		51	0.000
Zr	90	99.998	ug/L	1.337	234031	3.164
Mo	98	100.028	ug/L	0.403	102054	1.380
Ag	107	99.972	ug/L	0.494	160604	2.172
Cd	111	100.001	ug/L	0.664	38455	0.520
Cd	114		ug/L		90739	1.227
> In	115		ug/L		73909	73909.214
Sn	120	100.004	ug/L	1.311	176513	2.386
Sb	121	100.021	ug/L	3.747	132221	1.787
Sb	123		ug/L		100729	1.361
Ba	135		ug/L		40329	0.627
Ba	137	99.985	ug/L	2.727	69500	1.081
Ho	165		ug/L		7	0.000
> Lu	175		ug/L		64291	64291.033
Tl	205	99.969	ug/L	1.403	94895	1.475
Pb	208	99.959	ug/L	2.563	378569	5.887
Bi	209		ug/L		45	0.000
Th	232	99.990	ug/L	3.898	476014	7.405
U	238	99.986	ug/L	4.342	480866	7.483

Sample ID: Standard 2

Report Date/Time: Friday, January 15, 2010 23:47:48

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: Standard 2

Report Date/Time: Friday, January 15, 2010 23:47:48

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## 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				
	Bi	209				
	Th	232				
[	U	238				

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 2

Report Date/Time: Friday, January 15, 2010 23:47:48

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## ICPMS#4 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Friday, January 15, 2010 23:51:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 1.123

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.492	ug/L	1.524	9141	0.042
Be	9	52.618	ug/L	1.682	2359	0.011
B	11	103.738	ug/L	3.467	4886	0.022
Na	23	5165.029	ug/L	6.615	5431399	24.905
Mg	24	4889.825	ug/L	4.325	3553534	16.310
Al	27	5052.413	ug/L	6.272	5436605	24.940
P	31	4953.478	ug/L	1.486	269452	1.229
K	39	5237.599	ug/L	7.079	9036776	40.261
Ca	43	5000.231	ug/L	1.119	17929	0.081
> Sc	45		ug/L		217893	217893.115
Ti	47	50.254	ug/L	1.185	8556	0.039
V	51	47.908	ug/L	5.271	78956	0.365
Cr	52	52.093	ug/L	1.988	87099	0.390
Cr	53		ug/L		148645	0.150
Mn	55	51.827	ug/L	1.587	139930	0.639
Fe	57	5002.606	ug/L	1.363	277245	1.254
Co	59	49.715	ug/L	0.842	102940	0.472
Ni	60	52.049	ug/L	0.548	22329	0.102
Cu	63		ug/L		50138	0.230
Cu	65	51.471	ug/L	1.312	24123	0.111
Zn	66	52.236	ug/L	0.197	12540	0.110
Zn	67		ug/L		7847	0.027
Zn	68		ug/L		9442	0.080
> Ge	74		ug/L		113974	113974.003
As	75	49.064	ug/L	5.596	14214	0.123
Se	77		ug/L		6939	0.023
Se	82	49.770	ug/L	1.517	1439	0.013
Kr	83		ug/L		39	0.000
Sr	88	51.607	ug/L	1.297	227557	3.091
Y	89		ug/L		25	0.000
Zr	90	49.840	ug/L	1.094	116208	1.577
Mo	98	49.628	ug/L	1.268	50422	0.685
Ag	107	51.234	ug/L	1.936	81959	1.113
Cd	111	50.403	ug/L	1.075	19305	0.262
Cd	114		ug/L		46212	0.628
> In	115		ug/L		73590	73589.781
Sn	120	50.999	ug/L	1.861	89672	1.217
Sb	121	51.346	ug/L	1.943	67641	0.917
Sb	123		ug/L		51754	0.701
Ba	135		ug/L		20547	0.325
Ba	137	51.701	ug/L	2.064	35310	0.559
Ho	165		ug/L		11	0.000
> Lu	175		ug/L		63130	63129.820
Tl	205	49.266	ug/L	1.785	45967	0.727
Pb	208	52.225	ug/L	1.114	194401	3.076
Bi	209		ug/L		52	0.001
Th	232	52.149	ug/L	0.748	244001	3.862
U	238	53.540	ug/L	2.146	253007	4.007

Sample ID: QC Std 1

Report Date/Time: Friday, January 15, 2010 23:53:58

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	100.984				
Be	9	105.236				
B	11	103.738				
Na	23	103.301				
Mg	24	97.797				
Al	27	100.048				
P	31	99.070				
K	39	104.752				
Ca	43	100.005				
Sc	45		99.3			
Ti	47	100.509				
V	51	95.817				
Cr	52	104.186				
Cr	53					
Mn	55	103.653				
Fe	57	100.052				
Co	59	99.430				
Ni	60	104.099				
Cu	63					
Cu	65	102.942				
Zn	66	104.473				
Zn	67					
Zn	68					
Ge	74		99.1			
As	75	98.129				
Se	77					
Se	82	99.540				
Kr	83					
Sr	88	103.214				
Y	89					
Zr	90	99.680				
Mo	98	99.256				
Ag	107	102.467				
Cd	111	100.807				
Cd	114					
In	115		98.0			
Sn	120	101.998				
Sb	121	102.691				
Sb	123					
Ba	135					
Ba	137	103.403				
Ho	165					
Lu	175		97.7			
Tl	205	98.531				
Pb	208	104.450				
Bi	209					
Th	232	104.297				
U	238	107.079				

### 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: Friday, January 15, 2010 23:53:58

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## ICPMS#4 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Friday, January 15, 2010 23:57:24

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 2.124

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	-0.001	ug/L	715.183	26	-0.000
Be	9	0.007	ug/L	190.268	3	0.000
B	11	4.074	ug/L	8.378	250	0.001
Na	23	4.948	ug/L	101.155	13007	0.024
Mg	24	0.884	ug/L	175.515	1667	0.003
Al	27	-0.036	ug/L	5787.616	3334	-0.000
P	31	3.644	ug/L	38.116	1817	0.001
K	39	14.874	ug/L	34.724	299101	0.114
Ca	43	2.233	ug/L	431.036	349	0.000
> Sc	45		ug/L		221720	221720.314
Ti	47	-0.028	ug/L	234.893	142	-0.000
V	51	1.408	ug/L	171.009	1838	0.011
Cr	52	0.179	ug/L	32.417	2524	0.001
Cr	53		ug/L		119158	0.005
Mn	55	-0.004	ug/L	206.043	699	-0.000
Fe	57	4.123	ug/L	64.097	4321	0.001
Co	59	0.008	ug/L	100.298	136	0.000
Ni	60	0.011	ug/L	96.998	41	0.000
Cu	63		ug/L		77	0.000
Cu	65	0.019	ug/L	142.186	53	0.000
Zn	66	-0.007	ug/L	373.890	49	-0.000
Zn	67		ug/L		4880	0.001
Zn	68		ug/L		393	0.000
> Ge	74		ug/L		115589	115589.239
As	75	0.664	ug/L	254.830	345	0.002
Se	77		ug/L		4633	0.002
Se	82	-0.291	ug/L	30.040	4	-0.000
Kr	83		ug/L		37	0.000
Sr	88	0.006	ug/L	75.880	114	0.000
Y	89		ug/L		8	-0.000
Zr	90	0.125	ug/L	25.111	471	0.004
Mo	98	0.046	ug/L	12.686	72	0.001
Ag	107	0.017	ug/L	5.578	73	0.000
Cd	111	-0.017	ug/L	17.577	7	-0.000
Cd	114		ug/L		24	0.000
> In	115		ug/L		74653	74652.671
Sn	120	0.139	ug/L	12.002	377	0.003
Sb	121	0.694	ug/L	18.405	1047	0.012
Sb	123		ug/L		797	0.009
Ba	135		ug/L		21	0.000
Ba	137	0.010	ug/L	136.059	32	0.000
Ho	165		ug/L		7	0.000
> Lu	175		ug/L		64530	64530.070
Tl	205	0.117	ug/L	17.610	181	0.002
Pb	208	0.007	ug/L	35.480	292	0.000
Bi	209		ug/L		25	0.000
Th	232	0.117	ug/L	17.032	745	0.009
U	238	0.016	ug/L	28.935	154	0.001

Sample ID: QC Std 2

Report Date/Time: Saturday, January 16, 2010 00:00:12

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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45		101.1			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
Ge	74		100.5			
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		99.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Saturday, January 16, 2010 00:00:12

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## ICPMS#4 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Saturday, January 16, 2010 00:03:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 3.125

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.944	ug/L	2.420	2000	0.009
Be	9	0.566	ug/L	5.830	28	0.000
B	11	16.843	ug/L	4.176	839	0.004
Na	23	274.354	ug/L	5.957	295704	1.323
Mg	24	20.249	ug/L	37.840	15676	0.068
Al	27	32.022	ug/L	32.060	37719	0.158
P	31	62.370	ug/L	2.065	4958	0.015
K	39	324.339	ug/L	5.515	811793	2.493
Ca	43	252.409	ug/L	8.974	1222	0.004
> Sc	45		ug/L		217716	217716.429
Ti	47	9.430	ug/L	1.926	1721	0.007
V	51	8.952	ug/L	25.043	14323	0.068
Cr	52	11.746	ug/L	1.999	21322	0.088
Cr	53		ug/L		147999	0.147
Mn	55	5.686	ug/L	1.295	15964	0.070
Fe	57	119.560	ug/L	1.977	10543	0.030
Co	59	1.102	ug/L	2.096	2394	0.010
Ni	60	2.226	ug/L	2.591	988	0.004
Cu	63		ug/L		1196	0.005
Cu	65	1.153	ug/L	6.642	582	0.002
Zn	66	10.722	ug/L	1.671	2635	0.022
Zn	67		ug/L		6506	0.015
Zn	68		ug/L		2327	0.017
> Ge	74		ug/L		114920	114919.869
As	75	5.570	ug/L	5.994	1760	0.014
Se	77		ug/L		6168	0.016
Se	82	4.863	ug/L	22.044	153	0.001
Kr	83		ug/L		40	0.000
Sr	88	10.955	ug/L	2.449	48759	0.656
Y	89		ug/L		12	-0.000
Zr	90	2.164	ug/L	2.690	5256	0.068
Mo	98	0.562	ug/L	3.484	600	0.008
Ag	107	1.037	ug/L	3.407	1716	0.023
Cd	111	1.119	ug/L	5.815	445	0.006
Cd	114		ug/L		1016	0.013
> In	115		ug/L		74185	74185.019
Sn	120	5.437	ug/L	1.632	9753	0.130
Sb	121	3.477	ug/L	4.375	4730	0.062
Sb	123		ug/L		3708	0.048
Ba	135		ug/L		901	0.014
Ba	137	2.120	ug/L	4.355	1468	0.023
Ho	165		ug/L		5	-0.000
> Lu	175		ug/L		62957	62957.057
Tl	205	1.139	ug/L	2.042	1126	0.017
Pb	208	2.203	ug/L	1.058	8425	0.130
Bi	209		ug/L		25	0.000
Th	232	1.108	ug/L	0.522	5347	0.082
U	238	0.225	ug/L	3.537	1135	0.017

Sample ID: QC Std 3

Report Date/Time: Saturday, January 16, 2010 00:06:23

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# 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	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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	109.440				
Be	9	113.295				
B	11	112.289				
Na	23	109.742				
Mg	24	134.991				
Al	27	106.740				
P	31	124.741				
K	39	108.113				
Ca	43	126.204				
> Sc	45		99.2			
Ti	47	94.299				
V	51	89.520				
Cr	52	117.455				
Cr	53					
Mn	55	113.725				
Fe	57	119.560				
Co	59	110.151				
Ni	60	111.297				
Cu	63					
Cu	65	115.284				
Zn	66	107.221				
Zn	67					
Zn	68					
> Ge	74		100.0			
As	75	111.406				
Se	77					
Se	82	97.261				
Kr	83					
Sr	88	109.555				
Y	89					
Zr	90	108.210				
Mo	98	112.343				
Ag	107	103.732				
Cd	111	111.862				
Cd	114					
> In	115		98.8			
Sn	120	108.746				
Sb	121	115.909				
Sb	123					
Ba	135					
Ba	137	105.995				
Ho	165					
> Lu	175		97.5			
Tl	205	113.873				
Pb	208	110.138				
Bi	209					
Th	232	110.800				
U	238	112.674				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	Mg	24CRDL is out of limits

### QC Action

QC Action Line: Continue

Sample ID: QC Std 3  
 Report Date/Time: Saturday, January 16, 2010 00:06:23  
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## ICPMS#4 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Saturday, January 16, 2010 00:09:47

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 4.126

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.137	ug/L	35.750	50	0.000
Be	9	0.077	ug/L	72.878	6	0.000
B	11	1.813	ug/L	16.014	138	0.000
Na	23	99870.763	ug/L	4.890	103096791	481.560
Mg	24	93779.137	ug/L	5.423	66996296	312.793
Al	27	98364.992	ug/L	1.449	103956328	485.548
P	31	96958.181	ug/L	0.719	5154058	24.065
K	39	99849.605	ug/L	1.211	164596735	767.541
Ca	43	96969.691	ug/L	0.215	335633	1.566
Sc	45		ug/L		214117	214116.942
Ti	47	1486.739	ug/L	0.911	244700	1.142
V	51	-2.151	ug/L	122.760	-4080	-0.016
Cr	52	4.349	ug/L	3.115	9117	0.033
Cr	53		ug/L		111509	-0.012
Mn	55	6.063	ug/L	1.737	16690	0.075
Fe	57	99505.445	ug/L	0.506	5344743	24.944
Co	59	0.283	ug/L	8.202	691	0.003
Ni	60	3.544	ug/L	5.215	1526	0.007
Cu	63		ug/L		2037	0.009
Cu	65	2.476	ug/L	3.211	1181	0.005
Zn	66	4.067	ug/L	3.007	983	0.009
Zn	67		ug/L		5230	0.006
Zn	68		ug/L		627	0.003
Ge	74		ug/L		109611	109610.749
As	75	-1.078	ug/L	66.704	-156	-0.003
Se	77		ug/L		5437	0.012
Se	82	-1.282	ug/L	92.443	-23	-0.000
Kr	83		ug/L		78	0.000
Sr	88	1.171	ug/L	2.274	4978	0.070
Y	89		ug/L		151	0.002
Zr	90	0.511	ug/L	52.609	1292	0.016
Mo	98	1978.188	ug/L	0.400	1906473	27.300
Ag	107	0.052	ug/L	24.348	121	0.001
Cd	111	0.284	ug/L	61.543	116	0.001
Cd	114		ug/L		2220	0.031
In	115		ug/L		69833	69832.947
Sn	120	0.152	ug/L	7.352	375	0.004
Sb	121	0.204	ug/L	18.834	371	0.004
Sb	123		ug/L		300	0.002
Ba	135		ug/L		277	0.004
Ba	137	0.671	ug/L	7.194	473	0.007
Ho	165		ug/L		186	0.003
Lu	175		ug/L		61812	61812.420
Tl	205	0.022	ug/L	67.673	87	0.000
Pb	208	0.164	ug/L	4.814	849	0.010
Bi	209		ug/L		127	0.002
Th	232	0.082	ug/L	37.147	554	0.006
U	238	-0.009	ug/L	12.344	29	-0.001

Sample ID: QC Std 4

Report Date/Time: Saturday, January 16, 2010 00:12:34

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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000



### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23	99.871				
Mg	24	93.779				
Al	27	98.365				
P	31	96.958				
K	39	99.850				
Ca	43	96.970				
> Sc	45		97.6			
Ti	47	74.337				
V	51					
Cr	52	117.546				
Cr	53					
Mn	55	104.527				
Fe	57	99.505				
Co	59	113.386				
Ni	60	131.269				
Cu	63					
Cu	65	85.373				
Zn	66	112.981				
Zn	67					
Zn	68					
> Ge	74		95.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88	97.593				
Y	89					
Zr	90					
Mo	98	98.909				
Ag	107					
Cd	111	70.901				
Cd	114					
> In	115		93.0			
Sn	120					
Sb	121	204.277				
Sb	123					
Ba	135					
Ba	137	100.224				
Ho	165					
> Lu	175		95.7			
Tl	205					
Pb	208	81.777				
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
QC Std 4	Ti	47ICSA is out of limits

### QC Action

QC Action Line: Continue

Sample ID: QC Std 4  
 Report Date/Time: Saturday, January 16, 2010 00:12:34  
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## ICPMS#4 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Saturday, January 16, 2010 00:15:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 5.127

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	19.059	ug/L	1.458	3367	0.016
Be	9	19.106	ug/L	4.598	833	0.004
B	11	20.745	ug/L	4.607	992	0.004
Na	23	100728.062	ug/L	2.548	102792671	485.694
Mg	24	97706.394	ug/L	2.121	68966776	325.892
Al	27	96109.717	ug/L	3.417	100402266	474.416
P	31	99926.235	ug/L	1.354	5250186	24.802
K	39	103454.017	ug/L	5.224	168560647	795.248
Ca	43	98089.170	ug/L	0.442	335550	1.584
Sc	45		ug/L		211621	211620.999
Ti	47	1488.124	ug/L	0.350	242090	1.143
V	51	16.616	ug/L	11.289	26256	0.127
Cr	52	23.582	ug/L	1.937	39463	0.176
Cr	53		ug/L		103738	-0.042
Mn	55	25.928	ug/L	1.355	68332	0.320
Fe	57	101327.920	ug/L	0.812	5379319	25.401
Co	59	19.134	ug/L	0.457	38551	0.182
Ni	60	22.123	ug/L	1.893	9237	0.043
Cu	63		ug/L		19254	0.091
Cu	65	21.049	ug/L	1.326	9607	0.045
Zn	66	22.855	ug/L	2.145	5281	0.048
Zn	67		ug/L		5425	0.008
Zn	68		ug/L		3629	0.030
Ge	74		ug/L		109146	109146.162
As	75	19.880	ug/L	10.065	5594	0.050
Se	77		ug/L		5159	0.010
Se	82	19.486	ug/L	4.836	547	0.005
Kr	83		ug/L		82	0.000
Sr	88	21.951	ug/L	1.280	91934	1.315
Y	89		ug/L		142	0.002
Zr	90	21.651	ug/L	1.098	48020	0.685
Mo	98	1987.843	ug/L	0.827	1916432	27.433
Ag	107	19.297	ug/L	1.398	29337	0.419
Cd	111	19.793	ug/L	0.236	7205	0.103
Cd	114		ug/L		18954	0.271
In	115		ug/L		69858	69857.894
Sn	120	20.491	ug/L	1.229	34279	0.489
Sb	121	21.875	ug/L	0.233	27422	0.391
Sb	123		ug/L		21090	0.300
Ba	135		ug/L		8131	0.128
Ba	137	20.138	ug/L	0.852	13831	0.218
Ho	165		ug/L		184	0.003
Lu	175		ug/L		63409	63409.391
Tl	205	17.773	ug/L	1.692	16701	0.262
Pb	208	18.769	ug/L	1.181	70342	1.105
Bi	209		ug/L		169	0.002
Th	232	19.783	ug/L	1.215	93080	1.465
U	238	20.013	ug/L	0.890	95046	1.498

Sample ID: QC Std 5

Report Date/Time: Saturday, January 16, 2010 00:18:45

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: QC Std 5

Report Date/Time: Saturday, January 16, 2010 00:18:45

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### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	95.296				
	Be	9	95.531				
	B	11	103.726				
	Na	23	100.728				
	Mg	24	97.706				
	Al	27	96.110				
	P	31	99.926				
	K	39	103.454				
	Ca	43	98.089				
>	Sc	45		96.5			
	Ti	47	74.406				
	V	51	83.081				
	Cr	52	99.501				
	Cr	53					
	Mn	55	100.496				
	Fe	57	101.328				
	Co	59	94.491				
	Ni	60	97.458				
	Cu	63					
	Cu	65	91.916				
[	Zn	66	96.845				
	Zn	67					
	Zn	68					
>	Ge	74		94.9			
	As	75	99.398				
	Se	77					
	Se	82	97.429				
	Kr	83					
[	Sr	88	103.543				
	Y	89					
	Zr	90	108.254				
	Mo	98	99.392				
	Ag	107	96.485				
	Cd	111	97.026				
	Cd	114					
>	In	115		93.0			
	Sn	120	102.454				
	Sb	121	108.832				
	Sb	123					
[	Ba	135					
	Ba	137	97.429				
	Ho	165					
>	Lu	175		98.2			
	Tl	205	88.867				
	Pb	208	92.914				
	Bi	209					
	Th	232	98.915				
	U	238	100.066				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message  
 QC Std 5 Ti 47IC SAB is out of limits

### QC Action

QC Action Line: Continue

Sample ID: QC Std 5  
 Report Date/Time: Saturday, January 16, 2010 00:18:45  
 Page 3

## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, January 16, 2010 00:22:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 6.128

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	49.047	ug/L	0.381	8795	0.041
Be	9	51.483	ug/L	2.101	2286	0.011
B	11	98.192	ug/L	4.640	4583	0.021
Na	23	5053.649	ug/L	4.292	5265083	24.368
Mg	24	4882.342	ug/L	4.121	3515048	16.285
Al	27	5156.099	ug/L	0.643	5494914	25.451
P	31	5033.374	ug/L	1.357	271147	1.249
K	39	5197.874	ug/L	2.881	8886360	39.956
Ca	43	5048.228	ug/L	0.859	17924	0.082
> Sc	45		ug/L		215778	215778.326
Ti	47	53.179	ug/L	1.973	8958	0.041
V	51	49.354	ug/L	5.648	80586	0.376
Cr	52	51.360	ug/L	1.899	85076	0.384
Cr	53		ug/L		141734	0.124
Mn	55	51.597	ug/L	0.613	137961	0.636
Fe	57	5000.410	ug/L	0.674	274451	1.254
Co	59	49.543	ug/L	0.876	101589	0.470
Ni	60	51.704	ug/L	0.913	21966	0.102
Cu	63		ug/L		48169	0.223
Cu	65	50.515	ug/L	1.160	23446	0.108
Zn	66	50.765	ug/L	0.996	12065	0.107
Zn	67		ug/L		7510	0.025
Zn	68		ug/L		9082	0.077
> Ge	74		ug/L		112825	112825.262
As	75	50.075	ug/L	1.926	14353	0.126
Se	77		ug/L		7243	0.027
Se	82	50.185	ug/L	1.452	1436	0.013
Kr	83		ug/L		34	0.000
Sr	88	51.127	ug/L	0.796	221823	3.063
Y	89		ug/L		82	0.001
Zr	90	49.301	ug/L	1.887	113107	1.560
Mo	98	49.762	ug/L	1.113	49746	0.687
Ag	107	51.149	ug/L	1.176	80516	1.111
Cd	111	51.051	ug/L	1.229	19238	0.266
Cd	114		ug/L		45255	0.625
> In	115		ug/L		72401	72401.446
Sn	120	50.734	ug/L	0.879	87781	1.211
Sb	121	50.757	ug/L	2.875	65785	0.907
Sb	123		ug/L		50084	0.690
Ba	135		ug/L		20786	0.324
Ba	137	50.503	ug/L	0.253	35029	0.546
Ho	165		ug/L		15	0.000
> Lu	175		ug/L		64104	64103.817
Tl	205	48.627	ug/L	1.507	46073	0.718
Pb	208	50.436	ug/L	1.036	190652	2.970
Bi	209		ug/L		47	0.000
Th	232	50.588	ug/L	0.174	240356	3.747
U	238	52.114	ug/L	0.368	250101	3.900

Sample ID: QC Std 6

Report Date/Time: Saturday, January 16, 2010 00:24:57

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: QC Std 6

Report Date/Time: Saturday, January 16, 2010 00:24:57

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### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	98.095				
	Be	9	102.966				
	B	11	98.192				
	Na	23	101.073				
	Mg	24	97.647				
	Al	27	102.101				
	P	31	100.667				
	K	39	103.957				
	Ca	43	100.965				
>	Sc	45		98.3			
	Ti	47	106.358				
	V	51	98.707				
	Cr	52	102.719				
	Cr	53					
	Mn	55	103.193				
	Fe	57	100.008				
	Co	59	99.087				
	Ni	60	103.409				
	Cu	63					
	Cu	65	101.030				
[	Zn	66	101.531				
	Zn	67					
	Zn	68					
>	Ge	74		98.1			
	As	75	100.149				
	Se	77					
	Se	82	100.371				
	Kr	83					
[	Sr	88	102.254				
	Y	89					
	Zr	90	98.601				
	Mo	98	99.525				
	Ag	107	102.298				
	Cd	111	102.102				
	Cd	114					
>	In	115		96.4			
	Sn	120	101.468				
	Sb	121	101.514				
	Sb	123					
[	Ba	135					
	Ba	137	101.006				
	Ho	165					
>	Lu	175		99.3			
	Tl	205	97.255				
	Pb	208	100.871				
	Bi	209					
	Th	232	101.177				
	U	238	104.228				

### 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 6

Report Date/Time: Saturday, January 16, 2010 00:24:57

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, January 16, 2010 00:28:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 7.129

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.085	ug/L	14.005	41	0.000
Be	9	0.011	ug/L	475.805	3	0.000
B	11	2.369	ug/L	16.178	164	0.001
Na	23	12.488	ug/L	27.219	20348	0.060
Mg	24	7.497	ug/L	27.789	6335	0.025
Al	27	2.607	ug/L	39.795	6001	0.013
P	31	8.599	ug/L	49.166	2014	0.002
K	39	26.769	ug/L	21.686	309325	0.206
Ca	43	5.802	ug/L	177.566	349	0.000
> Sc	45		ug/L		214818	214818.384
Ti	47	0.414	ug/L	19.324	210	0.000
V	51	-0.225	ug/L	1316.394	-676	-0.002
Cr	52	0.251	ug/L	81.871	2546	0.002
Cr	53		ug/L		118395	0.020
Mn	55	0.015	ug/L	160.240	724	0.000
Fe	57	11.932	ug/L	58.221	4589	0.003
Co	59	0.008	ug/L	189.071	130	0.000
Ni	60	0.015	ug/L	109.256	41	0.000
Cu	63		ug/L		63	0.000
Cu	65	0.001	ug/L	2107.258	43	0.000
Zn	66	0.031	ug/L	129.726	56	0.000
Zn	67		ug/L		4945	0.002
Zn	68		ug/L		386	0.000
> Ge	74		ug/L		112920	112919.756
As	75	-0.525	ug/L	227.699	2	-0.001
Se	77		ug/L		5064	0.007
Se	82	-0.240	ug/L	14.558	6	-0.000
Kr	83		ug/L		36	0.000
Sr	88	0.006	ug/L	22.278	107	0.000
Y	89		ug/L		11	-0.000
Zr	90	0.093	ug/L	17.955	383	0.003
Mo	98	0.190	ug/L	3.161	213	0.003
Ag	107	0.016	ug/L	40.654	69	0.000
Cd	111	-0.003	ug/L	417.253	13	-0.000
Cd	114		ug/L		28	0.000
> In	115		ug/L		72111	72110.624
Sn	120	0.137	ug/L	10.932	362	0.003
Sb	121	0.506	ug/L	12.655	773	0.009
Sb	123		ug/L		587	0.006
Ba	135		ug/L		15	-0.000
Ba	137	0.005	ug/L	128.129	27	0.000
Ho	165		ug/L		7	0.000
> Lu	175		ug/L		60737	60737.371
Tl	205	0.177	ug/L	14.660	224	0.003
Pb	208	0.012	ug/L	117.483	290	0.001
Bi	209		ug/L		18	-0.000
Th	232	0.075	ug/L	21.529	516	0.006
U	238	0.013	ug/L	61.740	129	0.001

Sample ID: QC Std 7

Report Date/Time: Saturday, January 16, 2010 00:31:12

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		97.9			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
L Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		98.2			
As	75					
Se	77					
Se	82					
L Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.0			
Sn	120					
Sb	121					
L Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		94.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
L 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: Saturday, January 16, 2010 00:31:12

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## ICPMS#4 - Summary Report

Sample ID: QC Std 10

Sample Date/Time: Saturday, January 16, 2010 00:34:35

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 10.130

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	973.663	ug/L	1.522	161588	0.807
Be	9	1027.057	ug/L	1.489	42280	0.211
B	11	1.322	ug/L	12.734	108	0.000
Na	23	51783.381	ug/L	5.418	50027794	249.691
Mg	24	50155.283	ug/L	3.371	33498148	167.289
Al	27	48719.197	ug/L	3.520	48157547	240.487
P	31	23875.354	ug/L	0.665	1188233	5.926
K	39	52802.165	ug/L	2.050	81543336	405.889
Ca	43	49616.596	ug/L	0.555	160779	0.801
> Sc	45		ug/L		200272	200272.090
Ti	47	36.060	ug/L	1.056	5681	0.028
V	51	1018.699	ug/L	2.180	1553748	7.762
Cr	52	950.832	ug/L	1.404	1426620	7.114
Cr	53		ug/L		294475	0.938
Mn	55	1003.969	ug/L	1.575	2479652	12.379
Fe	57	50967.290	ug/L	1.145	2562371	12.777
Co	59	915.156	ug/L	1.044	1739804	8.687
Ni	60	955.205	ug/L	0.887	376080	1.878
Cu	63		ug/L		822059	4.105
Cu	65	925.160	ug/L	1.760	397858	1.987
Zn	66	2347.494	ug/L	0.531	517892	4.925
Zn	67		ug/L		87179	0.788
Zn	68		ug/L		369816	3.514
> Ge	74		ug/L		105145	105144.904
As	75	935.562	ug/L	1.248	247499	2.353
Se	77		ug/L		15055	0.105
Se	82	478.955	ug/L	1.363	12677	0.120
Kr	83		ug/L		42	0.000
Sr	88	1021.975	ug/L	1.988	4152841	61.219
Y	89		ug/L		143	0.002
Zr	90	509.547	ug/L	1.401	1093800	16.122
Mo	98	1001.927	ug/L	0.773	938061	13.827
Ag	107	244.799	ug/L	0.848	360914	5.320
Cd	111	991.680	ug/L	1.422	349910	5.158
Cd	114		ug/L		830106	12.237
> In	115		ug/L		67843	67842.784
Sn	120	1019.386	ug/L	0.452	1650517	24.326
Sb	121	257.993	ug/L	1.546	312903	4.610
Sb	123		ug/L		240649	3.545
Ba	135		ug/L		376399	6.062
Ba	137	958.730	ug/L	1.474	643660	10.366
Ho	165		ug/L		65	0.001
> Lu	175		ug/L		62098	62097.635
Tl	205	467.851	ug/L	0.859	428802	6.904
Pb	208	4889.165	ug/L	0.994	17880107	287.923
Bi	209		ug/L		393	0.006
Th	232	2502.279	ug/L	1.352	11507101	185.321
U	238	5135.895	ug/L	1.150	23870482	384.385

Sample ID: QC Std 10

Report Date/Time: Saturday, January 16, 2010 00:37:21

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	97.366				
	Be	9	102.706				
	B	11					
	Na	23	103.567				
	Mg	24	100.311				
	Al	27	97.438				
	P	31	95.501				
	K	39	105.604				
	Ca	43	99.233				
>	Sc	45		91.3			
	Ti	47					
	V	51	101.870				
	Cr	52	95.083				
	Cr	53					
	Mn	55	100.397				
	Fe	57	101.935				
	Co	59	91.516				
	Ni	60	95.520				
	Cu	63					
	Cu	65	92.516				
	Zn	66	93.900				
	Zn	67					
	Zn	68					
>	Ge	74		91.5			
	As	75	93.556				
	Se	77					
	Se	82	95.791				
	Kr	83					
	Sr	88	102.197				
	Y	89					
	Zr	90	101.909				
	Mo	98	100.193				
	Ag	107	97.919				
	Cd	111	99.168				
	Cd	114					
>	In	115		90.3			
	Sn	120	101.939				
	Sb	121	103.197				
	Sb	123					
	Ba	135					
	Ba	137	95.873				
	Ho	165					
>	Lu	175		96.2			
	Tl	205	93.570				
	Pb	208	97.783				
	Bi	209					
	Th	232	100.091				
	U	238	102.718				

## 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 10

Report Date/Time: Saturday, January 16, 2010 00:37:21

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## ICPMS#4 - Summary Report

Sample ID: QC Std 11

Sample Date/Time: Saturday, January 16, 2010 00:40:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 11.131

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.667	ug/L	2.348	8997	0.042
Be	9	53.115	ug/L	1.883	2336	0.011
B	11	101.336	ug/L	2.669	4683	0.022
Na	23	5710.059	ug/L	4.470	5892331	27.533
Mg	24	4942.611	ug/L	6.007	3522745	16.486
Al	27	4845.639	ug/L	3.698	5114518	23.919
P	31	5052.551	ug/L	2.107	269555	1.254
K	39	5181.897	ug/L	3.002	8777234	39.833
Ca	43	5021.666	ug/L	1.537	17664	0.081
> Sc	45		ug/L		213737	213736.686
Ti	47	50.709	ug/L	2.051	8468	0.039
V	51	51.499	ug/L	6.242	83279	0.392
Cr	52	51.870	ug/L	1.537	85087	0.388
Cr	53		ug/L		141341	0.129
Mn	55	51.812	ug/L	0.669	137220	0.639
Fe	57	5024.114	ug/L	1.382	273122	1.259
Co	59	50.021	ug/L	1.363	101592	0.475
Ni	60	51.593	ug/L	1.635	21713	0.101
Cu	63		ug/L		48501	0.227
Cu	65	51.296	ug/L	1.392	23587	0.110
Zn	66	52.865	ug/L	2.615	12388	0.111
Zn	67		ug/L		7962	0.030
Zn	68		ug/L		9292	0.080
> Ge	74		ug/L		111251	111250.951
As	75	50.365	ug/L	1.860	14235	0.127
Se	77		ug/L		6744	0.023
Se	82	51.015	ug/L	2.965	1440	0.013
Kr	83		ug/L		42	0.000
Sr	88	51.530	ug/L	2.379	225697	3.087
Y	89		ug/L		24	0.000
Zr	90	51.089	ug/L	2.115	118323	1.616
Mo	98	49.441	ug/L	3.239	49891	0.682
Ag	107	51.144	ug/L	1.950	81278	1.111
Cd	111	51.349	ug/L	1.757	19535	0.267
Cd	114		ug/L		46309	0.633
> In	115		ug/L		73106	73105.883
Sn	120	53.407	ug/L	1.587	93291	1.274
Sb	121	53.244	ug/L	4.457	69648	0.951
Sb	123		ug/L		53403	0.729
Ba	135		ug/L		20716	0.324
Ba	137	51.238	ug/L	1.502	35380	0.554
Ho	165		ug/L		9	0.000
> Lu	175		ug/L		63833	63833.001
Tl	205	49.969	ug/L	1.558	47125	0.737
Pb	208	52.786	ug/L	3.499	198568	3.109
Bi	209		ug/L		59	0.001
Th	232	52.795	ug/L	2.932	249644	3.910
U	238	53.824	ug/L	4.069	257029	4.028

Sample ID: QC Std 11

Report Date/Time: Saturday, January 16, 2010 00:43:31

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	101.334				
Be	9	106.230				
B	11	101.336				
Na	23	114.201				
Mg	24	98.852				
Al	27	95.953				
P	31	101.051				
K	39	103.638				
Ca	43	100.433				
> Sc	45		97.4			
Ti	47	101.419				
V	51	102.997				
Cr	52	103.740				
Cr	53					
Mn	55	103.623				
Fe	57	100.482				
Co	59	100.041				
Ni	60	103.187				
Cu	63					
Cu	65	102.593				
Zn	66	105.729				
Zn	67					
Zn	68					
> Ge	74		96.8			
As	75	100.731				
Se	77					
Se	82	102.030				
Kr	83					
Sr	88	103.059				
Y	89					
Zr	90	102.177				
Mo	98	98.881				
Ag	107	102.288				
Cd	111	102.697				
Cd	114					
> In	115		97.3			
Sn	120	106.813				
Sb	121	106.487				
Sb	123					
Ba	135					
Ba	137	102.476				
Ho	165					
> Lu	175		98.8			
Tl	205	99.938				
Pb	208	105.573				
Bi	209					
Th	232	105.591				
U	238	107.647				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message  
 QC Std 11 Na 23CCV is out of limits (+/- 10%)

### QC Action

QC Action Line: Continue

Sample ID: QC Std 11  
 Report Date/Time: Saturday, January 16, 2010 00:43:31  
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## ICPMS#4 - Summary Report

Sample ID: QC Std 12

Sample Date/Time: Saturday, January 16, 2010 00:46:56

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 12.132

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.222	ug/L	29.250	66	0.000
Be	9	0.098	ug/L	12.354	7	0.000
B	11	2.422	ug/L	19.304	168	0.001
Na	23	3.562	ug/L	99.525	11338	0.017
Mg	24	3.231	ug/L	23.013	3334	0.011
Al	27	1.277	ug/L	297.090	4668	0.006
P	31	4.162	ug/L	7.470	1807	0.001
K	39	41.441	ug/L	6.258	337269	0.319
Ca	43	5.865	ug/L	195.086	355	0.000
> Sc	45		ug/L		217143	217143.123
Ti	47	0.162	ug/L	64.730	171	0.000
V	51	0.603	ug/L	424.654	463	0.005
Cr	52	0.164	ug/L	67.165	2448	0.001
Cr	53		ug/L		116600	0.004
Mn	55	0.034	ug/L	29.479	789	0.000
Fe	57	1.633	ug/L	74.549	4096	0.000
Co	59	0.045	ug/L	35.608	209	0.000
Ni	60	0.056	ug/L	20.627	59	0.000
Cu	63		ug/L		125	0.000
Cu	65	0.065	ug/L	49.105	73	0.000
Zn	66	0.187	ug/L	22.837	95	0.000
Zn	67		ug/L		5089	0.003
Zn	68		ug/L		457	0.001
> Ge	74		ug/L		114574	114574.111
As	75	-0.561	ug/L	179.465	-11	-0.001
Se	77		ug/L		4736	0.004
Se	82	-0.322	ug/L	164.593	3	-0.000
Kr	83		ug/L		38	0.000
Sr	88	0.037	ug/L	23.649	251	0.002
Y	89		ug/L		12	-0.000
Zr	90	0.156	ug/L	16.773	551	0.005
Mo	98	0.152	ug/L	11.383	184	0.002
Ag	107	0.036	ug/L	15.545	105	0.001
Cd	111	0.040	ug/L	45.216	30	0.000
Cd	114		ug/L		53	0.000
> In	115		ug/L		75303	75303.286
Sn	120	0.514	ug/L	4.304	1054	0.012
Sb	121	1.094	ug/L	4.827	1596	0.020
Sb	123		ug/L		1217	0.014
Ba	135		ug/L		29	0.000
Ba	137	0.032	ug/L	21.745	47	0.000
Ho	165		ug/L		9	0.000
> Lu	175		ug/L		63634	63633.732
Tl	205	0.314	ug/L	8.171	364	0.005
Pb	208	0.302	ug/L	7.522	1394	0.018
Bi	209		ug/L		19	-0.000
Th	232	0.267	ug/L	5.481	1442	0.020
U	238	0.184	ug/L	20.320	953	0.014

Sample ID: QC Std 12

Report Date/Time: Saturday, January 16, 2010 00:49:45

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		99.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		99.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		100.2			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 12

Report Date/Time: Saturday, January 16, 2010 00:49:45

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## ICPMS#4 - Summary Report

Sample ID: 1202011732

Sample Date/Time: Saturday, January 16, 2010 00:53:11

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\1202011732.133

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.088	ug/L	42.052	42	0.000
Be	9	0.000	ug/L	2933.713	2	0.000
B	11	0.778	ug/L	28.258	92	0.000
Na	23	11.197	ug/L	13.360	19346	0.054
Mg	24	-0.908	ug/L	87.600	333	-0.003
Al	27	3.441	ug/L	71.382	7002	0.017
P	31	29.473	ug/L	1.866	3177	0.007
K	39	16.630	ug/L	84.922	296389	0.128
Ca	43	9.557	ug/L	55.385	368	0.000
> Sc	45		ug/L		217535	217534.899
Ti	47	0.257	ug/L	31.311	187	0.000
V	51	-0.417	ug/L	190.032	-1241	-0.003
Cr	52	0.679	ug/L	6.980	3290	0.005
Cr	53		ug/L		102673	-0.061
Mn	55	0.286	ug/L	7.378	1465	0.004
Fe	57	27.333	ug/L	9.168	5505	0.007
Co	59	0.015	ug/L	75.029	148	0.000
Ni	60	0.059	ug/L	29.544	60	0.000
Cu	63		ug/L		184	0.001
Cu	65	0.131	ug/L	18.591	104	0.000
Zn	66	0.698	ug/L	21.253	211	0.001
Zn	67		ug/L		4504	-0.001
Zn	68		ug/L		479	0.001
> Ge	74		ug/L		111248	111247.643
As	75	-0.131	ug/L	828.503	106	-0.000
Se	77		ug/L		4087	-0.001
Se	82	-0.251	ug/L	45.223	5	-0.000
Kr	83		ug/L		39	0.000
Sr	88	0.044	ug/L	19.506	277	0.003
Y	89		ug/L		21	0.000
Zr	90	0.329	ug/L	21.533	936	0.010
Mo	98	0.091	ug/L	35.893	116	0.001
Ag	107	0.015	ug/L	28.250	68	0.000
Cd	111	0.015	ug/L	87.389	20	0.000
Cd	114		ug/L		38	0.000
> In	115		ug/L		73296	73295.771
Sn	120	0.364	ug/L	8.604	764	0.009
Sb	121	0.617	ug/L	13.373	929	0.011
Sb	123		ug/L		762	0.009
Ba	135		ug/L		49	0.000
Ba	137	0.073	ug/L	26.972	76	0.001
Ho	165		ug/L		5	-0.000
> Lu	175		ug/L		64489	64489.233
Tl	205	0.159	ug/L	24.086	221	0.002
Pb	208	0.154	ug/L	34.122	850	0.009
Bi	209		ug/L		20	-0.000
Th	232	0.212	ug/L	31.661	1195	0.016
U	238	0.085	ug/L	80.011	483	0.006

Sample ID: 1202011732

Report Date/Time: Saturday, January 16, 2010 00:55:59

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		99.1			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		96.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		97.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		99.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011732

Report Date/Time: Saturday, January 16, 2010 00:55:59

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## ICPMS#4 - Summary Report

Sample ID: 1202011733  
 Sample Date/Time: Saturday, January 16, 2010 00:59:26  
 Sample Type:  
 Sample Description: LANL 6020 LCS  
 Number of Replicates: 3  
 Batch ID: 940093|40|skj  
 Method File: c:\elandata\Method\6020.mth  
 Dataset File: C:\elandata\Dataset\100115\1202011733.134

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	2.678	ug/L	1.887	514	0.002
Be	9	23.213	ug/L	2.082	1052	0.005
B	11	43.656	ug/L	3.670	2109	0.009
Na	23	291.928	ug/L	8.273	317508	1.408
Mg	24	1148.433	ug/L	6.123	843954	3.831
Al	27	2984.606	ug/L	8.953	3243082	14.733
P	31	222.884	ug/L	3.752	13770	0.055
K	39	1256.537	ug/L	12.064	2397813	9.659
Ca	43	2913.505	ug/L	1.399	10689	0.047
> Sc	45		ug/L		219994	219993.619
Ti	47	118.048	ug/L	2.069	20095	0.091
V	51	27.123	ug/L	5.466	44894	0.207
Cr	52	76.289	ug/L	1.836	127768	0.571
Cr	53		ug/L		144611	0.125
Mn	55	156.676	ug/L	1.991	425645	1.932
Fe	57	4437.108	ug/L	1.564	248739	1.112
Co	59	28.475	ug/L	2.236	59573	0.270
Ni	60	43.767	ug/L	1.952	18961	0.086
Cu	63		ug/L		50342	0.229
Cu	65	51.682	ug/L	1.114	24455	0.111
Zn	66	171.316	ug/L	2.098	41181	0.359
Zn	67		ug/L		11910	0.063
Zn	68		ug/L		29663	0.256
> Ge	74		ug/L		114455	114454.513
As	75	29.537	ug/L	2.383	8652	0.074
Se	77		ug/L		7492	0.028
Se	82	82.483	ug/L	1.478	2387	0.021
Kr	83		ug/L		44	0.000
Sr	88	67.941	ug/L	0.607	301388	4.070
Y	89		ug/L		13355	0.180
Zr	90	2.713	ug/L	3.603	6528	0.086
Mo	98	15.263	ug/L	1.880	15615	0.211
Ag	107	5.273	ug/L	2.810	8525	0.115
Cd	111	18.318	ug/L	2.765	7065	0.095
Cd	114		ug/L		16914	0.228
> In	115		ug/L		74033	74033.475
Sn	120	10.795	ug/L	1.181	19201	0.258
Sb	121	13.237	ug/L	1.930	17636	0.237
Sb	123		ug/L		13548	0.181
Ba	135		ug/L		21493	0.334
Ba	137	52.896	ug/L	1.980	36846	0.572
Ho	165		ug/L		495	0.008
> Lu	175		ug/L		64390	64390.114
Tl	205	34.248	ug/L	2.104	32608	0.505
Pb	208	22.945	ug/L	3.088	87246	1.351
Bi	209		ug/L		621	0.009
Th	232	2.197	ug/L	2.801	10661	0.163
U	238	0.491	ug/L	1.042	2439	0.037

Sample ID: 1202011733  
 Report Date/Time: Saturday, January 16, 2010 01:02:15  
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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 1202011733

Report Date/Time: Saturday, January 16, 2010 01:02:15

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## 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		100.3			
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		99.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		98.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		99.7			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
Ti 47 Upper, S, EEETi		47Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011733  
 Report Date/Time: Saturday, January 16, 2010 01:02:15  
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## ICPMS#4 - Summary Report

Sample ID: 244144001

Sample Date/Time: Saturday, January 16, 2010 01:05:42

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144001.135

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	67.684	ug/L	1.232	12978	0.056
Be	9	5.281	ug/L	6.466	253	0.001
B	11	17.135	ug/L	7.374	904	0.004
Na	23	420.544	ug/L	9.572	476535	2.028
Mg	24	10013.955	ug/L	3.985	7715145	33.401
Al	27	82134.771	ug/L	1.443	93649547	405.433
P	31	539.965	ug/L	1.003	32631	0.134
K	39	10588.154	ug/L	0.258	19082226	81.391
Ca	43	8940.298	ug/L	2.036	33695	0.144
> Sc	45		ug/L		230942	230941.722
Ti	47	1812.243	ug/L	1.151	321658	1.392
V	51	105.136	ug/L	4.470	184315	0.801
Cr	52	43.896	ug/L	1.949	78148	0.328
Cr	53		ug/L		99220	-0.103
Mn	55	1896.858	ug/L	2.559	5400463	23.388
Fe	57	54883.010	ug/L	2.352	3180785	13.758
Co	59	27.395	ug/L	3.102	60159	0.260
Ni	60	37.988	ug/L	2.816	17278	0.075
Cu	63		ug/L		33253	0.144
Cu	65	32.794	ug/L	1.202	16307	0.070
Zn	66	134.567	ug/L	2.091	29628	0.282
Zn	67		ug/L		10159	0.055
Zn	68		ug/L		25064	0.236
> Ge	74		ug/L		104807	104806.864
As	75	10.533	ug/L	5.633	2913	0.026
Se	77		ug/L		3511	-0.004
Se	82	-0.274	ug/L	126.707	4	-0.000
Kr	83		ug/L		81	0.001
Sr	88	132.727	ug/L	2.004	561333	7.951
Y	89		ug/L		234776	3.325
Zr	90	111.591	ug/L	1.802	249415	3.531
Mo	98	1.551	ug/L	1.029	1536	0.021
Ag	107	0.554	ug/L	1.884	892	0.012
Cd	111	1.902	ug/L	5.470	712	0.010
Cd	114		ug/L		308	0.004
> In	115		ug/L		70604	70604.190
Sn	120	0.964	ug/L	3.373	1746	0.023
Sb	121	0.420	ug/L	8.295	647	0.008
Sb	123		ug/L		510	0.005
Ba	135		ug/L		460912	6.917
Ba	137	1089.380	ug/L	0.788	784799	11.779
Ho	165		ug/L		9160	0.137
> Lu	175		ug/L		66629	66628.688
Tl	205	1.237	ug/L	3.002	1289	0.018
Pb	208	70.807	ug/L	1.400	278088	4.170
Bi	209		ug/L		2703	0.040
Th	232	42.126	ug/L	0.490	208060	3.120
U	238	7.174	ug/L	1.884	35850	0.537

Sample ID: 244144001

Report Date/Time: Saturday, January 16, 2010 01:08:31

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## 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	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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 244144001

Report Date/Time: Saturday, January 16, 2010 01:08:31

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## 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		91.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		94.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
Al 27 Upper, S, EEEAl		27Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE Ti		47Sample is out of limits (over linear range)
V 51 Upper, S, EEE V		51Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE Mn		55Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE Fe		57Sample is out of limits (over linear range)

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Ba 137 Upper, S, EEBa

137Sample is out of limits (over linear range)

## QC Action

QC Action Line: Continue

---

Sample ID: 244144001

Report Date/Time: Saturday, January 16, 2010 01:08:31

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## ICPMS#4 - Summary Report

Sample ID: 1202011734

Sample Date/Time: Saturday, January 16, 2010 01:11:56

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\1202011734.136

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	65.307	ug/L	0.802	12552	0.054
Be	9	5.044	ug/L	8.954	242	0.001
B	11	15.469	ug/L	1.504	824	0.003
Na	23	402.916	ug/L	7.894	457924	1.943
Mg	24	10078.820	ug/L	5.847	7779288	33.617
Al	27	78242.084	ug/L	2.384	89384672	386.218
P	31	484.808	ug/L	1.288	29535	0.120
K	39	10471.916	ug/L	0.500	18917063	80.497
Ca	43	8826.288	ug/L	1.126	33345	0.143
> Sc	45		ug/L		231448	231448.216
Ti	47	1706.680	ug/L	0.940	303638	1.311
V	51	94.734	ug/L	2.613	166467	0.722
Cr	52	41.257	ug/L	0.903	73765	0.309
Cr	53		ug/L		95803	-0.119
Mn	55	1978.364	ug/L	0.300	5646511	24.393
Fe	57	51527.555	ug/L	1.054	2993869	12.917
Co	59	27.657	ug/L	1.215	60885	0.263
Ni	60	38.057	ug/L	0.655	17352	0.075
Cu	63		ug/L		27946	0.120
Cu	65	27.813	ug/L	1.697	13869	0.060
Zn	66	135.624	ug/L	1.602	29630	0.285
Zn	67		ug/L		9781	0.053
Zn	68		ug/L		24722	0.235
> Ge	74		ug/L		103992	103991.924
As	75	9.546	ug/L	10.423	2629	0.024
Se	77		ug/L		3232	-0.007
Se	82	-0.358	ug/L	152.266	2	-0.000
Kr	83		ug/L		82	0.001
Sr	88	133.455	ug/L	2.103	557597	7.994
Y	89		ug/L		226323	3.245
Zr	90	112.088	ug/L	1.501	247507	3.546
Mo	98	1.395	ug/L	4.427	1365	0.019
Ag	107	0.553	ug/L	5.257	880	0.012
Cd	111	2.063	ug/L	0.417	762	0.011
Cd	114		ug/L		309	0.004
> In	115		ug/L		69758	69757.570
Sn	120	0.864	ug/L	6.124	1558	0.021
Sb	121	0.294	ug/L	7.029	482	0.005
Sb	123		ug/L		403	0.004
Ba	135		ug/L		437558	6.525
Ba	137	1024.685	ug/L	0.558	743056	11.079
Ho	165		ug/L		8881	0.132
> Lu	175		ug/L		67064	67064.393
Tl	205	1.081	ug/L	4.450	1143	0.016
Pb	208	62.973	ug/L	0.953	248976	3.708
Bi	209		ug/L		2606	0.039
Th	232	40.306	ug/L	0.825	200379	2.985
U	238	6.856	ug/L	1.655	34491	0.513

Sample ID: 1202011734

Report Date/Time: Saturday, January 16, 2010 01:14:44

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		105.5			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		90.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		92.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Al 27 Upper, S, EEEAl		27Sample is out of limits (over linear range)
Ti 47 Upper, S, EETi		47Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn		55Sample is out of limits (over linear range)
Fe 57 Upper, S, EEFe		57Sample is out of limits (over linear range)
Ba 137 Upper, S, EEBa		137Sample is out of limits (over linear range)

Sample ID: 1202011734

Report Date/Time: Saturday, January 16, 2010 01:14:44

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## QC Action

QC Action Line: Continue

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Sample ID: 1202011734

Report Date/Time: Saturday, January 16, 2010 01:14:44

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## ICPMS#4 - Summary Report

Sample ID: 1202011735

Sample Date/Time: Saturday, January 16, 2010 01:18:10

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\1202011735.137

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Li	7	93.099 ug/L	0.874	18099	0.077
	Be	9	26.607 ug/L	1.506	1284	0.005
	B	11	57.678 ug/L	3.465	2948	0.012
	Na	23	1314.866 ug/L	7.561	1492624	6.340
	Mg	24	11060.567 ug/L	3.612	8643939	36.892
	Al	27	88505.111 ug/L	2.696	102357000	436.878
	P	31	1255.591 ug/L	0.391	74713	0.312
	K	39	12164.036 ug/L	7.476	22184931	93.505
	Ca	43	9264.948 ug/L	0.819	35411	0.150
>	Sc	45	ug/L		234258	234257.859
	Ti	47	1811.477 ug/L	1.089	326163	1.392
	V	51	116.193 ug/L	0.303	206792	0.885
	Cr	52	62.798 ug/L	1.074	112424	0.470
	Cr	53	ug/L		94022	-0.131
	Mn	55	1603.753 ug/L	0.931	4633052	19.774
	Fe	57	51962.746 ug/L	0.866	3055728	13.026
	Co	59	43.899 ug/L	0.334	97743	0.417
	Ni	60	55.939 ug/L	0.462	25798	0.110
	Cu	63	ug/L		50889	0.217
[	Cu	65	49.454 ug/L	1.473	24924	0.106
	Zn	66	152.667 ug/L	1.769	34353	0.320
	Zn	67	ug/L		10417	0.056
	Zn	68	ug/L		28068	0.259
>	Ge	74	ug/L		107104	107104.404
	As	75	44.746 ug/L	3.261	12190	0.113
	Se	77	ug/L		3188	-0.008
	Se	82	7.962 ug/L	6.128	226	0.002
[	Kr	83	ug/L		73	0.000
	Sr	88	153.493 ug/L	3.138	652721	9.195
	Y	89	ug/L		213743	3.011
	Zr	90	129.914 ug/L	2.254	291951	4.110
	Mo	98	20.721 ug/L	2.291	20323	0.286
	Ag	107	23.020 ug/L	3.158	35550	0.500
	Cd	111	6.476 ug/L	2.215	2406	0.034
	Cd	114	ug/L		4288	0.060
>	In	115	ug/L		71001	71001.445
	Sn	120	10.608 ug/L	2.062	18093	0.253
	Sb	121	18.244 ug/L	3.930	23255	0.326
[	Sb	123	ug/L		18009	0.252
	Ba	135	ug/L		426671	6.337
	Ba	137	986.965 ug/L	1.154	718455	10.671
	Ho	165	ug/L		8526	0.127
>	Lu	175	ug/L		67329	67328.978
	Tl	205	43.525 ug/L	1.355	43318	0.642
	Pb	208	148.291 ug/L	2.008	588171	8.733
	Bi	209	ug/L		2570	0.038
	Th	232	59.771 ug/L	0.808	298223	4.427
[	U	238	30.273 ug/L	1.195	152620	2.266

Sample ID: 1202011735

Report Date/Time: Saturday, January 16, 2010 01:20:57

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## 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	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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 1202011735

Report Date/Time: Saturday, January 16, 2010 01:20:57

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## 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			106.8		
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			93.2		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			94.5		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			104.3		
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

### Measurement Type Analyte

Al 27 Upper, S, EEEAl  
 Ti 47 Upper, S, EEE Ti  
 V 51 Upper, S, EEE V  
 Mn 55 Upper, S, EEIMn  
 Fe 57 Upper, S, EEEFe

### MassOut of Limits Message

27Sample is out of limits (over linear range)  
 47Sample is out of limits (over linear range)  
 51Sample is out of limits (over linear range)  
 55Sample is out of limits (over linear range)  
 57Sample is out of limits (over linear range)

Sample ID: 1202011735

Report Date/Time: Saturday, January 16, 2010 01:20:57

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## QC Action

QC Action Line: Continue

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Sample ID: 1202011735

Report Date/Time: Saturday, January 16, 2010 01:20:57

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, January 16, 2010 01:24:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 6.138

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li 7	50.068	ug/L	2.193	8882	0.041
Be 9	51.414	ug/L	1.358	2259	0.011
B 11	99.558	ug/L	2.443	4598	0.021
Na 23	5176.701	ug/L	7.680	5333985	24.961
Mg 24	5036.172	ug/L	5.284	3586888	16.798
Al 27	4893.001	ug/L	2.764	5158944	24.153
P 31	4979.997	ug/L	1.381	265435	1.236
K 39	5419.755	ug/L	0.579	9157699	41.662
Ca 43	4951.574	ug/L	4.469	17403	0.080
> Sc 45		ug/L		213489	213489.255
Ti 47	51.977	ug/L	1.407	8666	0.040
V 51	49.245	ug/L	3.335	79565	0.375
Cr 52	51.924	ug/L	0.979	85084	0.388
Cr 53		ug/L		134300	0.096
Mn 55	52.441	ug/L	0.572	138724	0.647
Fe 57	5070.092	ug/L	1.604	275279	1.271
Co 59	49.910	ug/L	0.610	101258	0.474
Ni 60	51.893	ug/L	1.163	21813	0.102
Cu 63		ug/L		48329	0.226
Cu 65	51.301	ug/L	0.455	23559	0.110
Zn 66	51.904	ug/L	1.470	12268	0.109
Zn 67		ug/L		7339	0.024
Zn 68		ug/L		9088	0.078
> Ge 74		ug/L		112212	112212.105
As 75	48.806	ug/L	1.986	13918	0.123
Se 77		ug/L		6392	0.019
Se 82	50.281	ug/L	1.550	1431	0.013
Kr 83		ug/L		40	0.000
Sr 88	51.047	ug/L	1.877	223070	3.058
Y 89		ug/L		105	0.001
Zr 90	50.173	ug/L	1.508	115932	1.587
Mo 98	48.992	ug/L	1.802	49329	0.676
Ag 107	50.323	ug/L	1.029	79790	1.094
Cd 111	51.761	ug/L	2.729	19644	0.269
Cd 114		ug/L		45553	0.624
> In 115		ug/L		72927	72927.368
Sn 120	50.008	ug/L	2.982	87145	1.193
Sb 121	50.202	ug/L	4.223	65531	0.897
Sb 123		ug/L		50682	0.693
Ba 135		ug/L		20428	0.324
Ba 137	51.360	ug/L	1.185	34993	0.555
Ho 165		ug/L		11	0.000
> Lu 175		ug/L		62973	62973.125
Tl 205	48.241	ug/L	1.285	44895	0.712
Pb 208	51.427	ug/L	1.128	190977	3.029
Bi 209		ug/L		55	0.001
Th 232	51.892	ug/L	1.583	242180	3.843
U 238	52.897	ug/L	0.789	249373	3.959

Sample ID: QC Std 6

Report Date/Time: Saturday, January 16, 2010 01:27:10

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	100.136				
	Be	9	102.828				
	B	11	99.558				
	Na	23	103.534				
	Mg	24	100.723				
	Al	27	96.891				
	P	31	99.600				
	K	39	108.395				
	Ca	43	99.031				
>	Sc	45		97.3			
	Ti	47	103.955				
	V	51	98.489				
	Cr	52	103.847				
	Cr	53					
	Mn	55	104.883				
	Fe	57	101.402				
	Co	59	99.819				
	Ni	60	103.786				
	Cu	63					
	Cu	65	102.601				
	Zn	66	103.809				
	Zn	67					
	Zn	68					
>	Ge	74		97.6			
	As	75	97.613				
	Se	77					
	Se	82	100.562				
	Kr	83					
	Sr	88	102.094				
	Y	89					
	Zr	90	100.345				
	Mo	98	97.983				
	Ag	107	100.645				
	Cd	111	103.522				
	Cd	114					
>	In	115		97.1			
	Sn	120	100.016				
	Sb	121	100.404				
	Sb	123					
	Ba	135					
	Ba	137	102.721				
	Ho	165					
>	Lu	175		97.5			
	Tl	205	96.482				
	Pb	208	102.854				
	Bi	209					
	Th	232	103.785				
	U	238	105.794				

## 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 6

Report Date/Time: Saturday, January 16, 2010 01:27:10

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# ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, January 16, 2010 01:30:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 7.139

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.135	ug/L	19.328	50	0.000
Be	9	0.030	ug/L	84.761	4	0.000
B	11	2.738	ug/L	29.001	183	0.001
Na	23	2.572	ug/L	54.859	10337	0.012
Mg	24	-0.452	ug/L	175.046	667	-0.002
Al	27	2.486	ug/L	170.188	6002	0.012
P	31	0.777	ug/L	152.629	1633	0.000
K	39	10.612	ug/L	6.269	287191	0.082
Ca	43	-7.427	ug/L	87.262	309	-0.000
Sc	45		ug/L		218204	218204.008
Ti	47	0.408	ug/L	18.883	213	0.000
V	51	0.313	ug/L	307.208	-26	0.002
Cr	52	0.062	ug/L	224.833	2293	0.000
Cr	53		ug/L		110735	-0.025
Mn	55	0.044	ug/L	42.257	819	0.001
Fe	57	4.334	ug/L	22.853	4264	0.001
Co	59	0.008	ug/L	60.475	133	0.000
Ni	60	0.004	ug/L	425.258	37	0.000
Cu	63		ug/L		86	0.000
Cu	65	0.019	ug/L	138.094	52	0.000
Zn	66	0.033	ug/L	162.027	58	0.000
Zn	67		ug/L		4571	-0.002
Zn	68		ug/L		332	-0.000
Ge	74		ug/L		114538	114537.856
As	75	0.061	ug/L	1509.199	168	0.000
Se	77		ug/L		4339	0.000
Se	82	-0.219	ug/L	192.342	6	-0.000
Kr	83		ug/L		37	0.000
Sr	88	0.010	ug/L	59.231	130	0.001
Y	89		ug/L		12	-0.000
Zr	90	0.098	ug/L	21.135	409	0.003
Mo	98	0.048	ug/L	10.726	74	0.001
Ag	107	0.019	ug/L	70.701	75	0.000
Cd	111	0.003	ug/L	300.426	15	0.000
Cd	114		ug/L		28	0.000
In	115		ug/L		74764	74764.296
Sn	120	0.146	ug/L	0.906	390	0.003
Sb	121	0.519	ug/L	9.488	817	0.009
Sb	123		ug/L		630	0.007
Ba	135		ug/L		34	0.000
Ba	137	0.039	ug/L	41.059	52	0.000
Ho	165		ug/L		8	0.000
Lu	175		ug/L		64394	64394.129
Tl	205	0.231	ug/L	13.728	289	0.003
Pb	208	0.037	ug/L	28.457	404	0.002
Bi	209		ug/L		21	0.000
Th	232	0.094	ug/L	18.429	631	0.007
U	238	0.019	ug/L	15.674	164	0.001

Sample ID: QC Std 7

Report Date/Time: Saturday, January 16, 2010 01:33:24

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: QC Std 7

Report Date/Time: Saturday, January 16, 2010 01:33:24

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## 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		99.5			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		99.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		99.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		99.7			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Saturday, January 16, 2010 01:33:24

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## ICPMS#4 - Summary Report

Sample ID: 1202011737

Sample Date/Time: Saturday, January 16, 2010 01:36:50

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\1202011737.140

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	105.976	ug/L	1.923	20640	0.088
Be	9	28.764	ug/L	2.702	1390	0.006
B	11	65.940	ug/L	3.688	3368	0.014
Na	23	1379.924	ug/L	3.678	1570219	6.654
Mg	24	12077.603	ug/L	3.039	9459840	40.284
Al	27	105985.895	ug/L	2.049	122792860	523.167
P	31	1368.864	ug/L	1.212	81460	0.340
K	39	13751.765	ug/L	9.362	25104777	105.709
Ca	43	10292.737	ug/L	1.107	39384	0.166
> Sc	45		ug/L		234744	234743.620
Ti	47	2125.578	ug/L	1.535	383473	1.633
V	51	129.673	ug/L	1.580	231333	0.988
Cr	52	73.687	ug/L	1.277	131763	0.551
Cr	53		ug/L		96191	-0.123
Mn	55	1820.349	ug/L	1.883	5268449	22.445
Fe	57	58939.466	ug/L	1.451	3472139	14.775
Co	59	48.427	ug/L	1.962	108018	0.460
Ni	60	62.075	ug/L	0.762	28682	0.122
Cu	63		ug/L		55959	0.238
Cu	65	54.553	ug/L	2.520	27537	0.117
Zn	66	178.722	ug/L	1.095	38916	0.375
Zn	67		ug/L		11099	0.066
Zn	68		ug/L		31718	0.303
> Ge	74		ug/L		103668	103668.158
As	75	49.591	ug/L	1.873	13063	0.125
Se	77		ug/L		3063	-0.008
Se	82	8.053	ug/L	2.692	221	0.002
Kr	83		ug/L		100	0.001
Sr	88	175.886	ug/L	1.266	732100	10.536
Y	89		ug/L		240349	3.459
Zr	90	156.268	ug/L	0.180	343699	4.944
Mo	98	23.244	ug/L	1.020	22313	0.321
Ag	107	25.118	ug/L	0.458	37967	0.546
Cd	111	7.467	ug/L	1.482	2711	0.039
Cd	114		ug/L		4702	0.067
> In	115		ug/L		69482	69481.937
Sn	120	11.508	ug/L	0.682	19203	0.275
Sb	121	23.402	ug/L	1.201	29170	0.418
Sb	123		ug/L		22404	0.321
Ba	135		ug/L		472824	7.003
Ba	137	1098.755	ug/L	0.698	802207	11.880
Ho	165		ug/L		9579	0.142
> Lu	175		ug/L		67530	67530.280
Tl	205	47.104	ug/L	1.761	47011	0.695
Pb	208	161.786	ug/L	1.452	643557	9.528
Bi	209		ug/L		2740	0.040
Th	232	67.114	ug/L	2.286	335764	4.971
U	238	34.363	ug/L	2.985	173709	2.572

Sample ID: 1202011737

Report Date/Time: Saturday, January 16, 2010 01:39:38

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		107.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		90.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		92.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		104.6			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAl	27	Sample is out of limits (over linear range)	
Ti 47 Upper, S, EETi	47	Sample is out of limits (over linear range)	
V 51 Upper, S, EEE V	51	Sample is out of limits (over linear range)	
Mn 55 Upper, S, EEIMn	55	Sample is out of limits (over linear range)	
Fe 57 Upper, S, EEEFe	57	Sample is out of limits (over linear range)	

Sample ID: 1202011737

Report Date/Time: Saturday, January 16, 2010 01:39:38

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## QC Action

QC Action Line: Continue

## ICPMS#4 - Summary Report

Sample ID: 1202011736

Sample Date/Time: Saturday, January 16, 2010 01:43:04

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 940093|10|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\1202011736.141

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	15.042	ug/L	1.176	2654	0.012
Be	9	1.034	ug/L	16.115	47	0.000
B	11	5.478	ug/L	9.680	301	0.001
Na	23	98.272	ug/L	12.615	107407	0.474
Mg	24	2033.522	ug/L	2.568	1431304	6.783
Al	27	16617.627	ug/L	0.700	17303842	82.028
P	31	130.024	ug/L	3.602	8342	0.032
K	39	2524.677	ug/L	0.742	4353225	19.407
Ca	43	2000.900	ug/L	1.360	7140	0.032
Sc	45		ug/L		210904	210903.696
Ti	47	408.959	ug/L	1.294	66405	0.314
V	51	24.649	ug/L	5.496	39061	0.188
Cr	52	9.664	ug/L	2.218	17365	0.072
Cr	53		ug/L		112964	0.003
Mn	55	415.222	ug/L	1.545	1080293	5.120
Fe	57	12123.992	ug/L	1.974	644773	3.039
Co	59	6.355	ug/L	1.719	12834	0.060
Ni	60	8.792	ug/L	3.320	3678	0.017
Cu	63		ug/L		7219	0.034
Cu	65	7.759	ug/L	1.982	3555	0.017
Zn	66	28.434	ug/L	1.263	6419	0.060
Zn	67		ug/L		6071	0.015
Zn	68		ug/L		5691	0.050
Ge	74		ug/L		106829	106829.363
As	75	1.426	ug/L	77.430	522	0.004
Se	77		ug/L		4288	0.002
Se	82	-0.193	ug/L	121.553	7	-0.000
Kr	83		ug/L		41	0.000
Sr	88	27.238	ug/L	0.175	115246	1.632
Y	89		ug/L		48234	0.683
Zr	90	22.975	ug/L	1.167	51475	0.727
Mo	98	0.310	ug/L	6.221	326	0.004
Ag	107	0.114	ug/L	16.439	217	0.002
Cd	111	0.329	ug/L	13.049	134	0.002
Cd	114		ug/L		81	0.001
In	115		ug/L		70583	70583.401
Sn	120	0.257	ug/L	5.998	555	0.006
Sb	121	0.247	ug/L	8.418	428	0.004
Sb	123		ug/L		354	0.003
Ba	135		ug/L		95595	1.499
Ba	137	235.795	ug/L	0.319	162626	2.549
Ho	165		ug/L		1915	0.030
Lu	175		ug/L		63779	63778.690
Tl	205	0.447	ug/L	16.037	490	0.007
Pb	208	15.130	ug/L	0.247	57089	0.891
Bi	209		ug/L		568	0.009
Th	232	8.815	ug/L	0.813	41820	0.653
U	238	1.484	ug/L	2.204	7160	0.111

Sample ID: 1202011736

Report Date/Time: Saturday, January 16, 2010 01:45:53

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		96.1			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		92.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		94.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte  
Ti 47 Upper, S, EETi

MassOut of Limits Message  
47Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011736

Report Date/Time: Saturday, January 16, 2010 01:45:53

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## ICPMS#4 - Summary Report

Sample ID: 244144002

Sample Date/Time: Saturday, January 16, 2010 01:49:19

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144002.142

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	63.898	ug/L	2.202	12726	0.053
Be	9	4.870	ug/L	10.140	243	0.001
B	11	14.734	ug/L	3.545	816	0.003
Na	23	523.542	ug/L	6.854	613593	2.524
Mg	24	12199.570	ug/L	6.127	9767727	40.691
Al	27	84055.770	ug/L	1.707	99513750	414.915
P	31	491.771	ug/L	1.899	31021	0.122
K	39	11754.290	ug/L	5.829	21972579	90.355
Ca	43	9184.202	ug/L	1.175	35942	0.148
> Sc	45		ug/L		239872	239871.814
Ti	47	1401.918	ug/L	1.171	258500	1.077
V	51	99.751	ug/L	2.850	181648	0.760
Cr	52	46.099	ug/L	2.729	85124	0.345
Cr	53		ug/L		91922	-0.149
Mn	55	1279.592	ug/L	1.408	3785358	15.777
Fe	57	57846.235	ug/L	1.229	3482708	14.501
Co	59	21.740	ug/L	1.332	49630	0.206
Ni	60	36.288	ug/L	2.096	17147	0.071
Cu	63		ug/L		30117	0.125
Cu	65	28.960	ug/L	1.785	14961	0.062
Zn	66	136.020	ug/L	2.438	30914	0.285
Zn	67		ug/L		9473	0.046
Zn	68		ug/L		24826	0.226
> Ge	74		ug/L		108190	108189.601
As	75	10.281	ug/L	11.840	2939	0.026
Se	77		ug/L		3016	-0.010
Se	82	-0.566	ug/L	43.861	-3	-0.000
Kr	83		ug/L		84	0.001
Sr	88	150.979	ug/L	0.757	645254	9.044
Y	89		ug/L		233831	3.278
Zr	90	97.344	ug/L	1.112	219890	3.080
Mo	98	1.416	ug/L	3.512	1418	0.020
Ag	107	0.459	ug/L	2.523	754	0.010
Cd	111	1.352	ug/L	12.458	515	0.007
Cd	114		ug/L		201	0.003
> In	115		ug/L		71335	71334.804
Sn	120	0.799	ug/L	2.450	1483	0.019
Sb	121	0.150	ug/L	8.508	310	0.003
Sb	123		ug/L		250	0.002
Ba	135		ug/L		319183	4.824
Ba	137	765.395	ug/L	1.650	547604	8.276
Ho	165		ug/L		8893	0.134
> Lu	175		ug/L		66180	66179.966
Tl	205	0.994	ug/L	3.167	1042	0.015
Pb	208	53.101	ug/L	1.767	207182	3.127
Bi	209		ug/L		2449	0.037
Th	232	39.449	ug/L	1.422	193509	2.922
U	238	3.593	ug/L	3.206	17865	0.269

Sample ID: 244144002

Report Date/Time: Saturday, January 16, 2010 01:52:08

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 244144002

Report Date/Time: Saturday, January 16, 2010 01:52:08

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## 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		109.3			
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		94.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		95.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		102.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

### Measurement Type Analyte

Al 27 Upper, S, EEEAl

Ti 47 Upper, S, EEE Ti

Mn 55 Upper, S, EEIMn

Fe 57 Upper, S, EEEFe

### Mass Out of Limits Message

27Sample is out of limits (over linear range)

47Sample is out of limits (over linear range)

55Sample is out of limits (over linear range)

57Sample is out of limits (over linear range)

Sample ID: 244144002

Report Date/Time: Saturday, January 16, 2010 01:52:08

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## QC Action

QC Action Line: Continue

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Sample ID: 244144002

Report Date/Time: Saturday, January 16, 2010 01:52:08

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## ICPMS#4 - Summary Report

Sample ID: 244144003

Sample Date/Time: Saturday, January 16, 2010 01:55:35

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144003.143

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	61.311	ug/L	1.432	11950	0.051
Be	9	3.896	ug/L	8.331	190	0.001
B	11	14.519	ug/L	6.773	788	0.003
Na	23	434.673	ug/L	3.322	499932	2.096
Mg	24	8874.515	ug/L	1.010	6947992	29.600
Al	27	70073.642	ug/L	2.486	81210328	345.897
P	31	562.325	ug/L	1.451	34464	0.140
K	39	10021.062	ug/L	2.407	18365537	77.032
Ca	43	9694.296	ug/L	0.464	37105	0.157
> Sc	45		ug/L		234712	234711.556
Ti	47	1569.829	ug/L	0.514	283233	1.206
V	51	84.698	ug/L	1.495	150845	0.645
Cr	52	41.035	ug/L	1.401	74407	0.307
Cr	53		ug/L		88672	-0.155
Mn	55	1731.078	ug/L	1.013	5009835	21.344
Fe	57	46953.932	ug/L	1.487	2766485	11.771
Co	59	23.352	ug/L	2.541	52136	0.222
Ni	60	36.415	ug/L	2.277	16835	0.072
Cu	63		ug/L		41271	0.176
Cu	65	39.784	ug/L	0.867	20096	0.085
Zn	66	147.440	ug/L	0.656	33326	0.309
Zn	67		ug/L		10312	0.054
Zn	68		ug/L		28754	0.264
> Ge	74		ug/L		107580	107579.995
As	75	8.592	ug/L	6.771	2465	0.022
Se	77		ug/L		3110	-0.009
Se	82	0.004	ug/L	7859.905	12	0.000
Kr	83		ug/L		72	0.000
Sr	88	132.231	ug/L	0.838	574350	7.921
Y	89		ug/L		220571	3.042
Zr	90	88.925	ug/L	2.603	204093	2.814
Mo	98	1.442	ug/L	1.585	1468	0.020
Ag	107	0.422	ug/L	3.823	708	0.009
Cd	111	1.429	ug/L	7.506	552	0.007
Cd	114		ug/L		315	0.004
> In	115		ug/L		72505	72505.372
Sn	120	0.881	ug/L	8.690	1648	0.021
Sb	121	0.172	ug/L	10.832	343	0.003
Sb	123		ug/L		289	0.002
Ba	135		ug/L		577172	8.598
Ba	137	1349.309	ug/L	1.087	979370	14.589
Ho	165		ug/L		8532	0.127
> Lu	175		ug/L		67129	67129.022
Tl	205	0.923	ug/L	1.856	987	0.014
Pb	208	63.031	ug/L	0.517	249449	3.712
Bi	209		ug/L		2595	0.038
Th	232	36.405	ug/L	1.629	181191	2.696
U	238	10.707	ug/L	1.243	53871	0.801

Sample ID: 244144003

Report Date/Time: Saturday, January 16, 2010 01:58:24

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000



### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		107.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
L Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		93.6			
As	75					
Se	77					
Se	82					
L Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.5			
Sn	120					
Sb	121					
L Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
L U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Al 27 Upper, S, EEEAl		27Sample is out of limits (over linear range)
Ti 47 Upper, S, EEETi		47Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn		55Sample is out of limits (over linear range)
Ba 137 Upper, S, EEBa		137Sample is out of limits (over linear range)

Sample ID: 244144003

Report Date/Time: Saturday, January 16, 2010 01:58:24

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## QC Action

QC Action Line: Continue

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Sample ID: 244144003

Report Date/Time: Saturday, January 16, 2010 01:58:24

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## ICPMS#4 - Summary Report

Sample ID: 244144004

Sample Date/Time: Saturday, January 16, 2010 02:01:51

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144004.144

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	70.775	ug/L	0.273	13974	0.059
Be	9	4.915	ug/L	9.226	243	0.001
B	11	11.090	ug/L	4.474	624	0.002
Na	23	535.412	ug/L	0.849	622269	2.582
Mg	24	11627.130	ug/L	1.953	9223793	38.781
Al	27	92095.253	ug/L	4.353	108043500	454.600
P	31	455.355	ug/L	1.897	28606	0.113
K	39	9859.723	ug/L	2.777	18315398	75.791
Ca	43	9168.172	ug/L	0.308	35573	0.148
Sc	45		ug/L		237799	237799.076
Ti	47	1833.881	ug/L	0.451	335222	1.409
V	51	106.085	ug/L	1.286	191633	0.808
Cr	52	42.315	ug/L	1.028	77665	0.317
Cr	53		ug/L		86164	-0.170
Mn	55	1508.173	ug/L	0.655	4422693	18.596
Fe	57	57350.874	ug/L	1.271	3422647	14.377
Co	59	23.743	ug/L	0.768	53721	0.225
Ni	60	36.509	ug/L	1.337	17102	0.072
Cu	63		ug/L		31735	0.133
Cu	65	30.771	ug/L	0.512	15760	0.066
Zn	66	128.433	ug/L	0.900	29023	0.269
Zn	67		ug/L		9216	0.044
Zn	68		ug/L		23876	0.219
Ge	74		ug/L		107534	107533.618
As	75	11.013	ug/L	6.559	3119	0.028
Se	77		ug/L		3033	-0.009
Se	82	-0.408	ug/L	85.037	1	-0.000
Kr	83		ug/L		87	0.001
Sr	88	150.582	ug/L	1.126	647966	9.020
Y	89		ug/L		248909	3.465
Zr	90	112.664	ug/L	1.422	256255	3.565
Mo	98	1.335	ug/L	0.996	1347	0.018
Ag	107	0.532	ug/L	2.589	874	0.012
Cd	111	1.584	ug/L	14.271	605	0.008
Cd	114		ug/L		198	0.002
In	115		ug/L		71831	71830.611
Sn	120	0.933	ug/L	2.910	1725	0.022
Sb	121	0.086	ug/L	18.928	229	0.002
Sb	123		ug/L		201	0.001
Ba	135		ug/L		407199	6.095
Ba	137	958.925	ug/L	1.421	692581	10.368
Ho	165		ug/L		9325	0.140
Lu	175		ug/L		66806	66805.526
Tl	205	0.981	ug/L	1.511	1040	0.014
Pb	208	63.220	ug/L	1.586	248972	3.723
Bi	209		ug/L		2959	0.044
Th	232	43.932	ug/L	1.089	217533	3.254
U	238	4.117	ug/L	2.366	20662	0.308

Sample ID: 244144004

Report Date/Time: Saturday, January 16, 2010 02:04:41

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## 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	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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		108.4			
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		93.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		95.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.4			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

#### Measurement Type Analyte

Al 27 Upper, S, EEEAI

Ti 47 Upper, S, EEE Ti

V 51 Upper, S, EEE V

Mn 55 Upper, S, EEIMn

Fe 57 Upper, S, EEEFe

#### MassOut of Limits Message

27Sample is out of limits (over linear range)

47Sample is out of limits (over linear range)

51Sample is out of limits (over linear range)

55Sample is out of limits (over linear range)

57Sample is out of limits (over linear range)

Sample ID: 244144004

Report Date/Time: Saturday, January 16, 2010 02:04:41

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## QC Action

QC Action Line: Continue

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Sample ID: 244144004

Report Date/Time: Saturday, January 16, 2010 02:04:41

Page 4

## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, January 16, 2010 02:08:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 6.145

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	49.905	ug/L	2.204	8909	0.041
Be	9	50.939	ug/L	1.011	2252	0.010
B	11	98.710	ug/L	4.335	4588	0.021
Na	23	4958.332	ug/L	3.521	5143910	23.908
Mg	24	4825.095	ug/L	2.861	3458602	16.094
Al	27	4976.985	ug/L	2.924	5281115	24.567
P	31	4842.842	ug/L	1.042	259804	1.202
K	39	5196.542	ug/L	5.720	8848018	39.946
Ca	43	4950.279	ug/L	0.541	17506	0.080
> Sc	45		ug/L		214844	214844.294
Ti	47	51.012	ug/L	0.942	8562	0.039
V	51	49.210	ug/L	4.391	80014	0.375
Cr	52	51.602	ug/L	1.226	85107	0.386
Cr	53		ug/L		133347	0.088
Mn	55	51.651	ug/L	1.593	137519	0.637
Fe	57	5014.420	ug/L	1.668	274044	1.257
Co	59	49.765	ug/L	1.047	101611	0.472
Ni	60	51.662	ug/L	1.818	21854	0.102
Cu	63		ug/L		48389	0.225
Cu	65	50.595	ug/L	0.575	23384	0.109
Zn	66	50.528	ug/L	1.462	12072	0.106
Zn	67		ug/L		7132	0.021
Zn	68		ug/L		9106	0.077
> Ge	74		ug/L		113412	113412.324
As	75	49.467	ug/L	3.700	14249	0.124
Se	77		ug/L		6563	0.020
Se	82	49.626	ug/L	3.778	1427	0.012
Kr	83		ug/L		41	0.000
Sr	88	50.981	ug/L	1.069	224555	3.054
Y	89		ug/L		74	0.001
Zr	90	50.989	ug/L	1.518	118750	1.613
Mo	98	48.901	ug/L	1.101	49631	0.675
Ag	107	50.185	ug/L	1.863	80202	1.091
Cd	111	50.846	ug/L	0.379	19453	0.264
Cd	114		ug/L		45497	0.619
> In	115		ug/L		73504	73503.745
Sn	120	49.687	ug/L	0.182	87282	1.186
Sb	121	51.612	ug/L	1.003	67911	0.922
Sb	123		ug/L		52015	0.706
Ba	135		ug/L		20360	0.324
Ba	137	51.409	ug/L	2.131	34865	0.556
Ho	165		ug/L		8	0.000
> Lu	175		ug/L		62696	62695.595
Tl	205	46.844	ug/L	1.522	43401	0.691
Pb	208	50.632	ug/L	1.091	187175	2.982
Bi	209		ug/L		39	0.000
Th	232	51.032	ug/L	2.597	237072	3.779
U	238	52.923	ug/L	2.419	248336	3.961

Sample ID: QC Std 6

Report Date/Time: Saturday, January 16, 2010 02:10:53

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000



### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	99.811				
Be	9	101.879				
B	11	98.710				
Na	23	99.167				
Mg	24	96.502				
Al	27	98.554				
P	31	96.857				
K	39	103.931				
Ca	43	99.006				
> Sc	45		97.9			
Ti	47	102.024				
V	51	98.420				
Cr	52	103.204				
Cr	53					
Mn	55	103.301				
Fe	57	100.288				
Co	59	99.531				
Ni	60	103.323				
Cu	63					
Cu	65	101.189				
Zn	66	101.056				
Zn	67					
Zn	68					
> Ge	74		98.6			
As	75	98.934				
Se	77					
Se	82	99.252				
Kr	83					
Sr	88	101.961				
Y	89					
Zr	90	101.978				
Mo	98	97.802				
Ag	107	100.370				
Cd	111	101.692				
Cd	114					
> In	115		97.9			
Sn	120	99.375				
Sb	121	103.224				
Sb	123					
Ba	135					
Ba	137	102.818				
Ho	165					
> Lu	175		97.1			
Tl	205	93.689				
Pb	208	101.264				
Bi	209					
Th	232	102.064				
U	238	105.847				

### 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 6

Report Date/Time: Saturday, January 16, 2010 02:10:53

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# ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, January 16, 2010 02:14:19

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 7.146

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.094	ug/L	61.741	43	0.000
Be	9	0.023	ug/L	112.908	3	0.000
B	11	2.187	ug/L	8.875	157	0.000
Na	23	0.726	ug/L	70.913	8336	0.004
Mg	24	0.469	ug/L	338.807	1333	0.002
Al	27	2.824	ug/L	124.235	6335	0.014
P	31	1.713	ug/L	59.092	1672	0.000
K	39	0.925	ug/L	1822.046	269199	0.007
Ca	43	-2.503	ug/L	626.963	325	-0.000
> Sc	45		ug/L		216732	216731.555
Ti	47	0.350	ug/L	30.257	202	0.000
V	51	-0.087	ug/L	256.239	-692	-0.001
Cr	52	0.201	ug/L	71.184	2504	0.002
Cr	53		ug/L		107875	-0.035
Mn	55	0.073	ug/L	24.302	891	0.001
Fe	57	5.155	ug/L	50.582	4281	0.001
Co	59	0.020	ug/L	85.371	159	0.000
Ni	60	0.018	ug/L	141.955	43	0.000
Cu	63		ug/L		82	0.000
Cu	65	0.021	ug/L	130.060	53	0.000
Zn	66	0.042	ug/L	148.236	60	0.000
Zn	67		ug/L		4499	-0.002
Zn	68		ug/L		338	-0.000
> Ge	74		ug/L		114067	114067.423
As	75	-0.505	ug/L	233.325	4	-0.001
Se	77		ug/L		4322	0.000
Se	82	-0.545	ug/L	37.702	-3	-0.000
Kr	83		ug/L		36	0.000
Sr	88	0.020	ug/L	69.714	173	0.001
Y	89		ug/L		26	0.000
Zr	90	0.127	ug/L	21.042	473	0.004
Mo	98	0.037	ug/L	23.299	63	0.001
Ag	107	0.024	ug/L	64.628	84	0.001
Cd	111	0.005	ug/L	363.754	16	0.000
Cd	114		ug/L		44	0.000
> In	115		ug/L		74085	74084.979
Sn	120	0.097	ug/L	16.755	301	0.002
Sb	121	0.324	ug/L	13.230	552	0.006
Sb	123		ug/L		447	0.004
Ba	135		ug/L		37	0.000
Ba	137	0.046	ug/L	27.877	56	0.000
Ho	165		ug/L		8	0.000
> Lu	175		ug/L		63273	63273.472
Tl	205	0.235	ug/L	13.692	288	0.003
Pb	208	0.037	ug/L	25.944	398	0.002
Bi	209		ug/L		16	-0.000
Th	232	0.092	ug/L	9.722	611	0.007
U	238	0.024	ug/L	45.769	188	0.002

Sample ID: QC Std 7

Report Date/Time: Saturday, January 16, 2010 02:17:07

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		98.8			
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		99.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		98.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Saturday, January 16, 2010 02:17:07

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## ICPMS#4 - Summary Report

Sample ID: 244144005

Sample Date/Time: Saturday, January 16, 2010 02:20:33

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144005.147

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	44.508	ug/L	1.717	8495	0.037
Be	9	3.396	ug/L	8.436	163	0.001
B	11	9.833	ug/L	7.032	541	0.002
Na	23	421.213	ug/L	1.188	474418	2.031
Mg	24	6883.177	ug/L	6.045	5272572	22.958
Al	27	53447.798	ug/L	3.458	60596766	263.828
P	31	646.699	ug/L	1.582	38531	0.161
K	39	7648.115	ug/L	1.702	13782263	58.791
Ca	43	7372.788	ug/L	0.511	27693	0.119
> Sc	45		ug/L		229619	229618.724
Ti	47	1330.722	ug/L	1.225	234930	1.022
V	51	66.765	ug/L	1.310	116233	0.509
Cr	52	37.940	ug/L	0.664	67485	0.284
Cr	53		ug/L		88193	-0.148
Mn	55	1418.566	ug/L	0.739	4017166	17.491
Fe	57	36990.898	ug/L	4.833	2134118	9.273
Co	59	18.949	ug/L	0.649	41427	0.180
Ni	60	32.130	ug/L	0.949	14541	0.063
Cu	63		ug/L		91931	0.400
Cu	65	90.781	ug/L	1.854	44800	0.195
Zn	66	124.582	ug/L	0.597	28096	0.261
Zn	67		ug/L		10486	0.056
Zn	68		ug/L		27685	0.255
> Ge	74		ug/L		107312	107312.335
As	75	6.675	ug/L	9.245	1941	0.017
Se	77		ug/L		3062	-0.009
Se	82	-0.652	ug/L	43.166	-6	-0.000
Kr	83		ug/L		78	0.000
Sr	88	96.684	ug/L	1.553	418304	5.792
Y	89		ug/L		213264	2.953
Zr	90	77.412	ug/L	1.732	177044	2.449
Mo	98	1.395	ug/L	2.119	1415	0.019
Ag	107	0.342	ug/L	1.006	580	0.007
Cd	111	1.311	ug/L	6.971	506	0.007
Cd	114		ug/L		275	0.004
> In	115		ug/L		72221	72221.229
Sn	120	0.799	ug/L	3.761	1503	0.019
Sb	121	0.197	ug/L	11.637	374	0.004
Sb	123		ug/L		342	0.003
Ba	135		ug/L		871785	13.063
Ba	137	2049.404	ug/L	1.234	1478862	22.158
Ho	165		ug/L		8202	0.123
> Lu	175		ug/L		66746	66746.250
Tl	205	0.786	ug/L	3.045	846	0.012
Pb	208	87.841	ug/L	1.550	345500	5.173
Bi	209		ug/L		2111	0.031
Th	232	29.651	ug/L	2.745	146757	2.196
U	238	8.051	ug/L	1.331	40294	0.603

Sample ID: 244144005

Report Date/Time: Saturday, January 16, 2010 02:23:20

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 244144005

Report Date/Time: Saturday, January 16, 2010 02:23:20

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### 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		104.7			
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		93.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.3			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Upper, S, EEEAI	Al 27	27	Sample is out of limits (over linear range)
Upper, S, EEETI	Ti 47	47	Sample is out of limits (over linear range)
Upper, S, EEIMn	Mn 55	55	Sample is out of limits (over linear range)
Upper, S, EEBA	Ba 137	137	Sample is out of limits (over linear range)

Sample ID: 244144005

Report Date/Time: Saturday, January 16, 2010 02:23:20

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## QC Action

QC Action Line: Continue

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Sample ID: 244144005

Report Date/Time: Saturday, January 16, 2010 02:23:20

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## ICPMS#4 - Summary Report

Sample ID: 244144006

Sample Date/Time: Saturday, January 16, 2010 02:26:46

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144006.148

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Li	7	62.297	ug/L	1.593	12084	0.052
	Be	9	4.290	ug/L	8.360	208	0.001
	B	11	16.982	ug/L	3.730	907	0.004
	Na	23	512.284	ug/L	2.145	585079	2.470
	Mg	24	9490.388	ug/L	2.507	7394429	31.654
	Al	27	80641.759	ug/L	7.444	92938735	398.063
	P	31	600.714	ug/L	0.509	36524	0.149
	K	39	10662.351	ug/L	4.666	19427299	81.961
	Ca	43	8957.622	ug/L	0.759	34144	0.145
>	Sc	45		ug/L		233542	233541.524
	Ti	47	1706.260	ug/L	1.881	306319	1.311
	V	51	92.058	ug/L	1.048	163222	0.701
	Cr	52	58.529	ug/L	1.016	104615	0.438
	Cr	53		ug/L		88045	-0.156
	Mn	55	2192.521	ug/L	0.756	6314457	27.034
	Fe	57	50682.977	ug/L	0.909	2971639	12.705
	Co	59	27.660	ug/L	0.956	61446	0.263
	Ni	60	43.920	ug/L	0.479	20201	0.086
	Cu	63		ug/L		33490	0.143
[	Cu	65	32.952	ug/L	3.091	16572	0.071
	Zn	66	124.213	ug/L	1.924	27730	0.261
	Zn	67		ug/L		8826	0.042
	Zn	68		ug/L		22923	0.213
>	Ge	74		ug/L		106223	106222.859
	As	75	10.274	ug/L	2.278	2883	0.026
	Se	77		ug/L		2919	-0.010
	Se	82	0.011	ug/L	2725.733	12	0.000
	Kr	83		ug/L		69	0.000
[	Sr	88	126.896	ug/L	0.921	536233	7.601
	Y	89		ug/L		218004	3.090
	Zr	90	113.718	ug/L	0.924	253938	3.598
	Mo	98	1.679	ug/L	1.274	1658	0.023
	Ag	107	0.462	ug/L	6.362	750	0.010
	Cd	111	2.015	ug/L	3.656	752	0.010
	Cd	114		ug/L		404	0.005
>	In	115		ug/L		70532	70532.150
	Sn	120	0.949	ug/L	3.331	1719	0.023
	Sb	121	0.165	ug/L	7.343	324	0.003
[	Sb	123		ug/L		300	0.002
	Ba	135		ug/L		397953	5.973
	Ba	137	927.788	ug/L	1.132	668297	10.031
	Ho	165		ug/L		8345	0.125
>	Lu	175		ug/L		66632	66632.111
	Tl	205	0.913	ug/L	5.785	970	0.013
	Pb	208	74.643	ug/L	2.136	293052	4.396
	Bi	209		ug/L		2587	0.039
	Th	232	35.673	ug/L	2.231	176160	2.642
[	U	238	11.814	ug/L	2.432	58968	0.884

Sample ID: 244144006

Report Date/Time: Saturday, January 16, 2010 02:29:35

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 244144006

Report Date/Time: Saturday, January 16, 2010 02:29:35

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### 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		106.4			
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		92.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		93.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
27Upper, S, EEEAl	Al	27	Sample is out of limits (over linear range)
47Upper, S, EETi	Ti	47	Sample is out of limits (over linear range)
55Upper, S, EEIMn	Mn	55	Sample is out of limits (over linear range)
57Upper, S, EEEFe	Fe	57	Sample is out of limits (over linear range)

Sample ID: 244144006

Report Date/Time: Saturday, January 16, 2010 02:29:35

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## QC Action

QC Action Line: Continue

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Sample ID: 244144006

Report Date/Time: Saturday, January 16, 2010 02:29:35

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# ICPMS#4 - Summary Report

Sample ID: 244144007

Sample Date/Time: Saturday, January 16, 2010 02:33:01

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144007.149

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	81.403	ug/L	0.578	16332	0.067
Be	9	5.764	ug/L	4.809	289	0.001
B	11	15.931	ug/L	2.526	885	0.003
Na	23	663.828	ug/L	2.076	782186	3.201
Mg	24	12130.362	ug/L	4.999	9783122	40.460
Al	27	105734.054	ug/L	4.042	126169219	521.923
P	31	485.486	ug/L	0.764	30888	0.120
K	39	12161.713	ug/L	6.461	22886874	93.487
Ca	43	10520.098	ug/L	0.930	41438	0.170
> Sc	45		ug/L		241707	241707.119
Ti	47	1865.415	ug/L	1.017	346570	1.433
V	51	108.699	ug/L	1.925	199592	0.828
Cr	52	47.196	ug/L	1.285	87783	0.353
Cr	53		ug/L		85778	-0.178
Mn	55	1634.752	ug/L	1.060	4872898	20.156
Fe	57	62779.373	ug/L	2.007	3808502	15.738
Co	59	27.032	ug/L	1.615	62155	0.257
Ni	60	41.113	ug/L	1.577	19574	0.081
Cu	63		ug/L		34940	0.144
Cu	65	33.428	ug/L	1.276	17398	0.072
Zn	66	146.480	ug/L	1.303	33210	0.307
Zn	67		ug/L		9802	0.049
Zn	68		ug/L		27719	0.254
> Ge	74		ug/L		107906	107906.415
As	75	10.409	ug/L	8.537	2964	0.026
Se	77		ug/L		2836	-0.011
Se	82	-0.475	ug/L	79.383	-1	-0.000
Kr	83		ug/L		106	0.001
Sr	88	162.873	ug/L	1.147	702573	9.757
Y	89		ug/L		293456	4.075
Zr	90	146.592	ug/L	0.766	334114	4.638
Mo	98	1.266	ug/L	1.060	1282	0.017
Ag	107	0.655	ug/L	4.469	1068	0.014
Cd	111	2.089	ug/L	10.840	797	0.011
Cd	114		ug/L		299	0.004
> In	115		ug/L		72001	72000.656
Sn	120	0.750	ug/L	6.238	1412	0.018
Sb	121	0.091	ug/L	18.038	237	0.002
Sb	123		ug/L		215	0.001
Ba	135		ug/L		476442	7.073
Ba	137	1105.836	ug/L	2.021	805373	11.956
Ho	165		ug/L		11210	0.166
> Lu	175		ug/L		67362	67362.457
Tl	205	1.062	ug/L	1.296	1129	0.016
Pb	208	67.976	ug/L	1.790	269916	4.003
Bi	209		ug/L		3197	0.047
Th	232	48.444	ug/L	2.260	241854	3.588
U	238	5.926	ug/L	2.103	29950	0.443

Sample ID: 244144007

Report Date/Time: Saturday, January 16, 2010 02:35:49

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 244144007

Report Date/Time: Saturday, January 16, 2010 02:35:49

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## 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		110.2			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		93.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		95.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		104.3			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Al 27 Upper, S, EEEAI		27Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE Ti		47Sample is out of limits (over linear range)
V 51 Upper, S, EEE V		51Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE Mn		55Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE Fe		57Sample is out of limits (over linear range)

Sample ID: 244144007

Report Date/Time: Saturday, January 16, 2010 02:35:49

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Ba 137 Upper, S, EEBa

137Sample is out of limits (over linear range)

## QC Action

QC Action Line: Continue

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Sample ID: 244144007

Report Date/Time: Saturday, January 16, 2010 02:35:49

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## ICPMS#4 - Summary Report

Sample ID: 244144008

Sample Date/Time: Saturday, January 16, 2010 02:39:16

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144008.150

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	68.543	ug/L	0.617	13618	0.057
Be	9	4.545	ug/L	3.336	226	0.001
B	11	14.064	ug/L	1.413	780	0.003
Na	23	548.606	ug/L	7.151	640745	2.645
Mg	24	10686.857	ug/L	0.950	8531046	35.645
Al	27	84454.005	ug/L	4.793	99691453	416.881
P	31	472.218	ug/L	1.085	29786	0.117
K	39	10432.690	ug/L	0.454	19486286	80.196
Ca	43	10540.823	ug/L	1.581	41101	0.170
> Sc	45		ug/L		239287	239287.043
Ti	47	1576.305	ug/L	1.040	289919	1.211
V	51	100.758	ug/L	2.445	183070	0.768
Cr	52	45.944	ug/L	0.716	84655	0.344
Cr	53		ug/L		85630	-0.174
Mn	55	1802.867	ug/L	0.866	5319888	22.229
Fe	57	57117.606	ug/L	1.053	3430536	14.318
Co	59	26.487	ug/L	0.965	60289	0.251
Ni	60	38.592	ug/L	1.196	18191	0.076
Cu	63		ug/L		33262	0.139
Cu	65	31.726	ug/L	2.359	16346	0.068
Zn	66	141.004	ug/L	1.921	32242	0.296
Zn	67		ug/L		9655	0.047
Zn	68		ug/L		26772	0.243
> Ge	74		ug/L		108836	108836.475
As	75	9.903	ug/L	2.731	2853	0.025
Se	77		ug/L		2971	-0.010
Se	82	0.009	ug/L	2099.476	12	0.000
Kr	83		ug/L		77	0.000
Sr	88	159.318	ug/L	1.065	689626	9.544
Y	89		ug/L		247571	3.426
Zr	90	124.808	ug/L	1.194	285474	3.949
Mo	98	1.321	ug/L	2.103	1341	0.018
Ag	107	0.579	ug/L	2.162	952	0.013
Cd	111	1.902	ug/L	10.544	729	0.010
Cd	114		ug/L		305	0.004
> In	115		ug/L		72251	72250.548
Sn	120	0.736	ug/L	3.084	1395	0.018
Sb	121	0.070	ug/L	6.925	210	0.001
Sb	123		ug/L		200	0.001
Ba	135		ug/L		454653	6.773
Ba	137	1067.540	ug/L	1.355	774853	11.542
Ho	165		ug/L		9472	0.141
> Lu	175		ug/L		67133	67133.404
Tl	205	0.990	ug/L	5.219	1054	0.015
Pb	208	61.015	ug/L	1.067	241478	3.593
Bi	209		ug/L		2716	0.040
Th	232	41.497	ug/L	0.758	206502	3.073
U	238	7.094	ug/L	1.149	35715	0.531

Sample ID: 244144008

Report Date/Time: Saturday, January 16, 2010 02:42:05

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 244144008

Report Date/Time: Saturday, January 16, 2010 02:42:05

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## 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		109.1			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		94.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.2			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAl		27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EETi		47	Sample is out of limits (over linear range)
V 51 Upper, S, EEV		51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEMn		55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEEFe		57	Sample is out of limits (over linear range)

Sample ID: 244144008

Report Date/Time: Saturday, January 16, 2010 02:42:05

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## QC Action

QC Action Line: Continue

# ICPMS#4 - Summary Report

Sample ID: 244144009

Sample Date/Time: Saturday, January 16, 2010 02:45:31

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144009.151

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	85.146	ug/L	0.184	17271	0.071
Be	9	5.377	ug/L	3.251	273	0.001
B	11	14.508	ug/L	2.678	820	0.003
Na	23	738.338	ug/L	4.870	878585	3.560
Mg	24	12133.403	ug/L	2.489	9890882	40.470
Al	27	112802.736	ug/L	4.671	136120594	556.816
P	31	408.645	ug/L	1.702	26568	0.101
K	39	11516.979	ug/L	6.608	21946035	88.531
Ca	43	10033.796	ug/L	0.914	39974	0.162
> Sc	45		ug/L		244379	244379.083
Ti	47	1655.076	ug/L	0.879	310904	1.272
V	51	104.311	ug/L	2.275	193588	0.795
Cr	52	48.306	ug/L	1.407	90774	0.361
Cr	53		ug/L		86968	-0.177
Mn	55	1381.783	ug/L	0.979	4164143	17.037
Fe	57	62713.002	ug/L	0.317	3846394	15.721
Co	59	23.071	ug/L	0.928	53649	0.219
Ni	60	42.047	ug/L	1.091	20238	0.083
Cu	63		ug/L		35936	0.147
Cu	65	33.449	ug/L	2.122	17603	0.072
Zn	66	149.351	ug/L	1.468	33896	0.313
Zn	67		ug/L		10058	0.052
Zn	68		ug/L		27933	0.255
> Ge	74		ug/L		108022	108022.281
As	75	10.877	ug/L	3.089	3096	0.027
Se	77		ug/L		2924	-0.011
Se	82	-0.483	ug/L	124.063	-1	-0.000
Kr	83		ug/L		95	0.001
Sr	88	163.000	ug/L	0.786	702413	9.764
Y	89		ug/L		299459	4.163
Zr	90	139.871	ug/L	1.943	318483	4.425
Mo	98	1.214	ug/L	3.762	1229	0.017
Ag	107	0.613	ug/L	1.248	1002	0.013
Cd	111	2.190	ug/L	2.464	833	0.011
Cd	114		ug/L		221	0.003
> In	115		ug/L		71927	71927.467
Sn	120	0.604	ug/L	3.203	1162	0.014
Sb	121	0.043	ug/L	37.919	174	0.001
Sb	123		ug/L		179	0.001
Ba	135		ug/L		439408	6.540
Ba	137	1027.090	ug/L	0.921	746134	11.105
Ho	165		ug/L		11177	0.166
> Lu	175		ug/L		67185	67184.622
Tl	205	1.017	ug/L	2.533	1081	0.015
Pb	208	61.103	ug/L	1.039	242025	3.598
Bi	209		ug/L		3075	0.045
Th	232	44.881	ug/L	1.100	223504	3.324
U	238	4.324	ug/L	1.781	21817	0.324

Sample ID: 244144009

Report Date/Time: Saturday, January 16, 2010 02:48:21

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 244144009

Report Date/Time: Saturday, January 16, 2010 02:48:21

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### 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		111.4			
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		94.0			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		95.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		104.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

#### Measurement Type Analyte

Al 27 Upper, S, EEEAl

Ti 47 Upper, S, EEE Ti

V 51 Upper, S, EEE V

Mn 55 Upper, S, EEIMn

Fe 57 Upper, S, EEEFe

#### Mass Out of Limits Message

27Sample is out of limits (over linear range)

47Sample is out of limits (over linear range)

51Sample is out of limits (over linear range)

55Sample is out of limits (over linear range)

57Sample is out of limits (over linear range)

Sample ID: 244144009

Report Date/Time: Saturday, January 16, 2010 02:48:21

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## QC Action

QC Action Line: Continue



## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, January 16, 2010 02:51:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 6.152

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	49.576	ug/L	0.966	8920	0.041
Be	9	51.110	ug/L	2.080	2277	0.011
B	11	99.596	ug/L	2.930	4664	0.021
Na	23	4926.323	ug/L	4.066	5151038	23.754
Mg	24	4816.008	ug/L	2.999	3479128	16.063
Al	27	4878.032	ug/L	4.633	5217253	24.079
P	31	4777.729	ug/L	0.830	258321	1.186
K	39	5246.139	ug/L	2.074	8998435	40.327
Ca	43	4838.027	ug/L	1.531	17249	0.078
> Sc	45		ug/L		216504	216504.432
Ti	47	50.858	ug/L	1.462	8602	0.039
V	51	49.172	ug/L	2.225	80564	0.375
Cr	52	51.406	ug/L	0.366	85443	0.385
Cr	53		ug/L		127176	0.055
Mn	55	51.275	ug/L	0.323	137572	0.632
Fe	57	4918.255	ug/L	1.966	270934	1.233
Co	59	49.269	ug/L	0.942	101375	0.468
Ni	60	51.799	ug/L	2.336	22083	0.102
Cu	63		ug/L		48588	0.224
Cu	65	50.608	ug/L	1.444	23571	0.109
Zn	66	50.576	ug/L	0.409	12153	0.106
Zn	67		ug/L		6830	0.018
Zn	68		ug/L		9027	0.076
> Ge	74		ug/L		114064	114064.103
As	75	49.264	ug/L	4.361	14273	0.124
Se	77		ug/L		6288	0.017
Se	82	48.528	ug/L	2.885	1404	0.012
Kr	83		ug/L		41	0.000
Sr	88	50.113	ug/L	1.400	222403	3.002
Y	89		ug/L		81	0.001
Zr	90	51.585	ug/L	2.851	121046	1.632
Mo	98	48.875	ug/L	1.804	49980	0.675
Ag	107	50.092	ug/L	0.681	80660	1.089
Cd	111	50.036	ug/L	0.515	19288	0.260
Cd	114		ug/L		45089	0.609
> In	115		ug/L		74059	74059.171
Sn	120	49.842	ug/L	1.160	88214	1.189
Sb	121	51.052	ug/L	2.246	67683	0.912
Sb	123		ug/L		51943	0.700
Ba	135		ug/L		20342	0.325
Ba	137	51.497	ug/L	0.751	34842	0.557
Ho	165		ug/L		11	0.000
> Lu	175		ug/L		62531	62531.183
Tl	205	46.289	ug/L	1.650	42779	0.683
Pb	208	50.861	ug/L	0.787	187544	2.995
Bi	209		ug/L		48	0.000
Th	232	50.601	ug/L	0.503	234517	3.748
U	238	52.131	ug/L	1.862	244038	3.902

Sample ID: QC Std 6

Report Date/Time: Saturday, January 16, 2010 02:54:33

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## 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	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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	99.153				
	Be	9	102.220				
	B	11	99.596				
	Na	23	98.526				
	Mg	24	96.320				
	Al	27	96.595				
	P	31	95.555				
	K	39	104.923				
	Ca	43	96.761				
>	Sc	45		98.7			
	Ti	47	101.716				
	V	51	98.344				
	Cr	52	102.811				
	Cr	53					
	Mn	55	102.550				
	Fe	57	98.365				
	Co	59	98.538				
	Ni	60	103.598				
	Cu	63					
	Cu	65	101.215				
	Zn	66	101.151				
	Zn	67					
	Zn	68					
>	Ge	74		99.2			
	As	75	98.527				
	Se	77					
	Se	82	97.055				
	Kr	83					
	Sr	88	100.225				
	Y	89					
	Zr	90	103.170				
	Mo	98	97.751				
	Ag	107	100.184				
	Cd	111	100.071				
	Cd	114					
>	In	115		98.6			
	Sn	120	99.684				
	Sb	121	102.104				
	Sb	123					
	Ba	135					
	Ba	137	102.993				
	Ho	165					
>	Lu	175		96.8			
	Tl	205	92.577				
	Pb	208	101.722				
	Bi	209					
	Th	232	101.202				
	U	238	104.262				

### 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 6

Report Date/Time: Saturday, January 16, 2010 02:54:33

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, January 16, 2010 02:57:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 7.153

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.070	ug/L	30.910	39	0.000
Be	9	0.045	ug/L	126.210	4	0.000
B	11	2.359	ug/L	18.325	166	0.001
Na	23	2.851	ug/L	70.052	10671	0.014
Mg	24	3.184	ug/L	64.410	3334	0.011
Al	27	3.072	ug/L	124.287	6669	0.015
P	31	2.264	ug/L	61.678	1720	0.001
K	39	15.352	ug/L	69.547	296383	0.118
Ca	43	-5.919	ug/L	120.366	316	-0.000
Sc	45		ug/L		219164	219163.921
Ti	47	0.327	ug/L	36.499	200	0.000
V	51	0.697	ug/L	165.130	603	0.005
Cr	52	0.230	ug/L	7.862	2578	0.002
Cr	53		ug/L		105167	-0.053
Mn	55	0.072	ug/L	33.473	897	0.001
Fe	57	1.465	ug/L	58.300	4125	0.000
Co	59	0.007	ug/L	58.392	132	0.000
Ni	60	0.013	ug/L	67.946	41	0.000
Cu	63		ug/L		82	0.000
Cu	65	0.001	ug/L	1450.324	44	0.000
Zn	66	0.054	ug/L	78.303	64	0.000
Zn	67		ug/L		4438	-0.003
Zn	68		ug/L		351	-0.000
Ge	74		ug/L		116018	116017.699
As	75	-0.894	ug/L	132.212	-108	-0.002
Se	77		ug/L		4202	-0.001
Se	82	-0.210	ug/L	113.658	7	-0.000
Kr	83		ug/L		32	0.000
Sr	88	0.018	ug/L	59.494	166	0.001
Y	89		ug/L		30	0.000
Zr	90	0.129	ug/L	16.249	481	0.004
Mo	98	0.043	ug/L	22.661	70	0.001
Ag	107	0.023	ug/L	23.037	82	0.000
Cd	111	0.002	ug/L	362.860	15	0.000
Cd	114		ug/L		29	0.000
In	115		ug/L		74777	74777.232
Sn	120	0.115	ug/L	3.785	334	0.003
Sb	121	0.291	ug/L	12.886	512	0.005
Sb	123		ug/L		469	0.004
Ba	135		ug/L		34	0.000
Ba	137	0.053	ug/L	20.415	62	0.001
Ho	165		ug/L		7	0.000
Lu	175		ug/L		63457	63457.286
Tl	205	0.269	ug/L	26.291	320	0.004
Pb	208	0.033	ug/L	10.669	382	0.002
Bi	209		ug/L		22	0.000
Th	232	0.086	ug/L	20.209	585	0.006
U	238	0.022	ug/L	30.839	180	0.002

Sample ID: QC Std 7

Report Date/Time: Saturday, January 16, 2010 03:00:47

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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		99.9			
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		100.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		99.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.3			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Saturday, January 16, 2010 03:00:47

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## ICPMS#4 - Summary Report

Sample ID: 244144010

Sample Date/Time: Saturday, January 16, 2010 03:04:14

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144010.154

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	70.453	ug/L	1.710	13870	0.058
Be	9	5.043	ug/L	5.172	248	0.001
B	11	15.279	ug/L	3.436	835	0.003
Na	23	485.064	ug/L	7.846	563281	2.339
Mg	24	10808.323	ug/L	2.986	8551572	36.050
Al	27	86226.398	ug/L	2.530	100935375	425.630
P	31	455.204	ug/L	1.831	28523	0.113
K	39	11733.817	ug/L	6.408	21689442	90.198
Ca	43	9460.891	ug/L	1.407	36599	0.153
> Sc	45		ug/L		237128	237127.741
Ti	47	1480.442	ug/L	1.186	269864	1.137
V	51	108.760	ug/L	1.299	195916	0.829
Cr	52	44.263	ug/L	1.055	80916	0.331
Cr	53		ug/L		86730	-0.167
Mn	55	1806.620	ug/L	0.837	5282834	22.276
Fe	57	59028.072	ug/L	1.435	3512888	14.797
Co	59	27.779	ug/L	1.425	62651	0.264
Ni	60	38.745	ug/L	1.043	18098	0.076
Cu	63		ug/L		31047	0.131
Cu	65	29.979	ug/L	0.946	15312	0.064
Zn	66	136.349	ug/L	1.319	31187	0.286
Zn	67		ug/L		9520	0.046
Zn	68		ug/L		25814	0.234
> Ge	74		ug/L		108871	108870.825
As	75	10.469	ug/L	3.979	3010	0.026
Se	77		ug/L		3076	-0.009
Se	82	-0.461	ug/L	72.706	-1	-0.000
Kr	83		ug/L		81	0.000
Sr	88	148.812	ug/L	0.713	647764	8.914
Y	89		ug/L		234118	3.222
Zr	90	124.390	ug/L	1.436	286096	3.936
Mo	98	1.075	ug/L	4.299	1102	0.015
Ag	107	0.571	ug/L	4.305	945	0.012
Cd	111	1.903	ug/L	3.857	733	0.010
Cd	114		ug/L		289	0.004
> In	115		ug/L		72664	72663.523
Sn	120	0.572	ug/L	6.911	1118	0.014
Sb	121	0.129	ug/L	7.643	288	0.002
Sb	123		ug/L		243	0.002
Ba	135		ug/L		415867	6.228
Ba	137	978.134	ug/L	1.021	706193	10.576
Ho	165		ug/L		8881	0.133
> Lu	175		ug/L		66773	66773.022
Tl	205	1.014	ug/L	1.575	1071	0.015
Pb	208	60.735	ug/L	1.655	239095	3.577
Bi	209		ug/L		2782	0.041
Th	232	40.903	ug/L	1.903	202469	3.029
U	238	5.161	ug/L	1.002	25867	0.386

Sample ID: 244144010

Report Date/Time: Saturday, January 16, 2010 03:07:03

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000



## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		108.1			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		94.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.7			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.4			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAl	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE Ti	Ti	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE V	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE Mn	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE Fe	Fe	57	Sample is out of limits (over linear range)

Sample ID: 244144010

Report Date/Time: Saturday, January 16, 2010 03:07:03

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## QC Action

QC Action Line: Continue

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Sample ID: 244144010

Report Date/Time: Saturday, January 16, 2010 03:07:03

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## ICPMS#4 - Summary Report

Sample ID: 244144011

Sample Date/Time: Saturday, January 16, 2010 03:10:31

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093[2]skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144011.155

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Li	7	72.588 ug/L	0.665	14315	0.060
	Be	9	4.606 ug/L	12.659	227	0.001
	B	11	14.289 ug/L	5.168	786	0.003
	Na	23	605.018 ug/L	1.031	701128	2.917
	Mg	24	11758.885 ug/L	5.074	9316159	39.221
	Al	27	88393.528 ug/L	3.139	103600922	436.327
	P	31	475.856 ug/L	0.272	29783	0.118
	K	39	11031.798 ug/L	0.934	20435973	84.801
	Ca	43	9045.767 ug/L	1.118	35058	0.146
>	Sc	45	ug/L		237512	237512.201
	Ti	47	1574.528 ug/L	0.898	287493	1.210
	V	51	112.802 ug/L	4.343	203455	0.859
	Cr	52	46.913 ug/L	1.326	85746	0.351
	Cr	53	ug/L		85719	-0.172
	Mn	55	1854.234 ug/L	1.357	5430215	22.863
	Fe	57	62018.195 ug/L	1.794	3696481	15.547
	Co	59	30.320 ug/L	1.163	68478	0.288
	Ni	60	38.988 ug/L	2.170	18238	0.077
	Cu	63	ug/L		32649	0.137
	Cu	65	31.518 ug/L	0.442	16121	0.068
[	Zn	66	138.104 ug/L	1.651	31479	0.290
	Zn	67	ug/L		9588	0.047
	Zn	68	ug/L		25846	0.235
>	Ge	74	ug/L		108504	108504.013
	As	75	10.271 ug/L	5.930	2943	0.026
	Se	77	ug/L		3005	-0.010
	Se	82	-0.091 ug/L	661.631	9	-0.000
[	Kr	83	ug/L		79	0.000
	Sr	88	154.254 ug/L	0.226	669353	9.240
	Y	89	ug/L		245313	3.387
	Zr	90	118.068 ug/L	0.607	270730	3.736
	Mo	98	1.194 ug/L	0.103	1218	0.016
	Ag	107	0.560 ug/L	5.535	924	0.012
	Cd	111	1.938 ug/L	4.567	744	0.010
	Cd	114	ug/L		251	0.003
>	In	115	ug/L		72430	72430.280
	Sn	120	0.634 ug/L	3.985	1221	0.015
	Sb	121	0.065 ug/L	5.525	204	0.001
[	Sb	123	ug/L		187	0.001
	Ba	135	ug/L		423708	6.321
	Ba	137	1004.725 ug/L	0.822	728203	10.863
	Ho	165	ug/L		9493	0.142
>	Lu	175	ug/L		67034	67034.252
	Tl	205	0.960 ug/L	4.367	1022	0.014
	Pb	208	63.893 ug/L	1.146	252487	3.763
	Bi	209	ug/L		2733	0.040
	Th	232	41.463 ug/L	1.908	206019	3.071
[	U	238	3.706 ug/L	2.445	18670	0.277

Sample ID: 244144011

Report Date/Time: Saturday, January 16, 2010 03:13:20

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		108.3			
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		94.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
27	Upper, S, EEEAl		Sample is out of limits (over linear range)
47	Upper, S, EEE Ti		Sample is out of limits (over linear range)
51	Upper, S, EEE V		Sample is out of limits (over linear range)
55	Upper, S, EEE Mn		Sample is out of limits (over linear range)
57	Upper, S, EEE Fe		Sample is out of limits (over linear range)

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Ba 137 Upper, S, EEBa

137Sample is out of limits (over linear range)

## QC Action

QC Action Line: Continue

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Sample ID: 244144011

Report Date/Time: Saturday, January 16, 2010 03:13:20

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# ICPMS#4 - Summary Report

Sample ID: 244144012

Sample Date/Time: Saturday, January 16, 2010 03:16:47

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144012.156

## Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li 7	47.847	ug/L	0.771	9100	0.040
Be 9	3.522	ug/L	5.401	168	0.001
B 11	13.634	ug/L	0.946	725	0.003
Na 23	481.712	ug/L	9.449	540099	2.323
Mg 24	7572.980	ug/L	2.068	5780586	25.259
Al 27	59187.313	ug/L	6.032	66816375	292.160
P 31	533.738	ug/L	1.170	31980	0.132
K 39	8810.815	ug/L	2.750	15778966	67.729
Ca 43	6888.565	ug/L	1.146	25811	0.111
> Sc 45		ug/L		228843	228842.976
Ti 47	1370.218	ug/L	1.196	241045	1.053
V 51	77.905	ug/L	2.726	135229	0.594
Cr 52	61.115	ug/L	2.163	106917	0.457
Cr 53		ug/L		89100	-0.143
Mn 55	1689.929	ug/L	2.061	4768063	20.837
Fe 57	45634.223	ug/L	1.473	2621693	11.440
Co 59	22.859	ug/L	2.427	49765	0.217
Ni 60	39.606	ug/L	2.762	17849	0.078
Cu 63		ug/L		32888	0.143
Cu 65	33.086	ug/L	0.908	16302	0.071
Zn 66	146.748	ug/L	0.853	33303	0.308
Zn 67		ug/L		9431	0.046
Zn 68		ug/L		26618	0.243
> Ge 74		ug/L		108019	108018.946
As 75	8.691	ug/L	10.985	2502	0.022
Se 77		ug/L		2846	-0.011
Se 82	-0.206	ug/L	279.121	6	-0.000
Kr 83		ug/L		66	0.000
Sr 88	99.068	ug/L	1.927	428367	5.935
Y 89		ug/L		204738	2.837
Zr 90	89.651	ug/L	2.655	204870	2.837
Mo 98	2.687	ug/L	1.101	2701	0.037
Ag 107	0.387	ug/L	3.964	650	0.008
Cd 111	1.521	ug/L	6.483	584	0.008
Cd 114		ug/L		274	0.004
> In 115		ug/L		72178	72178.476
Sn 120	0.872	ug/L	0.412	1626	0.021
Sb 121	0.120	ug/L	13.865	274	0.002
Sb 123		ug/L		232	0.001
Ba 135		ug/L		344433	5.272
Ba 137	826.590	ug/L	2.350	583874	8.937
Ho 165		ug/L		7900	0.121
> Lu 175		ug/L		65349	65349.156
Tl 205	0.683	ug/L	1.296	729	0.010
Pb 208	64.197	ug/L	1.694	247266	3.781
Bi 209		ug/L		1910	0.029
Th 232	29.529	ug/L	2.489	143057	2.187
U 238	14.748	ug/L	3.409	72172	1.104

Sample ID: 244144012

Report Date/Time: Saturday, January 16, 2010 03:19:35

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# 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 244144012

Report Date/Time: Saturday, January 16, 2010 03:19:35

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### 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		104.3			
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		94.0			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

#### Measurement Type Analyte

Al 27 Upper, S, EEEAl

Ti 47 Upper, S, EEETi

Mn 55 Upper, S, EEIMn

#### Mass Out of Limits Message

27Sample is out of limits (over linear range)

47Sample is out of limits (over linear range)

55Sample is out of limits (over linear range)

Sample ID: 244144012

Report Date/Time: Saturday, January 16, 2010 03:19:35

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## QC Action

QC Action Line: Continue

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Sample ID: 244144012

Report Date/Time: Saturday, January 16, 2010 03:19:35

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# ICPMS#4 - Summary Report

Sample ID: 244144013

Sample Date/Time: Saturday, January 16, 2010 03:23:01

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144013.157

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	79.136	ug/L	0.359	15925	0.066
Be	9	4.952	ug/L	8.353	249	0.001
B	11	14.463	ug/L	2.701	811	0.003
Na	23	583.282	ug/L	5.430	689952	2.812
Mg	24	11275.214	ug/L	3.762	9118598	37.608
Al	27	106887.638	ug/L	4.610	127946250	527.618
P	31	448.976	ug/L	2.463	28778	0.111
K	39	11797.704	ug/L	7.832	22297006	90.689
Ca	43	9470.180	ug/L	0.965	37445	0.153
Sc	45		ug/L		242421	242421.221
Ti	47	1881.555	ug/L	0.993	350581	1.446
V	51	106.830	ug/L	1.741	196679	0.814
Cr	52	46.478	ug/L	1.153	86724	0.348
Cr	53		ug/L		84812	-0.183
Mn	55	1550.811	ug/L	1.477	4636569	19.121
Fe	57	61030.994	ug/L	2.220	3713503	15.299
Co	59	24.546	ug/L	0.703	56618	0.233
Ni	60	38.895	ug/L	0.524	18576	0.076
Cu	63		ug/L		32938	0.136
Cu	65	31.344	ug/L	1.824	18362	0.067
Zn	66	143.358	ug/L	3.102	32859	0.301
Zn	67		ug/L		9775	0.048
Zn	68		ug/L		27009	0.244
Ge	74		ug/L		109133	109133.473
As	75	9.958	ug/L	4.769	2877	0.025
Se	77		ug/L		3084	-0.009
Se	82	-0.679	ug/L	53.773	-6	-0.000
Kr	83		ug/L		94	0.001
Sr	88	149.033	ug/L	1.425	646835	8.928
Y	89		ug/L		270555	3.734
Zr	90	132.311	ug/L	0.819	303480	4.186
Mo	98	1.313	ug/L	0.813	1337	0.018
Ag	107	0.652	ug/L	4.572	1070	0.014
Cd	111	2.005	ug/L	4.382	769	0.010
Cd	114		ug/L		235	0.003
In	115		ug/L		72457	72456.789
Sn	120	0.855	ug/L	3.688	1604	0.020
Sb	121	0.035	ug/L	18.842	166	0.001
Sb	123		ug/L		151	0.000
Ba	135		ug/L		440183	6.572
Ba	137	1030.344	ug/L	1.428	746092	11.140
Ho	165		ug/L		10282	0.153
Lu	175		ug/L		66977	66976.989
Tl	205	0.995	ug/L	3.047	1056	0.015
Pb	208	59.801	ug/L	1.690	236121	3.522
Bi	209		ug/L		2892	0.043
Th	232	42.849	ug/L	2.441	212706	3.173
U	238	4.034	ug/L	1.149	20298	0.302

Sample ID: 244144013

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		110.5			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		94.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.7			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAI		27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE Ti		47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE V		51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn		55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEEFe		57	Sample is out of limits (over linear range)

Sample ID: 244144013

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Ba 137 Upper, S, EEBa

137Sample is out of limits (over linear range)

## QC Action

QC Action Line: Continue

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Sample ID: 244144013

Report Date/Time: Saturday, January 16, 2010 03:25:50

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## ICPMS#4 - Summary Report

Sample ID: 244144014

Sample Date/Time: Saturday, January 16, 2010 03:29:16

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144014.158

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	59.647	ug/L	3.223	11594	0.049
Be	9	3.842	ug/L	4.168	187	0.001
B	11	13.996	ug/L	6.175	760	0.003
Na	23	470.680	ug/L	3.329	539330	2.270
Mg	24	8432.982	ug/L	3.736	6586224	28.128
Al	27	70598.896	ug/L	5.355	81565735	348.490
P	31	564.413	ug/L	0.277	34496	0.140
K	39	9870.792	ug/L	5.259	18047008	75.877
Ca	43	8504.694	ug/L	0.404	32508	0.137
> Sc	45		ug/L		234067	234067.121
Ti	47	1437.912	ug/L	1.928	258728	1.105
V	51	85.028	ug/L	1.509	151057	0.648
Cr	52	77.686	ug/L	1.004	138407	0.581
Cr	53		ug/L		91283	-0.143
Mn	55	1761.107	ug/L	1.116	5083118	21.714
Fe	57	50253.268	ug/L	0.344	2952936	12.598
Co	59	24.526	ug/L	0.750	54620	0.233
Ni	60	50.655	ug/L	0.518	23345	0.100
Cu	63		ug/L		31546	0.135
Cu	65	30.954	ug/L	0.511	15604	0.066
Zn	66	122.306	ug/L	2.911	28087	0.257
Zn	67		ug/L		8612	0.037
Zn	68		ug/L		23044	0.208
> Ge	74		ug/L		109298	109297.656
As	75	10.326	ug/L	8.586	2979	0.026
Se	77		ug/L		2974	-0.010
Se	82	0.231	ug/L	149.298	18	0.000
Kr	83		ug/L		71	0.000
Sr	88	119.754	ug/L	0.678	518500	7.174
Y	89		ug/L		210243	2.909
Zr	90	111.792	ug/L	1.478	255776	3.537
Mo	98	2.497	ug/L	1.180	2515	0.034
Ag	107	0.511	ug/L	5.483	846	0.011
Cd	111	1.782	ug/L	4.336	683	0.009
Cd	114		ug/L		336	0.004
> In	115		ug/L		72267	72266.936
Sn	120	0.828	ug/L	3.396	1552	0.020
Sb	121	0.068	ug/L	8.125	208	0.001
Sb	123		ug/L		193	0.001
Ba	135		ug/L		339894	5.199
Ba	137	819.524	ug/L	2.399	579214	8.861
Ho	165		ug/L		7995	0.122
> Lu	175		ug/L		65381	65380.968
Tl	205	0.843	ug/L	4.849	885	0.012
Pb	208	59.917	ug/L	1.772	230910	3.529
Bi	209		ug/L		2582	0.039
Th	232	36.608	ug/L	2.067	177415	2.711
U	238	8.049	ug/L	1.610	39452	0.602

Sample ID: 244144014

Report Date/Time: Saturday, January 16, 2010 03:32:05

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000



## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % 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		95.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.2			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte

Al 27 Upper, S, EEEAl

Ti 47 Upper, S, EEETi

Mn 55 Upper, S, EEIMn

Fe 57 Upper, S, EEEFe

MassOut of Limits Message

27Sample is out of limits (over linear range)

47Sample is out of limits (over linear range)

55Sample is out of limits (over linear range)

57Sample is out of limits (over linear range)

Sample ID: 244144014

Report Date/Time: Saturday, January 16, 2010 03:32:05

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## QC Action

QC Action Line: Continue

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Sample ID: 244144014

Report Date/Time: Saturday, January 16, 2010 03:32:05

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, January 16, 2010 03:35:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 6.159

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	49.957	ug/L	2.363	8975	0.041
Be	9	49.528	ug/L	2.140	2203	0.010
B	11	95.871	ug/L	1.335	4485	0.020
Na	23	4929.003	ug/L	12.170	5146286	23.767
Mg	24	5004.739	ug/L	14.480	3609980	16.693
Al	27	5028.987	ug/L	1.443	5369966	24.824
P	31	4756.708	ug/L	0.802	256820	1.181
K	39	5214.590	ug/L	2.847	8933549	40.084
Ca	43	4863.500	ug/L	2.333	17312	0.079
> Sc	45		ug/L		216196	216196.476
Ti	47	50.641	ug/L	1.723	8554	0.039
V	51	47.636	ug/L	7.531	77914	0.363
Cr	52	52.400	ug/L	2.191	86927	0.392
Cr	53		ug/L		126803	0.054
Mn	55	51.656	ug/L	1.313	138389	0.637
Fe	57	5009.524	ug/L	1.313	275489	1.256
Co	59	50.092	ug/L	0.645	102918	0.476
Ni	60	52.057	ug/L	1.935	22160	0.102
Cu	63		ug/L		49388	0.228
Cu	65	51.036	ug/L	0.539	23735	0.110
Zn	66	50.490	ug/L	2.532	12252	0.106
Zn	67		ug/L		6819	0.018
Zn	68		ug/L		9158	0.076
> Ge	74		ug/L		115190	115190.362
As	75	49.319	ug/L	5.872	14436	0.124
Se	77		ug/L		6612	0.020
Se	82	48.986	ug/L	3.384	1432	0.012
Kr	83		ug/L		48	0.000
Sr	88	50.507	ug/L	0.792	223575	3.026
Y	89		ug/L		88	0.001
Zr	90	50.557	ug/L	0.695	118340	1.600
Mo	98	49.649	ug/L	0.523	50640	0.685
Ag	107	50.330	ug/L	1.024	80838	1.094
Cd	111	50.676	ug/L	1.362	19486	0.264
Cd	114		ug/L		45703	0.618
> In	115		ug/L		73870	73870.440
Sn	120	49.607	ug/L	0.334	87577	1.184
Sb	121	51.202	ug/L	1.709	67713	0.915
Sb	123		ug/L		51678	0.698
Ba	135		ug/L		20454	0.327
Ba	137	51.986	ug/L	0.438	35131	0.562
Ho	165		ug/L		12	0.000
> Lu	175		ug/L		62459	62459.203
Tl	205	46.160	ug/L	1.033	42614	0.681
Pb	208	50.196	ug/L	0.953	184880	2.956
Bi	209		ug/L		41	0.000
Th	232	50.096	ug/L	0.644	231908	3.710
U	238	51.585	ug/L	0.685	241207	3.861

Sample ID: QC Std 6

Report Date/Time: Saturday, January 16, 2010 03:38:17

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: QC Std 6

Report Date/Time: Saturday, January 16, 2010 03:38:17

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### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	99.914				
Be	9	99.055				
B	11	95.871				
Na	23	98.580				
Mg	24	100.095				
Al	27	99.584				
P	31	95.134				
K	39	104.292				
Ca	43	97.270				
> Sc	45		98.5			
Ti	47	101.281				
V	51	95.271				
Cr	52	104.799				
Cr	53					
Mn	55	103.312				
Fe	57	100.190				
Co	59	100.184				
Ni	60	104.114				
Cu	63					
Cu	65	102.072				
Zn	66	100.980				
Zn	67					
Zn	68					
> Ge	74		100.2			
As	75	98.638				
Se	77					
Se	82	97.972				
Kr	83					
Sr	88	101.013				
Y	89					
Zr	90	101.115				
Mo	98	99.298				
Ag	107	100.659				
Cd	111	101.351				
Cd	114					
> In	115		98.3			
Sn	120	99.214				
Sb	121	102.404				
Sb	123					
Ba	135					
Ba	137	103.973				
Ho	165					
> Lu	175		96.7			
Tl	205	92.320				
Pb	208	100.392				
Bi	209					
Th	232	100.191				
U	238	103.170				

### 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 6

Report Date/Time: Saturday, January 16, 2010 03:38:17

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, January 16, 2010 03:41:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 7.160

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.099	ug/L	48.454	43	0.000
Be	9	0.031	ug/L	41.759	4	0.000
B	11	2.079	ug/L	19.127	151	0.000
Na	23	0.736	ug/L	491.262	8336	0.004
Mg	24	1.880	ug/L	186.119	2334	0.006
Al	27	3.167	ug/L	16.285	6668	0.016
P	31	0.538	ug/L	259.578	1606	0.000
K	39	6.419	ug/L	60.849	277674	0.049
Ca	43	-17.728	ug/L	50.588	271	-0.000
> Sc	45		ug/L		216273	216273.327
Ti	47	0.251	ug/L	38.001	185	0.000
V	51	-0.588	ug/L	223.246	-1522	-0.004
Cr	52	0.507	ug/L	1.668	2993	0.004
Cr	53		ug/L		102220	-0.060
Mn	55	0.069	ug/L	25.912	878	0.001
Fe	57	4.769	ug/L	86.079	4250	0.001
Co	59	0.015	ug/L	74.409	147	0.000
Ni	60	0.006	ug/L	159.648	37	0.000
Cu	63		ug/L		88	0.000
Cu	65	0.016	ug/L	67.870	50	0.000
Zn	66	0.059	ug/L	17.372	64	0.000
Zn	67		ug/L		4197	-0.005
Zn	68		ug/L		340	-0.000
> Ge	74		ug/L		114750	114750.204
As	75	-1.050	ug/L	4.402	-153	-0.003
Se	77		ug/L		4324	-0.000
Se	82	-0.461	ug/L	69.714	-1	-0.000
Kr	83		ug/L		37	0.000
Sr	88	0.021	ug/L	27.830	179	0.001
Y	89		ug/L		23	0.000
Zr	90	0.136	ug/L	14.793	500	0.004
Mo	98	0.040	ug/L	32.268	67	0.001
Ag	107	0.022	ug/L	24.360	82	0.000
Cd	111	-0.004	ug/L	214.185	13	-0.000
Cd	114		ug/L		35	0.000
> In	115		ug/L		74799	74798.596
Sn	120	0.097	ug/L	7.973	304	0.002
Sb	121	0.299	ug/L	12.837	524	0.005
Sb	123		ug/L		417	0.004
Ba	135		ug/L		38	0.000
Ba	137	0.044	ug/L	44.805	54	0.000
Ho	165		ug/L		6	0.000
> Lu	175		ug/L		62295	62294.839
Tl	205	0.229	ug/L	18.819	278	0.003
Pb	208	0.028	ug/L	21.953	357	0.002
Bi	209		ug/L		18	-0.000
Th	232	0.085	ug/L	16.775	570	0.006
U	238	0.024	ug/L	26.962	183	0.002

Sample ID: QC Std 7

Report Date/Time: Saturday, January 16, 2010 03:44:32

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		98.6			
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		99.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		99.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		96.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Saturday, January 16, 2010 03:44:32

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## ICPMS#4 - Summary Report

Sample ID: 244144015

Sample Date/Time: Saturday, January 16, 2010 03:47:58

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144015.161

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	54.536	ug/L	1.164	10424	0.045
Be	9	3.507	ug/L	6.054	168	0.001
B	11	16.635	ug/L	5.303	877	0.004
Na	23	396.846	ug/L	2.326	448260	1.914
Mg	24	8684.712	ug/L	8.274	6663196	28.967
Al	27	69629.042	ug/L	5.844	79077891	343.702
P	31	677.159	ug/L	0.959	40343	0.168
K	39	10107.645	ug/L	5.236	18156134	77.697
Ca	43	9076.612	ug/L	2.066	34075	0.147
> Sc	45		ug/L		230064	230064.058
Ti	47	1542.391	ug/L	0.444	272781	1.185
V	51	83.669	ug/L	1.446	146075	0.637
Cr	52	46.912	ug/L	1.292	83058	0.351
Cr	53		ug/L		84728	-0.164
Mn	55	1804.771	ug/L	1.211	5120507	22.253
Fe	57	46133.165	ug/L	1.911	2665088	11.565
Co	59	22.923	ug/L	0.703	50186	0.218
Ni	60	35.385	ug/L	0.907	16041	0.070
Cu	63		ug/L		44268	0.192
Cu	65	44.128	ug/L	2.628	21844	0.095
Zn	66	128.379	ug/L	0.377	29074	0.269
Zn	67		ug/L		8867	0.041
Zn	68		ug/L		23930	0.219
> Ge	74		ug/L		107771	107771.088
As	75	8.839	ug/L	4.766	2536	0.022
Se	77		ug/L		2994	-0.010
Se	82	-0.131	ug/L	405.788	8	-0.000
Kr	83		ug/L		73	0.000
Sr	88	119.967	ug/L	2.356	515870	7.186
Y	89		ug/L		206089	2.871
Zr	90	96.587	ug/L	2.614	219486	3.056
Mo	98	2.313	ug/L	1.479	2316	0.032
Ag	107	0.420	ug/L	4.121	698	0.009
Cd	111	1.794	ug/L	5.215	683	0.009
Cd	114		ug/L		517	0.007
> In	115		ug/L		71797	71797.146
Sn	120	0.852	ug/L	1.681	1584	0.020
Sb	121	0.253	ug/L	11.274	443	0.005
Sb	123		ug/L		356	0.003
Ba	135		ug/L		379098	5.743
Ba	137	901.752	ug/L	1.380	643587	9.750
Ho	165		ug/L		7879	0.119
> Lu	175		ug/L		66011	66011.161
Tl	205	0.877	ug/L	4.377	926	0.013
Pb	208	70.037	ug/L	0.075	272530	4.124
Bi	209		ug/L		2535	0.038
Th	232	34.256	ug/L	0.161	167660	2.537
U	238	11.688	ug/L	0.436	57822	0.875

Sample ID: 244144015

Report Date/Time: Saturday, January 16, 2010 03:50:48

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		104.9			
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		93.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		95.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		102.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAI		27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn		55	Sample is out of limits (over linear range)

Sample ID: 244144015

Report Date/Time: Saturday, January 16, 2010 03:50:48

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## QC Action

QC Action Line: Continue

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Sample ID: 244144015

Report Date/Time: Saturday, January 16, 2010 03:50:48

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# ICPMS#4 - Summary Report

Sample ID: 244144016

Sample Date/Time: Saturday, January 16, 2010 03:54:15

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144016.162

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	65.504	ug/L	1.971	12572	0.054
Be	9	4.523	ug/L	12.188	217	0.001
B	11	15.452	ug/L	6.393	822	0.003
Na	23	436.744	ug/L	3.700	494763	2.106
Mg	24	9758.237	ug/L	7.448	7525281	32.548
Al	27	81915.441	ug/L	9.172	93471844	404.350
P	31	590.117	ug/L	0.602	35534	0.146
K	39	11340.442	ug/L	10.691	20433024	87.174
Ca	43	8612.940	ug/L	0.784	32499	0.139
> Sc	45		ug/L		231098	231098.263
Ti	47	1655.210	ug/L	0.529	294045	1.272
V	51	88.304	ug/L	2.205	154881	0.673
Cr	52	53.735	ug/L	0.576	95231	0.402
Cr	53		ug/L		85652	-0.162
Mn	55	1695.142	ug/L	0.630	4831101	20.901
Fe	57	50440.555	ug/L	0.646	2926447	12.645
Co	59	23.672	ug/L	1.193	52050	0.225
Ni	60	39.563	ug/L	2.059	18009	0.078
Cu	63		ug/L		91376	0.395
Cu	65	89.363	ug/L	0.289	44390	0.192
Zn	66	127.279	ug/L	1.749	28795	0.267
Zn	67		ug/L		8741	0.040
Zn	68		ug/L		23695	0.217
> Ge	74		ug/L		107672	107672.358
As	75	8.791	ug/L	2.434	2521	0.022
Se	77		ug/L		2798	-0.012
Se	82	0.189	ug/L	374.772	17	0.000
Kr	83		ug/L		77	0.000
Sr	88	119.991	ug/L	1.664	512207	7.188
Y	89		ug/L		229373	3.219
Zr	90	113.983	ug/L	1.790	257094	3.606
Mo	98	1.783	ug/L	0.560	1777	0.025
Ag	107	0.528	ug/L	0.991	860	0.011
Cd	111	1.929	ug/L	6.307	729	0.010
Cd	114		ug/L		307	0.004
> In	115		ug/L		71248	71248.172
Sn	120	0.870	ug/L	3.200	1602	0.021
Sb	121	0.165	ug/L	13.571	329	0.003
Sb	123		ug/L		266	0.002
Ba	135		ug/L		356561	5.431
Ba	137	858.618	ug/L	0.599	609534	9.283
Ho	165		ug/L		8730	0.133
> Lu	175		ug/L		65656	65656.188
Tl	205	0.855	ug/L	5.068	899	0.013
Pb	208	58.594	ug/L	0.225	226820	3.451
Bi	209		ug/L		2391	0.036
Th	232	36.940	ug/L	0.939	179810	2.736
U	238	7.062	ug/L	0.192	34777	0.529

Sample ID: 244144016

Report Date/Time: Saturday, January 16, 2010 03:57:04

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % 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		93.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		94.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.7			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAl		27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn		55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEEFe		57	Sample is out of limits (over linear range)

Sample ID: 244144016

Report Date/Time: Saturday, January 16, 2010 03:57:04

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## QC Action

QC Action Line: Continue

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Sample ID: 244144016

Report Date/Time: Saturday, January 16, 2010 03:57:04

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# ICPMS#4 - Summary Report

Sample ID: 244144017

Sample Date/Time: Saturday, January 16, 2010 04:00:32

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093[2]skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144017.163

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	62.117	ug/L	1.898	11843	0.051
Be	9	3.858	ug/L	16.318	184	0.001
B	11	11.862	ug/L	4.431	641	0.003
Na	23	480.037	ug/L	9.103	539020	2.315
Mg	24	8251.213	ug/L	2.755	6321954	27.521
Al	27	70573.811	ug/L	3.164	79966407	348.366
P	31	691.956	ug/L	1.828	41103	0.172
K	39	8879.013	ug/L	1.188	15958876	68.253
Ca	43	7902.337	ug/L	1.761	29661	0.128
> Sc	45		ug/L		229629	229628.603
Ti	47	1462.506	ug/L	0.770	258135	1.124
V	51	78.709	ug/L	1.759	137085	0.600
Cr	52	45.146	ug/L	2.462	79844	0.338
Cr	53		ug/L		82991	-0.171
Mn	55	1648.313	ug/L	2.363	4665698	20.324
Fe	57	46895.142	ug/L	2.849	2702357	11.756
Co	59	21.313	ug/L	2.713	46559	0.202
Ni	60	41.541	ug/L	2.757	18780	0.082
Cu	63		ug/L		80074	0.349
Cu	65	78.187	ug/L	1.671	38586	0.168
Zn	66	142.071	ug/L	1.250	32080	0.298
Zn	67		ug/L		10737	0.058
Zn	68		ug/L		31176	0.287
> Ge	74		ug/L		107474	107474.204
As	75	6.912	ug/L	9.959	2007	0.017
Se	77		ug/L		2921	-0.011
Se	82	0.616	ug/L	128.002	28	0.000
Kr	83		ug/L		68	0.000
Sr	88	107.797	ug/L	1.497	465004	6.457
Y	89		ug/L		232138	3.224
Zr	90	103.156	ug/L	0.941	235180	3.264
Mo	98	1.469	ug/L	2.246	1484	0.020
Ag	107	0.439	ug/L	2.513	730	0.010
Cd	111	1.524	ug/L	2.555	584	0.008
Cd	114		ug/L		262	0.003
> In	115		ug/L		72008	72008.132
Sn	120	0.841	ug/L	1.140	1570	0.020
Sb	121	0.138	ug/L	14.786	297	0.002
Sb	123		ug/L		255	0.002
Ba	135		ug/L		912970	13.726
Ba	137	2156.370	ug/L	0.287	1550921	23.315
Ho	165		ug/L		8971	0.135
> Lu	175		ug/L		66519	66518.853
Tl	205	0.733	ug/L	3.152	792	0.011
Pb	208	87.405	ug/L	0.337	342658	5.147
Bi	209		ug/L		2242	0.033
Th	232	32.655	ug/L	0.873	161068	2.418
U	238	7.350	ug/L	2.245	36664	0.550

Sample ID: 244144017

Report Date/Time: Saturday, January 16, 2010 04:03:22

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45		104.7			
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		93.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115		95.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175		103.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Al 27 Upper, S, EEEAl		27Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE Ti		47Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn		55Sample is out of limits (over linear range)
Ba 137 Upper, S, EEBa		137Sample is out of limits (over linear range)

Sample ID: 244144017

Report Date/Time: Saturday, January 16, 2010 04:03:22

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## QC Action

QC Action Line: Continue

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Sample ID: 244144017

Report Date/Time: Saturday, January 16, 2010 04:03:22

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## ICPMS#4 - Summary Report

Sample ID: 244144018

Sample Date/Time: Saturday, January 16, 2010 04:06:49

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\244144018.164

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	78.815	ug/L	0.407	15756	0.065
Be	9	5.413	ug/L	8.277	270	0.001
B	11	15.708	ug/L	0.606	870	0.003
Na	23	607.517	ug/L	5.662	714131	2.929
Mg	24	10920.602	ug/L	0.927	8772225	36.425
Al	27	103335.600	ug/L	3.748	122792860	510.084
P	31	487.578	ug/L	1.128	30898	0.121
K	39	12204.729	ug/L	11.297	22910469	93.817
Ca	43	9839.127	ug/L	0.013	38636	0.159
> Sc	45		ug/L		240819	240818.532
Ti	47	1789.293	ug/L	0.452	331211	1.375
V	51	108.374	ug/L	1.435	198211	0.826
Cr	52	47.252	ug/L	0.348	87553	0.354
Cr	53		ug/L		83391	-0.186
Mn	55	1804.557	ug/L	1.354	5358295	22.250
Fe	57	61702.162	ug/L	1.199	3728884	15.468
Co	59	25.788	ug/L	0.897	59078	0.245
Ni	60	39.099	ug/L	1.151	18549	0.077
Cu	63		ug/L		33321	0.138
Cu	65	31.736	ug/L	0.642	16459	0.068
Zn	66	140.119	ug/L	0.657	32168	0.294
Zn	67		ug/L		9741	0.048
Zn	68		ug/L		27022	0.244
> Ge	74		ug/L		109264	109264.050
As	75	10.544	ug/L	6.758	3041	0.027
Se	77		ug/L		3085	-0.009
Se	82	-0.644	ug/L	67.008	-5	-0.000
Kr	83		ug/L		96	0.001
Sr	88	158.825	ug/L	2.018	684266	9.514
Y	89		ug/L		283299	3.939
Zr	90	143.660	ug/L	0.288	327106	4.545
Mo	98	1.393	ug/L	3.744	1407	0.019
Ag	107	0.668	ug/L	1.264	1088	0.015
Cd	111	2.336	ug/L	5.287	887	0.012
Cd	114		ug/L		279	0.004
> In	115		ug/L		71926	71925.636
Sn	120	0.861	ug/L	2.907	1602	0.021
Sb	121	0.045	ug/L	21.348	177	0.001
Sb	123		ug/L		177	0.001
Ba	135		ug/L		478191	7.298
Ba	137	1143.330	ug/L	1.445	809936	12.362
Ho	165		ug/L		10532	0.161
> Lu	175		ug/L		65522	65522.250
Tl	205	1.005	ug/L	4.413	1042	0.015
Pb	208	66.330	ug/L	1.193	256187	3.906
Bi	209		ug/L		2939	0.045
Th	232	45.783	ug/L	0.858	222341	3.391
U	238	4.547	ug/L	1.080	22372	0.340

Sample ID: 244144018

Report Date/Time: Saturday, January 16, 2010 04:09:39

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45		109.8			
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		95.0			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115		95.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175		101.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Upper, S, EEEA	Al	27	Sample is out of limits (over linear range)
Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

Sample ID: 244144018

Report Date/Time: Saturday, January 16, 2010 04:09:39

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## QC Action

QC Action Line: Continue



# ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, January 16, 2010 04:13:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 6.165

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	48.273	ug/L	3.324	8719	0.040
Be	9	47.474	ug/L	2.683	2123	0.010
B	11	93.359	ug/L	2.569	4393	0.020
Na	23	4553.336	ug/L	5.900	4780391	21.955
Mg	24	4801.391	ug/L	3.012	3481693	16.015
Al	27	4663.117	ug/L	6.499	5006230	23.018
P	31	4659.109	ug/L	1.191	252958	1.156
K	39	5074.104	ug/L	3.819	8747741	39.005
Ca	43	4817.830	ug/L	0.250	17248	0.078
> Sc	45		ug/L		217382	217382.414
Ti	47	51.237	ug/L	0.866	8700	0.039
V	51	46.923	ug/L	1.726	77175	0.358
Cr	52	51.016	ug/L	0.634	85153	0.382
Cr	53		ug/L		125343	0.044
Mn	55	51.249	ug/L	0.626	138068	0.632
Fe	57	4939.541	ug/L	0.541	273181	1.238
Co	59	49.569	ug/L	1.378	102395	0.471
Ni	60	51.927	ug/L	1.840	22224	0.102
Cu	63		ug/L		49263	0.226
Cu	65	51.197	ug/L	0.677	23942	0.110
Zn	66	51.152	ug/L	1.062	12236	0.107
Zn	67		ug/L		6886	0.019
Zn	68		ug/L		9085	0.077
> Ge	74		ug/L		113572	113571.955
As	75	49.617	ug/L	2.961	14319	0.125
Se	77		ug/L		6506	0.020
Se	82	49.506	ug/L	7.476	1427	0.012
Kr	83		ug/L		37	0.000
Sr	88	51.077	ug/L	1.028	225192	3.060
Y	89		ug/L		98	0.001
Zr	90	50.904	ug/L	3.227	118662	1.611
Mo	98	48.775	ug/L	0.996	49548	0.673
Ag	107	50.320	ug/L	0.620	80502	1.093
Cd	111	50.687	ug/L	0.684	19411	0.264
Cd	114		ug/L		45145	0.613
> In	115		ug/L		73578	73578.094
Sn	120	49.316	ug/L	2.131	86708	1.177
Sb	121	51.070	ug/L	2.923	67258	0.913
Sb	123		ug/L		51332	0.696
Ba	135		ug/L		20336	0.332
Ba	137	51.802	ug/L	1.502	34267	0.560
Ho	165		ug/L		15	0.000
> Lu	175		ug/L		61145	61144.858
Tl	205	46.056	ug/L	1.294	41622	0.680
Pb	208	51.010	ug/L	0.611	183922	3.004
Bi	209		ug/L		49	0.000
Th	232	50.744	ug/L	0.886	229974	3.758
U	238	52.107	ug/L	1.211	238510	3.900

Sample ID: QC Std 6

Report Date/Time: Saturday, January 16, 2010 04:15:52

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	96.546				
	Be	9	94.948				
	B	11	93.359				
	Na	23	91.067				
	Mg	24	96.028				
	Al	27	92.339				
	P	31	93.182				
	K	39	101.482				
	Ca	43	96.357				
>	Sc	45		99.1			
	Ti	47	102.474				
	V	51	93.846				
	Cr	52	102.031				
	Cr	53					
	Mn	55	102.499				
	Fe	57	98.791				
	Co	59	99.138				
	Ni	60	103.855				
	Cu	63					
	Cu	65	102.394				
	Zn	66	102.305				
	Zn	67					
	Zn	68					
>	Ge	74		98.8			
	As	75	99.234				
	Se	77					
	Se	82	99.012				
	Kr	83					
	Sr	88	102.154				
	Y	89					
	Zr	90	101.808				
	Mo	98	97.549				
	Ag	107	100.640				
	Cd	111	101.373				
	Cd	114					
>	In	115		98.0			
	Sn	120	98.633				
	Sb	121	102.140				
	Sb	123					
	Ba	135					
	Ba	137	103.603				
	Ho	165					
>	Lu	175		94.7			
	Tl	205	92.113				
	Pb	208	102.019				
	Bi	209					
	Th	232	101.489				
	U	238	104.214				

## 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 6

Report Date/Time: Saturday, January 16, 2010 04:15:52

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, January 16, 2010 04:19:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 7.166

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.047	ug/L	58.332	34	0.000
Be	9	0.104	ug/L	112.715	7	0.000
B	11	1.883	ug/L	28.118	143	0.000
Na	23	1.634	ug/L	263.042	9337	0.008
Mg	24	0.007	ug/L	20071.458	1000	0.000
Al	27	3.424	ug/L	97.341	7002	0.017
P	31	1.794	ug/L	68.512	1686	0.000
K	39	16.083	ug/L	90.476	296049	0.124
Ca	43	-12.822	ug/L	24.755	290	-0.000
> Sc	45		ug/L		217978	217978.254
Ti	47	0.266	ug/L	18.820	189	0.000
V	51	-0.298	ug/L	510.718	-1041	-0.002
Cr	52	0.447	ug/L	21.129	2918	0.003
Cr	53		ug/L		102191	-0.064
Mn	55	0.068	ug/L	27.379	881	0.001
Fe	57	2.486	ug/L	52.511	4159	0.001
Co	59	0.007	ug/L	65.113	131	0.000
Ni	60	0.015	ug/L	34.664	42	0.000
Cu	63		ug/L		74	0.000
Cu	65	-0.005	ug/L	60.402	41	-0.000
Zn	66	0.048	ug/L	72.896	62	0.000
Zn	67		ug/L		4287	-0.005
Zn	68		ug/L		312	-0.000
> Ge	74		ug/L		116178	116177.688
As	75	-0.596	ug/L	151.026	-24	-0.001
Se	77		ug/L		4319	-0.001
Se	82	-0.428	ug/L	72.216	0	-0.000
Kr	83		ug/L		42	0.000
Sr	88	0.015	ug/L	22.188	155	0.001
Y	89		ug/L		27	0.000
Zr	90	0.132	ug/L	12.909	493	0.004
Mo	98	0.029	ug/L	9.874	56	0.000
Ag	107	0.014	ug/L	66.530	68	0.000
Cd	111	0.012	ug/L	86.497	19	0.000
Cd	114		ug/L		27	0.000
> In	115		ug/L		75270	75270.031
Sn	120	0.107	ug/L	13.649	324	0.003
Sb	121	0.300	ug/L	23.010	528	0.005
Sb	123		ug/L		463	0.004
Ba	135		ug/L		38	0.000
Ba	137	0.066	ug/L	13.157	69	0.001
Ho	165		ug/L		5	-0.000
> Lu	175		ug/L		62796	62795.707
Tl	205	0.264	ug/L	27.683	312	0.004
Pb	208	0.020	ug/L	41.052	333	0.001
Bi	209		ug/L		20	0.000
Th	232	0.076	ug/L	14.660	536	0.006
U	238	0.015	ug/L	25.591	145	0.001

Sample ID: QC Std 7

Report Date/Time: Saturday, January 16, 2010 04:22:06

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			99.3		
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			101.0		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			100.2		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			97.2		
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Saturday, January 16, 2010 04:22:06

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## Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Monday, January 18, 2010 10:30:30

Sample Description:

Method File: c:\elandata\Method\daily2.mth

Dataset File: c:\elandata\Dataset\090811\Sample.359

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		519.8		519.809		9.524		1.8
Mg	24.0		8473.9		8473.913		134.488		1.6
Co	58.9		23080.6		23080.631		193.310		0.8
Rh	102.9		42212.9		42212.876		152.331		0.4
In	114.9		57712.3		57712.345		437.180		0.8
Pb	208.0		20307.8		20307.826		244.308		1.2
[> Ba	137.9		45735.6		45735.559		333.249		0.7
[ Ba++	69.0		653.1		0.014		0.000		1.2
[> Ce	139.9		53667.2		53667.223		448.767		0.8
[ CeO	155.9		1054.9		0.020		0.000		2.0
Bkgd	220.0		7.6		7.600		1.981		26.1

### Current Optimization File Data

Current Value	Description
0.86	Nebulizer Gas Flow
9.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	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	8.5	436.0
Co	59	13	8.5	16359.4
In	115	13	9.5	41679.4

## ICPMS #4 TUNING REPORT

File Name: default2.tun  
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	601	2060	0.696
Be	9.0	9.1	2065	2045	0.757
Mg	24.0	24.0	5679	2075	0.738
Mg	25.0	25.0	5929	2080	0.719
Mg	26.0	26.1	6183	2085	0.710
Co	58.9	58.9	14182	2140	0.707
Rh	102.9	102.9	24873	2230	0.691
In	114.9	114.9	27785	2255	0.711
Ce	139.9	139.9	33847	2310	0.673
Pb	206.0	206.0	49937	2500	0.673
Pb	207.0	207.0	50089	2380	0.620
Pb	208.0	208.0	50448	2570	0.633
U	238.1	238.1	57690	2510	0.660



## ICPMS#4 - Summary Report

Sample ID: Blank

Sample Date/Time: Monday, January 18, 2010 15:30:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\Blank.115

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		241106	
[	Ni	60	ug/L		39	

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Simple Linear	
Ni	60Simple Linear	

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45				
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Monday, January 18, 2010 15:30:51

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## ICPMS#4 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Monday, January 18, 2010 15:32:49

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100118\Standard 1.116

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		250382	250381.910
[	Ni	60	10.000 ug/L	1.221	4156	0.016

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recovery	Dilution	% Diff	Dup. Rel.	% Diff
[>	Sc	45									
[	Ni	60									

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Monday, January 18, 2010 15:34:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\Standard 2.117

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		223681	223680.628
[	Ni	60	100.084 ug/L	4.072	40185	0.180

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45				
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Monday, January 18, 2010 15:37:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ui only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 1.118

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc 45		ug/L		245850	245850.216
[ Ni 60	46.895	ug/L	0.527	20732	0.084

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[> Sc 45		102.0			
[ Ni 60	93.790				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Monday, January 18, 2010 15:39:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 2.119

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		246001	246000.820
[	Ni	60	0.007 ug/L	118.032	42	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		102.0		
[	Ni	60				

### 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: Monday, January 18, 2010 15:39:33

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## ICPMS#4 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Monday, January 18, 2010 15:41:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\mi only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 3.120

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		253314	253314.419
[	Ni	60	2.045 ug/L	4.405	970	0.004

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		105.1		
[	Ni	60	102.245			

### 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 3

Report Date/Time: Monday, January 18, 2010 15:41:43

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## ICPMS#4 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Monday, January 18, 2010 15:43:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 4.121

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		240239	240238.900
[	Ni	60	3.492 ug/L	2.786	1544	0.006

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		99.6		
[	Ni	60	129.342			

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

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Sample ID: QC Std 4

Report Date/Time: Monday, January 18, 2010 15:43:55

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## ICPMS#4 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Monday, January 18, 2010 15:45:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ui only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 5.122

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		236583	236582.607
[	Ni	60	19.836 ug/L	1.758	8461	0.036

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		98.1		
[	Ni	60	87.382			

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, January 18, 2010 15:48:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\m only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 6.123

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc 45		ug/L		239405	239404.928
[ Ni 60	46.039	ug/L	0.729	19820	0.083

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[> Sc 45		99.3			
[ Ni 60	92.077				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Monday, January 18, 2010 15:48:19

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, January 18, 2010 15:50:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 7.124

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		237563	237563.260
[	Ni	60	0.008 ug/L	78.293	42	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45	98.5			
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Monday, January 18, 2010 15:50:33

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, January 18, 2010 15:59:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 6.128

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		245410	245409.933
[	Ni	60	45.846 ug/L	2.529	20231	0.082

### Calibration

Analyte	Mass Curve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		101.8		
[	Ni	60	91.693			

### QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, January 18, 2010 16:01:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 7.129

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		239991	239991.060
[	Ni 60	0.012	ug/L	89.528	44	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc 45		99.5			
[	Ni 60					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

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Sample ID: QC Std 7

Report Date/Time: Monday, January 18, 2010 16:01:46

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## ICPMS#4 - Summary Report

Sample ID: 1202011732

Sample Date/Time: Monday, January 18, 2010 16:03:48

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\vi only.mth

Dataset File: C:\elandata\Dataset\100118\1202011732.130

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		240538	240538.208
[	Ni	60	0.033 ug/L	105.761	53	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		99.8		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011732

Report Date/Time: Monday, January 18, 2010 16:04:01

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## ICPMS#4 - Summary Report

Sample ID: 1202011733

Sample Date/Time: Monday, January 18, 2010 16:06:03

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 940093|40|skj

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\1202011733.131

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		245919	245918.789
[	Ni	60	37.444 ug/L	0.461	16567	0.067

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		102.0		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011733

Report Date/Time: Monday, January 18, 2010 16:06:17

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## ICPMS#4 - Summary Report

Sample ID: 244144001

Sample Date/Time: Monday, January 18, 2010 16:08:19

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\vi only.mth

Dataset File: C:\elandata\Dataset\100118\244144001.132

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		257137	257137.107
[	Ni	60	ug/L	0.436	16216	0.063

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		106.6		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, January 18, 2010 16:10:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\vi only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 6.133

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		241336	241335.521
[	Ni	60	45.867 ug/L	1.207	19905	0.082

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		100.1		
[	Ni	60	91.734			

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

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Sample ID: QC Std 6

Report Date/Time: Monday, January 18, 2010 16:10:45

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, January 18, 2010 16:12:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 7.134

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		240254	240254.160
[	Ni	60	-0.002 ug/L	874.056	38	-0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		99.6		
[	Ni	60				

### 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, January 18, 2010 16:12:59

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## ICPMS#4 - Summary Report

Sample ID: 1202011734

Sample Date/Time: Monday, January 18, 2010 16:15:00

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 940093[2]skj

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\1202011734.135

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		257535	257535.230
[	Ni	60	35.438 ug/L	1.404	16423	0.064

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		106.8		
[	Ni	60				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: 1202011735

Sample Date/Time: Monday, January 18, 2010 16:17:14

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\1202011735.136

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		259794	259793.947
[	Ni	60	50.602 ug/L	5.968	23596	0.091

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		107.8		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011735

Report Date/Time: Monday, January 18, 2010 16:17:26

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## ICPMS#4 - Summary Report

Sample ID: 1202011737

Sample Date/Time: Monday, January 18, 2010 16:19:28

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\m only.mth

Dataset File: C:\elandata\Dataset\100118\1202011737.137

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		260782	260782.497
[	Ni	60	58.599 ug/L	0.538	27471	0.105

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		108.2		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: 1202011736

Sample Date/Time: Monday, January 18, 2010 16:21:42

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 940093|10|skj

Method File: c:\elandata\Method\mi only.mth

Dataset File: C:\elandata\Dataset\100118\1202011736.138

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc 45		ug/L		234361	234361.240
[ Ni 60	8.092	ug/L	0.671	3441	0.015

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[> Sc 45		97.2			
[ Ni 60					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011736

Report Date/Time: Monday, January 18, 2010 16:21:56

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## ICPMS#4 - Summary Report

Sample ID: 244144002

Sample Date/Time: Monday, January 18, 2010 16:23:57

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\244144002.139

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		259468	259468.415
[	Ni	60	33.448 ug/L	1.545	15618	0.060

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		107.6		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, January 18, 2010 16:26:11

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 6.140

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		242570	242570.261
[	Ni	60	46.499 ug/L	1.690	20281	0.083

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		100.6		
[	Ni	60	92.997			

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, January 18, 2010 16:28:25

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\nl only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 7.141

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		241014	241013.823
[	Ni	60	-0.001 ug/L	659.372	38	-0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		100.0		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#4 - Summary Report

Sample ID: 244144003

Sample Date/Time: Monday, January 18, 2010 16:30:40

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\244144003.142

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		254947	254946.688
[	Ni	60	33.419 ug/L	0.781	15333	0.060

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		105.7		
[	Ni	60				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: 244144004

Sample Date/Time: Monday, January 18, 2010 16:32:56

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100118\244144004.143

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		257147	257147.355
[	Ni	60	34.189 ug/L	0.421	15821	0.061

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		106.7		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 244144004

Report Date/Time: Monday, January 18, 2010 16:33:10

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## ICPMS#4 - Summary Report

Sample ID: 244144005

Sample Date/Time: Monday, January 18, 2010 16:35:11

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\mi only.mth

Dataset File: C:\elandata\Dataset\100118\244144005.144

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		250342	250341.662
[	Ni	60	29.796 ug/L	0.142	13428	0.053

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		103.8		
[	Ni	60				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 244144005

Report Date/Time: Monday, January 18, 2010 16:35:24

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## ICPMS#4 - Summary Report

Sample ID: 244144006

Sample Date/Time: Monday, January 18, 2010 16:37:25

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\ui only.mth

Dataset File: C:\elandata\Dataset\100118\244144006.145

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		256442	256441.854
[	Ni	60	41.105 ug/L	2.203	18960	0.074

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		106.4		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 244144006

Report Date/Time: Monday, January 18, 2010 16:37:38

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## ICPMS#4 - Summary Report

Sample ID: 244144007

Sample Date/Time: Monday, January 18, 2010 16:39:40

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\244144007.146

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		263769	263769.440
[	Ni	60	38.122 ug/L	0.637	18090	0.068

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		109.4		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 244144007

Report Date/Time: Monday, January 18, 2010 16:39:53

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, January 18, 2010 16:41:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 6.147

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc 45		ug/L		244629	244628.862
[	Ni 60	46.243	ug/L	0.607	20343	0.083

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc 45		101.5			
[	Ni 60	92.486				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, January 18, 2010 16:44:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 7.148

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		237178	237177.745
[	Ni 60	-0.009	ug/L	166.758	34	-0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc 45			98.4		
[	Ni 60					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: 244144008

Sample Date/Time: Monday, January 18, 2010 16:46:22

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\vi only.mth

Dataset File: C:\elandata\Dataset\100118\244144008.149

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		259793	259792.883
[	Ni	60	35.660 ug/L	1.263	16669	0.064

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		107.8		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#4 - Summary Report

Sample ID: 244144009

Sample Date/Time: Monday, January 18, 2010 16:48:37

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093[2]skj

Method File: c:\elandata\Method\vn only.mth

Dataset File: C:\elandata\Dataset\100118\244144009.150

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc 45		ug/L		268341	268341.208
[ Ni 60	38.018	ug/L	1.198	18353	0.068

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[> Sc 45		111.3			
[ Ni 60					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 244144009

Report Date/Time: Monday, January 18, 2010 16:48:51

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## ICPMS#4 - Summary Report

Sample ID: 244144010

Sample Date/Time: Monday, January 18, 2010 16:50:54

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100118\244144010.151

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		260785	260784.873
[	Ni	60	35.852 ug/L	0.688	16823	0.064

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		108.2		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: 244144011

Sample Date/Time: Monday, January 18, 2010 16:53:11

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\lri only.mth

Dataset File: C:\elandata\Dataset\100118\244144011.152

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		268219	268218.855
[	Ni	60	ug/L	0.612	17147	0.064

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		111.2		
[	Ni	60				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 244144011

Report Date/Time: Monday, January 18, 2010 16:53:25

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## ICPMS#4 - Summary Report

Sample ID: 244144012

Sample Date/Time: Monday, January 18, 2010 16:55:26

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\244144012.153

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		255892	255892.381
[	Ni	60	36.391 ug/L	1.021	16755	0.065

### Calibration

Analyte	Mass Curve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		106.1		
[	Ni	60				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, January 18, 2010 16:57:40

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\nl only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 6.154

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		246927	246926.597
[	Ni	60	46.363 ug/L	0.468	20587	0.083

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		102.4		
[	Ni	60	92.725			

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Monday, January 18, 2010 16:57:52

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, January 18, 2010 16:59:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 7.155

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc 45		ug/L		243338	243337.545
[	Ni 60	0.008	ug/L	11.468	43	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc 45		100.9			
[	Ni 60					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Monday, January 18, 2010 17:00:06

Page 1

## ICPMS#4 - Summary Report

Sample ID: 244144013

Sample Date/Time: Monday, January 18, 2010 17:02:08

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\mi only.mth

Dataset File: C:\elandata\Dataset\100118\244144013.156

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		263978	263977.575
[	Ni	60	36.809 ug/L	1.300	17482	0.066

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		109.5		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 244144013

Report Date/Time: Monday, January 18, 2010 17:02:21

Page 1

## ICPMS#4 - Summary Report

Sample ID: 244144014

Sample Date/Time: Monday, January 18, 2010 17:04:23

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\l only.mth

Dataset File: C:\elandata\Dataset\100118\244144014.157

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		261227	261227.380
[	Ni	60	47.291 ug/L	0.545	22215	0.085

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		108.3		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 244144014

Report Date/Time: Monday, January 18, 2010 17:04:37

Page 1



## ICPMS#4 - Summary Report

Sample ID: 244144015

Sample Date/Time: Monday, January 18, 2010 17:06:39

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\244144015.158

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		259375	259375.420
[	Ni	60	32.907 ug/L	1.080	15360	0.059

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		107.6		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: 244144016

Sample Date/Time: Monday, January 18, 2010 17:08:55

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093[2]skj

Method File: c:\elandata\Method\vi only.mth

Dataset File: C:\elandata\Dataset\100118\244144016.159

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc 45		ug/L		261753	261753.086
[	Ni 60	35.669	ug/L	1.063	16799	0.064

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc 45		108.6			
[	Ni 60					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: 244144017

Sample Date/Time: Monday, January 18, 2010 17:11:12

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\nl only.mth

Dataset File: C:\elandata\Dataset\100118\244144017.160

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc 45		ug/L		263687	263687.375
[ Ni 60	37.489	ug/L	1.141	17786	0.067

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[> Sc 45		109.4			
[ Ni 60					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 244144017

Report Date/Time: Monday, January 18, 2010 17:11:27

Page 1

## ICPMS#4 - Summary Report

Sample ID: 244144018

Sample Date/Time: Monday, January 18, 2010 17:13:30

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940093|2|skj

Method File: c:\elandata\Method\ni only.mth

Dataset File: C:\elandata\Dataset\100118\244144018.161

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		268293	268292.898
[	Ni 60	36.147	ug/L	2.071	17449	0.065

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc 45		111.3			
[	Ni 60					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 244144018

Report Date/Time: Monday, January 18, 2010 17:13:45

Page 1

## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, January 18, 2010 17:15:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\m only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 6.162

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		243803	243802.950
[	Ni	60	46.853 ug/L	1.432	20543	0.084

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		101.1		
[	Ni	60	93.705			

### 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 6

Report Date/Time: Monday, January 18, 2010 17:15:57

Page 1

## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, January 18, 2010 17:17:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ui only.mth

Dataset File: C:\elandata\Dataset\100118\QC Std 7.163

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		246476	246475.526
[	Ni	60	ug/L	4062.851	39	-0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		102.2		
[	Ni	60				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### 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: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\012610S1.SIF

Batch ID:

Results Data Set: 012610S1

Results Library: C:\data-AA\Administrator\Results\Results.mdb

=====  
Method Loaded

Method Name: SOIL

Method Last Saved: 1/4/2010 13:53:20

Method Description: 7471A, ILM04 ANALYST JXL

=====  
Sequence No.: 1

Sample ID: Calib Blank

Analyst:

Autosampler Location: 1

Date Collected: 1/26/2010 09:02:30

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]	0.0004	0.0011	0.0004	09:03:23	Yes
2		[0.00]	0.0003	0.0007	0.0003	09:03:53	Yes
Mean:		[0.00]	0.0003				
SD:		0.00	0.0000				
%RSD:		0.00	10.92				

Auto-zero performed.

=====  
Sequence No.: 2

Sample ID: S0.2

Analyst:

Autosampler Location: 2

Date Collected: 1/26/2010 09:04:11

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]	0.0025	0.0108	0.0028	09:05:02	Yes
2		[0.2]	0.0024	0.0105	0.0028	09:05:31	Yes
Mean:		[0.2]	0.0024				
SD:		0.0	0.0000				
%RSD:		0.0	1.15				

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.01220 Intercept: 0.00000

=====  
Sequence No.: 3

Sample ID: S0.5

Analyst:

Autosampler Location: 3

Date Collected: 1/26/2010 09:05:51

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]	0.0061	0.0247	0.0064	09:06:41	Yes
2		[0.5]	0.0061	0.0259	0.0065	09:07:11	Yes
Mean:		[0.5]	0.0061				
SD:		0.0	0.0000				
%RSD:		0.0	0.55				

Standard number 2 applied. [0.5]

Correlation Coef.: 1.000000 Slope: 0.01219 Intercept: 0.00000

=====  
Sequence No.: 4

Sample ID: S2.0

Analyst:

Autosampler Location: 4

Date Collected: 1/26/2010 09:07:31

Data Type: Original

-----  
Replicate Data: S2.0

Repl	SampleConc	StdConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1		[2.0]	0.0241	0.0986	0.0244	09:08:22	Yes
2		[2.0]	0.0242	0.0987	0.0245	09:08:52	Yes
Mean:		[2.0]	0.0241				
SD:		0.0	0.0001				
%RSD:		0.0	0.27				

Standard number 3 applied. [2.0]  
Correlation Coef.: 0.999996 Slope: 0.01205 Intercept: 0.00003

## =====

Sequence No.: 5

Sample ID: S5.0

Analyst:

Autosampler Location: 5

Date Collected: 1/26/2010 09:09:12

Data Type: Original

-----  
Replicate Data: S5.0

Repl	SampleConc	StdConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1		[5.0]	0.0592	0.2422	0.0595	09:10:04	Yes
2		[5.0]	0.0588	0.2403	0.0591	09:10:34	Yes
Mean:		[5.0]	0.0590				
SD:		0.0	0.0003				
%RSD:		0.0	0.44				

Standard number 4 applied. [5.0]  
Correlation Coef.: 0.999960 Slope: 0.01179 Intercept: 0.00017

## =====

Sequence No.: 6

Sample ID: S10.0

Analyst:

Autosampler Location: 6

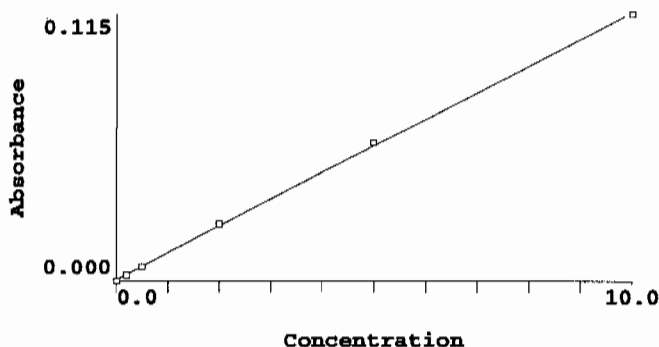
Date Collected: 1/26/2010 09:10:54

Data Type: Original

-----  
Replicate Data: S10.0

Repl	SampleConc	StdConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1		[10.0]	0.1150	0.4732	0.1153	09:11:45	Yes
2		[10.0]	0.1142	0.4691	0.1146	09:12:14	Yes
Mean:		[10.0]	0.1146				
SD:		0.0	0.0005				
%RSD:		0.0	0.47				

Standard number 5 applied. [10.0]  
Correlation Coef.: 0.999878 Slope: 0.01147 Intercept: 0.00053

-----  
Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal	Entered	Calculated	Standard	%RSD
	(Abs)	Conc.	Conc.	Deviation	
		ug/L	ug/L		
Calib Blank	0.0000	0	-0.046	0.00	10.9
S0.2	0.0024	0.2	0.167	0.00	1.2
S0.5	0.0061	0.5	0.485	0.00	0.5
S2.0	0.0241	2.0	2.056	0.00	0.3



S5.0 0.0590 5.0 5.094 0.00 0.4  
S10.0 0.1146 10.0 9.943 0.00 0.5  
Correlation Coef.: 0.999878 Slope: 0.01147 Intercept: 0.00053

Sequence No.: 7 Autosampler Location: 9  
Sample ID: ICV Date Collected: 1/26/2010 09:12:33  
Analyst: Data Type: Original

## Replicate Data: ICV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.169	5.169	0.0598	0.2444	0.0602	09:13:24	Yes
2	5.182	5.182	0.0600	0.2466	0.0603	09:13:54	Yes
Mean:	5.176	5.176	0.0599				
SD:	0.009	0.009	0.0001				
%RSD:	0.176	0.176	0.17				

QC value within limits for Hg 253.7 Recovery = 103.51%  
All analyte(s) passed QC.

Sequence No.: 8 Autosampler Location: 10  
Sample ID: ICB Date Collected: 1/26/2010 09:14:14  
Analyst: Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.026	-0.026	0.0002	0.0017	0.0006	09:15:05	Yes
2	-0.040	-0.040	0.0001	0.0001	0.0004	09:15:34	Yes
Mean:	-0.033	-0.033	0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	29.98	29.98	77.78				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 9 Autosampler Location: 11  
Sample ID: CRDL Date Collected: 1/26/2010 09:15:54  
Analyst: Data Type: Original

## Replicate Data: CRDL

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.169	0.169	0.0025	0.0110	0.0028	09:16:45	Yes
2	0.152	0.152	0.0023	0.0093	0.0026	09:17:15	Yes
Mean:	0.161	0.161	0.0024				
SD:	0.012	0.012	0.0001				
%RSD:	7.429	7.429	5.78				

QC value within limits for Hg 253.7 Recovery = 80.29%  
All analyte(s) passed QC.

Sequence No.: 10 Autosampler Location: 7  
Sample ID: CCV Date Collected: 1/26/2010 09:17:35  
Analyst: Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.047	5.047	0.0584	0.2407	0.0588	09:18:26	Yes
2	4.966	4.966	0.0575	0.2374	0.0578	09:18:56	Yes
Mean:	5.006	5.006	0.0580				
SD:	0.057	0.057	0.0007				
%RSD:	1.146	1.146	1.14				

QC value within limits for Hg 253.7 Recovery = 100.12%  
All analyte(s) passed QC.

Sequence No.: 11

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 1/26/2010 09:19:15

Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.047	-0.047	-0.0000	0.0006	0.0003	09:20:05	Yes
2	-0.043	-0.043	0.0000	0.0008	0.0004	09:20:35	Yes
Mean:	-0.045	-0.045	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	7.014	7.014	320.87				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 12

Sample ID: 1202019656|943268|1

Analyst: JXL

Autosampler Location: 12

Date Collected: 1/26/2010 09:20:55

Data Type: Original

## Replicate Data: 1202019656|943268|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.046	-0.046	-0.0000	0.0013	0.0003	09:21:46	Yes
2	-0.041	-0.041	0.0001	0.0009	0.0004	09:22:16	Yes
Mean:	-0.044	-0.044	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	9.046	9.046	166.48				

Sequence No.: 13

Sample ID: 1202019657|943268|10

Analyst: JXL

Autosampler Location: 13

Date Collected: 1/26/2010 09:22:36

Data Type: Original

## Replicate Data: 1202019657|943268|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.185	3.185	0.0371	0.1548	0.0374	09:23:28	Yes
2	3.132	3.132	0.0365	0.1512	0.0368	09:23:58	Yes
Mean:	3.159	3.159	0.0368				
SD:	0.038	0.038	0.0004				
%RSD:	1.197	1.197	1.18				

Sequence No.: 14

Sample ID: 244139001|943268|1

Analyst: JXL

Autosampler Location: 14

Date Collected: 1/26/2010 09:24:18

Data Type: Original

## Replicate Data: 244139001|943268|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.001	-0.001	0.0005	0.0026	0.0009	09:25:08	Yes
2	-0.002	-0.002	0.0005	0.0024	0.0008	09:25:38	Yes
Mean:	-0.001	-0.001	0.0005				
SD:	0.001	0.001	0.0000				
%RSD:	70.30	70.30	1.91				

Sequence No.: 15

Sample ID: 244139002|943268|1

Analyst: JXL

Autosampler Location: 15

Date Collected: 1/26/2010 09:25:57

Data Type: Original

## Replicate Data: 244139002|943268|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

-----  
Replicate Data: 244139007|943268|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.137	0.137	0.0021	0.0101	0.0024	09:35:05	Yes
2	0.128	0.128	0.0020	0.0086	0.0023	09:35:35	Yes
Mean:	0.133	0.133	0.0020				
SD:	0.006	0.006	0.0001				
%RSD:	4.809	4.809	3.57				

Sequence No.: 21

Autosampler Location: 21

Sample ID: 244139008|943268|1

Date Collected: 1/26/2010 09:35:55

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 244139008|943268|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.226	0.226	0.0031	0.0143	0.0035	09:36:45	Yes
2	0.221	0.221	0.0031	0.0141	0.0034	09:37:15	Yes
Mean:	0.224	0.224	0.0031				
SD:	0.003	0.003	0.0000				
%RSD:	1.440	1.440	1.19				

Sequence No.: 22

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/26/2010 09:37:35

Analyst:

Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.916	4.916	0.0569	0.2377	0.0573	09:38:26	Yes
2	4.908	4.908	0.0568	0.2381	0.0572	09:38:55	Yes
Mean:	4.912	4.912	0.0569				
SD:	0.006	0.006	0.0001				
%RSD:	0.119	0.119	0.12				

QC value within limits for Hg 253.7 Recovery = 98.24%  
All analyte(s) passed QC.

Sequence No.: 23

Autosampler Location: 8

Sample ID: CCB

Date Collected: 1/26/2010 09:39:14

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.048	-0.048	-0.0000	0.0012	0.0003	09:40:05	Yes
2	-0.037	-0.037	0.0001	0.0026	0.0004	09:40:35	Yes
Mean:	-0.043	-0.043	0.0000				
SD:	0.008	0.008	0.0001				
%RSD:	19.09	19.09	246.16				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 24

Autosampler Location: 22

Sample ID: 244139009|943268|1

Date Collected: 1/26/2010 09:40:55

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 244139009|943268|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.195	0.195	0.0028	0.0128	0.0031	09:41:46	Yes
2	0.196	0.196	0.0028	0.0127	0.0031	09:42:15	Yes

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.373	0.373	0.0048	0.0211	0.0051	09:50:10	Yes
2	0.377	0.377	0.0049	0.0216	0.0052	09:50:40	Yes
Mean:	0.375	0.375	0.0048				
SD:	0.003	0.003	0.0000				
%RSD:	0.801	0.801	0.71				

Sequence No.: 30

Autosampler Location: 28

Sample ID: 1202019659|943268|1

Date Collected: 1/26/2010 09:50:59

Analyst: JXL

Data Type: Original

Replicate Data: 1202019659|943268|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.288	2.288	0.0268	0.1137	0.0271	09:51:50	Yes
2	2.292	2.292	0.0268	0.1133	0.0272	09:52:20	Yes
Mean:	2.290	2.290	0.0268				
SD:	0.003	0.003	0.0000				
%RSD:	0.115	0.115	0.11				

Sequence No.: 31

Autosampler Location: 29

Sample ID: 1202019666|943268|1

Date Collected: 1/26/2010 09:52:39

Analyst: JXL

Data Type: Original

Replicate Data: 1202019666|943268|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.329	2.329	0.0272	0.1149	0.0276	09:53:30	Yes
2	2.325	2.325	0.0272	0.1148	0.0275	09:54:00	Yes
Mean:	2.327	2.327	0.0272				
SD:	0.002	0.002	0.0000				
%RSD:	0.098	0.098	0.10				

Sequence No.: 32

Autosampler Location: 30

Sample ID: 1202019665|943268|5

Date Collected: 1/26/2010 09:54:19

Analyst: JXL

Data Type: Original

Replicate Data: 1202019665|943268|5

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.025	0.025	0.0008	0.0044	0.0012	09:55:10	Yes
2	0.027	0.027	0.0008	0.0047	0.0012	09:55:39	Yes
Mean:	0.026	0.026	0.0008				
SD:	0.001	0.001	0.0000				
%RSD:	4.370	4.370	1.57				

Sequence No.: 33

Autosampler Location: 31

Sample ID: 244913002|943268|1

Date Collected: 1/26/2010 09:55:59

Analyst: JXL

Data Type: Original

Replicate Data: 244913002|943268|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.831	0.831	0.0101	0.0434	0.0104	09:56:50	Yes
2	0.840	0.840	0.0102	0.0453	0.0105	09:57:20	Yes
Mean:	0.835	0.835	0.0101				
SD:	0.006	0.006	0.0001				
%RSD:	0.706	0.706	0.67				

Sequence No.: 34

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/26/2010 09:57:39

Analyst:

Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.963	4.963	0.0575	0.2441	0.0578	09:58:29	Yes
2	4.946	4.946	0.0573	0.2442	0.0576	09:58:59	Yes
Mean:	4.954	4.954	0.0574				
SD:	0.012	0.012	0.0001				
%RSD:	0.246	0.246	0.24				

QC value within limits for Hg 253.7 Recovery = 99.09%  
All analyte(s) passed QC.

=====

Sequence No.: 35

Autosampler Location: 8

Sample ID: CCB

Date Collected: 1/26/2010 09:59:18

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.040	-0.040	0.0001	0.0030	0.0004	10:00:08	Yes
2	-0.029	-0.029	0.0002	0.0044	0.0005	10:00:38	Yes
Mean:	-0.035	-0.035	0.0001				
SD:	0.008	0.008	0.0001				
%RSD:	23.37	23.37	71.83				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

=====

Sequence No.: 36

Autosampler Location: 32

Sample ID: 244913003|943268|1

Date Collected: 1/26/2010 10:00:57

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 244913003|943268|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.374	0.374	0.0048	0.0221	0.0052	10:01:48	Yes
2	0.368	0.368	0.0047	0.0215	0.0051	10:02:18	Yes
Mean:	0.371	0.371	0.0048				
SD:	0.004	0.004	0.0001				
%RSD:	1.207	1.207	1.07				

=====

Sequence No.: 37

Autosampler Location: 33

Sample ID: 244913004|943268|1

Date Collected: 1/26/2010 10:02:38

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 244913004|943268|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.352	0.352	0.0046	0.0204	0.0049	10:03:29	Yes
2	0.354	0.354	0.0046	0.0201	0.0049	10:03:58	Yes
Mean:	0.353	0.353	0.0046				
SD:	0.001	0.001	0.0000				
%RSD:	0.362	0.362	0.32				

=====

Sequence No.: 38

Autosampler Location: 34

Sample ID: 244913005|943268|1

Date Collected: 1/26/2010 10:04:18

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 244913005|943268|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.248	1.248	0.0149	0.0632	0.0152	10:05:10	Yes

2	1.251	1.251	0.0149	0.0635	0.0152	10:05:40	Yes
Mean:	1.250	1.250	0.0149				
SD:	0.002	0.002	0.0000				
%RSD:	0.137	0.137	0.13				

Sequence No.: 39

Sample ID: 244913006|943268|1

Analyst: JXL

Autosampler Location: 35

Date Collected: 1/26/2010 10:05:59

Data Type: Original

Replicate Data: 244913006|943268|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.422	1.422	0.0168	0.0719	0.0172	10:06:50	Yes
2	1.411	1.411	0.0167	0.0712	0.0171	10:07:20	Yes
Mean:	1.416	1.416	0.0168				
SD:	0.008	0.008	0.0001				
%RSD:	0.554	0.554	0.54				

Sequence No.: 40

Sample ID: 244913007|943268|1

Analyst: JXL

Autosampler Location: 36

Date Collected: 1/26/2010 10:07:40

Data Type: Original

Replicate Data: 244913007|943268|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.488	0.488	0.0061	0.0270	0.0065	10:08:32	Yes
2	0.490	0.490	0.0061	0.0267	0.0065	10:09:02	Yes
Mean:	0.489	0.489	0.0061				
SD:	0.002	0.002	0.0000				
%RSD:	0.333	0.333	0.30				

Sequence No.: 41

Sample ID: 244913008|943268|1

Analyst: JXL

Autosampler Location: 37

Date Collected: 1/26/2010 10:09:22

Data Type: Original

Replicate Data: 244913008|943268|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.100	1.100	0.0132	0.0567	0.0135	10:10:14	Yes
2	1.098	1.098	0.0131	0.0563	0.0135	10:10:44	Yes
Mean:	1.099	1.099	0.0131				
SD:	0.001	0.001	0.0000				
%RSD:	0.130	0.130	0.12				

Sequence No.: 42

Sample ID: 1202019667|943271|1

Analyst: JXL

Autosampler Location: 38

Date Collected: 1/26/2010 10:11:04

Data Type: Original

Replicate Data: 1202019667|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.060	-0.060	-0.0002	-0.0005	0.0002	10:11:55	Yes
2	-0.046	-0.046	0.0000	0.0016	0.0003	10:12:25	Yes
Mean:	-0.053	-0.053	-0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	18.97	18.97	144.16				

Sequence No.: 43

Sample ID: 1202019668|943271|10

Analyst: JXL

Autosampler Location: 39

Date Collected: 1/26/2010 10:12:44

Data Type: Original

## Replicate Data: 1202019668|943271|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.869	3.869	0.0449	0.1906	0.0453	10:13:35	Yes
2	3.882	3.882	0.0451	0.1905	0.0454	10:14:05	Yes
Mean:	3.876	3.876	0.0450				
SD:	0.009	0.009	0.0001				
%RSD:	0.231	0.231	0.23				

Sequence No.: 44

Autosampler Location: 40

Sample ID: 244144001|943271|1

Date Collected: 1/26/2010 10:14:24

Analyst: JXL

Data Type: Original

## Replicate Data: 244144001|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.206	0.206	0.0029	0.0138	0.0032	10:15:15	Yes
2	0.210	0.210	0.0029	0.0140	0.0033	10:15:45	Yes
Mean:	0.208	0.208	0.0029				
SD:	0.003	0.003	0.0000				
%RSD:	1.572	1.572	1.29				

Sequence No.: 45

Autosampler Location: 41

Sample ID: 1202019669|943271|1

Date Collected: 1/26/2010 10:16:04

Analyst: JXL

Data Type: Original

## Replicate Data: 1202019669|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.240	0.240	0.0033	0.0155	0.0036	10:16:55	Yes
2	0.242	0.242	0.0033	0.0155	0.0036	10:17:25	Yes
Mean:	0.241	0.241	0.0033				
SD:	0.001	0.001	0.0000				
%RSD:	0.582	0.582	0.49				

Sequence No.: 46

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/26/2010 10:17:44

Analyst:

Data Type: Original

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.988	4.988	0.0578	0.2441	0.0581	10:18:34	Yes
2	4.994	4.994	0.0578	0.2434	0.0582	10:19:04	Yes
Mean:	4.991	4.991	0.0578				
SD:	0.004	0.004	0.0000				
%RSD:	0.086	0.086	0.08				

QC value within limits for Hg 253.7 Recovery = 99.82%

All analyte(s) passed QC.

Sequence No.: 47

Autosampler Location: 8

Sample ID: CCB

Date Collected: 1/26/2010 10:19:23

Analyst:

Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.047	-0.047	-0.0000	0.0017	0.0003	10:20:14	Yes
2	-0.050	-0.050	-0.0000	0.0014	0.0003	10:20:44	Yes
Mean:	-0.048	-0.048	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	3.956	3.956	79.81				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 48

Sample ID: 1202019670|943271|1

Analyst: JXL

Autosampler Location: 42

Date Collected: 1/26/2010 10:21:03

Data Type: Original

Replicate Data: 1202019670|943271|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.275	2.275	0.0266	0.1144	0.0270	10:21:54	Yes
2	2.267	2.267	0.0265	0.1146	0.0269	10:22:24	Yes
Mean:	2.271	2.271	0.0266				
SD:	0.006	0.006	0.0001				
%RSD:	0.260	0.260	0.25				

Sequence No.: 49

Sample ID: 1202019672|943271|1

Analyst: JXL

Autosampler Location: 43

Date Collected: 1/26/2010 10:22:43

Data Type: Original

Replicate Data: 1202019672|943271|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.225	2.225	0.0261	0.1117	0.0264	10:23:34	Yes
2	2.216	2.216	0.0260	0.1109	0.0263	10:24:04	Yes
Mean:	2.220	2.220	0.0260				
SD:	0.006	0.006	0.0001				
%RSD:	0.283	0.283	0.28				

Sequence No.: 50

Sample ID: 1202019671|943271|5

Analyst: JXL

Autosampler Location: 44

Date Collected: 1/26/2010 10:24:23

Data Type: Original

Replicate Data: 1202019671|943271|5

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.000	0.000	0.0005	0.0037	0.0009	10:25:14	Yes
2	1.875	1.875	0.0220	0.0806	0.0224	10:25:44	Yes
Mean:	0.937	0.937	0.0113				
SD:	1.326	1.326	0.0152				
%RSD:	141.5	141.5	134.88				

Sequence No.: 51

Sample ID: 244144002|943271|1

Analyst: JXL

Autosampler Location: 45

Date Collected: 1/26/2010 10:26:04

Data Type: Original

Replicate Data: 244144002|943271|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.220	0.220	0.0031	0.0142	0.0034	10:26:55	Yes
2	0.212	0.212	0.0030	0.0134	0.0033	10:27:24	Yes
Mean:	0.216	0.216	0.0030				
SD:	0.006	0.006	0.0001				
%RSD:	2.650	2.650	2.19				

Sequence No.: 52

Sample ID: 244144003|943271|1

Analyst: JXL

Autosampler Location: 46

Date Collected: 1/26/2010 10:27:44

Data Type: Original

Replicate Data: 244144003|943271|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored



1	0.188	0.188	0.0027	0.0132	0.0030	10:28:36	Yes
2	0.192	0.192	0.0027	0.0134	0.0031	10:29:06	Yes
Mean:	0.190	0.190	0.0027				
SD:	0.003	0.003	0.0000				
%RSD:	1.393	1.393	1.12				

Sequence No.: 53

Autosampler Location: 47

Sample ID: 244144004|943271|1

Date Collected: 1/26/2010 10:29:25

Analyst: JXL

Data Type: Original

Replicate Data: 244144004|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.250	0.250	0.0034	0.0159	0.0037	10:30:17	Yes
2	0.250	0.250	0.0034	0.0159	0.0037	10:30:47	Yes
Mean:	0.250	0.250	0.0034				
SD:	0.000	0.000	0.0000				
%RSD:	0.021	0.021	0.02				

Sequence No.: 54

Autosampler Location: 48

Sample ID: 244144005|943271|1

Date Collected: 1/26/2010 10:31:07

Analyst: JXL

Data Type: Original

Replicate Data: 244144005|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.109	0.109	0.0018	0.0087	0.0021	10:31:58	Yes
2	0.109	0.109	0.0018	0.0086	0.0021	10:32:28	Yes
Mean:	0.109	0.109	0.0018				
SD:	0.000	0.000	0.0000				
%RSD:	0.169	0.169	0.12				

Sequence No.: 55

Autosampler Location: 49

Sample ID: 244144006|943271|1

Date Collected: 1/26/2010 10:32:49

Analyst: JXL

Data Type: Original

Replicate Data: 244144006|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.188	0.188	0.0027	0.0123	0.0030	10:33:41	Yes
2	0.187	0.187	0.0027	0.0123	0.0030	10:34:11	Yes
Mean:	0.187	0.187	0.0027				
SD:	0.000	0.000	0.0000				
%RSD:	0.216	0.216	0.17				

Sequence No.: 56

Autosampler Location: 50

Sample ID: 244144007|943271|1

Date Collected: 1/26/2010 10:34:31

Analyst: JXL

Data Type: Original

Replicate Data: 244144007|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.269	0.269	0.0036	0.0164	0.0040	10:35:22	Yes
2	0.274	0.274	0.0037	0.0173	0.0040	10:35:52	Yes
Mean:	0.272	0.272	0.0036				
SD:	0.004	0.004	0.0000				
%RSD:	1.356	1.356	1.16				

Sequence No.: 57

Autosampler Location: 51

Sample ID: 244144008|943271|1

Date Collected: 1/26/2010 10:36:12

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 244144008|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.192	0.192	0.0027	0.0129	0.0031	10:37:03	Yes
2	0.187	0.187	0.0027	0.0131	0.0030	10:37:33	Yes
Mean:	0.190	0.190	0.0027				
SD:	0.003	0.003	0.0000				
%RSD:	1.733	1.733	1.40				

Sequence No.: 58

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/26/2010 10:37:53

Analyst:

Data Type: Original  
-----

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.978	4.978	0.0577	0.2437	0.0580	10:38:44	Yes
2	4.985	4.985	0.0577	0.2434	0.0581	10:39:14	Yes
Mean:	4.982	4.982	0.0577				
SD:	0.005	0.005	0.0001				
%RSD:	0.095	0.095	0.09				

QC value within limits for Hg 253.7 Recovery = 99.64%  
All analyte(s) passed QC.  
-----

Sequence No.: 59

Autosampler Location: 8

Sample ID: CCB

Date Collected: 1/26/2010 10:39:32

Analyst:

Data Type: Original  
-----

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.052	-0.052	-0.0001	0.0008	0.0003	10:40:23	Yes
2	-0.052	-0.052	-0.0001	0.0009	0.0003	10:40:53	Yes
Mean:	-0.052	-0.052	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.206	0.206	1.86				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.  
-----

Sequence No.: 60

Autosampler Location: 52

Sample ID: 244144009|943271|1

Date Collected: 1/26/2010 10:41:12

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 244144009|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.358	0.358	0.0046	0.0210	0.0050	10:42:03	Yes
2	0.358	0.358	0.0046	0.0212	0.0050	10:42:33	Yes
Mean:	0.358	0.358	0.0046				
SD:	0.000	0.000	0.0000				
%RSD:	0.051	0.051	0.05				

Sequence No.: 61

Autosampler Location: 53

Sample ID: 244144010|943271|1

Date Collected: 1/26/2010 10:42:53

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 244144010|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.151	0.151	0.0023	0.0115	0.0026	10:43:44	Yes
2	0.147	0.147	0.0022	0.0109	0.0026	10:44:14	Yes
Mean:	0.149	0.149	0.0022				

SD: 0.003 0.003 0.0000  
%RSD: 1.689 1.689 1.29

Sequence No.: 62

Sample ID: 244144011|943271|1

Analyst: JXL

Autosampler Location: 54

Date Collected: 1/26/2010 10:44:34

Data Type: Original

Replicate Data: 244144011|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.237	0.237	0.0032	0.0149	0.0036	10:45:25	Yes
2	0.239	0.239	0.0033	0.0158	0.0036	10:45:55	Yes
Mean:	0.238	0.238	0.0033				
SD:	0.001	0.001	0.0000				
%RSD:	0.520	0.520	0.44				

Sequence No.: 63

Sample ID: 244144012|943271|1

Analyst: JXL

Autosampler Location: 55

Date Collected: 1/26/2010 10:46:14

Data Type: Original

Replicate Data: 244144012|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.102	0.102	0.0017	0.0092	0.0020	10:47:05	Yes
2	0.101	0.101	0.0017	0.0084	0.0020	10:47:35	Yes
Mean:	0.102	0.102	0.0017				
SD:	0.000	0.000	0.0000				
%RSD:	0.359	0.359	0.25				

Sequence No.: 64

Sample ID: 244144013|943271|1

Analyst: JXL

Autosampler Location: 56

Date Collected: 1/26/2010 10:47:55

Data Type: Original

Replicate Data: 244144013|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.240	0.240	0.0033	0.0159	0.0036	10:48:46	Yes
2	0.229	0.229	0.0032	0.0139	0.0035	10:49:16	Yes
Mean:	0.235	0.235	0.0032				
SD:	0.008	0.008	0.0001				
%RSD:	3.213	3.213	2.69				

Sequence No.: 65

Sample ID: 244144014|943271|1

Analyst: JXL

Autosampler Location: 57

Date Collected: 1/26/2010 10:49:36

Data Type: Original

Replicate Data: 244144014|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.174	0.174	0.0025	0.0121	0.0029	10:50:26	Yes
2	0.172	0.172	0.0025	0.0122	0.0028	10:50:56	Yes
Mean:	0.173	0.173	0.0025				
SD:	0.001	0.001	0.0000				
%RSD:	0.736	0.736	0.58				

Sequence No.: 66

Sample ID: 244144015|943271|1

Analyst: JXL

Autosampler Location: 58

Date Collected: 1/26/2010 10:51:16

Data Type: Original

Replicate Data: 244144015|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.212	0.212	0.0030	0.0140	0.0033	10:52:07	Yes
2	0.209	0.209	0.0029	0.0135	0.0033	10:52:37	Yes
Mean:	0.210	0.210	0.0029				
SD:	0.002	0.002	0.0000				
%RSD:	0.856	0.856	0.70				

Sequence No.: 67

Autosampler Location: 59

Sample ID: 244144016|943271|1

Date Collected: 1/26/2010 10:52:57

Analyst: JXL

Data Type: Original

Replicate Data: 244144016|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.193	0.193	0.0027	0.0129	0.0031	10:53:49	Yes
2	0.141	0.141	0.0021	0.0043	0.0025	10:54:19	Yes
Mean:	0.167	0.167	0.0024				
SD:	0.037	0.037	0.0004				
%RSD:	22.24	22.24	17.45				

Sequence No.: 68

Autosampler Location: 60

Sample ID: 244144017|943271|1

Date Collected: 1/26/2010 10:54:39

Analyst: JXL

Data Type: Original

Replicate Data: 244144017|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.118	0.118	0.0019	0.0094	0.0022	10:55:31	Yes
2	0.119	0.119	0.0019	0.0095	0.0022	10:56:01	Yes
Mean:	0.119	0.119	0.0019				
SD:	0.001	0.001	0.0000				
%RSD:	0.461	0.461	0.33				

Sequence No.: 69

Autosampler Location: 61

Sample ID: 244144018|943271|1

Date Collected: 1/26/2010 10:56:21

Analyst: JXL

Data Type: Original

Replicate Data: 244144018|943271|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.251	0.251	0.0034	0.0157	0.0037	10:57:12	Yes
2	0.247	0.247	0.0034	0.0157	0.0037	10:57:42	Yes
Mean:	0.249	0.249	0.0034				
SD:	0.003	0.003	0.0000				
%RSD:	1.158	1.158	0.98				

Sequence No.: 70

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/26/2010 10:58:02

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.987	4.987	0.0577	0.2449	0.0581	10:58:53	Yes
2	4.987	4.987	0.0577	0.2453	0.0581	10:59:22	Yes
Mean:	4.987	4.987	0.0577				
SD:	0.000	0.000	0.0000				
%RSD:	0.004	0.004	0.00				

QC value within limits for Hg 253.7 Recovery = 99.74%  
All analyte(s) passed QC.

Sequence No.: 71

Autosampler Location: 8

Sample ID: CCB  
Analyst:

Date Collected: 1/26/2010 10:59:41  
Data Type: Original

-----  
Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.046	-0.046	0.0000	0.0013	0.0003	11:00:32	Yes
2	-0.047	-0.047	-0.0000	0.0013	0.0003	11:01:02	Yes
Mean:	-0.047	-0.047	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	2.708	2.708	174.18				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

=====

Sequence No.: 72  
Sample ID: 244916002|943271|1  
Analyst: JXL

Autosampler Location: 62  
Date Collected: 1/26/2010 11:01:22  
Data Type: Original

-----  
Replicate Data: 244916002|943271|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.053	0.053	0.0011	0.0066	0.0015	11:02:13	Yes
2	0.050	0.050	0.0011	0.0059	0.0014	11:02:42	Yes
Mean:	0.051	0.051	0.0011				
SD:	0.003	0.003	0.0000				
%RSD:	5.046	5.046	2.67				

=====

Sequence No.: 73  
Sample ID: 244916003|943271|1  
Analyst: JXL

Autosampler Location: 63  
Date Collected: 1/26/2010 11:03:02  
Data Type: Original

-----  
Replicate Data: 244916003|943271|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.129	0.129	0.0020	0.0100	0.0024	11:03:53	Yes
2	0.131	0.131	0.0020	0.0099	0.0024	11:04:23	Yes
Mean:	0.130	0.130	0.0020				
SD:	0.001	0.001	0.0000				
%RSD:	0.842	0.842	0.62				

=====

Sequence No.: 74  
Sample ID: 1202022137|944346|1  
Analyst: JXL

Autosampler Location: 64  
Date Collected: 1/26/2010 11:04:43  
Data Type: Original

-----  
Replicate Data: 1202022137|944346|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0000	0.0023	0.0004	11:05:34	Yes
2	-0.051	-0.051	-0.0001	0.0008	0.0003	11:06:04	Yes
Mean:	-0.048	-0.048	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	10.21	10.21	253.41				

=====

Sequence No.: 75  
Sample ID: 1202022138|944346|10  
Analyst: JXL

Autosampler Location: 65  
Date Collected: 1/26/2010 11:06:23  
Data Type: Original

-----  
Replicate Data: 1202022138|944346|10

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.623	3.623	0.0421	0.1780	0.0424	11:07:15	Yes
2	3.622	3.622	0.0421	0.1790	0.0424	11:07:45	Yes

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.026	-0.026	0.0002	0.0037	0.0006	11:15:41	Yes
2	-0.028	-0.028	0.0002	0.0023	0.0005	11:16:11	Yes
Mean:	-0.027	-0.027	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	4.687	4.687	6.87				

Sequence No.: 81

Autosampler Location: 71

Sample ID: 245138002|944346|1

Date Collected: 1/26/2010 11:16:31

Analyst: JXL

Data Type: Original

Replicate Data: 245138002|944346|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.008	0.008	0.0006	0.0043	0.0010	11:17:22	Yes
2	0.011	0.011	0.0007	0.0047	0.0010	11:17:52	Yes
Mean:	0.010	0.010	0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	19.66	19.66	3.38				

Sequence No.: 82

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/26/2010 11:18:12

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.988	4.988	0.0578	0.2477	0.0581	11:19:02	Yes
2	4.967	4.967	0.0575	0.2449	0.0579	11:19:32	Yes
Mean:	4.978	4.978	0.0576				
SD:	0.015	0.015	0.0002				
%RSD:	0.302	0.302	0.30				

QC value within limits for Hg 253.7 Recovery = 99.55%  
All analyte(s) passed QC.

Sequence No.: 83

Autosampler Location: 8

Sample ID: CCB

Date Collected: 1/26/2010 11:19:51

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.050	-0.050	-0.0000	0.0010	0.0003	11:20:41	Yes
2	-0.048	-0.048	-0.0000	0.0012	0.0003	11:21:11	Yes
Mean:	-0.049	-0.049	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	2.577	2.577	44.23				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 84

Autosampler Location: 72

Sample ID: 1202022186|944364|1

Date Collected: 1/26/2010 11:21:30

Analyst: JXL

Data Type: Original

Replicate Data: 1202022186|944364|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.050	-0.050	-0.0000	0.0012	0.0003	11:22:22	Yes
2	-0.036	-0.036	0.0001	0.0034	0.0005	11:22:52	Yes
Mean:	-0.043	-0.043	0.0000				
SD:	0.010	0.010	0.0001				
%RSD:	23.11	23.11	346.83				

2	0.355	0.355	0.0046	0.0208	0.0049	11:31:19	Yes
Mean:	0.350	0.350	0.0045				
SD:	0.007	0.007	0.0001				
%RSD:	1.956	1.956	1.73				

Sequence No.: 90

Autosampler Location: 78

Sample ID: 1202022190|944364|5

Date Collected: 1/26/2010 11:31:39

Analyst: JXL

Data Type: Original

Replicate Data: 1202022190|944364|5

Repl	SampleConc	StdConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.038	-0.038	0.0001	0.0026	0.0004	11:32:31	Yes
2	-0.051	-0.051	-0.0001	0.0014	0.0003	11:33:01	Yes
Mean:	-0.045	-0.045	0.0000				
SD:	0.009	0.009	0.0001				
%RSD:	20.81	20.81	870.97				

Sequence No.: 91

Autosampler Location: 79

Sample ID: 1202022162|944355|1

Date Collected: 1/26/2010 11:33:21

Analyst: JXL

Data Type: Original

Replicate Data: 1202022162|944355|1

Repl	SampleConc	StdConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.055	-0.055	-0.0001	0.0011	0.0002	11:34:12	Yes
2	-0.062	-0.062	-0.0002	0.0001	0.0002	11:34:42	Yes
Mean:	-0.058	-0.058	-0.0001				
SD:	0.004	0.004	0.0001				
%RSD:	7.652	7.652	35.79				

Sequence No.: 92

Autosampler Location: 80

Sample ID: 1202022163|944355|1

Date Collected: 1/26/2010 11:35:02

Analyst: JXL

Data Type: Original

Replicate Data: 1202022163|944355|1

Repl	SampleConc	StdConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.984	1.984	0.0233	0.1017	0.0236	11:35:53	Yes
2	1.975	1.975	0.0232	0.1012	0.0235	11:36:23	Yes
Mean:	1.979	1.979	0.0232				
SD:	0.006	0.006	0.0001				
%RSD:	0.316	0.316	0.31				

Sequence No.: 93

Autosampler Location: 81

Sample ID: 245174001|944355|1

Date Collected: 1/26/2010 11:36:43

Analyst: JXL

Data Type: Original

Replicate Data: 245174001|944355|1

Repl	SampleConc	StdConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.416	0.416	0.0053	0.0248	0.0056	11:37:34	Yes
2	0.415	0.415	0.0053	0.0246	0.0056	11:38:04	Yes
Mean:	0.415	0.415	0.0053				
SD:	0.001	0.001	0.0000				
%RSD:	0.185	0.185	0.17				

Sequence No.: 94

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/26/2010 11:38:24

Analyst:

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.900	4.900	0.0568	0.2461	0.0571	11:39:15	Yes
2	4.871	4.871	0.0564	0.2455	0.0568	11:39:45	Yes
Mean:	4.886	4.886	0.0566				
SD:	0.021	0.021	0.0002				
%RSD:	0.421	0.421	0.42				

QC value within limits for Hg 253.7 Recovery = 97.72%  
All analyte(s) passed QC.

Sequence No.: 95

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 1/26/2010 11:40:04

Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.054	-0.054	-0.0001	0.0007	0.0002	11:40:54	Yes
2	-0.056	-0.056	-0.0001	0.0009	0.0002	11:41:24	Yes
Mean:	-0.055	-0.055	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.517	2.517	15.28				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 96

Sample ID: 1202022164|944355|1

Analyst: JXL

Autosampler Location: 82

Date Collected: 1/26/2010 11:41:43

Data Type: Original

## Replicate Data: 1202022164|944355|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.604	2.604	0.0304	0.1331	0.0307	11:42:34	Yes
2	2.609	2.609	0.0305	0.1330	0.0308	11:43:04	Yes
Mean:	2.606	2.606	0.0304				
SD:	0.003	0.003	0.0000				
%RSD:	0.125	0.125	0.12				

Sequence No.: 97

Sample ID: 1202022165|944355|1

Analyst: JXL

Autosampler Location: 83

Date Collected: 1/26/2010 11:43:24

Data Type: Original

## Replicate Data: 1202022165|944355|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.133	2.133	0.0250	0.1095	0.0253	11:44:15	Yes
2	2.118	2.118	0.0248	0.1079	0.0252	11:44:45	Yes
Mean:	2.126	2.126	0.0249				
SD:	0.011	0.011	0.0001				
%RSD:	0.503	0.503	0.49				

Sequence No.: 98

Sample ID: 1202022166|944355|5

Analyst: JXL

Autosampler Location: 84

Date Collected: 1/26/2010 11:45:05

Data Type: Original

## Replicate Data: 1202022166|944355|5

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.131	0.131	0.0020	0.0107	0.0024	11:45:56	Yes
2	0.124	0.124	0.0019	0.0097	0.0023	11:46:26	Yes
Mean:	0.127	0.127	0.0020				
SD:	0.005	0.005	0.0001				



1	-0.023	-0.023	0.0003	0.0029	0.0006	11:54:24	Yes
2	-0.029	-0.029	0.0002	0.0024	0.0005	11:54:54	Yes
Mean:	-0.026	-0.026	0.0002				
SD:	0.005	0.005	0.0001				
%RSD:	18.03	18.03	23.77				

Sequence No.: 104

Sample ID: 1202022236|944383|100

Analyst: JXL

Autosampler Location: 90

Date Collected: 1/26/2010 11:55:14

Data Type: Original

Replicate Data: 1202022236|944383|100

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0005	0.0038	0.0009	11:56:05	Yes
2	-0.005	-0.005	0.0005	0.0036	0.0008	11:56:35	Yes
Mean:	-0.003	-0.003	0.0005				
SD:	0.003	0.003	0.0000				
%RSD:	91.95	91.95	7.12				

Sequence No.: 105

Sample ID: 1202022237|944383|500

Analyst: JXL

Autosampler Location: 91

Date Collected: 1/26/2010 11:56:55

Data Type: Original

Replicate Data: 1202022237|944383|500

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	-0.0000	0.0018	0.0003	11:57:47	Yes
2	-0.049	-0.049	-0.0000	0.0015	0.0003	11:58:17	Yes
Mean:	-0.048	-0.048	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	1.764	1.764	34.91				

Sequence No.: 106

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 1/26/2010 11:58:37

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.824	4.824	0.0559	0.2401	0.0562	11:59:27	Yes
2	4.860	4.860	0.0563	0.2411	0.0566	11:59:57	Yes
Mean:	4.842	4.842	0.0561				
SD:	0.026	0.026	0.0003				
%RSD:	0.533	0.533	0.53				

QC value within limits for Hg 253.7 Recovery = 96.84%  
All analyte(s) passed QC.

Sequence No.: 107

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 1/26/2010 12:00:16

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.057	-0.057	-0.0001	0.0003	0.0002	12:01:07	Yes
2	-0.047	-0.047	-0.0000	0.0017	0.0003	12:01:37	Yes
Mean:	-0.052	-0.052	-0.0001				
SD:	0.007	0.007	0.0001				
%RSD:	13.18	13.18	116.67				

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\012610S1.SIF  
Batch ID:  
Results Data Set: 012610S1  
Results Library: C:\data-AA\Administrator\Results\Results.mdb=====  
Method Loaded

Method Name: SOIL

Method Last Saved: 1/4/2010 13:53:20

Method Description: 7471A, ILM04 ANALYST JXL

=====  
Sequence No.: 1Sample ID: 1202019671|943271|5  
Analyst: JXL

Autosampler Location: 44

Date Collected: 1/26/2010 12:14:35

Data Type: Original

-----  
Replicate Data: 1202019671|943271|5

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.052	-0.052	-0.0001	0.0011	0.0003	12:15:27	Yes
2	-0.047	-0.047	-0.0000	0.0016	0.0003	12:15:57	Yes
Mean:	-0.049	-0.049	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	6.633	6.633	98.30				

=====  
Sequence No.: 2Sample ID: 245093001|944383|1  
Analyst: JXL

Autosampler Location: 87

Date Collected: 1/26/2010 12:16:16

Data Type: Original

-----  
Replicate Data: 245093001|944383|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.282	0.282	0.0038	0.0180	0.0041	12:17:08	Yes
2	0.279	0.279	0.0037	0.0172	0.0041	12:17:38	Yes
Mean:	0.280	0.280	0.0037				
SD:	0.002	0.002	0.0000				
%RSD:	0.762	0.762	0.65				

=====  
Sequence No.: 3Sample ID: 1202022234|944383|1  
Analyst: JXL

Autosampler Location: 88

Date Collected: 1/26/2010 12:17:58

Data Type: Original

-----  
Replicate Data: 1202022234|944383|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.286	0.286	0.0038	0.0185	0.0042	12:18:50	Yes
2	0.284	0.284	0.0038	0.0180	0.0041	12:19:20	Yes
Mean:	0.285	0.285	0.0038				
SD:	0.002	0.002	0.0000				
%RSD:	0.710	0.710	0.61				

=====  
Sequence No.: 4Sample ID: 1202022235|944383|1  
Analyst: JXL

Autosampler Location: 89

Date Collected: 1/26/2010 12:19:40

Data Type: Original

-----  
Replicate Data: 1202022235|944383|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
--------	-----------------	--------------	----------------	-----------	-------------	------	-------------

1	2.289	2.289	0.0268	0.1202	0.0271	12:20:31	Yes
2	2.300	2.300	0.0269	0.1190	0.0273	12:21:01	Yes
Mean:	2.294	2.294	0.0269				
SD:	0.008	0.008	0.0001				
%RSD:	0.328	0.328	0.32				

Sequence No.: 5

Autosampler Location: 90

Sample ID: 1202022236|944383|1

Date Collected: 1/26/2010 12:21:22

Analyst: JXL

Data Type: Original

Replicate Data: 1202022236|944383|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.635	4.635	0.0537	0.2375	0.0540	12:22:13	Yes
2	4.627	4.627	0.0536	0.2375	0.0540	12:22:43	Yes
Mean:	4.631	4.631	0.0537				
SD:	0.005	0.005	0.0001				
%RSD:	0.117	0.117	0.12				

Sequence No.: 6

Autosampler Location: 91

Sample ID: 1202022237|944383|5

Date Collected: 1/26/2010 12:23:03

Analyst: JXL

Data Type: Original

Replicate Data: 1202022237|944383|5

Repl #	SampleConc ug/L	StdndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0008	0.0044	0.0011	12:23:55	Yes
2	0.020	0.020	0.0008	0.0048	0.0011	12:24:25	Yes
Mean:	0.020	0.020	0.0008				
SD:	0.000	0.000	0.0000				
%RSD:	0.793	0.793	0.24				

Sequence No.: 7

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/26/2010 12:24:45

Analyst:

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.021	5.021	0.0581	0.2560	0.0585	12:25:35	Yes
2	5.019	5.019	0.0581	0.2552	0.0585	12:26:05	Yes
Mean:	5.020	5.020	0.0581				
SD:	0.002	0.002	0.0000				
%RSD:	0.032	0.032	0.03				

QC value within limits for Hg 253.7 Recovery = 100.40%  
All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 8

Sample ID: CCB

Date Collected: 1/26/2010 12:26:24

Analyst:

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0000	0.0013	0.0003	12:27:15	Yes
2	-0.048	-0.048	-0.0000	0.0013	0.0003	12:27:44	Yes
Mean:	-0.047	-0.047	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	2.039	2.039	68.32				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

# Miscellaneous

# Prep LogBook

Analyst: AXG2  
 Batch: 940092  
 Lab SOP: GL-MA-E-009 REV# 19

Verified by: \_\_\_\_\_

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202011733	UI062540-MS	.511	g
MS	1202011735	UI091015-A	.5	mL
MS	1202011735	UI091015-B	.5	mL
MSD	1202011737	UI091015-A	.5	mL
MSD	1202011737	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202011732		SW846 3050B	12-JAN-2010 07:30	0.513 g	50 mL	97.46589	SOIL
LCS	1202011733		SW846 3050B	12-JAN-2010 07:30	0.511 g	50 mL	97.84736	SOIL
SAMPLE	244144001		SW846 3050B	12-JAN-2010 07:30	0.512 g	50 mL	97.65625	SOIL
DUP	1202011734	244144001	SW846 3050B	12-JAN-2010 07:30	0.52 g	50 mL	96.15385	SOIL
MS	1202011735	244144001	SW846 3050B	12-JAN-2010 07:30	0.508 g	50 mL	98.4252	SOIL
MSD	1202011737	244144001	SW846 3050B	12-JAN-2010 07:30	0.511 g	50 mL	97.84736	SOIL
SDILT	1202011736	244144001	SW846 3050B	12-JAN-2010 07:30	0.512 g	50 mL	97.65625	SOIL
SAMPLE	244144002		SW846 3050B	12-JAN-2010 07:30	0.5 g	50 mL	100	SOIL
SAMPLE	244144003		SW846 3050B	12-JAN-2010 07:30	0.507 g	50 mL	98.61933	SOIL
SAMPLE	244144004		SW846 3050B	12-JAN-2010 07:30	0.517 g	50 mL	96.7118	SOIL
SAMPLE	244144005		SW846 3050B	12-JAN-2010 07:30	0.505 g	50 mL	99.0099	SOIL
SAMPLE	244144006		SW846 3050B	12-JAN-2010 07:30	0.503 g	50 mL	99.40358	SOIL
SAMPLE	244144007		SW846 3050B	12-JAN-2010 07:30	0.5 g	50 mL	100	SOIL
SAMPLE	244144008		SW846 3050B	12-JAN-2010 07:30	0.507 g	50 mL	98.61933	SOIL
SAMPLE	244144009		SW846 3050B	12-JAN-2010 07:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	244144010		SW846 3050B	12-JAN-2010 07:30	0.51 g	50 mL	98.03922	SOIL
SAMPLE	244144011		SW846 3050B	12-JAN-2010 07:30	0.504 g	50 mL	99.20635	SOIL
SAMPLE	244144012		SW846 3050B	12-JAN-2010 07:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	244144013		SW846 3050B	12-JAN-2010 07:30	0.51 g	50 mL	98.03922	SOIL
SAMPLE	244144014		SW846 3050B	12-JAN-2010 07:30	0.505 g	50 mL	99.0099	SOIL
SAMPLE	244144015		SW846 3050B	12-JAN-2010 07:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	244144016		SW846 3050B	12-JAN-2010 07:30	0.511 g	50 mL	97.84736	SOIL
SAMPLE	244144017		SW846 3050B	12-JAN-2010 07:30	0.51 g	50 mL	98.03922	SOIL
SAMPLE	244144018		SW846 3050B	12-JAN-2010 07:30	0.511 g	50 mL	97.84736	SOIL

Comments: Sample 244144001 consist of clumpy, brown, soil with artifacts.

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1252836	5 mL	Nitric Acid CONC.

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# Prep LogBook

Analyst: AXG2 Verified by: \_\_\_\_\_

Batch: 940178

Lab SOP: GL-MA-E-009 REV# 19

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202011905		SW846 3050B	12-JAN-2010 08:00	0.514 g	50 mL	97.27626	SOIL	g
LCS	1202011910		SW846 3050B	12-JAN-2010 08:00	0.506 g	50 mL	98.81423	SOIL	mL
SAMPLE	244144001		SW846 3050B	12-JAN-2010 08:00	0.514 g	50 mL	97.27626	SOIL	mL
DUP	1202011906	244144001	SW846 3050B	12-JAN-2010 08:00	0.51 g	50 mL	98.03922	SOIL	mL
SDIL.T	1202011907	244144001	SW846 3050B	12-JAN-2010 08:00	0.514 g	50 mL	97.27626	SOIL	mL
MS	1202011908	244144001	SW846 3050B	12-JAN-2010 08:00	0.507 g	50 mL	98.61933	SOIL	mL
MSD	1202011909	244144001	SW846 3050B	12-JAN-2010 08:00	0.502 g	50 mL	99.60159	SOIL	mL
SAMPLE	244144002		SW846 3050B	12-JAN-2010 08:00	0.514 g	50 mL	97.27626	SOIL	mL
SAMPLE	244144003		SW846 3050B	12-JAN-2010 08:00	0.514 g	50 mL	97.27626	SOIL	mL
SAMPLE	244144004		SW846 3050B	12-JAN-2010 08:00	0.519 g	50 mL	96.33911	SOIL	mL
SAMPLE	244144005		SW846 3050B	12-JAN-2010 08:00	0.511 g	50 mL	97.84736	SOIL	mL
SAMPLE	244144006		SW846 3050B	12-JAN-2010 08:00	0.517 g	50 mL	96.7118	SOIL	mL
SAMPLE	244144007		SW846 3050B	12-JAN-2010 08:00	0.513 g	50 mL	97.46589	SOIL	mL
SAMPLE	244144008		SW846 3050B	12-JAN-2010 08:00	0.507 g	50 mL	98.61933	SOIL	mL
SAMPLE	244144009		SW846 3050B	12-JAN-2010 08:00	0.52 g	50 mL	96.15385	SOIL	mL
SAMPLE	244144010		SW846 3050B	12-JAN-2010 08:00	0.523 g	50 mL	95.60229	SOIL	mL
SAMPLE	244144011		SW846 3050B	12-JAN-2010 08:00	0.511 g	50 mL	97.84736	SOIL	mL
SAMPLE	244144012		SW846 3050B	12-JAN-2010 08:00	0.507 g	50 mL	98.61933	SOIL	mL
SAMPLE	244144013		SW846 3050B	12-JAN-2010 08:00	0.51 g	50 mL	98.03922	SOIL	mL
SAMPLE	244144014		SW846 3050B	12-JAN-2010 08:00	0.502 g	50 mL	99.60159	SOIL	mL
SAMPLE	244144015		SW846 3050B	12-JAN-2010 08:00	0.505 g	50 mL	99.0099	SOIL	mL
SAMPLE	244144016		SW846 3050B	12-JAN-2010 08:00	0.51 g	50 mL	98.03922	SOIL	mL
SAMPLE	244144017		SW846 3050B	12-JAN-2010 08:00	0.525 g	50 mL	95.2381	SOIL	mL
SAMPLE	244144018		SW846 3050B	12-JAN-2010 08:00	0.509 g	50 mL	98.23183	SOIL	mL

Comments Sample 244144001 consist of brown, clumpy soil with artifacts.

Reagent/Solvent Lot ID	Amount	Description
1252838	10 mL	HYDROCHLORIC ACID
1252836	1.25 mL	Nitric Acid CONC.

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# Prep LogBook

Analyst: TXB3  
 Batch: 943270  
 Lab SOP: GL-MA-E-010 REV# 23

Verified by: \_\_\_\_\_

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Type	Sample Id	Lot. Id	Spike Amount	Spike Units
MB	1202019667		SW846 7471A Prep	25-JAN-2010 09:05	LCS	1202019668	U1031809A	.208	g
LCS	1202019668		SW846 7471A Prep	25-JAN-2010 09:05	MS	1202019670	WHG100125-14	.3	mL
SAMPLE	244144001		SW846 7471A Prep	25-JAN-2010 09:05	MSD	1202019672	WHG100125-14	.3	mL
DUP	1202019669	244144001	SW846 7471A Prep	25-JAN-2010 09:05					
MS	1202019670	244144001	SW846 7471A Prep	25-JAN-2010 09:05					
MSD	1202019672	244144001	SW846 7471A Prep	25-JAN-2010 09:05					
SDILT	1202019671	244144001	SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144002		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144003		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144004		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144005		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144006		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144007		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144008		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144009		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144010		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144011		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144012		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144013		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144014		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144015		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144016		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144017		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244144018		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244916002		SW846 7471A Prep	25-JAN-2010 09:05					
SAMPLE	244916003		SW846 7471A Prep	25-JAN-2010 09:05					

Reagent/Solvent Lot ID Amount Description  
 1236355-A 1.125 mL Hydrochloric Acid Conc.  
 1257474-1 .375 mL NITRIC ACID  
 1255535-C 7.5 mL 5% KMnO4 solution

Comments: Sample 244144001 is a rocky brown soil.  
 Digestion Start Date: 25-JAN-10 09:05  
 Digestion End Date: 25-JAN-10 09:35

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Prep LogBook

1255532-C	2 mL	Hg reducing agent
WHG100125-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100125-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100125-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100125-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100125-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100125-12	750 uL	Mercury Working 2nd Source S 5.0/TCV



**DATA EXCEPTION REPORT**

<b>Mo.Day Yr.</b> 19-JAN-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> 940093	<b>Sample Numbers:</b> See Below					
<b>Potentially affected work order(s)(SDG):</b> 244144(10-1128)						
<b>Application Issues:</b> Failed Recovery for MS/PS						
<b>Specification and Requirements</b> <b>Exception Description:</b>		<b>DER Disposition:</b>				
1. Failed Recovery for MS/PS:  QC 1202011735MS		The matrix spike recovery failed outside of the control limits for Ni 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 21-JAN-10

**Data Validator/Group Leader:**

Elizabeth Janssen 25-JAN-10

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 27-JAN-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> 940180	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 244144(10-1128)</b> <b>Application Issues:</b> Failed Recovery for MS/PS Failed RPD for DUP Failed Recovery for MSD/PSD			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<b>Exception Description:</b>  1. Failed Recovery for MS/PS: QC 1202011908MS  2. Failed RPD for DUP: QC 1202011906DUP  3. Failed Recovery for MSD/PSD: QC 1202011909MSD		1. The matrix spike recovery failed outside of the control limits for antimony, magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.  2. The sample and sample duplicate % RPD failed outside the control limits for chromium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.  3. The matrix spike duplicate recovery failed outside of the control limits for antimony, barium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.	

**Originator's Name:**

Helen Carnello 28-JAN-10

**Data Validator/Group Leader:**

Louise Smith 28-JAN-10

# Standard Logbook

**Serial ID:** UHG1167639-01      **Opened:** 13-AUG-09      **Amount :** 125 mL  
**Name:** MHGSTOCK1      **Received:** 13-AUG-09      **Catalog Number :** PLHG4-2Y  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 15-37HG  
**Employee:** Bryan Davis      **Solvent :** 10% HNO3  
**Supplier:** Spex  
**Description:** Mercury Source Standard #1 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

**Serial ID:** UHG1167641-02      **Opened:** 13-AUG-09      **Amount :** 100 mL  
**Name:** MHGSTOCK2      **Received:** 13-AUG-09      **Catalog Number :** AHG1KN-100  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 4905530  
**Employee:** Bryan Davis      **Solvent :** 3% HNO3  
**Supplier:** Ricca Chemical Company  
**Description:** Mercury Source Standard #2 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

**Serial ID:** UI031809A      **Opened:** 18-MAR-09      **Catalog Number :** 540  
**Name:** METALSOILSRM      **Received:** 18-MAR-09      **Lot Number :** D061-540  
**Type:** Source Material      **Expires:** 10-OCT-10  
**Employee:** Jamie Johnson  
**Supplier:** ERA  
**Description:** Metals LCS Soil SRM  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

# Standard Logbook

**Serial ID:** UI062540-I      **Opened:** 12-JUN-09      **Amount :** 80 g  
**Name:** ICP SOIL SRM      **Received:** 12-JUN-09      **Lot Number :** D062-540  
**Type:** Source Material      **Expires:** 31-JAN-12  
**Employee:** Bryan Davis  
**Supplier:** ERA  
**Description:** Metals Soil LCS SRM ICP/Hg  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

**Serial ID:** UI062540-MS      **Opened:** 12-JUN-09      **Lot Number :** D062-540  
**Name:** ICPMS SOIL SRM      **Received:** 12-JUN-09  
**Type:** Source Material      **Expires:** 31-JAN-12  
**Employee:** Bryan Davis  
**Supplier:** ERA  
**Description:** Metals Soil LCS SRM ICPMS  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

**Serial ID:** UI090422-40      **Opened:** 04-MAY-09      **Amount :** 500 mL  
**Name:** TRACE ICP ICSA SOLN A      **Received:** 22-APR-09      **Catalog Number :** 160005-01-03  
**Type:** Source Material      **Expires:** 04-MAY-10      **Lot Number :** 1013357  
**Employee:** Helen Camello      **Solvent :** 5%HNO3  
**Supplier:** o2si  
**Description:** TRACE ICP ICSA SOLN A mg/L +/- 0.5% IN 5% HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

**Serial ID:** UI090610-03      **Opened:** 10-JUN-09      **Catalog Number :** 060074-06-01  
**Name:** ICPMS Tungsten - 10mg/L      **Received:** 10-JUN-09      **Lot Number :** 1016338  
**Type:** Source Material      **Expires:** 10-JUN-10      **Solvent :** 2% HNO3  
**Employee:** Paul Boyd  
**Supplier:** O2SI  
**Description:** ICPMS Tungsten standard SPIKE - 10mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

**Serial ID:** UI090701-09      **Opened:** 01-JUL-09      **Amount :** 250 mL  
**Name:** ICP-MS CRDL Master #1      **Received:** 01-JUL-09      **Catalog Number :** 160044-09-02  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016477  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% IN 2% HNO3  
**Supplier:** O2SI  
**Description:** ICPMS CRDL Master Soln #1  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

**Serial ID:** UI090701-10      **Opened:** 01-JUL-09      **Amount :** 250 mL  
**Name:** ICP-MS CRDL Master #2      **Received:** 01-JUL-09      **Catalog Number :** 160044-08-02  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016476  
**Employee:** Soul Boyd      **Solvent :** +/- 0.5% IN 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS CRDL Soln #2  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

**Serial ID:** UI090701-40      **Opened:** 01-JUL-09      **Amount :** 500 mL  
**Name:** TRACE ICP Stock PQL St      **Received:** 30-JUN-09      **Catalog Number :** 160543-01-03  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016475  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3+TrHF  
**Supplier:** 02si  
**Description:** TRACE ICP Stock PQL Standard  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

**Serial ID:** UI090828-42      **Opened:** 16-SEP-09      **Amount :** 500 mL  
**Name:** TRACE ICP Na-1000SOUR      **Received:** 27-AUG-09      **Catalog Number :** 060011-02-03  
**Type:** Source Material      **Expires:** 16-SEP-10      **Lot Number :** 1017098  
**Employee:** Helen Camello      **Solvent :** 1%HNO3  
**Supplier:** 02SI  
**Description:** Sodium 1000 +/- 3 ug/mL in 1% HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

**Serial ID:** UI090925-40      **Opened:** 23-OCT-09      **Amount :** 500 mL  
**Name:** SECOND SOURCE STD -1      **Received:** 25-SEP-09      **Catalog Number :** SGELMX38-500N  
**Type:** Source Material      **Expires:** 30-SEP-10      **Lot Number :** 4909129  
**Employee:** Helen Camello      **Solvent :** 5%HNO3  
**Supplier:** SPECTRO PURE  
**Description:** SECOND SOURCE STD #1A 5%HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

**Serial ID:** UI090925-41      **Opened:** 23-OCT-09      **Amount :** 500 mL  
**Name:** SECOND SOURCE STD -1      **Received:** 25-SEP-09      **Catalog Number :** SGELMX39-500B  
**Type:** Source Material      **Expires:** 30-SEP-10      **Lot Number :** 4909130  
**Employee:** Helen Camello      **Solvent :** 5%HNO3,TR.HF  
**Supplier:** SPECTRO PURE  
**Description:** SECOND SOURCE STD #1B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

**Serial ID:** UI091015-42      **Opened:** 28-OCT-09      **Amount :** 500 mL  
**Name:** SI 1000mg/L      **Received:** 15-OCT-09      **Catalog Number :** 060014-02-03  
**Type:** Source Material      **Expires:** 28-OCT-10      **Lot Number :** 1017581  
**Employee:** Helen Camello      **Solvent :** 0.3%H2O(NH4)2SiF6  
**Supplier:** o2si  
**Description:** Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI091015-A      **Opened:** 15-OCT-09      **Catalog Number :** 160067-03  
**Name:** ICP-MS DOE SOIL SPIKE      **Received:** 15-OCT-09      **Lot Number :** 1017142  
**Type:** Source Material      **Expires:** 15-OCT-10  
**Employee:** Francena Armstrong  
**Supplier:** O2si  
**Description:** ICP-MS Spike for soil products.  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L



# Standard Logbook

**Serial ID:** UI091015-B      **Opened:** 15-OCT-09      **Catalog Number :** 160067-03  
**Name:** ICP-MS DOE SOIL SPIKE      **Received:** 15-OCT-09      **Lot Number :** 1017142  
**Type:** Source Material      **Expires:** 15-OCT-10  
**Employee:** Francena Armstrong  
**Supplier:** 02si  
**Description:** ICP-MS Spike for Soil Products  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

**Serial ID:** UI091102-40      **Opened:** 16-NOV-09      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1A SOUF      **Received:** 02-NOV-09      **Catalog Number :** HP2270-1-500  
**Type:** Source Material      **Expires:** 31-OCT-10      **Lot Number :** 0930215  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Std #1A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

**Serial ID:** UI091102-41      **Opened:** 16-NOV-09      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1B SOUF      **Received:** 02-NOV-09      **Catalog Number :** HP2270-2-500  
**Type:** Source Material      **Expires:** 31-OCT-10      **Lot Number :** 0930216  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Standard #1B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

**Serial ID:** UI091102-42      **Opened:** 17-NOV-09      **Amount :** 200 mL  
**Name:** SILICON      **Received:** 02-NOV-09      **Catalog Number :** HP100050-4F  
**Type:** Source Material      **Expires:** 17-NOV-10      **Lot Number :** 0921924  
**Employee:** Helen Camello      **Solvent :** H2O/tr HF  
**Supplier:** 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:** UI091212-11      **Opened:** 12-DEC-09      **Amount :** 1000 mL  
**Name:** ICP-MS ICSA Master A      **Received:** 12-DEC-09      **Catalog Number :** 160013-01-01L  
**Type:** Source Material      **Expires:** 12-DEC-10      **Lot Number :** 1015303  
**Employee:** Paul Boyd      **Solvent :** 2% HNO3  
**Supplier:** O2SI  
**Description:** ICP-MS ICSA Master A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

**Serial ID:** UI091212-60      **Opened:** 12-DEC-09      **Amount :** .5 mL  
**Name:** ICPMS High Range Standard      **Received:** 12-DEC-09      **Catalog Number :** 160212-02-01  
**Type:** Source Material      **Expires:** 12-DEC-10      **Lot Number :** 1018064  
**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

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

**Serial ID:** UI091212-61      **Opened:** 12-DEC-09      **Amount :** .5 mL  
**Name:** ICPMS High Range Standard      **Received:** 12-DEC-09      **Catalog Number :** 160212-02-01  
**Type:** Source Material      **Expires:** 12-DEC-10      **Lot Number :** 1018064  
**Employee:** Paul Boyd      **Solvent :** 2% HNO<sub>3</sub> + 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:** UI091216-01      **Opened:** 16-DEC-09      **Lot Number :** 1018095  
**Name:** METALSPIKE-1      **Received:** 16-DEC-09  
**Type:** Source Material      **Expires:** 16-DEC-10  
**Employee:** Francena Armstrong  
**Supplier:** OS2I  
**Description:** Metals Spike Mix 1  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

**Serial ID:** UI091216-06      **Opened:** 16-DEC-09      **Lot Number :** 1018096  
**Name:** METALSPIKE-2      **Received:** 16-DEC-09  
**Type:** Source Material      **Expires:** 16-DEC-10  
**Employee:** Francena Armstrong  
**Supplier:** OS2I

# Standard Logbook

**Description:** Metals Spike Mix II

**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

**Serial ID:** UI091217-06      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master A      **Received:** 17-DEC-09      **Catalog Number :** 160055-01  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018209  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** 02SI  
**Description:** ICPMS ICV/CCV SOLN A - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

**Serial ID:** UI091217-07      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master B      **Received:** 17-DEC-09      **Catalog Number :** 160054-02  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018210  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** 02SI  
**Description:** ICPMS ICV/CCV Soln B - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

# Standard Logbook

**Serial ID:** UI091217-08      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master C      **Received:** 17-DEC-09      **Catalog Number :** 160054-03  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018211  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** 02SI  
**Description:** ICPMS ICV/CCV Soln C - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

**Serial ID:** UI091217-12      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master B      **Received:** 17-DEC-09      **Catalog Number :** 160033-02  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018212  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS ICSAB Master B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

**Serial ID:** UI091217-13      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master C      **Received:** 17-DEC-09      **Catalog Number :** 160033-03  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1016926  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS ICSAB Master C  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

# Standard Logbook

**Serial ID:** UI100114-40      **Opened:** 14-JAN-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD-A      **Received:** 14-JAN-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 14-JAN-11      **Lot Number :** 1018160  
**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:** UI100114-41      **Opened:** 14-JAN-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD B      **Received:** 14-JAN-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 14-JAN-11      **Lot Number :** 1018160  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3  
**Supplier:** 02SI  
**Description:** ICP HIGH RANGE STD SOLUTION B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

**Serial ID:** UI100114-48      **Opened:** 22-JAN-10      **Amount :** 1000 mL  
**Name:** Trace ICP ICSEA      **Received:** 18-JAN-10      **Catalog Number :** 160005-02  
**Type:** Source Material      **Expires:** 22-JAN-11      **Lot Number :** 1018466  
**Employee:** Helen Camello      **Solvent :** 3% HCl + 1% HNO3  
**Supplier:** o2si  
**Description:** Trace ICP Interferent Check Standard A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	200000 UG/L	Magnesium	500000 UG/L

**Serial ID:** UI100114-49.4      **Opened:** 26-JAN-10      **Amount :** 100 ml  
**Name:** Trace ICP ICSAB      **Received:** 18-JAN-10      **Catalog Number :** 160066-04  
**Type:** Source Material      **Expires:** 27-JAN-10      **Lot Number :** 1018458  
**Employee:** Helen Camello      **Solvent :** 3% HCl + 1% HNO3  
**Supplier:** o2si  
**Description:** Trace ICP Interferent Check Standard AB  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

**Serial ID:** UMS090303-01      **Opened:** 03-MAR-09      **Amount :** 250 mL  
**Name:** ICPMSCalSPIKEB      **Received:** 03-MAR-09      **Catalog Number :** ZGEL-100-250  
**Type:** Source Material      **Expires:** 28-FEB-10      **Lot Number :** 14-81JB  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

**Serial ID:** UMS090303-02      **Opened:** 03-MAR-09      **Catalog Number :** ZGEL-102-250  
**Name:** ICPMSCaSPIKEA      **Received:** 03-MAR-09      **Lot Number :** 14-83JB  
**Type:** Source Material      **Expires:** 28-FEB-10  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

**Serial ID:** UMS090303-03      **Opened:** 03-MAR-09      **Amount :** 250 ml  
**Name:** ICPMSCaSPIKEC      **Received:** 03-MAR-09      **Catalog Number :** ZGEL-101-250  
**Type:** Source Material      **Expires:** 28-FEB-10      **Lot Number :** 15-199JB  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution C  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

**Serial ID:** IHG100125-01      **Opened:** 25-JAN-10      **Instrument Id :** Mercury  
**Name:** MHGINTER1      **Received:** 25-JAN-10      **Pipet Id :** Minou1  
**Type:** Intermediate      **Expires:** 26-JAN-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.	Allquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L



# Standard Logbook

**Serial ID:** IHG100125-02      **Opened:** 25-JAN-10      **Pipet Id :** Minou1  
**Name:** MHGINTER2      **Received:** 25-JAN-10      **Solvent :** 2% HNO3-1257474  
**Type:** Intermediate      **Expires:** 26-JAN-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Intermediate 2nd Source 200 ug/L  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** WHG100125-07      **Opened:** 25-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS0.2CRA      **Received:** 25-JAN-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 01-FEB-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working Standard 1st Source CAL S 0.2/CRA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100125-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

**Serial ID:** WHG100125-08      **Opened:** 25-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS0.5      **Received:** 25-JAN-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 01-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working Standard 1st Source CAL S 0.5  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100125-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

**Serial ID:** WHG100125-09      **Opened:** 25-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS2.0      **Received:** 25-JAN-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 01-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL S 2.0  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100125-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

# Standard Logbook

**Serial ID:** WHG100125-10      **Opened:** 25-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS5.0CCV      **Received:** 25-JAN-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 01-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL S 5.0/CCV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100125-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

**Serial ID:** WHG100125-11      **Opened:** 25-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS10.0      **Received:** 25-JAN-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 01-FEB-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL S 10.0  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100125-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

**Serial ID:** WHG100125-12      **Opened:** 25-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKS5.0ICV      **Received:** 25-JAN-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 01-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 2nd Source S 5.0/ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100125-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

**Serial ID:** WHG100125-14      **Opened:** 25-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGSOILMSSPIKE      **Received:** 25-JAN-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 01-FEB-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury soil working intermediate standard for MS  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

# Standard Logbook

**Serial ID:** WI100125-42      **Opened:** 25-JAN-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 02-NOV-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 26-JAN-10      **Solvent :** 3%HCL and 1%HNO3 -1259494  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP 0.1 PPM CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
WI100125-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100125-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100125-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100125-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100125-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100125-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100125-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100125-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100125-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100125-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100125-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100125-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

# Standard Logbook

**Serial ID:** W1100125-43      **Opened:** 25-JAN-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 02-NOV-09      **Pipet Id :** 1099667  
**Type:** Working      **Expres:** 26-JAN-10      **Solvent :** 3%HCL and 1%HNO3 -1259494  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP 0.5/CCV CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

# Standard Logbook

**Serial ID:** WI100125-44      **Opened:** 25-JAN-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 02-NOV-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 26-JAN-10      **Solvent :** 3%HCL and 1 %HNO3-1259494  
**Employee:** Helen Camello  
**Supplier:** o2si  
**Description:** Trace ICP Calibration Standard 1.0ppm  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

# Standard Logbook

**Serial ID:** WI100125-45      **Opened:** 25-JAN-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 26-JAN-10      **Solvent :** 3%HCL and 1%HNO3 -1259494  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP S-10 CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

**Serial ID:** WI100125-46      **Opened:** 25-JAN-10      **Balance Id :** 216  
**Name:** ICP TRACE ICV      **Received:** 25-SEP-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 26-JAN-10      **Solvent :** 3%HCL AND 1%HNO3-1259494  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** Initial Calibration Verification ICP Trace Metals  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

**Serial ID:** WI100125-47      **Opened:** 25-JAN-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 26-JAN-10      **Solvent :** 3%HCL & 1%HNO3-1259494  
**Employee:** Helen Camello  
**Supplier:** 02si  
**Description:** PQL Working Standard  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

**Serial ID:** WI100126-42      **Opened:** 26-JAN-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 02-NOV-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 27-JAN-10      **Solvent :** 3%HCL and 1%HNO3 -1259494  
**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.
WI100126-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100126-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100126-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100126-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100126-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100126-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100126-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100126-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100126-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100126-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100126-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L



# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100126-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100126-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100126-43      Opened: 26-JAN-10      Balance Id : 216  
 Name: TRACE ICP 0.5/CCV STD.      Received: 02-NOV-09      Pipet Id : 1099667  
 Type: Working      Expires: 27-JAN-10      Solvent : 3%HCL and 1%HNO3 -1259494  
 Employee: Helen Camello  
 Supplier: GEL  
 Description: TRACE ICP 0.5/CCV CALIBRATION STD.  
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

# Standard Logbook

**Serial ID:** WI100126-44      **Opened:** 26-JAN-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 02-NOV-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 27-JAN-10      **Solvent :** 3%HCL and 1 %HNO3-1259494  
**Employee:** Helen Camello  
**Supplier:** o2si  
**Description:** Trace ICP Calibration Standard 1.0ppm  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

# Standard Logbook

**Serial ID:** WI100126-45      **Opened:** 26-JAN-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 27-JAN-10      **Solvent :** 3%HCL and 1%HNO3 -1259494  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP S-10 CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

**Serial ID:** WI100126-46      **Opened:** 26-JAN-10      **Balance Id :** 216  
**Name:** ICP TRACE ICV      **Received:** 25-SEP-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 27-JAN-10      **Solvent :** 3%HCL AND 1%HNO3-1259494  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** Initial Calibration Verification ICP Trace Metals  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

**Serial ID:** WI100126-47      **Opened:** 26-JAN-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 27-JAN-10      **Solvent :** 3%HCL &1%HNO3-1259494  
**Employee:** Helen Camello  
**Supplier:** Q2si  
**Description:** PQL Working Standard  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

**Serial ID:** WMS100114-04B      **Opened:** 14-JAN-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 14-JAN-10      **Balance Id :** 40245216  
**Type:** Working      **Expires:** 15-JAN-10      **Pipet Id :** 1758088  
**Employee:** Rose Jenkins      **Solvent :** 2%HNO3/1%HCl- 1238829  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100115-04      Opened: 15-JAN-10      Amount : 50 mL  
 Name: ICPMS Cal Standard 100      Received: 15-JAN-10      Balance Id : 4025216  
 Type: Working      Expires: 16-JAN-10      Pipet Id : 3541598  
 Employee: Paul Boyd      Solvent : 2%HNO3/1%HCl-1253206  
 Supplier: GEL  
 Description: ICPMS Calibration Standard (100 ppb)  
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l

# Standard Logbook

<b>Parent Material</b>	<b>Analyte</b>	<b>Parent Conc.</b>	<b>Aliquot</b>	<b>Final Vol.</b>	<b>Final Conc.</b>
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

<b>Serial ID:</b> <u>WMS100115-04A</u>	<b>Opened:</b> <u>15-JAN-10</u>	<b>Balance Id :</b> <u>4025216</u>
<b>Name:</b> <u>ICPMS Cal Standard 10</u>	<b>Received:</b> <u>15-JAN-10</u>	<b>Pipet Id :</b> <u>3541598</u>
<b>Type:</b> <u>Working</u>	<b>Expires:</b> <u>16-JAN-10</u>	<b>Solvent :</b> <u>2%HNO3/1%HCl - 1253206</u>
<b>Employee:</b> <u>Paul Boyd</u>		
<b>Supplier:</b> <u>GEL</u>		
<b>Description:</b> <u>ICPMS Calibration Standard (10 ppb)</u>		
<b>Comments:</b> <u>None</u>		

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100114-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100114-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100114-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

# Standard Logbook

**Serial ID:** WMS100115-05      **Opened:** 15-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 15-JAN-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 16-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L



# Standard Logbook

**Serial ID:** WMS100115-06      **Opened:** 15-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 15-JAN-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 16-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**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:** WMS100115-07      **Opened:** 15-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 15-JAN-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 16-JAN-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100115-08      **Opened:** 15-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 15-JAN-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 16-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

**Serial ID:** WMS100115-70      **Opened:** 15-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS LINEAR RANGE ST      **Received:** 15-JAN-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 16-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Employee:** Paul Boyd  
**Supplier:** 02SI  
**Description:** ICPMS LINEAR RANGE STANDARD  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

**Serial ID:** WMS100118-04      **Opened:** 18-JAN-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 18-JAN-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 19-JAN-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1256053  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100118-04A      **Opened:** 18-JAN-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 18-JAN-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 19-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1256053  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100118-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100118-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100118-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100118-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100118-05      **Opened:** 18-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 18-JAN-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 19-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1256053  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

**Serial ID:** WMS100118-06      **Opened:** 18-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 18-JAN-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 19-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1256053  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS CRDL  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

**Serial ID:** WMS100118-07      **Opened:** 18-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 18-JAN-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 19-JAN-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1256053  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100118-08      **Opened:** 18-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 18-JAN-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 19-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1256053  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L



## Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

**Serial ID:** 1100721TCLP      **Opened:** 16-APR-09      **Lot Number :** H02026 L  
**Name:** I-HNO3      **Received:** 02-APR-09  
**Type:** Reagent/Solvent      **Expires:** 02-APR-10  
**Employee:** Clifford Postell  
**Supplier:** BAKER  
**Description:** Nitric Acid CONC.  
**Comments:** None

**Serial ID:** 1156689-A      **Opened:** 20-JUL-09      **Lot Number :** 41226920  
**Name:** B-KMnO4(VWR)-MER      **Received:** 20-JUL-09  
**Type:** Reagent/Solvent      **Expires:** 20-JUL-10  
**Employee:** Tara Griffin      **Verified:** 07-AUG-07  
**Supplier:** VWR  
**Description:** Potassium Permanganate  
**Comments:** None

# Standard Logbook

Serial ID: 1203655-02      Opened: 15-OCT-09      Lot Number : ZU74081198 mL  
Name: B-H2O2      Received: 15-OCT-09  
Type: Reagent/Solvent      Expires: 15-OCT-10  
Employee: Francena Armstrong  
Supplier: EM SCIENCE  
Description: Hydrogen Peroxide 30%  
Comments: None

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Serial ID: 1228372-A      Opened: 12-NOV-09      Lot Number : 49215936  
Name: B-NH2OH.HCl-MER      Received: 12-NOV-09  
Type: Reagent/Solvent      Expires: 12-NOV-10  
Employee: Tara Griffin  
Supplier: Fisher Scientific  
Description: Hydroxylamine Hydrochloride  
Comments: None

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Serial ID: 1236355-A      Opened: 01-DEC-09      Lot Number : 200930201  
Name: B-HCl-MER      Received: 01-DEC-09  
Type: Reagent/Solvent      Expires: 01-DEC-10  
Employee: Tara Griffin  
Supplier: Aristar  
Description: Hydrochloric Acid Conc.  
Comments: None

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Serial ID: 1238345      Opened: 04-DEC-09      Lot Number : H20053 L  
Name: I-HNO3      Received: 04-DEC-09  
Type: Reagent/Solvent      Expires: 04-DEC-10  
Employee: Francena Armstrong  
Supplier: BAKER  
Description: Nitric Acid CONC.  
Comments: None

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Serial ID: 1244970      Opened: 18-DEC-09      Lot Number : H41032  
Name: I-HCL      Received: 18-DEC-09      Preservative\_Id : 5 none  
Type: Reagent/Solvent      Expires: 18-DEC-10  
Employee: Francena Armstrong  
Supplier: J.T. BAKER  
Description: HYDROCHLORIC ACID  
Comments: None

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# Standard Logbook

**Serial ID:** 1252836      **Opened:** 08-JAN-10      **Lot Number :** H20053 L  
**Name:** I-HNO3      **Received:** 08-JAN-10  
**Type:** Reagent/Solvent      **Expires:** 08-JAN-11  
**Employee:** Francena Armstrong  
**Supplier:** BAKER  
**Description:** Nitric Acid CONC.  
**Comments:** None

**Serial ID:** 1252838      **Opened:** 08-JAN-10      **Lot Number :** H41032  
**Name:** I-HCL      **Received:** 08-JAN-10      **Preservative Id :** 5 none  
**Type:** Reagent/Solvent      **Expires:** 08-JAN-11  
**Employee:** Francena Armstrong  
**Supplier:** J.T. BAKER  
**Description:** HYDROCHLORIC ACID  
**Comments:** None

**Serial ID:** 1253206      **Opened:** 11-JAN-10      **Solvent :** Type I Water  
**Name:** B-2%HNO3/1%HCL-ICPMS      **Received:** 11-JAN-10  
**Type:** Reagent/Solvent      **Expires:** 18-JAN-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.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

**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.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

**Serial ID:** 125535-C      **Opened:** 15-JAN-10      **Balance Id :** BAL-002  
**Name:** B-KMnO4-MER      **Received:** 15-JAN-10  
**Type:** Reagent/Solvent      **Expires:** 15-JUL-10  
**Employee:** Tara Griffin  
**Supplier:** GEL

# Standard Logbook

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: 1256053      Opened: 18-JAN-10      Solvent: Type I Water

Name: B-2%HNO3/1%HCl-ICPMS      Received: 18-JAN-10

Type: Reagent/Solvent      Expires: 25-JAN-10

Employee: Paul Boyd

Supplier: GEL

Description: 2%HNO3/1%HCl Solution (Type I Water)

Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1257474-1      Opened: 20-JAN-10      Instrument Id: MERCURY

Name: B-HNO3-MER      Received: 20-JAN-10      Lot Number: H20053

Type: Reagent/Solvent      Expires: 20-JAN-11

Employee: Tara Griffin

Supplier: Mallinckrodt Chemicals

Description: NITRIC ACID

Comments: None

Serial ID: 1259494      Opened: 25-JAN-10      Amount: 20 L

Name: B-ICP-RINSE SOLN      Received: 28-DEC-10      Lot Number: H04040+G34050

Type: Reagent/Solvent      Expires: 31-JAN-10      Solvent: 3%HCL+1%HNO3

Employee: Helen Camello

Supplier: GEL

Description: 3%HCL+1%HNO3 RINSE SOLN.

Comments: None

Serial ID: T091214-01-2      Opened: 30-DEC-09      Balance Id: BAL-011

Name: TCLP#1      Received: 29-DEC-09      Solvent: DI water

Type: Reagent/Solvent      Expires: 29-DEC-10      Storage: Ambient

Employee: Clifford Postell

Supplier: GEL

Description: TCLP EXTRACTION FLUID 1

Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
T49175929	TCLP-Sodium Hydroxide	100%	128.7 g	50 L	100%

## Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
T49253	TCLP-Glacial Acetic Acid	99%	285 mL	50 L	100%

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Serial ID: T49175929      Opened: 14-DEC-09      Lot Number : 49175929  
Name: TCLP-Sodium Hydroxide      Received: 09-DEC-09  
Type: Reagent/Solvent      Expires: 14-DEC-11  
Employee: Clifford Postell  
Supplier: EMD  
Description: TCLP-Sodium Hydroxide  
Comments: None

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Serial ID: T49253      Opened: 14-DEC-09      Lot Number : 49253  
Name: TCLP-Glacial Acetic Acid      Received: 09-DEC-09  
Type: Reagent/Solvent      Expires: 14-DEC-11  
Employee: Clifford Postell  
Supplier: EMD  
Description: TCLP-Glacial Acetic Acid  
Comments: None

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# Metals Analysis

# Case Narrative

**Metals Fractional Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1128-1**

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
244145001	RE12-10-7662
1202011708	Method Blank (MB) ICP
1202011709	Laboratory Control Sample (LCS)
1202011712	244145001(RE12-10-7662L) Serial Dilution (SD)
1202011710	244145001(RE12-10-7662D) Sample Duplicate (DUP)
1202011711	244145001(RE12-10-7662S) Matrix Spike (MS)
1202011703	Method Blank (MB) ICP-MS
1202011704	Laboratory Control Sample (LCS)
1202011707	244240001(CALA-10-9162L) Serial Dilution (SD)
1202011705	244240001(CALA-10-9162D) Sample Duplicate (DUP)
1202011706	244240001(CALA-10-9162S) Matrix Spike (MS)
1202014309	Method Blank (MB) CVAA
1202014310	Laboratory Control Sample (LCS)
1202014313	244226001(RE12-10-7738L) Serial Dilution (SD)
1202014311	244226001(RE12-10-7738D) Sample Duplicate (DUP)
1202014312	244226001(RE12-10-7738S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Method/Analysis Information**

**Analytical Batch:** 940084, 940082 and 941150



**Prep Batch :** 940083, 940079 and 941148

**Standard Operating Procedures:** GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23

**Analytical Method:** SW846 3005/6010B, SW846 3005/6020 and SW846 7470A

**Prep Method :** SW846 3005A and SW846 7470A Prep

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

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

#### **System Configuration**

The Metals analysis-ICP was performed on a P E 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 standard(s) met the referenced advisory control limits.

### **ICSA/ICSAB Statement**

All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

### **Continuing Calibration Blank (CCB) Requirements**

All continuing calibration blanks (CCB) bracketing this batch met the 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: 244145001, 244240001 and 244226001.

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

The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

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

The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

### **Serial Dilution % Difference Statement**

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

## **Technical Information**

### **Holding Time Specifications**

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

### **Sample Dilutions**

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

### **Preparation Information**

The samples in this SDG were prepared exactly according to the cited SOP.

## **Miscellaneous Information**

### **Electronic Packaging Comment**

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

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

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

### **Additional Comments**

Additional comments were not required for this SDG.

## **Certification Statement**

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

**Review Validation:**

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

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

Reviewer: Kristen Parson Date: 2/2/10

# **Sample Data Summary**

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

SDG No: 10-1128-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 244145001

BASIS: As Received

DATE COLLECTED 04-JAN-10

CLIENT ID: RE12-10-7662

LEVEL: Low

DATE RECEIVED 08-JAN-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	235	ug/L		68	200	200	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	SKJ	01/14/10 01:22	100113-2	940082
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-39-3	Barium	2.99	ug/L	J	1	5	5	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	01/21/10 16:33	100121-5	940082
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	SKJ	01/14/10 01:22	100113-2	940082
7440-70-2	Calcium	63.1	ug/L	J	50	200	200	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-47-3	Chromium	1.48	ug/L	J	1	5	5	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	01/18/10 17:45	011810-1	940084
7439-89-6	Iron	122	ug/L		30	100	100	1	P	HSC	01/18/10 17:45	011810-1	940084
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	SKJ	01/14/10 01:22	100113-2	940082
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	01/18/10 17:45	011810-1	940084
7439-96-5	Manganese	4.63	ug/L	J	1	5	5	1	MS	SKJ	01/14/10 01:22	100113-2	940082
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	01/14/10 10:31	011410W1-6	941150
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-09-7	Potassium	148	ug/L	J	50	150	150	1	P	HSC	01/18/10 17:45	011810-1	940084
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-23-5	Sodium	175	ug/L	J	100	300	300	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	SKJ	01/14/10 23:12	100114-3	940082
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	SKJ	01/14/10 01:22	100113-2	940082
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	01/18/10 17:45	011810-1	940084
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	01/18/10 17:45	011810-1	940084

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
940082	940079	SW846 3005A	50	mL	50	mL	01/11/10	FGA
940084	940083	SW846 3005A	50	mL	50	mL	01/11/10	FGA
941150	941148	SW846 7470A Prep	20	mL	20	mL	01/13/10	TXB3

# **Quality Control Summary**

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-1128-1

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
ICV01										
	Antimony	51	ug/L	50	ug/L	101.9	90.0 - 110.0	MS	13-JAN-10 19:40	100113-2
	Cadmium	51.3	ug/L	50	ug/L	102.6	90.0 - 110.0	MS	13-JAN-10 19:40	100113-2
	Lead	51.7	ug/L	50	ug/L	103.4	90.0 - 110.0	MS	13-JAN-10 19:40	100113-2
	Manganese	51.4	ug/L	50	ug/L	102.8	90.0 - 110.0	MS	13-JAN-10 19:40	100113-2
	Uranium	52.9	ug/L	50	ug/L	105.9	90.0 - 110.0	MS	13-JAN-10 19:40	100113-2
	Mercury	5.06	ug/L	5	ug/L	101.1	90.0 - 110.0	AV	14-JAN-10 09:46	011410W1-6
	Thallium	48.6	ug/L	50	ug/L	97.2	90.0 - 110.0	MS	14-JAN-10 22:07	100114-3
	Aluminum	5140	ug/L	5000	ug/L	102.7	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Arsenic	489	ug/L	500	ug/L	97.9	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Barium	521	ug/L	500	ug/L	104.2	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Chromium	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Cobalt	512	ug/L	500	ug/L	102.4	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Copper	519	ug/L	500	ug/L	103.7	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Magnesium	5320	ug/L	5000	ug/L	106.5	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Nickel	509	ug/L	500	ug/L	101.9	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Potassium	2530	ug/L	2500	ug/L	101.4	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Selenium	2630	ug/L	2500	ug/L	105.1	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Silver	265	ug/L	250	ug/L	106.2	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Sodium	2450	ug/L	2500	ug/L	98	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Vanadium	525	ug/L	500	ug/L	104.9	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Zinc	517	ug/L	500	ug/L	103.5	90.0 - 110.0	P	18-JAN-10 15:26	011810-1
	Beryllium	51.5	ug/L	50	ug/L	103	90.0 - 110.0	MS	21-JAN-10 16:10	100121-5
CCV01										
	Antimony	49.8	ug/L	50	ug/L	99.7	90.0 - 110.0	MS	13-JAN-10 20:11	100113-2
	Cadmium	50.2	ug/L	50	ug/L	100.4	90.0 - 110.0	MS	13-JAN-10 20:11	100113-2
	Lead	50.7	ug/L	50	ug/L	101.5	90.0 - 110.0	MS	13-JAN-10 20:11	100113-2
	Manganese	51.9	ug/L	50	ug/L	103.8	90.0 - 110.0	MS	13-JAN-10 20:11	100113-2
	Uranium	52.3	ug/L	50	ug/L	104.6	90.0 - 110.0	MS	13-JAN-10 20:11	100113-2



## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-1128-1

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
	Mercury	5.06	ug/L	5	ug/L	101.3	80.0 – 120.0	AV	14-JAN-10 09:52	011410W1-6
	Thallium	47.9	ug/L	50	ug/L	95.7	90.0 – 110.0	MS	14-JAN-10 22:27	100114-3
	Aluminum	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Arsenic	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Barium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Chromium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Cobalt	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Iron	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Nickel	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Potassium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Selenium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Silver	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Sodium	9760	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Zinc	490	ug/L	500	ug/L	98	90.0 – 110.0	P	18-JAN-10 16:12	011810-1
	Beryllium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	21-JAN-10 16:18	100121-5
CCV02	Antimony	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	13-JAN-10 20:29	100113-2
	Cadmium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	13-JAN-10 20:29	100113-2
	Lead	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	13-JAN-10 20:29	100113-2
	Manganese	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	13-JAN-10 20:29	100113-2
	Uranium	53.9	ug/L	50	ug/L	107.8	90.0 – 110.0	MS	13-JAN-10 20:29	100113-2
	Mercury	5.22	ug/L	5	ug/L	104.4	80.0 – 120.0	AV	14-JAN-10 10:15	011410W1-6
	Thallium	46.9	ug/L	50	ug/L	93.8	90.0 – 110.0	MS	14-JAN-10 23:00	100114-3
	Aluminum	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Arsenic	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Barium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	18-JAN-10 16:41	011810-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128-1

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>
	Calcium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Cobalt	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Iron	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Nickel	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Selenium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Silver	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Vanadium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Zinc	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	18-JAN-10 16:41	011810-1
	Beryllium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	21-JAN-10 16:35	100121-5
CCV03	Antimony	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	13-JAN-10 21:13	100113-2
	Cadmium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	13-JAN-10 21:13	100113-2
	Lead	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	13-JAN-10 21:13	100113-2
	Manganese	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	13-JAN-10 21:13	100113-2
	Uranium	52.8	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	13-JAN-10 21:13	100113-2
	Mercury	5.3	ug/L	5	ug/L	106.1	80.0 – 120.0	AV	14-JAN-10 10:38	011410W1-6
	Thallium	46.2	ug/L	50	ug/L	92.4	90.0 – 110.0	MS	14-JAN-10 23:29	100114-3
	Aluminum	5030	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Arsenic	505	ug/L	500	ug/L	101	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Calcium	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Chromium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Cobalt	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Iron	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	18-JAN-10 17:59	011810-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128-1

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>
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Nickel	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Potassium	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Selenium	519	ug/L	500	ug/L	103.9	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Zinc	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	18-JAN-10 17:59	011810-1
	Beryllium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	21-JAN-10 16:53	100121-5
CCV04	Antimony	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	13-JAN-10 22:03	100113-2
	Cadmium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	13-JAN-10 22:03	100113-2
	Lead	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	13-JAN-10 22:03	100113-2
	Manganese	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	13-JAN-10 22:03	100113-2
	Uranium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	13-JAN-10 22:03	100113-2
	Mercury	5.05	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	14-JAN-10 11:01	011410W1-6
	Thallium	47.3	ug/L	50	ug/L	94.6	90.0 – 110.0	MS	14-JAN-10 23:57	100114-3
	Aluminum	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Arsenic	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Barium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Chromium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Copper	505	ug/L	500	ug/L	101	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Nickel	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Selenium	527	ug/L	500	ug/L	105.3	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Silver	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	18-JAN-10 19:08	011810-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128-1

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>
CCV05	Sodium	9580	ug/L	10000	ug/L	95.8	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Zinc	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	18-JAN-10 19:08	011810-1
	Beryllium	54	ug/L	50	ug/L	107.9	90.0 – 110.0	MS	21-JAN-10 17:10	100121-5
	Antimony	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	13-JAN-10 22:58	100113-2
	Cadmium	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	13-JAN-10 22:58	100113-2
	Lead	50.5	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	13-JAN-10 22:58	100113-2
	Manganese	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	13-JAN-10 22:58	100113-2
	Uranium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	13-JAN-10 22:58	100113-2
	Thallium	47.7	ug/L	50	ug/L	95.5	90.0 – 110.0	MS	15-JAN-10 00:22	100114-3
CCV06	Antimony	48.8	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	13-JAN-10 23:36	100113-2
	Cadmium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	13-JAN-10 23:36	100113-2
	Lead	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	13-JAN-10 23:36	100113-2
	Manganese	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	13-JAN-10 23:36	100113-2
	Uranium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	13-JAN-10 23:36	100113-2
	Thallium	48.1	ug/L	50	ug/L	96.3	90.0 – 110.0	MS	15-JAN-10 00:51	100114-3
CCV07	Antimony	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	14-JAN-10 00:13	100113-2
	Cadmium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	14-JAN-10 00:13	100113-2
	Lead	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	14-JAN-10 00:13	100113-2
	Manganese	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	14-JAN-10 00:13	100113-2
	Uranium	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	14-JAN-10 00:13	100113-2
CCV08	Antimony	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	14-JAN-10 01:03	100113-2
	Cadmium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	14-JAN-10 01:03	100113-2
	Lead	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	14-JAN-10 01:03	100113-2
	Manganese	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	14-JAN-10 01:03	100113-2
	Uranium	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	14-JAN-10 01:03	100113-2

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1128-1

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										
	Antimony	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	14-JAN-10 01:53	100113-2
	Cadmium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	14-JAN-10 01:53	100113-2
	Lead	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	14-JAN-10 01:53	100113-2
	Manganese	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	14-JAN-10 01:53	100113-2
	Uranium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	14-JAN-10 01:53	100113-2
CCV10										
	Antimony	47.7	ug/L	50	ug/L	95.5	90.0 – 110.0	MS	14-JAN-10 02:43	100113-2
	Cadmium	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	14-JAN-10 02:43	100113-2
	Lead	50.7	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	14-JAN-10 02:43	100113-2
	Manganese	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	14-JAN-10 02:43	100113-2
	Uranium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	14-JAN-10 02:43	100113-2
CCV11										
	Antimony	47.9	ug/L	50	ug/L	95.9	90.0 – 110.0	MS	14-JAN-10 03:39	100113-2
	Cadmium	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	14-JAN-10 03:39	100113-2
	Lead	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	14-JAN-10 03:39	100113-2
	Manganese	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	14-JAN-10 03:39	100113-2
	Uranium	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	14-JAN-10 03:39	100113-2

**METALS**  
**-2b-**  
**CRDL Standard for AA & ICP**

SDG No: 10-1128-1

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										
	Antimony	3.4	ug/L	3	ug/L	113.3	70.0 - 130.0	MS	13-JAN-10 19:52	100113-2
	Cadmium	1.11	ug/L	1	ug/L	110.7	70.0 - 130.0	MS	13-JAN-10 19:52	100113-2
	Uranium	.206	ug/L	.2	ug/L	103	70.0 - 130.0	MS	13-JAN-10 19:52	100113-2
	Manganese	5.72	ug/L	5	ug/L	114.3	70.0 - 130.0	MS	13-JAN-10 19:52	100113-2
	Lead	2.21	ug/L	2	ug/L	110.5	70.0 - 130.0	MS	13-JAN-10 19:52	100113-2
	Mercury	.238	ug/L	.2	ug/L	119	70.0 - 130.0	AV	14-JAN-10 09:50	011410W1-6
	Thallium	1.04	ug/L	1	ug/L	103.7	70.0 - 130.0	MS	14-JAN-10 22:15	100114-3
	Beryllium	.513	ug/L	.5	ug/L	102.6	70.0 - 130.0	MS	21-JAN-10 16:13	100121-5
PQL01										
	Aluminum	194	ug/L	200	ug/L	97.3	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Iron	77.2	ug/L	100	ug/L	77.2	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Magnesium	336	ug/L	300	ug/L	111.9	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Nickel	5.63	ug/L	5	ug/L	112.6	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Potassium	186	ug/L	150	ug/L	123.7	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Silver	5.2	ug/L	5	ug/L	104	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Sodium	276	ug/L	300	ug/L	91.9	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Arsenic	28.1	ug/L	30	ug/L	93.6	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Barium	5.31	ug/L	5	ug/L	106.2	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Chromium	5.34	ug/L	5	ug/L	106.9	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Cobalt	5.11	ug/L	5	ug/L	102.2	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Copper	11.1	ug/L	10	ug/L	111.3	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Vanadium	4.76	ug/L	5	ug/L	95.2	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Calcium	210	ug/L	200	ug/L	105.1	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Zinc	11.3	ug/L	10	ug/L	112.7	70.0 - 130.0	P	18-JAN-10 15:40	011810-1
	Selenium	32.6	ug/L	30	ug/L	108.6	70.0 - 130.0	P	18-JAN-10 15:40	011810-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128-1

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>
<b>ICB01</b>	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-JAN-10 19:46	100113-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	13-JAN-10 19:46	100113-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	13-JAN-10 19:46	100113-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	13-JAN-10 19:46	100113-2
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-JAN-10 19:46	100113-2
	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	14-JAN-10 09:48	011410W1-6
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	14-JAN-10 22:11	100114-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	18-JAN-10 15:33	011810-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	18-JAN-10 15:33	011810-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 15:33	011810-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	18-JAN-10 15:33	011810-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 15:33	011810-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 15:33	011810-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	18-JAN-10 15:33	011810-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	18-JAN-10 15:33	011810-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	18-JAN-10 15:33	011810-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	18-JAN-10 15:33	011810-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	18-JAN-10 15:33	011810-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	18-JAN-10 15:33	011810-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 15:33	011810-1
	Sodium	100	+/-300	U	100	300	LIQ	P	18-JAN-10 15:33	011810-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 15:33	011810-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	18-JAN-10 15:33	011810-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	21-JAN-10 16:11	100121-5
<b>CCB01</b>	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-JAN-10 20:17	100113-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	13-JAN-10 20:17	100113-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	13-JAN-10 20:17	100113-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	13-JAN-10 20:17	100113-2
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-JAN-10 20:17	100113-2
	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	14-JAN-10 09:54	011410W1-6

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128-1

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>
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	14-JAN-10 22:31	100114-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	18-JAN-10 16:19	011810-1
	Arsenic	10.51	+/-30	J	5.0	30.0	LIQ	P	18-JAN-10 16:19	011810-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 16:19	011810-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	18-JAN-10 16:19	011810-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 16:19	011810-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 16:19	011810-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	18-JAN-10 16:19	011810-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	18-JAN-10 16:19	011810-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	18-JAN-10 16:19	011810-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	18-JAN-10 16:19	011810-1
	Potassium	80.32	+/-150	J	50.0	150	LIQ	P	18-JAN-10 16:19	011810-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	18-JAN-10 16:19	011810-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 16:19	011810-1
	Sodium	100	+/-300	U	100	300	LIQ	P	18-JAN-10 16:19	011810-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 16:19	011810-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	18-JAN-10 16:19	011810-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	21-JAN-10 16:19	100121-5
<b>CCB02</b>	Antimony	1.56	+/-3	J	1.0	3.0	LIQ	MS	13-JAN-10 20:36	100113-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	13-JAN-10 20:36	100113-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	13-JAN-10 20:36	100113-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	13-JAN-10 20:36	100113-2
	Uranium	0.057	+/-2	J	0.05	0.2	LIQ	MS	13-JAN-10 20:36	100113-2
	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	14-JAN-10 10:17	011410W1-6
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	14-JAN-10 23:04	100114-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	18-JAN-10 16:49	011810-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	18-JAN-10 16:49	011810-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 16:49	011810-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	18-JAN-10 16:49	011810-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 16:49	011810-1



Metals  
-3a-  
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1128-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> ug/L	<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	18-JAN-10 16:49	011810-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	18-JAN-10 16:49	011810-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	18-JAN-10 16:49	011810-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	18-JAN-10 16:49	011810-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	18-JAN-10 16:49	011810-1
	Potassium	59.3	+/-150	J	50.0	150	LIQ	P	18-JAN-10 16:49	011810-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	18-JAN-10 16:49	011810-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 16:49	011810-1
	Sodium	100	+/-300	U	100	300	LIQ	P	18-JAN-10 16:49	011810-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 16:49	011810-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	18-JAN-10 16:49	011810-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	21-JAN-10 16:36	100121-5
CCB03	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-JAN-10 21:19	100113-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	13-JAN-10 21:19	100113-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	13-JAN-10 21:19	100113-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	13-JAN-10 21:19	100113-2
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-JAN-10 21:19	100113-2
	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	14-JAN-10 10:40	011410W1-6
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	14-JAN-10 23:33	100114-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	18-JAN-10 18:06	011810-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	18-JAN-10 18:06	011810-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 18:06	011810-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	18-JAN-10 18:06	011810-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 18:06	011810-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 18:06	011810-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	18-JAN-10 18:06	011810-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	18-JAN-10 18:06	011810-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	18-JAN-10 18:06	011810-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	18-JAN-10 18:06	011810-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	18-JAN-10 18:06	011810-1

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128-1

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	5.36	+/-30	J	5.0	30.0	LIQ	P	18-JAN-10 18:06	011810-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 18:06	011810-1
	Sodium	100	+/-300	U	100	300	LIQ	P	18-JAN-10 18:06	011810-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 18:06	011810-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	18-JAN-10 18:06	011810-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	21-JAN-10 16:55	100121-5
<b>CCB04</b>	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-JAN-10 22:09	100113-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	13-JAN-10 22:09	100113-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	13-JAN-10 22:09	100113-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	13-JAN-10 22:09	100113-2
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-JAN-10 22:09	100113-2
	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	14-JAN-10 11:03	011410W1-6
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	15-JAN-10 00:02	100114-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	18-JAN-10 19:15	011810-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	18-JAN-10 19:15	011810-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 19:15	011810-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	18-JAN-10 19:15	011810-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 19:15	011810-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 19:15	011810-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	18-JAN-10 19:15	011810-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	18-JAN-10 19:15	011810-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	18-JAN-10 19:15	011810-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	18-JAN-10 19:15	011810-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	18-JAN-10 19:15	011810-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	18-JAN-10 19:15	011810-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 19:15	011810-1
	Sodium	100	+/-300	U	100	300	LIQ	P	18-JAN-10 19:15	011810-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-JAN-10 19:15	011810-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	18-JAN-10 19:15	011810-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	21-JAN-10 17:11	100121-5

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128-1

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>
CCB05	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-JAN-10 23:05	100113-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	13-JAN-10 23:05	100113-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	13-JAN-10 23:05	100113-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	13-JAN-10 23:05	100113-2
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-JAN-10 23:05	100113-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	15-JAN-10 00:26	100114-3
CCB06	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-JAN-10 23:42	100113-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	13-JAN-10 23:42	100113-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	13-JAN-10 23:42	100113-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	13-JAN-10 23:42	100113-2
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-JAN-10 23:42	100113-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	15-JAN-10 00:55	100114-3
CCB07	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	14-JAN-10 00:19	100113-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	14-JAN-10 00:19	100113-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	14-JAN-10 00:19	100113-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	14-JAN-10 00:19	100113-2
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	14-JAN-10 00:19	100113-2
CCB08	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	14-JAN-10 01:09	100113-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	14-JAN-10 01:09	100113-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	14-JAN-10 01:09	100113-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	14-JAN-10 01:09	100113-2
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	14-JAN-10 01:09	100113-2
CCB09	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	14-JAN-10 01:59	100113-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	14-JAN-10 01:59	100113-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	14-JAN-10 01:59	100113-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	14-JAN-10 01:59	100113-2
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	14-JAN-10 01:59	100113-2

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1128-1

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>
CCB10	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	14-JAN-10 02:49	100113-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	14-JAN-10 02:49	100113-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	14-JAN-10 02:49	100113-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	14-JAN-10 02:49	100113-2
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	14-JAN-10 02:49	100113-2
CCB11	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	14-JAN-10 03:46	100113-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	14-JAN-10 03:46	100113-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	14-JAN-10 03:46	100113-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	14-JAN-10 03:46	100113-2
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	14-JAN-10 03:46	100113-2

**METALS**  
**-3b-**  
**PREPARATION BLANK SUMMARY**

**SDG NO.** 10-1128-1  
**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>
1202011703	Antimony	1	ug/L	+/-3	U	MS	1	3
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/-0.2	U	MS	0.05	0.2
1202011708	Aluminum	68	ug/L	+/-200	U	P	68	200
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Barium	1	ug/L	+/-5	U	P	1	5
	Calcium	50	ug/L	+/-200	U	P	50	200
	Chromium	1	ug/L	+/-5	U	P	1	5
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Copper	3	ug/L	+/-10	U	P	3	10
	Iron	30	ug/L	+/-100	U	P	30	100
	Magnesium	85	ug/L	+/-300	U	P	85	300
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Potassium	50	ug/L	+/-150	U	P	50	150
	Selenium	5	ug/L	+/-30	U	P	5	30
	Silver	1	ug/L	+/-5	U	P	1	5
	Sodium	100	ug/L	+/-300	U	P	100	300
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
1202014309	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2

## METALS

-4-

## Interference Check Sample

SDG No: 10-1128-1

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	521000	ug/L	500000	ug/L	104	80.0 – 120.0	18-JAN-10 15:47	011810-1
	Arsenic	10.4	ug/L					18-JAN-10 15:47	011810-1
	Barium	0.39	ug/L					18-JAN-10 15:47	011810-1
	Calcium	480000	ug/L	500000	ug/L	95.9	80.0 – 120.0	18-JAN-10 15:47	011810-1
	Chromium	1.66	ug/L					18-JAN-10 15:47	011810-1
	Cobalt	-1.59	ug/L					18-JAN-10 15:47	011810-1
	Copper	1.87	ug/L					18-JAN-10 15:47	011810-1
	Iron	186000	ug/L	200000	ug/L	93	80.0 – 120.0	18-JAN-10 15:47	011810-1
	Magnesium	486000	ug/L	500000	ug/L	97.2	80.0 – 120.0	18-JAN-10 15:47	011810-1
	Nickel	4.18	ug/L					18-JAN-10 15:47	011810-1
	Potassium	-203.0	ug/L					18-JAN-10 15:47	011810-1
	Selenium	23.2	ug/L					18-JAN-10 15:47	011810-1
	Silver	0.48	ug/L					18-JAN-10 15:47	011810-1
	Sodium	10.5	ug/L					18-JAN-10 15:47	011810-1
	Vanadium	-2.26	ug/L					18-JAN-10 15:47	011810-1
	Zinc	8.99	ug/L					18-JAN-10 15:47	011810-1
<b>ICSAB01</b>									
	Aluminum	533000	ug/L	500000	ug/L	107	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Arsenic	519	ug/L	500	ug/L	104	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Barium	496	ug/L	500	ug/L	99.1	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Calcium	486000	ug/L	500000	ug/L	97.2	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Chromium	488	ug/L	500	ug/L	97.6	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Cobalt	439	ug/L	500	ug/L	87.8	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Copper	555	ug/L	500	ug/L	111	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Iron	186000	ug/L	200000	ug/L	92.8	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Magnesium	488000	ug/L	500000	ug/L	97.5	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Nickel	447	ug/L	500	ug/L	89.4	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Potassium	5300	ug/L	5000	ug/L	106	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Selenium	2540	ug/L	2500	ug/L	102	80.0 – 120.0	18-JAN-10 15:53	011810-1

METALS  
-4-  
Interference Check Sample

SDG No: 10-1128-1

Contract: LANL01004

Lab Code: GEL

ICS:

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<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	273	ug/L	250	ug/L	109	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Sodium	5310	ug/L	5000	ug/L	106	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Vanadium	512	ug/L	500	ug/L	102	80.0 – 120.0	18-JAN-10 15:53	011810-1
	Zinc	502	ug/L	500	ug/L	100	80.0 – 120.0	18-JAN-10 15:53	011810-1

## METALS

-4-

## Interference Check Sample

SDG No: 10-1128-1

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									
	Antimony	0.191	ug/L					13-JAN-10 19:58	100113-2
	Cadmium	0.52	ug/L					13-JAN-10 19:58	100113-2
	Lead	0.172	ug/L					13-JAN-10 19:58	100113-2
	Manganese	5.63	ug/L					13-JAN-10 19:58	100113-2
	Uranium	-0.025	ug/L					13-JAN-10 19:58	100113-2
ICSAB01									
	Antimony	22.7	ug/L	20.1	ug/L	113	80.0 - 120.0	13-JAN-10 20:05	100113-2
	Cadmium	20.2	ug/L	20.4	ug/L	99.1	80.0 - 120.0	13-JAN-10 20:05	100113-2
	Lead	19.0	ug/L	20.5	ug/L	92.6	80.0 - 120.0	13-JAN-10 20:05	100113-2
	Manganese	25.6	ug/L	25.8	ug/L	99	80.0 - 120.0	13-JAN-10 20:05	100113-2
	Uranium	20.3	ug/L	20	ug/L	101	80.0 - 120.0	13-JAN-10 20:05	100113-2



## METALS

-4-

## Interference Check Sample

SDG No: 10-1128-1

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	Thallium	-0.034	ug/L					14-JAN-10 22:19	100114-3
ICSAB01	Thallium	17.5	ug/L	20	ug/L	87.3	80.0 - 120.0	14-JAN-10 22:23	100114-3

METALS  
-4-  
Interference Check Sample

SDG No: 10-1128-1

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	Beryllium	0.051	ug/L					21-JAN-10 16:14	100121-5
ICSAB01	Beryllium	19.6	ug/L	20	ug/L	97.9	80.0 - 120.0	21-JAN-10 16:16	100121-5

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1128-1

Client ID: CALA-10-9162S

Contract: ESHL01000

Level: Low

Matrix: GROUND WATER

% Solids:

Sample ID: 244240001

Spike ID: 1202011706

<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>
Antimony	ug/L	75-125	214		0.5	U	200	107		MS
Beryllium	ug/L	75-125	55.2		0.134	J	50	110		MS
Cadmium	ug/L	75-125	10.3		0.11	U	10	103		MS
Lead	ug/L	75-125	39.1		0.5	U	40	97.7		MS
Manganese	ug/L	75-125	45.2		1	U	50	89.2		MS
Thallium	ug/L	75-125	83.2		0.3	U	100	83.1		MS
Uranium	ug/L	75-125	51.5		0.605		50	102		MS

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1128-1

Client ID: RE12-10-7662S

Contract: LANL01004

Level: Low

Matrix: WATER

% Solids:

Sample ID: 244145001

Spike ID: 1202011711

<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>
Sodium	ug/L	75-125	5120		175	J	5000	99		P
Vanadium	ug/L	75-125	510		1	U	500	102		P
Zinc	ug/L	75-125	490		3.3	U	500	97.4		P
Aluminum	ug/L	75-125	5440		235		5000	104		P
Arsenic	ug/L	75-125	508		5	U	500	102		P
Barium	ug/L	75-125	513		2.99	J	500	102		P
Calcium	ug/L	75-125	5050		63.1	J	5000	99.8		P
Chromium	ug/L	75-125	502		1.48	J	500	100		P
Cobalt	ug/L	75-125	487		1	U	500	97.4		P
Copper	ug/L	75-125	513		3	U	500	102		P
Iron	ug/L	75-125	5200		122		5000	102		P
Magnesium	ug/L	75-125	5130		85	U	5000	101		P
Nickel	ug/L	75-125	500		1.5	U	500	99.8		P
Potassium	ug/L	75-125	5150		148	J	5000	100		P
Selenium	ug/L	75-125	504		5	U	500	101		P
Silver	ug/L	75-125	493		1	U	500	98.6		P

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1128-1 Client ID RE12-10-7738S

Contract: LANL01004 Level: Low

Matrix: WATER % Solids:

Sample ID: 244226001 Spike ID: 1202014312

<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/L	75-125	2.14		0.066	U	2	107		AV

---

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-1128-1

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: CALA-10-9162D

Sample ID: 244240001

Duplicate ID: 1202011705

Percent Solids for Dup: N/A

---

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5 U		0.5 U				MS
Beryllium	ug/L	+/- .5	0.134 J		0.11 J		19.7		MS
Cadmium	ug/L		0.11 U		0.11 U				MS
Lead	ug/L		0.5 U		0.5 U				MS
Manganese	ug/L		1 U		1 U				MS
Thallium	ug/L		0.3 U		0.3 U				MS
Uranium	ug/L	+/- .2	0.605		0.621		2.61		MS

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**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-1128-1

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE12-10-7662D

Sample ID: 244145001

Duplicate ID: 1202011710

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	+/-200	235		251		6.5		P
Arsenic	ug/L		5 U		5 U				P
Barium	ug/L	+/-5	2.99 J		3.23 J		7.87		P
Calcium	ug/L	+/-200	63.1 J		54 J		15.6		P
Chromium	ug/L	+/-5	1.48 J		1.26 J		16.1		P
Cobalt	ug/L		1 U		1 U				P
Copper	ug/L		3 U		3 U				P
Iron	ug/L	+/-100	122		133		8.51		P
Magnesium	ug/L		85 U		85 U				P
Nickel	ug/L		1.5 U		1.5 U				P
Potassium	ug/L	+/-150	148 J		122 J		19.4		P
Selenium	ug/L		5 U		5 U				P
Silver	ug/L		1 U		1 U				P
Sodium	ug/L	+/-300	175 J		170 J		3.35		P
Vanadium	ug/L		1 U		1 U				P
Zinc	ug/L		3.3 U		3.3 U				P

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1128-1

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE12-10-7738D

Sample ID: 244226001

Duplicate ID: 1202014311

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066 U		0.066 U				AV



## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1128-1

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>
1202011704								
	Antimony	ug/L	50	51.8		104	80-120	MS
	Beryllium	ug/L	50	55.1		110	80-120	MS
	Cadmium	ug/L	50	49		98	80-120	MS
	Lead	ug/L	50	49.8		99.7	80-120	MS
	Manganese	ug/L	50	49.3		98.7	80-120	MS
	Thallium	ug/L	50	44.2		88.5	80-120	MS
	Uranium	ug/L	50	50.7		101	80-120	MS

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1128-1

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>
1202011709								
	Aluminum	ug/L	5000	4990		99.9	80-120	P
	Arsenic	ug/L	500	494		98.9	80-120	P
	Barium	ug/L	500	499		99.7	80-120	P
	Calcium	ug/L	5000	4980		99.7	80-120	P
	Chromium	ug/L	500	489		97.7	80-120	P
	Cobalt	ug/L	500	476		95.2	80-120	P
	Copper	ug/L	500	495		99	80-120	P
	Iron	ug/L	5000	5060		101	80-120	P
	Magnesium	ug/L	5000	5110		102	80-120	P
	Nickel	ug/L	500	487		97.4	80-120	P
	Potassium	ug/L	5000	4940		98.7	80-120	P
	Selenium	ug/L	500	503		101	80-120	P
	Silver	ug/L	500	486		97.3	80-120	P
	Sodium	ug/L	5000	5110		102	80-120	P
	Vanadium	ug/L	500	497		99.5	80-120	P
	Zinc	ug/L	500	482		96.3	80-120	P

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1128-1

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>
1202014310	Mercury	ug/L	2	2.15		107	80-120	AV

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1128-1 Client ID CALA-10-9162L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 244240001 Serial Dilution ID: 1202011707

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Beryllium	.134	J	.5	U	100			MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	1	U	5	U				MS
Thallium	.3	U	5.65					MS
Uranium	.605		.585	J	3.31			MS

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1128-1

Client ID RE12-10-7662L

Contract: LANL01004

Matrix: LIQUID

Level: Low

Sample ID: 244145001

Serial Dilution ID: 1202011712

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	235		340	U	100			P
Arsenic	5	U	25	U				P
Barium	2.99	J	5	U	100			P
Calcium	63.1	J	250	U	100			P
Chromium	1.48	J	5	U	100			P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	122		157	J	28.3			P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	148	J	250	U	100			P
Selenium	5	U	26.3	J				P
Silver	1	U	5	U				P
Sodium	175	J	500	U	100			P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1128-1 Client ID RE12-10-7738L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 244226001 Serial Dilution ID: 1202014313

Analyte	Initial Value ng/L	C	Serial Value ng/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

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METALS  
-13-  
SAMPLE PREPARATION SUMMARY

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SDG No: 10-1128-1

Method Type: P

Contract: LANL01004

Lab Code: GEL

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<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	940083						
1202011708	MB for batch 940083	MB	W	11-JAN-10	50mL	50mL	
1202011709	LCS for batch 940083	LCS	W	11-JAN-10	50mL	50mL	
1202011711	RE12-10-7662S	MS	W	11-JAN-10	50mL	50mL	
1202011710	RE12-10-7662D	DUP	W	11-JAN-10	50mL	50mL	
244145001	RE12-10-7662	SAMPLE	W	11-JAN-10	50mL	50mL	

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SW846

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METALS  
-13-  
SAMPLE PREPARATION SUMMARY

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SDG No: 10-1128-1

Method Type: MS

Contract: LANL01004

Lab Code: GEL

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<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	940079						
1202011703	MB for batch 940079	MB	G	11-JAN-10	50mL	50mL	
1202011704	LCS for batch 940079	LCS	G	11-JAN-10	50mL	50mL	
1202011706	CALA-10-9162S	MS	G	11-JAN-10	50mL	50mL	
1202011705	CALA-10-9162D	DUP	G	11-JAN-10	50mL	50mL	
244145001	RE12-10-7662	SAMPLE	W	11-JAN-10	50mL	50mL	

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SW846



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METALS  
-13-  
SAMPLE PREPARATION SUMMARY

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SDG No: 10-1128-1

Method Type: AV

Contract: LANL01004

Lab Code: GEL

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<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	941148						
1202014309	MB for batch 941148	MB	W	13-JAN-10	20mL	20mL	
1202014310	LCS for batch 941148	LCS	W	13-JAN-10	20mL	20mL	
1202014312	RE12-10-7738S	MS	W	13-JAN-10	20mL	20mL	
1202014311	RE12-10-7738D	DUP	W	13-JAN-10	20mL	20mL	
244145001	RE12-10-7662	SAMPLE	W	13-JAN-10	20mL	20mL	

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SW846

**Metals**  
**-14-**  
**Analysis Run Log**

**Contract:** LANL01004**Lab Code:** GEL**Inst Name:** ICPMS5**Start Date:** 21-JAN-10**End Date:** 21-JAN-10**Client Sdg:** 10-1128-1**Method:** MS**Data File:** 100121-5

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	16:05					X																			
S10	1	16:06					X																			
S100	1	16:08					X																			
ICV01	1	16:10					X																			
ICB01	1	16:11					X																			
CRDL01	1	16:13					X																			
ICSA01	1	16:14					X																			
ICSAB01	1	16:16					X																			
CCV01	1	16:18					X																			
CCB01	1	16:19					X																			
1202011703	1	16:21					X																			
1202011704	1	16:23					X																			
ZZZZZZ	1	16:25																								
ZZZZZZ	1	16:26																								
ZZZZZZ	1	16:28																								
ZZZZZZ	1	16:30																								
ZZZZZZ	1	16:31																								
244145001	1	16:33					X																			
CCV02	1	16:35					X																			
CCB02	1	16:36					X																			
ZZZZZZ	1	16:41																								
ZZZZZZ	1	16:43																								
ZZZZZZ	1	16:45																								
ZZZZZZ	1	16:46																								
ZZZZZZ	1	16:48																								
ZZZZZZ	1	16:50																								
ZZZZZZ	1	16:52																								
CCV03	1	16:53					X																			
CCB03	1	16:55					X																			
ZZZZZZ	1	17:03																								
1202011705	1	17:04					X																			
1202011706	1	17:06					X																			
1202011707	5	17:08					X																			
CCV04	1	17:10					X																			
CCB04	1	17:11					X																			

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA3

Start Date: 18-JAN-10

End Date: 18-JAN-10

Client Sdg: 10-1128-1

Method P

Data File: 011810-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:53	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	15:00			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	15:06	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	15:13	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	15:20	X						X				X		X							X				
ICV01	1	15:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	15:33	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	15:40	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	15:47	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	15:53	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	15:59	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	16:05	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV01	1	16:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	16:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR03	1	16:35	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV02	1	16:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	16:49	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202011708	1	16:56	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202011709	1	17:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:09																								
ZZZZZZ	1	17:16																								
ZZZZZZ	1	17:23																								
ZZZZZZ	1	17:30																								
ZZZZZZ	1	17:37																								
244145001	1	17:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202011710	1	17:52	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV03	1	17:59	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB03	1	18:06	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202011711	1	18:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202011712	5	18:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	18:26																								
ZZZZZZ	1	18:33																								
ZZZZZZ	1	18:40																								
ZZZZZZ	1	18:47																								
ZZZZZZ	1	18:54																								
ZZZZZZ	1	19:01																								
CCV04	1	19:08	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB04	1	19:15	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: 14-JAN-10

End Date: 14-JAN-10

Client Sdg: 10-1128-1

Method AV

Data File: 011410W1-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:35															X									
S0.2	1	09:37															X									
S0.5	1	09:39															X									
S2.0	1	09:41															X									
S5.0	1	09:43															X									
S10.0	1	09:44															X									
ICV01	1	09:46															X									
ICB01	1	09:48															X									
CRDL01	1	09:50															X									
CCV01	1	09:52															X									
CCB01	1	09:54															X									
ZZZZZZ	1	09:56																								
ZZZZZZ	1	09:58																								
ZZZZZZ	1	10:00																								
ZZZZZZ	1	10:02																								
ZZZZZZ	1	10:04																								
ZZZZZZ	5	10:06																								
ZZZZZZ	1	10:07																								
ZZZZZZ	1	10:09																								
ZZZZZZ	1	10:11																								
ZZZZZZ	1	10:13																								
CCV02	1	10:15															X									
CCB02	1	10:17															X									
ZZZZZZ	1	10:19																								
ZZZZZZ	5	10:21																								
1202014309	1	10:23															X									
1202014310	1	10:25															X									
ZZZZZZ	1	10:27																								
ZZZZZZ	1	10:29																								
244145001	1	10:31															X									
ZZZZZZ	1	10:32																								
1202014311	1	10:34															X									
1202014312	1	10:36															X									
CCV03	1	10:38															X									
CCB03	1	10:40															X									
1202014313	5	10:42															X									
ZZZZZZ	1	10:44																								
ZZZZZZ	1	10:46																								
ZZZZZZ	1	10:48																								
ZZZZZZ	1	10:50																								

Samp No.	D/F	Run Time
ZZZZZZ	1	10:52
ZZZZZZ	1	10:54
ZZZZZZ	1	10:56
ZZZZZZ	1	10:58
ZZZZZZ	1	10:59
CCV04	1	11:01 X
CCB04	1	11:03 X

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS4

Start Date: 13-JAN-10

End Date: 14-JAN-10

Client Sdg: 10-1128-1

Method MS

Data File: 100113-2

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	19:21		X				X					X	X										X		
S10	1	19:28		X				X					X	X										X		
S100	1	19:34		X				X					X	X										X		
ICV01	1	19:40		X				X					X	X										X		
ICB01	1	19:46		X				X					X	X										X		
CRDL01	1	19:52		X				X					X	X										X		
ICSA01	1	19:58		X				X					X	X										X		
ICSAB01	1	20:05		X				X					X	X										X		
CCV01	1	20:11		X				X					X	X										X		
CCB01	1	20:17		X				X					X	X										X		
LR01	1	20:23		X				X					X	X										X		
CCV02	1	20:29		X				X					X	X										X		
CCB02	1	20:36		X				X					X	X										X		
ZZZZZZ	2	20:42																								
ZZZZZZ	40	20:48																								
ZZZZZZ	2	20:54																								
ZZZZZZ	2	21:00																								
ZZZZZZ	2	21:07																								
CCV03	1	21:13		X				X					X	X										X		
CCB03	1	21:19		X				X					X	X										X		
ZZZZZZ	2	21:25																								
ZZZZZZ	10	21:31																								
ZZZZZZ	2	21:38																								
ZZZZZZ	2	21:44																								
ZZZZZZ	2	21:50																								
ZZZZZZ	2	21:56																								
CCV04	1	22:03		X				X					X	X										X		
CCB04	1	22:09		X				X					X	X										X		
ZZZZZZ	2	22:15																								
ZZZZZZ	2	22:21																								
ZZZZZZ	2	22:27																								
ZZZZZZ	2	22:34																								
ZZZZZZ	2	22:40																								
ZZZZZZ	2	22:46																								
ZZZZZZ	2	22:52																								
CCV05	1	22:58		X				X					X	X										X		
CCB05	1	23:05		X				X					X	X										X		
ZZZZZZ	2	23:11																								
ZZZZZZ	2	23:17																								
ZZZZZZ	2	23:23																								

[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
CCV11	1	03:39		X				X					X		X									X		
CCB11	1	03:46		X				X					X		X									X		



**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS4

Start Date: 14-JAN-10

End Date: 15-JAN-10

Client Sdg: 10-1128-1

Method MS

Data File: 100114-3

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	Ti	U	V	Zn
S0.0	1	21:54																					X			
S10	1	21:59																					X			
S100	1	22:03																					X			
ICV01	1	22:07																					X			
ICB01	1	22:11																					X			
CRDL01	1	22:15																					X			
ICSA01	1	22:19																					X			
ICSAB01	1	22:23																					X			
CCV01	1	22:27																					X			
CCB01	1	22:31																					X			
1202011703	1	22:35																					X			
1202011704	1	22:39																					X			
ZZZZZZ	1	22:43																								
ZZZZZZ	1	22:47																								
ZZZZZZ	1	22:52																								
ZZZZZZ	1	22:56																								
CCV02	1	23:00																					X			
CCB02	1	23:04																					X			
ZZZZZZ	1	23:08																								
244145001	1	23:12																					X			
ZZZZZZ	1	23:16																								
ZZZZZZ	1	23:20																								
ZZZZZZ	1	23:25																								
CCV03	1	23:29																					X			
CCB03	1	23:33																					X			
ZZZZZZ	1	23:37																								
ZZZZZZ	1	23:41																								
ZZZZZZ	1	23:45																								
ZZZZZZ	1	23:49																								
ZZZZZZ	1	23:53																								
CCV04	1	23:57																					X			
CCB04	1	00:02																					X			
ZZZZZZ	1	00:06																								
ZZZZZZ	1	00:10																								
ZZZZZZ	1	00:14																								
ZZZZZZ	1	00:18																								
CCV05	1	00:22																					X			
CCB05	1	00:26																					X			
ZZZZZZ	1	00:30																								
1202011705	1	00:35																					X			

Samp No.	D/F	Run Time
I202011706	1	00:39
I202011707	5	00:43
ZZZZZZ	1	00:47
CCV06	1	00:51
CCB06	1	00:55

# Standards

METALS  
-10-  
Instrument Detection Limits

SDG NO. 10-1128-1

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>
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

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METALS  
-10-  
Instrument Detection Limits

SDG NO. 10-1128-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

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	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u> <u>ug/L</u>	<u>RDL</u> <u>ug/L</u>
MERCURY				
LIQUID	Mercury		0.066	.2

**METALS**  
**-10-**  
**Instrument Detection Limits**

SDG NO. 10-1128-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
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: 10-1128-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-NOV-09

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	0.02738	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	-0.44940	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	-0.22121	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	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	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	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	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: **10-1128-1**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-NOV-09**

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	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	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	2.54031	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	0.38952	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	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
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	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810



**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-1128-1**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-NOV-09**

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	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1128-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-NOV-09

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Nickel	Phosphorous	Potassium	Selenium	Silicon
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	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	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	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	6.38465	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1128-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-NOV-09

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Silver	Strontium	Sulfur	Thallium	Tin
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
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	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
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: 10-1128-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-NOV-09

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-1128-1

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-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09

**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-1128-1

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>
Cadmium	20	10000	ug/L	01-NOV-09
Calcium	20	500000	ug/L	01-NOV-09
Chromium	20	25000	ug/L	01-NOV-09
Cobalt	20	10000	ug/L	01-NOV-09
Copper	20	20000	ug/L	01-NOV-09
Iron	20	500000	ug/L	01-NOV-09
Lead	20	25000	ug/L	01-NOV-09
Magnesium	20	500000	ug/L	01-NOV-09
Manganese	20	10000	ug/L	01-NOV-09
Nickel	20	10000	ug/L	01-NOV-09
Potassium	20	300000	ug/L	01-NOV-09
Selenium	20	10000	ug/L	01-NOV-09
Silver	20	1000	ug/L	01-NOV-09
Sodium	20	500000	ug/L	01-NOV-09
Thallium	20	10000	ug/L	01-NOV-09
Uranium	20	15000	ug/L	01-NOV-09
Vanadium	20	10000	ug/L	01-NOV-09
Zinc	20	15000	ug/L	01-NOV-09
Aluminum	20	500000	ug/L	01-NOV-09
Antimony	20	10000	ug/L	01-NOV-09
Arsenic	20	10000	ug/L	01-NOV-09
Barium	20	15000	ug/L	01-NOV-09
Beryllium	20	3000	ug/L	01-NOV-09

**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-1128-1

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-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09

# Raw Data

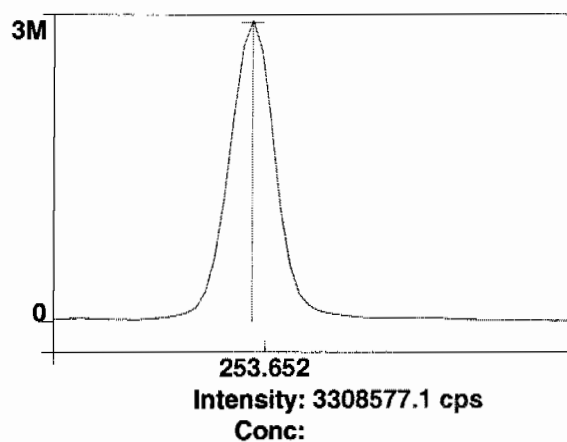


Method: Hg\_ReAlign  
Result: 012610

Sample ID: Hg\_ReAlign

Hg 253.652

Rep: 1



1

=====  
Analysis Begun

Start Time: 1/18/2010 14:53:34

Plasma On Time: 1/18/2010 05:48:39

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\011810.sif

Batch ID:

Results Data Set: 011810

Results Library: C:\pe\Optima3\Results\Results.mdb

=====  
Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 1/18/2010 14:51:13

IEC File: 011110.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

=====  
Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 1/18/2010 14:53:36

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Analysis Time
1	Sc Radial	5291.6	5291.6	99.3 %		14:55:28
1	Y RADIAL	5630.8	5630.8	99.75 %		14:55:28
1	Al 396.153Radial†	-0.5	-0.5	[0.00] ug/L		14:55:28

1	Ca 317.933Radial†	21.6	21.8	[0.00]	ug/L	14:55:48
1	Fe 238.204 Radial†	12.8	12.9	[0.00]	ug/L	14:55:48
1	K 766.490 Radial†	2680.8	2698.8	[0.00]	ug/L	14:55:28
1	Mg 279.077 IEC†	2.7	2.7	[0.00]	ug/L	14:55:48
1	Na 589.592 Radial†	-1116.6	-1124.0	[0.00]	ug/L	14:55:28
1	Sr 421.552†	19.1	19.3	[0.00]	ug/L	14:55:28
1	Sc 361.383	947840.7	947840.7	100.39	%	14:56:45
1	Y 371.029	800018.1	800018.1	100.33	%	14:56:45
1	Ag 328.068†	374.1	372.6	[0.00]	ug/L	14:56:50
1	As 188.979†	-22.3	-22.2	[0.00]	ug/L	14:57:10
1	B 249.677†	-539.2	-537.1	[0.00]	ug/L	14:57:10
1	Ba 233.527†	20.4	20.3	[0.00]	ug/L	14:57:10
1	Be 313.107†	-4556.9	-4539.2	[0.00]	ug/L	14:56:50
1	Cd 226.502†	-212.0	-211.1	[0.00]	ug/L	14:57:10
1	Co 228.616†	-88.3	-88.0	[0.00]	ug/L	14:57:10
1	Cr 267.716†	69.8	69.5	[0.00]	ug/L	14:57:10
1	Cu 324.752†	6196.6	6172.4	[0.00]	ug/L	14:56:50
1	Mn 257.610†	446.8	445.1	[0.00]	ug/L	14:57:10
1	Mo 202.031†	16.1	16.0	[0.00]	ug/L	14:57:10
1	Ni 231.604†	100.4	100.0	[0.00]	ug/L	14:57:10
1	P 214.914†	237.9	237.0	[0.00]	ug/L	14:57:10
1	Pb 220.353†	-40.8	-40.6	[0.00]	ug/L	14:57:10
1	S 181.975 Axial†	41.0	40.9	[0.00]	ug/L	14:57:10
1	Sb 206.836†	38.3	38.2	[0.00]	ug/L	14:57:10
1	Se 196.026†	-27.9	-27.8	[0.00]	ug/L	14:57:10
1	Si 251.611†	494.4	492.5	[0.00]	ug/L	14:57:10
1	Sn 189.927†	7.0	6.9	[0.00]	ug/L	14:57:10
1	Ti 334.940†	-1405.3	-1399.8	[0.00]	ug/L	14:56:50
1	Tl 190.801†	-35.9	-35.7	[0.00]	ug/L	14:57:10
1	U 409.014†	-1779.5	-1772.6	[0.00]	ug/L	14:56:45
1	V 292.402†	-1439.5	-1433.9	[0.00]	ug/L	14:56:50
1	Zn 213.857†	701.2	698.5	[0.00]	ug/L	14:57:10
1	SiO2†	538.8	536.7	[0.00]	ug/L	14:58:16
2	Sc Radial	5360.6	5360.6	101	%	14:55:53
2	Y RADIAL	5650.4	5650.4	100.1	%	14:55:53
2	Al 396.153Radial†	-0.7	-0.7	[0.00]	ug/L	14:55:53
2	Ca 317.933Radial†	17.2	17.1	[0.00]	ug/L	14:56:13
2	Fe 238.204 Radial†	12.4	12.4	[0.00]	ug/L	14:56:13
2	K 766.490 Radial†	2752.5	2735.3	[0.00]	ug/L	14:55:53
2	Mg 279.077 IEC†	2.3	2.3	[0.00]	ug/L	14:56:13
2	Na 589.592 Radial†	-1068.9	-1062.3	[0.00]	ug/L	14:55:53
2	Sr 421.552†	8.4	8.4	[0.00]	ug/L	14:55:53
2	Sc 361.383	940339.5	940339.5	99.596	%	14:57:15
2	Y 371.029	793747.5	793747.5	99.546	%	14:57:15
2	Ag 328.068†	483.8	485.8	[0.00]	ug/L	14:57:20
2	As 188.979†	-17.0	-17.0	[0.00]	ug/L	14:57:40
2	B 249.677†	-541.7	-543.9	[0.00]	ug/L	14:57:40
2	Ba 233.527†	24.4	24.5	[0.00]	ug/L	14:57:40
2	Be 313.107†	-4515.2	-4533.5	[0.00]	ug/L	14:57:20
2	Cd 226.502†	-214.0	-214.8	[0.00]	ug/L	14:57:40
2	Co 228.616†	-72.7	-73.0	[0.00]	ug/L	14:57:40
2	Cr 267.716†	82.4	82.7	[0.00]	ug/L	14:57:40
2	Cu 324.752†	6145.8	6170.7	[0.00]	ug/L	14:57:20
2	Mn 257.610†	452.5	454.4	[0.00]	ug/L	14:57:40
2	Mo 202.031†	20.5	20.6	[0.00]	ug/L	14:57:40
2	Ni 231.604†	103.2	103.6	[0.00]	ug/L	14:57:40
2	P 214.914†	230.2	231.1	[0.00]	ug/L	14:57:40
2	Pb 220.353†	-71.4	-71.7	[0.00]	ug/L	14:57:40
2	S 181.975 Axial†	43.5	43.7	[0.00]	ug/L	14:57:40
2	Sb 206.836†	43.7	43.9	[0.00]	ug/L	14:57:40
2	Se 196.026†	-41.1	-41.3	[0.00]	ug/L	14:57:40
2	Si 251.611†	501.1	503.2	[0.00]	ug/L	14:57:40
2	Sn 189.927†	9.1	9.2	[0.00]	ug/L	14:57:40
2	Ti 334.940†	-1389.0	-1394.7	[0.00]	ug/L	14:57:20
2	Tl 190.801†	-36.3	-36.5	[0.00]	ug/L	14:57:40
2	U 409.014†	-1484.4	-1490.5	[0.00]	ug/L	14:57:15
2	V 292.402†	-1468.3	-1474.3	[0.00]	ug/L	14:57:20
2	Zn 213.857†	705.9	708.8	[0.00]	ug/L	14:57:40
2	SiO2†	515.5	517.6	[0.00]	ug/L	14:58:21
3	Sc Radial	5329.2	5329.2	100	%	14:56:18
3	Y RADIAL	5653.5	5653.5	100.2	%	14:56:18

3	Al 396.153Radial†	15.2	15.2	[0.00]	ug/L	14:56:18
3	Ca 317.933Radial†	22.9	22.9	[0.00]	ug/L	14:56:38
3	Fe 238.204 Radial†	13.2	13.2	[0.00]	ug/L	14:56:38
3	K 766.490 Radial†	2593.2	2592.2	[0.00]	ug/L	14:56:18
3	Mg 279.077 IEC†	2.9	2.9	[0.00]	ug/L	14:56:38
3	Na 589.592 Radial†	-1110.2	-1109.8	[0.00]	ug/L	14:56:18
3	Sr 421.552†	7.3	7.3	[0.00]	ug/L	14:56:18
3	Sc 361.383	944268.1	944268.1	100.01	%	14:57:45
3	Y 371.029	798344.2	798344.2	100.12	%	14:57:45
3	Ag 328.068†	375.2	375.2	[0.00]	ug/L	14:57:50
3	As 188.979†	-19.5	-19.5	[0.00]	ug/L	14:58:11
3	B 249.677†	-501.5	-501.5	[0.00]	ug/L	14:58:11
3	Ba 233.527†	14.3	14.3	[0.00]	ug/L	14:58:11
3	Be 313.107†	-4520.1	-4519.6	[0.00]	ug/L	14:57:50
3	Cd 226.502†	-224.7	-224.6	[0.00]	ug/L	14:58:11
3	Co 228.616†	-59.2	-59.2	[0.00]	ug/L	14:58:11
3	Cr 267.716†	88.0	88.0	[0.00]	ug/L	14:58:11
3	Cu 324.752†	6157.1	6156.3	[0.00]	ug/L	14:57:50
3	Mn 257.610†	467.4	467.3	[0.00]	ug/L	14:58:11
3	Mo 202.031†	19.8	19.8	[0.00]	ug/L	14:58:11
3	Ni 231.604†	98.0	98.0	[0.00]	ug/L	14:58:11
3	P 214.914†	235.6	235.6	[0.00]	ug/L	14:58:11
3	Pb 220.353†	-48.9	-48.9	[0.00]	ug/L	14:58:11
3	S 181.975 Axial†	39.9	39.9	[0.00]	ug/L	14:58:11
3	Sb 206.836†	34.1	34.0	[0.00]	ug/L	14:58:11
3	Se 196.026†	-29.7	-29.7	[0.00]	ug/L	14:58:11
3	Si 251.611†	495.8	495.8	[0.00]	ug/L	14:58:11
3	Sn 189.927†	6.3	6.3	[0.00]	ug/L	14:58:11
3	Ti 334.940†	-1372.1	-1371.9	[0.00]	ug/L	14:57:50
3	Tl 190.801†	-44.0	-44.0	[0.00]	ug/L	14:58:11
3	U 409.014†	-1671.9	-1671.7	[0.00]	ug/L	14:57:45
3	V 292.402†	-1524.6	-1524.5	[0.00]	ug/L	14:57:50
3	Zn 213.857†	715.9	715.8	[0.00]	ug/L	14:58:11
3	SiO2†	520.7	520.6	[0.00]	ug/L	14:58:26

## Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	944149.5	3752.01	0.40%	100.00 %
Sc Radial	5327.1	34.50	0.65%	100 %
Y 371.029	797369.9	3246.87	0.41%	100.00 %
Y RADIAL	5644.9	12.30	0.22%	100.0 %
Ag 328.068†	411.2	64.62	15.72%	[0.00] ug/L
Al 396.153Radial†	4.6	9.11	196.25%	[0.00] ug/L
As 188.979†	-19.6	2.57	13.11%	[0.00] ug/L
B 249.677†	-527.5	22.80	4.32%	[0.00] ug/L
Ba 233.527†	19.7	5.15	26.12%	[0.00] ug/L
Be 313.107†	-4530.8	10.09	0.22%	[0.00] ug/L
Ca 317.933Radial†	20.6	3.10	15.06%	[0.00] ug/L
Cd 226.502†	-216.9	6.97	3.22%	[0.00] ug/L
Co 228.616†	-73.4	14.39	19.61%	[0.00] ug/L
Cr 267.716†	80.1	9.51	11.88%	[0.00] ug/L
Cu 324.752†	6166.5	8.88	0.14%	[0.00] ug/L
Fe 238.204 Radial†	12.8	0.42	3.31%	[0.00] ug/L
K 766.490 Radial†	2675.5	74.35	2.78%	[0.00] ug/L
Mg 279.077 IEC†	2.6	0.35	13.26%	[0.00] ug/L
Mn 257.610†	455.6	11.18	2.45%	[0.00] ug/L
Mo 202.031†	18.8	2.43	12.94%	[0.00] ug/L
Na 589.592 Radial†	-1098.7	32.35	2.94%	[0.00] ug/L
Ni 231.604†	100.5	2.83	2.82%	[0.00] ug/L
P 214.914†	234.6	3.05	1.30%	[0.00] ug/L
Pb 220.353†	-53.7	16.08	29.93%	[0.00] ug/L
S 181.975 Axial†	41.5	1.97	4.76%	[0.00] ug/L
Sb 206.836†	38.7	4.95	12.79%	[0.00] ug/L
Se 196.026†	-32.9	7.30	22.18%	[0.00] ug/L
Si 251.611†	497.1	5.49	1.10%	[0.00] ug/L
Sn 189.927†	7.5	1.49	19.96%	[0.00] ug/L
Sr 421.552†	11.7	6.62	56.73%	[0.00] ug/L
Ti 334.940†	-1388.8	14.87	1.07%	[0.00] ug/L
Tl 190.801†	-38.7	4.56	11.76%	[0.00] ug/L

U 409.014†	-1644.9	142.95	8.69%	[0.00] ug/L
V 292.402†	-1477.5	45.35	3.07%	[0.00] ug/L
Zn 213.857†	707.7	8.69	1.23%	[0.00] ug/L
SiO2†	525.0	10.25	1.95%	[0.00] ug/L

Sequence No.: 2  
 Sample ID: S0.1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 1/18/2010 15:00:36  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc Radial	5352.1	5352.1	100	%	15:02:34
1	Y RADIAL	5652.6	5652.6	100.1	%	15:02:34
1	K 766.490 Radial†	7336.7	4627.1	[1000]	ug/L	15:02:29
1	Sr 421.552†	15971.2	15885.0	[100]	ug/L	15:02:34
1	Sc 361.383	934037.5	934037.5	98.929	%	15:03:01
1	Y 371.029	792820.6	792820.6	99.429	%	15:03:01
1	Ag 328.068†	22820.5	22656.3	[100]	ug/L	15:03:01
1	As 188.979†	216.2	238.2	[100]	ug/L	15:03:21
1	B 249.677†	3797.0	4365.7	[100]	ug/L	15:03:01
1	Ba 233.527†	13554.4	13681.4	[100]	ug/L	15:03:01
1	Be 313.107†	272866.3	280351.1	[100]	ug/L	15:03:01
1	Cd 226.502†	9054.0	9368.9	[100]	ug/L	15:03:01
1	Co 228.616†	4891.9	5018.3	[100]	ug/L	15:03:21
1	Cr 267.716†	9031.1	9048.8	[100]	ug/L	15:03:01
1	Cu 324.752†	39878.3	34143.6	[100]	ug/L	15:03:01
1	Mn 257.610†	95153.8	95728.3	[100]	ug/L	15:03:01
1	Mo 202.031†	1490.8	1488.1	[100]	ug/L	15:03:21
1	Ni 231.604†	4123.2	4067.3	[100]	ug/L	15:03:21
1	P 214.914†	1073.4	850.5	[500]	ug/L	15:03:21
1	Pb 220.353†	794.5	856.9	[100]	ug/L	15:03:21
1	S 181.975 Axial†	189.3	149.8	[200]	ug/L	15:03:21
1	Sb 206.836†	328.6	293.5	[100]	ug/L	15:03:21
1	Se 196.026†	128.2	162.5	[100]	ug/L	15:03:21
1	Si 251.611†	16541.2	16223.1	[500]	ug/L	15:03:01
1	Sn 189.927†	582.5	581.4	[100]	ug/L	15:03:21
1	Ti 334.940†	63539.8	65616.5	[100]	ug/L	15:03:01
1	Tl 190.801†	298.7	340.6	[100]	ug/L	15:03:21
1	U 409.014†	1707.8	3371.2	[100]	ug/L	15:03:01
1	V 292.402†	13240.0	14860.9	[100]	ug/L	15:03:01
1	Zn 213.857†	11707.7	11126.8	[100]	ug/L	15:03:01
1	SiO2†	16457.1	16110.3	[1069.5]	ug/L	15:04:17
2	Sc Radial	6012.0	6012.0	113	%	15:02:44
2	Y RADIAL	6337.1	6337.1	112.3	%	15:02:44
2	K 766.490 Radial†	7413.9	3893.9	[1000]	ug/L	15:02:39
2	Sr 421.552†	15384.3	13620.1	[100]	ug/L	15:02:44
2	Sc 361.383	901893.7	901893.7	95.524	%	15:03:26
2	Y 371.029	762893.3	762893.3	95.676	%	15:03:26
2	Ag 328.068†	22613.3	23261.6	[100]	ug/L	15:03:26
2	As 188.979†	214.3	243.9	[100]	ug/L	15:03:46
2	B 249.677†	3851.3	4559.2	[100]	ug/L	15:03:26
2	Ba 233.527†	13511.4	14124.8	[100]	ug/L	15:03:26
2	Be 313.107†	271285.0	288526.1	[100]	ug/L	15:03:26
2	Cd 226.502†	8977.3	9614.7	[100]	ug/L	15:03:26
2	Co 228.616†	4892.6	5195.3	[100]	ug/L	15:03:46
2	Cr 267.716†	9067.3	9412.1	[100]	ug/L	15:03:26
2	Cu 324.752†	39488.4	35172.0	[100]	ug/L	15:03:26
2	Mn 257.610†	94839.9	98827.8	[100]	ug/L	15:03:26
2	Mo 202.031†	1488.9	1539.9	[100]	ug/L	15:03:46
2	Ni 231.604†	4115.4	4207.7	[100]	ug/L	15:03:46
2	P 214.914†	1063.7	878.9	[500]	ug/L	15:03:46
2	Pb 220.353†	785.6	876.1	[100]	ug/L	15:03:46
2	S 181.975 Axial†	184.1	151.2	[200]	ug/L	15:03:46
2	Sb 206.836†	319.9	296.2	[100]	ug/L	15:03:46
2	Se 196.026†	131.3	170.4	[100]	ug/L	15:03:46
2	Si 251.611†	16400.2	16671.5	[500]	ug/L	15:03:26
2	Sn 189.927†	593.1	613.4	[100]	ug/L	15:03:46
2	Ti 334.940†	63429.7	67790.3	[100]	ug/L	15:03:26
2	Tl 190.801†	309.0	362.2	[100]	ug/L	15:03:46
2	U 409.014†	1611.9	3332.3	[100]	ug/L	15:03:26

2	V 292.402†	13296.8	15397.3	[100]	ug/L	15:03:26
2	Zn 213.857†	11615.4	11451.9	[100]	ug/L	15:03:26
2	SiO2†	16405.7	16649.4	[1069.5]	ug/L	15:04:22
3	Sc Radial	5573.4	5573.4	105	%	15:02:54
3	Y RADIAL	5898.4	5898.4	104.5	%	15:02:54
3	K 766.490 Radial†	7225.0	4230.3	[1000]	ug/L	15:02:49
3	Sr 421.552†	15272.4	14586.0	[100]	ug/L	15:02:54
3	Sc 361.383	900641.8	900641.8	95.392	%	15:03:52
3	Y 371.029	762930.1	762930.1	95.681	%	15:03:52
3	Ag 328.068†	22447.5	23120.6	[100]	ug/L	15:03:52
3	As 188.979†	213.3	243.2	[100]	ug/L	15:04:12
3	B 249.677†	3787.2	4497.7	[100]	ug/L	15:03:52
3	Ba 233.527†	13436.3	14065.7	[100]	ug/L	15:03:52
3	Be 313.107†	269883.0	287451.1	[100]	ug/L	15:03:52
3	Cd 226.502†	8936.1	9584.6	[100]	ug/L	15:03:52
3	Co 228.616†	4884.7	5194.1	[100]	ug/L	15:04:12
3	Cr 267.716†	8973.8	9327.3	[100]	ug/L	15:03:52
3	Cu 324.752†	39244.4	34973.7	[100]	ug/L	15:03:52
3	Mn 257.610†	94303.5	98403.4	[100]	ug/L	15:03:52
3	Mo 202.031†	1490.8	1544.0	[100]	ug/L	15:04:12
3	Ni 231.604†	4095.6	4192.9	[100]	ug/L	15:04:12
3	P 214.914†	1058.8	875.4	[500]	ug/L	15:04:12
3	Pb 220.353†	788.0	879.9	[100]	ug/L	15:04:12
3	S 181.975 Axial†	187.0	154.5	[200]	ug/L	15:04:12
3	Sb 206.836†	328.3	305.4	[100]	ug/L	15:04:12
3	Se 196.026†	123.2	162.0	[100]	ug/L	15:04:12
3	Si 251.611†	16349.3	16641.9	[500]	ug/L	15:03:52
3	Sn 189.927†	586.2	607.0	[100]	ug/L	15:04:12
3	Ti 334.940†	62946.7	67376.3	[100]	ug/L	15:03:52
3	Tl 190.801†	304.2	357.6	[100]	ug/L	15:04:12
3	U 409.014†	1656.5	3381.4	[100]	ug/L	15:03:52
3	V 292.402†	13196.4	15311.4	[100]	ug/L	15:03:52
3	Zn 213.857†	11553.3	11403.7	[100]	ug/L	15:03:52
3	SiO2†	16766.0	17051.0	[1069.5]	ug/L	15:04:27

## Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	912191.0	18929.97	2.08%	96.615	%
Sc Radial	5645.8	335.87	5.95%	106	%
Y 371.029	772881.3	17267.92	2.23%	96.929	%
Y RADIAL	5962.7	346.75	5.82%	105.6	%
Ag 328.068†	23012.8	316.68	1.38%	[100]	ug/L
As 188.979†	241.8	3.13	1.29%	[100]	ug/L
B 249.677†	4474.2	98.91	2.21%	[100]	ug/L
Ba 233.527†	13957.3	240.74	1.72%	[100]	ug/L
Be 313.107†	285442.8	4442.12	1.56%	[100]	ug/L
Cd 226.502†	9522.7	134.10	1.41%	[100]	ug/L
Co 228.616†	5135.9	101.83	1.98%	[100]	ug/L
Cr 267.716†	9262.7	190.05	2.05%	[100]	ug/L
Cu 324.752†	34763.1	545.60	1.57%	[100]	ug/L
K 766.490 Radial†	4250.4	367.00	8.63%	[1000]	ug/L
Mn 257.610†	97653.2	1680.43	1.72%	[100]	ug/L
Mo 202.031†	1524.0	31.14	2.04%	[100]	ug/L
Ni 231.604†	4156.0	77.14	1.86%	[100]	ug/L
P 214.914†	868.3	15.49	1.78%	[500]	ug/L
Pb 220.353†	871.0	12.32	1.41%	[100]	ug/L
S 181.975 Axial†	151.8	2.40	1.58%	[200]	ug/L
Sb 206.836†	298.4	6.24	2.09%	[100]	ug/L
Se 196.026†	165.0	4.70	2.85%	[100]	ug/L
Si 251.611†	16512.2	250.75	1.52%	[500]	ug/L
Sn 189.927†	600.6	16.93	2.82%	[100]	ug/L
Sr 421.552†	14697.0	1136.56	7.73%	[100]	ug/L
Ti 334.940†	66927.7	1154.25	1.72%	[100]	ug/L
Tl 190.801†	353.5	11.36	3.21%	[100]	ug/L
U 409.014†	3361.6	25.92	0.77%	[100]	ug/L
V 292.402†	15189.9	288.12	1.90%	[100]	ug/L
Zn 213.857†	11327.5	175.45	1.55%	[100]	ug/L
SiO2†	16603.5	472.02	2.84%	[1069.5]	ug/L

Sequence No.: 3  
 Sample ID: S0.5  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 1/18/2010 15:06:38  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc Radial	4897.6	4897.6	91.9 %	15:08:30
1	Y RADIAL	5113.6	5113.6	90.59 %	15:08:30
1	Al 396.153Radial†	6215.8	6756.2	[5000] ug/L	15:08:30
1	Ca 317.933Radial†	3016.9	3260.9	[5000] ug/L	15:08:50
1	K 766.490 Radial†	26023.3	25629.9	[5000] ug/L	15:08:30
1	Mg 279.077 IEC†	158.5	169.7	[5000] ug/L	15:08:50
1	Sr 421.552†	78224.9	85073.0	[500] ug/L	15:08:30
1	Sc 361.383	921445.8	921445.8	97.595 %	15:09:48
1	Y 371.029	769103.7	769103.7	96.455 %	15:09:48
1	Ag 328.068†	112214.3	114568.0	[500] ug/L	15:09:53
1	As 188.979†	1182.3	1231.0	[500] ug/L	15:10:13
1	B 249.677†	22161.4	23234.9	[500] ug/L	15:09:53
1	Ba 233.527†	67422.6	69064.2	[500] ug/L	15:09:53
1	Be 313.107†	1370143.7	1408433.7	[500] ug/L	15:09:48
1	Cd 226.502†	46019.4	47370.1	[500] ug/L	15:09:53
1	Co 228.616†	25260.4	25956.2	[500] ug/L	15:09:53
1	Cr 267.716†	45065.9	46096.2	[500] ug/L	15:09:53
1	Cu 324.752†	174646.4	172783.1	[500] ug/L	15:09:53
1	Mn 257.610†	460376.0	471263.7	[500] ug/L	15:09:48
1	Mo 202.031†	7258.5	7418.5	[500] ug/L	15:10:13
1	Ni 231.604†	20579.5	20986.0	[500] ug/L	15:09:53
1	P 214.914†	4458.4	4333.7	[2500] ug/L	15:10:13
1	Pb 220.353†	4088.0	4242.5	[500] ug/L	15:10:13
1	S 181.975 Axial†	768.8	746.2	[1000] ug/L	15:10:13
1	Sb 206.836†	1500.9	1499.1	[500] ug/L	15:10:13
1	Se 196.026†	771.4	823.3	[500] ug/L	15:10:13
1	Si 251.611†	82356.6	83888.7	[2500] ug/L	15:09:53
1	Sn 189.927†	2907.1	2971.3	[500] ug/L	15:10:13
1	Ti 334.940†	318097.8	327324.2	[500] ug/L	15:09:53
1	Tl 190.801†	1665.2	1745.0	[500] ug/L	15:10:13
1	U 409.014†	15698.3	17730.0	[500] ug/L	15:09:53
1	V 292.402†	73374.7	76660.2	[500] ug/L	15:09:53
1	Zn 213.857†	55576.2	56237.8	[500] ug/L	15:09:53
1	SiO2†	82176.0	83675.8	[5347.5] ug/L	15:11:20
2	Sc Radial	5239.9	5239.9	98.4 %	15:08:55
2	Y RADIAL	5495.5	5495.5	97.35 %	15:08:55
2	Al 396.153Radial†	6053.8	6150.0	[5000] ug/L	15:08:55
2	Ca 317.933Radial†	2989.6	3018.8	[5000] ug/L	15:09:15
2	K 766.490 Radial†	25304.5	23050.5	[5000] ug/L	15:08:55
2	Mg 279.077 IEC†	154.9	154.9	[5000] ug/L	15:09:15
2	Sr 421.552†	76392.2	77653.0	[500] ug/L	15:08:55
2	Sc 361.383	938507.3	938507.3	99.402 %	15:10:19
2	Y 371.029	781177.4	781177.4	97.969 %	15:10:19
2	Ag 328.068†	110878.7	111134.1	[500] ug/L	15:10:24
2	As 188.979†	1191.2	1217.9	[500] ug/L	15:10:44
2	B 249.677†	21773.7	22432.1	[500] ug/L	15:10:24
2	Ba 233.527†	66954.3	67337.1	[500] ug/L	15:10:24
2	Be 313.107†	1395347.8	1408267.2	[500] ug/L	15:10:19
2	Cd 226.502†	45685.6	46177.1	[500] ug/L	15:10:24
2	Co 228.616†	25029.4	25253.3	[500] ug/L	15:10:24
2	Cr 267.716†	44686.9	44875.5	[500] ug/L	15:10:24
2	Cu 324.752†	172046.6	166914.4	[500] ug/L	15:10:24
2	Mn 257.610†	469738.0	472106.4	[500] ug/L	15:10:19
2	Mo 202.031†	7300.4	7325.5	[500] ug/L	15:10:44
2	Ni 231.604†	20367.3	20389.2	[500] ug/L	15:10:24
2	P 214.914†	4495.2	4287.7	[2500] ug/L	15:10:44
2	Pb 220.353†	4128.1	4206.6	[500] ug/L	15:10:44
2	S 181.975 Axial†	777.2	740.3	[1000] ug/L	15:10:44
2	Sb 206.836†	1526.8	1497.3	[500] ug/L	15:10:44



2	Se 196.026†	777.3	814.9	[500]	ug/L	15:10:44
2	Si 251.611†	81413.1	81405.4	[2500]	ug/L	15:10:24
2	Sn 189.927†	2916.9	2927.0	[500]	ug/L	15:10:44
2	Ti 334.940†	314908.4	318190.4	[500]	ug/L	15:10:24
2	Tl 190.801†	1672.7	1721.5	[500]	ug/L	15:10:44
2	U 409.014†	15357.8	17095.1	[500]	ug/L	15:10:24
2	V 292.402†	72575.6	74489.5	[500]	ug/L	15:10:24
2	Zn 213.857†	55017.6	54640.6	[500]	ug/L	15:10:24
2	SiO2†	81899.9	81867.3	[5347.5]	ug/L	15:11:25
3	Sc Radial	5224.7	5224.7	98.1	%	15:09:20
3	Y RADIAL	5518.7	5518.7	97.76	%	15:09:20
3	Al 396.153Radial†	6084.9	6199.7	[5000]	ug/L	15:09:20
3	Ca 317.933Radial†	3009.0	3047.4	[5000]	ug/L	15:09:40
3	K 766.490 Radial†	25464.5	23288.5	[5000]	ug/L	15:09:20
3	Mg 279.077 IEC†	159.9	160.4	[5000]	ug/L	15:09:40
3	Sr 421.552†	76366.7	77852.8	[500]	ug/L	15:09:20
3	Sc 361.383	939116.4	939116.4	99.467	%	15:10:49
3	Y 371.029	782036.6	782036.6	98.077	%	15:10:49
3	Ag 328.068†	110940.5	111123.9	[500]	ug/L	15:10:55
3	As 188.979†	1193.5	1219.5	[500]	ug/L	15:11:15
3	B 249.677†	21855.3	22500.0	[500]	ug/L	15:10:55
3	Ba 233.527†	66973.7	67313.0	[500]	ug/L	15:10:55
3	Be 313.107†	1393055.1	1405051.8	[500]	ug/L	15:10:49
3	Cd 226.502†	45678.8	46140.5	[500]	ug/L	15:10:55
3	Co 228.616†	25056.7	25264.4	[500]	ug/L	15:10:55
3	Cr 267.716†	44784.0	44943.9	[500]	ug/L	15:10:55
3	Cu 324.752†	172318.5	167075.6	[500]	ug/L	15:10:55
3	Mn 257.610†	468905.1	470962.6	[500]	ug/L	15:10:49
3	Mo 202.031†	7337.2	7357.8	[500]	ug/L	15:11:15
3	Ni 231.604†	20448.0	20457.1	[500]	ug/L	15:10:55
3	P 214.914†	4486.1	4275.6	[2500]	ug/L	15:11:15
3	Pb 220.353†	4144.2	4220.1	[500]	ug/L	15:11:15
3	S 181.975 Axial†	775.9	738.6	[1000]	ug/L	15:11:15
3	Sb 206.836†	1532.0	1501.5	[500]	ug/L	15:11:15
3	Se 196.026†	782.4	819.5	[500]	ug/L	15:11:15
3	Si 251.611†	81489.9	81429.5	[2500]	ug/L	15:10:55
3	Sn 189.927†	2945.8	2954.1	[500]	ug/L	15:11:15
3	Ti 334.940†	315201.1	318279.2	[500]	ug/L	15:10:55
3	Tl 190.801†	1673.1	1720.8	[500]	ug/L	15:11:15
3	U 409.014†	15352.5	17079.7	[500]	ug/L	15:10:55
3	V 292.402†	72583.5	74450.1	[500]	ug/L	15:10:55
3	Zn 213.857†	55103.3	54690.9	[500]	ug/L	15:10:55
3	SiO2†	80861.9	80770.3	[5347.5]	ug/L	15:11:30

## Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	933023.1	10030.94	1.08%	98.822 %
Sc Radial	5120.7	193.34	3.78%	96.1 %
Y 371.029	777439.2	7231.55	0.93%	97.500 %
Y RADIAL	5375.9	227.49	4.23%	95.24 %
Ag 328.068†	112275.3	1985.52	1.77%	[500] ug/L
Al 396.153Radial†	6368.6	336.57	5.28%	[5000] ug/L
As 188.979†	1222.8	7.14	0.58%	[500] ug/L
B 249.677†	22722.3	445.23	1.96%	[500] ug/L
Ba 233.527†	67904.7	1004.16	1.48%	[500] ug/L
Be 313.107†	1407250.9	1906.30	0.14%	[500] ug/L
Ca 317.933Radial†	3109.0	132.30	4.26%	[5000] ug/L
Cd 226.502†	46562.6	699.61	1.50%	[500] ug/L
Co 228.616†	25491.3	402.66	1.58%	[500] ug/L
Cr 267.716†	45305.2	685.88	1.51%	[500] ug/L
Cu 324.752†	168924.4	3342.75	1.98%	[500] ug/L
K 766.490 Radial†	23989.6	1425.48	5.94%	[5000] ug/L
Mg 279.077 IEC†	161.7	7.49	4.63%	[5000] ug/L
Mn 257.610†	471444.3	592.91	0.13%	[500] ug/L
Mo 202.031†	7367.3	47.22	0.64%	[500] ug/L
Ni 231.604†	20610.8	326.76	1.59%	[500] ug/L
P 214.914†	4299.0	30.68	0.71%	[2500] ug/L
Pb 220.353†	4223.1	18.09	0.43%	[500] ug/L
S 181.975 Axial†	741.7	4.01	0.54%	[1000] ug/L

Sb 206.836†	1499.3	2.11	0.14%	[500]	ug/L
Se 196.026†	819.2	4.25	0.52%	[500]	ug/L
Si 251.611†	82241.2	1426.82	1.73%	[2500]	ug/L
Sn 189.927†	2950.8	22.32	0.76%	[500]	ug/L
Sr 421.552†	80192.9	4227.44	5.27%	[500]	ug/L
Ti 334.940†	321264.6	5247.96	1.63%	[500]	ug/L
Tl 190.801†	1729.1	13.75	0.80%	[500]	ug/L
U 409.014†	17301.6	371.09	2.14%	[500]	ug/L
V 292.402†	75199.9	1264.79	1.68%	[500]	ug/L
Zn 213.857†	55189.8	907.97	1.65%	[500]	ug/L
SiO2†	82104.4	1467.19	1.79%	[5347.5]	ug/L

Sequence No.: 4  
 Sample ID: SCAL  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 1/18/2010 15:13:41  
 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	5203.5	5203.5	97.7 %		15:15:54
1	Y RADIAL	5437.9	5437.9	96.33 %		15:15:54
1	Al 396.153Radial†	12260.0	12546.6	[10000] ug/L		15:15:34
1	Ca 317.933Radial†	5887.2	6006.4	[10000] ug/L		15:15:54
1	Fe 238.204 Radial†	1119.5	1133.3	[10000] ug/L		15:15:54
1	K 766.490 Radial†	48507.6	46984.5	[10000] ug/L		15:15:34
1	Mg 279.077 IEC†	304.1	308.6	[10000] ug/L		15:15:54
1	Na 589.592 Radial†	33827.4	35729.6	[10000] ug/L		15:15:34
1	Sr 421.552†	151541.0	155129.1	[1000] ug/L		15:15:34
1	Sc 361.383	915911.5	915911.5	97.009 %		15:16:52
1	Y 371.029	752773.7	752773.7	94.407 %		15:16:58
1	Ag 328.068†	223040.1	229505.3	[1000] ug/L		15:16:58
1	As 188.979†	2397.2	2490.7	[1000] ug/L		15:17:18
1	B 249.677†	44617.5	46520.6	[1000] ug/L		15:16:58
1	Ba 233.527†	133603.5	137702.8	[1000] ug/L		15:16:58
1	Be 313.107†	2747722.2	2836966.3	[1000] ug/L		15:16:52
1	Cd 226.502†	91242.6	94272.5	[1000] ug/L		15:16:58
1	Co 228.616†	50004.7	51619.8	[1000] ug/L		15:16:58
1	Cr 267.716†	89425.8	92102.8	[1000] ug/L		15:16:58
1	Cu 324.752†	342136.6	346518.3	[1000] ug/L		15:16:58
1	Mn 257.610†	919855.2	947759.1	[1000] ug/L		15:16:52
1	Mo 202.031†	14592.5	15023.6	[1000] ug/L		15:17:18
1	Ni 231.604†	40609.4	41760.9	[1000] ug/L		15:16:58
1	P 214.914†	8756.2	8791.5	[5000] ug/L		15:17:18
1	Pb 220.353†	8289.7	8599.1	[1000] ug/L		15:17:18
1	S 181.975 Axial†	1511.3	1516.3	[2000] ug/L		15:17:18
1	Sb 206.836†	3014.8	3069.0	[1000] ug/L		15:17:18
1	Se 196.026†	1560.8	1641.8	[1000] ug/L		15:17:18
1	Si 251.611†	162012.1	166509.9	[5000] ug/L		15:16:58
1	Sn 189.927†	5865.2	6038.5	[1000] ug/L		15:17:18
1	Ti 334.940†	645744.6	667041.9	[1000] ug/L		15:16:52
1	Tl 190.801†	3356.1	3498.3	[1000] ug/L		15:17:18
1	U 409.014†	33076.3	35741.0	[1000] ug/L		15:16:58
1	V 292.402†	147427.3	153450.1	[1000] ug/L		15:16:58
1	Zn 213.857†	109147.6	111805.0	[1000] ug/L		15:16:58
1	SiO2†	160304.4	164721.7	[10695] ug/L		15:18:28
2	Sc Radial	5196.1	5196.1	97.5 %		15:16:19
2	Y RADIAL	5436.1	5436.1	96.30 %		15:16:19
2	Al 396.153Radial†	12203.4	12506.4	[10000] ug/L		15:15:59
2	Ca 317.933Radial†	5940.0	6069.2	[10000] ug/L		15:16:19
2	Fe 238.204 Radial†	1131.7	1147.4	[10000] ug/L		15:16:19
2	K 766.490 Radial†	48419.1	46964.3	[10000] ug/L		15:15:59
2	Mg 279.077 IEC†	304.9	310.0	[10000] ug/L		15:16:19
2	Na 589.592 Radial†	33608.1	35554.0	[10000] ug/L		15:15:59
2	Sr 421.552†	151120.2	154918.1	[1000] ug/L		15:15:59
2	Sc 361.383	917548.4	917548.4	97.183 %		15:17:25
2	Y 371.029	754089.6	754089.6	94.572 %		15:17:30
2	Ag 328.068†	222902.8	228953.9	[1000] ug/L		15:17:30
2	As 188.979†	2382.5	2471.2	[1000] ug/L		15:17:50
2	B 249.677†	44597.9	46418.4	[1000] ug/L		15:17:30
2	Ba 233.527†	133521.0	137372.3	[1000] ug/L		15:17:30
2	Be 313.107†	2746906.3	2831073.8	[1000] ug/L		15:17:25
2	Cd 226.502†	91284.3	94147.7	[1000] ug/L		15:17:30
2	Co 228.616†	49980.7	51503.1	[1000] ug/L		15:17:30
2	Cr 267.716†	89400.8	91912.6	[1000] ug/L		15:17:30
2	Cu 324.752†	341807.0	345550.0	[1000] ug/L		15:17:30
2	Mn 257.610†	921393.0	947650.0	[1000] ug/L		15:17:25
2	Mo 202.031†	14630.7	15036.0	[1000] ug/L		15:17:50
2	Ni 231.604†	40564.6	41640.0	[1000] ug/L		15:17:30

2	P 214.914†	8762.4	8781.8	[5000]	ug/L	15:17:50
2	Pb 220.353†	8278.6	8572.4	[1000]	ug/L	15:17:50
2	S 181.975 Axial†	1489.9	1491.6	[2000]	ug/L	15:17:50
2	Sb 206.836†	3016.2	3065.0	[1000]	ug/L	15:17:50
2	Se 196.026†	1558.4	1636.5	[1000]	ug/L	15:17:50
2	Si 251.611†	161767.0	165959.7	[5000]	ug/L	15:17:30
2	Sn 189.927†	5866.1	6028.7	[1000]	ug/L	15:17:50
2	Ti 334.940†	646653.2	666789.4	[1000]	ug/L	15:17:25
2	Tl 190.801†	3331.1	3466.5	[1000]	ug/L	15:17:50
2	U 409.014†	33006.9	35608.8	[1000]	ug/L	15:17:30
2	V 292.402†	147162.8	152906.8	[1000]	ug/L	15:17:30
2	Zn 213.857†	109063.2	111517.4	[1000]	ug/L	15:17:30
2	SiO2†	161529.1	165687.1	[10695]	ug/L	15:18:33
3	Sc Radial	5114.0	5114.0	96.0	%	15:16:44
3	Y RADIAL	5353.1	5353.1	94.83	%	15:16:44
3	Al 396.153Radial†	12161.8	12664.1	[10000]	ug/L	15:16:24
3	Ca 317.933Radial†	5914.1	6140.0	[10000]	ug/L	15:16:44
3	Fe 238.204 Radial†	1128.3	1162.5	[10000]	ug/L	15:16:44
3	K 766.490 Radial†	48173.5	47505.9	[10000]	ug/L	15:16:24
3	Mg 279.077 IEC†	302.3	312.3	[10000]	ug/L	15:16:44
3	Na 589.592 Radial†	33131.0	35610.6	[10000]	ug/L	15:16:24
3	Sr 421.552†	149653.2	155879.3	[1000]	ug/L	15:16:24
3	Sc 361.383	928982.8	928982.8	98.394	%	15:17:57
3	Y 371.029	757016.4	757016.4	94.939	%	15:18:02
3	Ag 328.068†	222792.7	226018.9	[1000]	ug/L	15:18:02
3	As 188.979†	2366.9	2425.1	[1000]	ug/L	15:18:22
3	B 249.677†	44601.8	45857.5	[1000]	ug/L	15:18:02
3	Ba 233.527†	133745.5	135909.4	[1000]	ug/L	15:18:02
3	Be 313.107†	2767693.9	2817410.1	[1000]	ug/L	15:17:57
3	Cd 226.502†	91246.0	92952.5	[1000]	ug/L	15:18:02
3	Co 228.616†	49924.6	50813.1	[1000]	ug/L	15:18:02
3	Cr 267.716†	89343.3	90721.8	[1000]	ug/L	15:18:02
3	Cu 324.752†	341697.6	341109.7	[1000]	ug/L	15:18:02
3	Mn 257.610†	924944.5	939589.6	[1000]	ug/L	15:17:57
3	Mo 202.031†	14499.7	14717.6	[1000]	ug/L	15:18:22
3	Ni 231.604†	40543.8	41105.2	[1000]	ug/L	15:18:02
3	P 214.914†	8663.6	8570.5	[5000]	ug/L	15:18:22
3	Pb 220.353†	8202.3	8389.9	[1000]	ug/L	15:18:22
3	S 181.975 Axial†	1490.7	1473.5	[2000]	ug/L	15:18:22
3	Sb 206.836†	2996.3	3006.5	[1000]	ug/L	15:18:22
3	Se 196.026†	1549.4	1607.6	[1000]	ug/L	15:18:22
3	Si 251.611†	161822.4	163967.2	[5000]	ug/L	15:18:02
3	Sn 189.927†	5821.4	5908.9	[1000]	ug/L	15:18:22
3	Ti 334.940†	650180.8	662184.4	[1000]	ug/L	15:17:57
3	Tl 190.801†	3321.7	3414.7	[1000]	ug/L	15:18:22
3	U 409.014†	32989.1	35172.6	[1000]	ug/L	15:18:02
3	V 292.402†	147366.2	151249.6	[1000]	ug/L	15:18:02
3	Zn 213.857†	108985.8	110057.5	[1000]	ug/L	15:18:02
3	SiO2†	159063.0	161134.9	[10695]	ug/L	15:18:38

## Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 361.383	920814.3	7121.39	0.77%	97.528	%
Sc Radial	5171.2	49.71	0.96%	97.1	%
Y 371.029	754626.6	2171.73	0.29%	94.639	%
Y RADIAL	5409.0	48.43	0.90%	95.82	%
Ag 328.068†	228159.4	1874.12	0.82%	[1000]	ug/L
Al 396.153Radial†	12572.4	81.92	0.65%	[10000]	ug/L
As 188.979†	2462.3	33.66	1.37%	[1000]	ug/L
B 249.677†	46265.5	357.03	0.77%	[1000]	ug/L
Ba 233.527†	136994.8	954.45	0.70%	[1000]	ug/L
Be 313.107†	2828483.4	10032.13	0.35%	[1000]	ug/L
Ca 317.933Radial†	6071.9	66.84	1.10%	[10000]	ug/L
Cd 226.502†	93790.9	728.74	0.78%	[1000]	ug/L
Co 228.616†	51312.0	436.00	0.85%	[1000]	ug/L
Cr 267.716†	91579.1	748.46	0.82%	[1000]	ug/L
Cu 324.752†	344392.7	2884.10	0.84%	[1000]	ug/L
Fe 238.204 Radial†	1147.7	14.62	1.27%	[10000]	ug/L
K 766.490 Radial†	47151.6	307.07	0.65%	[10000]	ug/L

Mg 279.077 IEC†	310.3	1.83	0.59%	[10000]	ug/L
Mn 257.610†	944999.6	4685.48	0.50%	[1000]	ug/L
Mo 202.031†	14925.8	180.35	1.21%	[1000]	ug/L
Na 589.592 Radial†	35631.4	89.65	0.25%	[10000]	ug/L
Ni 231.604†	41502.1	348.94	0.84%	[1000]	ug/L
P 214.914†	8714.6	124.90	1.43%	[5000]	ug/L
Pb 220.353†	8520.5	113.82	1.34%	[1000]	ug/L
S 181.975 Axial†	1493.8	21.50	1.44%	[2000]	ug/L
Sb 206.836†	3046.8	34.98	1.15%	[1000]	ug/L
Se 196.026†	1628.6	18.42	1.13%	[1000]	ug/L
Si 251.611†	165478.9	1337.78	0.81%	[5000]	ug/L
Sn 189.927†	5992.1	72.16	1.20%	[1000]	ug/L
Sr 421.552†	155308.8	505.14	0.33%	[1000]	ug/L
Ti 334.940†	665338.6	2734.49	0.41%	[1000]	ug/L
Tl 190.801†	3459.8	42.20	1.22%	[1000]	ug/L
U 409.014†	35507.5	297.42	0.84%	[1000]	ug/L
V 292.402†	152535.5	1146.26	0.75%	[1000]	ug/L
Zn 213.857†	111126.6	937.02	0.84%	[1000]	ug/L
SiO2†	163847.9	2398.58	1.46%	[10695]	ug/L

Sequence No.: 5  
 Sample ID: S10  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 1/18/2010 15:20:50  
 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	4977.4	4977.4	93.4 %	15:23:03
1	Y RADIAL	5215.1	5215.1	92.39 %	15:23:03
1	Al 396.153Radial†	61029.2	65313.1	[50000] ug/L	15:22:43
1	Ca 317.933Radial†	29605.9	31665.7	[50000] ug/L	15:22:43
1	Fe 238.204 Radial†	2257.5	2403.3	[20000] ug/L	15:23:03
1	Mg 279.077 IEC†	1473.0	1573.9	[50000] ug/L	15:23:03
1	Na 589.592 Radial†	72561.4	78759.1	[20000] ug/L	15:22:43
1	Sc 361.383	913900.3	913900.3	96.796 %	15:24:00
1	Y 371.029	757864.2	757864.2	95.045 %	15:24:00
2	Sc Radial	5142.3	5142.3	96.5 %	15:23:28
2	Y RADIAL	5369.3	5369.3	95.12 %	15:23:28
2	Al 396.153Radial†	59026.7	61143.3	[50000] ug/L	15:23:08
2	Ca 317.933Radial†	28645.8	29654.6	[50000] ug/L	15:23:08
2	Fe 238.204 Radial†	2221.4	2288.4	[20000] ug/L	15:23:28
2	Mg 279.077 IEC†	1444.3	1493.6	[50000] ug/L	15:23:28
2	Na 589.592 Radial†	70130.7	73749.7	[20000] ug/L	15:23:08
2	Sc 361.383	893619.0	893619.0	94.648 %	15:24:06
2	Y 371.029	740788.0	740788.0	92.904 %	15:24:06
3	Sc Radial	5234.6	5234.6	98.3 %	15:23:53
3	Y RADIAL	5479.3	5479.3	97.07 %	15:23:53
3	Al 396.153Radial†	59859.0	60912.8	[50000] ug/L	15:23:33
3	Ca 317.933Radial†	28882.6	29372.7	[50000] ug/L	15:23:33
3	Fe 238.204 Radial†	2245.4	2272.3	[20000] ug/L	15:23:53
3	Mg 279.077 IEC†	1455.9	1479.0	[50000] ug/L	15:23:53
3	Na 589.592 Radial†	70828.6	73179.6	[20000] ug/L	15:23:33
3	Sc 361.383	878817.6	878817.6	93.080 %	15:24:12
3	Y 371.029	728256.4	728256.4	91.332 %	15:24:12

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	895445.6	17612.56	1.97%	94.842 %
Sc Radial	5118.1	130.31	2.55%	96.1 %
Y 371.029	742302.9	14861.93	2.00%	93.094 %
Y RADIAL	5354.6	132.72	2.48%	94.86 %
Al 396.153Radial†	62456.4	2476.68	3.97%	[50000] ug/L
Ca 317.933Radial†	30231.0	1250.45	4.14%	[50000] ug/L
Fe 238.204 Radial†	2321.4	71.44	3.08%	[20000] ug/L
Mg 279.077 IEC†	1515.5	51.08	3.37%	[50000] ug/L
Na 589.592 Radial†	75229.5	3070.00	4.08%	[20000] ug/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	227.5	0.00000	0.999979	
Al 396.153Radial	3	Lin Thru 0	0.0	1.250	0.00000	0.999997	
As 188.979	3	Lin Thru 0	0.0	2.459	0.00000	0.999995	
B 249.677	3	Lin Thru 0	0.0	46.09	0.00000	0.999971	
Ba 233.527	3	Lin Thru 0	0.0	136.8	0.00000	0.999992	
Be 313.107	3	Lin Thru 0	0.0	2826	0.00000	0.999998	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6049	0.00000	0.999996	
Cd 226.502	3	Lin Thru 0	0.0	93.67	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	51.25	0.00000	0.999997	
Cr 267.716	3	Lin Thru 0	0.0	91.40	0.00000	0.999990	
Cu 324.752	3	Lin Thru 0	0.0	343.1	0.00000	0.999970	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1158	0.00000	0.999990	
K 766.490 Radial	3	Lin Thru 0	0.0	4.728	0.00000	0.999935	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0304	0.00000	0.999969
Mn 257.610	3	Lin Thru 0	0.0	944.8	0.00000	0.999995
Mo 202.031	3	Lin Thru 0	0.0	14.89	0.00000	0.999985
Na 589.592 Radia	2	Lin Thru 0	0.0	3.722	0.00000	0.999773
Ni 231.604	3	Lin Thru 0	0.0	41.45	0.00000	0.999996
P 214.914	3	Lin Thru 0	0.0	1.738	0.00000	0.999986
Pb 220.353	3	Lin Thru 0	0.0	8.507	0.00000	0.999992
S 181.975 Axial	3	Lin Thru 0	0.0	0.7460	0.00000	0.999995
Sb 206.836	3	Lin Thru 0	0.0	3.037	0.00000	0.999979
Se 196.026	3	Lin Thru 0	0.0	1.631	0.00000	0.999997
Si 251.611	3	Lin Thru 0	0.0	33.06	0.00000	0.999997
Sn 189.927	3	Lin Thru 0	0.0	5.974	0.00000	0.999982
Sr 421.552	3	Lin Thru 0	0.0	156.3	0.00000	0.999902
Ti 334.940	3	Lin Thru 0	0.0	660.8	0.00000	0.999905
Tl 190.801	3	Lin Thru 0	0.0	3.460	0.00000	0.999998
U 409.014	3	Lin Thru 0	0.0	35.31	0.00000	0.999939
V 292.402	3	Lin Thru 0	0.0	152.1	0.00000	0.999984
Zn 213.857	3	Lin Thru 0	0.0	111.0	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	15.33	0.00000	0.999999

Sequence No.: 6  
 Sample ID: ICV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 9  
 Date Collected: 1/18/2010 15:26:23  
 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	5273.4	5273.4	99.0 %		15:28:16
1	Y RADIAL	5548.6	5548.6	98.29 %		15:28:16
1	Al 396.153Radial†	6382.7	6443.2	5129.2 ug/L	5129.2 ppb	15:28:16
1	Ca 317.933Radial†	3041.5	3051.9	5045.5 ug/L	5045.5 ppb	15:28:36
1	Fe 238.204 Radial†	594.0	587.2	5085.9 ug/L	5085.9 ppb	15:28:36
1	K 766.490 Radial†	14413.5	11885.0	2510.3 ug/L	2510.3 ppb	15:28:16
1	Mg 279.077 IEC†	161.6	160.7	5292.6 ug/L	5292.6 ppb	15:28:36
1	Na 589.592 Radial†	8000.6	9180.8	2466.8 ug/L	2466.8 ppb	15:28:16
1	Sr 421.552†	82507.4	83337.1	533.32 ug/L	533.32 ppb	15:28:16
1	Sc 361.383	925766.2	925766.2	98.053 %		15:29:33
1	Y 371.029	774647.2	774647.2	97.150 %		15:29:33
1	Ag 328.068†	59232.1	59997.1	267.03 ug/L	267.03 ppb	15:29:33
1	As 188.979†	1157.4	1199.9	492.32 ug/L	492.32 ppb	15:29:53
1	B 249.677†	23360.2	24351.6	526.05 ug/L	526.05 ppb	15:29:33
1	Ba 233.527†	70187.8	71561.8	524.49 ug/L	524.49 ppb	15:29:33
1	Be 313.107†	735963.0	755108.1	268.37 ug/L	268.37 ppb	15:29:33
1	Cd 226.502†	46780.8	47926.6	511.55 ug/L	511.55 ppb	15:29:33
1	Co 228.616†	25853.0	26439.8	516.10 ug/L	516.10 ppb	15:29:53
1	Cr 267.716†	44913.3	45725.1	500.93 ug/L	500.93 ppb	15:29:33
1	Cu 324.752†	181638.6	179079.0	521.90 ug/L	521.90 ppb	15:29:33
1	Mn 257.610†	490866.9	500158.6	529.65 ug/L	529.65 ppb	15:29:33
1	Mo 202.031†	8069.9	8211.3	551.91 ug/L	551.91 ppb	15:29:53
1	Ni 231.604†	20966.8	21282.6	513.18 ug/L	513.18 ppb	15:29:53
1	P 214.914†	4657.7	4515.6	2496.5 ug/L	2496.5 ppb	15:29:53
1	Pb 220.353†	4260.3	4398.7	518.83 ug/L	518.83 ppb	15:29:53
1	S 181.975 Axial†	1909.4	1905.8	2553.8 ug/L	2553.8 ppb	15:29:53
1	Sb 206.836†	1558.2	1550.5	530.61 ug/L	530.61 ppb	15:29:53
1	Se 196.026†	4177.7	4293.6	2653.2 ug/L	2653.2 ppb	15:29:53
1	Si 251.611†	160487.1	163176.8	4929.6 ug/L	4929.6 ppb	15:29:33
1	Sn 189.927†	3234.5	3291.2	551.75 ug/L	551.75 ppb	15:29:53
1	Ti 334.940†	329066.9	336990.1	509.78 ug/L	509.78 ppb	15:29:33
1	Tl 190.801†	1832.8	1907.9	554.93 ug/L	554.93 ppb	15:29:53
1	U 409.014†	15908.0	17868.8	504.32 ug/L	504.32 ppb	15:29:33
1	V 292.402†	76108.2	79097.1	527.41 ug/L	527.41 ppb	15:29:33
1	Zn 213.857†	57878.8	58320.5	520.96 ug/L	520.96 ppb	15:29:33
1	SiO2†	159888.9	162538.9	10589 ug/L	10589 ppb	15:30:51
2	Sc Radial	5368.1	5368.1	101 %		15:28:41
2	Y RADIAL	5601.2	5601.2	99.23 %		15:28:41
2	Al 396.153Radial†	6452.4	6398.6	5093.6 ug/L	5093.6 ppb	15:28:41
2	Ca 317.933Radial†	3079.4	3035.3	5018.1 ug/L	5018.1 ppb	15:29:01
2	Fe 238.204 Radial†	601.2	583.8	5056.1 ug/L	5056.1 ppb	15:29:01
2	K 766.490 Radial†	14744.1	11956.3	2525.4 ug/L	2525.4 ppb	15:28:41
2	Mg 279.077 IEC†	163.5	159.6	5259.0 ug/L	5259.0 ppb	15:29:01
2	Na 589.592 Radial†	8036.2	9073.6	2438.0 ug/L	2438.0 ppb	15:28:41
2	Sr 421.552†	83466.0	82818.1	530.00 ug/L	530.00 ppb	15:28:41
2	Sc 361.383	927820.1	927820.1	98.270 %		15:29:59
2	Y 371.029	776573.8	776573.8	97.392 %		15:29:59
2	Ag 328.068†	58813.1	59437.0	264.55 ug/L	264.55 ppb	15:29:59
2	As 188.979†	1149.3	1189.1	487.86 ug/L	487.86 ppb	15:30:19
2	B 249.677†	23218.5	24154.6	521.79 ug/L	521.79 ppb	15:29:59
2	Ba 233.527†	69686.3	70893.0	519.59 ug/L	519.59 ppb	15:29:59
2	Be 313.107†	731392.3	748795.4	266.12 ug/L	266.12 ppb	15:29:59
2	Cd 226.502†	46414.9	47448.7	506.45 ug/L	506.45 ppb	15:29:59
2	Co 228.616†	25750.9	26277.5	512.94 ug/L	512.94 ppb	15:30:19
2	Cr 267.716†	44621.0	45326.2	496.56 ug/L	496.56 ppb	15:29:59
2	Cu 324.752†	180292.6	177299.2	516.72 ug/L	516.72 ppb	15:29:59
2	Mn 257.610†	488043.1	496176.9	525.43 ug/L	525.43 ppb	15:29:59
2	Mo 202.031†	8031.6	8154.2	548.07 ug/L	548.07 ppb	15:30:19
2	Ni 231.604†	20890.7	21157.8	510.17 ug/L	510.17 ppb	15:30:19



2	P 214.914†	4623.4	4470.2	2471.4 ug/L	2471.4 ppb	15:30:19
2	Pb 220.353†	4249.0	4377.6	516.34 ug/L	516.34 ppb	15:30:19
2	S 181.975 Axial†	1892.2	1884.0	2524.6 ug/L	2524.6 ppb	15:30:19
2	Sb 206.836†	1556.5	1545.1	528.71 ug/L	528.71 ppb	15:30:19
2	Se 196.026†	4144.6	4250.5	2626.6 ug/L	2626.6 ppb	15:30:19
2	Si 251.611†	159329.8	161636.8	4883.1 ug/L	4883.1 ppb	15:29:59
2	Sn 189.927†	3216.2	3265.3	547.41 ug/L	547.41 ppb	15:30:19
2	Ti 334.940†	326995.2	334139.0	505.47 ug/L	505.47 ppb	15:29:59
2	Tl 190.801†	1806.1	1876.6	545.84 ug/L	545.84 ppb	15:30:19
2	U 409.014†	15832.7	17756.3	501.14 ug/L	501.14 ppb	15:29:59
2	V 292.402†	75657.2	78466.2	523.21 ug/L	523.21 ppb	15:29:59
2	Zn 213.857†	57395.9	57698.4	515.39 ug/L	515.39 ppb	15:29:59
2	SiO2†	160245.5	162540.8	10589 ug/L	10589 ppb	15:30:56
3	Sc Radial	5233.8	5233.8	98.2 %		15:29:06
3	Y RADIAL	5532.6	5532.6	98.01 %		15:29:06
3	Al 396.153Radial†	6399.5	6509.0	5182.2 ug/L	5182.2 ppb	15:29:06
3	Ca 317.933Radial†	3043.7	3077.4	5087.5 ug/L	5087.5 ppb	15:29:26
3	Fe 238.204 Radial†	592.8	590.5	5114.1 ug/L	5114.1 ppb	15:29:26
3	K 766.490 Radial†	14565.2	12149.5	2566.2 ug/L	2566.2 ppb	15:29:06
3	Mg 279.077 IEC†	164.2	164.4	5417.2 ug/L	5417.2 ppb	15:29:26
3	Na 589.592 Radial†	7848.5	9087.1	2441.6 ug/L	2441.6 ppb	15:29:06
3	Sr 421.552†	81897.6	83346.4	533.38 ug/L	533.38 ppb	15:29:06
3	Sc 361.383	935528.1	935528.1	99.087 %		15:30:25
3	Y 371.029	783277.1	783277.1	98.233 %		15:30:25
3	Ag 328.068†	59296.8	59432.1	264.55 ug/L	264.55 ppb	15:30:25
3	As 188.979†	1157.9	1188.2	487.52 ug/L	487.52 ppb	15:30:45
3	B 249.677†	23536.1	24280.6	524.53 ug/L	524.53 ppb	15:30:25
3	Ba 233.527†	70206.7	70834.0	519.16 ug/L	519.16 ppb	15:30:25
3	Be 313.107†	738606.1	749943.5	266.53 ug/L	266.53 ppb	15:30:25
3	Cd 226.502†	46816.6	47464.9	506.62 ug/L	506.62 ppb	15:30:25
3	Co 228.616†	25654.5	25964.3	506.81 ug/L	506.81 ppb	15:30:45
3	Cr 267.716†	44989.8	45324.3	496.54 ug/L	496.54 ppb	15:30:25
3	Cu 324.752†	181955.7	177466.0	517.21 ug/L	517.21 ppb	15:30:25
3	Mn 257.610†	491821.6	495898.3	525.14 ug/L	525.14 ppb	15:30:25
3	Mo 202.031†	8030.3	8085.5	543.46 ug/L	543.46 ppb	15:30:45
3	Ni 231.604†	20838.4	20929.9	504.68 ug/L	504.68 ppb	15:30:45
3	P 214.914†	4601.1	4409.0	2436.0 ug/L	2436.0 ppb	15:30:45
3	Pb 220.353†	4232.8	4325.6	510.23 ug/L	510.23 ppb	15:30:45
3	S 181.975 Axial†	1888.7	1864.6	2498.6 ug/L	2498.6 ppb	15:30:45
3	Sb 206.836†	1551.7	1527.3	522.63 ug/L	522.63 ppb	15:30:45
3	Se 196.026†	4144.2	4215.3	2605.3 ug/L	2605.3 ppb	15:30:45
3	Si 251.611†	160580.8	161563.5	4880.9 ug/L	4880.9 ppb	15:30:25
3	Sn 189.927†	3208.6	3230.6	541.62 ug/L	541.62 ppb	15:30:45
3	Ti 334.940†	329807.0	334235.1	505.61 ug/L	505.61 ppb	15:30:25
3	Tl 190.801†	1809.1	1864.5	542.37 ug/L	542.37 ppb	15:30:45
3	U 409.014†	15896.8	17688.2	499.21 ug/L	499.21 ppb	15:30:25
3	V 292.402†	76306.2	78486.9	523.27 ug/L	523.27 ppb	15:30:25
3	Zn 213.857†	57930.9	57757.0	515.94 ug/L	515.94 ppb	15:30:25
3	SiO2†	161668.6	162633.5	10595 ug/L	10595 ppb	15:31:02

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	929704.8	98.470 %	0.5451			0.55%
Sc Radial	5291.7	99.3 %	1.29			1.30%
Y 371.029	778166.1	97.592 %	0.5681			0.58%
Y RADIAL	5560.8	98.51 %	0.636			0.65%
Ag 328.068†	59622.0	265.38 ug/L	1.436	265.38 ppb	1.436	0.54%
QC value within limits for Ag 328.068 Recovery = 106.15%						
Al 396.153Radial†	6450.3	5135.0 ug/L	44.59	5135.0 ppb	44.59	0.87%
QC value within limits for Al 396.153Radial Recovery = 102.70%						
As 188.979†	1192.4	489.23 ug/L	2.679	489.23 ppb	2.679	0.55%
QC value within limits for As 188.979 Recovery = 97.85%						
B 249.677†	24262.3	524.12 ug/L	2.159	524.12 ppb	2.159	0.41%
QC value within limits for B 249.677 Recovery = 104.82%						
Ba 233.527†	71096.3	521.08 ug/L	2.961	521.08 ppb	2.961	0.57%
QC value within limits for Ba 233.527 Recovery = 104.22%						
Be 313.107†	751282.3	267.01 ug/L	1.195	267.01 ppb	1.195	0.45%
QC value within limits for Be 313.107 Recovery = 106.80%						
Ca 317.933Radial†	3054.9	5050.4 ug/L	34.98	5050.4 ppb	34.98	0.69%

QC value within limits for Ca 317.933 Radial Recovery = 101.01%							
Cd	226.502†	47613.4	508.21 ug/L	2.899	508.21 ppb	2.899	0.57%
QC value within limits for Cd 226.502 Recovery = 101.64%							
Co	228.616†	26227.2	511.95 ug/L	4.722	511.95 ppb	4.722	0.92%
QC value within limits for Co 228.616 Recovery = 102.39%							
Cr	267.716†	45458.6	498.01 ug/L	2.528	498.01 ppb	2.528	0.51%
QC value within limits for Cr 267.716 Recovery = 99.60%							
Cu	324.752†	177948.1	518.61 ug/L	2.864	518.61 ppb	2.864	0.55%
QC value within limits for Cu 324.752 Recovery = 103.72%							
Fe	238.204 Radial†	587.2	5085.4 ug/L	29.04	5085.4 ppb	29.04	0.57%
QC value within limits for Fe 238.204 Radial Recovery = 101.71%							
K	766.490 Radial†	11996.9	2534.0 ug/L	28.95	2534.0 ppb	28.95	1.14%
QC value within limits for K 766.490 Radial Recovery = 101.36%							
Mg	279.077 IEC†	161.6	5323.0 ug/L	83.36	5323.0 ppb	83.36	1.57%
QC value within limits for Mg 279.077 IEC Recovery = 106.46%							
Mn	257.610†	497411.3	526.74 ug/L	2.524	526.74 ppb	2.524	0.48%
QC value within limits for Mn 257.610 Recovery = 105.35%							
Mo	202.031†	8150.3	547.81 ug/L	4.231	547.81 ppb	4.231	0.77%
QC value within limits for Mo 202.031 Recovery = 109.56%							
Na	589.592 Radial†	9113.9	2448.8 ug/L	15.69	2448.8 ppb	15.69	0.64%
QC value within limits for Na 589.592 Radial Recovery = 97.95%							
Ni	231.604†	21123.4	509.34 ug/L	4.313	509.34 ppb	4.313	0.85%
QC value within limits for Ni 231.604 Recovery = 101.87%							
P	214.914†	4464.9	2467.9 ug/L	30.40	2467.9 ppb	30.40	1.23%
QC value within limits for P 214.914 Recovery = 98.72%							
Pb	220.353†	4367.3	515.14 ug/L	4.424	515.14 ppb	4.424	0.86%
QC value within limits for Pb 220.353 Recovery = 103.03%							
S	181.975 Axial†	1884.8	2525.6 ug/L	27.61	2525.6 ppb	27.61	1.09%
QC value within limits for S 181.975 Axial Recovery = 101.03%							
Sb	206.836†	1541.0	527.32 ug/L	4.166	527.32 ppb	4.166	0.79%
QC value within limits for Sb 206.836 Recovery = 105.46%							
Se	196.026†	4253.1	2628.4 ug/L	24.01	2628.4 ppb	24.01	0.91%
QC value within limits for Se 196.026 Recovery = 105.13%							
Si	251.611†	162125.7	4897.9 ug/L	27.52	4897.9 ppb	27.52	0.56%
QC value within limits for Si 251.611 Recovery = 97.96%							
Sn	189.927†	3262.4	546.93 ug/L	5.083	546.93 ppb	5.083	0.93%
QC value within limits for Sn 189.927 Recovery = 109.39%							
Sr	421.552†	83167.2	532.23 ug/L	1.935	532.23 ppb	1.935	0.36%
QC value within limits for Sr 421.552 Recovery = 106.45%							
Ti	334.940†	335121.4	506.95 ug/L	2.450	506.95 ppb	2.450	0.48%
QC value within limits for Ti 334.940 Recovery = 101.39%							
Tl	190.801†	1883.0	547.71 ug/L	6.483	547.71 ppb	6.483	1.18%
QC value within limits for Tl 190.801 Recovery = 109.54%							
U	409.014†	17771.1	501.55 ug/L	2.579	501.55 ppb	2.579	0.51%
QC value within limits for U 409.014 Recovery = 100.31%							
V	292.402†	78683.4	524.63 ug/L	2.406	524.63 ppb	2.406	0.46%
QC value within limits for V 292.402 Recovery = 104.93%							
Zn	213.857†	57925.3	517.43 ug/L	3.071	517.43 ppb	3.071	0.59%
QC value within limits for Zn 213.857 Recovery = 103.49%							
SiO2†		162571.1	10591 ug/L	3.6	10591 ppb	3.6	0.03%
QC value within limits for SiO2 Recovery = 99.03%							

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 1/18/2010 15:33:13

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	5268.2	5268.2	98.9 %		15:35:06
1	Y RADIAL	5531.2	5531.2	97.99 %		15:35:06
1	Al 396.153Radial†	3.6	-1.0	-0.7898 ug/L	-0.7898 ppb	15:35:06
1	Ca 317.933Radial†	17.0	-3.4	-5.6878 ug/L	-5.6878 ppb	15:35:26
1	Fe 238.204 Radial†	12.4	-0.3	-2.8052 ug/L	-2.8052 ppb	15:35:26
1	K 766.490 Radial†	2859.4	215.9	45.672 ug/L	45.672 ppb	15:35:06
1	Mg 279.077 IEC†	0.8	-1.8	-60.894 ug/L	-60.894 ppb	15:35:26
1	Na 589.592 Radial†	-1111.4	-25.1	-6.7447 ug/L	-6.7447 ppb	15:35:06
1	Sr 421.552†	45.7	34.5	0.2211 ug/L	0.2211 ppb	15:35:06
1	Sc 361.383	946083.8	946083.8	100.20 %		15:36:22
1	Y 371.029	799390.4	799390.4	100.25 %		15:36:22
1	Ag 328.068†	415.7	3.7	0.0208 ug/L	0.0208 ppb	15:36:27
1	As 188.979†	-23.6	-4.0	-1.6335 ug/L	-1.6335 ppb	15:36:47
1	B 249.677†	-280.7	247.4	5.3680 ug/L	5.3680 ppb	15:36:47
1	Ba 233.527†	-1.7	-21.4	-0.1573 ug/L	-0.1573 ppb	15:36:47
1	Be 313.107†	-4369.7	170.0	0.0600 ug/L	0.0600 ppb	15:36:27
1	Cd 226.502†	-218.0	-0.7	-0.0082 ug/L	-0.0082 ppb	15:36:47
1	Co 228.616†	-65.8	7.7	0.1511 ug/L	0.1511 ppb	15:36:47
1	Cr 267.716†	82.4	2.1	0.0263 ug/L	0.0263 ppb	15:36:47
1	Cu 324.752†	6043.1	-135.7	-0.3914 ug/L	-0.3914 ppb	15:36:27
1	Mn 257.610†	541.7	85.0	0.0922 ug/L	0.0922 ppb	15:36:47
1	Mo 202.031†	19.2	0.3	0.0231 ug/L	0.0231 ppb	15:36:47
1	Ni 231.604†	109.0	8.3	0.1993 ug/L	0.1993 ppb	15:36:47
1	P 214.914†	229.3	-5.7	-3.2049 ug/L	-3.2049 ppb	15:36:47
1	Pb 220.353†	-62.7	-8.8	-1.0354 ug/L	-1.0354 ppb	15:36:47
1	S 181.975 Axial†	43.2	1.6	2.1770 ug/L	2.1770 ppb	15:36:47
1	Sb 206.836†	48.9	10.1	3.3476 ug/L	3.3476 ppb	15:36:47
1	Se 196.026†	-24.2	8.7	5.3491 ug/L	5.3491 ppb	15:36:47
1	Si 251.611†	545.5	47.2	1.4283 ug/L	1.4283 ppb	15:36:47
1	Sn 189.927†	16.1	8.6	1.4368 ug/L	1.4368 ppb	15:36:47
1	Ti 334.940†	-1440.8	-49.0	-0.0665 ug/L	-0.0665 ppb	15:36:27
1	Tl 190.801†	-46.8	-8.0	-2.3012 ug/L	-2.3012 ppb	15:36:47
1	U 409.014†	-1926.7	-277.9	-7.8691 ug/L	-7.8691 ppb	15:36:22
1	V 292.402†	-1513.2	-32.5	-0.2294 ug/L	-0.2294 ppb	15:36:27
1	Zn 213.857†	772.2	62.9	0.5666 ug/L	0.5666 ppb	15:36:47
1	SiO2†	560.0	33.9	2.2097 ug/L	2.2097 ppb	15:37:53
2	Sc Radial	5312.7	5312.7	99.7 %		15:35:31
2	Y RADIAL	5676.5	5676.5	100.6 %		15:35:31
2	Al 396.153Radial†	-12.2	-16.8	-13.512 ug/L	-13.512 ppb	15:35:31
2	Ca 317.933Radial†	20.7	0.1	0.2024 ug/L	0.2024 ppb	15:35:51
2	Fe 238.204 Radial†	10.8	-2.0	-17.498 ug/L	-17.498 ppb	15:35:51
2	K 766.490 Radial†	2657.8	-10.4	-2.1995 ug/L	-2.1995 ppb	15:35:31
2	Mg 279.077 IEC†	2.1	-0.5	-17.814 ug/L	-17.814 ppb	15:35:51
2	Na 589.592 Radial†	-1103.0	-7.3	-1.9597 ug/L	-1.9597 ppb	15:35:31
2	Sr 421.552†	53.6	42.1	0.2695 ug/L	0.2695 ppb	15:35:31
2	Sc 361.383	943725.8	943725.8	99.955 %		15:36:53
2	Y 371.029	797207.0	797207.0	99.980 %		15:36:53
2	Ag 328.068†	385.6	-25.5	-0.1138 ug/L	-0.1138 ppb	15:36:58
2	As 188.979†	-26.2	-6.6	-2.6838 ug/L	-2.6838 ppb	15:37:18
2	B 249.677†	-264.6	262.8	5.7048 ug/L	5.7048 ppb	15:37:18
2	Ba 233.527†	8.0	-11.7	-0.0858 ug/L	-0.0858 ppb	15:37:18
2	Be 313.107†	-4483.2	45.5	0.0160 ug/L	0.0160 ppb	15:36:58
2	Cd 226.502†	-205.6	11.2	0.1201 ug/L	0.1201 ppb	15:37:18
2	Co 228.616†	-70.2	3.2	0.0642 ug/L	0.0642 ppb	15:37:18
2	Cr 267.716†	84.5	4.5	0.0502 ug/L	0.0502 ppb	15:37:18
2	Cu 324.752†	6249.1	85.4	0.2507 ug/L	0.2507 ppb	15:36:58
2	Mn 257.610†	497.7	42.3	0.0438 ug/L	0.0438 ppb	15:37:18
2	Mo 202.031†	31.4	12.6	0.8473 ug/L	0.8473 ppb	15:37:18
2	Ni 231.604†	98.5	-2.0	-0.0484 ug/L	-0.0484 ppb	15:37:18

2	P 214.914†	229.2	-5.3	-3.0594 ug/L	-3.0594 ppb	15:37:18
2	Pb 220.353†	-63.0	-9.3	-1.0903 ug/L	-1.0903 ppb	15:37:18
2	S 181.975 Axial†	46.1	4.6	6.1909 ug/L	6.1909 ppb	15:37:18
2	Sb 206.836†	42.8	4.1	1.3578 ug/L	1.3578 ppb	15:37:18
2	Se 196.026†	-27.2	5.7	3.4572 ug/L	3.4572 ppb	15:37:18
2	Si 251.611†	521.2	24.3	0.7250 ug/L	0.7250 ppb	15:37:18
2	Sn 189.927†	8.1	0.6	0.0952 ug/L	0.0952 ppb	15:37:18
2	Ti 334.940†	-1424.9	-36.8	-0.0521 ug/L	-0.0521 ppb	15:36:58
2	Tl 190.801†	-46.7	-8.0	-2.3042 ug/L	-2.3042 ppb	15:37:18
2	U 409.014†	-1808.3	-164.2	-4.6489 ug/L	-4.6489 ppb	15:36:53
2	V 292.402†	-1475.4	1.5	0.0154 ug/L	0.0154 ppb	15:36:58
2	Zn 213.857†	755.3	47.9	0.4335 ug/L	0.4335 ppb	15:37:18
2	SiO2†	558.5	33.8	2.1792 ug/L	2.1792 ppb	15:37:58
3	Sc Radial	5231.2	5231.2	98.2 %		15:35:56
3	Y RADIAL	5567.1	5567.1	98.62 %		15:35:56
3	Al 396.153Radial†	-3.9	-8.6	-6.9319 ug/L	-6.9319 ppb	15:35:56
3	Ca 317.933Radial†	20.1	-0.1	-0.1493 ug/L	-0.1493 ppb	15:36:16
3	Fe 238.204 Radial†	11.9	-0.7	-6.3736 ug/L	-6.3736 ppb	15:36:16
3	K 766.490 Radial†	2731.2	105.8	22.382 ug/L	22.382 ppb	15:35:56
3	Mg 279.077 IEC†	4.2	1.6	53.570 ug/L	53.570 ppb	15:36:16
3	Na 589.592 Radial†	-1139.2	-61.4	-16.489 ug/L	-16.489 ppb	15:35:56
3	Sr 421.552†	22.4	11.1	0.0713 ug/L	0.0713 ppb	15:35:56
3	Sc 361.383	942022.1	942022.1	99.775 %		15:37:23
3	Y 371.029	796292.5	796292.5	99.865 %		15:37:23
3	Ag 328.068†	389.2	-21.1	-0.0939 ug/L	-0.0939 ppb	15:37:28
3	As 188.979†	-23.5	-4.0	-1.6300 ug/L	-1.6300 ppb	15:37:48
3	B 249.677†	-285.8	241.0	5.2301 ug/L	5.2301 ppb	15:37:48
3	Ba 233.527†	0.5	-19.2	-0.1417 ug/L	-0.1417 ppb	15:37:48
3	Be 313.107†	-4339.0	182.0	0.0643 ug/L	0.0643 ppb	15:37:28
3	Cd 226.502†	-212.0	4.3	0.0464 ug/L	0.0464 ppb	15:37:48
3	Co 228.616†	-65.9	7.4	0.1451 ug/L	0.1451 ppb	15:37:48
3	Cr 267.716†	83.9	4.0	0.0445 ug/L	0.0445 ppb	15:37:48
3	Cu 324.752†	6024.2	-128.6	-0.3734 ug/L	-0.3734 ppb	15:37:28
3	Mn 257.610†	491.2	36.8	0.0361 ug/L	0.0361 ppb	15:37:48
3	Mo 202.031†	26.9	8.2	0.5474 ug/L	0.5474 ppb	15:37:48
3	Ni 231.604†	108.6	8.3	0.1999 ug/L	0.1999 ppb	15:37:48
3	P 214.914†	226.5	-7.6	-4.2861 ug/L	-4.2861 ppb	15:37:48
3	Pb 220.353†	-58.7	-5.1	-0.6030 ug/L	-0.6030 ppb	15:37:48
3	S 181.975 Axial†	49.0	7.6	10.199 ug/L	10.199 ppb	15:37:48
3	Sb 206.836†	52.4	13.8	4.5459 ug/L	4.5459 ppb	15:37:48
3	Se 196.026†	-33.0	-0.2	-0.1439 ug/L	-0.1439 ppb	15:37:48
3	Si 251.611†	545.4	49.5	1.4894 ug/L	1.4894 ppb	15:37:48
3	Sn 189.927†	6.4	-1.1	-0.1812 ug/L	-0.1812 ppb	15:37:48
3	Ti 334.940†	-1401.8	-16.2	-0.0274 ug/L	-0.0274 ppb	15:37:28
3	Tl 190.801†	-41.8	-3.1	-0.9015 ug/L	-0.9015 ppb	15:37:48
3	U 409.014†	-1759.8	-118.8	-3.3637 ug/L	-3.3637 ppb	15:37:23
3	V 292.402†	-1539.9	-65.9	-0.4298 ug/L	-0.4298 ppb	15:37:28
3	Zn 213.857†	747.7	41.7	0.3754 ug/L	0.3754 ppb	15:37:48
3	SiO2†	518.5	-5.3	-0.3626 ug/L	-0.3626 ppb	15:38:03

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	943943.9	99.978 %	0.2160			0.22%
Sc Radial	5270.7	98.9 %	0.77			0.77%
Y 371.029	797630.0	100.03 %	0.200			0.20%
Y RADIAL	5591.6	99.06 %	1.341			1.35%
Ag 328.068†	-14.3	-0.0623 ug/L	0.07265	-0.0623 ppb	0.07265	116.61%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-8.8	-7.0778 ug/L	6.36231	-7.0778 ppb	6.36231	89.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-4.9	-1.9824 ug/L	0.60741	-1.9824 ppb	0.60741	30.64%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	250.4	5.4343 ug/L	0.24421	5.4343 ppb	0.24421	4.49%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-17.4	-0.1283 ug/L	0.03763	-0.1283 ppb	0.03763	29.34%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	132.5	0.0468 ug/L	0.02674	0.0468 ppb	0.02674	57.19%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-1.1	-1.8783 ug/L	3.30388	-1.8783 ppb	3.30388	175.90%

QC value within limits for Ca 317.933 Radial	Recovery = Not calculated		
Cd 226.502†	4.9 0.0528 ug/L	0.06443 0.0528 ppb	0.06443 122.06%
QC value within limits for Cd 226.502	Recovery = Not calculated		
Co 228.616†	6.1 0.1201 ug/L	0.04853 0.1201 ppb	0.04853 40.41%
QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	3.5 0.0403 ug/L	0.01251 0.0403 ppb	0.01251 31.01%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	-59.6 -0.1714 ug/L	0.36560 -0.1714 ppb	0.36560 213.33%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	-1.0 -8.8924 ug/L	7.66363 -8.8924 ppb	7.66363 86.18%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	103.8 21.952 ug/L	23.9386 21.952 ppb	23.9386 109.05%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-0.3 -8.3795 ug/L	57.81203 -8.3795 ppb	57.81203 689.92%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	54.7 0.0574 ug/L	0.03041 0.0574 ppb	0.03041 53.02%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	7.0 0.4726 ug/L	0.41716 0.4726 ppb	0.41716 88.27%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-31.3 -8.3979 ug/L	7.40447 -8.3979 ppb	7.40447 88.17%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	4.9 0.1170 ug/L	0.14318 0.1170 ppb	0.14318 122.43%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-6.2 -3.5168 ug/L	0.67018 -3.5168 ppb	0.67018 19.06%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-7.7 -0.9096 ug/L	0.26691 -0.9096 ppb	0.26691 29.34%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	4.6 6.1891 ug/L	4.01117 6.1891 ppb	4.01117 64.81%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	9.3 3.0838 ug/L	1.61036 3.0838 ppb	1.61036 52.22%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	4.8 2.8875 ug/L	2.79045 2.8875 ppb	2.79045 96.64%
QC value within limits for Se 196.026	Recovery = Not calculated		
Si 251.611†	40.3 1.2142 ug/L	0.42479 1.2142 ppb	0.42479 34.98%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	2.7 0.4503 ug/L	0.86544 0.4503 ppb	0.86544 192.20%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	29.3 0.1873 ug/L	0.10333 0.1873 ppb	0.10333 55.17%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	-34.0 -0.0487 ug/L	0.01976 -0.0487 ppb	0.01976 40.58%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-6.4 -1.8356 ug/L	0.80900 -1.8356 ppb	0.80900 44.07%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-187.0 -5.2939 ug/L	2.32090 -5.2939 ppb	2.32090 43.84%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-32.3 -0.2146 ug/L	0.22295 -0.2146 ppb	0.22295 103.89%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	50.9 0.4585 ug/L	0.09804 0.4585 ppb	0.09804 21.38%
QC value within limits for Zn 213.857	Recovery = Not calculated		
SiO2†	20.8 1.3421 ug/L	1.47640 1.3421 ppb	1.47640 110.00%
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: 1/18/2010 15:40:14  
 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	5244.5	5244.5	98.4 %		15:42:07
1	Y RADIAL	5557.7	5557.7	98.46 %		15:42:07
1	Al 396.153Radial†	238.3	237.4	189.41 ug/L	189.41 ppb	15:42:07
1	Ca 317.933Radial†	141.4	123.1	203.43 ug/L	203.43 ppb	15:42:27
1	Fe 238.204 Radial†	21.2	8.7	75.118 ug/L	75.118 ppb	15:42:27
1	K 766.490 Radial†	3451.4	830.3	175.42 ug/L	175.42 ppb	15:42:07
1	Mg 279.077 IEC†	11.8	9.3	307.56 ug/L	307.56 ppb	15:42:27
1	Na 589.592 Radial†	-70.6	1027.0	275.94 ug/L	275.94 ppb	15:42:07
1	Sr 421.552†	777.6	778.1	4.9786 ug/L	4.9786 ppb	15:42:07
1	Sc 361.383	907910.7	907910.7	96.162 %		15:43:24
1	Y 371.029	771466.5	771466.5	96.751 %		15:43:24
1	Ag 328.068†	1454.9	1101.8	4.8467 ug/L	4.8467 ppb	15:43:24
1	As 188.979†	46.1	67.5	27.483 ug/L	27.483 ppb	15:43:44
1	B 249.677†	1872.5	2474.8	53.667 ug/L	53.667 ppb	15:43:24
1	Ba 233.527†	729.1	738.5	5.4115 ug/L	5.4115 ppb	15:43:44
1	Be 313.107†	9811.7	14734.1	5.2254 ug/L	5.2254 ppb	15:43:24
1	Cd 226.502†	249.4	476.2	5.0884 ug/L	5.0884 ppb	15:43:44
1	Co 228.616†	186.8	267.7	5.2391 ug/L	5.2391 ppb	15:43:44
1	Cr 267.716†	555.6	497.7	5.4357 ug/L	5.4357 ppb	15:43:44
1	Cu 324.752†	9670.5	3890.0	11.316 ug/L	11.316 ppb	15:43:24
1	Mn 257.610†	10389.6	10348.7	10.948 ug/L	10.948 ppb	15:43:24
1	Mo 202.031†	184.8	173.3	11.650 ug/L	11.650 ppb	15:43:44
1	Ni 231.604†	324.1	236.5	5.7022 ug/L	5.7022 ppb	15:43:44
1	P 214.914†	498.4	283.7	161.05 ug/L	161.05 ppb	15:43:44
1	Pb 220.353†	35.6	90.8	10.728 ug/L	10.728 ppb	15:43:44
1	S 181.975 Axial†	118.2	81.4	109.05 ug/L	109.05 ppb	15:43:44
1	Sb 206.836†	68.2	32.3	11.009 ug/L	11.009 ppb	15:43:44
1	Se 196.026†	24.3	58.2	36.006 ug/L	36.006 ppb	15:43:44
1	Si 251.611†	3864.0	3521.1	106.38 ug/L	106.38 ppb	15:43:24
1	Sn 189.927†	63.7	58.8	9.8667 ug/L	9.8667 ppb	15:43:44
1	Ti 334.940†	1884.1	3348.1	5.0468 ug/L	5.0468 ppb	15:43:24
1	Tl 190.801†	26.1	65.9	19.104 ug/L	19.104 ppb	15:43:44
1	U 409.014†	-55.1	1587.7	44.939 ug/L	44.939 ppb	15:43:24
1	V 292.402†	-768.3	678.5	4.6991 ug/L	4.6991 ppb	15:43:24
1	Zn 213.857†	1887.1	1254.7	11.245 ug/L	11.245 ppb	15:43:44
1	SiO2†	3870.5	3500.0	228.02 ug/L	228.02 ppb	15:44:40
2	Sc Radial	5211.6	5211.6	97.8 %		15:42:32
2	Y RADIAL	5538.7	5538.7	98.12 %		15:42:32
2	Al 396.153Radial†	247.9	248.8	198.53 ug/L	198.53 ppb	15:42:32
2	Ca 317.933Radial†	145.1	127.8	211.20 ug/L	211.20 ppb	15:42:52
2	Fe 238.204 Radial†	23.0	10.7	92.825 ug/L	92.825 ppb	15:42:52
2	K 766.490 Radial†	3576.2	980.0	207.09 ug/L	207.09 ppb	15:42:32
2	Mg 279.077 IEC†	13.0	10.6	350.07 ug/L	350.07 ppb	15:42:52
2	Na 589.592 Radial†	-92.1	1004.6	269.92 ug/L	269.92 ppb	15:42:32
2	Sr 421.552†	810.0	816.3	5.2226 ug/L	5.2226 ppb	15:42:32
2	Sc 361.383	905858.9	905858.9	95.944 %		15:43:50
2	Y 371.029	770210.7	770210.7	96.594 %		15:43:50
2	Ag 328.068†	1577.1	1232.6	5.4261 ug/L	5.4261 ppb	15:43:50
2	As 188.979†	51.4	73.1	29.773 ug/L	29.773 ppb	15:44:10
2	B 249.677†	1878.3	2485.2	53.892 ug/L	53.892 ppb	15:43:50
2	Ba 233.527†	687.1	696.5	5.1052 ug/L	5.1052 ppb	15:44:10
2	Be 313.107†	9835.5	14782.0	5.2427 ug/L	5.2427 ppb	15:43:50
2	Cd 226.502†	241.2	468.3	5.0021 ug/L	5.0021 ppb	15:44:10
2	Co 228.616†	174.9	255.7	5.0037 ug/L	5.0037 ppb	15:44:10
2	Cr 267.716†	552.4	495.7	5.4128 ug/L	5.4128 ppb	15:44:10
2	Cu 324.752†	9529.4	3765.7	10.953 ug/L	10.953 ppb	15:43:50
2	Mn 257.610†	10403.8	10388.0	10.989 ug/L	10.989 ppb	15:43:50
2	Mo 202.031†	174.7	163.3	10.978 ug/L	10.978 ppb	15:44:10
2	Ni 231.604†	311.1	223.7	5.3945 ug/L	5.3945 ppb	15:44:10

2	P 214.914†	483.7	269.6	153.01 ug/L	153.01 ppb	15:44:10
2	Pb 220.353†	23.8	78.6	9.2964 ug/L	9.2964 ppb	15:44:10
2	S 181.975 Axial†	119.4	82.9	111.15 ug/L	111.15 ppb	15:44:10
2	Sb 206.836†	63.9	27.9	9.5700 ug/L	9.5700 ppb	15:44:10
2	Se 196.026†	15.7	49.2	30.569 ug/L	30.569 ppb	15:44:10
2	Si 251.611†	3773.8	3436.2	103.82 ug/L	103.82 ppb	15:43:50
2	Sn 189.927†	68.4	63.9	10.723 ug/L	10.723 ppb	15:44:10
2	Ti 334.940†	1964.6	3436.5	5.1770 ug/L	5.1770 ppb	15:43:50
2	Tl 190.801†	30.2	70.3	20.374 ug/L	20.374 ppb	15:44:10
2	U 409.014†	35.3	1681.7	47.599 ug/L	47.599 ppb	15:43:50
2	V 292.402†	-732.2	714.4	4.9289 ug/L	4.9289 ppb	15:43:50
2	Zn 213.857†	1889.5	1261.7	11.309 ug/L	11.309 ppb	15:44:10
2	SiO2†	3874.6	3513.5	228.91 ug/L	228.91 ppb	15:44:46
3	Sc Radial	5248.0	5248.0	98.5 %		15:42:58
3	Y RADIAL	5620.5	5620.5	99.57 %		15:42:58
3	Al 396.153Radial†	245.9	245.0	195.54 ug/L	195.54 ppb	15:42:58
3	Ca 317.933Radial†	149.1	130.7	216.08 ug/L	216.08 ppb	15:43:18
3	Fe 238.204 Radial†	19.9	7.3	63.568 ug/L	63.568 ppb	15:43:18
3	K 766.490 Radial†	3447.6	824.1	174.11 ug/L	174.11 ppb	15:42:58
3	Mg 279.077 IEC†	13.1	10.6	349.57 ug/L	349.57 ppb	15:43:18
3	Na 589.592 Radial†	-51.8	1046.1	281.08 ug/L	281.08 ppb	15:42:58
3	Sr 421.552†	817.3	818.0	5.2335 ug/L	5.2335 ppb	15:42:58
3	Sc 361.383	909756.0	909756.0	96.357 %		15:44:15
3	Y 371.029	774285.2	774285.2	97.105 %		15:44:15
3	Ag 328.068†	1565.4	1213.4	5.3336 ug/L	5.3336 ppb	15:44:15
3	As 188.979†	45.0	66.3	26.981 ug/L	26.981 ppb	15:44:35
3	B 249.677†	1831.3	2428.1	52.656 ug/L	52.656 ppb	15:44:15
3	Ba 233.527†	730.9	738.8	5.4129 ug/L	5.4129 ppb	15:44:35
3	Be 313.107†	9886.9	14791.4	5.2461 ug/L	5.2461 ppb	15:44:15
3	Cd 226.502†	276.5	503.8	5.3846 ug/L	5.3846 ppb	15:44:35
3	Co 228.616†	179.9	260.1	5.0887 ug/L	5.0887 ppb	15:44:35
3	Cr 267.716†	534.5	474.7	5.1836 ug/L	5.1836 ppb	15:44:35
3	Cu 324.752†	9628.9	3826.5	11.131 ug/L	11.131 ppb	15:44:15
3	Mn 257.610†	10547.6	10490.8	11.095 ug/L	11.095 ppb	15:44:15
3	Mo 202.031†	168.7	156.3	10.506 ug/L	10.506 ppb	15:44:35
3	Ni 231.604†	328.6	240.5	5.7988 ug/L	5.7988 ppb	15:44:35
3	P 214.914†	479.1	262.7	149.00 ug/L	149.00 ppb	15:44:35
3	Pb 220.353†	28.0	82.8	9.7896 ug/L	9.7896 ppb	15:44:35
3	S 181.975 Axial†	120.6	83.7	112.12 ug/L	112.12 ppb	15:44:35
3	Sb 206.836†	66.3	30.1	10.271 ug/L	10.271 ppb	15:44:35
3	Se 196.026†	16.8	50.4	31.170 ug/L	31.170 ppb	15:44:35
3	Si 251.611†	3852.8	3501.3	105.79 ug/L	105.79 ppb	15:44:15
3	Sn 189.927†	62.1	57.0	9.5701 ug/L	9.5701 ppb	15:44:35
3	Ti 334.940†	1988.5	3452.5	5.2033 ug/L	5.2033 ppb	15:44:15
3	Tl 190.801†	27.8	67.6	19.600 ug/L	19.600 ppb	15:44:35
3	U 409.014†	-62.9	1579.7	44.715 ug/L	44.715 ppb	15:44:15
3	V 292.402†	-775.0	673.2	4.6499 ug/L	4.6499 ppb	15:44:15
3	Zn 213.857†	1891.5	1255.4	11.252 ug/L	11.252 ppb	15:44:35
3	SiO2†	3851.8	3472.4	226.25 ug/L	226.25 ppb	15:44:51

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	907841.8	96.154 %		0.2065			0.21%
Sc Radial	5234.7	98.3 %		0.38			0.38%
Y 371.029	771987.5	96.817 %		0.2617			0.27%
Y RADIAL	5572.3	98.71 %		0.759			0.77%
Ag 328.068†	1182.6	5.2021 ug/L		0.31123	5.2021 ppb	0.31123	5.98%
QC value within limits for Ag 328.068 Recovery = 104.04%							
Al 396.153Radial†	243.7	194.49 ug/L		4.651	194.49 ppb	4.651	2.39%
QC value within limits for Al 396.153Radial Recovery = 97.25%							
As 188.979†	68.9	28.079 ug/L		1.4879	28.079 ppb	1.4879	5.30%
QC value within limits for As 188.979 Recovery = 93.60%							
B 249.677†	2462.7	53.405 ug/L		0.6581	53.405 ppb	0.6581	1.23%
QC value within limits for B 249.677 Recovery = 106.81%							
Ba 233.527†	724.6	5.3099 ug/L		0.17727	5.3099 ppb	0.17727	3.34%
QC value within limits for Ba 233.527 Recovery = 106.20%							
Be 313.107†	14769.2	5.2381 ug/L		0.01106	5.2381 ppb	0.01106	0.21%
QC value within limits for Be 313.107 Recovery = 104.76%							
Ca 317.933Radial†	127.2	210.24 ug/L		6.381	210.24 ppb	6.381	3.03%

QC value within limits for Ca 317.933Radial Recovery = 105.12%							
Cd 226.502†	482.8	5.1584 ug/L	0.20065	5.1584 ppb	0.20065	3.89%	
QC value within limits for Cd 226.502 Recovery = 103.17%							
Co 228.616†	261.2	5.1105 ug/L	0.11921	5.1105 ppb	0.11921	2.33%	
QC value within limits for Co 228.616 Recovery = 102.21%							
Cr 267.716†	489.4	5.3440 ug/L	0.13940	5.3440 ppb	0.13940	2.61%	
QC value within limits for Cr 267.716 Recovery = 106.88%							
Cu 324.752†	3827.4	11.133 ug/L	0.1815	11.133 ppb	0.1815	1.63%	
QC value within limits for Cu 324.752 Recovery = 111.33%							
Fe 238.204 Radial†	8.9	77.170 ug/L	14.7363	77.170 ppb	14.7363	19.10%	
QC value within limits for Fe 238.204 Radial Recovery = 77.17%							
K 766.490 Radial†	878.1	185.54 ug/L	18.673	185.54 ppb	18.673	10.06%	
QC value within limits for K 766.490 Radial Recovery = 123.69%							
Mg 279.077 IEC†	10.2	335.73 ug/L	24.399	335.73 ppb	24.399	7.27%	
QC value within limits for Mg 279.077 IEC Recovery = 111.91%							
Mn 257.610†	10409.2	11.011 ug/L	0.0761	11.011 ppb	0.0761	0.69%	
QC value within limits for Mn 257.610 Recovery = 110.11%							
Mo 202.031†	164.3	11.045 ug/L	0.5746	11.045 ppb	0.5746	5.20%	
QC value within limits for Mo 202.031 Recovery = 110.45%							
Na 589.592 Radial†	1025.9	275.65 ug/L	5.589	275.65 ppb	5.589	2.03%	
QC value within limits for Na 589.592 Radial Recovery = 91.88%							
Ni 231.604†	233.5	5.6318 ug/L	0.21115	5.6318 ppb	0.21115	3.75%	
QC value within limits for Ni 231.604 Recovery = 112.64%							
P 214.914†	272.0	154.36 ug/L	6.135	154.36 ppb	6.135	3.97%	
QC value within limits for P 214.914 Recovery = 102.90%							
Pb 220.353†	84.0	9.9379 ug/L	0.72709	9.9379 ppb	0.72709	7.32%	
QC value within limits for Pb 220.353 Recovery = 99.38%							
S 181.975 Axial†	82.7	110.77 ug/L	1.570	110.77 ppb	1.570	1.42%	
QC value within limits for S 181.975 Axial Recovery = 110.77%							
Sb 206.836†	30.1	10.283 ug/L	0.7194	10.283 ppb	0.7194	7.00%	
QC value within limits for Sb 206.836 Recovery = 102.83%							
Se 196.026†	52.6	32.582 ug/L	2.9808	32.582 ppb	2.9808	9.15%	
QC value within limits for Se 196.026 Recovery = 108.61%							
Si 251.611†	3486.2	105.33 ug/L	1.342	105.33 ppb	1.342	1.27%	
QC value within limits for Si 251.611 Recovery = 105.33%							
Sn 189.927†	59.9	10.053 ug/L	0.5985	10.053 ppb	0.5985	5.95%	
QC value within limits for Sn 189.927 Recovery = 100.53%							
Sr 421.552†	804.1	5.1449 ug/L	0.14413	5.1449 ppb	0.14413	2.80%	
QC value within limits for Sr 421.552 Recovery = 102.90%							
Ti 334.940†	3412.3	5.1424 ug/L	0.08379	5.1424 ppb	0.08379	1.63%	
QC value within limits for Ti 334.940 Recovery = 102.85%							
Tl 190.801†	67.9	19.693 ug/L	0.6398	19.693 ppb	0.6398	3.25%	
QC value within limits for Tl 190.801 Recovery = 98.46%							
U 409.014†	1616.3	45.751 ug/L	1.6047	45.751 ppb	1.6047	3.51%	
QC value within limits for U 409.014 Recovery = 91.50%							
V 292.402†	688.7	4.7593 ug/L	0.14891	4.7593 ppb	0.14891	3.13%	
QC value within limits for V 292.402 Recovery = 95.19%							
Zn 213.857†	1257.3	11.269 ug/L	0.0351	11.269 ppb	0.0351	0.31%	
QC value within limits for Zn 213.857 Recovery = 112.69%							
SiO2†	3495.3	227.73 ug/L	1.356	227.73 ppb	1.356	0.60%	
QC value within limits for SiO2 Recovery = 106.91%							
All analyte(s) passed QC.							



Sequence No.: 9  
 Sample ID: IC5A  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 13  
 Date Collected: 1/18/2010 15:47:01  
 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	4727.6	4727.6	88.7 %		15:49:00
1	Y RADIAL	4981.3	4981.3	88.24 %		15:49:00
1	Al 396.153Radial†	576197.2	649260.7	519550 ug/L	519550 ppb	15:48:55
1	Ca 317.933Radial†	257415.6	290038.1	479500 ug/L	479500 ppb	15:48:55
1	Fe 238.204 Radial†	19178.3	21597.5	186490 ug/L	186490 ppb	15:49:00
1	K 766.490 Radial†	2274.2	-112.8	-184.24 ug/L	-184.24 ppb	15:48:55
1	Mg 279.077 IEC†	13114.1	14774.5	486510 ug/L	486510 ppb	15:49:00
1	Na 589.592 Radial†	-949.8	28.4	7.6281 ug/L	7.6281 ppb	15:49:00
1	Sr 421.552†	538.5	595.1	0.2282 ug/L	0.2282 ppb	15:49:00
1	Sc 361.383	800596.7	800596.7	84.796 %		15:49:27
1	Y 371.029	662121.5	662121.5	83.038 %		15:49:27
1	Ag 328.068†	-9981.8	-12182.9	0.3590 ug/L	0.3590 ppb	15:49:27
1	As 188.979†	-77.1	-71.3	14.504 ug/L	14.504 ppb	15:49:47
1	B 249.677†	274.0	850.6	-11.833 ug/L	-11.833 ppb	15:49:27
1	Ba 233.527†	-570.1	-692.0	0.6484 ug/L	0.6484 ppb	15:49:47
1	Be 313.107†	-4304.5	-545.6	-0.2506 ug/L	-0.2506 ppb	15:49:27
1	Cd 226.502†	1282.0	1728.7	-0.8004 ug/L	-0.8004 ppb	15:49:47
1	Co 228.616†	-13.4	57.6	-1.5612 ug/L	-1.5612 ppb	15:49:47
1	Cr 267.716†	-119.0	-220.4	1.2253 ug/L	1.2253 ppb	15:49:47
1	Cu 324.752†	2829.5	-2829.6	1.6121 ug/L	1.6121 ppb	15:49:27
1	Mn 257.610†	-388.1	-913.2	-2.4472 ug/L	-2.4472 ppb	15:49:27
1	Mo 202.031†	-217.5	-275.3	1.6939 ug/L	1.6939 ppb	15:49:47
1	Ni 231.604†	253.9	198.9	4.7987 ug/L	4.7987 ppb	15:49:47
1	P 214.914†	167.4	-37.1	-41.081 ug/L	-41.081 ppb	15:49:47
1	Pb 220.353†	-822.8	-916.6	-5.5605 ug/L	-5.5605 ppb	15:49:47
1	S 181.975 Axial†	75.0	47.0	-34.424 ug/L	-34.424 ppb	15:49:47
1	Sb 206.836†	73.4	47.9	5.0494 ug/L	5.0494 ppb	15:49:47
1	Se 196.026†	-1003.4	-1150.4	24.727 ug/L	24.727 ppb	15:49:47
1	Si 251.611†	500.3	92.8	3.0352 ug/L	3.0352 ppb	15:49:47
1	Sn 189.927†	-369.3	-443.0	1.8564 ug/L	1.8564 ppb	15:49:47
1	Ti 334.940†	-15366.6	-16733.1	-0.7696 ug/L	-0.7696 ppb	15:49:27
1	Tl 190.801†	-69.9	-43.7	-12.879 ug/L	-12.879 ppb	15:49:47
1	U 409.014†	-736.2	776.7	0.7393 ug/L	0.7393 ppb	15:49:27
1	V 292.402†	701.5	2304.8	-2.8004 ug/L	-2.8004 ppb	15:49:47
1	Zn 213.857†	3115.9	2966.9	8.6202 ug/L	8.6202 ppb	15:49:47
1	SiO2†	578.6	157.4	10.769 ug/L	10.769 ppb	15:50:44
2	Sc Radial	4817.5	4817.5	90.4 %		15:49:10
2	Y RADIAL	5066.1	5066.1	89.75 %		15:49:10
2	Al 396.153Radial†	584735.7	646586.7	517410 ug/L	517410 ppb	15:49:05
2	Ca 317.933Radial†	260779.8	288345.5	476700 ug/L	476700 ppb	15:49:05
2	Fe 238.204 Radial†	19503.9	21554.3	186120 ug/L	186120 ppb	15:49:10
2	K 766.490 Radial†	2204.4	-237.8	-209.75 ug/L	-209.75 ppb	15:49:05
2	Mg 279.077 IEC†	13372.3	14784.2	486830 ug/L	486830 ppb	15:49:10
2	Na 589.592 Radial†	-924.9	76.0	20.407 ug/L	20.407 ppb	15:49:10
2	Sr 421.552†	564.0	612.0	0.3572 ug/L	0.3572 ppb	15:49:10
2	Sc 361.383	797376.9	797376.9	84.455 %		15:49:53
2	Y 371.029	659611.3	659611.3	82.723 %		15:49:53
2	Ag 328.068†	-9884.4	-12115.0	0.5774 ug/L	0.5774 ppb	15:49:53
2	As 188.979†	-86.1	-82.3	9.9401 ug/L	9.9401 ppb	15:50:13
2	B 249.677†	380.2	977.7	-9.0155 ug/L	-9.0155 ppb	15:49:53
2	Ba 233.527†	-593.0	-721.8	0.4207 ug/L	0.4207 ppb	15:50:13
2	Be 313.107†	-4216.3	-461.6	-0.2206 ug/L	-0.2206 ppb	15:49:53
2	Cd 226.502†	1272.9	1724.1	-0.8116 ug/L	-0.8116 ppb	15:50:13
2	Co 228.616†	-18.6	51.3	-1.6789 ug/L	-1.6789 ppb	15:50:13
2	Cr 267.716†	-42.3	-130.2	2.2062 ug/L	2.2062 ppb	15:50:13
2	Cu 324.752†	2873.9	-2763.6	1.7842 ug/L	1.7842 ppb	15:49:53
2	Mn 257.610†	-439.5	-976.0	-2.5636 ug/L	-2.5636 ppb	15:49:53
2	Mo 202.031†	-216.6	-275.3	1.6326 ug/L	1.6326 ppb	15:50:13
2	Ni 231.604†	229.7	171.4	4.1357 ug/L	4.1357 ppb	15:50:13

2	P 214.914†	161.4	-43.5	-44.990 ug/L	-44.990 ppb	15:50:13
2	Pb 220.353†	-808.5	-903.6	-4.5096 ug/L	-4.5096 ppb	15:50:13
2	S 181.975 Axial†	63.9	34.1	-51.198 ug/L	-51.198 ppb	15:50:13
2	Sb 206.836†	58.4	30.4	-0.6353 ug/L	-0.6353 ppb	15:50:13
2	Se 196.026†	-986.6	-1135.3	32.357 ug/L	32.357 ppb	15:50:13
2	Si 251.611†	496.1	90.3	2.9598 ug/L	2.9598 ppb	15:50:13
2	Sn 189.927†	-361.5	-435.5	2.6732 ug/L	2.6732 ppb	15:50:13
2	Ti 334.940†	-15240.2	-16656.7	-1.0564 ug/L	-1.0564 ppb	15:49:53
2	Tl 190.801†	-95.5	-74.3	-21.729 ug/L	-21.729 ppb	15:50:13
2	U 409.014†	-702.2	813.5	1.8210 ug/L	1.8210 ppb	15:49:53
2	V 292.402†	819.7	2448.1	-1.7962 ug/L	-1.7962 ppb	15:50:13
2	Zn 213.857†	3144.1	3015.2	9.0950 ug/L	9.0950 ppb	15:50:13
2	SiO2†	401.2	-49.9	-2.7522 ug/L	-2.7522 ppb	15:50:49
3	Sc Radial	4749.8	4749.8	89.2 %		15:49:20
3	Y RADIAL	4999.7	4999.7	88.57 %		15:49:20
3	Al 396.153Radial†	585388.9	656541.1	525370 ug/L	525370 ppb	15:49:15
3	Ca 317.933Radial†	260407.0	292040.1	482800 ug/L	482800 ppb	15:49:15
3	Fe 238.204 Radial†	19149.1	21463.9	185340 ug/L	185340 ppb	15:49:20
3	K 766.490 Radial†	2155.4	-258.0	-216.06 ug/L	-216.06 ppb	15:49:15
3	Mg 279.077 IEC†	13134.8	14728.7	485000 ug/L	485000 ppb	15:49:20
3	Na 589.592 Radial†	-967.8	13.3	3.5620 ug/L	3.5620 ppb	15:49:20
3	Sr 421.552†	557.2	613.3	0.3200 ug/L	0.3200 ppb	15:49:20
3	Sc 361.383	792968.8	792968.8	83.988 %		15:50:18
3	Y 371.029	655879.2	655879.2	82.255 %		15:50:18
3	Ag 328.068†	-9780.3	-12056.2	0.5020 ug/L	0.5020 ppb	15:50:18
3	As 188.979†	-91.6	-89.4	6.8660 ug/L	6.8660 ppb	15:50:38
3	B 249.677†	322.4	911.4	-10.327 ug/L	-10.327 ppb	15:50:18
3	Ba 233.527†	-623.7	-762.3	0.1002 ug/L	0.1002 ppb	15:50:38
3	Be 313.107†	-4217.1	-490.4	-0.2306 ug/L	-0.2306 ppb	15:50:18
3	Cd 226.502†	1272.7	1732.2	-0.6460 ug/L	-0.6460 ppb	15:50:38
3	Co 228.616†	-13.0	57.9	-1.5383 ug/L	-1.5383 ppb	15:50:38
3	Cr 267.716†	-90.8	-188.2	1.5575 ug/L	1.5575 ppb	15:50:38
3	Cu 324.752†	2993.8	-2601.9	2.2165 ug/L	2.2165 ppb	15:50:18
3	Mn 257.610†	-229.9	-729.3	-2.3048 ug/L	-2.3048 ppb	15:50:18
3	Mo 202.031†	-211.4	-270.4	1.9697 ug/L	1.9697 ppb	15:50:38
3	Ni 231.604†	210.4	150.0	3.6191 ug/L	3.6191 ppb	15:50:38
3	P 214.914†	198.4	1.6	-16.556 ug/L	-16.556 ppb	15:50:38
3	Pb 220.353†	-807.1	-907.2	-3.0377 ug/L	-3.0377 ppb	15:50:38
3	S 181.975 Axial†	59.0	28.8	-59.915 ug/L	-59.915 ppb	15:50:38
3	Sb 206.836†	70.6	45.4	4.0117 ug/L	4.0117 ppb	15:50:38
3	Se 196.026†	-1006.2	-1165.1	12.446 ug/L	12.446 ppb	15:50:38
3	Si 251.611†	484.9	80.2	2.6503 ug/L	2.6503 ppb	15:50:38
3	Sn 189.927†	-374.3	-453.1	0.6427 ug/L	0.6427 ppb	15:50:38
3	Ti 334.940†	-15111.2	-16603.4	-0.0051 ug/L	-0.0051 ppb	15:50:18
3	Tl 190.801†	-87.2	-65.1	-19.052 ug/L	-19.052 ppb	15:50:38
3	U 409.014†	-820.9	667.5	-2.2216 ug/L	-2.2216 ppb	15:50:18
3	V 292.402†	755.8	2377.4	-2.1858 ug/L	-2.1858 ppb	15:50:38
3	Zn 213.857†	3134.6	3024.5	9.2575 ug/L	9.2575 ppb	15:50:38
3	SiO2†	548.0	127.5	8.8149 ug/L	8.8149 ppb	15:50:54

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Cond. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	796980.8	84.413 %	0.4056			0.48%
Sc Radial	4765.0	89.4 %	0.88			0.98%
Y 371.029	659204.0	82.672 %	0.3939			0.48%
Y RADIAL	5015.7	88.85 %	0.790			0.89%
Ag 328.068†	-12118.0	0.4795 ug/L	0.11095	0.4795 ppb	0.11095	23.14%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	650796.2	520770 ug/L	4122.5	520770 ppb	4122.5	0.79%
QC value within limits for Al 396.153Radial Recovery = 104.15%						
As 188.979†	-81.0	10.437 ug/L	3.8432	10.437 ppb	3.8432	36.82%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	913.2	-10.392 ug/L	1.4097	-10.392 ppb	1.4097	13.57%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-725.4	0.3898 ug/L	0.27538	0.3898 ppb	0.27538	70.65%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-499.2	-0.2339 ug/L	0.01526	-0.2339 ppb	0.01526	6.53%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	290141.3	479670 ug/L	3057.5	479670 ppb	3057.5	0.64%

QC value within limits for Ca 317.933 Radial Recovery = 95.93%

Cd	226.502†	1728.3	-0.7527 ug/L	0.09253	-0.7527 ppb	0.09253	12.29%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	55.6	-1.5928 ug/L	0.07544	-1.5928 ppb	0.07544	4.74%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-179.6	1.6630 ug/L	0.49889	1.6630 ppb	0.49889	30.00%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-2731.7	1.8710 ug/L	0.31140	1.8710 ppb	0.31140	16.64%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	21538.6	185980 ug/L	588.5	185980 ppb	588.5	0.32%
QC value within limits for Fe 238.204 Radial Recovery = 92.99%							
K	766.490 Radial†	-202.9	-203.35 ug/L	16.847	-203.35 ppb	16.847	8.28%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	14762.5	486110 ug/L	976.1	486110 ppb	976.1	0.20%
QC value within limits for Mg 279.077 IEC Recovery = 97.22%							
Mn	257.610†	-872.8	-2.4385 ug/L	0.12963	-2.4385 ppb	0.12963	5.32%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	-273.7	1.7654 ug/L	0.17952	1.7654 ppb	0.17952	10.17%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	39.2	10.533 ug/L	8.7903	10.533 ppb	8.7903	83.46%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	173.5	4.1845 ug/L	0.59128	4.1845 ppb	0.59128	14.13%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-26.3	-34.209 ug/L	15.4126	-34.209 ppb	15.4126	45.05%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-909.1	-4.3693 ug/L	1.26726	-4.3693 ppb	1.26726	29.00%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	36.6	-48.512 ug/L	12.9562	-48.512 ppb	12.9562	26.71%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	41.2	2.8086 ug/L	3.02728	2.8086 ppb	3.02728	107.79%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-1150.3	23.177 ug/L	10.0453	23.177 ppb	10.0453	43.34%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	87.8	2.8818 ug/L	0.20395	2.8818 ppb	0.20395	7.08%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-443.9	1.7241 ug/L	1.02172	1.7241 ppb	1.02172	59.26%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	606.8	0.3018 ug/L	0.06638	0.3018 ppb	0.06638	21.99%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-16664.4	-0.6104 ug/L	0.54342	-0.6104 ppb	0.54342	89.03%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	-61.0	-17.887 ug/L	4.5383	-17.887 ppb	4.5383	25.37%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	752.6	0.1129 ug/L	2.09284	0.1129 ppb	2.09284	>999.9%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	2376.8	-2.2608 ug/L	0.50627	-2.2608 ppb	0.50627	22.39%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	3002.2	8.9909 ug/L	0.33117	8.9909 ppb	0.33117	3.68%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		78.3	5.6107 ug/L	7.30816	5.6107 ppb	7.30816	130.25%
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: 1/18/2010 15:53:05  
 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	4705.2	4705.2	88.3 %		15:55:02
1	Y RADIAL	4971.8	4971.8	88.08 %		15:55:02
1	Al 396.153Radial†	592151.3	670414.7	536450 ug/L	536450 ppb	15:54:57
1	Ca 317.933Radial†	261434.3	295969.0	489300 ug/L	489300 ppb	15:54:57
1	Fe 238.204 Radial†	19033.9	21536.8	185980 ug/L	185980 ppb	15:55:02
1	K 766.490 Radial†	25269.6	25934.1	5318.8 ug/L	5318.8 ppb	15:54:57
1	Mg 279.077 IEC†	13158.0	14894.5	490470 ug/L	490470 ppb	15:55:02
1	Na 589.592 Radial†	16522.6	19805.2	5321.4 ug/L	5321.4 ppb	15:55:02
1	Sr 421.552†	71894.8	81385.9	517.22 ug/L	517.22 ppb	15:54:57
1	Sc 361.383	806665.4	806665.4	85.438 %		15:55:30
1	Y 371.029	665247.9	665247.9	83.430 %		15:55:30
1	Ag 328.068†	42575.7	49420.9	272.53 ug/L	272.53 ppb	15:55:30
1	As 188.979†	967.0	1151.4	514.93 ug/L	514.93 ppb	15:55:50
1	B 249.677†	20711.1	24768.4	505.92 ug/L	505.92 ppb	15:55:30
1	Ba 233.527†	57165.2	66888.5	495.83 ug/L	495.83 ppb	15:55:30
1	Be 313.107†	590960.9	696212.2	247.47 ug/L	247.47 ppb	15:55:30
1	Cd 226.502†	38196.7	44923.6	460.77 ug/L	460.77 ppb	15:55:50
1	Co 228.616†	19409.3	22790.7	442.15 ug/L	442.15 ppb	15:55:50
1	Cr 267.716†	37967.4	44358.3	489.49 ug/L	489.49 ppb	15:55:30
1	Cu 324.752†	165143.1	187122.8	554.91 ug/L	554.91 ppb	15:55:30
1	Mn 257.610†	390718.4	456854.9	481.84 ug/L	481.84 ppb	15:55:30
1	Mo 202.031†	6053.6	7066.6	494.84 ug/L	494.84 ppb	15:55:50
1	Ni 231.604†	15994.6	18620.1	448.98 ug/L	448.98 ppb	15:55:50
1	P 214.914†	3939.3	4376.1	2397.1 ug/L	2397.1 ppb	15:55:50
1	Pb 220.353†	2570.7	3062.6	466.94 ug/L	466.94 ppb	15:55:50
1	S 181.975 Axial†	1751.5	2008.5	2591.9 ug/L	2591.9 ppb	15:55:50
1	Sb 206.836†	1429.5	1634.4	544.87 ug/L	544.87 ppb	15:55:50
1	Se 196.026†	2524.3	2987.5	2564.2 ug/L	2564.2 ppb	15:55:50
1	Si 251.611†	148409.8	173206.9	5234.0 ug/L	5234.0 ppb	15:55:30
1	Sn 189.927†	2145.4	2503.6	496.56 ug/L	496.56 ppb	15:55:50
1	Ti 334.940†	273152.2	321095.7	511.03 ug/L	511.03 ppb	15:55:30
1	Tl 190.801†	1290.5	1549.2	451.16 ug/L	451.16 ppb	15:55:50
1	U 409.014†	14367.6	18461.3	500.50 ug/L	500.50 ppb	15:55:30
1	V 292.402†	66579.3	79404.3	511.43 ug/L	511.43 ppb	15:55:30
1	Zn 213.857†	50339.1	58210.9	502.80 ug/L	502.80 ppb	15:55:30
1	SiO2†	147631.0	172267.5	11226 ug/L	11226 ppb	15:56:48
2	Sc Radial	4726.9	4726.9	88.7 %		15:55:12
2	Y RADIAL	4981.9	4981.9	88.26 %		15:55:12
2	Al 396.153Radial†	594627.1	670130.0	536220 ug/L	536220 ppb	15:55:07
2	Ca 317.933Radial†	262797.3	296147.5	489600 ug/L	489600 ppb	15:55:07
2	Fe 238.204 Radial†	19096.3	21508.3	185740 ug/L	185740 ppb	15:55:12
2	K 766.490 Radial†	25422.0	25974.6	5327.3 ug/L	5327.3 ppb	15:55:07
2	Mg 279.077 IEC†	13114.3	14777.0	486590 ug/L	486590 ppb	15:55:12
2	Na 589.592 Radial†	16556.0	19757.0	5308.4 ug/L	5308.4 ppb	15:55:12
2	Sr 421.552†	72103.2	81247.4	516.33 ug/L	516.33 ppb	15:55:07
2	Sc 361.383	804935.2	804935.2	85.255 %		15:55:56
2	Y 371.029	664552.5	664552.5	83.343 %		15:55:56
2	Ag 328.068†	42689.3	49661.3	273.51 ug/L	273.51 ppb	15:55:56
2	As 188.979†	992.8	1184.1	528.17 ug/L	528.17 ppb	15:56:16
2	B 249.677†	20668.7	24770.9	506.02 ug/L	506.02 ppb	15:55:56
2	Ba 233.527†	57075.3	66926.9	496.11 ug/L	496.11 ppb	15:55:56
2	Be 313.107†	590379.7	697017.1	247.75 ug/L	247.75 ppb	15:55:56
2	Cd 226.502†	37911.5	44685.2	458.25 ug/L	458.25 ppb	15:56:16
2	Co 228.616†	19230.9	22630.3	439.02 ug/L	439.02 ppb	15:56:16
2	Cr 267.716†	37735.7	44182.0	487.56 ug/L	487.56 ppb	15:55:56
2	Cu 324.752†	164335.6	186591.2	553.35 ug/L	553.35 ppb	15:55:56
2	Mn 257.610†	389345.1	456227.1	481.31 ug/L	481.31 ppb	15:55:56
2	Mo 202.031†	6022.8	7045.6	493.41 ug/L	493.41 ppb	15:56:16
2	Ni 231.604†	15914.2	18566.1	447.68 ug/L	447.68 ppb	15:56:16

2	P 214.914†	3881.6	4318.4	2364.3 ug/L	2364.3 ppb	15:56:16
2	Pb 220.353†	2532.4	3024.2	462.40 ug/L	462.40 ppb	15:56:16
2	S 181.975 Axial†	1725.5	1982.4	2556.9 ug/L	2556.9 ppb	15:56:16
2	Sb 206.836†	1414.5	1620.4	540.17 ug/L	540.17 ppb	15:56:16
2	Se 196.026†	2488.1	2951.3	2541.1 ug/L	2541.1 ppb	15:56:16
2	Si 251.611†	147787.3	172850.1	5223.2 ug/L	5223.2 ppb	15:55:56
2	Sn 189.927†	2117.5	2476.2	492.01 ug/L	492.01 ppb	15:56:16
2	Ti 334.940†	272521.4	321043.0	511.31 ug/L	511.31 ppb	15:55:56
2	Tl 190.801†	1274.2	1533.4	446.57 ug/L	446.57 ppb	15:56:16
2	U 409.014†	14294.0	18411.1	499.11 ug/L	499.11 ppb	15:55:56
2	V 292.402†	66561.7	79551.2	512.34 ug/L	512.34 ppb	15:55:56
2	Zn 213.857†	50243.8	58225.8	502.97 ug/L	502.97 ppb	15:55:56
2	SiO2†	146763.8	171621.7	11183 ug/L	11183 ppb	15:56:53
3	Sc Radial	4748.9	4748.9	89.1 %		15:55:23
3	Y RADIAL	4984.3	4984.3	88.30 %		15:55:23
3	Al 396.153Radial†	585757.7	657082.3	525780 ug/L	525780 ppb	15:55:18
3	Ca 317.933Radial†	258216.2	289639.2	478840 ug/L	478840 ppb	15:55:18
3	Fe 238.204 Radial†	19119.9	21435.3	185100 ug/L	185100 ppb	15:55:23
3	K 766.490 Radial†	25163.2	25551.9	5241.5 ug/L	5241.5 ppb	15:55:18
3	Mg 279.077 IEC†	13146.6	14744.8	485540 ug/L	485540 ppb	15:55:23
3	Na 589.592 Radial†	16584.7	19703.0	5293.9 ug/L	5293.9 ppb	15:55:23
3	Sr 421.552†	70911.3	79534.7	505.45 ug/L	505.45 ppb	15:55:18
3	Sc 361.383	817213.7	817213.7	86.556 %		15:56:22
3	Y 371.029	674497.8	674497.8	84.590 %		15:56:22
3	Ag 328.068†	43159.5	49452.2	272.53 ug/L	272.53 ppb	15:56:22
3	As 188.979†	977.1	1148.4	513.52 ug/L	513.52 ppb	15:56:42
3	B 249.677†	21041.5	24837.4	507.57 ug/L	507.57 ppb	15:56:22
3	Ba 233.527†	57805.2	66764.3	494.90 ug/L	494.90 ppb	15:56:22
3	Be 313.107†	599531.5	697186.0	247.81 ug/L	247.81 ppb	15:56:22
3	Cd 226.502†	38199.1	44349.3	454.73 ug/L	454.73 ppb	15:56:42
3	Co 228.616†	19359.9	22440.5	435.32 ug/L	435.32 ppb	15:56:42
3	Cr 267.716†	38270.9	44135.3	487.03 ug/L	487.03 ppb	15:56:22
3	Cu 324.752†	167426.6	187266.1	555.28 ug/L	555.28 ppb	15:56:22
3	Mn 257.610†	394686.1	455536.0	480.56 ug/L	480.56 ppb	15:56:22
3	Mo 202.031†	6099.1	7027.7	492.03 ug/L	492.03 ppb	15:56:42
3	Ni 231.604†	16022.2	18410.3	443.93 ug/L	443.93 ppb	15:56:42
3	P 214.914†	3954.0	4333.6	2370.6 ug/L	2370.6 ppb	15:56:42
3	Pb 220.353†	2563.2	3015.1	458.96 ug/L	458.96 ppb	15:56:42
3	S 181.975 Axial†	1759.0	1990.7	2570.0 ug/L	2570.0 ppb	15:56:42
3	Sb 206.836†	1415.9	1597.2	532.73 ug/L	532.73 ppb	15:56:42
3	Se 196.026†	2509.7	2932.5	2525.9 ug/L	2525.9 ppb	15:56:42
3	Si 251.611†	150079.0	172893.3	5224.6 ug/L	5224.6 ppb	15:56:22
3	Sn 189.927†	2141.0	2466.1	488.66 ug/L	488.66 ppb	15:56:42
3	Ti 334.940†	276243.4	320540.4	509.19 ug/L	509.19 ppb	15:56:22
3	Tl 190.801†	1292.2	1531.6	446.08 ug/L	446.08 ppb	15:56:42
3	U 409.014†	14511.3	18410.2	499.16 ug/L	499.16 ppb	15:56:22
3	V 292.402†	67433.5	79385.3	511.30 ug/L	511.30 ppb	15:56:22
3	Zn 213.857†	50826.9	58014.1	501.15 ug/L	501.15 ppb	15:56:22
3	SiO2†	148613.5	171172.2	11154 ug/L	11154 ppb	15:56:58

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	809604.8	85.750 %	0.7039			0.82%
Sc Radial	4727.0	88.7 %	0.41			0.46%
Y 371.029	668099.4	83.788 %	0.6963			0.83%
Y RADIAL	4979.4	88.21 %	0.118			0.13%
Ag 328.068†	49511.4	272.86 ug/L	0.566	272.86 ppb	0.566	0.21%
QC value within limits for Ag 328.068 Recovery = 109.14%						
Al 396.153Radial†	665875.7	532820 ug/L	6094.8	532820 ppb	6094.8	1.14%
QC value within limits for Al 396.153Radial Recovery = 106.56%						
As 188.979†	1161.3	518.87 ug/L	8.083	518.87 ppb	8.083	1.56%
QC value within limits for As 188.979 Recovery = 103.77%						
B 249.677†	24792.3	506.50 ug/L	0.929	506.50 ppb	0.929	0.18%
QC value within limits for B 249.677 Recovery = 101.30%						
Ba 233.527†	66859.9	495.61 ug/L	0.634	495.61 ppb	0.634	0.13%
QC value within limits for Ba 233.527 Recovery = 99.12%						
Be 313.107†	696805.1	247.68 ug/L	0.183	247.68 ppb	0.183	0.07%
QC value within limits for Be 313.107 Recovery = 99.07%						
Ca 317.933Radial†	293918.6	485910 ug/L	6128.6	485910 ppb	6128.6	1.26%

QC value within limits for Ca 317.933 Radial Recovery = 97.18%

Cd 226.502†	44652.7	457.92 ug/L	3.036	457.92 ppb	3.036	0.66%
QC value within limits for Cd 226.502 Recovery = 91.58%						
Co 228.616†	22620.5	438.83 ug/L	3.417	438.83 ppb	3.417	0.78%
QC value within limits for Co 228.616 Recovery = 87.77%						
Cr 267.716†	44225.2	488.03 ug/L	1.294	488.03 ppb	1.294	0.27%
QC value within limits for Cr 267.716 Recovery = 97.61%						
Cu 324.752†	186993.4	554.51 ug/L	1.026	554.51 ppb	1.026	0.19%
QC value within limits for Cu 324.752 Recovery = 110.90%						
Fe 238.204 Radial†	21493.5	185610 ug/L	452.3	185610 ppb	452.3	0.24%
QC value within limits for Fe 238.204 Radial Recovery = 92.80%						
K 766.490 Radial†	25820.2	5295.9 ug/L	47.28	5295.9 ppb	47.28	0.89%
QC value within limits for K 766.490 Radial Recovery = 105.92%						
Mg 279.077 IEC†	14805.4	487530 ug/L	2596.0	487530 ppb	2596.0	0.53%
QC value within limits for Mg 279.077 IEC Recovery = 97.51%						
Mn 257.610†	456206.0	481.23 ug/L	0.644	481.23 ppb	0.644	0.13%
QC value within limits for Mn 257.610 Recovery = 96.25%						
Mo 202.031†	7046.7	493.43 ug/L	1.402	493.43 ppb	1.402	0.28%
QC value within limits for Mo 202.031 Recovery = 98.69%						
Na 589.592 Radial†	19755.1	5307.9 ug/L	13.74	5307.9 ppb	13.74	0.26%
QC value within limits for Na 589.592 Radial Recovery = 106.16%						
Ni 231.604†	18532.2	446.86 ug/L	2.626	446.86 ppb	2.626	0.59%
QC value within limits for Ni 231.604 Recovery = 89.37%						
P 214.914†	4342.7	2377.3 ug/L	17.41	2377.3 ppb	17.41	0.73%
QC value within limits for P 214.914 Recovery = 95.09%						
Pb 220.353†	3034.0	462.77 ug/L	4.003	462.77 ppb	4.003	0.87%
QC value within limits for Pb 220.353 Recovery = 92.55%						
S 181.975 Axial†	1993.9	2573.0 ug/L	17.67	2573.0 ppb	17.67	0.69%
QC value within limits for S 181.975 Axial Recovery = 102.92%						
Sb 206.836†	1617.3	539.26 ug/L	6.124	539.26 ppb	6.124	1.14%
QC value within limits for Sb 206.836 Recovery = 107.85%						
Se 196.026†	2957.1	2543.7 ug/L	19.30	2543.7 ppb	19.30	0.76%
QC value within limits for Se 196.026 Recovery = 101.75%						
Si 251.611†	172983.4	5227.3 ug/L	5.88	5227.3 ppb	5.88	0.11%
QC value within limits for Si 251.611 Recovery = 104.55%						
Sn 189.927†	2482.0	492.41 ug/L	3.961	492.41 ppb	3.961	0.80%
QC value within limits for Sn 189.927 Recovery = 98.48%						
Sr 421.552†	80722.7	513.00 ug/L	6.554	513.00 ppb	6.554	1.28%
QC value within limits for Sr 421.552 Recovery = 102.60%						
Ti 334.940†	320893.1	510.51 ug/L	1.151	510.51 ppb	1.151	0.23%
QC value within limits for Ti 334.940 Recovery = 102.10%						
Tl 190.801†	1538.1	447.94 ug/L	2.800	447.94 ppb	2.800	0.63%
QC value within limits for Tl 190.801 Recovery = 89.59%						
U 409.014†	18427.5	499.59 ug/L	0.788	499.59 ppb	0.788	0.16%
QC value within limits for U 409.014 Recovery = 99.92%						
V 292.402†	79446.9	511.69 ug/L	0.564	511.69 ppb	0.564	0.11%
QC value within limits for V 292.402 Recovery = 102.34%						
Zn 213.857†	58150.3	502.31 ug/L	1.009	502.31 ppb	1.009	0.20%
QC value within limits for Zn 213.857 Recovery = 100.46%						
SiO2†	171687.2	11188 ug/L	35.9	11188 ppb	35.9	0.32%
QC value within limits for SiO2 Recovery = 104.61%						

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: LR1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 15  
 Date Collected: 1/18/2010 15:59:09  
 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	4756.8	4756.8	89.3 %		16:01:07
1	Y RADIAL	5040.9	5040.9	89.30 %		16:01:07
1	Al 396.153Radial†	572987.9	641677.1	513480 ug/L	513480 ppb	16:01:02
1	Ca 317.933Radial†	255283.6	285868.2	472600 ug/L	472600 ppb	16:01:02
1	Fe 238.204 Radial†	45414.7	50846.5	439050 ug/L	439050 ppb	16:01:07
1	K 766.490 Radial†	3222.0	932.8	-162.11 ug/L	-162.11 ppb	16:01:02
1	Mg 279.077 IEC†	13078.0	14643.2	481920 ug/L	481920 ppb	16:01:07
1	Na 589.592 Radial†	1714723.5	1921395.3	516250 ug/L	516250 ppb	16:01:02
1	Sr 421.552†	801.0	885.4	2.1378 ug/L	2.1378 ppb	16:01:07
1	Sc 361.383	790510.0	790510.0	83.727 %		16:01:35
1	Y 371.029	655606.8	655606.8	82.221 %		16:01:35
1	Ag 328.068†	-23251.3	-28181.5	-0.0383 ug/L	-0.0383 ppb	16:01:35
1	As 188.979†	-187.5	-204.3	19.620 ug/L	19.620 ppb	16:01:55
1	B 249.677†	1216.7	1980.7	-28.343 ug/L	-28.343 ppb	16:01:35
1	Ba 233.527†	-1631.7	-1968.5	-0.9754 ug/L	-0.9754 ppb	16:01:55
1	Be 313.107†	-10973.1	-8575.0	-3.0924 ug/L	-3.0924 ppb	16:01:35
1	Cd 226.502†	3330.9	4195.2	2.3045 ug/L	2.3045 ppb	16:01:55
1	Co 228.616†	177.2	285.1	-0.8213 ug/L	-0.8213 ppb	16:01:55
1	Cr 267.716†	46.1	-25.0	2.4646 ug/L	2.4646 ppb	16:01:55
1	Cu 324.752†	32.1	-6128.1	-2.7651 ug/L	-2.7651 ppb	16:01:35
1	Mn 257.610†	-25167.8	-30514.8	-8.6559 ug/L	-8.6559 ppb	16:01:35
1	Mo 202.031†	-463.4	-572.3	1.2718 ug/L	1.2718 ppb	16:01:55
1	Ni 231.604†	322.2	284.3	6.8565 ug/L	6.8565 ppb	16:01:55
1	P 214.914†	579.5	457.6	40.470 ug/L	40.470 ppb	16:01:55
1	Pb 220.353†	-598.9	-661.6	-1.1823 ug/L	-1.1823 ppb	16:01:55
1	S 181.975 Axial†	82.3	56.7	-20.161 ug/L	-20.161 ppb	16:01:55
1	Sb 206.836†	49.7	20.6	2.1559 ug/L	2.1559 ppb	16:01:55
1	Se 196.026†	-2369.2	-2796.7	-96.606 ug/L	-96.606 ppb	16:01:55
1	Si 251.611†	-484.0	-1075.2	-32.053 ug/L	-32.053 ppb	16:01:55
1	Sn 189.927†	-385.1	-467.4	0.9664 ug/L	0.9664 ppb	16:01:55
1	Ti 334.940†	-15304.5	-16890.2	-8.0304 ug/L	-8.0304 ppb	16:01:35
1	Tl 190.801†	-88.3	-66.7	-19.709 ug/L	-19.709 ppb	16:01:55
1	U 409.014†	433593.8	519509.8	14662 ug/L	14662 ppb	16:01:35
1	V 292.402†	2116.8	4005.7	-0.6545 ug/L	-0.6545 ppb	16:01:35
1	Zn 213.857†	5912.3	6353.7	14.633 ug/L	14.633 ppb	16:01:55
1	SiO2†	-599.5	-1241.0	-79.913 ug/L	-79.913 ppb	16:02:52
2	Sc Radial	4672.9	4672.9	87.7 %		16:01:17
2	Y RADIAL	4951.1	4951.1	87.71 %		16:01:17
2	Al 396.153Radial†	568507.7	648099.9	518620 ug/L	518620 ppb	16:01:12
2	Ca 317.933Radial†	254153.9	289717.4	478970 ug/L	478970 ppb	16:01:12
2	Fe 238.204 Radial†	44512.4	50731.7	438060 ug/L	438060 ppb	16:01:17
2	K 766.490 Radial†	3133.5	896.8	-174.37 ug/L	-174.37 ppb	16:01:12
2	Mg 279.077 IEC†	12827.1	14620.4	481170 ug/L	481170 ppb	16:01:17
2	Na 589.592 Radial†	1705558.7	1945452.6	522720 ug/L	522720 ppb	16:01:12
2	Sr 421.552†	792.9	892.2	2.1338 ug/L	2.1338 ppb	16:01:17
2	Sc 361.383	794055.6	794055.6	84.103 %		16:02:01
2	Y 371.029	658213.4	658213.4	82.548 %		16:02:01
2	Ag 328.068†	-23491.8	-28343.5	-1.1570 ug/L	-1.1570 ppb	16:02:01
2	As 188.979†	-183.6	-198.7	21.676 ug/L	21.676 ppb	16:02:21
2	B 249.677†	1228.3	1988.0	-28.024 ug/L	-28.024 ppb	16:02:01
2	Ba 233.527†	-1721.1	-2066.1	-1.7214 ug/L	-1.7214 ppb	16:02:21
2	Be 313.107†	-10874.0	-8398.7	-3.0299 ug/L	-3.0299 ppb	16:02:01
2	Cd 226.502†	3292.2	4131.3	1.7239 ug/L	1.7239 ppb	16:02:21
2	Co 228.616†	205.1	317.2	-0.1857 ug/L	-0.1857 ppb	16:02:21
2	Cr 267.716†	91.8	29.1	3.0382 ug/L	3.0382 ppb	16:02:21
2	Cu 324.752†	-42.9	-6217.5	-3.0748 ug/L	-3.0748 ppb	16:02:01
2	Mn 257.610†	-25352.9	-30600.7	-8.8139 ug/L	-8.8139 ppb	16:02:01
2	Mo 202.031†	-493.5	-605.6	-0.9636 ug/L	-0.9636 ppb	16:02:21
2	Ni 231.604†	306.4	263.8	6.3601 ug/L	6.3601 ppb	16:02:21

2	P 214.914†	577.7	452.3	39.499 ug/L	39.499 ppb	16:02:21
2	Pb 220.353†	-605.1	-665.7	-0.3612 ug/L	-0.3612 ppb	16:02:21
2	S 181.975 Axial†	76.9	49.9	-30.289 ug/L	-30.289 ppb	16:02:21
2	Sb 206.836†	61.7	34.6	6.4720 ug/L	6.4720 ppb	16:02:21
2	Se 196.026†	-2344.5	-2754.7	-73.605 ug/L	-73.605 ppb	16:02:21
2	Si 251.611†	-524.0	-1120.2	-33.389 ug/L	-33.389 ppb	16:02:21
2	Sn 189.927†	-413.0	-498.6	-3.3012 ug/L	-3.3012 ppb	16:02:21
2	Ti 334.940†	-15332.7	-16842.1	-7.0404 ug/L	-7.0404 ppb	16:02:01
2	Tl 190.801†	-118.7	-102.4	-30.045 ug/L	-30.045 ppb	16:02:21
2	U 409.014†	435369.6	519308.9	14656 ug/L	14656 ppb	16:02:01
2	V 292.402†	2005.8	3862.4	-1.5095 ug/L	-1.5095 ppb	16:02:01
2	Zn 213.857†	5902.9	6311.0	14.348 ug/L	14.348 ppb	16:02:21
2	SiO2†	-467.6	-1080.9	-69.412 ug/L	-69.412 ppb	16:02:57
3	Sc Radial	4711.0	4711.0	88.4 %		16:01:28
3	Y RADIAL	5009.9	5009.9	88.75 %		16:01:28
3	Al 396.153Radial†	575872.6	651188.7	521090 ug/L	521090 ppb	16:01:23
3	Ca 317.933Radial†	256865.0	290440.8	480160 ug/L	480160 ppb	16:01:23
3	Fe 238.204 Radial†	44918.5	50780.8	438490 ug/L	438490 ppb	16:01:28
3	K 766.490 Radial†	3243.9	992.8	-154.95 ug/L	-154.95 ppb	16:01:23
3	Mg 279.077 IEC†	12895.0	14578.9	479800 ug/L	479800 ppb	16:01:28
3	Na 589.592 Radial†	1723370.2	1949875.4	523910 ug/L	523910 ppb	16:01:23
3	Sr 421.552†	797.1	889.7	2.1087 ug/L	2.1087 ppb	16:01:28
3	Sc 361.383	794794.1	794794.1	84.181 %		16:02:26
3	Y 371.029	657387.7	657387.7	82.445 %		16:02:26
3	Ag 328.068†	-23739.5	-28611.7	-2.2412 ug/L	-2.2412 ppb	16:02:26
3	As 188.979†	-184.6	-199.7	21.368 ug/L	21.368 ppb	16:02:46
3	B 249.677†	1355.0	2137.2	-24.854 ug/L	-24.854 ppb	16:02:26
3	Ba 233.527†	-1686.4	-2023.0	-1.3886 ug/L	-1.3886 ppb	16:02:46
3	Be 313.107†	-11034.2	-8577.0	-3.0935 ug/L	-3.0935 ppb	16:02:26
3	Cd 226.502†	3277.8	4110.7	1.4675 ug/L	1.4675 ppb	16:02:46
3	Co 228.616†	172.3	278.0	-0.9502 ug/L	-0.9502 ppb	16:02:46
3	Cr 267.716†	67.0	-0.5	2.7084 ug/L	2.7084 ppb	16:02:46
3	Cu 324.752†	6.8	-6158.4	-2.9036 ug/L	-2.9036 ppb	16:02:26
3	Mn 257.610†	-25363.8	-30585.6	-8.7003 ug/L	-8.7003 ppb	16:02:26
3	Mo 202.031†	-462.8	-568.6	1.5659 ug/L	1.5659 ppb	16:02:46
3	Ni 231.604†	291.3	245.5	5.9209 ug/L	5.9209 ppb	16:02:46
3	P 214.914†	572.2	445.2	35.701 ug/L	35.701 ppb	16:02:46
3	Pb 220.353†	-615.9	-677.8	-1.2725 ug/L	-1.2725 ppb	16:02:46
3	S 181.975 Axial†	107.7	86.4	18.190 ug/L	18.190 ppb	16:02:46
3	Sb 206.836†	64.7	38.1	7.6831 ug/L	7.6831 ppb	16:02:46
3	Se 196.026†	-2331.7	-2736.9	-60.856 ug/L	-60.856 ppb	16:02:46
3	Si 251.611†	-461.9	-1045.8	-31.168 ug/L	-31.168 ppb	16:02:46
3	Sn 189.927†	-393.7	-475.2	0.7997 ug/L	0.7997 ppb	16:02:46
3	Ti 334.940†	-15471.3	-16989.8	-7.0103 ug/L	-7.0103 ppb	16:02:26
3	Tl 190.801†	-109.4	-91.2	-26.800 ug/L	-26.800 ppb	16:02:46
3	U 409.014†	437023.1	520792.1	14698 ug/L	14698 ppb	16:02:26
3	V 292.402†	2276.5	4181.8	0.6182 ug/L	0.6182 ppb	16:02:26
3	Zn 213.857†	5873.7	6269.8	13.938 ug/L	13.938 ppb	16:02:46
3	SiO2†	-525.3	-1149.0	-73.920 ug/L	-73.920 ppb	16:03:02

## Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	793119.9	84.004 %		0.2426			0.29%
Sc Radial	4713.6	88.5 %		0.79			0.89%
Y 371.029	657069.3	82.405 %		0.1671			0.20%
Y RADIAL	5000.6	88.59 %		0.807			0.91%
Ag 328.068†	-28378.9	-1.1455 ug/L		1.10152	-1.1455 ppb	1.10152	96.16%
Al 396.153Radial†	646988.5	517730 ug/L		3882.8	517730 ppb	3882.8	0.75%
QC value within limits for Al 396.153Radial Recovery = 103.55%							
As 188.979†	-200.9	20.888 ug/L		1.1093	20.888 ppb	1.1093	5.31%
B 249.677†	2035.3	-27.074 ug/L		1.9286	-27.074 ppb	1.9286	7.12%
Ba 233.527†	-2019.2	-1.3618 ug/L		0.37374	-1.3618 ppb	0.37374	27.44%
Be 313.107†	-8516.9	-3.0719 ug/L		0.03642	-3.0719 ppb	0.03642	1.19%
Ca 317.933Radial†	288675.5	477240 ug/L		4063.5	477240 ppb	4063.5	0.85%
QC value within limits for Ca 317.933Radial Recovery = 95.45%							
Cd 226.502†	4145.7	1.8320 ug/L		0.42885	1.8320 ppb	0.42885	23.41%
Co 228.616†	293.4	-0.6524 ug/L		0.40927	-0.6524 ppb	0.40927	62.73%
Cr 267.716†	1.2	2.7371 ug/L		0.28790	2.7371 ppb	0.28790	10.52%
Cu 324.752†	-6168.0	-2.9145 ug/L		0.15512	-2.9145 ppb	0.15512	5.32%



Fe 238.204 Radial†	50786.3	438530 ug/L	497.1	438530 ppb	497.1	0.11%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.71%						
K 766.490 Radial†	940.8	-163.81 ug/L	9.825	-163.81 ppb	9.825	6.00%
Mg 279.077 IEC†	14614.2	480960 ug/L	1073.5	480960 ppb	1073.5	0.22%
QC value within limits for Mg 279.077 IEC Recovery = 96.19%						
Mn 257.610†	-30567.1	-8.7234 ug/L	0.08148	-8.7234 ppb	0.08148	0.93%
Mo 202.031†	-582.2	0.6247 ug/L	1.38337	0.6247 ppb	1.38337	221.45%
Na 589.592 Radial†	1938907.8	520960 ug/L	4118.1	520960 ppb	4118.1	0.79%
QC value within limits for Na 589.592 Radial Recovery = 104.19%						
Ni 231.604†	264.5	6.3792 ug/L	0.46810	6.3792 ppb	0.46810	7.34%
P 214.914†	451.7	38.557 ug/L	2.5202	38.557 ppb	2.5202	6.54%
Pb 220.353†	-668.4	-0.9387 ug/L	0.50213	-0.9387 ppb	0.50213	53.49%
S 181.975 Axial†	64.4	-10.753 ug/L	25.5725	-10.753 ppb	25.5725	237.81%
Sb 206.836†	31.1	5.4370 ug/L	2.90532	5.4370 ppb	2.90532	53.44%
Se 196.026†	-2762.8	-77.022 ug/L	18.1181	-77.022 ppb	18.1181	23.52%
Si 251.611†	-1080.4	-32.203 ug/L	1.1181	-32.203 ppb	1.1181	3.47%
Sn 189.927†	-480.4	-0.5117 ug/L	2.41722	-0.5117 ppb	2.41722	472.40%
Sr 421.552†	889.1	2.1268 ug/L	0.01579	2.1268 ppb	0.01579	0.74%
Ti 334.940†	-16907.3	-7.3604 ug/L	0.58050	-7.3604 ppb	0.58050	7.89%
Tl 190.801†	-86.8	-25.518 ug/L	5.2856	-25.518 ppb	5.2856	20.71%
U 409.014†	519870.3	14672 ug/L	22.8	14672 ppb	22.8	0.16%
QC value within limits for U 409.014 Recovery = 97.81%						
V 292.402†	4016.7	-0.5153 ug/L	1.07063	-0.5153 ppb	1.07063	207.78%
Zn 213.857†	6311.5	14.306 ug/L	0.3495	14.306 ppb	0.3495	2.44%
SiO2†	-1157.0	-74.415 ug/L	5.2679	-74.415 ppb	5.2679	7.08%
QC Failed. Continue with analysis.						

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 16

Date Collected: 1/18/2010 16:05:12

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	5110.9	5110.9	95.9 %		16:07:10
1	Y RADIAL	5382.9	5382.9	95.36 %		16:07:10
1	Al 396.153Radial†	562.8	582.0	-7.0301 ug/L	-7.0301 ppb	16:07:10
1	Ca 317.933Radial†	31.9	12.6	20.894 ug/L	20.894 ppb	16:07:30
1	Fe 238.204 Radial†	-19.2	-32.8	-1.0188 ug/L	-1.0188 ppb	16:07:30
1	K 766.490 Radial†	1353026.3	1407594.3	297710 ug/L	297710 ppb	16:07:05
1	Mg 279.077 IEC†	-4.9	-7.8	-154.08 ug/L	-154.08 ppb	16:07:30
1	Na 589.592 Radial†	-300.7	785.2	210.98 ug/L	210.98 ppb	16:07:10
1	Sr 421.552†	1509869.6	1573737.1	10072 ug/L	10072 ppb	16:07:05
1	Sc 361.383	889855.8	889855.8	94.249 %		16:08:47
1	Y 371.029	735798.1	735798.1	92.278 %		16:08:47
1	Ag 328.068†	-7309.0	-8166.1	4.8971 ug/L	4.8971 ppb	16:08:52
1	As 188.979†	23142.8	24574.4	10056 ug/L	10056 ppb	16:08:52
1	B 249.677†	218196.8	232037.4	5007.5 ug/L	5007.5 ppb	16:08:47
1	Ba 233.527†	1855524.3	1968717.6	14416 ug/L	14416 ppb	16:08:47
1	Be 313.107†	7696451.3	8170573.5	2913.6 ug/L	2913.6 ppb	16:08:40
1	Cd 226.502†	857470.5	910005.1	9721.3 ug/L	9721.3 ppb	16:08:47
1	Co 228.616†	455487.4	483351.9	9430.1 ug/L	9430.1 ppb	16:08:52
1	Cr 267.716†	2091894.6	2219449.4	24298 ug/L	24298 ppb	16:08:47
1	Cu 324.752†	6518833.3	6910407.1	20140 ug/L	20140 ppb	16:08:40
1	Mn 257.610†	8454642.1	8970038.3	9493.8 ug/L	9493.8 ppb	16:08:40
1	Mo 202.031†	136823.0	145152.4	9748.1 ug/L	9748.1 ppb	16:08:52
1	Ni 231.604†	384055.6	407387.8	9823.5 ug/L	9823.5 ppb	16:08:47
1	P 214.914†	29536.8	31104.4	13992 ug/L	13992 ppb	16:08:52
1	Pb 220.353†	195773.5	207772.2	24436 ug/L	24436 ppb	16:08:52
1	S 181.975 Axial†	35854.1	38000.1	50940 ug/L	50940 ppb	16:08:52
1	Sb 206.836†	29725.9	31500.9	10739 ug/L	10739 ppb	16:08:52
1	Se 196.026†	15386.3	16358.0	10060 ug/L	10060 ppb	16:08:52
1	Si 251.611†	1488381.9	1578696.9	47639 ug/L	47639 ppb	16:08:47
1	Sn 189.927†	58573.0	62139.3	10401 ug/L	10401 ppb	16:08:52
1	Ti 334.940†	6106783.5	6480771.7	9798.0 ug/L	9798.0 ppb	16:08:40
1	Tl 190.801†	31326.8	33276.9	9683.7 ug/L	9683.7 ppb	16:08:52
1	U 409.014†	-610.3	997.4	-26.067 ug/L	-26.067 ppb	16:08:52
1	V 292.402†	1448998.5	1538885.3	10236 ug/L	10236 ppb	16:08:47
1	Zn 213.857†	1486472.5	1576460.5	14113 ug/L	14113 ppb	16:08:47
1	SiO2†	1518000.3	1610094.6	104770 ug/L	104770 ppb	16:09:38
2	Sc Radial	5134.7	5134.7	96.4 %		16:07:40
2	Y RADIAL	5385.6	5385.6	95.41 %		16:07:40
2	Al 396.153Radial†	566.9	583.5	-9.3425 ug/L	-9.3425 ppb	16:07:40
2	Ca 317.933Radial†	31.7	12.3	20.305 ug/L	20.305 ppb	16:08:00
2	Fe 238.204 Radial†	-21.8	-35.4	-21.249 ug/L	-21.249 ppb	16:08:00
2	K 766.490 Radial†	1340940.1	1388528.3	293670 ug/L	293670 ppb	16:07:35
2	Mg 279.077 IEC†	-3.1	-5.9	-90.607 ug/L	-90.607 ppb	16:08:00
2	Na 589.592 Radial†	-368.9	716.0	192.38 ug/L	192.38 ppb	16:07:40
2	Sr 421.552†	1495996.2	1552060.3	9933.2 ug/L	9933.2 ppb	16:07:35
2	Sc 361.383	889419.7	889419.7	94.203 %		16:09:07
2	Y 371.029	735106.5	735106.5	92.191 %		16:09:07
2	Ag 328.068†	-7399.7	-8266.2	4.4157 ug/L	4.4157 ppb	16:09:12
2	As 188.979†	23418.1	24878.7	10180 ug/L	10180 ppb	16:09:12
2	B 249.677†	218248.9	232206.2	5010.9 ug/L	5010.9 ppb	16:09:07
2	Ba 233.527†	1858146.4	1972466.4	14443 ug/L	14443 ppb	16:09:07
2	Be 313.107†	7709968.9	8188927.1	2920.1 ug/L	2920.1 ppb	16:09:00
2	Cd 226.502†	858799.4	911861.8	9741.1 ug/L	9741.1 ppb	16:09:07
2	Co 228.616†	459538.0	487888.7	9518.8 ug/L	9518.8 ppb	16:09:12
2	Cr 267.716†	2090379.1	2218929.0	24293 ug/L	24293 ppb	16:09:07
2	Cu 324.752†	6513466.7	6908101.7	20133 ug/L	20133 ppb	16:09:00
2	Mn 257.610†	8470498.1	8991268.5	9516.2 ug/L	9516.2 ppb	16:09:00
2	Mo 202.031†	137786.4	146246.2	9821.5 ug/L	9821.5 ppb	16:09:12
2	Ni 231.604†	384425.1	407979.9	9837.7 ug/L	9837.7 ppb	16:09:07

2	P 214.914†	29916.3	31522.6	14234 ug/L	14234 ppb	16:09:12
2	Pb 220.353†	197485.0	209690.8	24662 ug/L	24662 ppb	16:09:12
2	S 181.975 Axial†	36408.6	38607.5	51754 ug/L	51754 ppb	16:09:12
2	Sb 206.836†	30000.5	31807.8	10842 ug/L	10842 ppb	16:09:12
2	Se 196.026†	15494.3	16480.7	10135 ug/L	10135 ppb	16:09:12
2	Si 251.611†	1487786.5	1578839.2	47642 ug/L	47642 ppb	16:09:07
2	Sn 189.927†	58997.8	62620.7	10482 ug/L	10482 ppb	16:09:12
2	Ti 334.940†	6114288.9	6491916.0	9814.9 ug/L	9814.9 ppb	16:09:00
2	Tl 190.801†	31592.9	33575.7	9770.0 ug/L	9770.0 ppb	16:09:12
2	U 409.014†	-813.2	781.7	-32.161 ug/L	-32.161 ppb	16:09:12
2	V 292.402†	1446907.6	1537419.6	10227 ug/L	10227 ppb	16:09:07
2	Zn 213.857†	1486940.4	1577730.5	14124 ug/L	14124 ppb	16:09:07
2	SiO2†	1492983.5	1584328.2	103090 ug/L	103090 ppb	16:09:44
3	Sc Radial	5105.9	5105.9	95.8 %		16:08:11
3	Y RADIAL	5336.7	5336.7	94.54 %		16:08:11
3	Al 396.153Radial†	542.6	561.4	-23.106 ug/L	-23.106 ppb	16:08:11
3	Ca 317.933Radial†	29.7	10.4	17.241 ug/L	17.241 ppb	16:08:31
3	Fe 238.204 Radial†	-18.5	-32.1	5.0996 ug/L	5.0996 ppb	16:08:31
3	K 766.490 Radial†	1338427.9	1393738.7	294780 ug/L	294780 ppb	16:08:06
3	Mg 279.077 IEC†	-4.8	-7.7	-150.48 ug/L	-150.48 ppb	16:08:31
3	Na 589.592 Radial†	-430.6	649.5	174.50 ug/L	174.50 ppb	16:08:11
3	Sr 421.552†	1498290.3	1563190.8	10004 ug/L	10004 ppb	16:08:06
3	Sc 361.383	895638.8	895638.8	94.862 %		16:09:27
3	Y 371.029	739459.8	739459.8	92.737 %		16:09:27
3	Ag 328.068†	-7461.9	-8277.2	4.3067 ug/L	4.3067 ppb	16:09:32
3	As 188.979†	23345.4	24629.4	10080 ug/L	10080 ppb	16:09:32
3	B 249.677†	219616.4	232039.1	5007.5 ug/L	5007.5 ppb	16:09:27
3	Ba 233.527†	1869575.3	1970817.9	14431 ug/L	14431 ppb	16:09:27
3	Be 313.107†	7872612.6	8303549.5	2961.0 ug/L	2961.0 ppb	16:09:20
3	Cd 226.502†	864811.2	911869.0	9741.2 ug/L	9741.2 ppb	16:09:27
3	Co 228.616†	458802.1	483725.7	9437.1 ug/L	9437.1 ppb	16:09:32
3	Cr 267.716†	2103252.1	2217090.9	24273 ug/L	24273 ppb	16:09:27
3	Cu 324.752†	6681676.6	7037411.2	20510 ug/L	20510 ppb	16:09:20
3	Mn 257.610†	8644631.9	9112397.4	9644.5 ug/L	9644.5 ppb	16:09:20
3	Mo 202.031†	137606.3	145040.7	9740.6 ug/L	9740.6 ppb	16:09:32
3	Ni 231.604†	387362.0	408242.2	9844.1 ug/L	9844.1 ppb	16:09:27
3	P 214.914†	29833.4	31214.7	13982 ug/L	13982 ppb	16:09:32
3	Pb 220.353†	197351.1	208094.0	24473 ug/L	24473 ppb	16:09:32
3	S 181.975 Axial†	36254.3	38176.4	51176 ug/L	51176 ppb	16:09:32
3	Sb 206.836†	29978.1	31563.1	10758 ug/L	10758 ppb	16:09:32
3	Se 196.026†	15469.2	16340.0	10049 ug/L	10049 ppb	16:09:32
3	Si 251.611†	1496625.5	1577190.4	47593 ug/L	47593 ppb	16:09:27
3	Sn 189.927†	59035.8	62225.8	10416 ug/L	10416 ppb	16:09:32
3	Ti 334.940†	6248585.4	6588417.7	9960.9 ug/L	9960.9 ppb	16:09:20
3	Tl 190.801†	31566.2	33314.7	9696.7 ug/L	9696.7 ppb	16:09:32
3	U 409.014†	-387.2	1236.8	-19.232 ug/L	-19.232 ppb	16:09:32
3	V 292.402†	1454906.5	1535186.5	10211 ug/L	10211 ppb	16:09:27
3	Zn 213.857†	1496414.8	1576757.8	14115 ug/L	14115 ppb	16:09:27
3	SiO2†	1492134.7	1572428.5	102320 ug/L	102320 ppb	16:09:50

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	891638.1	94.438 %	0.3677			0.39%
Sc Radial	5117.2	96.1 %	0.29			0.30%
Y 371.029	736788.1	92.402 %	0.2934			0.32%
Y RADIAL	5368.4	95.10 %	0.487			0.51%
Ag 328.068†	-8236.5	4.5399 ug/L	0.31417	4.5399 ppb	0.31417	6.92%
Al 396.153Radial†	575.6	-13.159 ug/L	8.6909	-13.159 ppb	8.6909	66.04%
As 188.979†	24694.2	10106 ug/L	65.6	10106 ppb	65.6	0.65%
QC value within limits for As 188.979 Recovery = 101.06%						
B 249.677†	232094.2	5008.6 ug/L	1.97	5008.6 ppb	1.97	0.04%
QC value within limits for B 249.677 Recovery = 100.17%						
Ba 233.527†	1970667.3	14430 ug/L	13.7	14430 ppb	13.7	0.10%
QC value within limits for Ba 233.527 Recovery = 96.20%						
Be 313.107†	8221016.7	2931.6 ug/L	25.70	2931.6 ppb	25.70	0.88%
QC value within limits for Be 313.107 Recovery = 97.72%						
Ca 317.933Radial†	11.8	19.480 ug/L	1.9611	19.480 ppb	1.9611	10.07%
Cd 226.502†	911245.3	9734.5 ug/L	11.47	9734.5 ppb	11.47	0.12%
QC value within limits for Cd 226.502 Recovery = 97.35%						

Co 228.616†	484988.8	9462.0 ug/L	49.31	9462.0 ppb	49.31	0.52%
QC value within limits for Co 228.616 Recovery = 94.62%						
Cr 267.716†	2218489.8	24288 ug/L	13.6	24288 ppb	13.6	0.06%
QC value within limits for Cr 267.716 Recovery = 97.15%						
Cu 324.752†	6951973.3	20261 ug/L	215.7	20261 ppb	215.7	1.06%
QC value within limits for Cu 324.752 Recovery = 101.31%						
Fe 238.204 Radial†	-33.4	-5.7226 ug/L	13.78957	-5.7226 ppb	13.78957	240.97%
K 766.490 Radial†	1396620.4	295380 ug/L	2084.3	295380 ppb	2084.3	0.71%
QC value within limits for K 766.490 Radial Recovery = 98.46%						
Mg 279.077 IEC†	-7.1	-131.72 ug/L	35.651	-131.72 ppb	35.651	27.07%
Mn 257.610†	9024568.1	9551.5 ug/L	81.29	9551.5 ppb	81.29	0.85%
QC value within limits for Mn 257.610 Recovery = 95.51%						
Mo 202.031†	145479.8	9770.1 ug/L	44.73	9770.1 ppb	44.73	0.46%
QC value within limits for Mo 202.031 Recovery = 97.70%						
Na 589.592 Radial†	716.9	192.62 ug/L	18.242	192.62 ppb	18.242	9.47%
Ni 231.604†	407870.0	9835.1 ug/L	10.55	9835.1 ppb	10.55	0.11%
QC value within limits for Ni 231.604 Recovery = 98.35%						
P 214.914†	31280.6	14069 ug/L	143.1	14069 ppb	143.1	1.02%
QC value within limits for P 214.914 Recovery = 93.80%						
Pb 220.353†	208519.0	24524 ug/L	120.9	24524 ppb	120.9	0.49%
QC value within limits for Pb 220.353 Recovery = 98.09%						
S 181.975 Axial†	38261.4	51290 ug/L	418.9	51290 ppb	418.9	0.82%
QC value within limits for S 181.975 Axial Recovery = 102.58%						
Sb 206.836†	31623.9	10780 ug/L	55.0	10780 ppb	55.0	0.51%
QC value within limits for Sb 206.836 Recovery = 107.80%						
Se 196.026†	16392.9	10082 ug/L	47.0	10082 ppb	47.0	0.47%
QC value within limits for Se 196.026 Recovery = 100.82%						
Si 251.611†	1578242.2	47625 ug/L	27.3	47625 ppb	27.3	0.06%
QC value within limits for Si 251.611 Recovery = 95.25%						
Sn 189.927†	62328.6	10433 ug/L	43.0	10433 ppb	43.0	0.41%
QC value within limits for Sn 189.927 Recovery = 104.33%						
Sr 421.552†	1562996.1	10003 ug/L	69.4	10003 ppb	69.4	0.69%
QC value within limits for Sr 421.552 Recovery = 100.03%						
Ti 334.940†	6520368.4	9858.0 ug/L	89.58	9858.0 ppb	89.58	0.91%
QC value within limits for Ti 334.940 Recovery = 98.58%						
Tl 190.801†	33389.1	9716.8 ug/L	46.49	9716.8 ppb	46.49	0.48%
QC value within limits for Tl 190.801 Recovery = 97.17%						
U 409.014†	1005.3	-25.820 ug/L	6.4685	-25.820 ppb	6.4685	25.05%
V 292.402†	1537163.8	10225 ug/L	12.5	10225 ppb	12.5	0.12%
QC value within limits for V 292.402 Recovery = 102.25%						
Zn 213.857†	1576982.9	14118 ug/L	6.1	14118 ppb	6.1	0.04%
QC value within limits for Zn 213.857 Recovery = 94.12%						
SiO2†	1588950.4	103390 ug/L	1256.2	103390 ppb	1256.2	1.21%
QC value within limits for SiO2 Recovery = 96.63%						

All analyte(s) passed QC.

Sequence No.: 13  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 1/18/2010 16:12:00  
 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	5362.7	5362.7	101 %		16:13:52
1	Y RADIAL	5609.6	5609.6	99.38 %		16:13:52
1	Al 396.153Radial†	6268.3	6222.0	4955.2 ug/L	4955.2 ppb	16:13:52
1	Ca 317.933Radial†	2992.9	2952.5	4881.1 ug/L	4881.1 ppb	16:14:12
1	Fe 238.204 Radial†	583.6	567.0	4910.3 ug/L	4910.3 ppb	16:14:12
1	K 766.490 Radial†	26930.5	24076.4	5086.2 ug/L	5086.2 ppb	16:13:52
1	Mg 279.077 IEC†	158.0	154.3	5082.9 ug/L	5082.9 ppb	16:14:12
1	Na 589.592 Radial†	35229.1	36094.0	9698.0 ug/L	9698.0 ppb	16:13:52
1	Sr 421.552†	77575.4	77049.1	493.08 ug/L	493.08 ppb	16:13:52
1	Sc 361.383	934450.0	934450.0	98.973 %		16:15:09
1	Y 371.029	779522.9	779522.9	97.762 %		16:15:09
1	Ag 328.068†	111570.2	112317.0	496.91 ug/L	496.91 ppb	16:15:14
1	As 188.979†	1240.0	1272.4	521.69 ug/L	521.69 ppb	16:15:34
1	B 249.677†	23121.5	23889.0	516.10 ug/L	516.10 ppb	16:15:14
1	Ba 233.527†	66942.8	67617.9	495.59 ug/L	495.59 ppb	16:15:14
1	Be 313.107†	1385660.5	1404574.2	498.14 ug/L	498.14 ppb	16:15:09
1	Cd 226.502†	45449.8	46138.4	492.47 ug/L	492.47 ppb	16:15:14
1	Co 228.616†	24937.2	25269.5	493.16 ug/L	493.16 ppb	16:15:14
1	Cr 267.716†	44762.7	45147.2	494.58 ug/L	494.58 ppb	16:15:14
1	Cu 324.752†	173450.1	169084.0	492.77 ug/L	492.77 ppb	16:15:14
1	Mn 257.610†	466960.7	471352.1	499.15 ug/L	499.15 ppb	16:15:09
1	Mo 202.031†	7231.5	7287.8	489.87 ug/L	489.87 ppb	16:15:34
1	Ni 231.604†	20342.8	20453.5	493.19 ug/L	493.19 ppb	16:15:14
1	P 214.914†	4400.1	4211.2	2326.7 ug/L	2326.7 ppb	16:15:34
1	Pb 220.353†	4092.7	4189.0	494.02 ug/L	494.02 ppb	16:15:34
1	S 181.975 Axial†	755.4	721.7	966.51 ug/L	966.51 ppb	16:15:34
1	Sb 206.836†	1506.1	1483.1	506.14 ug/L	506.14 ppb	16:15:34
1	Se 196.026†	757.7	798.5	509.07 ug/L	509.07 ppb	16:15:34
1	Si 251.611†	81859.5	82212.0	2481.1 ug/L	2481.1 ppb	16:15:14
1	Sn 189.927†	2887.1	2909.6	487.85 ug/L	487.85 ppb	16:15:34
1	Ti 334.940†	316299.8	320971.7	485.55 ug/L	485.55 ppb	16:15:14
1	Tl 190.801†	1648.3	1704.1	495.84 ug/L	495.84 ppb	16:15:34
1	U 409.014†	15482.3	17288.0	487.90 ug/L	487.90 ppb	16:15:14
1	V 292.402†	72890.3	75124.4	500.43 ug/L	500.43 ppb	16:15:14
1	Zn 213.857†	55213.4	55078.8	491.94 ug/L	491.94 ppb	16:15:14
1	SiO2†	81757.1	82080.8	5341.5 ug/L	5341.5 ppb	16:16:42
2	Sc Radial	5203.2	5203.2	97.7 %		16:14:17
2	Y RADIAL	5479.6	5479.6	97.07 %		16:14:17
2	Al 396.153Radial†	6152.9	6294.9	5013.4 ug/L	5013.4 ppb	16:14:17
2	Ca 317.933Radial†	2994.0	3044.7	5033.6 ug/L	5033.6 ppb	16:14:37
2	Fe 238.204 Radial†	583.9	584.9	5065.8 ug/L	5065.8 ppb	16:14:37
2	K 766.490 Radial†	26559.1	24516.4	5179.2 ug/L	5179.2 ppb	16:14:17
2	Mg 279.077 IEC†	157.6	158.8	5229.6 ug/L	5229.6 ppb	16:14:37
2	Na 589.592 Radial†	34388.5	36306.6	9755.1 ug/L	9755.1 ppb	16:14:17
2	Sr 421.552†	76138.1	77940.6	498.78 ug/L	498.78 ppb	16:14:17
2	Sc 361.383	934061.4	934061.4	98.932 %		16:15:40
2	Y 371.029	780599.5	780599.5	97.897 %		16:15:40
2	Ag 328.068†	111490.8	112283.8	496.82 ug/L	496.82 ppb	16:15:45
2	As 188.979†	1233.6	1266.5	519.32 ug/L	519.32 ppb	16:16:05
2	B 249.677†	23017.1	23793.2	513.99 ug/L	513.99 ppb	16:15:45
2	Ba 233.527†	67141.6	67847.1	497.28 ug/L	497.28 ppb	16:15:45
2	Be 313.107†	1387049.6	1406560.8	498.84 ug/L	498.84 ppb	16:15:40
2	Cd 226.502†	45678.9	46389.1	495.13 ug/L	495.13 ppb	16:15:45
2	Co 228.616†	25006.7	25350.1	494.74 ug/L	494.74 ppb	16:15:45
2	Cr 267.716†	45062.2	45468.8	498.10 ug/L	498.10 ppb	16:15:45
2	Cu 324.752†	173281.2	168986.2	492.49 ug/L	492.49 ppb	16:15:45
2	Mn 257.610†	466365.5	470946.8	498.73 ug/L	498.73 ppb	16:15:40
2	Mo 202.031†	7274.6	7334.4	493.02 ug/L	493.02 ppb	16:16:05
2	Ni 231.604†	20435.5	20555.7	495.65 ug/L	495.65 ppb	16:15:45

2	P 214.914†	4427.6	4240.8	2343.7 ug/L	2343.7 ppb	16:16:05
2	Pb 220.353†	4120.9	4219.2	497.58 ug/L	497.58 ppb	16:16:05
2	S 181.975 Axial†	765.6	732.3	980.77 ug/L	980.77 ppb	16:16:05
2	Sb 206.836†	1525.7	1503.5	513.01 ug/L	513.01 ppb	16:16:05
2	Se 196.026†	756.0	797.0	508.77 ug/L	508.77 ppb	16:16:05
2	Si 251.611†	81965.4	82353.5	2485.3 ug/L	2485.3 ppb	16:15:45
2	Sn 189.927†	2916.5	2940.5	493.05 ug/L	493.05 ppb	16:16:05
2	Ti 334.940†	316607.5	321415.7	486.22 ug/L	486.22 ppb	16:15:45
2	Tl 190.801†	1660.4	1717.1	499.57 ug/L	499.57 ppb	16:16:05
2	U 409.014†	15584.8	17398.0	490.99 ug/L	490.99 ppb	16:15:45
2	V 292.402†	73186.4	75454.3	502.63 ug/L	502.63 ppb	16:15:45
2	Zn 213.857†	55260.5	55149.6	492.55 ug/L	492.55 ppb	16:15:45
2	SiO2†	81608.3	81964.7	5333.8 ug/L	5333.8 ppb	16:16:47
3	Sc Radial	5192.9	5192.9	97.5 %		16:14:42
3	Y RADIAL	5515.8	5515.8	97.71 %		16:14:42
3	Al 396.153Radial†	6152.9	6307.3	5023.4 ug/L	5023.4 ppb	16:14:42
3	Ca 317.933Radial†	3014.1	3071.4	5077.7 ug/L	5077.7 ppb	16:15:02
3	Fe 238.204 Radial†	583.5	585.8	5072.8 ug/L	5072.8 ppb	16:15:02
3	K 766.490 Radial†	26562.8	24573.8	5191.3 ug/L	5191.3 ppb	16:14:42
3	Mg 279.077 IEC†	157.4	158.8	5230.9 ug/L	5230.9 ppb	16:15:02
3	Na 589.592 Radial†	34634.1	36627.9	9841.4 ug/L	9841.4 ppb	16:14:42
3	Sr 421.552†	76309.9	78270.3	500.89 ug/L	500.89 ppb	16:14:42
3	Sc 361.383	943115.9	943115.9	99.891 %		16:16:11
3	Y 371.029	786420.2	786420.2	98.627 %		16:16:11
3	Ag 328.068†	110828.0	110538.3	489.11 ug/L	489.11 ppb	16:16:16
3	As 188.979†	1251.6	1272.6	521.75 ug/L	521.75 ppb	16:16:36
3	B 249.677†	22964.0	23516.6	508.01 ug/L	508.01 ppb	16:16:16
3	Ba 233.527†	66863.0	66916.6	490.45 ug/L	490.45 ppb	16:16:16
3	Be 313.107†	1400595.6	1406661.4	498.86 ug/L	498.86 ppb	16:16:11
3	Cd 226.502†	45425.1	45691.8	487.68 ug/L	487.68 ppb	16:16:16
3	Co 228.616†	24990.6	25091.4	489.70 ug/L	489.70 ppb	16:16:16
3	Cr 267.716†	44753.5	44722.4	489.92 ug/L	489.92 ppb	16:16:16
3	Cu 324.752†	172115.6	166137.8	484.19 ug/L	484.19 ppb	16:16:16
3	Mn 257.610†	472402.4	472464.6	500.34 ug/L	500.34 ppb	16:16:11
3	Mo 202.031†	7321.0	7310.2	491.39 ug/L	491.39 ppb	16:16:36
3	Ni 231.604†	20316.2	20238.0	487.99 ug/L	487.99 ppb	16:16:16
3	P 214.914†	4468.4	4238.8	2344.2 ug/L	2344.2 ppb	16:16:36
3	Pb 220.353†	4150.3	4208.6	496.34 ug/L	496.34 ppb	16:16:36
3	S 181.975 Axial†	785.6	745.0	997.71 ug/L	997.71 ppb	16:16:36
3	Sb 206.836†	1554.8	1517.8	517.70 ug/L	517.70 ppb	16:16:36
3	Se 196.026†	768.3	802.0	511.85 ug/L	511.85 ppb	16:16:36
3	Si 251.611†	81587.8	81180.1	2449.8 ug/L	2449.8 ppb	16:16:16
3	Sn 189.927†	2950.8	2946.5	494.07 ug/L	494.07 ppb	16:16:36
3	Ti 334.940†	314978.5	316712.5	479.12 ug/L	479.12 ppb	16:16:16
3	Tl 190.801†	1659.2	1699.8	494.55 ug/L	494.55 ppb	16:16:36
3	U 409.014†	15586.1	17248.1	486.76 ug/L	486.76 ppb	16:16:16
3	V 292.402†	72491.6	74048.6	493.37 ug/L	493.37 ppb	16:16:16
3	Zn 213.857†	54968.2	54320.8	485.14 ug/L	485.14 ppb	16:16:16
3	SiO2†	81461.3	81025.6	5272.6 ug/L	5272.6 ppb	16:16:52

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	937209.1	99.265 %		0.5422			0.55%
Sc Radial	5252.9	98.6 %		1.79			1.81%
Y 371.029	782180.9	98.095 %		0.4654			0.47%
Y RADIAL	5535.0	98.05 %		1.188			1.21%
Ag 328.068†	111713.0	494.28 ug/L		4.476	494.28 ppb	4.476	0.91%
QC value within limits for Ag 328.068 Recovery = 98.86%							
Al 396.153Radial†	6274.7	4997.3 ug/L		36.80	4997.3 ppb	36.80	0.74%
QC value within limits for Al 396.153Radial Recovery = 99.95%							
As 188.979†	1270.5	520.92 ug/L		1.383	520.92 ppb	1.383	0.27%
QC value within limits for As 188.979 Recovery = 104.18%							
B 249.677†	23732.9	512.70 ug/L		4.200	512.70 ppb	4.200	0.82%
QC value within limits for B 249.677 Recovery = 102.54%							
Ba 233.527†	67460.5	494.44 ug/L		3.554	494.44 ppb	3.554	0.72%
QC value within limits for Ba 233.527 Recovery = 98.89%							
Be 313.107†	1405932.1	498.61 ug/L		0.412	498.61 ppb	0.412	0.08%
QC value within limits for Be 313.107 Recovery = 99.72%							
Ca 317.933Radial†	3022.9	4997.4 ug/L		103.16	4997.4 ppb	103.16	2.06%

QC value within limits for Ca 317.933 Radial Recovery = 99.95%							
Cd 226.502†	46073.1	491.76 ug/L	3.776	491.76 ppb	3.776	0.77%	
QC value within limits for Cd 226.502 Recovery = 98.35%							
Co 228.616†	25237.0	492.53 ug/L	2.577	492.53 ppb	2.577	0.52%	
QC value within limits for Co 228.616 Recovery = 98.51%							
Cr 267.716†	45112.8	494.20 ug/L	4.102	494.20 ppb	4.102	0.83%	
QC value within limits for Cr 267.716 Recovery = 98.84%							
Cu 324.752†	168069.3	489.82 ug/L	4.874	489.82 ppb	4.874	1.00%	
QC value within limits for Cu 324.752 Recovery = 97.96%							
Fe 238.204 Radial†	579.2	5016.3 ug/L	91.83	5016.3 ppb	91.83	1.83%	
QC value within limits for Fe 238.204 Radial Recovery = 100.33%							
K 766.490 Radial†	24388.9	5152.2 ug/L	57.50	5152.2 ppb	57.50	1.12%	
QC value within limits for K 766.490 Radial Recovery = 103.04%							
Mg 279.077 IEC†	157.3	5181.1 ug/L	85.07	5181.1 ppb	85.07	1.64%	
QC value within limits for Mg 279.077 IEC Recovery = 103.62%							
Mn 257.610†	471587.8	499.41 ug/L	0.834	499.41 ppb	0.834	0.17%	
QC value within limits for Mn 257.610 Recovery = 99.88%							
Mo 202.031†	7310.8	491.43 ug/L	1.572	491.43 ppb	1.572	0.32%	
QC value within limits for Mo 202.031 Recovery = 98.29%							
Na 589.592 Radial†	36342.8	9764.8 ug/L	72.22	9764.8 ppb	72.22	0.74%	
QC value within limits for Na 589.592 Radial Recovery = 97.65%							
Ni 231.604†	20415.7	492.28 ug/L	3.911	492.28 ppb	3.911	0.79%	
QC value within limits for Ni 231.604 Recovery = 98.46%							
P 214.914†	4230.3	2338.2 ug/L	9.97	2338.2 ppb	9.97	0.43%	
QC value within limits for P 214.914 Recovery = 93.53%							
Pb 220.353†	4205.6	495.98 ug/L	1.807	495.98 ppb	1.807	0.36%	
QC value within limits for Pb 220.353 Recovery = 99.20%							
S 181.975 Axial†	733.0	981.66 ug/L	15.622	981.66 ppb	15.622	1.59%	
QC value within limits for S 181.975 Axial Recovery = 98.17%							
Sb 206.836†	1501.4	512.29 ug/L	5.817	512.29 ppb	5.817	1.14%	
QC value within limits for Sb 206.836 Recovery = 102.46%							
Se 196.026†	799.2	509.90 ug/L	1.698	509.90 ppb	1.698	0.33%	
QC value within limits for Se 196.026 Recovery = 101.98%							
Si 251.611†	81915.2	2472.1 ug/L	19.37	2472.1 ppb	19.37	0.78%	
QC value within limits for Si 251.611 Recovery = 98.88%							
Sn 189.927†	2932.2	491.66 ug/L	3.334	491.66 ppb	3.334	0.68%	
QC value within limits for Sn 189.927 Recovery = 98.33%							
Sr 421.552†	77753.3	497.58 ug/L	4.043	497.58 ppb	4.043	0.81%	
QC value within limits for Sr 421.552 Recovery = 99.52%							
Ti 334.940†	319700.0	483.63 ug/L	3.922	483.63 ppb	3.922	0.81%	
QC value within limits for Ti 334.940 Recovery = 96.73%							
Tl 190.801†	1707.0	496.66 ug/L	2.609	496.66 ppb	2.609	0.53%	
QC value within limits for Tl 190.801 Recovery = 99.33%							
U 409.014†	17311.4	488.55 ug/L	2.189	488.55 ppb	2.189	0.45%	
QC value within limits for U 409.014 Recovery = 97.71%							
V 292.402†	74875.8	498.81 ug/L	4.840	498.81 ppb	4.840	0.97%	
QC value within limits for V 292.402 Recovery = 99.76%							
Zn 213.857†	54849.8	489.88 ug/L	4.113	489.88 ppb	4.113	0.84%	
QC value within limits for Zn 213.857 Recovery = 97.98%							
SiO2†	81690.4	5316.0 ug/L	37.75	5316.0 ppb	37.75	0.71%	
QC value within limits for SiO2 Recovery = 99.41%							
All analyte(s) passed QC.							

Sequence No.: 14  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 1/18/2010 16:19:02  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5507.1	5507.1	103 %		16:20:54
1	Y RADIAL	5809.0	5809.0	102.9 %		16:20:54
1	Al 396.153Radial†	8.1	3.2	2.5454 ug/L	2.5454 ppb	16:20:54
1	Ca 317.933Radial†	23.7	2.3	3.7889 ug/L	3.7889 ppb	16:21:14
1	Fe 238.204 Radial†	12.8	-0.5	-4.2301 ug/L	-4.2301 ppb	16:21:14
1	K 766.490 Radial†	3073.0	297.1	62.833 ug/L	62.833 ppb	16:20:54
1	Mg 279.077 IEC†	4.3	1.5	50.982 ug/L	50.982 ppb	16:21:14
1	Na 589.592 Radial†	-1031.3	101.1	27.154 ug/L	27.154 ppb	16:20:54
1	Sr 421.552†	52.5	39.1	0.2501 ug/L	0.2501 ppb	16:20:54
1	Sc 361.383	912082.7	912082.7	96.604 %		16:22:11
1	Y 371.029	775579.3	775579.3	97.267 %		16:22:11
1	Ag 328.068†	369.6	-28.6	-0.1253 ug/L	-0.1253 ppb	16:22:11
1	As 188.979†	12.9	32.9	13.385 ug/L	13.385 ppb	16:22:31
1	B 249.677†	248.2	784.4	17.020 ug/L	17.020 ppb	16:22:11
1	Ba 233.527†	15.8	-3.4	-0.0243 ug/L	-0.0243 ppb	16:22:31
1	Be 313.107†	-4359.5	18.0	0.0062 ug/L	0.0062 ppb	16:22:11
1	Cd 226.502†	-194.5	15.5	0.1654 ug/L	0.1654 ppb	16:22:31
1	Co 228.616†	-73.9	-3.1	-0.0603 ug/L	-0.0603 ppb	16:22:31
1	Cr 267.716†	100.4	23.9	0.2623 ug/L	0.2623 ppb	16:22:31
1	Cu 324.752†	6119.5	168.2	0.4906 ug/L	0.4906 ppb	16:22:11
1	Mn 257.610†	510.7	73.0	0.0748 ug/L	0.0748 ppb	16:22:31
1	Mo 202.031†	24.3	6.4	0.4287 ug/L	0.4287 ppb	16:22:31
1	Ni 231.604†	98.7	1.7	0.0404 ug/L	0.0404 ppb	16:22:31
1	P 214.914†	221.9	-4.9	-2.9048 ug/L	-2.9048 ppb	16:22:31
1	Pb 220.353†	-36.8	15.6	1.8407 ug/L	1.8407 ppb	16:22:31
1	S 181.975 Axial†	40.9	0.9	1.1436 ug/L	1.1436 ppb	16:22:31
1	Sb 206.836†	58.7	22.1	7.2821 ug/L	7.2821 ppb	16:22:31
1	Se 196.026†	-30.0	1.8	1.0949 ug/L	1.0949 ppb	16:22:31
1	Si 251.611†	621.1	145.8	4.4061 ug/L	4.4061 ppb	16:22:31
1	Sn 189.927†	7.3	0.1	0.0120 ug/L	0.0120 ppb	16:22:31
1	Ti 334.940†	-1385.1	-45.0	-0.0713 ug/L	-0.0713 ppb	16:22:11
1	Tl 190.801†	-33.9	3.7	1.0552 ug/L	1.0552 ppb	16:22:31
1	U 409.014†	-1628.6	-40.9	-1.1581 ug/L	-1.1581 ppb	16:22:11
1	V 292.402†	-1389.9	38.8	0.2606 ug/L	0.2606 ppb	16:22:11
1	Zn 213.857†	841.7	163.6	1.4732 ug/L	1.4732 ppb	16:22:31
1	SiO2†	637.2	134.6	8.7725 ug/L	8.7725 ppb	16:23:27
2	Sc Radial	5418.2	5418.2	102 %		16:21:19
2	Y RADIAL	5734.6	5734.6	101.6 %		16:21:19
2	Al 396.153Radial†	-19.9	-24.2	-19.432 ug/L	-19.432 ppb	16:21:19
2	Ca 317.933Radial†	18.9	-2.0	-3.3361 ug/L	-3.3361 ppb	16:21:40
2	Fe 238.204 Radial†	10.6	-2.4	-20.582 ug/L	-20.582 ppb	16:21:40
2	K 766.490 Radial†	3132.1	404.0	85.437 ug/L	85.437 ppb	16:21:19
2	Mg 279.077 IEC†	0.9	-1.8	-59.558 ug/L	-59.558 ppb	16:21:40
2	Na 589.592 Radial†	-1034.1	82.0	22.019 ug/L	22.019 ppb	16:21:19
2	Sr 421.552†	30.5	18.3	0.1171 ug/L	0.1171 ppb	16:21:19
2	Sc 361.383	910086.4	910086.4	96.392 %		16:22:37
2	Y 371.029	774851.2	774851.2	97.176 %		16:22:37
2	Ag 328.068†	436.4	41.6	0.1786 ug/L	0.1786 ppb	16:22:37
2	As 188.979†	-0.4	19.1	7.7806 ug/L	7.7806 ppb	16:22:57
2	B 249.677†	209.2	744.6	16.157 ug/L	16.157 ppb	16:22:37
2	Ba 233.527†	16.2	-2.9	-0.0233 ug/L	-0.0233 ppb	16:22:57
2	Be 313.107†	-4353.7	14.1	0.0052 ug/L	0.0052 ppb	16:22:37
2	Cd 226.502†	-191.9	17.8	0.1913 ug/L	0.1913 ppb	16:22:57
2	Co 228.616†	-64.2	6.8	0.1346 ug/L	0.1346 ppb	16:22:57
2	Cr 267.716†	98.5	22.2	0.2436 ug/L	0.2436 ppb	16:22:57
2	Cu 324.752†	6068.6	129.3	0.3788 ug/L	0.3788 ppb	16:22:37
2	Mn 257.610†	487.4	50.1	0.0534 ug/L	0.0534 ppb	16:22:57
2	Mo 202.031†	34.4	16.9	1.1357 ug/L	1.1357 ppb	16:22:57
2	Ni 231.604†	94.1	-2.9	-0.0695 ug/L	-0.0695 ppb	16:22:57



2	P 214.914†	216.4	-10.1	-5.8498 ug/L	-5.8498 ppb	16:22:57
2	Pb 220.353†	-30.6	22.0	2.5895 ug/L	2.5895 ppb	16:22:57
2	S 181.975 Axial†	43.9	4.1	5.4676 ug/L	5.4676 ppb	16:22:57
2	Sb 206.836†	40.1	2.9	1.0125 ug/L	1.0125 ppb	16:22:57
2	Se 196.026†	-24.9	7.1	4.2901 ug/L	4.2901 ppb	16:22:57
2	Si 251.611†	645.0	172.0	5.1907 ug/L	5.1907 ppb	16:22:57
2	Sn 189.927†	20.3	13.6	2.2769 ug/L	2.2769 ppb	16:22:57
2	Ti 334.940†	-1280.1	60.7	0.0988 ug/L	0.0988 ppb	16:22:37
2	Tl 190.801†	-42.6	-5.5	-1.5740 ug/L	-1.5740 ppb	16:22:57
2	U 409.014†	-1781.6	-203.4	-5.7577 ug/L	-5.7577 ppb	16:22:37
2	V 292.402†	-1505.9	-84.8	-0.5505 ug/L	-0.5505 ppb	16:22:37
2	Zn 213.857†	822.1	145.2	1.3103 ug/L	1.3103 ppb	16:22:57
2	SiO2†	603.3	100.9	6.5514 ug/L	6.5514 ppb	16:23:32
3	Sc Radial	5318.7	5318.7	99.8 %		16:21:45
3	Y RADIAL	5653.8	5653.8	100.2 %		16:21:45
3	Al 396.153Radial†	36.0	31.4	25.088 ug/L	25.088 ppb	16:21:45
3	Ca 317.933Radial†	24.1	3.5	5.8151 ug/L	5.8151 ppb	16:22:05
3	Fe 238.204 Radial†	11.9	-0.9	-7.5326 ug/L	-7.5326 ppb	16:22:05
3	K 766.490 Radial†	3108.8	438.2	92.680 ug/L	92.680 ppb	16:21:45
3	Mg 279.077 IEC†	1.4	-1.3	-41.668 ug/L	-41.668 ppb	16:22:05
3	Na 589.592 Radial†	-1002.9	94.2	25.322 ug/L	25.322 ppb	16:21:45
3	Sr 421.552†	26.8	15.2	0.0971 ug/L	0.0971 ppb	16:21:45
3	Sc 361.383	916804.3	916804.3	97.104 %		16:23:02
3	Y 371.029	779823.1	779823.1	97.799 %		16:23:02
3	Ag 328.068†	392.0	-7.5	-0.0276 ug/L	-0.0276 ppb	16:23:02
3	As 188.979†	5.8	25.5	10.377 ug/L	10.377 ppb	16:23:22
3	B 249.677†	139.3	671.0	14.560 ug/L	14.560 ppb	16:23:02
3	Ba 233.527†	11.8	-7.5	-0.0540 ug/L	-0.0540 ppb	16:23:22
3	Be 313.107†	-4426.6	-27.9	-0.0098 ug/L	-0.0098 ppb	16:23:02
3	Cd 226.502†	-194.1	17.0	0.1808 ug/L	0.1808 ppb	16:23:22
3	Co 228.616†	-80.0	-9.0	-0.1739 ug/L	-0.1739 ppb	16:23:22
3	Cr 267.716†	89.7	12.3	0.1378 ug/L	0.1378 ppb	16:23:22
3	Cu 324.752†	6138.9	155.6	0.4570 ug/L	0.4570 ppb	16:23:02
3	Mn 257.610†	492.2	51.3	0.0552 ug/L	0.0552 ppb	16:23:22
3	Mo 202.031†	26.5	8.5	0.5686 ug/L	0.5686 ppb	16:23:22
3	Ni 231.604†	113.5	16.3	0.3940 ug/L	0.3940 ppb	16:23:22
3	P 214.914†	218.4	-9.7	-5.6133 ug/L	-5.6133 ppb	16:23:22
3	Pb 220.353†	-42.8	9.6	1.1401 ug/L	1.1401 ppb	16:23:22
3	S 181.975 Axial†	39.6	-0.8	-1.0493 ug/L	-1.0493 ppb	16:23:22
3	Sb 206.836†	57.0	20.0	6.6132 ug/L	6.6132 ppb	16:23:22
3	Se 196.026†	-30.1	1.9	1.1466 ug/L	1.1466 ppb	16:23:22
3	Si 251.611†	613.7	134.9	4.0736 ug/L	4.0736 ppb	16:23:22
3	Sn 189.927†	17.3	10.3	1.7306 ug/L	1.7306 ppb	16:23:22
3	Ti 334.940†	-1317.6	31.9	0.0556 ug/L	0.0556 ppb	16:23:02
3	Tl 190.801†	-39.3	-1.8	-0.5129 ug/L	-0.5129 ppb	16:23:22
3	U 409.014†	-1846.1	-256.2	-7.2558 ug/L	-7.2558 ppb	16:23:02
3	V 292.402†	-1364.0	72.9	0.4735 ug/L	0.4735 ppb	16:23:02
3	Zn 213.857†	813.1	129.6	1.1656 ug/L	1.1656 ppb	16:23:22
3	SiO2†	619.8	113.3	7.3738 ug/L	7.3738 ppb	16:23:37

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	912991.2	96.700 %	0.3654			0.38%
Sc Radial	5414.7	102 %	1.8			1.74%
Y 371.029	776751.2	97.414 %	0.3367			0.35%
Y RADIAL	5732.5	101.6 %	1.38			1.35%
Ag 328.068†	1.8	0.0086 ug/L	0.15512	0.0086 ppb	0.15512	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	3.5	2.7339 ug/L	22.26068	2.7339 ppb	22.26068	814.23%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	25.9	10.514 ug/L	2.8048	10.514 ppb	2.8048	26.68%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	733.3	15.912 ug/L	1.2482	15.912 ppb	1.2482	7.84%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-4.6	-0.0339 ug/L	0.01747	-0.0339 ppb	0.01747	51.55%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	1.4	0.0005 ug/L	0.00895	0.0005 ppb	0.00895	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	1.3	2.0893 ug/L	4.80654	2.0893 ppb	4.80654	230.06%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	16.8	0.1792 ug/L	0.01299	0.1792 ppb	0.01299	7.25%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-1.8	-0.0332 ug/L	0.15605	-0.0332 ppb	0.15605	470.14%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	19.4	0.2145 ug/L	0.06713	0.2145 ppb	0.06713	31.29%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	151.0	0.4421 ug/L	0.05737	0.4421 ppb	0.05737	12.97%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.2	-10.782 ug/L	8.6465	-10.782 ppb	8.6465	80.20%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	379.8	80.317 ug/L	15.5687	80.317 ppb	15.5687	19.38%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.5	-16.748 ug/L	59.3338	-16.748 ppb	59.3338	354.27%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	58.1	0.0612 ug/L	0.01186	0.0612 ppb	0.01186	19.39%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	10.6	0.7110 ug/L	0.37442	0.7110 ppb	0.37442	52.66%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	92.4	24.832 ug/L	2.6024	24.832 ppb	2.6024	10.48%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	5.0	0.1216 ug/L	0.24220	0.1216 ppb	0.24220	199.16%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-8.2	-4.7893 ug/L	1.63633	-4.7893 ppb	1.63633	34.17%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	15.8	1.8568 ug/L	0.72482	1.8568 ppb	0.72482	39.04%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	1.4	1.8540 ug/L	3.31601	1.8540 ppb	3.31601	178.86%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	15.0	4.9693 ug/L	3.44298	4.9693 ppb	3.44298	69.29%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	3.6	2.1772 ug/L	1.83001	2.1772 ppb	1.83001	84.05%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	150.9	4.5568 ug/L	0.57364	4.5568 ppb	0.57364	12.59%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	8.0	1.3398 ug/L	1.18191	1.3398 ppb	1.18191	88.21%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	24.2	0.1548 ug/L	0.08317	0.1548 ppb	0.08317	53.72%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	15.9	0.0277 ug/L	0.08839	0.0277 ppb	0.08839	319.33%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-1.2	-0.3439 ug/L	1.32275	-0.3439 ppb	1.32275	384.64%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-166.8	-4.7239 ug/L	3.17756	-4.7239 ppb	3.17756	67.27%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	9.0	0.0612 ug/L	0.54038	0.0612 ppb	0.54038	883.05%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	146.1	1.3164 ug/L	0.15384	1.3164 ppb	0.15384	11.69%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	116.3	7.5659 ug/L	1.12295	7.5659 ppb	1.12295	14.84%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

=====  
Analysis Begun

Start Time: 1/18/2010 16:35:07

Plasma On Time: 1/18/2010 05:48:39

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011810.sif

Batch ID:

Results Data Set: 011810

Results Library: C:\pe\Optima3\Results\Results.mdb

=====  
Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 1/18/2010 14:51:13

IEC File: 011110.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

=====  
Sequence No.: 1

Autosampler Location: 37

Sample ID: LR1

Date Collected: 1/18/2010 16:35:08

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5122.9	5122.9	96.2 %		16:37:02
1	Y RADIAL	5439.5	5439.5	96.36 %		16:37:02
1	Al 396.153Radial†	-34.6	-40.6	-31.292 ug/L	-31.292 ppb	16:37:02

1	Ca 317.933Radial†	17.0	-2.9	-4.7917 ug/L	-4.7917 ppb	16:37:22
1	Fe 238.204 Radial†	42186.9	43856.2	378690 ug/L	378690 ppb	16:37:02
1	K 766.490 Radial†	2646.4	76.4	16.213 ug/L	16.213 ppb	16:37:02
1	Mg 279.077 IEC†	13.5	11.4	-21.336 ug/L	-21.336 ppb	16:37:22
1	Na 589.592 Radial†	-1050.9	5.9	1.5722 ug/L	1.5722 ppb	16:37:02
1	Sr 421.552†	46.1	36.2	0.2319 ug/L	0.2319 ppb	16:37:02
1	Sc 361.383	907304.0	907304.0	96.097 %		16:38:19
1	Y 371.029	763029.0	763029.0	95.693 %		16:38:19
1	Ag 328.068†	-26340.2	-27821.1	0.4998 ug/L	0.4998 ppb	16:38:19
1	As 188.979†	-215.0	-204.2	5.7236 ug/L	5.7236 ppb	16:38:39
1	B 249.677†	1884.8	2488.9	-7.5131 ug/L	-7.5131 ppb	16:38:19
1	Ba 233.527†	-1916.0	-2013.5	-3.0795 ug/L	-3.0795 ppb	16:38:19
1	Be 313.107†	-4256.2	101.8	0.0359 ug/L	0.0359 ppb	16:38:19
1	Cd 226.502†	3196.3	3542.9	-1.2793 ug/L	-1.2793 ppb	16:38:19
1	Co 228.616†	195.9	277.2	-0.1222 ug/L	-0.1222 ppb	16:38:39
1	Cr 267.716†	-536.6	-638.4	0.4285 ug/L	0.4285 ppb	16:38:19
1	Cu 324.752†	-1802.1	-8041.8	-3.4250 ug/L	-3.4250 ppb	16:38:19
1	Mn 257.610†	-38583.6	-40606.1	-5.5903 ug/L	-5.5903 ppb	16:38:19
1	Mo 202.031†	-342.1	-374.8	4.2262 ug/L	4.2262 ppb	16:38:19
1	Ni 231.604†	230.8	139.6	3.3660 ug/L	3.3660 ppb	16:38:39
1	P 214.914†	749.3	545.2	13.205 ug/L	13.205 ppb	16:38:39
1	Pb 220.353†	212.3	274.7	-3.9479 ug/L	-3.9479 ppb	16:38:39
1	S 181.975 Axial†	67.5	28.8	38.548 ug/L	38.548 ppb	16:38:39
1	Sb 206.836†	25.2	-12.4	4.9802 ug/L	4.9802 ppb	16:38:39
1	Se 196.026†	-2070.2	-2121.3	32.306 ug/L	32.306 ppb	16:38:39
1	Si 251.611†	-707.4	-1233.3	-36.999 ug/L	-36.999 ppb	16:38:19
1	Sn 189.927†	-24.7	-33.2	0.8094 ug/L	0.8094 ppb	16:38:39
1	Ti 334.940†	-1379.0	-46.2	-0.1240 ug/L	-0.1240 ppb	16:38:19
1	Tl 190.801†	-44.9	-7.9	-2.6270 ug/L	-2.6270 ppb	16:38:39
1	U 409.014†	381.4	2041.8	14.664 ug/L	14.664 ppb	16:38:19
1	V 292.402†	6530.6	8273.4	-0.9969 ug/L	-0.9969 ppb	16:38:19
1	Zn 213.857†	4603.6	4082.9	0.0596 ug/L	0.0596 ppb	16:38:39
1	SiO2†	-729.4	-1284.0	-83.080 ug/L	-83.080 ppb	16:39:37
2	Sc Radial	5164.1	5164.1	96.9 %		16:37:27
2	Y RADIAL	5465.9	5465.9	96.83 %		16:37:27
2	Al 396.153Radial†	-13.7	-18.8	-13.814 ug/L	-13.814 ppb	16:37:27
2	Ca 317.933Radial†	14.2	-5.9	-9.7790 ug/L	-9.7790 ppb	16:37:47
2	Fe 238.204 Radial†	42604.2	43936.7	379390 ug/L	379390 ppb	16:37:27
2	K 766.490 Radial†	2652.0	60.2	12.791 ug/L	12.791 ppb	16:37:27
2	Mg 279.077 IEC†	13.2	10.9	-37.061 ug/L	-37.061 ppb	16:37:47
2	Na 589.592 Radial†	-1041.6	24.2	6.4889 ug/L	6.4889 ppb	16:37:27
2	Sr 421.552†	120.5	112.6	0.7210 ug/L	0.7210 ppb	16:37:27
2	Sc 361.383	911687.3	911687.3	96.562 %		16:38:45
2	Y 371.029	766314.8	766314.8	96.105 %		16:38:45
2	Ag 328.068†	-26507.8	-27862.8	0.5413 ug/L	0.5413 ppb	16:38:45
2	As 188.979†	-214.4	-202.5	6.5678 ug/L	6.5678 ppb	16:39:05
2	B 249.677†	1754.5	2344.4	-10.760 ug/L	-10.760 ppb	16:38:45
2	Ba 233.527†	-2029.0	-2121.0	-3.8426 ug/L	-3.8426 ppb	16:38:45
2	Be 313.107†	-4303.5	74.0	0.0259 ug/L	0.0259 ppb	16:38:45
2	Cd 226.502†	3239.2	3571.4	-1.0469 ug/L	-1.0469 ppb	16:38:45
2	Co 228.616†	186.0	266.1	-0.3505 ug/L	-0.3505 ppb	16:39:05
2	Cr 267.716†	-652.4	-755.7	-0.8417 ug/L	-0.8417 ppb	16:38:45
2	Cu 324.752†	-1816.1	-8047.2	-3.4056 ug/L	-3.4056 ppb	16:38:45
2	Mn 257.610†	-38931.5	-40773.4	-5.6980 ug/L	-5.6980 ppb	16:38:45
2	Mo 202.031†	-345.6	-376.7	4.1521 ug/L	4.1521 ppb	16:38:45
2	Ni 231.604†	219.6	126.9	3.0592 ug/L	3.0592 ppb	16:39:05
2	P 214.914†	730.2	521.6	-0.9016 ug/L	-0.9016 ppb	16:39:05
2	Pb 220.353†	200.0	260.9	-5.6332 ug/L	-5.6332 ppb	16:39:05
2	S 181.975 Axial†	56.6	17.1	22.970 ug/L	22.970 ppb	16:39:05
2	Sb 206.836†	26.8	-10.9	5.4854 ug/L	5.4854 ppb	16:39:05
2	Se 196.026†	-2048.1	-2088.1	55.144 ug/L	55.144 ppb	16:39:05
2	Si 251.611†	-681.9	-1203.4	-36.093 ug/L	-36.093 ppb	16:38:45
2	Sn 189.927†	-30.8	-39.4	-0.2157 ug/L	-0.2157 ppb	16:39:05
2	Ti 334.940†	-1418.1	-79.8	-0.1752 ug/L	-0.1752 ppb	16:38:45
2	Tl 190.801†	-44.7	-7.6	-2.5245 ug/L	-2.5245 ppb	16:39:05
2	U 409.014†	484.3	2146.4	17.550 ug/L	17.550 ppb	16:38:45
2	V 292.402†	6635.2	8349.0	-0.5969 ug/L	-0.5969 ppb	16:38:45
2	Zn 213.857†	4626.5	4083.6	0.0003 ug/L	0.0003 ppb	16:39:05
2	SiO2†	-724.1	-1274.9	-82.483 ug/L	-82.483 ppb	16:39:42
3	Sc Radial	5197.0	5197.0	97.6 %		16:37:52
3	Y RADIAL	5501.9	5501.9	97.47 %		16:37:52

3	Al 396.153Radial†	-28.5	-33.9	-25.910 ug/L	-25.910 ppb	16:37:52
3	Ca 317.933Radial†	12.5	-7.7	-12.778 ug/L	-12.778 ppb	16:38:12
3	Fe 238.204 Radial†	42777.5	43835.8	378520 ug/L	378520 ppb	16:37:52
3	K 766.490 Radial†	2663.6	54.8	11.650 ug/L	11.650 ppb	16:37:52
3	Mg 279.077 IEC†	11.7	9.3	-88.740 ug/L	-88.740 ppb	16:38:12
3	Na 589.592 Radial†	-1072.6	-0.8	-0.2159 ug/L	-0.2159 ppb	16:37:52
3	Sr 421.552†	63.5	53.4	0.3419 ug/L	0.3419 ppb	16:37:52
3	Sc 361.383	907797.9	907797.9	96.150 %		16:39:11
3	Y 371.029	763262.0	763262.0	95.722 %		16:39:11
3	Ag 328.068†	-26489.9	-27961.8	-0.1699 ug/L	-0.1699 ppb	16:39:11
3	As 188.979†	-215.8	-204.9	5.4020 ug/L	5.4020 ppb	16:39:31
3	B 249.677†	1873.7	2476.2	-7.7592 ug/L	-7.7592 ppb	16:39:11
3	Ba 233.527†	-1985.8	-2085.1	-3.6058 ug/L	-3.6058 ppb	16:39:11
3	Be 313.107†	-4287.1	72.0	0.0252 ug/L	0.0252 ppb	16:39:11
3	Cd 226.502†	3249.9	3596.9	-0.6855 ug/L	-0.6855 ppb	16:39:11
3	Co 228.616†	182.2	262.9	-0.3992 ug/L	-0.3992 ppb	16:39:31
3	Cr 267.716†	-620.0	-724.9	-0.5184 ug/L	-0.5184 ppb	16:39:11
3	Cu 324.752†	-1811.1	-8050.1	-3.4568 ug/L	-3.4568 ppb	16:39:11
3	Mn 257.610†	-38735.3	-40742.0	-5.7487 ug/L	-5.7487 ppb	16:39:11
3	Mo 202.031†	-338.5	-370.9	4.4769 ug/L	4.4769 ppb	16:39:11
3	Ni 231.604†	223.3	131.7	3.1754 ug/L	3.1754 ppb	16:39:31
3	P 214.914†	728.3	522.9	0.5389 ug/L	0.5389 ppb	16:39:31
3	Pb 220.353†	221.8	284.4	-2.7842 ug/L	-2.7842 ppb	16:39:31
3	S 181.975 Axial†	54.1	14.8	19.790 ug/L	19.790 ppb	16:39:31
3	Sb 206.836†	18.4	-19.6	2.6373 ug/L	2.6373 ppb	16:39:31
3	Se 196.026†	-2043.6	-2092.6	49.317 ug/L	49.317 ppb	16:39:31
3	Si 251.611†	-688.8	-1213.5	-36.406 ug/L	-36.406 ppb	16:39:11
3	Sn 189.927†	-26.3	-34.9	0.5306 ug/L	0.5306 ppb	16:39:31
3	Ti 334.940†	-1401.3	-68.6	-0.1520 ug/L	-0.1520 ppb	16:39:11
3	Tl 190.801†	-49.0	-12.2	-3.8532 ug/L	-3.8532 ppb	16:39:31
3	U 409.014†	290.0	1946.5	11.988 ug/L	11.988 ppb	16:39:11
3	V 292.402†	6657.7	8401.8	-0.1292 ug/L	-0.1292 ppb	16:39:11
3	Zn 213.857†	4613.6	4090.7	0.1479 ug/L	0.1479 ppb	16:39:31
3	SiO2†	-648.9	-1199.9	-77.598 ug/L	-77.598 ppb	16:39:47

## Mean Data: LRL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	908929.7	96.270 %		0.2543				0.26%
Sc Radial	5161.3	96.9 %		0.70				0.72%
Y 371.029	764201.9	95.840 %		0.2299				0.24%
Y RADIAL	5469.1	96.89 %		0.555				0.57%
Ag 328.068†	-27881.9	0.2904 ug/L		0.39919	0.2904 ppb		0.39919	137.47%
Al 396.153Radial†	-31.1	-23.672 ug/L		8.9515	-23.672 ppb		8.9515	37.81%
As 188.979†	-203.8	5.8978 ug/L		0.60213	5.8978 ppb		0.60213	10.21%
B 249.677†	2436.5	-8.6773 ug/L		1.80748	-8.6773 ppb		1.80748	20.83%
Ba 233.527†	-2073.2	-3.5093 ug/L		0.39060	-3.5093 ppb		0.39060	11.13%
Be 313.107†	82.6	0.0290 ug/L		0.00595	0.0290 ppb		0.00595	20.51%
Ca 317.933Radial†	-5.5	-9.1164 ug/L		4.03439	-9.1164 ppb		4.03439	44.25%
Cd 226.502†	3570.4	-1.0039 ug/L		0.29923	-1.0039 ppb		0.29923	29.81%
Co 228.616†	268.7	-0.2906 ug/L		0.14788	-0.2906 ppb		0.14788	50.89%
Cr 267.716†	-706.3	-0.3105 ug/L		0.66013	-0.3105 ppb		0.66013	212.61%
Cu 324.752†	-8046.4	-3.4291 ug/L		0.02586	-3.4291 ppb		0.02586	0.75%
Fe 238.204 Radial†	43876.3	378870 ug/L		460.7	378870 ppb		460.7	0.12%
K 766.490 Radial†	63.8	13.551 ug/L		2.3746	13.551 ppb		2.3746	17.52%
Mg 279.077 IEC†	10.5	-49.045 ug/L		35.2643	-49.045 ppb		35.2643	71.90%
Mn 257.610†	-40707.1	-5.6790 ug/L		0.08092	-5.6790 ppb		0.08092	1.42%
Mo 202.031†	-374.1	4.2851 ug/L		0.17024	4.2851 ppb		0.17024	3.97%
Na 589.592 Radial†	9.7	2.6151 ug/L		3.47194	2.6151 ppb		3.47194	132.77%
Ni 231.604†	132.8	3.2002 ug/L		0.15492	3.2002 ppb		0.15492	4.84%
P 214.914†	529.9	4.2807 ug/L		7.76192	4.2807 ppb		7.76192	181.33%
Pb 220.353†	273.3	-4.1218 ug/L		1.43240	-4.1218 ppb		1.43240	34.75%
S 181.975 Axial†	20.2	27.103 ug/L		10.0386	27.103 ppb		10.0386	37.04%
Sb 206.836†	-14.3	4.3677 ug/L		1.51965	4.3677 ppb		1.51965	34.79%
Se 196.026†	-2100.7	45.589 ug/L		11.8668	45.589 ppb		11.8668	26.03%
Si 251.611†	-1216.7	-36.499 ug/L		0.4601	-36.499 ppb		0.4601	1.26%
Sn 189.927†	-35.8	0.3748 ug/L		0.53006	0.3748 ppb		0.53006	141.44%
Sr 421.552†	67.4	0.4316 ug/L		0.25658	0.4316 ppb		0.25658	59.45%
Ti 334.940†	-64.9	-0.1504 ug/L		0.02561	-0.1504 ppb		0.02561	17.03%
Tl 190.801†	-9.2	-3.0016 ug/L		0.73932	-3.0016 ppb		0.73932	24.63%

U 409.014†	2044.9	14.734 ug/L	2.7819	14.734 ppb	2.7819	18.88%
V 292.402†	8341.4	-0.5743 ug/L	0.43429	-0.5743 ppb	0.43429	75.61%
Zn 213.857†	4085.7	0.0693 ug/L	0.07429	0.0693 ppb	0.07429	107.25%
SiO2†	-1252.9	-81.054 ug/L	3.0073	-81.054 ppb	3.0073	3.71%

Sequence No.: 2  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 1/18/2010 16:41:58  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5300.0	5300.0	99.5 %		16:43:50
1	Y RADIAL	5602.3	5602.3	99.24 %		16:43:50
1	Al 396.153Radial†	6436.2	6464.5	5149.2 ug/L	5149.2 ppb	16:43:50
1	Ca 317.933Radial†	2999.9	2994.7	4950.8 ug/L	4950.8 ppb	16:44:10
1	Fe 238.204 Radial†	586.5	576.7	4994.2 ug/L	4994.2 ppb	16:44:10
1	K 766.490 Radial†	26453.6	23913.4	5051.6 ug/L	5051.6 ppb	16:43:50
1	Mg 279.077 IEC†	154.9	153.0	5041.3 ug/L	5041.3 ppb	16:44:10
1	Na 589.592 Radial†	35862.9	37144.9	9980.3 ug/L	9980.3 ppb	16:43:50
1	Sr 421.552†	79770.0	80166.1	513.03 ug/L	513.03 ppb	16:43:50
1	Sc 361.383	938545.0	938545.0	99.406 %		16:45:07
1	Y 371.029	782678.3	782678.3	98.157 %		16:45:07
1	Ag 328.068†	112347.0	112606.7	498.20 ug/L	498.20 ppb	16:45:13
1	As 188.979†	1175.6	1202.2	493.24 ug/L	493.24 ppb	16:45:33
1	B 249.677†	21952.5	22611.1	488.36 ug/L	488.36 ppb	16:45:13
1	Ba 233.527†	67417.2	67800.1	496.93 ug/L	496.93 ppb	16:45:13
1	Be 313.107†	1388015.1	1400834.4	496.84 ug/L	496.84 ppb	16:45:07
1	Cd 226.502†	45786.4	46276.7	493.94 ug/L	493.94 ppb	16:45:13
1	Co 228.616†	25164.8	25388.4	495.46 ug/L	495.46 ppb	16:45:13
1	Cr 267.716†	45259.8	45450.0	497.89 ug/L	497.89 ppb	16:45:13
1	Cu 324.752†	174572.5	169448.5	493.83 ug/L	493.83 ppb	16:45:13
1	Mn 257.610†	468182.7	470522.8	498.28 ug/L	498.28 ppb	16:45:07
1	Mo 202.031†	7256.7	7281.2	489.44 ug/L	489.44 ppb	16:45:33
1	Ni 231.604†	20598.3	20620.7	497.22 ug/L	497.22 ppb	16:45:13
1	P 214.914†	4422.4	4214.2	2328.2 ug/L	2328.2 ppb	16:45:33
1	Pb 220.353†	4074.4	4152.5	489.77 ug/L	489.77 ppb	16:45:33
1	S 181.975 Axial†	768.4	731.5	979.60 ug/L	979.60 ppb	16:45:33
1	Sb 206.836†	1482.3	1452.4	495.99 ug/L	495.99 ppb	16:45:33
1	Se 196.026†	758.5	795.9	507.82 ug/L	507.82 ppb	16:45:33
1	Si 251.611†	82288.3	82282.6	2483.2 ug/L	2483.2 ppb	16:45:13
1	Sn 189.927†	2899.6	2909.4	487.83 ug/L	487.83 ppb	16:45:33
1	Ti 334.940†	325292.2	328623.4	497.13 ug/L	497.13 ppb	16:45:07
1	Tl 190.801†	1655.0	1703.6	495.77 ug/L	495.77 ppb	16:45:33
1	U 409.014†	15807.2	17546.5	495.20 ug/L	495.20 ppb	16:45:13
1	V 292.402†	73319.1	75234.5	501.14 ug/L	501.14 ppb	16:45:13
1	Zn 213.857†	55374.6	54997.5	491.17 ug/L	491.17 ppb	16:45:13
1	SiO2†	82014.0	81978.8	5334.9 ug/L	5334.9 ppb	16:46:40
2	Sc Radial	5288.6	5288.6	99.3 %		16:44:15
2	Y RADIAL	5554.4	5554.4	98.40 %		16:44:15
2	Al 396.153Radial†	6325.9	6367.3	5071.1 ug/L	5071.1 ppb	16:44:15
2	Ca 317.933Radial†	3005.4	3006.7	4970.7 ug/L	4970.7 ppb	16:44:35
2	Fe 238.204 Radial†	586.4	577.9	5004.6 ug/L	5004.6 ppb	16:44:35
2	K 766.490 Radial†	26305.6	23821.8	5032.3 ug/L	5032.3 ppb	16:44:15
2	Mg 279.077 IEC†	158.7	157.2	5178.0 ug/L	5178.0 ppb	16:44:35
2	Na 589.592 Radial†	35104.0	36458.5	9795.9 ug/L	9795.9 ppb	16:44:15
2	Sr 421.552†	78157.0	78714.8	503.74 ug/L	503.74 ppb	16:44:15
2	Sc 361.383	929711.6	929711.6	98.471 %		16:45:38
2	Y 371.029	775433.3	775433.3	97.249 %		16:45:38
2	Ag 328.068†	111774.5	113099.1	500.39 ug/L	500.39 ppb	16:45:44
2	As 188.979†	1197.6	1235.8	506.91 ug/L	506.91 ppb	16:46:04
2	B 249.677†	21893.9	22761.4	491.60 ug/L	491.60 ppb	16:45:44
2	Ba 233.527†	67222.6	68246.8	500.20 ug/L	500.20 ppb	16:45:44
2	Be 313.107†	1375315.4	1401204.0	496.97 ug/L	496.97 ppb	16:45:38
2	Cd 226.502†	45757.7	46685.1	498.30 ug/L	498.30 ppb	16:45:44
2	Co 228.616†	25161.3	25625.4	500.10 ug/L	500.10 ppb	16:45:44
2	Cr 267.716†	45065.2	45685.0	500.46 ug/L	500.46 ppb	16:45:44
2	Cu 324.752†	173467.6	169995.0	495.43 ug/L	495.43 ppb	16:45:44
2	Mn 257.610†	464724.7	471486.0	499.30 ug/L	499.30 ppb	16:45:38
2	Mo 202.031†	7315.2	7410.0	498.09 ug/L	498.09 ppb	16:46:04
2	Ni 231.604†	20563.0	20781.8	501.11 ug/L	501.11 ppb	16:45:44

2	P 214.914†	4457.4	4292.0	2372.7 ug/L	2372.7 ppb	16:46:04
2	Pb 220.353†	4116.0	4233.7	499.32 ug/L	499.32 ppb	16:46:04
2	S 181.975 Axial†	762.4	732.7	981.29 ug/L	981.29 ppb	16:46:04
2	Sb 206.836†	1501.9	1486.5	507.59 ug/L	507.59 ppb	16:46:04
2	Se 196.026†	770.9	815.8	520.09 ug/L	520.09 ppb	16:46:04
2	Si 251.611†	81884.1	82658.6	2494.5 ug/L	2494.5 ppb	16:45:44
2	Sn 189.927†	2932.0	2970.1	497.99 ug/L	497.99 ppb	16:46:04
2	Ti 334.940†	322543.9	328941.6	497.60 ug/L	497.60 ppb	16:45:38
2	Tl 190.801†	1656.8	1721.2	500.84 ug/L	500.84 ppb	16:46:04
2	U 409.014†	15713.8	17602.7	496.79 ug/L	496.79 ppb	16:45:44
2	V 292.402†	73177.3	75791.2	504.92 ug/L	504.92 ppb	16:45:44
2	Zn 213.857†	55293.6	55444.6	495.17 ug/L	495.17 ppb	16:45:44
2	SiO2†	83143.6	83909.8	5460.6 ug/L	5460.6 ppb	16:46:45
3	Sc Radial	5186.9	5186.9	97.4 %		16:44:40
3	Y RADIAL	5485.0	5485.0	97.17 %		16:44:40
3	Al 396.153Radial†	6129.9	6290.9	5010.4 ug/L	5010.4 ppb	16:44:40
3	Ca 317.933Radial†	3026.6	3087.8	5104.9 ug/L	5104.9 ppb	16:45:00
3	Fe 238.204 Radial†	586.3	589.4	5104.0 ug/L	5104.0 ppb	16:45:00
3	K 766.490 Radial†	25815.0	23837.5	5035.6 ug/L	5035.6 ppb	16:44:40
3	Mg 279.077 IEC†	159.7	161.4	5316.0 ug/L	5316.0 ppb	16:45:00
3	Na 589.592 Radial†	34447.3	36477.4	9801.0 ug/L	9801.0 ppb	16:44:40
3	Sr 421.552†	76689.5	78751.4	503.97 ug/L	503.97 ppb	16:44:40
3	Sc 361.383	943486.6	943486.6	99.930 %		16:46:10
3	Y 371.029	785245.9	785245.9	98.480 %		16:46:10
3	Ag 328.068†	111961.3	111628.7	493.93 ug/L	493.93 ppb	16:46:15
3	As 188.979†	1176.2	1196.6	491.04 ug/L	491.04 ppb	16:46:35
3	B 249.677†	21970.7	22513.7	486.23 ug/L	486.23 ppb	16:46:15
3	Ba 233.527†	67374.3	67402.0	494.01 ug/L	494.01 ppb	16:46:15
3	Be 313.107†	1398013.9	1403526.9	497.80 ug/L	497.80 ppb	16:46:10
3	Cd 226.502†	45711.9	45960.9	490.55 ug/L	490.55 ppb	16:46:15
3	Co 228.616†	25192.2	25283.3	493.40 ug/L	493.40 ppb	16:46:15
3	Cr 267.716†	45024.7	44976.2	492.71 ug/L	492.71 ppb	16:46:15
3	Cu 324.752†	173824.8	167780.5	488.98 ug/L	488.98 ppb	16:46:15
3	Mn 257.610†	472641.7	472518.2	500.39 ug/L	500.39 ppb	16:46:10
3	Mo 202.031†	7276.7	7263.0	488.23 ug/L	488.23 ppb	16:46:35
3	Ni 231.604†	20490.6	20404.5	492.01 ug/L	492.01 ppb	16:46:15
3	P 214.914†	4425.1	4193.6	2317.2 ug/L	2317.2 ppb	16:46:35
3	Pb 220.353†	4105.5	4162.1	490.86 ug/L	490.86 ppb	16:46:35
3	S 181.975 Axial†	765.7	724.8	970.62 ug/L	970.62 ppb	16:46:35
3	Sb 206.836†	1491.7	1454.1	496.49 ug/L	496.49 ppb	16:46:35
3	Se 196.026†	760.7	794.1	507.09 ug/L	507.09 ppb	16:46:35
3	Si 251.611†	82035.9	81596.4	2462.4 ug/L	2462.4 ppb	16:46:15
3	Sn 189.927†	2909.9	2904.5	487.03 ug/L	487.03 ppb	16:46:35
3	Ti 334.940†	328299.1	329918.6	499.09 ug/L	499.09 ppb	16:46:10
3	Tl 190.801†	1639.0	1678.9	488.66 ug/L	488.66 ppb	16:46:35
3	U 409.014†	15720.9	17376.9	490.40 ug/L	490.40 ppb	16:46:15
3	V 292.402†	73275.1	74804.1	498.27 ug/L	498.27 ppb	16:46:15
3	Zn 213.857†	55270.2	54601.3	487.63 ug/L	487.63 ppb	16:46:15
3	SiO2†	82380.5	81913.4	5330.6 ug/L	5330.6 ppb	16:46:51

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	937247.7	99.269 %	0.7391			0.74%
Sc Radial	5258.5	98.7 %	1.17			1.18%
Y 371.029	781119.2	97.962 %	0.6382			0.65%
Y RADIAL	5547.2	98.27 %	1.045			1.06%
Ag 328.068†	112444.9	497.51 ug/L	3.284	497.51 ppb	3.284	0.66%
QC value within limits for Ag 328.068 Recovery = 99.50%						
Al 396.153Radial†	6374.3	5076.9 ug/L	69.59	5076.9 ppb	69.59	1.37%
QC value within limits for Al 396.153Radial Recovery = 101.54%						
As 188.979†	1211.5	497.06 ug/L	8.595	497.06 ppb	8.595	1.73%
QC value within limits for As 188.979 Recovery = 99.41%						
B 249.677†	22628.7	488.73 ug/L	2.705	488.73 ppb	2.705	0.55%
QC value within limits for B 249.677 Recovery = 97.75%						
Ba 233.527†	67816.3	497.05 ug/L	3.096	497.05 ppb	3.096	0.62%
QC value within limits for Ba 233.527 Recovery = 99.41%						
Be 313.107†	1401855.1	497.20 ug/L	0.519	497.20 ppb	0.519	0.10%
QC value within limits for Be 313.107 Recovery = 99.44%						
Ca 317.933Radial†	3029.7	5008.8 ug/L	83.78	5008.8 ppb	83.78	1.67%



QC value within limits for Ca 317.933 Radial Recovery = 100.18%

Cd 226.502†	46307.6	494.26 ug/L	3.885	494.26 ppb	3.885	0.79%
QC value within limits for Cd 226.502 Recovery = 98.85%						
Co 228.616†	25432.4	496.32 ug/L	3.433	496.32 ppb	3.433	0.69%
QC value within limits for Co 228.616 Recovery = 99.26%						
Cr 267.716†	45370.4	497.02 ug/L	3.952	497.02 ppb	3.952	0.80%
QC value within limits for Cr 267.716 Recovery = 99.40%						
Cu 324.752†	169074.6	492.75 ug/L	3.357	492.75 ppb	3.357	0.68%
QC value within limits for Cu 324.752 Recovery = 98.55%						
Fe 238.204 Radial†	581.3	5034.3 ug/L	60.59	5034.3 ppb	60.59	1.20%
QC value within limits for Fe 238.204 Radial Recovery = 100.69%						
K 766.490 Radial†	23857.6	5039.8 ug/L	10.33	5039.8 ppb	10.33	0.20%
QC value within limits for K 766.490 Radial Recovery = 100.80%						
Mg 279.077 IEC†	157.2	5178.4 ug/L	137.36	5178.4 ppb	137.36	2.65%
QC value within limits for Mg 279.077 IEC Recovery = 103.57%						
Mn 257.610†	471509.0	499.32 ug/L	1.056	499.32 ppb	1.056	0.21%
QC value within limits for Mn 257.610 Recovery = 99.86%						
Mo 202.031†	7318.1	491.92 ug/L	5.377	491.92 ppb	5.377	1.09%
QC value within limits for Mo 202.031 Recovery = 98.38%						
Na 589.592 Radial†	36693.6	9859.1 ug/L	105.05	9859.1 ppb	105.05	1.07%
QC value within limits for Na 589.592 Radial Recovery = 98.59%						
Ni 231.604†	20602.3	496.78 ug/L	4.567	496.78 ppb	4.567	0.92%
QC value within limits for Ni 231.604 Recovery = 99.36%						
P 214.914†	4233.3	2339.3 ug/L	29.40	2339.3 ppb	29.40	1.26%
QC value within limits for P 214.914 Recovery = 93.57%						
Pb 220.353†	4182.8	493.32 ug/L	5.227	493.32 ppb	5.227	1.06%
QC value within limits for Pb 220.353 Recovery = 98.66%						
S 181.975 Axial†	729.7	977.17 ug/L	5.738	977.17 ppb	5.738	0.59%
QC value within limits for S 181.975 Axial Recovery = 97.72%						
Sb 206.836†	1464.3	500.02 ug/L	6.553	500.02 ppb	6.553	1.31%
QC value within limits for Sb 206.836 Recovery = 100.00%						
Se 196.026†	801.9	511.67 ug/L	7.302	511.67 ppb	7.302	1.43%
QC value within limits for Se 196.026 Recovery = 102.33%						
Si 251.611†	82179.2	2480.0 ug/L	16.24	2480.0 ppb	16.24	0.65%
QC value within limits for Si 251.611 Recovery = 99.20%						
Sn 189.927†	2928.0	490.95 ug/L	6.109	490.95 ppb	6.109	1.24%
QC value within limits for Sn 189.927 Recovery = 98.19%						
Sr 421.552†	79210.7	506.91 ug/L	5.296	506.91 ppb	5.296	1.04%
QC value within limits for Sr 421.552 Recovery = 101.38%						
Ti 334.940†	329161.2	497.94 ug/L	1.024	497.94 ppb	1.024	0.21%
QC value within limits for Ti 334.940 Recovery = 99.59%						
Tl 190.801†	1701.2	495.09 ug/L	6.118	495.09 ppb	6.118	1.24%
QC value within limits for Tl 190.801 Recovery = 99.02%						
U 409.014†	17508.7	494.13 ug/L	3.327	494.13 ppb	3.327	0.67%
QC value within limits for U 409.014 Recovery = 98.83%						
V 292.402†	75276.6	501.44 ug/L	3.336	501.44 ppb	3.336	0.67%
QC value within limits for V 292.402 Recovery = 100.29%						
Zn 213.857†	55014.5	491.33 ug/L	3.772	491.33 ppb	3.772	0.77%
QC value within limits for Zn 213.857 Recovery = 98.27%						
SiO2†	82600.7	5375.4 ug/L	73.85	5375.4 ppb	73.85	1.37%
QC value within limits for SiO2 Recovery = 100.52%						

All analyte(s) passed QC.

Sequence No.: 3

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/18/2010 16:49:00

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	5342.7	5342.7	100 %		16:50:53
1	Y RADIAL	5652.3	5652.3	100.1 %		16:50:53
1	Al 396.153Radial†	-3.8	-8.4	-6.6859 ug/L	-6.6859 ppb	16:50:53
1	Ca 317.933Radial†	15.2	-5.5	-9.0610 ug/L	-9.0610 ppb	16:51:13
1	Fe 238.204 Radial†	12.1	-0.8	-6.8261 ug/L	-6.8261 ppb	16:51:13
1	K 766.490 Radial†	2958.0	274.0	57.949 ug/L	57.949 ppb	16:50:53
1	Mg 279.077 IEC†	2.9	0.2	7.1117 ug/L	7.1117 ppb	16:51:13
1	Na 589.592 Radial†	-1098.9	3.0	0.8156 ug/L	0.8156 ppb	16:50:53
1	Sr 421.552†	13.2	1.5	0.0099 ug/L	0.0099 ppb	16:50:53
1	Sc 361.383	935368.3	935368.3	99.070 %		16:52:10
1	Y 371.029	791575.3	791575.3	99.273 %		16:52:10
1	Ag 328.068†	437.0	29.9	0.1299 ug/L	0.1299 ppb	16:52:15
1	As 188.979†	-15.0	4.4	1.7892 ug/L	1.7892 ppb	16:52:35
1	B 249.677†	-245.9	279.3	6.0611 ug/L	6.0611 ppb	16:52:35
1	Ba 233.527†	15.0	-4.5	-0.0357 ug/L	-0.0357 ppb	16:52:35
1	Be 313.107†	-4456.1	32.8	0.0119 ug/L	0.0119 ppb	16:52:15
1	Cd 226.502†	-203.6	11.4	0.1210 ug/L	0.1210 ppb	16:52:35
1	Co 228.616†	-70.0	2.7	0.0520 ug/L	0.0520 ppb	16:52:35
1	Cr 267.716†	79.3	-0.1	0.0000 ug/L	0.0000 ppb	16:52:35
1	Cu 324.752†	6126.0	17.0	0.0526 ug/L	0.0526 ppb	16:52:15
1	Mn 257.610†	459.3	8.0	0.0075 ug/L	0.0075 ppb	16:52:35
1	Mo 202.031†	11.5	-7.2	-0.4841 ug/L	-0.4841 ppb	16:52:35
1	Ni 231.604†	112.7	13.2	0.3187 ug/L	0.3187 ppb	16:52:35
1	P 214.914†	237.2	4.9	2.8057 ug/L	2.8057 ppb	16:52:35
1	Pb 220.353†	-46.8	6.5	0.7608 ug/L	0.7608 ppb	16:52:35
1	S 181.975 Axial†	36.9	-4.3	-5.7534 ug/L	-5.7534 ppb	16:52:35
1	Sb 206.836†	37.1	-1.3	-0.4414 ug/L	-0.4414 ppb	16:52:35
1	Se 196.026†	-22.5	10.1	6.1975 ug/L	6.1975 ppb	16:52:35
1	Si 251.611†	565.3	73.4	2.2270 ug/L	2.2270 ppb	16:52:35
1	Sn 189.927†	3.7	-3.8	-0.6360 ug/L	-0.6360 ppb	16:52:35
1	Ti 334.940†	-1303.0	73.6	0.1122 ug/L	0.1122 ppb	16:52:15
1	Tl 190.801†	-47.1	-8.8	-2.5322 ug/L	-2.5322 ppb	16:52:35
1	U 409.014†	-1839.5	-211.8	-5.9975 ug/L	-5.9975 ppb	16:52:10
1	V 292.402†	-1633.0	-170.8	-1.1402 ug/L	-1.1402 ppb	16:52:15
1	Zn 213.857†	754.9	54.3	0.4876 ug/L	0.4876 ppb	16:52:35
1	SiO2†	552.9	33.1	2.1717 ug/L	2.1717 ppb	16:53:41
2	Sc Radial	5421.2	5421.2	102 %		16:51:18
2	Y RADIAL	5726.5	5726.5	101.4 %		16:51:18
2	Al 396.153Radial†	-14.8	-19.2	-15.383 ug/L	-15.383 ppb	16:51:18
2	Ca 317.933Radial†	22.4	1.4	2.3395 ug/L	2.3395 ppb	16:51:38
2	Fe 238.204 Radial†	13.3	0.2	2.0763 ug/L	2.0763 ppb	16:51:38
2	K 766.490 Radial†	2863.5	138.4	29.258 ug/L	29.258 ppb	16:51:18
2	Mg 279.077 IEC†	0.7	-1.9	-63.481 ug/L	-63.481 ppb	16:51:38
2	Na 589.592 Radial†	-1082.6	34.9	9.3677 ug/L	9.3677 ppb	16:51:18
2	Sr 421.552†	-9.2	-20.7	-0.1322 ug/L	-0.1322 ppb	16:51:18
2	Sc 361.383	935114.9	935114.9	99.043 %		16:52:40
2	Y 371.029	791275.6	791275.6	99.236 %		16:52:40
2	Ag 328.068†	465.9	59.2	0.2666 ug/L	0.2666 ppb	16:52:45
2	As 188.979†	-21.4	-2.1	-0.8443 ug/L	-0.8443 ppb	16:53:05
2	B 249.677†	-276.9	247.9	5.3782 ug/L	5.3782 ppb	16:53:05
2	Ba 233.527†	14.9	-4.6	-0.0328 ug/L	-0.0328 ppb	16:53:05
2	Be 313.107†	-4403.3	84.9	0.0299 ug/L	0.0299 ppb	16:52:45
2	Cd 226.502†	-198.6	16.4	0.1740 ug/L	0.1740 ppb	16:53:05
2	Co 228.616†	-73.4	-0.7	-0.0115 ug/L	-0.0115 ppb	16:53:05
2	Cr 267.716†	116.6	37.6	0.4144 ug/L	0.4144 ppb	16:53:05
2	Cu 324.752†	6105.1	-2.4	-0.0039 ug/L	-0.0039 ppb	16:52:45
2	Mn 257.610†	462.7	11.6	0.0150 ug/L	0.0150 ppb	16:53:05
2	Mo 202.031†	29.4	10.8	0.7287 ug/L	0.7287 ppb	16:53:05
2	Ni 231.604†	118.6	19.3	0.4646 ug/L	0.4646 ppb	16:53:05

2	P 214.914†	230.5	-1.8	-1.0269 ug/L	-1.0269 ppb	16:53:05
2	Pb 220.353†	-43.0	10.3	1.2076 ug/L	1.2076 ppb	16:53:05
2	S 181.975 Axial†	44.9	3.8	5.0644 ug/L	5.0644 ppb	16:53:05
2	Sb 206.836†	38.7	0.4	0.1618 ug/L	0.1618 ppb	16:53:05
2	Se 196.026†	-32.3	0.2	0.1562 ug/L	0.1562 ppb	16:53:05
2	Si 251.611†	534.7	42.7	1.2841 ug/L	1.2841 ppb	16:53:05
2	Sn 189.927†	16.7	9.4	1.5665 ug/L	1.5665 ppb	16:53:05
2	Ti 334.940†	-1408.9	-33.8	-0.0434 ug/L	-0.0434 ppb	16:52:45
2	Tl 190.801†	-43.3	-5.0	-1.4373 ug/L	-1.4373 ppb	16:53:05
2	U 409.014†	-1815.3	-187.9	-5.3221 ug/L	-5.3221 ppb	16:52:40
2	V 292.402†	-1410.3	53.6	0.3511 ug/L	0.3511 ppb	16:52:45
2	Zn 213.857†	740.9	40.4	0.3606 ug/L	0.3606 ppb	16:53:05
2	SiO2†	544.0	24.3	1.5625 ug/L	1.5625 ppb	16:53:46
3	Sc Radial	4830.8	4830.8	90.7 %		16:51:43
3	Y RADIAL	5133.1	5133.1	90.93 %		16:51:43
3	Al 396.153Radial†	-7.2	-12.6	-10.134 ug/L	-10.134 ppb	16:51:43
3	Ca 317.933Radial†	17.9	-0.8	-1.3884 ug/L	-1.3884 ppb	16:52:03
3	Fe 238.204 Radial†	12.9	1.4	11.986 ug/L	11.986 ppb	16:52:03
3	K 766.490 Radial†	2815.0	428.7	90.700 ug/L	90.700 ppb	16:51:43
3	Mg 279.077 IEC†	3.1	0.7	24.233 ug/L	24.233 ppb	16:52:03
3	Na 589.592 Radial†	-1129.1	-146.4	-39.333 ug/L	-39.333 ppb	16:51:43
3	Sr 421.552†	34.0	25.8	0.1652 ug/L	0.1652 ppb	16:51:43
3	Sc 361.383	944661.7	944661.7	100.05 %		16:53:10
3	Y 371.029	799337.2	799337.2	100.25 %		16:53:10
3	Ag 328.068†	378.2	-33.2	-0.1377 ug/L	-0.1377 ppb	16:53:15
3	As 188.979†	-30.6	-11.0	-4.4633 ug/L	-4.4633 ppb	16:53:35
3	B 249.677†	-309.7	218.0	4.7270 ug/L	4.7270 ppb	16:53:35
3	Ba 233.527†	22.3	2.6	0.0195 ug/L	0.0195 ppb	16:53:35
3	Be 313.107†	-4467.5	65.7	0.0236 ug/L	0.0236 ppb	16:53:15
3	Cd 226.502†	-209.7	7.2	0.0752 ug/L	0.0752 ppb	16:53:35
3	Co 228.616†	-55.7	17.7	0.3458 ug/L	0.3458 ppb	16:53:35
3	Cr 267.716†	111.5	31.4	0.3457 ug/L	0.3457 ppb	16:53:35
3	Cu 324.752†	6163.1	-6.7	-0.0162 ug/L	-0.0162 ppb	16:53:15
3	Mn 257.610†	453.9	-1.9	-0.0018 ug/L	-0.0018 ppb	16:53:35
3	Mo 202.031†	26.9	8.1	0.5452 ug/L	0.5452 ppb	16:53:35
3	Ni 231.604†	112.1	11.5	0.2765 ug/L	0.2765 ppb	16:53:35
3	P 214.914†	217.3	-17.3	-9.9796 ug/L	-9.9796 ppb	16:53:35
3	Pb 220.353†	-46.3	7.5	0.8814 ug/L	0.8814 ppb	16:53:35
3	S 181.975 Axial†	42.1	0.6	0.7487 ug/L	0.7487 ppb	16:53:35
3	Sb 206.836†	49.5	10.8	3.5517 ug/L	3.5517 ppb	16:53:35
3	Se 196.026†	-32.4	0.5	0.3457 ug/L	0.3457 ppb	16:53:35
3	Si 251.611†	546.5	49.1	1.4777 ug/L	1.4777 ppb	16:53:35
3	Sn 189.927†	6.9	-0.5	-0.0909 ug/L	-0.0909 ppb	16:53:35
3	Ti 334.940†	-1272.8	116.7	0.1764 ug/L	0.1764 ppb	16:53:15
3	Tl 190.801†	-35.9	2.9	0.8248 ug/L	0.8248 ppb	16:53:35
3	U 409.014†	-1812.1	-166.2	-4.7089 ug/L	-4.7089 ppb	16:53:10
3	V 292.402†	-1457.9	20.5	0.1317 ug/L	0.1317 ppb	16:53:15
3	Zn 213.857†	748.7	40.7	0.3634 ug/L	0.3634 ppb	16:53:35
3	SiO2†	574.3	49.0	3.1834 ug/L	3.1834 ppb	16:53:51

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	938381.6	99.389 %	0.5762			0.58%
Sc Radial	5198.2	97.6 %	6.02			6.17%
Y 371.029	794062.7	99.585 %	0.5732			0.58%
Y RADIAL	5504.0	97.50 %	5.728			5.87%
Ag 328.068†	18.6	0.0863 ug/L	0.20568	0.0863 ppb	0.20568	238.41%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-13.4	-10.734 ug/L	4.3796	-10.734 ppb	4.3796	40.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.9	-1.1728 ug/L	3.13913	-1.1728 ppb	3.13913	267.66%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	248.4	5.3887 ug/L	0.66711	5.3887 ppb	0.66711	12.38%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-2.2	-0.0163 ug/L	0.03110	-0.0163 ppb	0.03110	190.31%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	61.1	0.0218 ug/L	0.00917	0.0218 ppb	0.00917	42.05%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-1.6	-2.7033 ug/L	5.81286	-2.7033 ppb	5.81286	215.03%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	11.7	0.1234 ug/L	0.04944	0.1234 ppb	0.04944	40.06%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	6.6	0.1288 ug/L	0.19061	0.1288 ppb	0.19061	148.04%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	23.0	0.2534 ug/L	0.22207	0.2534 ppb	0.22207	87.64%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	2.7	0.0108 ug/L	0.03668	0.0108 ppb	0.03668	338.59%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.3	2.4122 ug/L	9.41075	2.4122 ppb	9.41075	390.13%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	280.4	59.302 ug/L	30.7436	59.302 ppb	30.7436	51.84%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.3	-10.712 ug/L	46.4940	-10.712 ppb	46.4940	434.03%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	5.9	0.0069 ug/L	0.00845	0.0069 ppb	0.00845	122.40%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	3.9	0.2633 ug/L	0.65372	0.2633 ppb	0.65372	248.32%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-36.2	-9.7166 ug/L	26.00275	-9.7166 ppb	26.00275	267.61%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	14.6	0.3533 ug/L	0.09868	0.3533 ppb	0.09868	27.93%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-4.7	-2.7336 ug/L	6.56127	-2.7336 ppb	6.56127	240.02%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	8.1	0.9499 ug/L	0.23114	0.9499 ppb	0.23114	24.33%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	0.0	0.0199 ug/L	5.44558	0.0199 ppb	5.44558	>999.9%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	3.3	1.0907 ug/L	2.15249	1.0907 ppb	2.15249	197.35%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	3.6	2.2331 ug/L	3.43453	2.2331 ppb	3.43453	153.80%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	55.1	1.6629 ug/L	0.49800	1.6629 ppb	0.49800	29.95%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	1.7	0.2798 ug/L	1.14709	0.2798 ppb	1.14709	409.92%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	2.2	0.0143 ug/L	0.14874	0.0143 ppb	0.14874	>999.9%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	52.2	0.0817 ug/L	0.11302	0.0817 ppb	0.11302	138.30%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-3.6	-1.0482 ug/L	1.71197	-1.0482 ppb	1.71197	163.32%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-188.6	-5.3428 ug/L	0.64456	-5.3428 ppb	0.64456	12.06%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-32.2	-0.2191 ug/L	0.80521	-0.2191 ppb	0.80521	367.49%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	45.1	0.4038 ug/L	0.07253	0.4038 ppb	0.07253	17.96%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	35.5	2.3059 ug/L	0.81872	2.3059 ppb	0.81872	35.51%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 4

Sample ID: 1202011708|940084|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 38

Date Collected: 1/18/2010 16:56:01

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011708|940084|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5435.7	5435.7	102 %		16:57:54
1	Y RADIAL	5732.5	5732.5	101.6 %		16:57:54
1	Al 396.153Radial†	-2.8	-7.4	-5.9229 ug/L	-5.9229 ppb	16:57:54
1	Ca 317.933Radial†	27.1	6.0	9.8442 ug/L	9.8442 ppb	16:58:14
1	Fe 238.204 Radial†	12.5	-0.6	-5.2981 ug/L	-5.2981 ppb	16:58:14
1	K 766.490 Radial†	2905.3	171.9	36.344 ug/L	36.344 ppb	16:57:54
1	Mg 279.077 IEC†	2.4	-0.3	-10.036 ug/L	-10.036 ppb	16:58:14
1	Na 589.592 Radial†	-1081.4	38.9	10.457 ug/L	10.457 ppb	16:57:54
1	Sr 421.552†	53.1	40.4	0.2583 ug/L	0.2583 ppb	16:57:54
1	Sc 361.383	957684.1	957684.1	101.43 %		16:59:10
1	Y 371.029	808668.9	808668.9	101.42 %		16:59:10
1	Ag 328.068†	438.5	21.1	0.0982 ug/L	0.0982 ppb	16:59:15
1	As 188.979†	-18.8	1.1	0.4462 ug/L	0.4462 ppb	16:59:35
1	B 249.677†	-365.4	167.3	3.6292 ug/L	3.6292 ppb	16:59:35
1	Ba 233.527†	17.3	-2.7	-0.0190 ug/L	-0.0190 ppb	16:59:35
1	Be 313.107†	-4339.0	253.1	0.0902 ug/L	0.0902 ppb	16:59:15
1	Cd 226.502†	-206.0	13.8	0.1462 ug/L	0.1462 ppb	16:59:35
1	Co 228.616†	-64.2	10.1	0.1962 ug/L	0.1962 ppb	16:59:35
1	Cr 267.716†	109.3	27.7	0.3068 ug/L	0.3068 ppb	16:59:35
1	Cu 324.752†	6075.7	-176.7	-0.5110 ug/L	-0.5110 ppb	16:59:15
1	Mn 257.610†	900.4	432.1	0.4572 ug/L	0.4572 ppb	16:59:35
1	Mo 202.031†	21.5	2.4	0.1633 ug/L	0.1633 ppb	16:59:35
1	Ni 231.604†	106.8	4.7	0.1140 ug/L	0.1140 ppb	16:59:35
1	P 214.914†	243.7	5.7	3.3558 ug/L	3.3558 ppb	16:59:35
1	Pb 220.353†	-51.2	3.3	0.3877 ug/L	0.3877 ppb	16:59:35
1	S 181.975 Axial†	49.0	6.8	9.0596 ug/L	9.0596 ppb	16:59:35
1	Sb 206.836†	58.7	19.2	6.3121 ug/L	6.3121 ppb	16:59:35
1	Se 196.026†	-38.0	-4.5	-2.7975 ug/L	-2.7975 ppb	16:59:35
1	Si 251.611†	747.2	239.5	7.2429 ug/L	7.2429 ppb	16:59:35
1	Sn 189.927†	7.4	-0.2	-0.0328 ug/L	-0.0328 ppb	16:59:35
1	Ti 334.940†	-1220.8	185.3	0.2857 ug/L	0.2857 ppb	16:59:15
1	Tl 190.801†	-36.2	3.0	0.8743 ug/L	0.8743 ppb	16:59:35
1	U 409.014†	-1939.5	-267.2	-7.5663 ug/L	-7.5663 ppb	16:59:10
1	V 292.402†	-1455.2	42.9	0.2701 ug/L	0.2701 ppb	16:59:15
1	Zn 213.857†	850.2	130.5	1.1765 ug/L	1.1765 ppb	16:59:35
1	SiO2†	765.8	230.0	14.998 ug/L	14.998 ppb	17:00:41
2	Sc Radial	5463.2	5463.2	103 %		16:58:19
2	Y RADIAL	5796.0	5796.0	102.7 %		16:58:19
2	Al 396.153Radial†	10.1	5.2	4.1074 ug/L	4.1074 ppb	16:58:19
2	Ca 317.933Radial†	21.2	0.1	0.1085 ug/L	0.1085 ppb	16:58:39
2	Fe 238.204 Radial†	13.4	0.3	2.4435 ug/L	2.4435 ppb	16:58:39
2	K 766.490 Radial†	2762.5	18.2	3.8477 ug/L	3.8477 ppb	16:58:19
2	Mg 279.077 IEC†	1.9	-0.8	-26.691 ug/L	-26.691 ppb	16:58:39
2	Na 589.592 Radial†	-1110.1	16.2	4.3513 ug/L	4.3513 ppb	16:58:19
2	Sr 421.552†	10.3	-1.7	-0.0106 ug/L	-0.0106 ppb	16:58:19
2	Sc 361.383	960975.6	960975.6	101.78 %		16:59:41
2	Y 371.029	811516.3	811516.3	101.77 %		16:59:41
2	Ag 328.068†	293.2	-123.2	-0.5367 ug/L	-0.5367 ppb	16:59:46
2	As 188.979†	-13.1	6.7	2.7194 ug/L	2.7194 ppb	17:00:06
2	B 249.677†	-371.0	163.0	3.5346 ug/L	3.5346 ppb	17:00:06
2	Ba 233.527†	10.8	-9.0	-0.0648 ug/L	-0.0648 ppb	17:00:06
2	Be 313.107†	-4475.1	134.0	0.0479 ug/L	0.0479 ppb	16:59:46
2	Cd 226.502†	-199.5	20.9	0.2220 ug/L	0.2220 ppb	17:00:06
2	Co 228.616†	-61.3	13.2	0.2576 ug/L	0.2576 ppb	17:00:06
2	Cr 267.716†	103.8	21.9	0.2417 ug/L	0.2417 ppb	17:00:06
2	Cu 324.752†	6169.1	-105.4	-0.3059 ug/L	-0.3059 ppb	16:59:46
2	Mn 257.610†	880.6	409.6	0.4348 ug/L	0.4348 ppb	17:00:06
2	Mo 202.031†	25.6	6.4	0.4298 ug/L	0.4298 ppb	17:00:06
2	Ni 231.604†	82.0	-20.0	-0.4821 ug/L	-0.4821 ppb	17:00:06

2	P 214.914†	241.7	2.9	1.7340 ug/L	1.7340 ppb	17:00:06
2	Pb 220.353†	-32.0	22.4	2.6294 ug/L	2.6294 ppb	17:00:06
2	S 181.975 Axial†	37.4	-4.8	-6.4201 ug/L	-6.4201 ppb	17:00:06
2	Sb 206.836†	57.2	17.5	5.7657 ug/L	5.7657 ppb	17:00:06
2	Se 196.026†	-30.2	3.3	2.0035 ug/L	2.0035 ppb	17:00:06
2	Si 251.611†	745.0	234.8	7.0977 ug/L	7.0977 ppb	17:00:06
2	Sn 189.927†	8.0	0.4	0.0640 ug/L	0.0640 ppb	17:00:06
2	Ti 334.940†	-1259.1	151.8	0.2327 ug/L	0.2327 ppb	16:59:46
2	Tl 190.801†	-43.1	-3.6	-1.0515 ug/L	-1.0515 ppb	17:00:06
2	U 409.014†	-1752.2	-76.6	-2.1693 ug/L	-2.1693 ppb	16:59:41
2	V 292.402†	-1416.8	85.6	0.5634 ug/L	0.5634 ppb	16:59:46
2	Zn 213.857†	834.1	111.8	1.0108 ug/L	1.0108 ppb	17:00:06
2	SiO2†	765.0	226.6	14.771 ug/L	14.771 ppb	17:00:46
3	Sc Radial	5495.4	5495.4	103 %		16:58:44
3	Y RADIAL	5790.5	5790.5	102.6 %		16:58:44
3	Al 396.153Radial†	-18.1	-22.2	-17.770 ug/L	-17.770 ppb	16:58:44
3	Ca 317.933Radial†	25.6	4.2	6.9323 ug/L	6.9323 ppb	16:59:04
3	Fe 238.204 Radial†	13.7	0.4	3.5794 ug/L	3.5794 ppb	16:59:04
3	K 766.490 Radial†	2832.3	70.1	14.832 ug/L	14.832 ppb	16:58:44
3	Mg 279.077 IEC†	3.8	1.1	35.675 ug/L	35.675 ppb	16:59:04
3	Na 589.592 Radial†	-1137.0	-3.4	-0.9255 ug/L	-0.9255 ppb	16:58:44
3	Sr 421.552†	18.6	6.3	0.0405 ug/L	0.0405 ppb	16:58:44
3	Sc 361.383	953600.6	953600.6	101.00 %		17:00:11
3	Y 371.029	805208.6	805208.6	100.98 %		17:00:11
3	Ag 328.068†	384.1	-31.0	-0.1306 ug/L	-0.1306 ppb	17:00:16
3	As 188.979†	-25.5	-5.7	-2.3145 ug/L	-2.3145 ppb	17:00:36
3	B 249.677†	-348.9	182.1	3.9495 ug/L	3.9495 ppb	17:00:36
3	Ba 233.527†	13.1	-6.7	-0.0481 ug/L	-0.0481 ppb	17:00:36
3	Be 313.107†	-4492.6	82.7	0.0298 ug/L	0.0298 ppb	17:00:16
3	Cd 226.502†	-197.5	21.3	0.2269 ug/L	0.2269 ppb	17:00:36
3	Co 228.616†	-75.3	-1.2	-0.0237 ug/L	-0.0237 ppb	17:00:36
3	Cr 267.716†	111.9	30.7	0.3378 ug/L	0.3378 ppb	17:00:36
3	Cu 324.752†	6204.2	-23.8	-0.0676 ug/L	-0.0676 ppb	17:00:16
3	Mn 257.610†	888.9	424.5	0.4481 ug/L	0.4481 ppb	17:00:36
3	Mo 202.031†	21.6	2.6	0.1719 ug/L	0.1719 ppb	17:00:36
3	Ni 231.604†	105.0	3.4	0.0827 ug/L	0.0827 ppb	17:00:36
3	P 214.914†	233.2	-3.6	-2.0871 ug/L	-2.0871 ppb	17:00:36
3	Pb 220.353†	-30.2	23.9	2.8049 ug/L	2.8049 ppb	17:00:36
3	S 181.975 Axial†	52.8	10.8	14.457 ug/L	14.457 ppb	17:00:36
3	Sb 206.836†	58.9	19.6	6.4757 ug/L	6.4757 ppb	17:00:36
3	Se 196.026†	-37.8	-4.5	-2.7547 ug/L	-2.7547 ppb	17:00:36
3	Si 251.611†	742.1	237.6	7.1863 ug/L	7.1863 ppb	17:00:36
3	Sn 189.927†	8.4	0.9	0.1438 ug/L	0.1438 ppb	17:00:36
3	Ti 334.940†	-1245.5	155.6	0.2347 ug/L	0.2347 ppb	17:00:16
3	Tl 190.801†	-40.9	-1.8	-0.5127 ug/L	-0.5127 ppb	17:00:36
3	U 409.014†	-1763.7	-101.3	-2.8689 ug/L	-2.8689 ppb	17:00:11
3	V 292.402†	-1414.6	76.9	0.5026 ug/L	0.5026 ppb	17:00:16
3	Zn 213.857†	849.6	133.5	1.2016 ug/L	1.2016 ppb	17:00:36
3	SiO2†	780.6	247.9	16.165 ug/L	16.165 ppb	17:00:51

Mean Data: 1202011708|940084|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity		Units		Conc. Units		
Sc 361.383	957420.1	101.41	%	0.391			0.39%
Sc Radial	5464.8	103	%	0.6			0.55%
Y 371.029	808464.6	101.39	%	0.396			0.39%
Y RADIAL	5773.0	102.3	%	0.62			0.61%
Ag 328.068†	-44.3	-0.1897	ug/L	0.32151	-0.1897	ppb	0.32151 169.48%
Al 396.153Radial†	-8.1	-6.5285	ug/L	10.95127	-6.5285	ppb	10.95127 167.75%
As 188.979†	0.7	0.2837	ug/L	2.52089	0.2837	ppb	2.52089 888.54%
B 249.677†	170.8	3.7044	ug/L	0.21745	3.7044	ppb	0.21745 5.87%
Ba 233.527†	-6.1	-0.0440	ug/L	0.02321	-0.0440	ppb	0.02321 52.79%
Be 313.107†	156.6	0.0560	ug/L	0.03099	0.0560	ppb	0.03099 55.36%
Ca 317.933Radial†	3.4	5.6283	ug/L	4.99715	5.6283	ppb	4.99715 88.79%
Cd 226.502†	18.7	0.1984	ug/L	0.04524	0.1984	ppb	0.04524 22.80%
Co 228.616†	7.4	0.1434	ug/L	0.14794	0.1434	ppb	0.14794 103.19%
Cr 267.716†	26.8	0.2954	ug/L	0.04906	0.2954	ppb	0.04906 16.61%
Cu 324.752†	-102.0	-0.2948	ug/L	0.22190	-0.2948	ppb	0.22190 75.27%
Fe 238.204 Radial†	0.0	0.2416	ug/L	4.83101	0.2416	ppb	4.83101 >999.9%
K 766.490 Radial†	86.7	18.341	ug/L	16.5297	18.341	ppb	16.5297 90.12%

Mg 279.077 IEC†	-0.0	-0.3504 ug/L	32.29113	-0.3504 ppb	32.29113	>999.9%
Mn 257.610†	422.0	0.4467 ug/L	0.01126	0.4467 ppb	0.01126	2.52%
Mo 202.031†	3.8	0.2550 ug/L	0.15142	0.2550 ppb	0.15142	59.38%
Na 589.592 Radial†	17.2	4.6275 ug/L	5.69605	4.6275 ppb	5.69605	123.09%
Ni 231.604†	-3.9	-0.0951 ug/L	0.33552	-0.0951 ppb	0.33552	352.70%
P 214.914†	1.6	1.0009 ug/L	2.79451	1.0009 ppb	2.79451	279.19%
Pb 220.353†	16.5	1.9407 ug/L	1.34776	1.9407 ppb	1.34776	69.45%
S 181.975 Axial†	4.3	5.6988 ug/L	10.83665	5.6988 ppb	10.83665	190.16%
Sb 206.836†	18.8	6.1845 ug/L	0.37185	6.1845 ppb	0.37185	6.01%
Se 196.026†	-1.9	-1.1829 ug/L	2.75959	-1.1829 ppb	2.75959	233.29%
Si 251.611†	237.3	7.1756 ug/L	0.07318	7.1756 ppb	0.07318	1.02%
Sn 189.927†	0.3	0.0583 ug/L	0.08844	0.0583 ppb	0.08844	151.65%
Sr 421.552†	15.0	0.0961 ug/L	0.14281	0.0961 ppb	0.14281	148.68%
Ti 334.940†	164.2	0.2510 ug/L	0.03008	0.2510 ppb	0.03008	11.98%
Tl 190.801†	-0.8	-0.2300 ug/L	0.99358	-0.2300 ppb	0.99358	432.04%
U 409.014†	-148.3	-4.2015 ug/L	2.93489	-4.2015 ppb	2.93489	69.85%
V 292.402†	68.5	0.4453 ug/L	0.15480	0.4453 ppb	0.15480	34.76%
Zn 213.857†	125.3	1.1296 ug/L	0.10370	1.1296 ppb	0.10370	9.18%
SiO2†	234.8	15.311 ug/L	0.7477	15.311 ppb	0.7477	4.88%

Sequence No.: 5

Sample ID: 1202011709|940084|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 39

Date Collected: 1/18/2010 17:03:02

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011709|940084|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Conc. Units	Sample Units	Analysis Time
1	Sc Radial	5375.9	5375.9	101 %				17:04:55
1	Y RADIAL	5661.4	5661.4	100.3 %				17:04:55
1	Al 396.153Radial†	6443.6	6380.5	5082.3 ug/L		5082.3	ppb	17:04:55
1	Ca 317.933Radial†	3075.6	3027.1	5004.4 ug/L		5004.4	ppb	17:05:15
1	Fe 238.204 Radial†	602.5	584.2	5059.2 ug/L		5059.2	ppb	17:05:15
1	K 766.490 Radial†	26652.7	23735.2	5015.8 ug/L		5015.8	ppb	17:04:55
1	Mg 279.077 IEC†	162.0	157.9	5202.3 ug/L		5202.3	ppb	17:05:15
1	Na 589.592 Radial†	18468.8	19399.9	5212.5 ug/L		5212.5	ppb	17:04:55
1	Sr 421.552†	81765.9	81011.9	518.44 ug/L		518.44	ppb	17:04:55
1	Sc 361.383	949426.0	949426.0	100.56 %				17:06:14
1	Y 371.029	793411.5	793411.5	99.504 %				17:06:14
1	Ag 328.068†	110881.4	109854.0	486.11 ug/L		486.11	ppb	17:06:14
1	As 188.979†	1200.4	1213.3	497.75 ug/L		497.75	ppb	17:06:34
1	B 249.677†	21767.8	22174.3	478.91 ug/L		478.91	ppb	17:06:14
1	Ba 233.527†	68336.0	67936.5	497.92 ug/L		497.92	ppb	17:06:14
1	Be 313.107†	1397739.4	1394502.0	494.58 ug/L		494.58	ppb	17:06:14
1	Cd 226.502†	44842.8	44810.4	478.27 ug/L		478.27	ppb	17:06:34
1	Co 228.616†	24680.4	24616.7	480.40 ug/L		480.40	ppb	17:06:34
1	Cr 267.716†	44889.2	44559.7	488.15 ug/L		488.15	ppb	17:06:14
1	Cu 324.752†	177030.1	169879.8	495.10 ug/L		495.10	ppb	17:06:14
1	Mn 257.610†	473141.3	470056.2	497.79 ug/L		497.79	ppb	17:06:14
1	Mo 202.031†	7267.0	7207.8	484.51 ug/L		484.51	ppb	17:06:34
1	Ni 231.604†	20586.9	20372.0	491.23 ug/L		491.23	ppb	17:06:34
1	P 214.914†	1199.2	958.0	454.70 ug/L		454.70	ppb	17:06:34
1	Pb 220.353†	4198.2	4228.6	498.69 ug/L		498.69	ppb	17:06:34
1	S 181.975 Axial†	3725.5	3663.3	4909.8 ug/L		4909.8	ppb	17:06:34
1	Sb 206.836†	1563.2	1515.8	517.04 ug/L		517.04	ppb	17:06:34
1	Se 196.026†	767.7	796.3	508.31 ug/L		508.31	ppb	17:06:34
1	Si 251.611†	159473.5	158090.0	4776.6 ug/L		4776.6	ppb	17:06:14
1	Sn 189.927†	3031.9	3007.6	504.27 ug/L		504.27	ppb	17:06:34
1	Ti 334.940†	324849.1	324432.5	490.79 ug/L		490.79	ppb	17:06:14
1	Tl 190.801†	1679.8	1709.2	497.41 ug/L		497.41	ppb	17:06:34
1	U 409.014†	15762.9	17320.2	488.81 ug/L		488.81	ppb	17:06:14
1	V 292.402†	73525.5	74594.5	496.85 ug/L		496.85	ppb	17:06:14
1	Zn 213.857†	54882.4	53869.7	481.04 ug/L		481.04	ppb	17:06:14
1	SiO2†	162027.7	160602.3	10464 ug/L		10464	ppb	17:07:34
2	Sc Radial	5449.8	5449.8	102 %				17:05:20
2	Y RADIAL	5673.3	5673.3	100.5 %				17:05:20
2	Al 396.153Radial†	6348.8	6201.3	4939.3 ug/L		4939.3	ppb	17:05:20
2	Ca 317.933Radial†	3072.6	2982.9	4931.4 ug/L		4931.4	ppb	17:05:40
2	Fe 238.204 Radial†	608.5	581.9	5039.0 ug/L		5039.0	ppb	17:05:40
2	K 766.490 Radial†	26303.9	23036.5	4868.1 ug/L		4868.1	ppb	17:05:20
2	Mg 279.077 IEC†	161.7	155.4	5118.6 ug/L		5118.6	ppb	17:05:40
2	Na 589.592 Radial†	18170.0	18859.7	5067.4 ug/L		5067.4	ppb	17:05:20
2	Sr 421.552†	80857.4	79026.0	505.73 ug/L		505.73	ppb	17:05:20
2	Sc 361.383	961896.1	961896.1	101.88 %				17:06:41
2	Y 371.029	803079.9	803079.9	100.72 %				17:06:41
2	Ag 328.068†	112342.8	109858.9	486.13 ug/L		486.13	ppb	17:06:41
2	As 188.979†	1185.2	1182.9	485.40 ug/L		485.40	ppb	17:07:01
2	B 249.677†	22281.6	22398.1	483.80 ug/L		483.80	ppb	17:06:41
2	Ba 233.527†	69296.4	67998.2	498.37 ug/L		498.37	ppb	17:06:41
2	Be 313.107†	1416792.0	1395183.4	494.83 ug/L		494.83	ppb	17:06:41
2	Cd 226.502†	44523.5	43918.9	468.75 ug/L		468.75	ppb	17:07:01
2	Co 228.616†	24460.8	24082.9	469.97 ug/L		469.97	ppb	17:07:01
2	Cr 267.716†	45483.5	44564.3	488.20 ug/L		488.20	ppb	17:06:41
2	Cu 324.752†	179549.1	170070.0	495.65 ug/L		495.65	ppb	17:06:41
2	Mn 257.610†	479565.3	470261.9	498.01 ug/L		498.01	ppb	17:06:41
2	Mo 202.031†	7228.5	7076.3	475.68 ug/L		475.68	ppb	17:07:01
2	Ni 231.604†	20455.3	19977.4	481.72 ug/L		481.72	ppb	17:07:01



2	P 214.914†	1200.1	943.4	446.10 ug/L	446.10 ppb	17:07:01
2	Pb 220.353†	4153.7	4130.8	487.14 ug/L	487.14 ppb	17:07:01
2	S 181.975 Axial†	3697.9	3588.1	4809.1 ug/L	4809.1 ppb	17:07:01
2	Sb 206.836†	1545.2	1478.0	504.29 ug/L	504.29 ppb	17:07:01
2	Se 196.026†	753.2	772.2	493.40 ug/L	493.40 ppb	17:07:01
2	Si 251.611†	161841.0	158358.0	4784.8 ug/L	4784.8 ppb	17:06:41
2	Sn 189.927†	3024.7	2961.4	496.54 ug/L	496.54 ppb	17:07:01
2	Ti 334.940†	329233.2	324547.7	490.96 ug/L	490.96 ppb	17:06:41
2	Tl 190.801†	1669.1	1677.1	488.16 ug/L	488.16 ppb	17:07:01
2	U 409.014†	15944.1	17294.9	488.09 ug/L	488.09 ppb	17:06:41
2	V 292.402†	74668.8	74768.7	497.87 ug/L	497.87 ppb	17:06:41
2	Zn 213.857†	55631.6	53897.5	481.35 ug/L	481.35 ppb	17:06:41
2	SiO2†	160359.0	156875.5	10221 ug/L	10221 ppb	17:07:39
3	Sc Radial	5359.8	5359.8	101 %		17:05:45
3	Y RADIAL	5663.7	5663.7	100.3 %		17:05:45
3	Al 396.153Radial†	6265.4	6222.6	4956.0 ug/L	4956.0 ppb	17:05:45
3	Ca 317.933Radial†	3071.7	3032.4	5013.3 ug/L	5013.3 ppb	17:06:05
3	Fe 238.204 Radial†	603.6	587.1	5084.1 ug/L	5084.1 ppb	17:06:05
3	K 766.490 Radial†	26147.7	23313.1	4926.5 ug/L	4926.5 ppb	17:05:45
3	Mg 279.077 IEC†	155.5	151.9	5003.7 ug/L	5003.7 ppb	17:06:05
3	Na 589.592 Radial†	17829.1	18819.3	5056.5 ug/L	5056.5 ppb	17:05:45
3	Sr 421.552†	79621.6	79125.4	506.37 ug/L	506.37 ppb	17:05:45
3	Sc 361.383	949131.0	949131.0	100.53 %		17:07:08
3	Y 371.029	792210.3	792210.3	99.353 %		17:07:08
3	Ag 328.068†	111012.7	110018.8	486.85 ug/L	486.85 ppb	17:07:08
3	As 188.979†	1204.6	1217.9	499.61 ug/L	499.61 ppb	17:07:28
3	B 249.677†	21985.5	22397.6	483.76 ug/L	483.76 ppb	17:07:08
3	Ba 233.527†	68580.0	68200.4	499.85 ug/L	499.85 ppb	17:07:08
3	Be 313.107†	1397702.7	1394897.5	494.72 ug/L	494.72 ppb	17:07:08
3	Cd 226.502†	44575.0	44557.9	475.57 ug/L	475.57 ppb	17:07:28
3	Co 228.616†	24541.0	24485.6	477.84 ug/L	477.84 ppb	17:07:28
3	Cr 267.716†	44996.1	44679.9	489.46 ug/L	489.46 ppb	17:07:08
3	Cu 324.752†	176881.2	169786.3	494.83 ug/L	494.83 ppb	17:07:08
3	Mn 257.610†	474003.5	471060.1	498.86 ug/L	498.86 ppb	17:07:08
3	Mo 202.031†	7245.5	7188.7	483.23 ug/L	483.23 ppb	17:07:28
3	Ni 231.604†	20470.5	20262.6	488.59 ug/L	488.59 ppb	17:07:28
3	P 214.914†	1205.6	964.7	458.56 ug/L	458.56 ppb	17:07:28
3	Pb 220.353†	4168.2	4200.1	495.30 ug/L	495.30 ppb	17:07:28
3	S 181.975 Axial†	3704.4	3643.4	4883.2 ug/L	4883.2 ppb	17:07:28
3	Sb 206.836†	1551.4	1504.6	513.28 ug/L	513.28 ppb	17:07:28
3	Se 196.026†	767.3	796.2	508.29 ug/L	508.29 ppb	17:07:28
3	Si 251.611†	159812.9	158476.9	4788.3 ug/L	4788.3 ppb	17:07:08
3	Sn 189.927†	3019.1	2995.8	502.30 ug/L	502.30 ppb	17:07:28
3	Ti 334.940†	324941.4	324624.7	491.10 ug/L	491.10 ppb	17:07:08
3	Tl 190.801†	1674.2	1704.2	495.96 ug/L	495.96 ppb	17:07:28
3	U 409.014†	15739.0	17301.3	488.27 ug/L	488.27 ppb	17:07:08
3	V 292.402†	73584.2	74675.6	497.36 ug/L	497.36 ppb	17:07:08
3	Zn 213.857†	55045.6	54049.1	482.67 ug/L	482.67 ppb	17:07:08
3	SiO2†	159864.2	158500.1	10327 ug/L	10327 ppb	17:07:45

Mean Data: 1202011709|940084|1

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	953484.4	100.99 %		0.772			0.76%
Sc Radial	5395.2	101 %		0.9			0.89%
Y 371.029	796233.9	99.858 %		0.7473			0.75%
Y RADIAL	5666.1	100.4 %		0.11			0.11%
Ag 328.068†	109910.6	486.36 ug/L		0.418	486.36 ppb	0.418	0.09%
Al 396.153Radial†	6268.1	4992.5 ug/L		78.18	4992.5 ppb	78.18	1.57%
As 188.979†	1204.7	494.25 ug/L		7.723	494.25 ppb	7.723	1.56%
B 249.677†	22323.3	482.16 ug/L		2.810	482.16 ppb	2.810	0.58%
Ba 233.527†	68045.0	498.71 ug/L		1.010	498.71 ppb	1.010	0.20%
Be 313.107†	1394861.0	494.71 ug/L		0.121	494.71 ppb	0.121	0.02%
Ca 317.933Radial†	3014.1	4983.0 ug/L		44.94	4983.0 ppb	44.94	0.90%
Cd 226.502†	44429.1	474.20 ug/L		4.907	474.20 ppb	4.907	1.03%
Co 228.616†	24395.1	476.07 ug/L		5.438	476.07 ppb	5.438	1.14%
Cr 267.716†	44601.3	488.60 ug/L		0.746	488.60 ppb	0.746	0.15%
Cu 324.752†	169912.0	495.19 ug/L		0.420	495.19 ppb	0.420	0.08%
Fe 238.204 Radial†	584.4	5060.8 ug/L		22.55	5060.8 ppb	22.55	0.45%
K 766.490 Radial†	23361.6	4936.8 ug/L		74.38	4936.8 ppb	74.38	1.51%

Mg 279.077 IEC†	155.1	5108.2 ug/L	99.70	5108.2 ppb	99.70	1.95%
Mn 257.610†	470459.4	498.22 ug/L	0.567	498.22 ppb	0.567	0.11%
Mo 202.031†	7157.6	481.14 ug/L	4.773	481.14 ppb	4.773	0.99%
Na 589.592 Radial†	19026.3	5112.1 ug/L	87.09	5112.1 ppb	87.09	1.70%
Ni 231.604†	20204.0	487.18 ug/L	4.912	487.18 ppb	4.912	1.01%
P 214.914†	955.3	453.12 ug/L	6.375	453.12 ppb	6.375	1.41%
Pb 220.353†	4186.5	493.71 ug/L	5.936	493.71 ppb	5.936	1.20%
S 181.975 Axial†	3631.6	4867.3 ug/L	52.19	4867.3 ppb	52.19	1.07%
Sb 206.836†	1499.5	511.54 ug/L	6.553	511.54 ppb	6.553	1.28%
Se 196.026†	788.3	503.33 ug/L	8.601	503.33 ppb	8.601	1.71%
Si 251.611†	158308.3	4783.2 ug/L	6.02	4783.2 ppb	6.02	0.13%
Sn 189.927†	2988.3	501.04 ug/L	4.018	501.04 ppb	4.018	0.80%
Sr 421.552†	79721.1	510.18 ug/L	7.161	510.18 ppb	7.161	1.40%
Ti 334.940†	324535.0	490.95 ug/L	0.154	490.95 ppb	0.154	0.03%
Tl 190.801†	1696.8	493.84 ug/L	4.977	493.84 ppb	4.977	1.01%
U 409.014†	17305.5	488.39 ug/L	0.372	488.39 ppb	0.372	0.08%
V 292.402†	74679.6	497.36 ug/L	0.510	497.36 ppb	0.510	0.10%
Zn 213.857†	53938.8	481.69 ug/L	0.865	481.69 ppb	0.865	0.18%
SiO2†	158659.3	10338 ug/L	121.8	10338 ppb	121.8	1.18%

Sequence No.: 11

Sample ID: 244145001|940084|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 45

Date Collected: 1/18/2010 17:45:00

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 244145001|940084|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5587.7	5587.7	105 %			17:46:52
1	Y RADIAL	5888.0	5888.0	104.3 %			17:46:52
1	Al 396.153Radial†	307.8	288.8	231.12 ug/L		231.12 ppb	17:46:52
1	Ca 317.933Radial†	61.9	38.4	63.447 ug/L		63.447 ppb	17:47:13
1	Fe 238.204 Radial†	28.5	14.3	123.49 ug/L		123.49 ppb	17:47:13
1	K 766.490 Radial†	3444.4	608.3	128.57 ug/L		128.57 ppb	17:46:52
1	Mg 279.077 IEC†	4.1	1.2	40.897 ug/L		40.897 ppb	17:47:13
1	Na 589.592 Radial†	-470.5	650.1	174.68 ug/L		174.68 ppb	17:46:52
1	Sr 421.552†	99.5	83.2	0.5318 ug/L		0.5318 ppb	17:46:52
1	Sc 361.383	959719.9	959719.9	101.65 %			17:48:09
1	Y 371.029	808868.6	808868.6	101.44 %			17:48:09
1	Ag 328.068†	400.8	-16.9	-0.0316 ug/L		-0.0316 ppb	17:48:14
1	As 188.979†	-21.2	-1.2	-0.4152 ug/L		-0.4152 ppb	17:48:34
1	B 249.677†	175.1	699.7	15.161 ug/L		15.161 ppb	17:48:14
1	Ba 233.527†	417.0	390.5	2.8598 ug/L		2.8598 ppb	17:48:34
1	Be 313.107†	-4477.3	126.1	0.0594 ug/L		0.0594 ppb	17:48:14
1	Cd 226.502†	-196.3	23.8	0.2410 ug/L		0.2410 ppb	17:48:34
1	Co 228.616†	-67.4	7.1	0.1242 ug/L		0.1242 ppb	17:48:34
1	Cr 267.716†	215.7	132.2	1.4501 ug/L		1.4501 ppb	17:48:34
1	Cu 324.752†	7207.8	924.4	2.7017 ug/L		2.7017 ppb	17:48:14
1	Mn 257.610†	4454.2	3926.3	4.1661 ug/L		4.1661 ppb	17:48:14
1	Mo 202.031†	24.2	5.0	0.3493 ug/L		0.3493 ppb	17:48:34
1	Ni 231.604†	122.9	20.4	0.4910 ug/L		0.4910 ppb	17:48:34
1	P 214.914†	246.0	7.4	3.6668 ug/L		3.6668 ppb	17:48:34
1	Pb 220.353†	-65.1	-10.3	-1.1742 ug/L		-1.1742 ppb	17:48:34
1	S 181.975 Axial†	76.3	33.6	44.989 ug/L		44.989 ppb	17:48:34
1	Sb 206.836†	36.9	-2.4	-0.8176 ug/L		-0.8176 ppb	17:48:34
1	Se 196.026†	-35.5	-2.0	-0.7736 ug/L		-0.7736 ppb	17:48:34
1	Si 251.611†	37916.5	36804.2	1113.4 ug/L		1113.4 ppb	17:48:14
1	Sn 189.927†	-1.4	-8.8	-1.4683 ug/L		-1.4683 ppb	17:48:34
1	Ti 334.940†	2948.7	4289.7	6.4967 ug/L		6.4967 ppb	17:48:14
1	Tl 190.801†	-30.5	8.8	2.6097 ug/L		2.6097 ppb	17:48:34
1	U 409.014†	-1742.2	-69.0	-1.9705 ug/L		-1.9705 ppb	17:48:09
1	V 292.402†	-1427.8	73.0	0.4561 ug/L		0.4561 ppb	17:48:14
1	Zn 213.857†	1045.6	320.9	2.8726 ug/L		2.8726 ppb	17:48:34
1	SiO2†	37773.9	36636.1	2390.1 ug/L		2390.1 ppb	17:49:40
2	Sc Radial	5609.0	5609.0	105 %			17:47:18
2	Y RADIAL	5927.0	5927.0	105.0 %			17:47:18
2	Al 396.153Radial†	324.3	303.4	242.80 ug/L		242.80 ppb	17:47:18
2	Ca 317.933Radial†	59.8	36.2	59.875 ug/L		59.875 ppb	17:47:38
2	Fe 238.204 Radial†	28.3	14.1	121.35 ug/L		121.35 ppb	17:47:38
2	K 766.490 Radial†	3605.8	749.1	158.35 ug/L		158.35 ppb	17:47:18
2	Mg 279.077 IEC†	5.2	2.3	75.057 ug/L		75.057 ppb	17:47:38
2	Na 589.592 Radial†	-466.1	656.1	176.27 ug/L		176.27 ppb	17:47:18
2	Sr 421.552†	117.6	100.1	0.6400 ug/L		0.6400 ppb	17:47:18
2	Sc 361.383	958333.7	958333.7	101.50 %			17:48:40
2	Y 371.029	809021.1	809021.1	101.46 %			17:48:40
2	Ag 328.068†	361.1	-55.5	-0.2030 ug/L		-0.2030 ppb	17:48:45
2	As 188.979†	-29.5	-9.4	-3.7579 ug/L		-3.7579 ppb	17:49:05
2	B 249.677†	161.4	686.5	14.875 ug/L		14.875 ppb	17:48:45
2	Ba 233.527†	443.0	416.7	3.0513 ug/L		3.0513 ppb	17:49:05
2	Be 313.107†	-4481.7	115.4	0.0555 ug/L		0.0555 ppb	17:48:45
2	Cd 226.502†	-217.7	2.4	0.0131 ug/L		0.0131 ppb	17:49:05
2	Co 228.616†	-65.1	9.3	0.1666 ug/L		0.1666 ppb	17:49:05
2	Cr 267.716†	222.0	138.6	1.5200 ug/L		1.5200 ppb	17:49:05
2	Cu 324.752†	7237.0	963.4	2.8145 ug/L		2.8145 ppb	17:48:45
2	Mn 257.610†	4428.6	3907.5	4.1446 ug/L		4.1446 ppb	17:48:45
2	Mo 202.031†	15.6	-3.4	-0.2203 ug/L		-0.2203 ppb	17:49:05
2	Ni 231.604†	139.1	36.6	0.8819 ug/L		0.8819 ppb	17:49:05

2	P 214.914†	261.4	23.0	12.632 ug/L	12.632 ppb	17:49:05
2	Pb 220.353†	-49.5	5.0	0.6229 ug/L	0.6229 ppb	17:49:05
2	S 181.975 Axial†	76.5	33.9	45.374 ug/L	45.374 ppb	17:49:05
2	Sb 206.836†	42.1	2.7	0.8557 ug/L	0.8557 ppb	17:49:05
2	Se 196.026†	-37.7	-4.3	-2.1504 ug/L	-2.1504 ppb	17:49:05
2	Si 251.611†	37621.7	36567.8	1106.3 ug/L	1106.3 ppb	17:48:45
2	Sn 189.927†	0.8	-6.7	-1.1143 ug/L	-1.1143 ppb	17:49:05
2	Ti 334.940†	2926.4	4271.9	6.4660 ug/L	6.4660 ppb	17:48:45
2	Tl 190.801†	-35.7	3.6	1.1073 ug/L	1.1073 ppb	17:49:05
2	U 409.014†	-1696.6	-26.6	-0.7706 ug/L	-0.7706 ppb	17:48:40
2	V 292.402†	-1435.4	63.4	0.3884 ug/L	0.3884 ppb	17:48:45
2	Zn 213.857†	1046.7	323.6	2.8938 ug/L	2.8938 ppb	17:49:05
2	SiO2†	37674.9	36592.3	2387.2 ug/L	2387.2 ppb	17:49:45
3	Sc Radial	5522.3	5522.3	104 %		17:47:43
3	Y RADIAL	5831.9	5831.9	103.3 %		17:47:43
3	Al 396.153Radial†	304.9	289.5	231.65 ug/L	231.65 ppb	17:47:43
3	Ca 317.933Radial†	62.8	40.0	66.053 ug/L	66.053 ppb	17:48:03
3	Fe 238.204 Radial†	27.8	14.0	121.25 ug/L	121.25 ppb	17:48:03
3	K 766.490 Radial†	3548.8	747.9	158.10 ug/L	158.10 ppb	17:47:43
3	Mg 279.077 IEC†	4.8	2.0	65.756 ug/L	65.756 ppb	17:48:03
3	Na 589.592 Radial†	-463.5	651.6	175.07 ug/L	175.07 ppb	17:47:43
3	Sr 421.552†	123.3	107.3	0.6860 ug/L	0.6860 ppb	17:47:43
3	Sc 361.383	964057.7	964057.7	102.11 %		17:49:10
3	Y 371.029	813718.5	813718.5	102.05 %		17:49:10
3	Ag 328.068†	388.2	-31.0	-0.0948 ug/L	-0.0948 ppb	17:49:15
3	As 188.979†	-17.0	3.0	1.2879 ug/L	1.2879 ppb	17:49:35
3	B 249.677†	200.7	724.0	15.688 ug/L	15.688 ppb	17:49:15
3	Ba 233.527†	445.0	416.1	3.0476 ug/L	3.0476 ppb	17:49:35
3	Be 313.107†	-4497.7	125.9	0.0601 ug/L	0.0601 ppb	17:49:15
3	Cd 226.502†	-210.2	11.0	0.1056 ug/L	0.1056 ppb	17:49:35
3	Co 228.616†	-62.2	12.5	0.2299 ug/L	0.2299 ppb	17:49:35
3	Cr 267.716†	218.2	133.6	1.4654 ug/L	1.4654 ppb	17:49:35
3	Cu 324.752†	7305.1	987.8	2.8852 ug/L	2.8852 ppb	17:49:15
3	Mn 257.610†	4482.9	3934.8	4.1738 ug/L	4.1738 ppb	17:49:15
3	Mo 202.031†	27.3	8.0	0.5467 ug/L	0.5467 ppb	17:49:35
3	Ni 231.604†	153.0	49.3	1.1905 ug/L	1.1905 ppb	17:49:35
3	P 214.914†	245.0	5.4	2.4744 ug/L	2.4744 ppb	17:49:35
3	Pb 220.353†	-49.3	5.5	0.6806 ug/L	0.6806 ppb	17:49:35
3	S 181.975 Axial†	77.0	33.9	45.389 ug/L	45.389 ppb	17:49:35
3	Sb 206.836†	41.1	1.5	0.4876 ug/L	0.4876 ppb	17:49:35
3	Se 196.026†	-28.9	4.6	3.2937 ug/L	3.2937 ppb	17:49:35
3	Si 251.611†	38225.0	36938.5	1117.5 ug/L	1117.5 ppb	17:49:15
3	Sn 189.927†	5.3	-2.3	-0.3773 ug/L	-0.3773 ppb	17:49:35
3	Ti 334.940†	3194.6	4517.4	6.8388 ug/L	6.8388 ppb	17:49:15
3	Tl 190.801†	-43.6	-4.0	-1.0814 ug/L	-1.0814 ppb	17:49:35
3	U 409.014†	-1683.1	-3.5	-0.1149 ug/L	-0.1149 ppb	17:49:10
3	V 292.402†	-1397.1	109.3	0.7021 ug/L	0.7021 ppb	17:49:15
3	Zn 213.857†	1042.2	313.0	2.7968 ug/L	2.7968 ppb	17:49:35
3	SiO2†	37676.7	36373.7	2373.0 ug/L	2373.0 ppb	17:49:51

Mean Data: 244145001|940084|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	960703.8	101.75 %		0.316			0.31%
Sc Radial	5573.0	105 %		0.8			0.81%
Y 371.029	810536.1	101.65 %		0.346			0.34%
Y RADIAL	5882.3	104.2 %		0.85			0.81%
Ag 328.068†	-34.4	-0.1098 ug/L		0.08670	-0.1098 ppb	0.08670	78.95%
Al 396.153Radial†	293.9	235.19 ug/L		6.593	235.19 ppb	6.593	2.80%
As 188.979†	-2.6	-0.9618 ug/L		2.56692	-0.9618 ppb	2.56692	266.90%
B 249.677†	703.4	15.241 ug/L		0.4125	15.241 ppb	0.4125	2.71%
Ba 233.527†	407.8	2.9862 ug/L		0.10947	2.9862 ppb	0.10947	3.67%
Be 313.107†	122.5	0.0583 ug/L		0.00246	0.0583 ppb	0.00246	4.22%
Ca 317.933Radial†	38.2	63.125 ug/L		3.1018	63.125 ppb	3.1018	4.91%
Cd 226.502†	12.4	0.1199 ug/L		0.11463	0.1199 ppb	0.11463	95.61%
Co 228.616†	9.6	0.1735 ug/L		0.05320	0.1735 ppb	0.05320	30.65%
Cr 267.716†	134.8	1.4785 ug/L		0.03673	1.4785 ppb	0.03673	2.48%
Cu 324.752†	958.5	2.8005 ug/L		0.09253	2.8005 ppb	0.09253	3.30%
Fe 238.204 Radial†	14.1	122.03 ug/L		1.266	122.03 ppb	1.266	1.04%
K 766.490 Radial†	701.8	148.34 ug/L		17.126	148.34 ppb	17.126	11.54%

Mg 279.077 IEC†	1.8	60.570 ug/L	17.6608	60.570 ppb	17.6608	29.16%
Mn 257.610†	3922.9	4.1615 ug/L	0.01514	4.1615 ppb	0.01514	0.36%
Mo 202.031†	3.2	0.2252 ug/L	0.39827	0.2252 ppb	0.39827	176.83%
Na 589.592 Radial†	652.6	175.34 ug/L	0.831	175.34 ppb	0.831	0.47%
Ni 231.604†	35.4	0.8545 ug/L	0.35057	0.8545 ppb	0.35057	41.03%
P 214.914†	11.9	6.2579 ug/L	5.55264	6.2579 ppb	5.55264	88.73%
Pb 220.353†	0.0	0.0431 ug/L	1.05462	0.0431 ppb	1.05462	>999.9%
S 181.975 Axial†	33.8	45.250 ug/L	0.2269	45.250 ppb	0.2269	0.50%
Sb 206.836†	0.6	0.1752 ug/L	0.87926	0.1752 ppb	0.87926	501.78%
Se 196.026†	-0.6	0.1232 ug/L	2.83070	0.1232 ppb	2.83070	>999.9%
Si 251.611†	36770.2	1112.4 ug/L	5.67	1112.4 ppb	5.67	0.51%
Sn 189.927†	-6.0	-0.9866 ug/L	0.55659	-0.9866 ppb	0.55659	56.41%
Sr 421.552†	96.8	0.6193 ug/L	0.07917	0.6193 ppb	0.07917	12.79%
Ti 334.940†	4359.7	6.6005 ug/L	0.20696	6.6005 ppb	0.20696	3.14%
Tl 190.801†	2.8	0.8785 ug/L	1.85615	0.8785 ppb	1.85615	211.28%
U 409.014†	-33.0	-0.9520 ug/L	0.94101	-0.9520 ppb	0.94101	98.85%
V 292.402†	81.9	0.5155 ug/L	0.16505	0.5155 ppb	0.16505	32.02%
Zn 213.857†	319.2	2.8544 ug/L	0.05100	2.8544 ppb	0.05100	1.79%
SiO2†	36534.0	2383.4 ug/L	9.18	2383.4 ppb	9.18	0.38%

Sequence No.: 12  
 Sample ID: 1202011710|940084|1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 46  
 Date Collected: 1/18/2010 17:52:02  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Replicate Data: 1202011710|940084|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	6199.1	6199.1	116 %		17:53:54
1	Y RADIAL	6571.2	6571.2	116.4 %		17:53:54
1	Al 396.153Radial†	353.1	298.8	239.15 ug/L	239.15 ppb	17:53:54
1	Ca 317.933Radial†	58.2	29.4	48.632 ug/L	48.632 ppb	17:54:14
1	Fe 238.204 Radial†	28.9	12.0	103.63 ug/L	103.63 ppb	17:54:14
1	K 766.490 Radial†	3501.5	333.6	70.461 ug/L	70.461 ppb	17:53:54
1	Mg 279.077 IEC†	2.1	-0.8	-27.265 ug/L	-27.265 ppb	17:54:14
1	Na 589.592 Radial†	-472.9	692.3	186.01 ug/L	186.01 ppb	17:53:54
1	Sr 421.552†	103.9	77.6	0.4963 ug/L	0.4963 ppb	17:53:54
1	Sc 361.383	967431.7	967431.7	102.47 %		17:55:11
1	Y 371.029	815251.2	815251.2	102.24 %		17:55:11
1	Ag 328.068†	356.1	-63.7	-0.2434 ug/L	-0.2434 ppb	17:55:16
1	As 188.979†	-28.0	-7.8	-3.0719 ug/L	-3.0719 ppb	17:55:36
1	B 249.677†	241.0	762.7	16.531 ug/L	16.531 ppb	17:55:16
1	Ba 233.527†	459.5	428.7	3.1393 ug/L	3.1393 ppb	17:55:36
1	Be 313.107†	-4420.6	216.5	0.0926 ug/L	0.0926 ppb	17:55:16
1	Cd 226.502†	-199.4	22.3	0.2277 ug/L	0.2277 ppb	17:55:36
1	Co 228.616†	-63.1	11.8	0.2143 ug/L	0.2143 ppb	17:55:36
1	Cr 267.716†	186.0	101.5	1.1134 ug/L	1.1134 ppb	17:55:36
1	Cu 324.752†	7158.1	819.4	2.3938 ug/L	2.3938 ppb	17:55:16
1	Mn 257.610†	5865.0	5268.3	5.5873 ug/L	5.5873 ppb	17:55:16
1	Mo 202.031†	11.2	-7.8	-0.5163 ug/L	-0.5163 ppb	17:55:36
1	Ni 231.604†	150.1	46.0	1.1086 ug/L	1.1086 ppb	17:55:36
1	P 214.914†	245.6	5.1	2.4558 ug/L	2.4558 ppb	17:55:36
1	Pb 220.353†	-54.9	0.2	0.0614 ug/L	0.0614 ppb	17:55:36
1	S 181.975 Axial†	77.0	33.6	44.997 ug/L	44.997 ppb	17:55:36
1	Sb 206.836†	39.7	0.1	-0.0116 ug/L	-0.0116 ppb	17:55:36
1	Se 196.026†	-33.2	0.5	0.7164 ug/L	0.7164 ppb	17:55:36
1	Si 251.611†	40849.4	39369.2	1191.0 ug/L	1191.0 ppb	17:55:16
1	Sn 189.927†	10.2	2.5	0.4279 ug/L	0.4279 ppb	17:55:36
1	Ti 334.940†	3354.7	4662.8	7.0643 ug/L	7.0643 ppb	17:55:16
1	Tl 190.801†	-40.8	-1.1	-0.2345 ug/L	-0.2345 ppb	17:55:36
1	U 409.014†	-1699.9	-14.0	-0.4120 ug/L	-0.4120 ppb	17:55:11
1	V 292.402†	-1385.5	125.4	0.7927 ug/L	0.7927 ppb	17:55:16
1	Zn 213.857†	1019.9	287.6	2.5710 ug/L	2.5710 ppb	17:55:36
1	SiO2†	40890.0	39381.0	2569.2 ug/L	2569.2 ppb	17:56:42
2	Sc Radial	5633.0	5633.0	106 %		17:54:19
2	Y RADIAL	5963.2	5963.2	105.6 %		17:54:19
2	Al 396.153Radial†	347.6	324.1	259.33 ug/L	259.33 ppb	17:54:19
2	Ca 317.933Radial†	57.9	34.2	56.477 ug/L	56.477 ppb	17:54:39
2	Fe 238.204 Radial†	34.9	20.2	174.41 ug/L	174.41 ppb	17:54:39
2	K 766.490 Radial†	3591.4	720.9	152.40 ug/L	152.40 ppb	17:54:19
2	Mg 279.077 IEC†	4.9	2.0	65.063 ug/L	65.063 ppb	17:54:39
2	Na 589.592 Radial†	-535.5	592.3	159.14 ug/L	159.14 ppb	17:54:19
2	Sr 421.552†	107.3	89.8	0.5742 ug/L	0.5742 ppb	17:54:19
2	Sc 361.383	970807.0	970807.0	102.82 %		17:55:41
2	Y 371.029	818752.3	818752.3	102.68 %		17:55:41
2	Ag 328.068†	397.0	-25.1	-0.0526 ug/L	-0.0526 ppb	17:55:46
2	As 188.979†	-25.8	-5.6	-2.1572 ug/L	-2.1572 ppb	17:56:07
2	B 249.677†	208.8	730.6	15.821 ug/L	15.821 ppb	17:55:46
2	Ba 233.527†	474.8	442.1	3.2391 ug/L	3.2391 ppb	17:56:07
2	Be 313.107†	-4496.1	158.1	0.0715 ug/L	0.0715 ppb	17:55:46
2	Cd 226.502†	-213.5	9.2	0.0808 ug/L	0.0808 ppb	17:56:07
2	Co 228.616†	-56.7	18.3	0.3399 ug/L	0.3399 ppb	17:56:07
2	Cr 267.716†	207.9	122.1	1.3402 ug/L	1.3402 ppb	17:56:07
2	Cu 324.752†	7178.9	815.3	2.3846 ug/L	2.3846 ppb	17:55:46
2	Mn 257.610†	5831.0	5215.3	5.5344 ug/L	5.5344 ppb	17:55:46
2	Mo 202.031†	14.7	-4.5	-0.2886 ug/L	-0.2886 ppb	17:56:07
2	Ni 231.604†	139.3	34.9	0.8419 ug/L	0.8419 ppb	17:56:07

2	P 214.914†	243.9	2.7	0.9824 ug/L	0.9824 ppb	17:56:07
2	Pb 220.353†	-51.2	4.0	0.5028 ug/L	0.5028 ppb	17:56:07
2	S 181.975 Axial†	69.8	26.4	35.342 ug/L	35.342 ppb	17:56:07
2	Sb 206.836†	35.4	-4.3	-1.4379 ug/L	-1.4379 ppb	17:56:07
2	Se 196.026†	-23.2	10.4	7.0104 ug/L	7.0104 ppb	17:56:07
2	Si 251.611†	40900.0	39279.7	1188.3 ug/L	1188.3 ppb	17:55:46
2	Sn 189.927†	6.1	-1.6	-0.2540 ug/L	-0.2540 ppb	17:56:07
2	Ti 334.940†	3242.1	4541.9	6.8741 ug/L	6.8741 ppb	17:55:46
2	Tl 190.801†	-34.1	5.6	1.7052 ug/L	1.7052 ppb	17:56:07
2	U 409.014†	-1645.1	45.0	1.2519 ug/L	1.2519 ppb	17:55:41
2	V 292.402†	-1404.0	112.1	0.7034 ug/L	0.7034 ppb	17:55:46
2	Zn 213.857†	1026.1	290.2	2.5892 ug/L	2.5892 ppb	17:56:07
2	SiO2†	40959.3	39309.6	2564.5 ug/L	2564.5 ppb	17:56:47
3	Sc Radial	5614.8	5614.8	105 %		17:54:45
3	Y RADIAL	5939.4	5939.4	105.2 %		17:54:45
3	Al 396.153Radial†	340.1	318.0	254.48 ug/L	254.48 ppb	17:54:45
3	Ca 317.933Radial†	58.0	34.4	56.930 ug/L	56.930 ppb	17:55:05
3	Fe 238.204 Radial†	28.2	14.0	120.57 ug/L	120.57 ppb	17:55:05
3	K 766.490 Radial†	3535.1	678.5	143.43 ug/L	143.43 ppb	17:54:45
3	Mg 279.077 IEC†	5.5	2.5	83.133 ug/L	83.133 ppb	17:55:05
3	Na 589.592 Radial†	-516.5	608.7	163.54 ug/L	163.54 ppb	17:54:45
3	Sr 421.552†	124.0	106.0	0.6777 ug/L	0.6777 ppb	17:54:45
3	Sc 361.383	955117.4	955117.4	101.16 %		17:56:12
3	Y 371.029	805147.9	805147.9	100.98 %		17:56:12
3	Ag 328.068†	492.3	75.4	0.3714 ug/L	0.3714 ppb	17:56:17
3	As 188.979†	-27.0	-7.1	-2.8090 ug/L	-2.8090 ppb	17:56:37
3	B 249.677†	154.0	679.7	14.727 ug/L	14.727 ppb	17:56:17
3	Ba 233.527†	477.9	452.7	3.3141 ug/L	3.3141 ppb	17:56:37
3	Be 313.107†	-4498.6	83.8	0.0453 ug/L	0.0453 ppb	17:56:17
3	Cd 226.502†	-199.1	20.1	0.2026 ug/L	0.2026 ppb	17:56:37
3	Co 228.616†	-61.5	12.6	0.2307 ug/L	0.2307 ppb	17:56:37
3	Cr 267.716†	202.7	120.3	1.3193 ug/L	1.3193 ppb	17:56:37
3	Cu 324.752†	7039.5	792.2	2.3151 ug/L	2.3151 ppb	17:56:17
3	Mn 257.610†	5823.8	5301.4	5.6194 ug/L	5.6194 ppb	17:56:17
3	Mo 202.031†	23.5	4.5	0.3090 ug/L	0.3090 ppb	17:56:37
3	Ni 231.604†	153.6	51.3	1.2385 ug/L	1.2385 ppb	17:56:37
3	P 214.914†	244.3	6.9	3.4946 ug/L	3.4946 ppb	17:56:37
3	Pb 220.353†	-35.5	18.7	2.2395 ug/L	2.2395 ppb	17:56:37
3	S 181.975 Axial†	81.0	38.5	51.594 ug/L	51.594 ppb	17:56:37
3	Sb 206.836†	36.9	-2.2	-0.7324 ug/L	-0.7324 ppb	17:56:37
3	Se 196.026†	-25.5	7.7	5.1668 ug/L	5.1668 ppb	17:56:37
3	Si 251.611†	40899.3	39932.5	1208.0 ug/L	1208.0 ppb	17:56:17
3	Sn 189.927†	10.3	2.7	0.4644 ug/L	0.4644 ppb	17:56:37
3	Ti 334.940†	3204.0	4556.0	6.8945 ug/L	6.8945 ppb	17:56:17
3	Tl 190.801†	-40.5	-1.3	-0.2975 ug/L	-0.2975 ppb	17:56:37
3	U 409.014†	-1659.4	4.6	0.1138 ug/L	0.1138 ppb	17:56:12
3	V 292.402†	-1436.2	57.8	0.3610 ug/L	0.3610 ppb	17:56:17
3	Zn 213.857†	1023.9	304.4	2.7201 ug/L	2.7201 ppb	17:56:37
3	SiO2†	40452.5	39463.0	2574.5 ug/L	2574.5 ppb	17:56:52

## Mean Data: 1202011710|940084|1

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Sc 361.383	964452.0	102.15 %	0.875			0.86%
Sc Radial	5815.6	109 %	6.2			5.71%
Y 371.029	813050.5	101.97 %	0.886			0.87%
Y RADIAL	6158.0	109.1 %	6.34			5.82%
Ag 328.068†	-4.4	0.0251 ug/L	0.31465	0.0251 ppb	0.31465	>999.9%
Al 396.153Radial†	313.6	250.99 ug/L	10.535	250.99 ppb	10.535	4.20%
As 188.979†	-6.8	-2.6794 ug/L	0.47091	-2.6794 ppb	0.47091	17.58%
B 249.677†	724.3	15.693 ug/L	0.9092	15.693 ppb	0.9092	5.79%
Ba 233.527†	441.2	3.2308 ug/L	0.08773	3.2308 ppb	0.08773	2.72%
Be 313.107†	152.8	0.0698 ug/L	0.02371	0.0698 ppb	0.02371	33.96%
Ca 317.933Radial†	32.7	54.013 ug/L	4.6657	54.013 ppb	4.6657	8.64%
Cd 226.502†	17.2	0.1703 ug/L	0.07858	0.1703 ppb	0.07858	46.13%
Co 228.616†	14.2	0.2616 ug/L	0.06825	0.2616 ppb	0.06825	26.09%
Cr 267.716†	114.6	1.2576 ug/L	0.12532	1.2576 ppb	0.12532	9.96%
Cu 324.752†	809.0	2.3645 ug/L	0.04299	2.3645 ppb	0.04299	1.82%
Fe 238.204 Radial†	15.4	132.87 ug/L	36.954	132.87 ppb	36.954	27.81%
K 766.490 Radial†	577.7	122.10 ug/L	44.943	122.10 ppb	44.943	36.81%

Mg 279.077 IEC†	1.2	40.310 ug/L	59.2155	40.310 ppb	59.2155	146.90%
Mn 257.610†	5261.7	5.5804 ug/L	0.04293	5.5804 ppb	0.04293	0.77%
Mo 202.031†	-2.6	-0.1653 ug/L	0.42624	-0.1653 ppb	0.42624	257.80%
Na 589.592 Radial†	631.1	169.56 ug/L	14.415	169.56 ppb	14.415	8.50%
Ni 231.604†	44.1	1.0630 ug/L	0.20221	1.0630 ppb	0.20221	19.02%
P 214.914†	4.9	2.3109 ug/L	1.26235	2.3109 ppb	1.26235	54.63%
Pb 220.353†	7.6	0.9345 ug/L	1.15145	0.9345 ppb	1.15145	123.21%
S 181.975 Axial†	32.8	43.978 ug/L	8.1736	43.978 ppb	8.1736	18.59%
Sb 206.836†	-2.1	-0.7273 ug/L	0.71318	-0.7273 ppb	0.71318	98.06%
Se 196.026†	6.2	4.2979 ug/L	3.23571	4.2979 ppb	3.23571	75.29%
Si 251.611†	39527.1	1195.8 ug/L	10.70	1195.8 ppb	10.70	0.89%
Sn 189.927†	1.2	0.2128 ug/L	0.40465	0.2128 ppb	0.40465	190.20%
Sr 421.552†	91.1	0.5827 ug/L	0.09099	0.5827 ppb	0.09099	15.61%
Ti 334.940†	4586.9	6.9443 ug/L	0.10446	6.9443 ppb	0.10446	1.50%
Tl 190.801†	1.1	0.3911 ug/L	1.13850	0.3911 ppb	1.13850	291.14%
U 409.014†	11.9	0.3179 ug/L	0.85053	0.3179 ppb	0.85053	267.57%
V 292.402†	98.5	0.6190 ug/L	0.22786	0.6190 ppb	0.22786	36.81%
Zn 213.857†	294.1	2.6268 ug/L	0.08131	2.6268 ppb	0.08131	3.10%
SiO2†	39384.5	2569.4 ug/L	5.00	2569.4 ppb	5.00	0.19%



Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/18/2010 17:59:03

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5472.5	5472.5	103 %		18:00:55
1	Y RADIAL	5736.7	5736.7	101.6 %		18:00:55
1	Al 396.153Radial†	6495.0	6317.8	5031.7 ug/L	5031.7 ppb	18:00:55
1	Ca 317.933Radial†	3104.6	3001.5	4962.2 ug/L	4962.2 ppb	18:01:15
1	Fe 238.204 Radial†	607.6	578.6	5011.5 ug/L	5011.5 ppb	18:01:15
1	K 766.490 Radial†	26817.2	23429.6	4949.2 ug/L	4949.2 ppb	18:00:55
1	Mg 279.077 IEC†	161.2	154.3	5082.2 ug/L	5082.2 ppb	18:01:15
1	Na 589.592 Radial†	37334.6	37441.8	10060 ug/L	10060 ppb	18:00:55
1	Sr 421.552†	82135.2	79942.3	511.59 ug/L	511.59 ppb	18:00:55
1	Sc 361.383	946992.4	946992.4	100.30 %		18:02:13
1	Y 371.029	789478.9	789478.9	99.010 %		18:02:13
1	Ag 328.068†	114174.3	113420.3	501.80 ug/L	501.80 ppb	18:02:18
1	As 188.979†	1179.9	1196.0	490.66 ug/L	490.66 ppb	18:02:38
1	B 249.677†	22318.7	22779.2	491.99 ug/L	491.99 ppb	18:02:18
1	Ba 233.527†	68512.5	68287.2	500.50 ug/L	500.50 ppb	18:02:18
1	Be 313.107†	1416260.3	1416539.4	502.38 ug/L	502.38 ppb	18:02:13
1	Cd 226.502†	46565.2	46642.3	497.84 ug/L	497.84 ppb	18:02:18
1	Co 228.616†	25549.0	25545.7	498.55 ug/L	498.55 ppb	18:02:18
1	Cr 267.716†	45822.9	45605.3	499.59 ug/L	499.59 ppb	18:02:18
1	Cu 324.752†	177956.3	171255.6	499.10 ug/L	499.10 ppb	18:02:18
1	Mn 257.610†	476572.3	474686.0	502.69 ug/L	502.69 ppb	18:02:13
1	Mo 202.031†	7394.3	7353.3	494.28 ug/L	494.28 ppb	18:02:38
1	Ni 231.604†	20875.2	20712.0	499.42 ug/L	499.42 ppb	18:02:18
1	P 214.914†	4513.8	4265.7	2356.7 ug/L	2356.7 ppb	18:02:38
1	Pb 220.353†	4162.6	4203.9	495.79 ug/L	495.79 ppb	18:02:38
1	S 181.975 Axial†	773.7	729.8	977.42 ug/L	977.42 ppb	18:02:38
1	Sb 206.836†	1528.1	1484.8	506.89 ug/L	506.89 ppb	18:02:38
1	Se 196.026†	775.4	806.0	514.07 ug/L	514.07 ppb	18:02:38
1	Si 251.611†	83713.1	82964.6	2503.8 ug/L	2503.8 ppb	18:02:18
1	Sn 189.927†	2953.7	2937.3	492.50 ug/L	492.50 ppb	18:02:38
1	Ti 334.940†	323712.8	324129.7	490.33 ug/L	490.33 ppb	18:02:18
1	Tl 190.801†	1653.6	1687.4	491.02 ug/L	491.02 ppb	18:02:38
1	U 409.014†	16014.1	17610.9	497.02 ug/L	497.02 ppb	18:02:18
1	V 292.402†	74533.2	75787.0	504.85 ug/L	504.85 ppb	18:02:18
1	Zn 213.857†	56328.3	55451.6	495.24 ug/L	495.24 ppb	18:02:18
1	SiO2†	82703.9	81930.7	5331.6 ug/L	5331.6 ppb	18:03:45
2	Sc Radial	5400.3	5400.3	101 %		18:01:20
2	Y RADIAL	5694.2	5694.2	100.9 %		18:01:20
2	Al 396.153Radial†	6418.0	6326.5	5037.7 ug/L	5037.7 ppb	18:01:20
2	Ca 317.933Radial†	3068.1	3005.9	4969.4 ug/L	4969.4 ppb	18:01:40
2	Fe 238.204 Radial†	598.2	577.3	4999.8 ug/L	4999.8 ppb	18:01:40
2	K 766.490 Radial†	26559.5	23524.3	4969.3 ug/L	4969.3 ppb	18:01:20
2	Mg 279.077 IEC†	158.3	153.5	5057.1 ug/L	5057.1 ppb	18:01:40
2	Na 589.592 Radial†	36638.7	37241.2	10006 ug/L	10006 ppb	18:01:20
2	Sr 421.552†	80750.6	79645.2	509.69 ug/L	509.69 ppb	18:01:20
2	Sc 361.383	924336.4	924336.4	97.901 %		18:02:43
2	Y 371.029	771731.3	771731.3	96.785 %		18:02:43
2	Ag 328.068†	111781.7	113766.5	503.33 ug/L	503.33 ppb	18:02:49
2	As 188.979†	1215.9	1261.5	517.30 ug/L	517.30 ppb	18:03:09
2	B 249.677†	21676.0	22668.2	489.57 ug/L	489.57 ppb	18:02:49
2	Ba 233.527†	67295.2	68718.0	503.66 ug/L	503.66 ppb	18:02:49
2	Be 313.107†	1384943.8	1419160.7	503.31 ug/L	503.31 ppb	18:02:43
2	Cd 226.502†	45802.3	47000.9	501.67 ug/L	501.67 ppb	18:02:49
2	Co 228.616†	25129.1	25741.2	502.40 ug/L	502.40 ppb	18:02:49
2	Cr 267.716†	45086.5	45972.9	503.62 ug/L	503.62 ppb	18:02:49
2	Cu 324.752†	173734.8	171292.3	499.21 ug/L	499.21 ppb	18:02:49
2	Mn 257.610†	465343.7	474862.7	502.88 ug/L	502.88 ppb	18:02:43
2	Mo 202.031†	7475.6	7617.0	511.99 ug/L	511.99 ppb	18:03:09
2	Ni 231.604†	20620.4	20961.9	505.45 ug/L	505.45 ppb	18:02:49

2	P 214.914†	4546.0	4408.9	2439.3 ug/L	2439.3 ppb	18:03:09
2	Pb 220.353†	4210.1	4354.1	513.49 ug/L	513.49 ppb	18:03:09
2	S 181.975 Axial†	776.8	752.0	1007.1 ug/L	1007.1 ppb	18:03:09
2	Sb 206.836†	1535.9	1530.1	522.44 ug/L	522.44 ppb	18:03:09
2	Se 196.026†	778.7	828.3	527.77 ug/L	527.77 ppb	18:03:09
2	Si 251.611†	81840.8	83098.0	2507.6 ug/L	2507.6 ppb	18:02:49
2	Sn 189.927†	2980.9	3037.4	509.25 ug/L	509.25 ppb	18:03:09
2	Ti 334.940†	317528.7	325723.7	492.74 ug/L	492.74 ppb	18:02:49
2	Tl 190.801†	1680.0	1754.8	510.50 ug/L	510.50 ppb	18:03:09
2	U 409.014†	15721.2	17703.1	499.63 ug/L	499.63 ppb	18:02:49
2	V 292.402†	73322.1	76371.3	508.94 ug/L	508.94 ppb	18:02:49
2	Zn 213.857†	55331.1	55809.4	498.43 ug/L	498.43 ppb	18:02:49
2	SiO2†	84007.4	85283.1	5549.8 ug/L	5549.8 ppb	18:03:50
3	Sc Radial	5402.4	5402.4	101 %		18:01:45
3	Y RADIAL	5649.9	5649.9	100.1 %		18:01:45
3	Al 396.153Radial†	6385.8	6292.2	5010.9 ug/L	5010.9 ppb	18:01:45
3	Ca 317.933Radial†	3067.3	3004.0	4966.3 ug/L	4966.3 ppb	18:02:05
3	Fe 238.204 Radial†	599.6	578.4	5009.8 ug/L	5009.8 ppb	18:02:05
3	K 766.490 Radial†	26461.7	23417.6	4946.7 ug/L	4946.7 ppb	18:01:45
3	Mg 279.077 IEC†	158.9	154.0	5073.7 ug/L	5073.7 ppb	18:02:05
3	Na 589.592 Radial†	36524.7	37114.6	9972.2 ug/L	9972.2 ppb	18:01:45
3	Sr 421.552†	80413.1	79281.3	507.36 ug/L	507.36 ppb	18:01:45
3	Sc 361.383	938850.0	938850.0	99.439 %		18:03:14
3	Y 371.029	782076.2	782076.2	98.082 %		18:03:14
3	Ag 328.068†	114604.4	114840.1	508.06 ug/L	508.06 ppb	18:03:20
3	As 188.979†	1210.7	1237.1	507.45 ug/L	507.45 ppb	18:03:40
3	B 249.677†	22430.7	23084.8	498.60 ug/L	498.60 ppb	18:03:20
3	Ba 233.527†	68953.6	69323.2	508.09 ug/L	508.09 ppb	18:03:20
3	Be 313.107†	1402797.0	1415245.9	501.94 ug/L	501.94 ppb	18:03:14
3	Cd 226.502†	47072.7	47555.2	507.59 ug/L	507.59 ppb	18:03:20
3	Co 228.616†	25758.6	25977.4	506.97 ug/L	506.97 ppb	18:03:20
3	Cr 267.716†	46185.4	46366.1	507.92 ug/L	507.92 ppb	18:03:20
3	Cu 324.752†	178459.2	173300.0	505.05 ug/L	505.05 ppb	18:03:20
3	Mn 257.610†	473240.9	475456.6	503.50 ug/L	503.50 ppb	18:03:14
3	Mo 202.031†	7419.0	7442.1	500.24 ug/L	500.24 ppb	18:03:40
3	Ni 231.604†	21073.0	21091.4	508.57 ug/L	508.57 ppb	18:03:20
3	P 214.914†	4528.5	4319.5	2386.6 ug/L	2386.6 ppb	18:03:40
3	Pb 220.353†	4190.9	4268.3	503.37 ug/L	503.37 ppb	18:03:40
3	S 181.975 Axial†	783.4	746.3	999.51 ug/L	999.51 ppb	18:03:40
3	Sb 206.836†	1534.6	1504.5	513.60 ug/L	513.60 ppb	18:03:40
3	Se 196.026†	772.8	810.1	516.61 ug/L	516.61 ppb	18:03:40
3	Si 251.611†	84176.3	84154.3	2539.7 ug/L	2539.7 ppb	18:03:20
3	Sn 189.927†	2966.0	2975.2	498.85 ug/L	498.85 ppb	18:03:40
3	Ti 334.940†	325873.7	329101.9	497.85 ug/L	497.85 ppb	18:03:20
3	Tl 190.801†	1668.4	1716.5	499.46 ug/L	499.46 ppb	18:03:40
3	U 409.014†	16169.7	17905.8	505.36 ug/L	505.36 ppb	18:03:20
3	V 292.402†	74976.2	76876.9	512.10 ug/L	512.10 ppb	18:03:20
3	Zn 213.857†	56830.1	56443.2	504.11 ug/L	504.11 ppb	18:03:20
3	SiO2†	84390.7	84342.1	5488.7 ug/L	5488.7 ppb	18:03:55

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	936726.3	99.214 %	1.2155			1.23%
Sc Radial	5425.0	102 %	0.8			0.76%
Y 371.029	781095.5	97.959 %	1.1180			1.14%
Y RADIAL	5693.6	100.9 %	0.77			0.76%
Ag 328.068†	114009.0	504.40 ug/L	3.265	504.40 ppb	3.265	0.65%
QC value within limits for Ag 328.068 Recovery = 100.88%						
Al 396.153Radial†	6312.2	5026.7 ug/L	14.09	5026.7 ppb	14.09	0.28%
QC value within limits for Al 396.153Radial Recovery = 100.53%						
As 188.979†	1231.5	505.13 ug/L	13.469	505.13 ppb	13.469	2.67%
QC value within limits for As 188.979 Recovery = 101.03%						
B 249.677†	22844.0	493.39 ug/L	4.672	493.39 ppb	4.672	0.95%
QC value within limits for B 249.677 Recovery = 98.68%						
Ba 233.527†	68776.1	504.08 ug/L	3.813	504.08 ppb	3.813	0.76%
QC value within limits for Ba 233.527 Recovery = 100.82%						
Be 313.107†	1416982.0	502.55 ug/L	0.701	502.55 ppb	0.701	0.14%
QC value within limits for Be 313.107 Recovery = 100.51%						
Ca 317.933Radial†	3003.8	4966.0 ug/L	3.64	4966.0 ppb	3.64	0.07%

QC value within limits for Ca 317.933 Radial Recovery = 99.32%

Cd	226.502†	47066.2	502.37 ug/L	4.914	502.37 ppb	4.914	0.98%
QC value within limits for Cd 226.502 Recovery = 100.47%							
Co	228.616†	25754.8	502.64 ug/L	4.216	502.64 ppb	4.216	0.84%
QC value within limits for Co 228.616 Recovery = 100.53%							
Cr	267.716†	45981.4	503.71 ug/L	4.166	503.71 ppb	4.166	0.83%
QC value within limits for Cr 267.716 Recovery = 100.74%							
Cu	324.752†	171949.3	501.12 ug/L	3.407	501.12 ppb	3.407	0.68%
QC value within limits for Cu 324.752 Recovery = 100.22%							
Fe	238.204 Radial†	578.1	5007.0 ug/L	6.32	5007.0 ppb	6.32	0.13%
QC value within limits for Fe 238.204 Radial Recovery = 100.14%							
K	766.490 Radial†	23457.2	4955.1 ug/L	12.36	4955.1 ppb	12.36	0.25%
QC value within limits for K 766.490 Radial Recovery = 99.10%							
Mg	279.077 IEC†	153.9	5071.0 ug/L	12.75	5071.0 ppb	12.75	0.25%
QC value within limits for Mg 279.077 IEC Recovery = 101.42%							
Mn	257.610†	475001.8	503.02 ug/L	0.427	503.02 ppb	0.427	0.08%
QC value within limits for Mn 257.610 Recovery = 100.60%							
Mo	202.031†	7470.8	502.17 ug/L	9.012	502.17 ppb	9.012	1.79%
QC value within limits for Mo 202.031 Recovery = 100.43%							
Na	589.592 Radial†	37265.9	10013 ug/L	44.3	10013 ppb	44.3	0.44%
QC value within limits for Na 589.592 Radial Recovery = 100.13%							
Ni	231.604†	20921.8	504.48 ug/L	4.651	504.48 ppb	4.651	0.92%
QC value within limits for Ni 231.604 Recovery = 100.90%							
P	214.914†	4331.4	2394.2 ug/L	41.80	2394.2 ppb	41.80	1.75%
QC value within limits for P 214.914 Recovery = 95.77%							
Pb	220.353†	4275.4	504.22 ug/L	8.881	504.22 ppb	8.881	1.76%
QC value within limits for Pb 220.353 Recovery = 100.84%							
S	181.975 Axial†	742.7	994.68 ug/L	15.415	994.68 ppb	15.415	1.55%
QC value within limits for S 181.975 Axial Recovery = 99.47%							
Sb	206.836†	1506.5	514.31 ug/L	7.798	514.31 ppb	7.798	1.52%
QC value within limits for Sb 206.836 Recovery = 102.86%							
Se	196.026†	814.8	519.49 ug/L	7.288	519.49 ppb	7.288	1.40%
QC value within limits for Se 196.026 Recovery = 103.90%							
Si	251.611†	83405.6	2517.0 ug/L	19.73	2517.0 ppb	19.73	0.78%
QC value within limits for Si 251.611 Recovery = 100.68%							
Sn	189.927†	2983.3	500.20 ug/L	8.456	500.20 ppb	8.456	1.69%
QC value within limits for Sn 189.927 Recovery = 100.04%							
Sr	421.552†	79622.9	509.55 ug/L	2.119	509.55 ppb	2.119	0.42%
QC value within limits for Sr 421.552 Recovery = 101.91%							
Ti	334.940†	326318.4	493.64 ug/L	3.839	493.64 ppb	3.839	0.78%
QC value within limits for Ti 334.940 Recovery = 98.73%							
Tl	190.801†	1719.6	500.33 ug/L	9.771	500.33 ppb	9.771	1.95%
QC value within limits for Tl 190.801 Recovery = 100.07%							
U	409.014†	17740.0	500.67 ug/L	4.264	500.67 ppb	4.264	0.85%
QC value within limits for U 409.014 Recovery = 100.13%							
V	292.402†	76345.1	508.63 ug/L	3.637	508.63 ppb	3.637	0.72%
QC value within limits for V 292.402 Recovery = 101.73%							
Zn	213.857†	55901.4	499.26 ug/L	4.492	499.26 ppb	4.492	0.90%
QC value within limits for Zn 213.857 Recovery = 99.85%							
SiO2†		83852.0	5456.7 ug/L	112.58	5456.7 ppb	112.58	2.06%
QC value within limits for SiO2 Recovery = 102.04%							

All analyte(s) passed QC.

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/18/2010 18:06:05

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5314.7	5314.7	99.8 %		18:07:57
1	Y RADIAL	5681.3	5681.3	100.6 %		18:07:57
1	Al 396.153Radial†	-20.7	-25.3	-20.301 ug/L	-20.301 ppb	18:07:57
1	Ca 317.933Radial†	15.0	-5.6	-9.2087 ug/L	-9.2087 ppb	18:08:17
1	Fe 238.204 Radial†	11.1	-1.7	-14.710 ug/L	-14.710 ppb	18:08:17
1	K 766.490 Radial†	2686.0	16.8	3.5565 ug/L	3.5565 ppb	18:07:57
1	Mg 279.077 IEC†	2.5	-0.2	-5.3752 ug/L	-5.3752 ppb	18:08:17
1	Na 589.592 Radial†	-1185.2	-89.3	-23.989 ug/L	-23.989 ppb	18:07:57
1	Sr 421.552†	19.2	7.6	0.0485 ug/L	0.0485 ppb	18:07:57
1	Sc 361.383	888078.6	888078.6	94.061 %		18:09:14
1	Y 371.029	781161.9	781161.9	97.967 %		18:09:14
1	Ag 328.068†	423.7	39.2	0.1801 ug/L	0.1801 ppb	18:09:14
1	As 188.979†	-26.7	-8.8	-3.5882 ug/L	-3.5882 ppb	18:09:34
1	B 249.677†	-398.9	103.4	2.2473 ug/L	2.2473 ppb	18:09:34
1	Ba 233.527†	7.2	-12.1	-0.0891 ug/L	-0.0891 ppb	18:09:34
1	Be 313.107†	-4334.2	-77.1	-0.0276 ug/L	-0.0276 ppb	18:09:14
1	Cd 226.502†	-205.4	-1.5	-0.0168 ug/L	-0.0168 ppb	18:09:34
1	Co 228.616†	-78.4	-9.9	-0.1924 ug/L	-0.1924 ppb	18:09:34
1	Cr 267.716†	117.5	44.8	0.4963 ug/L	0.4963 ppb	18:09:34
1	Cu 324.752†	6030.5	244.7	0.7212 ug/L	0.7212 ppb	18:09:14
1	Mn 257.610†	451.2	24.1	0.0242 ug/L	0.0242 ppb	18:09:34
1	Mo 202.031†	24.2	7.0	0.4664 ug/L	0.4664 ppb	18:09:34
1	Ni 231.604†	112.7	19.3	0.4661 ug/L	0.4661 ppb	18:09:34
1	P 214.914†	233.9	14.1	7.9683 ug/L	7.9683 ppb	18:09:34
1	Pb 220.353†	-66.6	-17.1	-2.0114 ug/L	-2.0114 ppb	18:09:34
1	S 181.975 Axial†	43.1	4.3	5.7317 ug/L	5.7317 ppb	18:09:34
1	Sb 206.836†	34.2	-2.4	-0.7507 ug/L	-0.7507 ppb	18:09:34
1	Se 196.026†	-20.6	11.0	6.7075 ug/L	6.7075 ppb	18:09:34
1	Si 251.611†	526.2	62.3	1.8779 ug/L	1.8779 ppb	18:09:34
1	Sn 189.927†	13.6	7.0	1.1631 ug/L	1.1631 ppb	18:09:34
1	Ti 334.940†	-1386.8	-85.6	-0.1236 ug/L	-0.1236 ppb	18:09:14
1	Tl 190.801†	-45.5	-9.6	-2.7853 ug/L	-2.7853 ppb	18:09:34
1	U 409.014†	-2071.0	-556.9	-15.769 ug/L	-15.769 ppb	18:09:14
1	V 292.402†	-1408.0	-19.3	-0.1488 ug/L	-0.1488 ppb	18:09:14
1	Zn 213.857†	742.4	81.6	0.7327 ug/L	0.7327 ppb	18:09:34
1	SiO2†	520.5	28.4	1.8413 ug/L	1.8413 ppb	18:10:30
2	Sc Radial	5438.6	5438.6	102 %		18:08:22
2	Y RADIAL	5755.1	5755.1	102.0 %		18:08:22
2	Al 396.153Radial†	6.3	1.5	1.1800 ug/L	1.1800 ppb	18:08:22
2	Ca 317.933Radial†	18.5	-2.4	-4.0275 ug/L	-4.0275 ppb	18:08:42
2	Fe 238.204 Radial†	12.4	-0.7	-6.1460 ug/L	-6.1460 ppb	18:08:42
2	K 766.490 Radial†	2892.1	157.3	33.283 ug/L	33.283 ppb	18:08:22
2	Mg 279.077 IEC†	-2.6	-5.1	-169.61 ug/L	-169.61 ppb	18:08:42
2	Na 589.592 Radial†	-1148.5	-26.3	-7.0590 ug/L	-7.0590 ppb	18:08:22
2	Sr 421.552†	40.4	27.9	0.1784 ug/L	0.1784 ppb	18:08:22
2	Sc 361.383	890577.0	890577.0	94.326 %		18:09:39
2	Y 371.029	784621.5	784621.5	98.401 %		18:09:39
2	Ag 328.068†	427.0	41.4	0.1892 ug/L	0.1892 ppb	18:09:39
2	As 188.979†	-25.9	-7.9	-3.2000 ug/L	-3.2000 ppb	18:09:59
2	B 249.677†	-438.7	62.4	1.3543 ug/L	1.3543 ppb	18:09:59
2	Ba 233.527†	2.8	-16.7	-0.1226 ug/L	-0.1226 ppb	18:09:59
2	Be 313.107†	-4322.4	-51.6	-0.0183 ug/L	-0.0183 ppb	18:09:39
2	Cd 226.502†	-187.9	17.7	0.1871 ug/L	0.1871 ppb	18:09:59
2	Co 228.616†	-74.5	-5.5	-0.1064 ug/L	-0.1064 ppb	18:09:59
2	Cr 267.716†	88.5	13.7	0.1547 ug/L	0.1547 ppb	18:09:59
2	Cu 324.752†	6058.6	256.6	0.7538 ug/L	0.7538 ppb	18:09:39
2	Mn 257.610†	445.8	17.0	0.0244 ug/L	0.0244 ppb	18:09:59
2	Mo 202.031†	29.0	11.9	0.7999 ug/L	0.7999 ppb	18:09:59
2	Ni 231.604†	102.0	7.6	0.1834 ug/L	0.1834 ppb	18:09:59

2	P 214.914†	223.5	2.4	1.2483 ug/L	1.2483 ppb	18:09:59
2	Pb 220.353†	-50.9	-0.2	-0.0195 ug/L	-0.0195 ppb	18:09:59
2	S 181.975 Axial†	36.1	-3.3	-4.3952 ug/L	-4.3952 ppb	18:09:59
2	Sb 206.836†	45.8	9.9	3.3032 ug/L	3.3032 ppb	18:09:59
2	Se 196.026†	-25.2	6.1	3.7509 ug/L	3.7509 ppb	18:09:59
2	Si 251.611†	549.1	85.0	2.5627 ug/L	2.5627 ppb	18:09:59
2	Sn 189.927†	17.9	11.5	1.9247 ug/L	1.9247 ppb	18:09:59
2	Ti 334.940†	-1309.6	0.5	0.0191 ug/L	0.0191 ppb	18:09:39
2	Tl 190.801†	-40.0	-3.7	-1.0573 ug/L	-1.0573 ppb	18:09:59
2	U 409.014†	-1938.5	-410.2	-11.617 ug/L	-11.617 ppb	18:09:39
2	V 292.402†	-1413.4	-20.8	-0.1503 ug/L	-0.1503 ppb	18:09:39
2	Zn 213.857†	726.6	62.6	0.5626 ug/L	0.5626 ppb	18:09:59
2	SiO2†	530.0	36.9	2.3873 ug/L	2.3873 ppb	18:10:35
3	Sc Radial	5483.7	5483.7	103 %		18:08:47
3	Y RADIAL	5831.6	5831.6	103.3 %		18:08:47
3	Al 396.153Radial†	-26.0	-29.9	-23.922 ug/L	-23.922 ppb	18:08:47
3	Ca 317.933Radial†	23.9	2.6	4.3619 ug/L	4.3619 ppb	18:09:07
3	Fe 238.204 Radial†	12.6	-0.6	-5.2637 ug/L	-5.2637 ppb	18:09:07
3	K 766.490 Radial†	2840.6	84.1	17.790 ug/L	17.790 ppb	18:08:47
3	Mg 279.077 IEC†	4.6	1.8	59.911 ug/L	59.911 ppb	18:09:07
3	Na 589.592 Radial†	-1216.2	-82.7	-22.233 ug/L	-22.233 ppb	18:08:47
3	Sr 421.552†	13.2	1.2	0.0076 ug/L	0.0076 ppb	18:08:47
3	Sc 361.383	896154.0	896154.0	94.917 %		18:10:04
3	Y 371.029	790818.6	790818.6	99.178 %		18:10:04
3	Ag 328.068†	295.6	-99.8	-0.4334 ug/L	-0.4334 ppb	18:10:04
3	As 188.979†	-23.2	-4.9	-1.9797 ug/L	-1.9797 ppb	18:10:24
3	B 249.677†	-419.3	85.7	1.8617 ug/L	1.8617 ppb	18:10:24
3	Ba 233.527†	13.0	-6.0	-0.0441 ug/L	-0.0441 ppb	18:10:24
3	Be 313.107†	-4458.1	-166.1	-0.0588 ug/L	-0.0588 ppb	18:10:04
3	Cd 226.502†	-218.4	-13.2	-0.1428 ug/L	-0.1428 ppb	18:10:24
3	Co 228.616†	-79.3	-10.1	-0.1967 ug/L	-0.1967 ppb	18:10:24
3	Cr 267.716†	85.2	9.7	0.1097 ug/L	0.1097 ppb	18:10:24
3	Cu 324.752†	6123.3	284.8	0.8346 ug/L	0.8346 ppb	18:10:04
3	Mn 257.610†	458.0	27.0	0.0256 ug/L	0.0256 ppb	18:10:24
3	Mo 202.031†	21.8	4.1	0.2780 ug/L	0.2780 ppb	18:10:24
3	Ni 231.604†	85.7	-10.3	-0.2481 ug/L	-0.2481 ppb	18:10:24
3	P 214.914†	223.5	0.9	0.3420 ug/L	0.3420 ppb	18:10:24
3	Pb 220.353†	-40.9	10.6	1.2470 ug/L	1.2470 ppb	18:10:24
3	S 181.975 Axial†	34.0	-5.7	-7.6040 ug/L	-7.6040 ppb	18:10:24
3	Sb 206.836†	41.1	4.6	1.5353 ug/L	1.5353 ppb	18:10:24
3	Se 196.026†	-22.5	9.2	5.6084 ug/L	5.6084 ppb	18:10:24
3	Si 251.611†	536.5	68.0	2.0552 ug/L	2.0552 ppb	18:10:24
3	Sn 189.927†	8.9	1.9	0.3260 ug/L	0.3260 ppb	18:10:24
3	Ti 334.940†	-1322.0	-4.0	-0.0066 ug/L	-0.0066 ppb	18:10:04
3	Tl 190.801†	-31.5	5.6	1.6118 ug/L	1.6118 ppb	18:10:24
3	U 409.014†	-1853.8	-308.2	-8.7276 ug/L	-8.7276 ppb	18:10:04
3	V 292.402†	-1401.1	1.4	-0.0019 ug/L	-0.0019 ppb	18:10:04
3	Zn 213.857†	727.0	58.2	0.5255 ug/L	0.5255 ppb	18:10:24
3	SiO2†	515.2	17.9	1.1583 ug/L	1.1583 ppb	18:10:40

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	891603.2	94.435 %		0.4379			0.46%
Sc Radial	5412.3	102 %		1.6			1.62%
Y 371.029	785534.0	98.516 %		0.6136			0.62%
Y RADIAL	5756.0	102.0 %		1.33			1.31%
Ag 328.068†	-6.4	-0.0214 ug/L		0.35684	-0.0214 ppb	0.35684	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-17.9	-14.348 ug/L		13.5686	-14.348 ppb	13.5686	94.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-7.2	-2.9227 ug/L		0.83935	-2.9227 ppb	0.83935	28.72%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	83.8	1.8211 ug/L		0.44786	1.8211 ppb	0.44786	24.59%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-11.6	-0.0853 ug/L		0.03936	-0.0853 ppb	0.03936	46.16%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-98.3	-0.0349 ug/L		0.02122	-0.0349 ppb	0.02122	60.84%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-1.8	-2.9581 ug/L		6.84824	-2.9581 ppb	6.84824	231.51%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	1.0	0.0092 ug/L	0.16647	0.0092 ppb	0.16647	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-8.5	-0.1652 ug/L	0.05092	-0.1652 ppb	0.05092	30.82%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	22.8	0.2536 ug/L	0.21140	0.2536 ppb	0.21140	83.37%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	262.0	0.7699 ug/L	0.05840	0.7699 ppb	0.05840	7.59%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.0	-8.7066 ug/L	5.21793	-8.7066 ppb	5.21793	59.93%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	86.1	18.210 ug/L	14.8679	18.210 ppb	14.8679	81.65%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-1.2	-38.359 ug/L	118.2632	-38.359 ppb	118.2632	308.31%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	22.7	0.0247 ug/L	0.00073	0.0247 ppb	0.00073	2.96%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	7.7	0.5148 ug/L	0.26432	0.5148 ppb	0.26432	51.35%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-66.1	-17.760 ug/L	9.3091	-17.760 ppb	9.3091	52.42%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	5.5	0.1338 ug/L	0.35969	0.1338 ppb	0.35969	268.80%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	5.8	3.1862 ug/L	4.16612	3.1862 ppb	4.16612	130.76%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-2.2	-0.2613 ug/L	1.64256	-0.2613 ppb	1.64256	628.58%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.6	-2.0891 ug/L	6.96052	-2.0891 ppb	6.96052	333.18%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	4.1	1.3626 ug/L	2.03245	1.3626 ppb	2.03245	149.16%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	8.8	5.3556 ug/L	1.49440	5.3556 ppb	1.49440	27.90%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	71.8	2.1652 ug/L	0.35542	2.1652 ppb	0.35542	16.41%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	6.8	1.1380 ug/L	0.79965	1.1380 ppb	0.79965	70.27%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	12.2	0.0781 ug/L	0.08917	0.0781 ppb	0.08917	114.11%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-29.7	-0.0370 ug/L	0.07603	-0.0370 ppb	0.07603	205.27%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-2.6	-0.7436 ug/L	2.21527	-0.7436 ppb	2.21527	297.91%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-425.1	-12.038 ug/L	3.5396	-12.038 ppb	3.5396	29.40%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-12.9	-0.1003 ug/L	0.08522	-0.1003 ppb	0.08522	84.93%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	67.5	0.6069 ug/L	0.11051	0.6069 ppb	0.11051	18.21%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	27.7	1.7957 ug/L	0.61576	1.7957 ppb	0.61576	34.29%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 15

Sample ID: 1202011711|940084|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 47

Date Collected: 1/18/2010 18:12:50

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011711|940084|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5466.0	5466.0	103 %		18:14:43
1	Y RADIAL	5714.0	5714.0	101.2 %		18:14:43
1	Al 396.153Radial†	6953.7	6772.5	5395.5 ug/L	5395.5 ppb	18:14:43
1	Ca 317.933Radial†	3160.3	3059.5	5057.9 ug/L	5057.9 ppb	18:15:03
1	Fe 238.204 Radial†	633.5	604.5	5234.7 ug/L	5234.7 ppb	18:15:03
1	K 766.490 Radial†	27604.5	24227.8	5120.0 ug/L	5120.0 ppb	18:14:43
1	Mg 279.077 IEC†	165.2	158.4	5216.3 ug/L	5216.3 ppb	18:15:03
1	Na 589.592 Radial†	18307.4	18941.0	5089.2 ug/L	5089.2 ppb	18:14:43
1	Sr 421.552†	80967.3	78898.9	504.92 ug/L	504.92 ppb	18:14:43
1	Sc 361.383	958341.7	958341.7	101.50 %		18:16:02
1	Y 371.029	797800.5	797800.5	100.05 %		18:16:02
1	Ag 328.068†	113500.9	111408.9	493.05 ug/L	493.05 ppb	18:16:02
1	As 188.979†	1229.3	1230.7	505.02 ug/L	505.02 ppb	18:16:22
1	B 249.677†	23187.4	23371.5	504.84 ug/L	504.84 ppb	18:16:02
1	Ba 233.527†	71145.5	70072.2	513.57 ug/L	513.57 ppb	18:16:02
1	Be 313.107†	1435852.3	1419119.2	503.34 ug/L	503.34 ppb	18:16:02
1	Cd 226.502†	45502.8	45045.8	480.77 ug/L	480.77 ppb	18:16:22
1	Co 228.616†	25188.2	24888.6	485.68 ug/L	485.68 ppb	18:16:22
1	Cr 267.716†	46679.6	45908.2	502.92 ug/L	502.92 ppb	18:16:02
1	Cu 324.752†	184730.9	175828.7	512.44 ug/L	512.44 ppb	18:16:02
1	Mn 257.610†	490453.2	482734.3	511.22 ug/L	511.22 ppb	18:16:02
1	Mo 202.031†	7451.0	7321.9	492.19 ug/L	492.19 ppb	18:16:22
1	Ni 231.604†	21095.4	20682.5	498.72 ug/L	498.72 ppb	18:16:22
1	P 214.914†	1237.8	984.9	466.78 ug/L	466.78 ppb	18:16:22
1	Pb 220.353†	4290.5	4280.7	504.87 ug/L	504.87 ppb	18:16:22
1	S 181.975 Axial†	3847.7	3749.2	5024.9 ug/L	5024.9 ppb	18:16:22
1	Sb 206.836†	1590.2	1527.9	521.30 ug/L	521.30 ppb	18:16:22
1	Se 196.026†	756.8	778.5	498.04 ug/L	498.04 ppb	18:16:22
1	Si 251.611†	217606.9	213887.2	6464.5 ug/L	6464.5 ppb	18:16:02
1	Sn 189.927†	3118.5	3064.8	513.86 ug/L	513.86 ppb	18:16:22
1	Ti 334.940†	342322.5	338641.7	512.29 ug/L	512.29 ppb	18:16:02
1	Tl 190.801†	1631.2	1645.8	479.26 ug/L	479.26 ppb	18:16:22
1	U 409.014†	16380.7	17783.1	501.86 ug/L	501.86 ppb	18:16:02
1	V 292.402†	76342.3	76689.3	510.70 ug/L	510.70 ppb	18:16:02
1	Zn 213.857†	56414.1	54871.0	489.98 ug/L	489.98 ppb	18:16:02
1	SiO2†	218512.9	214751.9	13997 ug/L	13997 ppb	18:17:22
2	Sc Radial	5476.1	5476.1	103 %		18:15:08
2	Y RADIAL	5770.3	5770.3	102.2 %		18:15:08
2	Al 396.153Radial†	7065.8	6868.9	5472.4 ug/L	5472.4 ppb	18:15:08
2	Ca 317.933Radial†	3166.6	3059.9	5058.7 ug/L	5058.7 ppb	18:15:28
2	Fe 238.204 Radial†	630.1	600.2	5197.0 ug/L	5197.0 ppb	18:15:28
2	K 766.490 Radial†	27991.2	24554.2	5189.0 ug/L	5189.0 ppb	18:15:08
2	Mg 279.077 IEC†	162.7	155.6	5125.8 ug/L	5125.8 ppb	18:15:28
2	Na 589.592 Radial†	18573.9	19167.2	5150.0 ug/L	5150.0 ppb	18:15:08
2	Sr 421.552†	82173.5	79926.1	511.49 ug/L	511.49 ppb	18:15:08
2	Sc 361.383	953922.2	953922.2	101.04 %		18:16:29
2	Y 371.029	795674.5	795674.5	99.787 %		18:16:29
2	Ag 328.068†	112861.1	111293.7	492.52 ug/L	492.52 ppb	18:16:29
2	As 188.979†	1237.6	1244.5	510.62 ug/L	510.62 ppb	18:16:49
2	B 249.677†	23107.1	23397.8	505.41 ug/L	505.41 ppb	18:16:29
2	Ba 233.527†	70709.4	69965.3	512.78 ug/L	512.78 ppb	18:16:29
2	Be 313.107†	1429113.9	1419003.6	503.30 ug/L	503.30 ppb	18:16:29
2	Cd 226.502†	45690.0	45438.8	484.98 ug/L	484.98 ppb	18:16:49
2	Co 228.616†	25293.5	25107.8	489.97 ug/L	489.97 ppb	18:16:49
2	Cr 267.716†	46281.5	45727.3	500.94 ug/L	500.94 ppb	18:16:29
2	Cu 324.752†	184043.8	175991.9	512.91 ug/L	512.91 ppb	18:16:29
2	Mn 257.610†	487393.8	481945.0	510.39 ug/L	510.39 ppb	18:16:29
2	Mo 202.031†	7494.9	7399.4	497.39 ug/L	497.39 ppb	18:16:49
2	Ni 231.604†	21165.0	20847.6	502.70 ug/L	502.70 ppb	18:16:49

2	P 214.914†	1237.4	990.2	469.82 ug/L	469.82 ppb	18:16:49
2	Pb 220.353†	4296.6	4306.3	507.91 ug/L	507.91 ppb	18:16:49
2	S 181.975 Axial†	3874.8	3793.6	5084.3 ug/L	5084.3 ppb	18:16:49
2	Sb 206.836†	1601.6	1546.5	527.61 ug/L	527.61 ppb	18:16:49
2	Se 196.026†	773.6	798.5	510.23 ug/L	510.23 ppb	18:16:49
2	Si 251.611†	216267.2	213554.4	6454.3 ug/L	6454.3 ppb	18:16:29
2	Sn 189.927†	3139.0	3099.3	519.64 ug/L	519.64 ppb	18:16:49
2	Ti 334.940†	340396.6	338298.1	511.77 ug/L	511.77 ppb	18:16:29
2	Tl 190.801†	1631.8	1653.8	481.56 ug/L	481.56 ppb	18:16:49
2	U 409.014†	16460.3	17936.6	506.22 ug/L	506.22 ppb	18:16:29
2	V 292.402†	75838.0	76538.6	509.80 ug/L	509.80 ppb	18:16:29
2	Zn 213.857†	56110.9	54828.4	489.57 ug/L	489.57 ppb	18:16:29
2	SiO2†	218326.6	215565.0	14050 ug/L	14050 ppb	18:17:27
3	Sc Radial	5542.9	5542.9	104 %		18:15:33
3	Y RADIAL	5828.3	5828.3	103.2 %		18:15:33
3	Al 396.153Radial†	7136.3	6853.8	5460.6 ug/L	5460.6 ppb	18:15:33
3	Ca 317.933Radial†	3194.0	3049.1	5040.8 ug/L	5040.8 ppb	18:15:53
3	Fe 238.204 Radial†	634.0	596.5	5165.2 ug/L	5165.2 ppb	18:15:53
3	K 766.490 Radial†	28115.8	24345.8	5144.9 ug/L	5144.9 ppb	18:15:33
3	Mg 279.077 IEC†	161.8	152.8	5034.1 ug/L	5034.1 ppb	18:15:53
3	Na 589.592 Radial†	18744.5	19113.5	5135.5 ug/L	5135.5 ppb	18:15:33
3	Sr 421.552†	82754.8	79521.7	508.90 ug/L	508.90 ppb	18:15:33
3	Sc 361.383	955818.1	955818.1	101.24 %		18:16:56
3	Y 371.029	796107.2	796107.2	99.842 %		18:16:56
3	Ag 328.068†	113334.8	111540.0	493.60 ug/L	493.60 ppb	18:16:56
3	As 188.979†	1232.4	1236.9	507.54 ug/L	507.54 ppb	18:17:16
3	B 249.677†	23224.6	23468.5	506.96 ug/L	506.96 ppb	18:16:56
3	Ba 233.527†	70956.4	70070.4	513.55 ug/L	513.55 ppb	18:16:56
3	Be 313.107†	1431696.5	1418749.1	503.21 ug/L	503.21 ppb	18:16:56
3	Cd 226.502†	45343.6	45006.9	480.37 ug/L	480.37 ppb	18:17:16
3	Co 228.616†	25129.9	24896.5	485.84 ug/L	485.84 ppb	18:17:16
3	Cr 267.716†	46476.6	45829.2	502.05 ug/L	502.05 ppb	18:16:56
3	Cu 324.752†	184566.1	176146.5	513.36 ug/L	513.36 ppb	18:16:56
3	Mn 257.610†	489232.4	482804.2	511.30 ug/L	511.30 ppb	18:16:56
3	Mo 202.031†	7436.9	7327.3	492.55 ug/L	492.55 ppb	18:17:16
3	Ni 231.604†	21024.8	20667.6	498.36 ug/L	498.36 ppb	18:17:16
3	P 214.914†	1225.3	975.8	461.40 ug/L	461.40 ppb	18:17:16
3	Pb 220.353†	4244.5	4246.4	500.86 ug/L	500.86 ppb	18:17:16
3	S 181.975 Axial†	3833.5	3745.2	5019.5 ug/L	5019.5 ppb	18:17:16
3	Sb 206.836†	1595.3	1537.1	524.30 ug/L	524.30 ppb	18:17:16
3	Se 196.026†	764.3	787.8	503.54 ug/L	503.54 ppb	18:17:16
3	Si 251.611†	217135.8	213987.8	6467.5 ug/L	6467.5 ppb	18:16:56
3	Sn 189.927†	3101.0	3055.7	512.33 ug/L	512.33 ppb	18:17:16
3	Ti 334.940†	341518.4	338737.9	512.45 ug/L	512.45 ppb	18:16:56
3	Tl 190.801†	1634.9	1653.7	481.55 ug/L	481.55 ppb	18:17:16
3	U 409.014†	16212.3	17659.3	498.37 ug/L	498.37 ppb	18:16:56
3	V 292.402†	75957.5	76507.8	509.52 ug/L	509.52 ppb	18:16:56
3	Zn 213.857†	56333.1	54937.7	490.58 ug/L	490.58 ppb	18:16:56
3	SiO2†	217336.4	214158.2	13958 ug/L	13958 ppb	18:17:32

Mean Data: 1202011711|940084|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	956027.4	101.26 %	0.235			0.23%
Sc Radial	5495.0	103 %	0.8			0.76%
Y 371.029	796527.4	99.894 %	0.1409			0.14%
Y RADIAL	5770.8	102.2 %	1.01			0.99%
Ag 328.068†	111414.2	493.06 ug/L	0.539	493.06 ppb	0.539	0.11%
Al 396.153Radial†	6831.7	5442.9 ug/L	41.41	5442.9 ppb	41.41	0.76%
As 188.979†	1237.4	507.72 ug/L	2.803	507.72 ppb	2.803	0.55%
B 249.677†	23412.6	505.74 ug/L	1.095	505.74 ppb	1.095	0.22%
Ba 233.527†	70036.0	513.30 ug/L	0.448	513.30 ppb	0.448	0.09%
Be 313.107†	1418957.3	503.29 ug/L	0.067	503.29 ppb	0.067	0.01%
Ca 317.933Radial†	3056.1	5052.5 ug/L	10.13	5052.5 ppb	10.13	0.20%
Cd 226.502†	45163.9	482.04 ug/L	2.553	482.04 ppb	2.553	0.53%
Co 228.616†	24964.3	487.16 ug/L	2.434	487.16 ppb	2.434	0.50%
Cr 267.716†	45821.6	501.97 ug/L	0.994	501.97 ppb	0.994	0.20%
Cu 324.752†	175989.0	512.90 ug/L	0.462	512.90 ppb	0.462	0.09%
Fe 238.204 Radial†	600.4	5199.0 ug/L	34.79	5199.0 ppb	34.79	0.67%
K 766.490 Radial†	24375.9	5151.3 ug/L	34.94	5151.3 ppb	34.94	0.68%



Mg 279.077 IEC†	155.6	5125.4 ug/L	91.13	5125.4 ppb	91.13	1.78%
Mn 257.610†	482494.5	510.97 ug/L	0.505	510.97 ppb	0.505	0.10%
Mo 202.031†	7349.5	494.04 ug/L	2.904	494.04 ppb	2.904	0.59%
Na 589.592 Radial†	19073.9	5124.9 ug/L	31.75	5124.9 ppb	31.75	0.62%
Ni 231.604†	20732.5	499.93 ug/L	2.409	499.93 ppb	2.409	0.48%
P 214.914†	983.6	466.00 ug/L	4.261	466.00 ppb	4.261	0.91%
Pb 220.353†	4277.8	504.55 ug/L	3.534	504.55 ppb	3.534	0.70%
S 181.975 Axial†	3762.6	5042.9 ug/L	36.00	5042.9 ppb	36.00	0.71%
Sb 206.836†	1537.2	524.41 ug/L	3.158	524.41 ppb	3.158	0.60%
Se 196.026†	788.3	503.94 ug/L	6.105	503.94 ppb	6.105	1.21%
Si 251.611†	213809.8	6462.1 ug/L	6.90	6462.1 ppb	6.90	0.11%
Sn 189.927†	3073.3	515.28 ug/L	3.853	515.28 ppb	3.853	0.75%
Sr 421.552†	79448.9	508.44 ug/L	3.312	508.44 ppb	3.312	0.65%
Ti 334.940†	338559.2	512.17 ug/L	0.352	512.17 ppb	0.352	0.07%
Tl 190.801†	1651.1	480.79 ug/L	1.322	480.79 ppb	1.322	0.27%
U 409.014†	17793.0	502.15 ug/L	3.933	502.15 ppb	3.933	0.78%
V 292.402†	76578.6	510.01 ug/L	0.620	510.01 ppb	0.620	0.12%
Zn 213.857†	54879.0	490.04 ug/L	0.511	490.04 ppb	0.511	0.10%
SiO2†	214825.0	14001 ug/L	46.0	14001 ppb	46.0	0.33%

Sequence No.: 16

Sample ID: 1202011712|940084|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 48

Date Collected: 1/18/2010 18:19:43

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202011712|940084|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5462.9	5462.9	103	%		18:21:37
1	Y RADIAL	5776.2	5776.2	102.3	%		18:21:37
1	Al 396.153Radial†	73.4	66.9	53.492	ug/L	53.492 ppb	18:21:37
1	Ca 317.933Radial†	27.8	6.6	10.845	ug/L	10.845 ppb	18:21:57
1	Fe 238.204 Radial†	17.9	4.7	40.381	ug/L	40.381 ppb	18:21:57
1	K 766.490 Radial†	2982.9	233.3	49.344	ug/L	49.344 ppb	18:21:37
1	Mg 279.077 IEC†	-0.0	-2.7	-87.788	ug/L	-87.788 ppb	18:21:57
1	Na 589.592 Radial†	-1132.1	-5.3	-1.4289	ug/L	-1.4289 ppb	18:21:37
1	Sr 421.552†	47.8	34.9	0.2233	ug/L	0.2233 ppb	18:21:37
1	Sc 361.383	954373.7	954373.7	101.08	%		18:22:53
1	Y 371.029	805081.1	805081.1	100.97	%		18:22:53
1	Ag 328.068†	388.8	-26.6	-0.0971	ug/L	-0.0971 ppb	18:22:59
1	As 188.979†	-27.9	-8.0	-3.2545	ug/L	-3.2545 ppb	18:23:19
1	B 249.677†	-267.9	262.5	5.6880	ug/L	5.6880 ppb	18:23:19
1	Ba 233.527†	108.0	87.1	0.6385	ug/L	0.6385 ppb	18:23:19
1	Be 313.107†	-4304.8	272.1	0.0994	ug/L	0.0994 ppb	18:22:59
1	Cd 226.502†	-223.9	-4.6	-0.0549	ug/L	-0.0549 ppb	18:23:19
1	Co 228.616†	-65.1	9.0	0.1744	ug/L	0.1744 ppb	18:23:19
1	Cr 267.716†	113.7	32.4	0.3584	ug/L	0.3584 ppb	18:23:19
1	Cu 324.752†	6222.6	-10.6	-0.0245	ug/L	-0.0245 ppb	18:22:59
1	Mn 257.610†	2156.4	1677.8	1.7833	ug/L	1.7833 ppb	18:22:59
1	Mo 202.031†	33.6	14.4	0.9735	ug/L	0.9735 ppb	18:23:19
1	Ni 231.604†	110.8	9.1	0.2190	ug/L	0.2190 ppb	18:23:19
1	P 214.914†	236.2	-0.9	-0.5239	ug/L	-0.5239 ppb	18:23:19
1	Pb 220.353†	-58.5	-4.1	-0.4727	ug/L	-0.4727 ppb	18:23:19
1	S 181.975 Axial†	56.0	13.9	18.635	ug/L	18.635 ppb	18:23:19
1	Sb 206.836†	40.1	1.0	0.3426	ug/L	0.3426 ppb	18:23:19
1	Se 196.026†	-19.7	13.5	8.4015	ug/L	8.4015 ppb	18:23:19
1	Si 251.611†	7931.6	7349.5	222.32	ug/L	222.32 ppb	18:22:59
1	Sn 189.927†	6.7	-0.9	-0.1481	ug/L	-0.1481 ppb	18:23:19
1	Ti 334.940†	-470.5	923.3	1.4089	ug/L	1.4089 ppb	18:22:59
1	Tl 190.801†	-35.0	4.1	1.2130	ug/L	1.2130 ppb	18:23:19
1	U 409.014†	-1926.3	-260.7	-7.3887	ug/L	-7.3887 ppb	18:22:53
1	V 292.402†	-1462.0	31.2	0.1956	ug/L	0.1956 ppb	18:22:59
1	Zn 213.857†	816.0	99.6	0.8919	ug/L	0.8919 ppb	18:23:19
1	SiO2†	7992.9	7382.3	481.58	ug/L	481.58 ppb	18:24:25
2	Sc Radial	5469.5	5469.5	103	%		18:22:02
2	Y RADIAL	5804.9	5804.9	102.8	%		18:22:02
2	Al 396.153Radial†	69.0	62.6	50.064	ug/L	50.064 ppb	18:22:02
2	Ca 317.933Radial†	30.5	9.1	15.001	ug/L	15.001 ppb	18:22:22
2	Fe 238.204 Radial†	16.4	3.1	27.177	ug/L	27.177 ppb	18:22:22
2	K 766.490 Radial†	2917.5	166.1	35.107	ug/L	35.107 ppb	18:22:02
2	Mg 279.077 IEC†	-0.1	-2.7	-89.488	ug/L	-89.488 ppb	18:22:22
2	Na 589.592 Radial†	-1008.9	116.1	31.192	ug/L	31.192 ppb	18:22:02
2	Sr 421.552†	47.2	34.3	0.2194	ug/L	0.2194 ppb	18:22:02
2	Sc 361.383	957489.0	957489.0	101.41	%		18:23:24
2	Y 371.029	806458.6	806458.6	101.14	%		18:23:24
2	Ag 328.068†	498.1	80.0	0.3633	ug/L	0.3633 ppb	18:23:29
2	As 188.979†	-19.1	0.7	0.3173	ug/L	0.3173 ppb	18:23:49
2	B 249.677†	-250.8	280.2	6.0739	ug/L	6.0739 ppb	18:23:49
2	Ba 233.527†	75.8	55.1	0.4040	ug/L	0.4040 ppb	18:23:49
2	Be 313.107†	-4354.4	237.1	0.0871	ug/L	0.0871 ppb	18:23:29
2	Cd 226.502†	-225.3	-5.3	-0.0600	ug/L	-0.0600 ppb	18:23:49
2	Co 228.616†	-60.1	14.1	0.2725	ug/L	0.2725 ppb	18:23:49
2	Cr 267.716†	105.5	24.0	0.2640	ug/L	0.2640 ppb	18:23:49
2	Cu 324.752†	6249.1	-4.4	-0.0101	ug/L	-0.0101 ppb	18:23:29
2	Mn 257.610†	2169.9	1684.1	1.7887	ug/L	1.7887 ppb	18:23:29
2	Mo 202.031†	22.2	3.1	0.2080	ug/L	0.2080 ppb	18:23:49
2	Ni 231.604†	123.8	21.5	0.5198	ug/L	0.5198 ppb	18:23:49

2	P 214.914†	232.6	-5.2	-3.0033 ug/L	-3.0033 ppb	18:23:49
2	Pb 220.353†	-47.0	7.4	0.8771 ug/L	0.8771 ppb	18:23:49
2	S 181.975 Axial†	48.4	6.2	8.3393 ug/L	8.3393 ppb	18:23:49
2	Sb 206.836†	32.5	-6.6	-2.2073 ug/L	-2.2073 ppb	18:23:49
2	Se 196.026†	-19.8	13.3	8.2801 ug/L	8.2801 ppb	18:23:49
2	Si 251.611†	8026.3	7417.4	224.39 ug/L	224.39 ppb	18:23:29
2	Sn 189.927†	-1.0	-8.5	-1.4230 ug/L	-1.4230 ppb	18:23:49
2	Ti 334.940†	-467.0	928.3	1.4150 ug/L	1.4150 ppb	18:23:29
2	Tl 190.801†	-26.3	12.8	3.7295 ug/L	3.7295 ppb	18:23:49
2	U 409.014†	-1752.6	-83.3	-2.3616 ug/L	-2.3616 ppb	18:23:24
2	V 292.402†	-1456.8	41.1	0.2611 ug/L	0.2611 ppb	18:23:29
2	Zn 213.857†	819.7	100.6	0.9004 ug/L	0.9004 ppb	18:23:49
2	SiO2†	7910.6	7275.4	474.63 ug/L	474.63 ppb	18:24:30
2	Sc Radial	5589.1	5589.1	105 %		18:22:27
3	Y RADIAL	5905.7	5905.7	104.6 %		18:22:27
3	Al 396.153Radial†	49.2	42.3	33.808 ug/L	33.808 ppb	18:22:27
3	Ca 317.933Radial†	30.9	8.9	14.671 ug/L	14.671 ppb	18:22:47
3	Fe 238.204 Radial†	16.7	3.1	26.442 ug/L	26.442 ppb	18:22:47
3	K 766.490 Radial†	2930.7	117.9	24.922 ug/L	24.922 ppb	18:22:27
3	Mg 279.077 IEC†	3.1	0.3	10.172 ug/L	10.172 ppb	18:22:47
3	Na 589.592 Radial†	-1035.6	111.7	30.004 ug/L	30.004 ppb	18:22:27
3	Sr 421.552†	46.9	33.0	0.2113 ug/L	0.2113 ppb	18:22:27
3	Sc 361.383	954865.7	954865.7	101.14 %		18:23:54
3	Y 371.029	803535.1	803535.1	100.77 %		18:23:54
3	Ag 328.068†	348.2	-66.9	-0.2816 ug/L	-0.2816 ppb	18:23:59
3	As 188.979†	-26.1	-6.3	-2.5286 ug/L	-2.5286 ppb	18:24:19
3	B 249.677†	-265.6	264.9	5.7428 ug/L	5.7428 ppb	18:24:19
3	Ba 233.527†	97.7	76.9	0.5641 ug/L	0.5641 ppb	18:24:19
3	Be 313.107†	-4484.7	96.4	0.0373 ug/L	0.0373 ppb	18:23:59
3	Cd 226.502†	-209.7	9.6	0.0988 ug/L	0.0988 ppb	18:24:19
3	Co 228.616†	-67.4	6.8	0.1302 ug/L	0.1302 ppb	18:24:19
3	Cr 267.716†	111.3	30.0	0.3304 ug/L	0.3304 ppb	18:24:19
3	Cu 324.752†	6335.4	97.8	0.2880 ug/L	0.2880 ppb	18:23:59
3	Mn 257.610†	2207.9	1727.5	1.8306 ug/L	1.8306 ppb	18:23:59
3	Mo 202.031†	26.5	7.4	0.5004 ug/L	0.5004 ppb	18:24:19
3	Ni 231.604†	101.1	-0.5	-0.0129 ug/L	-0.0129 ppb	18:24:19
3	P 214.914†	243.5	6.2	3.5200 ug/L	3.5200 ppb	18:24:19
3	Pb 220.353†	-48.1	6.1	0.7274 ug/L	0.7274 ppb	18:24:19
3	S 181.975 Axial†	44.8	2.8	3.7154 ug/L	3.7154 ppb	18:24:19
3	Sb 206.836†	30.3	-8.8	-2.8838 ug/L	-2.8838 ppb	18:24:19
3	Se 196.026†	-34.9	-1.6	-0.8906 ug/L	-0.8906 ppb	18:24:19
3	Si 251.611†	8123.2	7534.9	227.94 ug/L	227.94 ppb	18:23:59
3	Sn 189.927†	4.9	-2.6	-0.4366 ug/L	-0.4366 ppb	18:24:19
3	Ti 334.940†	-472.2	921.9	1.3972 ug/L	1.3972 ppb	18:23:59
3	Tl 190.801†	-23.8	15.2	4.4184 ug/L	4.4184 ppb	18:24:19
3	U 409.014†	-1755.6	-91.0	-2.5805 ug/L	-2.5805 ppb	18:23:54
3	V 292.402†	-1413.1	80.3	0.5247 ug/L	0.5247 ppb	18:23:59
3	Zn 213.857†	808.1	91.4	0.8203 ug/L	0.8203 ppb	18:24:19
3	SiO2†	7999.6	7384.9	481.76 ug/L	481.76 ppb	18:24:35

Mean Data: 1202011712|940084|5

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity		Units		Conc. Units		
Sc 361.383	955576.2	101.21	%	0.177			0.18%
Sc Radial	5507.2	103	%	1.3			1.29%
Y 371.029	805024.9	100.96	%	0.183			0.18%
Y RADIAL	5828.9	103.3	%	1.20			1.17%
Ag 328.068†	-4.5	-0.0051	ug/L	0.33217	-0.0051	ppb	0.33217 >999.9%
Al 396.153Radial†	57.3	45.788	ug/L	10.5158	45.788	ppb	10.5158 22.97%
As 188.979†	-4.5	-1.8219	ug/L	1.88788	-1.8219	ppb	1.88788 103.62%
B 249.677†	269.2	5.8349	ug/L	0.20880	5.8349	ppb	0.20880 3.58%
Ba 233.527†	73.0	0.5355	ug/L	0.11982	0.5355	ppb	0.11982 22.37%
Be 313.107†	201.8	0.0746	ug/L	0.03290	0.0746	ppb	0.03290 44.10%
Ca 317.933Radial†	8.2	13.506	ug/L	2.3098	13.506	ppb	2.3098 17.10%
Cd 226.502†	-0.1	-0.0054	ug/L	0.09023	-0.0054	ppb	0.09023 >999.9%
Co 228.616†	10.0	0.1924	ug/L	0.07281	0.1924	ppb	0.07281 37.84%
Cr 267.716†	28.8	0.3176	ug/L	0.04848	0.3176	ppb	0.04848 15.26%
Cu 324.752†	27.6	0.0845	ug/L	0.17640	0.0845	ppb	0.17640 208.84%
Fe 238.204 Radial†	3.6	31.334	ug/L	7.8443	31.334	ppb	7.8443 25.03%
K 766.490 Radial†	172.4	36.457	ug/L	12.2668	36.457	ppb	12.2668 33.65%

Mg 279.077 IEC†	-1.7	-55.701 ug/L	57.0547	-55.701 ppb	57.0547	102.43%
Mn 257.610†	1696.4	1.8009 ug/L	0.02586	1.8009 ppb	0.02586	1.44%
Mo 202.031†	8.3	0.5606 ug/L	0.38628	0.5606 ppb	0.38628	68.90%
Na 589.592 Radial†	74.1	19.922 ug/L	18.5000	19.922 ppb	18.5000	92.86%
Ni 231.604†	10.0	0.2420 ug/L	0.26705	0.2420 ppb	0.26705	110.36%
P 214.914†	0.1	-0.0024 ug/L	3.29277	-0.0024 ppb	3.29277	>999.9%
Pb 220.353†	3.1	0.3773 ug/L	0.73992	0.3773 ppb	0.73992	196.11%
S 181.975 Axial†	7.6	10.230 ug/L	7.6373	10.230 ppb	7.6373	74.66%
Sb 206.836†	-4.8	-1.5828 ug/L	1.70143	-1.5828 ppb	1.70143	107.49%
Se 196.026†	8.4	5.2637 ug/L	5.33009	5.2637 ppb	5.33009	101.26%
Si 251.611†	7433.9	224.88 ug/L	2.840	224.88 ppb	2.840	1.26%
Sn 189.927†	-4.0	-0.6692 ug/L	0.66855	-0.6692 ppb	0.66855	99.90%
Sr 421.552†	34.1	0.2180 ug/L	0.00613	0.2180 ppb	0.00613	2.81%
Ti 334.940†	924.5	1.4070 ug/L	0.00905	1.4070 ppb	0.00905	0.64%
Tl 190.801†	10.7	3.1203 ug/L	1.68731	3.1203 ppb	1.68731	54.08%
U 409.014†	-145.0	-4.1103 ug/L	2.84131	-4.1103 ppb	2.84131	69.13%
V 292.402†	50.9	0.3271 ug/L	0.17419	0.3271 ppb	0.17419	53.25%
Zn 213.857†	97.2	0.8709 ug/L	0.04399	0.8709 ppb	0.04399	5.05%
SiO2†	7347.5	479.33 ug/L	4.067	479.33 ppb	4.067	0.85%

Sequence No.: 23

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/18/2010 19:08:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	5347.3	5347.3	100 %		19:10:31
1	Y RADIAL	5608.1	5608.1	99.35 %		19:10:31
1	Al 396.153Radial†	6428.0	6399.1	5096.5 ug/L	5096.5 ppb	19:10:31
1	Ca 317.933Radial†	3143.3	3110.8	5142.9 ug/L	5142.9 ppb	19:10:51
1	Fe 238.204 Radial†	603.1	588.0	5092.7 ug/L	5092.7 ppb	19:10:51
1	K 766.490 Radial†	26478.8	23703.6	5007.3 ug/L	5007.3 ppb	19:10:31
1	Mg 279.077 IEC†	164.2	161.0	5302.9 ug/L	5302.9 ppb	19:10:51
1	Na 589.592 Radial†	34608.2	35576.6	9559.0 ug/L	9559.0 ppb	19:10:31
1	Sr 421.552†	78786.7	78478.4	502.22 ug/L	502.22 ppb	19:10:31
1	Sc 361.383	946110.1	946110.1	100.21 %		19:11:48
1	Y 371.029	785674.3	785674.3	98.533 %		19:11:48
1	Ag 328.068†	114537.2	113888.7	503.88 ug/L	503.88 ppb	19:11:54
1	As 188.979†	1225.7	1242.7	509.83 ug/L	509.83 ppb	19:12:14
1	B 249.677†	22501.0	22981.8	496.36 ug/L	496.36 ppb	19:11:54
1	Ba 233.527†	69089.4	68926.5	505.18 ug/L	505.18 ppb	19:11:54
1	Be 313.107†	1425630.5	1427207.0	506.19 ug/L	506.19 ppb	19:11:48
1	Cd 226.502†	47052.8	47172.1	503.49 ug/L	503.49 ppb	19:11:54
1	Co 228.616†	25860.4	25880.2	505.06 ug/L	505.06 ppb	19:11:54
1	Cr 267.716†	45887.4	45712.3	500.77 ug/L	500.77 ppb	19:11:54
1	Cu 324.752†	179019.4	172482.0	502.68 ug/L	502.68 ppb	19:11:54
1	Mn 257.610†	482321.3	480866.2	509.23 ug/L	509.23 ppb	19:11:48
1	Mo 202.031†	7460.7	7426.5	499.20 ug/L	499.20 ppb	19:12:14
1	Ni 231.604†	21041.5	20897.3	503.89 ug/L	503.89 ppb	19:11:54
1	P 214.914†	4604.4	4360.3	2410.4 ug/L	2410.4 ppb	19:12:14
1	Pb 220.353†	4214.9	4259.9	502.39 ug/L	502.39 ppb	19:12:14
1	S 181.975 Axial†	789.8	746.7	999.97 ug/L	999.97 ppb	19:12:14
1	Sb 206.836†	1566.2	1524.3	520.01 ug/L	520.01 ppb	19:12:14
1	Se 196.026†	802.4	833.7	531.37 ug/L	531.37 ppb	19:12:14
1	Si 251.611†	84532.0	83859.7	2530.8 ug/L	2530.8 ppb	19:11:54
1	Sn 189.927†	2980.2	2966.6	497.43 ug/L	497.43 ppb	19:12:14
1	Ti 334.940†	334611.1	335306.5	507.25 ug/L	507.25 ppb	19:11:48
1	Tl 190.801†	1697.7	1732.9	504.32 ug/L	504.32 ppb	19:12:14
1	U 409.014†	16059.6	17671.3	498.72 ug/L	498.72 ppb	19:11:54
1	V 292.402†	74550.7	75873.8	505.47 ug/L	505.47 ppb	19:11:54
1	Zn 213.857†	56888.5	56062.9	500.71 ug/L	500.71 ppb	19:11:54
1	SiO2†	85505.7	84803.6	5518.9 ug/L	5518.9 ppb	19:13:22
2	Sc Radial	5402.4	5402.4	101 %		19:10:56
2	Y RADIAL	5689.1	5689.1	100.8 %		19:10:56
2	Al 396.153Radial†	6589.7	6493.3	5171.9 ug/L	5171.9 ppb	19:10:56
2	Ca 317.933Radial†	3145.1	3080.7	5093.1 ug/L	5093.1 ppb	19:11:16
2	Fe 238.204 Radial†	605.4	584.1	5059.1 ug/L	5059.1 ppb	19:11:16
2	K 766.490 Radial†	27008.6	23957.0	5060.9 ug/L	5060.9 ppb	19:10:56
2	Mg 279.077 IEC†	163.3	158.4	5218.8 ug/L	5218.8 ppb	19:11:16
2	Na 589.592 Radial†	35391.0	35996.9	9671.9 ug/L	9671.9 ppb	19:10:56
2	Sr 421.552†	80498.4	79365.8	507.90 ug/L	507.90 ppb	19:10:56
2	Sc 361.383	948478.3	948478.3	100.46 %		19:12:20
2	Y 371.029	788021.9	788021.9	98.828 %		19:12:20
2	Ag 328.068†	115645.1	114706.1	507.48 ug/L	507.48 ppb	19:12:25
2	As 188.979†	1218.6	1232.6	505.71 ug/L	505.71 ppb	19:12:45
2	B 249.677†	22730.5	23154.3	500.09 ug/L	500.09 ppb	19:12:25
2	Ba 233.527†	69498.5	69161.6	506.90 ug/L	506.90 ppb	19:12:25
2	Be 313.107†	1428038.4	1426051.6	505.78 ug/L	505.78 ppb	19:12:20
2	Cd 226.502†	47287.0	47288.0	504.73 ug/L	504.73 ppb	19:12:25
2	Co 228.616†	26099.4	26053.7	508.44 ug/L	508.44 ppb	19:12:25
2	Cr 267.716†	46292.8	46001.5	503.93 ug/L	503.93 ppb	19:12:25
2	Cu 324.752†	181035.0	174042.3	507.22 ug/L	507.22 ppb	19:12:25
2	Mn 257.610†	482232.4	479575.9	507.86 ug/L	507.86 ppb	19:12:20
2	Mo 202.031†	7453.3	7400.5	497.45 ug/L	497.45 ppb	19:12:45
2	Ni 231.604†	21172.6	20975.4	505.77 ug/L	505.77 ppb	19:12:25

2	P 214.914†	4582.1	4326.6	2390.2 ug/L	2390.2 ppb	19:12:45
2	Pb 220.353†	4170.5	4205.2	495.97 ug/L	495.97 ppb	19:12:45
2	S 181.975 Axial†	783.3	738.2	988.63 ug/L	988.63 ppb	19:12:45
2	Sb 206.836†	1561.6	1515.8	517.13 ug/L	517.13 ppb	19:12:45
2	Se 196.026†	777.3	806.7	514.70 ug/L	514.70 ppb	19:12:45
2	Si 251.611†	85260.2	84373.9	2546.4 ug/L	2546.4 ppb	19:12:25
2	Sn 189.927†	2970.1	2949.1	494.50 ug/L	494.50 ppb	19:12:45
2	Ti 334.940†	335027.5	334887.2	506.61 ug/L	506.61 ppb	19:12:20
2	Tl 190.801†	1686.5	1717.6	499.85 ug/L	499.85 ppb	19:12:45
2	U 409.014†	16256.0	17826.7	503.12 ug/L	503.12 ppb	19:12:25
2	V 292.402†	75490.7	76623.8	510.38 ug/L	510.38 ppb	19:12:25
2	Zn 213.857†	57352.9	56383.5	503.58 ug/L	503.58 ppb	19:12:25
2	SiO2†	85121.5	84208.0	5480.1 ug/L	5480.1 ppb	19:13:27
3	Sc Radial	5445.9	5445.9	102 %		19:11:21
3	Y RADIAL	5749.5	5749.5	101.9 %		19:11:21
3	Al 396.153Radial†	6574.2	6426.2	5118.0 ug/L	5118.0 ppb	19:11:21
3	Ca 317.933Radial†	3116.4	3027.9	5005.7 ug/L	5005.7 ppb	19:11:41
3	Fe 238.204 Radial†	600.1	574.2	4973.0 ug/L	4973.0 ppb	19:11:41
3	K 766.490 Radial†	26762.9	23503.8	4965.1 ug/L	4965.1 ppb	19:11:21
3	Mg 279.077 IEC†	159.3	153.2	5045.6 ug/L	5045.6 ppb	19:11:41
3	Na 589.592 Radial†	35048.7	35383.0	9506.9 ug/L	9506.9 ppb	19:11:21
3	Sr 421.552†	79712.9	77962.8	498.92 ug/L	498.92 ppb	19:11:21
3	Sc 361.383	943654.4	943654.4	99.948 %		19:12:51
3	Y 371.029	784372.7	784372.7	98.370 %		19:12:51
3	Ag 328.068†	114769.5	114418.6	506.19 ug/L	506.19 ppb	19:12:56
3	As 188.979†	1227.5	1247.8	511.83 ug/L	511.83 ppb	19:13:16
3	B 249.677†	22543.3	23082.7	498.56 ug/L	498.56 ppb	19:12:56
3	Ba 233.527†	69277.9	69294.6	507.87 ug/L	507.87 ppb	19:12:56
3	Be 313.107†	1423095.7	1428373.0	506.61 ug/L	506.61 ppb	19:12:51
3	Cd 226.502†	47166.9	47408.5	506.03 ug/L	506.03 ppb	19:12:56
3	Co 228.616†	25904.8	25991.8	507.24 ug/L	507.24 ppb	19:12:56
3	Cr 267.716†	46146.2	46090.4	504.90 ug/L	504.90 ppb	19:12:56
3	Cu 324.752†	179323.1	173250.7	504.91 ug/L	504.91 ppb	19:12:56
3	Mn 257.610†	480128.2	479924.5	508.23 ug/L	508.23 ppb	19:12:51
3	Mo 202.031†	7490.2	7475.3	502.47 ug/L	502.47 ppb	19:13:16
3	Ni 231.604†	21137.3	21047.9	507.52 ug/L	507.52 ppb	19:12:56
3	P 214.914†	4604.1	4371.9	2416.8 ug/L	2416.8 ppb	19:13:16
3	Pb 220.353†	4221.0	4277.0	504.42 ug/L	504.42 ppb	19:13:16
3	S 181.975 Axial†	784.6	743.5	995.76 ug/L	995.76 ppb	19:13:16
3	Sb 206.836†	1561.1	1523.2	519.76 ug/L	519.76 ppb	19:13:16
3	Se 196.026†	805.4	838.7	534.04 ug/L	534.04 ppb	19:13:16
3	Si 251.611†	84734.1	84281.4	2543.5 ug/L	2543.5 ppb	19:12:56
3	Sn 189.927†	2990.1	2984.2	500.36 ug/L	500.36 ppb	19:13:16
3	Ti 334.940†	333483.3	335047.0	506.85 ug/L	506.85 ppb	19:12:51
3	Tl 190.801†	1692.6	1732.3	504.11 ug/L	504.11 ppb	19:13:16
3	U 409.014†	16124.4	17777.8	501.74 ug/L	501.74 ppb	19:12:56
3	V 292.402†	74917.9	76434.7	509.22 ug/L	509.22 ppb	19:12:56
3	Zn 213.857†	56988.3	56310.5	502.92 ug/L	502.92 ppb	19:12:56
3	SiO2†	84452.3	83971.7	5464.5 ug/L	5464.5 ppb	19:13:32

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	946080.9	100.20 %		0.255			0.25%
Sc Radial	5398.5	101 %		0.9			0.92%
Y 371.029	786022.9	98.577 %		0.2319			0.24%
Y RADIAL	5682.2	100.7 %		1.26			1.25%
Ag 328.068†	114337.8	505.85 ug/L		1.823	505.85 ppb	1.823	0.36%
QC value within limits for Ag 328.068 Recovery = 101.17%							
Al 396.153Radial†	6439.5	5128.8 ug/L		38.87	5128.8 ppb	38.87	0.76%
QC value within limits for Al 396.153Radial Recovery = 102.58%							
As 188.979†	1241.0	509.12 ug/L		3.125	509.12 ppb	3.125	0.61%
QC value within limits for As 188.979 Recovery = 101.82%							
B 249.677†	23072.9	498.34 ug/L		1.878	498.34 ppb	1.878	0.38%
QC value within limits for B 249.677 Recovery = 99.67%							
Ba 233.527†	69127.6	506.65 ug/L		1.366	506.65 ppb	1.366	0.27%
QC value within limits for Ba 233.527 Recovery = 101.33%							
Be 313.107†	1427210.5	506.19 ug/L		0.411	506.19 ppb	0.411	0.08%
QC value within limits for Be 313.107 Recovery = 101.24%							
Ca 317.933Radial†	3073.1	5080.6 ug/L		69.43	5080.6 ppb	69.43	1.37%

QC value within limits for Ca 317.933 Radial Recovery = 101.61%							
Cd	226.502†	47289.6	504.75 ug/L	1.270	504.75 ppb	1.270	0.25%
QC value within limits for Cd 226.502 Recovery = 100.95%							
Co	228.616†	25975.2	506.91 ug/L	1.715	506.91 ppb	1.715	0.34%
QC value within limits for Co 228.616 Recovery = 101.38%							
Cr	267.716†	45934.7	503.20 ug/L	2.165	503.20 ppb	2.165	0.43%
QC value within limits for Cr 267.716 Recovery = 100.64%							
Cu	324.752†	173258.3	504.94 ug/L	2.272	504.94 ppb	2.272	0.45%
QC value within limits for Cu 324.752 Recovery = 100.99%							
Fe	238.204 Radial†	582.1	5041.6 ug/L	61.75	5041.6 ppb	61.75	1.22%
QC value within limits for Fe 238.204 Radial Recovery = 100.83%							
K	766.490 Radial†	23721.5	5011.1 ug/L	48.00	5011.1 ppb	48.00	0.96%
QC value within limits for K 766.490 Radial Recovery = 100.22%							
Mg	279.077 IEC†	157.5	5189.1 ug/L	131.21	5189.1 ppb	131.21	2.53%
QC value within limits for Mg 279.077 IEC Recovery = 103.78%							
Mn	257.610†	480122.2	508.44 ug/L	0.707	508.44 ppb	0.707	0.14%
QC value within limits for Mn 257.610 Recovery = 101.69%							
Mo	202.031†	7434.1	499.71 ug/L	2.548	499.71 ppb	2.548	0.51%
QC value within limits for Mo 202.031 Recovery = 99.94%							
Na	589.592 Radial†	35652.2	9579.3 ug/L	84.33	9579.3 ppb	84.33	0.88%
QC value within limits for Na 589.592 Radial Recovery = 95.79%							
Ni	231.604†	20973.5	505.73 ug/L	1.815	505.73 ppb	1.815	0.36%
QC value within limits for Ni 231.604 Recovery = 101.15%							
P	214.914†	4353.0	2405.8 ug/L	13.92	2405.8 ppb	13.92	0.58%
QC value within limits for P 214.914 Recovery = 96.23%							
Pb	220.353†	4247.3	500.93 ug/L	4.412	500.93 ppb	4.412	0.88%
QC value within limits for Pb 220.353 Recovery = 100.19%							
S	181.975 Axial†	742.8	994.79 ug/L	5.731	994.79 ppb	5.731	0.58%
QC value within limits for S 181.975 Axial Recovery = 99.48%							
Sb	206.836†	1521.1	518.97 ug/L	1.593	518.97 ppb	1.593	0.31%
QC value within limits for Sb 206.836 Recovery = 103.79%							
Se	196.026†	826.4	526.70 ug/L	10.481	526.70 ppb	10.481	1.99%
QC value within limits for Se 196.026 Recovery = 105.34%							
Si	251.611†	84171.7	2540.2 ug/L	8.29	2540.2 ppb	8.29	0.33%
QC value within limits for Si 251.611 Recovery = 101.61%							
Sn	189.927†	2966.6	497.43 ug/L	2.931	497.43 ppb	2.931	0.59%
QC value within limits for Sn 189.927 Recovery = 99.49%							
Sr	421.552†	78602.3	503.02 ug/L	4.542	503.02 ppb	4.542	0.90%
QC value within limits for Sr 421.552 Recovery = 100.60%							
Ti	334.940†	335080.2	506.90 ug/L	0.322	506.90 ppb	0.322	0.06%
QC value within limits for Ti 334.940 Recovery = 101.38%							
Tl	190.801†	1727.6	502.76 ug/L	2.523	502.76 ppb	2.523	0.50%
QC value within limits for Tl 190.801 Recovery = 100.55%							
U	409.014†	17758.6	501.19 ug/L	2.249	501.19 ppb	2.249	0.45%
QC value within limits for U 409.014 Recovery = 100.24%							
V	292.402†	76310.8	508.35 ug/L	2.569	508.35 ppb	2.569	0.51%
QC value within limits for V 292.402 Recovery = 101.67%							
Zn	213.857†	56252.3	502.40 ug/L	1.505	502.40 ppb	1.505	0.30%
QC value within limits for Zn 213.857 Recovery = 100.48%							
SiO2†		84327.8	5487.8 ug/L	28.00	5487.8 ppb	28.00	0.51%
QC value within limits for SiO2 Recovery = 102.62%							

All analyte(s) passed QC.

Sequence No.: 24

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/18/2010 19:15:41

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	5459.6	5459.6	102 %		19:17:33
1	Y RADIAL	5765.6	5765.6	102.1 %		19:17:33
1	Al 396.153Radial†	-21.4	-25.6	-20.484 ug/L	-20.484 ppb	19:17:33
1	Ca 317.933Radial†	20.2	-0.9	-1.4897 ug/L	-1.4897 ppb	19:17:53
1	Fe 238.204 Radial†	11.0	-2.1	-18.411 ug/L	-18.411 ppb	19:17:53
1	K 766.490 Radial†	2761.0	18.5	3.9297 ug/L	3.9297 ppb	19:17:33
1	Mg 279.077 IEC†	3.1	0.4	12.174 ug/L	12.174 ppb	19:17:53
1	Na 589.592 Radial†	-1205.4	-77.4	-20.801 ug/L	-20.801 ppb	19:17:33
1	Sr 421.552†	-6.3	-17.8	-0.1138 ug/L	-0.1138 ppb	19:17:33
1	Sc 361.383	923003.9	923003.9	97.760 %		19:18:50
1	Y 371.029	782045.9	782045.9	98.078 %		19:18:50
1	Ag 328.068†	350.5	-52.7	-0.2330 ug/L	-0.2330 ppb	19:18:50
1	As 188.979†	-28.8	-9.9	-4.0154 ug/L	-4.0154 ppb	19:19:10
1	B 249.677†	-404.6	113.6	2.4692 ug/L	2.4692 ppb	19:19:10
1	Ba 233.527†	-12.2	-32.2	-0.2362 ug/L	-0.2362 ppb	19:19:10
1	Be 313.107†	-4441.0	-12.0	-0.0045 ug/L	-0.0045 ppb	19:18:50
1	Cd 226.502†	-208.0	4.1	0.0437 ug/L	0.0437 ppb	19:19:10
1	Co 228.616†	-80.9	-9.4	-0.1812 ug/L	-0.1812 ppb	19:19:10
1	Cr 267.716†	72.1	-6.3	-0.0667 ug/L	-0.0667 ppb	19:19:10
1	Cu 324.752†	6018.2	-10.4	-0.0275 ug/L	-0.0275 ppb	19:18:50
1	Mn 257.610†	445.2	-0.2	-0.0025 ug/L	-0.0025 ppb	19:19:10
1	Mo 202.031†	25.2	7.0	0.4708 ug/L	0.4708 ppb	19:19:10
1	Ni 231.604†	88.1	-10.4	-0.2518 ug/L	-0.2518 ppb	19:19:10
1	P 214.914†	217.1	-12.5	-7.1664 ug/L	-7.1664 ppb	19:19:10
1	Pb 220.353†	-62.9	-10.6	-1.2500 ug/L	-1.2500 ppb	19:19:10
1	S 181.975 Axial†	37.1	-3.6	-4.7831 ug/L	-4.7831 ppb	19:19:10
1	Sb 206.836†	42.2	4.4	1.4532 ug/L	1.4532 ppb	19:19:10
1	Se 196.026†	-27.7	4.6	2.7263 ug/L	2.7263 ppb	19:19:10
1	Si 251.611†	513.6	28.2	0.8478 ug/L	0.8478 ppb	19:19:10
1	Sn 189.927†	3.5	-3.9	-0.6526 ug/L	-0.6526 ppb	19:19:10
1	Ti 334.940†	-1416.5	-60.1	-0.0892 ug/L	-0.0892 ppb	19:18:50
1	Tl 190.801†	-33.1	4.9	1.4103 ug/L	1.4103 ppb	19:19:10
1	U 409.014†	-1839.7	-236.9	-6.7059 ug/L	-6.7059 ppb	19:18:50
1	V 292.402†	-1477.3	-33.6	-0.2241 ug/L	-0.2241 ppb	19:18:50
1	Zn 213.857†	727.2	36.2	0.3296 ug/L	0.3296 ppb	19:19:10
1	SiO2†	526.7	13.8	0.8854 ug/L	0.8854 ppb	19:20:06
2	Sc Radial	5576.7	5576.7	105 %		19:17:58
2	Y RADIAL	5906.6	5906.6	104.6 %		19:17:58
2	Al 396.153Radial†	-5.7	-10.1	-8.0913 ug/L	-8.0913 ppb	19:17:58
2	Ca 317.933Radial†	20.7	-0.8	-1.3529 ug/L	-1.3529 ppb	19:18:18
2	Fe 238.204 Radial†	13.7	0.2	1.8775 ug/L	1.8775 ppb	19:18:18
2	K 766.490 Radial†	2746.7	-51.6	-10.920 ug/L	-10.920 ppb	19:17:58
2	Mg 279.077 IEC†	0.9	-1.8	-59.866 ug/L	-59.866 ppb	19:18:18
2	Na 589.592 Radial†	-1175.8	-24.5	-6.5916 ug/L	-6.5916 ppb	19:17:58
2	Sr 421.552†	8.2	-3.8	-0.0242 ug/L	-0.0242 ppb	19:17:58
2	Sc 361.383	923813.0	923813.0	97.846 %		19:19:15
2	Y 371.029	782385.0	782385.0	98.121 %		19:19:15
2	Ag 328.068†	312.3	-92.1	-0.3984 ug/L	-0.3984 ppb	19:19:15
2	As 188.979†	-30.5	-11.6	-4.7175 ug/L	-4.7175 ppb	19:19:35
2	B 249.677†	-410.1	108.3	2.3507 ug/L	2.3507 ppb	19:19:35
2	Ba 233.527†	14.7	-4.7	-0.0347 ug/L	-0.0347 ppb	19:19:35
2	Be 313.107†	-4543.1	-112.3	-0.0396 ug/L	-0.0396 ppb	19:19:15
2	Cd 226.502†	-210.6	1.6	0.0159 ug/L	0.0159 ppb	19:19:35
2	Co 228.616†	-81.6	-10.0	-0.1934 ug/L	-0.1934 ppb	19:19:35
2	Cr 267.716†	92.0	14.0	0.1559 ug/L	0.1559 ppb	19:19:35
2	Cu 324.752†	6204.3	174.4	0.5129 ug/L	0.5129 ppb	19:19:15
2	Mn 257.610†	476.5	31.4	0.0359 ug/L	0.0359 ppb	19:19:35
2	Mo 202.031†	28.9	10.7	0.7192 ug/L	0.7192 ppb	19:19:35
2	Ni 231.604†	102.0	3.7	0.0900 ug/L	0.0900 ppb	19:19:35



2	P 214.914†	228.3	-1.2	-0.7931 ug/L	-0.7931 ppb	19:19:35
2	Pb 220.353†	-58.2	-5.7	-0.6714 ug/L	-0.6714 ppb	19:19:35
2	S 181.975 Axial†	40.9	0.3	0.4560 ug/L	0.4560 ppb	19:19:35
2	Sb 206.836†	40.1	2.3	0.7496 ug/L	0.7496 ppb	19:19:35
2	Se 196.026†	-32.1	0.1	0.0568 ug/L	0.0568 ppb	19:19:35
2	Si 251.611†	524.2	38.6	1.1594 ug/L	1.1594 ppb	19:19:35
2	Sn 189.927†	4.6	-2.8	-0.4725 ug/L	-0.4725 ppb	19:19:35
2	Ti 334.940†	-1306.4	53.6	0.0893 ug/L	0.0893 ppb	19:19:15
2	Tl 190.801†	-38.9	-1.1	-0.3024 ug/L	-0.3024 ppb	19:19:35
2	U 409.014†	-1880.7	-277.2	-7.8507 ug/L	-7.8507 ppb	19:19:15
2	V 292.402†	-1472.0	-26.9	-0.1833 ug/L	-0.1833 ppb	19:19:15
2	Zn 213.857†	730.1	38.5	0.3455 ug/L	0.3455 ppb	19:19:35
2	SiO2†	563.6	51.1	3.3117 ug/L	3.3117 ppb	19:20:11
3	Sc Radial	5444.3	5444.3	102 %		19:18:23
3	Y RADIAL	5784.5	5784.5	102.5 %		19:18:23
3	Al 396.153Radial†	-3.0	-7.6	-6.0849 ug/L	-6.0849 ppb	19:18:23
3	Ca 317.933Radial†	17.1	-3.8	-6.3579 ug/L	-6.3579 ppb	19:18:43
3	Fe 238.204 Radial†	11.7	-1.4	-12.045 ug/L	-12.045 ppb	19:18:43
3	K 766.490 Radial†	2659.3	-73.4	-15.502 ug/L	-15.502 ppb	19:18:23
3	Mg 279.077 IEC†	-0.5	-3.2	-103.79 ug/L	-103.79 ppb	19:18:43
3	Na 589.592 Radial†	-1242.9	-117.5	-31.568 ug/L	-31.568 ppb	19:18:23
3	Sr 421.552†	16.3	4.3	0.0274 ug/L	0.0274 ppb	19:18:23
3	Sc 361.383	924487.0	924487.0	97.917 %		19:19:40
3	Y 371.029	784726.5	784726.5	98.414 %		19:19:40
3	Ag 328.068†	384.7	-18.3	-0.0804 ug/L	-0.0804 ppb	19:19:40
3	As 188.979†	-18.9	0.3	0.1081 ug/L	0.1081 ppb	19:20:00
3	B 249.677†	-433.2	85.1	1.8493 ug/L	1.8493 ppb	19:20:00
3	Ba 233.527†	26.1	7.0	0.0497 ug/L	0.0497 ppb	19:20:00
3	Be 313.107†	-4482.6	-47.2	-0.0165 ug/L	-0.0165 ppb	19:19:40
3	Cd 226.502†	-222.8	-10.7	-0.1140 ug/L	-0.1140 ppb	19:20:00
3	Co 228.616†	-76.0	-4.3	-0.0832 ug/L	-0.0832 ppb	19:20:00
3	Cr 267.716†	79.6	1.3	0.0157 ug/L	0.0157 ppb	19:20:00
3	Cu 324.752†	6011.9	-26.8	-0.0751 ug/L	-0.0751 ppb	19:19:40
3	Mn 257.610†	445.3	-0.8	0.0022 ug/L	0.0022 ppb	19:20:00
3	Mo 202.031†	16.9	-1.6	-0.1057 ug/L	-0.1057 ppb	19:20:00
3	Ni 231.604†	97.2	-1.3	-0.0307 ug/L	-0.0307 ppb	19:20:00
3	P 214.914†	237.2	7.7	4.4534 ug/L	4.4534 ppb	19:20:00
3	Pb 220.353†	-72.6	-20.4	-2.3928 ug/L	-2.3928 ppb	19:20:00
3	S 181.975 Axial†	39.4	-1.3	-1.7522 ug/L	-1.7522 ppb	19:20:00
3	Sb 206.836†	48.7	11.0	3.6134 ug/L	3.6134 ppb	19:20:00
3	Se 196.026†	-27.1	5.3	3.1814 ug/L	3.1814 ppb	19:20:00
3	Si 251.611†	520.2	34.1	1.0321 ug/L	1.0321 ppb	19:20:00
3	Sn 189.927†	2.1	-5.3	-0.8909 ug/L	-0.8909 ppb	19:20:00
3	Ti 334.940†	-1315.9	44.9	0.0784 ug/L	0.0784 ppb	19:19:40
3	Tl 190.801†	-43.6	-5.8	-1.6692 ug/L	-1.6692 ppb	19:20:00
3	U 409.014†	-1831.9	-225.9	-6.3968 ug/L	-6.3968 ppb	19:19:40
3	V 292.402†	-1500.8	-55.2	-0.3770 ug/L	-0.3770 ppb	19:19:40
3	Zn 213.857†	713.4	20.9	0.1897 ug/L	0.1897 ppb	19:20:00
3	SiO2†	527.6	13.9	0.9082 ug/L	0.9082 ppb	19:20:16

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	923768.0	97.841 %		0.0787			0.08%
Sc Radial	5493.5	103 %		1.4			1.32%
Y 371.029	783052.5	98.204 %		0.1831			0.19%
Y RADIAL	5818.9	103.1 %		1.36			1.32%
Ag 328.068†	-54.3	-0.2373 ug/L		0.15904	-0.2373 ppb	0.15904	67.03%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-14.4	-11.553 ug/L		7.7990	-11.553 ppb	7.7990	67.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-7.1	-2.8750 ug/L		2.60715	-2.8750 ppb	2.60715	90.68%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	102.4	2.2231 ug/L		0.32909	2.2231 ppb	0.32909	14.80%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-10.0	-0.0737 ug/L		0.14690	-0.0737 ppb	0.14690	199.26%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-57.2	-0.0202 ug/L		0.01784	-0.0202 ppb	0.01784	88.36%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-1.9	-3.0668 ug/L		2.85097	-3.0668 ppb	2.85097	92.96%

QC value within limits for Ca 317.933 Radial	Recovery = Not calculated		
Cd 226.502†	-1.7 -0.0181 ug/L	0.08418 -0.0181 ppb	0.08418 464.74%
QC value within limits for Cd 226.502	Recovery = Not calculated		
Co 228.616†	-7.9 -0.1526 ug/L	0.06041 -0.1526 ppb	0.06041 39.58%
QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	3.0 0.0350 ug/L	0.11253 0.0350 ppb	0.11253 321.79%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	45.8 0.1368 ug/L	0.32657 0.1368 ppb	0.32657 238.78%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	-1.1 -9.5263 ug/L	10.37627 -9.5263 ppb	10.37627 108.92%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-35.5 -7.4977 ug/L	10.15812 -7.4977 ppb	10.15812 135.48%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-1.5 -50.495 ug/L	58.5484 -50.495 ppb	58.5484 115.95%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	10.1 0.0118 ug/L	0.02094 0.0118 ppb	0.02094 176.90%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	5.4 0.3614 ug/L	0.42323 0.3614 ppb	0.42323 117.10%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-73.1 -19.654 ug/L	12.5279 -19.654 ppb	12.5279 63.74%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	-2.7 -0.0642 ug/L	0.17336 -0.0642 ppb	0.17336 270.12%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-2.0 -1.1687 ug/L	5.81898 -1.1687 ppb	5.81898 497.90%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-12.2 -1.4381 ug/L	0.87595 -1.4381 ppb	0.87595 60.91%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-1.5 -2.0264 ug/L	2.63028 -2.0264 ppb	2.63028 129.80%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	5.9 1.9387 ug/L	1.49235 1.9387 ppb	1.49235 76.98%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	3.3 1.9882 ug/L	1.68798 1.9882 ppb	1.68798 84.90%
QC value within limits for Se 196.026	Recovery = Not calculated		
Si 251.611†	33.6 1.0131 ug/L	0.15665 1.0131 ppb	0.15665 15.46%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-4.0 -0.6720 ug/L	0.20987 -0.6720 ppb	0.20987 31.23%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	-5.8 -0.0369 ug/L	0.07146 -0.0369 ppb	0.07146 193.70%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	12.8 0.0262 ug/L	0.10007 0.0262 ppb	0.10007 382.51%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-0.7 -0.1871 ug/L	1.54300 -0.1871 ppb	1.54300 824.65%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-246.7 -6.9845 ug/L	0.76595 -6.9845 ppb	0.76595 10.97%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-38.6 -0.2615 ug/L	0.10211 -0.2615 ppb	0.10211 39.05%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	31.9 0.2883 ug/L	0.08574 0.2883 ppb	0.08574 29.74%
QC value within limits for Zn 213.857	Recovery = Not calculated		
SiO2†	26.2 1.7017 ug/L	1.39427 1.7017 ppb	1.39427 81.93%
QC value within limits for SiO2	Recovery = Not calculated		
All analyte(s) passed QC.			

## Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Wednesday, January 13, 2010 10:19:43

### Sample Description:

Method File: c:\elandata\Method\daily2.mth

Dataset File: c:\elandata\Dataset\090811\Sample.355

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	579.6	579.612	16.411	2.8
Mg	24.0	12269.1	12269.068	210.941	1.7
Co	58.9	36537.7	36537.666	164.691	0.5
Rh	102.9	65339.3	65339.283	235.839	0.4
In	114.9	87526.9	87526.915	99.299	0.1
Pb	208.0	35694.7	35694.741	278.763	0.8
[> Ba	137.9	70762.8	70762.834	513.701	0.7
[ Ba++	69.0	1332.7	0.019	0.000	1.7
[> Ce	139.9	84088.4	84088.360	491.658	0.6
[ CeO	155.9	1887.7	0.022	0.000	1.5
Bkgd	220.0	7.3	7.300	1.605	22.0

### Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	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	21	7.0	756.0
Co	59	21	8.8	25676.4
In	115	21	9.8	66539.9

## ICPMS #4 TUNING REPORT

File Name: default2.tun  
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	611	2060	0.678
Be	9.0	9.1	2060	2045	0.683
Mg	24.0	24.0	5677	2075	0.629
Mg	25.0	25.0	5939	2080	0.663
Mg	26.0	26.1	6168	2085	0.624
Co	58.9	59.0	14180	2140	0.626
Rh	102.9	102.9	24872	2230	0.631
In	114.9	114.9	27781	2255	0.680
Ce	139.9	139.9	33846	2310	0.645
Pb	206.0	206.0	49945	2500	0.703
Pb	207.0	207.0	50101	2380	0.651
Pb	208.0	208.0	50448	2570	0.648
U	238.1	238.0	57697	2510	0.705

## ICPMS#4 - Summary Report

Sample ID: Blank  
 Sample Date/Time: Wednesday, January 13, 2010 19:21:52  
 Sample Type:  
 Sample Description:  
 Number of Replicates: 3  
 Batch ID:  
 Method File: c:\elandata\Method\6020.mth  
 Dataset File: C:\elandata\Dataset\100113\Blank.128

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li 7		ug/L		23	
Be 9		ug/L		4	
B 11		ug/L		64	
Na 23		ug/L		45405	
Mg 24		ug/L		3334	
Al 27		ug/L		667	
P 31		ug/L		2737	
K 39		ug/L		386846	
Ca 43		ug/L		403	
> Sc 45		ug/L		171188	
Ti 47		ug/L		180	
V 51		ug/L		-6450	
Cr 52		ug/L		2248	
Cr 53		ug/L		148225	
Mn 55		ug/L		937	
Fe 57		ug/L		2678	
Co 59		ug/L		109	
Ni 60		ug/L		112	
Cu 63		ug/L		161	
Cu 65		ug/L		102	
Zn 66		ug/L		59	
Zn 67		ug/L		8406	
Zn 68		ug/L		756	
> Ge 74		ug/L		117706	
As 75		ug/L		134	
Se 77		ug/L		5957	
Se 82		ug/L		-13	
Kr 83		ug/L		48	
Sr 88		ug/L		142	
Y 89		ug/L		14	
Zr 90		ug/L		312	
Mo 98		ug/L		45	
Ag 107		ug/L		50	
Cd 111		ug/L		13	
Cd 114		ug/L		28	
> In 115		ug/L		75402	
Sn 120		ug/L		174	
Sb 121		ug/L		240	
Sb 123		ug/L		200	
Ba 135		ug/L		16	
Ba 137		ug/L		31	
Ho 165		ug/L		6	
> Lu 175		ug/L		70103	
Tl 205		ug/L		59	
Pb 208		ug/L		391	
Bi 209		ug/L		14	
Th 232		ug/L		381	
U 238		ug/L		196	

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Simple Linear	1.0000
Be	9Linear Thru Zero	
B	11Simple Linear	
Na	23Simple Linear	
Mg	24Simple Linear	
Al	27Simple Linear	
P	31Simple Linear	
K	39Simple Linear	
Ca	43Simple Linear	
Sc	45Linear Thru Zero	
Ti	47Simple Linear	1.0000
V	51Simple Linear	
Cr	52Simple Linear	
Cr	53Simple Linear	
Mn	55Simple Linear	
Fe	57Simple Linear	
Co	59Simple Linear	
Ni	60Linear Thru Zero	
Cu	63Simple Linear	
Cu	65Simple Linear	
Zn	66Simple Linear	
Zn	67Simple Linear	
Zn	68Simple Linear	
Ge	74Simple Linear	
As	75Simple Linear	
Se	77Simple Linear	
Se	82Simple Linear	
Kr	83Simple Linear	
Sr	88Simple Linear	
Y	89Simple Linear	
Zr	90Simple Linear	
Mo	98Simple Linear	
Ag	107Simple Linear	
Cd	111Simple Linear	
Cd	114Simple Linear	
In	115Simple Linear	
Sn	120Simple Linear	
Sb	121Simple Linear	
Sb	123Simple Linear	
Ba	135Simple Linear	
Ba	137Simple Linear	
Ho	165Simple Linear	
Lu	175Simple Linear	
Tl	205Simple Linear	
Pb	208Simple Linear	
Bi	209Simple Linear	
Th	232Simple Linear	
U	238Simple Linear	

Sample ID: Blank

Report Date/Time: Wednesday, January 13, 2010 19:24:40

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## 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				
	Bi	209				
	Th	232				
[	U	238				

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Wednesday, January 13, 2010 19:28:03

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\Standard 1.129

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.000	ug/L	7.049	1356	0.008
Be	9	10.000	ug/L	2.973	501	0.003
B	11	20.000	ug/L	1.059	1134	0.006
Na	23	1000.000	ug/L	4.609	1283177	7.209
Mg	24	1000.000	ug/L	6.700	826966	4.799
Al	27	1000.000	ug/L	4.156	1109851	6.461
P	31	1000.000	ug/L	1.820	63415	0.353
K	39	1000.000	ug/L	3.392	2520078	12.409
Ca	43	1000.000	ug/L	2.659	4801	0.026
> Sc	45		ug/L		171774	171774.297
Ti	47	10.000	ug/L	3.785	2071	0.011
V	51	10.000	ug/L	39.074	13455	0.116
Cr	52	10.000	ug/L	1.430	21193	0.110
Cr	53		ug/L		165998	0.101
Mn	55	10.000	ug/L	1.855	30923	0.175
Fe	57	1000.000	ug/L	2.683	62742	0.350
Co	59	10.000	ug/L	3.086	22124	0.128
Ni	60	10.000	ug/L	4.356	5038	0.029
Cu	63		ug/L		10624	0.061
Cu	65	10.000	ug/L	2.015	5098	0.029
Zn	66	10.000	ug/L	1.589	2648	0.022
Zn	67		ug/L		9620	0.011
Zn	68		ug/L		2681	0.017
> Ge	74		ug/L		116432	116432.104
As	75	10.000	ug/L	3.769	3283	0.027
Se	77		ug/L		7226	0.011
Se	82	10.000	ug/L	7.640	263	0.002
Kr	83		ug/L		40	-0.000
Sr	88	10.000	ug/L	1.458	45263	0.609
Y	89		ug/L		16	0.000
Zr	90	10.000	ug/L	2.817	25195	0.336
Mo	98	10.000	ug/L	2.752	10443	0.140
Ag	107	10.000	ug/L	3.111	16902	0.228
Cd	111	10.000	ug/L	3.745	3959	0.053
Cd	114		ug/L		9387	0.126
> In	115		ug/L		74061	74060.838
Sn	120	10.000	ug/L	3.482	18056	0.242
Sb	121	10.000	ug/L	2.003	13908	0.185
Sb	123		ug/L		10573	0.140
Ba	135		ug/L		4088	0.059
Ba	137	10.000	ug/L	5.163	7031	0.102
Ho	165		ug/L		7	0.000
> Lu	175		ug/L		68808	68807.534
Tl	205	10.000	ug/L	4.172	6222	0.090
Pb	208	10.000	ug/L	3.220	44413	0.640
Bi	209		ug/L		27	0.000
Th	232	10.000	ug/L	4.756	58313	0.843
U	238	10.000	ug/L	4.467	62529	0.907

Sample ID: Standard 1

Report Date/Time: Wednesday, January 13, 2010 19:30:49

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## 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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: Standard 1

Report Date/Time: Wednesday, January 13, 2010 19:30:49

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### 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				
	Bi	209				
	Th	232				
[	U	238				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Wednesday, January 13, 2010 19:30:49

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## ICPMS#4 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Wednesday, January 13, 2010 19:34:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\Standard 2.130

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li 7	99.918	ug/L	9.833	12561	0.072
Be 9	99.993	ug/L	5.448	5030	0.029
B 11	199.842	ug/L	3.059	10155	0.058
Na 23	9999.822	ug/L	5.160	12636158	71.963
Mg 24	10002.377	ug/L	5.599	8608989	49.166
Al 27	10007.290	ug/L	3.874	12197218	69.738
P 31	9997.380	ug/L	1.277	604833	3.442
K 39	10000.154	ug/L	2.606	22136865	124.281
Ca 43	9993.388	ug/L	1.918	42401	0.240
> Sc 45		ug/L		174969	174969.476
Ti 47	100.022	ug/L	1.232	19887	0.113
V 51	99.863	ug/L	0.789	172146	1.022
Cr 52	99.933	ug/L	2.186	182904	1.033
Cr 53		ug/L		151655	0.002
Mn 55	99.966	ug/L	2.674	296231	1.688
Fe 57	9996.381	ug/L	1.691	592967	3.374
Co 59	99.952	ug/L	2.291	214061	1.223
Ni 60	99.875	ug/L	2.652	44664	0.255
Cu 63		ug/L		99514	0.568
Cu 65	99.935	ug/L	1.188	47840	0.273
Zn 66	99.956	ug/L	0.802	25306	0.213
Zn 67		ug/L		11681	0.027
Zn 68		ug/L		18577	0.150
> Ge 74		ug/L		118540	118539.647
As 75	99.938	ug/L	1.161	30293	0.254
Se 77		ug/L		7091	0.009
Se 82	100.022	ug/L	3.995	2852	0.024
Kr 83		ug/L		51	0.000
Sr 88	99.975	ug/L	1.537	445915	5.942
Y 89		ug/L		47	0.000
Zr 90	99.964	ug/L	0.737	243809	3.246
Mo 98	100.001	ug/L	1.064	105592	1.407
Ag 107	99.975	ug/L	1.263	166763	2.222
Cd 111	99.987	ug/L	1.056	39521	0.527
Cd 114		ug/L		93312	1.243
> In 115		ug/L		75025	75025.040
Sn 120	99.985	ug/L	0.437	178855	2.382
Sb 121	99.989	ug/L	5.582	137231	1.826
Sb 123		ug/L		105222	1.400
Ba 135		ug/L		40456	0.577
Ba 137	99.957	ug/L	1.287	68554	0.977
Ho 165		ug/L		9	0.000
> Lu 175		ug/L		70151	70150.856
Tl 205	99.951	ug/L	0.717	60017	0.855
Pb 208	99.955	ug/L	0.448	430321	6.129
Bi 209		ug/L		120	0.002
Th 232	99.989	ug/L	1.304	585636	8.343
U 238	99.959	ug/L	0.351	611308	8.712

Sample ID: Standard 2

Report Date/Time: Wednesday, January 13, 2010 19:36:58

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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % 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				
	Bi		209				
	Th		232				
	U		238				

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 2

Report Date/Time: Wednesday, January 13, 2010 19:36:58

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## ICPMS#4 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Wednesday, January 13, 2010 19:40:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 1.131

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	51.171	ug/L	6.713	6410	0.037
Be	9	52.727	ug/L	4.047	2638	0.015
B	11	106.665	ug/L	1.775	5417	0.031
Na	23	5161.677	ug/L	9.588	6497017	37.146
Mg	24	4866.116	ug/L	1.452	4161840	23.919
Al	27	4928.933	ug/L	3.947	5972720	34.348
P	31	4938.507	ug/L	0.330	298316	1.700
K	39	5378.222	ug/L	1.826	12011976	66.840
Ca	43	4964.010	ug/L	0.927	21135	0.119
> Sc	45		ug/L		173847	173846.647
Ti	47	50.423	ug/L	2.158	10054	0.057
V	51	46.441	ug/L	2.029	76035	0.475
Cr	52	51.523	ug/L	1.728	94819	0.532
Cr	53		ug/L		164187	0.079
Mn	55	51.421	ug/L	1.739	151898	0.868
Fe	57	4965.797	ug/L	1.376	294082	1.676
Co	59	50.105	ug/L	1.330	106701	0.613
Ni	60	52.164	ug/L	0.787	23241	0.133
Cu	63		ug/L		50483	0.289
Cu	65	50.420	ug/L	0.679	24039	0.138
Zn	66	51.376	ug/L	1.355	12998	0.109
Zn	67		ug/L		10666	0.019
Zn	68		ug/L		10134	0.079
> Ge	74		ug/L		118209	118209.302
As	75	50.142	ug/L	0.634	15225	0.128
Se	77		ug/L		7367	0.012
Se	82	50.473	ug/L	2.134	1429	0.012
Kr	83		ug/L		52	0.000
Sr	88	50.723	ug/L	0.911	226926	3.015
Y	89		ug/L		28	0.000
Zr	90	48.316	ug/L	0.702	118325	1.569
Mo	98	48.721	ug/L	1.356	51610	0.685
Ag	107	50.672	ug/L	0.833	84781	1.126
Cd	111	51.304	ug/L	1.485	20340	0.270
Cd	114		ug/L		47484	0.631
> In	115		ug/L		75227	75227.491
Sn	120	50.480	ug/L	0.276	90628	1.202
Sb	121	50.954	ug/L	2.271	70246	0.931
Sb	123		ug/L		53872	0.713
Ba	135		ug/L		20045	0.287
Ba	137	51.163	ug/L	0.516	34897	0.500
Ho	165		ug/L		7	0.000
> Lu	175		ug/L		69738	69737.857
Tl	205	48.655	ug/L	1.052	29071	0.416
Pb	208	51.700	ug/L	1.029	221431	3.170
Bi	209		ug/L		50	0.001
Th	232	51.575	ug/L	0.543	300486	4.304
U	238	52.924	ug/L	0.718	321828	4.612

Sample ID: QC Std 1

Report Date/Time: Wednesday, January 13, 2010 19:43:08

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: QC Std 1

Report Date/Time: Wednesday, January 13, 2010 19:43:08

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### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	102.342			
	Be	9	105.455			
	B	11	106.665			
	Na	23	103.234			
	Mg	24	97.322			
	Al	27	97.603			
	P	31	98.770			
	K	39	107.564			
	Ca	43	99.280			
>	Sc	45		101.6		
	Ti	47	100.845			
	V	51	92.881			
	Cr	52	103.046			
	Cr	53				
	Mn	55	102.842			
	Fe	57	99.316			
	Co	59	100.209			
	Ni	60	104.328			
	Cu	63				
	Cu	65	100.839			
	Zn	66	102.753			
	Zn	67				
	Zn	68				
>	Ge	74		100.4		
	As	75	100.283			
	Se	77				
	Se	82	100.947			
	Kr	83				
	Sr	88	101.445			
	Y	89				
	Zr	90	96.632			
	Mo	98	97.442			
	Ag	107	101.345			
	Cd	111	102.608			
	Cd	114				
>	In	115		99.8		
	Sn	120	100.960			
	Sb	121	101.908			
	Sb	123				
	Ba	135				
	Ba	137	102.326			
	Ho	165				
>	Lu	175		99.5		
	Tl	205	97.310			
	Pb	208	103.400			
	Bi	209				
	Th	232	103.151			
	U	238	105.847			

### 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: Wednesday, January 13, 2010 19:43:08

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## ICPMS#4 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Wednesday, January 13, 2010 19:46:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 2.132

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	-0.010	ug/L	224.475	22	-0.000
Be	9	0.006	ug/L	831.255	4	0.000
B	11	3.787	ug/L	18.168	253	0.001
Na	23	-4.167	ug/L	240.649	40728	-0.030
Mg	24	-1.602	ug/L	74.074	2000	-0.008
Al	27	0.823	ug/L	57.183	1667	0.006
P	31	-1.523	ug/L	167.225	2672	-0.001
K	39	11.831	ug/L	12.347	415970	0.147
Ca	43	-3.840	ug/L	257.183	391	-0.000
> Sc	45		ug/L		172824	172823.554
Ti	47	-0.091	ug/L	41.368	164	-0.000
V	51	-0.508	ug/L	353.580	-7390	-0.005
Cr	52	-0.133	ug/L	63.565	2032	-0.001
Cr	53		ug/L		146921	-0.016
Mn	55	-0.013	ug/L	72.312	907	-0.000
Fe	57	2.102	ug/L	59.619	2826	0.001
Co	59	0.009	ug/L	33.546	130	0.000
Ni	60	0.017	ug/L	196.861	120	0.000
Cu	63		ug/L		177	0.000
Cu	65	-0.011	ug/L	149.214	98	-0.000
Zn	66	0.050	ug/L	88.495	72	0.000
Zn	67		ug/L		8346	-0.001
Zn	68		ug/L		747	-0.000
> Ge	74		ug/L		118121	118121.256
As	75	0.523	ug/L	185.514	292	0.001
Se	77		ug/L		5855	-0.001
Se	82	0.189	ug/L	277.096	-7	0.000
Kr	83		ug/L		45	-0.000
Sr	88	0.008	ug/L	27.144	178	0.000
Y	89		ug/L		15	0.000
Zr	90	0.111	ug/L	18.552	588	0.004
Mo	98	0.031	ug/L	67.341	78	0.000
Ag	107	0.024	ug/L	26.254	90	0.001
Cd	111	0.010	ug/L	41.463	17	0.000
Cd	114		ug/L		34	0.000
> In	115		ug/L		76021	76020.535
Sn	120	0.198	ug/L	11.365	534	0.005
Sb	121	0.905	ug/L	11.897	1498	0.017
Sb	123		ug/L		1158	0.013
Ba	135		ug/L		17	0.000
Ba	137	-0.006	ug/L	214.373	26	-0.000
Ho	165		ug/L		7	0.000
> Lu	175		ug/L		69139	69139.315
Tl	205	0.091	ug/L	26.408	112	0.001
Pb	208	-0.002	ug/L	395.828	379	-0.000
Bi	209		ug/L		18	0.000
Th	232	0.136	ug/L	27.793	1162	0.011
U	238	0.006	ug/L	49.911	228	0.001

Sample ID: QC Std 2

Report Date/Time: Wednesday, January 13, 2010 19:49:22

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		101.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		100.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		100.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.6			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Wednesday, January 13, 2010 19:49:22

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## ICPMS#4 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Wednesday, January 13, 2010 19:52:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 3.133

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	11.573	ug/L	7.915	1462	0.008
Be	9	0.561	ug/L	22.045	32	0.000
B	11	18.097	ug/L	3.493	969	0.005
Na	23	308.970	ug/L	17.542	431186	2.223
Mg	24	10.137	ug/L	22.491	12005	0.050
Al	27	31.227	ug/L	22.527	38387	0.218
P	31	53.890	ug/L	4.153	5981	0.019
K	39	313.944	ug/L	10.728	1066461	3.902
Ca	43	223.336	ug/L	1.500	1337	0.005
> Sc	45		ug/L		173145	173144.718
Ti	47	9.099	ug/L	1.017	1956	0.010
V	51	8.413	ug/L	60.352	8337	0.086
Cr	52	11.098	ug/L	0.781	22128	0.115
Cr	53		ug/L		172783	0.132
Mn	55	5.715	ug/L	1.730	17660	0.097
Fe	57	113.672	ug/L	4.062	9353	0.038
Co	59	1.104	ug/L	2.075	2449	0.014
Ni	60	2.934	ug/L	6.605	1408	0.007
Cu	63		ug/L		1582	0.008
Cu	65	1.372	ug/L	1.202	752	0.004
Zn	66	11.421	ug/L	2.942	2938	0.024
Zn	67		ug/L		10016	0.013
Zn	68		ug/L		2810	0.017
> Ge	74		ug/L		118324	118324.199
As	75	7.295	ug/L	25.091	2332	0.019
Se	77		ug/L		7444	0.012
Se	82	4.579	ug/L	12.213	118	0.001
Kr	83		ug/L		54	0.000
Sr	88	10.915	ug/L	0.822	49477	0.649
Y	89		ug/L		13	-0.000
Zr	90	2.026	ug/L	0.967	5318	0.066
Mo	98	0.510	ug/L	4.170	591	0.007
Ag	107	1.036	ug/L	1.060	1801	0.023
Cd	111	1.107	ug/L	2.484	456	0.006
Cd	114		ug/L		1032	0.013
> In	115		ug/L		76053	76052.887
Sn	120	5.404	ug/L	1.481	9967	0.129
Sb	121	3.399	ug/L	2.670	4963	0.062
Sb	123		ug/L		3858	0.048
Ba	135		ug/L		885	0.012
Ba	137	2.151	ug/L	6.200	1495	0.021
Ho	165		ug/L		4	-0.000
> Lu	175		ug/L		69679	69678.885
Tl	205	1.081	ug/L	4.529	703	0.009
Pb	208	2.210	ug/L	0.929	9833	0.136
Bi	209		ug/L		19	0.000
Th	232	1.103	ug/L	0.551	6789	0.092
U	238	0.206	ug/L	3.821	1446	0.018

Sample ID: QC Std 3

Report Date/Time: Wednesday, January 13, 2010 19:55:32

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	115.729				
Be	9	112.280				
B	11	120.647				
Na	23	123.588				
Mg	24	67.582				
Al	27	104.091				
P	31	107.779				
K	39	104.648				
Ca	43	111.668				
> Sc	45		101.1			
Ti	47	90.987				
V	51	84.131				
Cr	52	110.979				
Cr	53					
Mn	55	114.302				
Fe	57	113.672				
Co	59	110.359				
Ni	60	146.677				
Cu	63					
Cu	65	137.165				
Zn	66	114.206				
Zn	67					
Zn	68					
> Ge	74		100.5			
As	75	145.891				
Se	77					
Se	82	91.579				
Kr	83					
Sr	88	109.147				
Y	89					
Zr	90	101.319				
Mo	98	101.966				
Ag	107	103.608				
Cd	111	110.736				
Cd	114					
> In	115		100.9			
Sn	120	108.086				
Sb	121	113.286				
Sb	123					
Ba	135					
Ba	137	107.550				
Ho	165					
> Lu	175		99.4			
Tl	205	108.123				
Pb	208	110.521				
Bi	209					
Th	232	110.255				
U	238	102.996				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Mg	24	CRDL is out of limits
QC Std 3	Ni	60	CRDL is out of limits
QC Std 3	Cu	65	CRDL is out of limits
QC Std 3	As	75	CRDL is out of limits

Sample ID: QC Std 3

Report Date/Time: Wednesday, January 13, 2010 19:55:32

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## QC Action

QC Action Line: Continue

## ICPMS#4 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Wednesday, January 13, 2010 19:58:56

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 4.134

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.095	ug/L	52.009	34	0.000
Be	9	0.065	ug/L	56.739	7	0.000
B	11	1.617	ug/L	15.979	139	0.000
Na	23	96500.456	ug/L	3.132	115442745	694.462
Mg	24	94117.105	ug/L	2.993	76891962	462.629
Al	27	94627.539	ug/L	3.143	109573540	659.429
P	31	97458.432	ug/L	0.507	5578202	33.549
K	39	91707.879	ug/L	2.670	189814180	1139.738
Ca	43	95800.771	ug/L	0.961	382775	2.301
Sc	45		ug/L		166189	166188.760
Ti	47	1432.877	ug/L	2.230	268345	1.614
V	51	-1.594	ug/L	291.915	-8954	-0.016
Cr	52	3.082	ug/L	2.974	7474	0.032
Cr	53		ug/L		121975	-0.132
Mn	55	5.629	ug/L	0.449	16709	0.095
Fe	57	97973.241	ug/L	0.948	5498500	33.071
Co	59	0.300	ug/L	7.694	716	0.004
Ni	60	4.539	ug/L	3.122	2032	0.012
Cu	63		ug/L		2259	0.013
Cu	65	3.161	ug/L	2.396	1534	0.009
Zn	66	4.692	ug/L	4.622	1152	0.010
Zn	67		ug/L		7074	-0.007
Zn	68		ug/L		844	0.001
Ge	74		ug/L		109787	109787.022
As	75	1.182	ug/L	116.275	457	0.003
Se	77		ug/L		5141	-0.004
Se	82	-0.699	ug/L	78.458	-30	-0.000
Kr	83		ug/L		82	0.000
Sr	88	1.126	ug/L	0.932	4837	0.067
Y	89		ug/L		146	0.002
Zr	90	0.532	ug/L	48.615	1506	0.017
Mo	98	1905.827	ug/L	1.793	1885372	26.812
Ag	107	0.056	ug/L	21.244	134	0.001
Cd	111	0.520	ug/L	8.346	204	0.003
Cd	114		ug/L		2514	0.035
In	115		ug/L		70330	70329.672
Sn	120	0.135	ug/L	13.143	389	0.003
Sb	121	0.191	ug/L	5.056	469	0.003
Sb	123		ug/L		360	0.002
Ba	135		ug/L		289	0.004
Ba	137	0.608	ug/L	5.927	440	0.006
Ho	165		ug/L		195	0.003
Lu	175		ug/L		68931	68930.922
Tl	205	0.006	ug/L	221.033	62	0.000
Pb	208	0.172	ug/L	7.739	1111	0.011
Bi	209		ug/L		144	0.002
Th	232	0.077	ug/L	35.746	815	0.006
U	238	-0.025	ug/L	4.379	42	-0.002

Sample ID: QC Std 4

Report Date/Time: Wednesday, January 13, 2010 20:01:43

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23	96.500				
Mg	24	94.117				
Al	27	94.628				
P	31	97.458				
K	39	91.708				
Ca	43	95.801				
> Sc	45		97.1			
Ti	47	71.644				
V	51					
Cr	52	83.285				
Cr	53					
Mn	55	97.055				
Fe	57	97.973				
Co	59	119.924				
Ni	60	168.099				
Cu	63					
Cu	65	109.013				
Zn	66	130.336				
Zn	67					
Zn	68					
> Ge	74		93.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88	93.795				
Y	89					
Zr	90					
Mo	98	95.291				
Ag	107					
Cd	111	130.067				
Cd	114					
> In	115		93.3			
Sn	120					
Sb	121	191.057				
Sb	123					
Ba	135					
Ba	137	90.736				
Ho	165					
> Lu	175		98.3			
Tl	205					
Pb	208	85.989				
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message  
 QC Std 4 Ti 47ICSA is out of limits

### QC Action

QC Action Line: Continue

Sample ID: QC Std 4  
 Report Date/Time: Wednesday, January 13, 2010 20:01:43  
 Page 3

## ICPMS#4 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Wednesday, January 13, 2010 20:05:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 5.135

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	21.453	ug/L	9.177	2472	0.015
Be	9	21.695	ug/L	0.822	996	0.006
B	11	22.388	ug/L	2.182	1087	0.006
Na	23	100391.618	ug/L	0.799	114981589	722.465
Mg	24	103235.573	ug/L	1.709	80744936	507.450
Al	27	94613.035	ug/L	4.509	104918455	659.328
P	31	101177.319	ug/L	0.242	5543901	34.829
K	39	96292.618	ug/L	0.823	190765153	1196.717
Ca	43	98009.796	ug/L	0.528	374893	2.354
Sc	45		ug/L		159099	159098.992
Ti	47	1489.868	ug/L	0.478	267083	1.678
V	51	15.224	ug/L	17.597	18797	0.156
Cr	52	23.186	ug/L	0.475	40206	0.240
Cr	53		ug/L		147245	0.060
Mn	55	25.547	ug/L	0.821	69513	0.431
Fe	57	99629.301	ug/L	1.534	5352810	33.630
Co	59	19.572	ug/L	0.531	38209	0.240
Ni	60	23.224	ug/L	0.396	9527	0.059
Cu	63		ug/L		18921	0.118
Cu	65	21.441	ug/L	1.402	9409	0.059
Zn	66	23.500	ug/L	0.873	5411	0.050
Zn	67		ug/L		8948	0.012
Zn	68		ug/L		3939	0.030
Ge	74		ug/L		107004	107003.656
As	75	21.499	ug/L	7.027	5977	0.055
Se	77		ug/L		7267	0.017
Se	82	19.944	ug/L	6.227	504	0.005
Kr	83		ug/L		100	0.001
Sr	88	21.982	ug/L	2.307	87522	1.306
Y	89		ug/L		145	0.002
Zr	90	21.337	ug/L	1.686	46617	0.693
Mo	98	1987.453	ug/L	1.522	1870347	27.960
Ag	107	19.466	ug/L	1.358	28987	0.433
Cd	111	20.206	ug/L	3.034	7129	0.106
Cd	114		ug/L		19077	0.285
In	115		ug/L		66901	66901.214
Sn	120	20.780	ug/L	1.243	33265	0.495
Sb	121	22.717	ug/L	1.087	27965	0.415
Sb	123		ug/L		21719	0.322
Ba	135		ug/L		7475	0.110
Ba	137	19.446	ug/L	1.297	12869	0.190
Ho	165		ug/L		199	0.003
Lu	175		ug/L		67566	67565.744
Tl	205	17.580	ug/L	1.326	10214	0.150
Pb	208	18.976	ug/L	1.053	78988	1.163
Bi	209		ug/L		186	0.003
Th	232	19.827	ug/L	0.441	112148	1.654
U	238	20.249	ug/L	0.885	119424	1.765

Sample ID: QC Std 5

Report Date/Time: Wednesday, January 13, 2010 20:07:55

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	107.263				
Be	9	108.477				
B	11	111.939				
Na	23	100.392				
Mg	24	103.236				
Al	27	94.613				
P	31	101.177				
K	39	96.293				
Ca	43	98.010				
> Sc	45		92.9			
Ti	47	74.493				
V	51	76.120				
Cr	52	97.831				
Cr	53					
Mn	55	99.021				
Fe	57	99.629				
Co	59	96.652				
Ni	60	102.309				
Cu	63					
Cu	65	93.631				
Zn	66	99.576				
Zn	67					
Zn	68					
> Ge	74		90.9			
As	75	107.494				
Se	77					
Se	82	99.721				
Kr	83					
Sr	88	103.688				
Y	89					
Zr	90	106.685				
Mo	98	99.373				
Ag	107	97.329				
Cd	111	99.048				
Cd	114					
> In	115		88.7			
Sn	120	103.900				
Sb	121	113.019				
Sb	123					
Ba	135					
Ba	137	94.077				
Ho	165					
> Lu	175		96.4			
Tl	205	87.901				
Pb	208	93.940				
Bi	209					
Th	232	99.135				
U	238	101.244				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits
QC Std 5	V	51	ICSAB is out of limits

## QC Action

Sample ID: QC Std 5  
Report Date/Time: Wednesday, January 13, 2010 20:07:55  
Page 3

QC Action Line: Continue

## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, January 13, 2010 20:11:19

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 6.136

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	54.866	ug/L	7.376	6555	0.039
Be	9	55.065	ug/L	2.109	2628	0.016
B	11	104.388	ug/L	1.878	5057	0.030
Na	23	5369.063	ug/L	4.152	6446578	38.638
Mg	24	5263.713	ug/L	3.048	4292716	25.874
Al	27	4907.440	ug/L	4.568	5667790	34.198
P	31	5080.341	ug/L	1.115	292532	1.749
K	39	5055.241	ug/L	13.532	10796514	62.826
Ca	43	5052.050	ug/L	1.400	20507	0.121
> Sc	45		ug/L		165765	165765.275
Ti	47	51.846	ug/L	2.488	9850	0.058
V	51	51.326	ug/L	1.084	80791	0.525
Cr	52	51.299	ug/L	0.717	90037	0.530
Cr	53		ug/L		157818	0.086
Mn	55	51.877	ug/L	2.084	146140	0.876
Fe	57	5070.616	ug/L	2.524	286275	1.712
Co	59	49.990	ug/L	2.050	101505	0.612
Ni	60	53.057	ug/L	1.927	22537	0.135
Cu	63		ug/L		48664	0.293
Cu	65	50.687	ug/L	2.503	23039	0.138
Zn	66	51.467	ug/L	0.683	12521	0.110
Zn	67		ug/L		10296	0.019
Zn	68		ug/L		9482	0.077
> Ge	74		ug/L		113662	113661.530
As	75	47.835	ug/L	1.493	13972	0.122
Se	77		ug/L		7341	0.014
Se	82	51.211	ug/L	4.920	1395	0.012
Kr	83		ug/L		46	-0.000
Sr	88	50.357	ug/L	1.235	219383	2.993
Y	89		ug/L		25	0.000
Zr	90	47.401	ug/L	0.811	113045	1.539
Mo	98	48.625	ug/L	2.019	50153	0.684
Ag	107	48.476	ug/L	0.990	78989	1.077
Cd	111	50.201	ug/L	2.426	19379	0.264
Cd	114		ug/L		45422	0.620
> In	115		ug/L		73259	73258.648
Sn	120	49.701	ug/L	0.539	86896	1.184
Sb	121	49.830	ug/L	2.982	66904	0.910
Sb	123		ug/L		50703	0.689
Ba	135		ug/L		19452	0.282
Ba	137	49.336	ug/L	1.134	33283	0.482
Ho	165		ug/L		9	0.000
> Lu	175		ug/L		68967	68967.105
Tl	205	47.862	ug/L	1.037	28285	0.409
Pb	208	50.743	ug/L	0.781	214953	3.111
Bi	209		ug/L		54	0.001
Th	232	50.585	ug/L	1.016	291460	4.221
U	238	52.319	ug/L	1.284	314635	4.560

Sample ID: QC Std 6

Report Date/Time: Wednesday, January 13, 2010 20:14:07

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## 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	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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: QC Std 6

Report Date/Time: Wednesday, January 13, 2010 20:14:07

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### QC Calculated Values

	Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recovery	Dilution	% Diff	Dup. Rel.	% Diff
[	Li		7	109.732								
	Be		9	110.131								
	B		11	104.388								
	Na		23	107.381								
	Mg		24	105.274								
	Al		27	97.177								
	P		31	101.607								
	K		39	101.105								
	Ca		43	101.041								
>	Sc		45					96.8				
	Ti		47	103.691								
	V		51	102.653								
	Cr		52	102.598								
	Cr		53									
	Mn		55	103.753								
	Fe		57	101.412								
	Co		59	99.979								
	Ni		60	106.113								
	Cu		63									
	Cu		65	101.375								
[	Zn		66	102.934								
	Zn		67									
	Zn		68									
>	Ge		74					96.6				
	As		75	95.669								
	Se		77									
	Se		82	102.423								
	Kr		83									
[	Sr		88	100.715								
	Y		89									
	Zr		90	94.802								
	Mo		98	97.250								
	Ag		107	96.951								
	Cd		111	100.401								
	Cd		114									
>	In		115					97.2				
	Sn		120	99.402								
	Sb		121	99.660								
	Sb		123									
[	Ba		135									
	Ba		137	98.672								
	Ho		165									
>	Lu		175					98.4				
	Tl		205	95.724								
	Pb		208	101.487								
	Bi		209									
	Th		232	101.170								
	U		238	104.637								

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Be	9CCV is out of limits (+/- 10%)

### QC Action

QC Action Line: Continue

Sample ID: QC Std 6  
 Report Date/Time: Wednesday, January 13, 2010 20:14:07  
 Page 3

## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, January 13, 2010 20:17:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 7.137

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	-0.001	ug/L	3009.855	22	-0.000
Be	9	0.003	ug/L	2303.870	4	0.000
B	11	2.116	ug/L	21.891	162	0.001
Na	23	1.677	ug/L	301.324	45741	0.012
Mg	24	1.379	ug/L	185.310	4334	0.007
Al	27	1.173	ug/L	147.141	2000	0.008
P	31	-4.321	ug/L	37.306	2390	-0.001
K	39	-2.859	ug/L	347.332	366656	-0.036
Ca	43	-6.216	ug/L	321.295	363	-0.000
> Sc	45		ug/L		164835	164835.199
Ti	47	0.222	ug/L	30.869	214	0.000
V	51	-1.130	ug/L	171.155	-8104	-0.012
Cr	52	-0.227	ug/L	27.151	1778	-0.002
Cr	53		ug/L		139520	-0.019
Mn	55	-0.019	ug/L	39.100	850	-0.000
Fe	57	0.433	ug/L	534.784	2603	0.000
Co	59	0.002	ug/L	221.351	109	0.000
Ni	60	0.026	ug/L	50.971	119	0.000
Cu	63		ug/L		175	0.000
Cu	65	0.014	ug/L	132.957	104	0.000
Zn	66	0.065	ug/L	56.959	72	0.000
Zn	67		ug/L		7778	-0.003
Zn	68		ug/L		669	-0.001
> Ge	74		ug/L		113191	113191.493
As	75	0.539	ug/L	261.875	287	0.001
Se	77		ug/L		5644	-0.001
Se	82	0.410	ug/L	122.009	-1	0.000
Kr	83		ug/L		43	-0.000
Sr	88	0.005	ug/L	110.655	159	0.000
Y	89		ug/L		15	0.000
Zr	90	0.109	ug/L	34.326	559	0.004
Mo	98	0.125	ug/L	15.380	172	0.002
Ag	107	0.018	ug/L	16.680	78	0.000
Cd	111	0.011	ug/L	177.946	17	0.000
Cd	114		ug/L		32	0.000
> In	115		ug/L		73060	73059.899
Sn	120	0.120	ug/L	14.357	377	0.003
Sb	121	0.568	ug/L	16.324	988	0.010
Sb	123		ug/L		838	0.009
Ba	135		ug/L		22	0.000
Ba	137	-0.008	ug/L	26.749	25	-0.000
Ho	165		ug/L		6	0.000
> Lu	175		ug/L		68586	68585.948
Tl	205	0.163	ug/L	25.364	153	0.001
Pb	208	-0.001	ug/L	194.754	376	-0.000
Bi	209		ug/L		14	-0.000
Th	232	0.086	ug/L	28.482	865	0.007
U	238	0.004	ug/L	149.214	216	0.000

Sample ID: QC Std 7

Report Date/Time: Wednesday, January 13, 2010 20:20:21

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			96.3		
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			96.2		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			96.9		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			97.8		
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Wednesday, January 13, 2010 20:20:21

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## ICPMS#4 - Summary Report

Sample ID: QC Std 10

Sample Date/Time: Wednesday, January 13, 2010 20:23:44

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 10.138

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	990.022	ug/L	8.717	114491	0.711
Be	9	1021.902	ug/L	4.581	47313	0.294
B	11	1.659	ug/L	7.668	137	0.000
Na	23	50223.155	ug/L	2.515	58259388	361.429
Mg	24	46119.180	ug/L	3.045	36519494	226.697
Al	27	48002.484	ug/L	1.840	53891561	334.514
P	31	23913.550	ug/L	1.246	1328583	8.232
K	39	47205.962	ug/L	3.507	94907090	586.672
Ca	43	48581.164	ug/L	0.626	188358	1.167
> Sc	45		ug/L		161098	161097.634
Ti	47	38.672	ug/L	2.120	7185	0.044
V	51	1011.922	ug/L	0.504	1661564	10.352
Cr	52	938.223	ug/L	0.606	1563784	9.694
Cr	53		ug/L		320848	1.126
Mn	55	978.858	ug/L	0.863	2664306	16.532
Fe	57	49331.970	ug/L	0.488	2685034	16.652
Co	59	902.216	ug/L	1.330	1778674	11.042
Ni	60	928.237	ug/L	0.741	381460	2.367
Cu	63		ug/L		836411	5.191
Cu	65	912.598	ug/L	1.091	401506	2.492
Zn	66	2399.641	ug/L	1.905	548026	5.113
Zn	67		ug/L		92716	0.794
Zn	68		ug/L		382203	3.559
> Ge	74		ug/L		107191	107191.432
As	75	934.285	ug/L	0.420	255063	2.378
Se	77		ug/L		14910	0.089
Se	82	496.179	ug/L	0.604	12841	0.120
Kr	83		ug/L		63	0.000
Sr	88	1019.753	ug/L	0.616	4130539	60.609
Y	89		ug/L		137	0.002
Zr	90	498.287	ug/L	0.534	1102842	16.178
Mo	98	982.720	ug/L	0.505	942208	13.825
Ag	107	237.712	ug/L	1.120	360129	5.284
Cd	111	983.766	ug/L	0.882	353118	5.181
Cd	114		ug/L		830994	12.194
> In	115		ug/L		68149	68148.934
Sn	120	995.174	ug/L	0.413	1615624	23.705
Sb	121	252.692	ug/L	4.009	314700	4.615
Sb	123		ug/L		240630	3.528
Ba	135		ug/L		361176	5.363
Ba	137	935.602	ug/L	1.448	615819	9.143
Ho	165		ug/L		69	0.001
> Lu	175		ug/L		67356	67355.762
Tl	205	472.600	ug/L	0.374	272255	4.041
Pb	208	4900.196	ug/L	0.641	20237009	300.451
Bi	209		ug/L		461	0.007
Th	232	2466.472	ug/L	0.844	13861962	205.806
U	238	5066.639	ug/L	2.067	29738944	441.562

Sample ID: QC Std 10

Report Date/Time: Wednesday, January 13, 2010 20:26:30

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	99.002			
	Be	9	102.190			
	B	11				
	Na	23	100.446			
	Mg	24	92.238			
	Al	27	96.005			
	P	31	95.654			
	K	39	94.412			
	Ca	43	97.162			
>	Sc	45		94.1		
	Ti	47				
	V	51	101.192			
	Cr	52	93.822			
	Cr	53				
	Mn	55	97.886			
	Fe	57	98.664			
	Co	59	90.222			
	Ni	60	92.824			
	Cu	63				
	Cu	65	91.260			
[	Zn	66	95.986			
	Zn	67				
	Zn	68				
>	Ge	74		91.1		
	As	75	93.429			
	Se	77				
	Se	82	99.236			
	Kr	83				
[	Sr	88	101.975			
	Y	89				
	Zr	90	99.657			
	Mo	98	98.272			
	Ag	107	95.085			
	Cd	111	98.377			
	Cd	114				
>	In	115		90.4		
	Sn	120	99.517			
	Sb	121	101.077			
	Sb	123				
[	Ba	135				
	Ba	137	93.560			
	Ho	165				
>	Lu	175		96.1		
	Tl	205	94.520			
	Pb	208	98.004			
	Bi	209				
	Th	232	98.659			
	U	238	101.333			

### 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 10

Report Date/Time: Wednesday, January 13, 2010 20:26:30

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# ICPMS#4 - Summary Report

Sample ID: QC Std 11

Sample Date/Time: Wednesday, January 13, 2010 20:29:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 11.139

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	52.743	ug/L	8.543	6266	0.038
Be	9	52.058	ug/L	4.345	2471	0.015
B	11	103.824	ug/L	2.412	5005	0.030
Na	23	4968.942	ug/L	6.213	5939787	35.759
Mg	24	5299.030	ug/L	3.044	4297951	26.047
Al	27	5010.179	ug/L	3.317	5760108	34.914
P	31	4968.102	ug/L	1.114	284729	1.710
K	39	4688.240	ug/L	2.712	9982243	58.265
Ca	43	4881.628	ug/L	0.954	19724	0.117
> Sc	45		ug/L		164926	164926.033
Ti	47	50.116	ug/L	1.144	9481	0.056
V	51	49.967	ug/L	1.732	78074	0.511
Cr	52	51.502	ug/L	1.093	89922	0.532
Cr	53		ug/L		155769	0.079
Mn	55	51.943	ug/L	1.853	145558	0.877
Fe	57	5042.405	ug/L	2.121	283245	1.702
Co	59	50.356	ug/L	2.207	101723	0.616
Ni	60	52.655	ug/L	0.692	22254	0.134
Cu	63		ug/L		48810	0.295
Cu	65	51.766	ug/L	2.454	23406	0.141
Zn	66	53.679	ug/L	2.314	12879	0.114
Zn	67		ug/L		10360	0.021
Zn	68		ug/L		9659	0.080
> Ge	74		ug/L		112128	112128.145
As	75	47.731	ug/L	1.933	13752	0.122
Se	77		ug/L		6892	0.011
Se	82	50.555	ug/L	2.198	1358	0.012
Kr	83		ug/L		50	0.000
Sr	88	50.929	ug/L	1.295	219652	3.027
Y	89		ug/L		21	0.000
Zr	90	50.840	ug/L	4.132	119954	1.651
Mo	98	48.580	ug/L	1.606	49608	0.683
Ag	107	50.009	ug/L	0.839	80665	1.112
Cd	111	50.615	ug/L	0.676	19349	0.267
Cd	114		ug/L		46069	0.635
> In	115		ug/L		72534	72534.473
Sn	120	53.007	ug/L	2.141	91721	1.263
Sb	121	53.376	ug/L	1.032	70930	0.975
Sb	123		ug/L		54116	0.743
Ba	135		ug/L		19618	0.285
Ba	137	49.749	ug/L	2.091	33484	0.486
Ho	165		ug/L		9	0.000
> Lu	175		ug/L		68826	68825.772
Tl	205	49.868	ug/L	1.034	29405	0.426
Pb	208	51.972	ug/L	2.286	219667	3.187
Bi	209		ug/L		52	0.001
Th	232	52.361	ug/L	1.894	301025	4.369
U	238	53.910	ug/L	1.507	323513	4.698

Sample ID: QC Std 11

Report Date/Time: Wednesday, January 13, 2010 20:32:40

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: QC Std 11

Report Date/Time: Wednesday, January 13, 2010 20:32:40

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## QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	105.487				
	Be	9	104.117				
	B	11	103.824				
	Na	23	99.379				
	Mg	24	105.981				
	Al	27	99.211				
	P	31	99.362				
	K	39	93.765				
	Ca	43	97.633				
>	Sc	45		96.3			
	Ti	47	100.231				
	V	51	99.935				
	Cr	52	103.005				
	Cr	53					
	Mn	55	103.886				
	Fe	57	100.848				
	Co	59	100.712				
	Ni	60	105.309				
	Cu	63					
	Cu	65	103.531				
	Zn	66	107.358				
	Zn	67					
	Zn	68					
>	Ge	74		95.3			
	As	75	95.461				
	Se	77					
	Se	82	101.110				
	Kr	83					
	Sr	88	101.857				
	Y	89					
	Zr	90	101.680				
	Mo	98	97.159				
	Ag	107	100.017				
	Cd	111	101.231				
	Cd	114					
>	In	115		96.2			
	Sn	120	106.014				
	Sb	121	106.752				
	Sb	123					
	Ba	135					
	Ba	137	99.498				
	Ho	165					
>	Lu	175		98.2			
	Tl	205	99.736				
	Pb	208	103.943				
	Bi	209					
	Th	232	104.722				
	U	238	107.821				

## 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 11

Report Date/Time: Wednesday, January 13, 2010 20:32:40

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## ICPMS#4 - Summary Report

Sample ID: QC Std 12

Sample Date/Time: Wednesday, January 13, 2010 20:36:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 12.140

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.123	ug/L	25.511	37	0.000
Be	9	0.010	ug/L	314.225	4	0.000
B	11	2.404	ug/L	22.693	175	0.001
Na	23	-9.325	ug/L	65.039	32705	-0.067
Mg	24	0.148	ug/L	1249.485	3334	0.001
Al	27	1.488	ug/L	92.060	2334	0.010
P	31	-5.267	ug/L	18.315	2335	-0.002
K	39	4.881	ug/L	254.105	382052	0.061
Ca	43	-6.231	ug/L	86.536	363	-0.000
> Sc	45		ug/L		164728	164728.080
Ti	47	-0.014	ug/L	554.657	170	-0.000
V	51	-0.331	ug/L	1101.839	-6804	-0.003
Cr	52	-0.273	ug/L	2.201	1697	-0.003
Cr	53		ug/L		134646	-0.048
Mn	55	-0.018	ug/L	116.210	850	-0.000
Fe	57	-1.146	ug/L	118.031	2513	-0.000
Co	59	0.015	ug/L	12.503	136	0.000
Ni	60	0.026	ug/L	142.226	118	0.000
Cu	63		ug/L		197	0.000
Cu	65	0.050	ug/L	64.001	121	0.000
Zn	66	0.218	ug/L	31.491	108	0.000
Zn	67		ug/L		7646	-0.003
Zn	68		ug/L		682	-0.000
> Ge	74		ug/L		111975	111974.604
As	75	0.475	ug/L	193.109	262	0.001
Se	77		ug/L		5312	-0.003
Se	82	0.298	ug/L	104.637	-4	0.000
Kr	83		ug/L		39	-0.000
Sr	88	0.008	ug/L	70.697	175	0.000
Y	89		ug/L		14	0.000
Zr	90	0.175	ug/L	17.773	719	0.006
Mo	98	0.127	ug/L	15.388	175	0.002
Ag	107	0.027	ug/L	5.509	92	0.001
Cd	111	0.013	ug/L	153.636	17	0.000
Cd	114		ug/L		34	0.000
> In	115		ug/L		73399	73398.852
Sn	120	0.751	ug/L	4.097	1482	0.018
Sb	121	1.559	ug/L	10.633	2321	0.028
Sb	123		ug/L		1786	0.022
Ba	135		ug/L		21	0.000
Ba	137	-0.007	ug/L	109.444	25	-0.000
Ho	165		ug/L		4	-0.000
> Lu	175		ug/L		68136	68135.508
Tl	205	0.301	ug/L	22.320	232	0.003
Pb	208	0.154	ug/L	9.649	1022	0.009
Bi	209		ug/L		13	-0.000
Th	232	0.267	ug/L	23.533	1884	0.022
U	238	0.057	ug/L	15.422	528	0.005

Sample ID: QC Std 12

Report Date/Time: Wednesday, January 13, 2010 20:38:54

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		96.2			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		95.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		97.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		97.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 12

Report Date/Time: Wednesday, January 13, 2010 20:38:54

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, January 13, 2010 21:13:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 6.146

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.259	ug/L	6.938	6098	0.036
Be	9	50.858	ug/L	4.144	2466	0.015
B	11	103.784	ug/L	3.841	5107	0.030
Na	23	5298.804	ug/L	5.567	6468195	38.133
Mg	24	4948.972	ug/L	4.620	4099020	24.326
Al	27	4929.135	ug/L	2.447	5788083	34.350
P	31	5040.956	ug/L	2.093	294941	1.735
K	39	4900.087	ug/L	4.331	10639009	60.898
Ca	43	5014.151	ug/L	1.717	20682	0.120
> Sc	45		ug/L		168446	168445.524
Ti	47	50.451	ug/L	0.787	9747	0.057
V	51	47.502	ug/L	5.319	75523	0.486
Cr	52	51.099	ug/L	0.441	91148	0.528
Cr	53		ug/L		149345	0.021
Mn	55	51.831	ug/L	0.556	148373	0.875
Fe	57	5071.639	ug/L	1.137	290972	1.712
Co	59	50.753	ug/L	0.627	104729	0.621
Ni	60	53.013	ug/L	0.545	22885	0.135
Cu	63		ug/L		49541	0.293
Cu	65	51.472	ug/L	0.974	23772	0.141
Zn	66	51.417	ug/L	1.564	12586	0.110
Zn	67		ug/L		9497	0.012
Zn	68		ug/L		9508	0.077
> Ge	74		ug/L		114370	114369.843
As	75	48.682	ug/L	2.731	14308	0.124
Se	77		ug/L		7122	0.012
Se	82	50.654	ug/L	2.466	1388	0.012
Kr	83		ug/L		44	-0.000
Sr	88	50.452	ug/L	1.396	219563	2.999
Y	89		ug/L		40	0.000
Zr	90	48.477	ug/L	0.684	115478	1.574
Mo	98	48.865	ug/L	0.851	50353	0.687
Ag	107	49.052	ug/L	0.673	79837	1.090
Cd	111	50.793	ug/L	1.361	19590	0.268
Cd	114		ug/L		45623	0.623
> In	115		ug/L		73178	73178.479
Sn	120	49.716	ug/L	0.202	86828	1.184
Sb	121	49.883	ug/L	2.767	66906	0.911
Sb	123		ug/L		51044	0.695
Ba	135		ug/L		19697	0.286
Ba	137	49.847	ug/L	0.312	33588	0.487
Ho	165		ug/L		10	0.000
> Lu	175		ug/L		68892	68892.100
Tl	205	49.531	ug/L	1.285	29235	0.424
Pb	208	51.107	ug/L	0.574	216249	3.134
Bi	209		ug/L		52	0.001
Th	232	51.031	ug/L	1.746	293673	4.258
U	238	52.837	ug/L	1.040	317394	4.605

Sample ID: QC Std 6

Report Date/Time: Wednesday, January 13, 2010 21:16:05

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	100.518				
Be	9	101.716				
B	11	103.784				
Na	23	105.976				
Mg	24	98.979				
Al	27	97.607				
P	31	100.819				
K	39	98.002				
Ca	43	100.283				
> Sc	45		98.4			
Ti	47	100.902				
V	51	95.004				
Cr	52	102.197				
Cr	53					
Mn	55	103.661				
Fe	57	101.433				
Co	59	101.506				
Ni	60	106.026				
Cu	63					
Cu	65	102.945				
Zn	66	102.834				
Zn	67					
Zn	68					
> Ge	74		97.2			
As	75	97.363				
Se	77					
Se	82	101.307				
Kr	83					
Sr	88	100.904				
Y	89					
Zr	90	96.954				
Mo	98	97.731				
Ag	107	98.104				
Cd	111	101.585				
Cd	114					
> In	115		97.1			
Sn	120	99.431				
Sb	121	99.767				
Sb	123					
Ba	135					
Ba	137	99.694				
Ho	165					
> Lu	175		98.3			
Tl	205	99.063				
Pb	208	102.214				
Bi	209					
Th	232	102.062				
U	238	105.675				

### 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 6

Report Date/Time: Wednesday, January 13, 2010 21:16:05

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, January 13, 2010 21:19:31

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 7.147

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.027	ug/L	134.785	26	0.000
Be	9	0.001	ug/L	4848.174	4	0.000
B	11	2.637	ug/L	36.530	192	0.001
Na	23	-16.064	ug/L	32.417	25357	-0.116
Mg	24	-3.562	ug/L	19.465	333	-0.018
Al	27	2.264	ug/L	21.518	3334	0.016
P	31	-4.477	ug/L	33.791	2448	-0.002
K	39	6.913	ug/L	154.331	397465	0.086
Ca	43	-5.051	ug/L	160.810	379	-0.000
> Sc	45		ug/L		169444	169443.651
Ti	47	0.118	ug/L	93.881	200	0.000
V	51	-1.462	ug/L	57.695	-8919	-0.015
Cr	52	-0.084	ug/L	115.832	2077	-0.001
Cr	53		ug/L		138093	-0.051
Mn	55	-0.007	ug/L	63.660	906	-0.000
Fe	57	3.147	ug/L	36.142	2830	0.001
Co	59	0.013	ug/L	30.862	136	0.000
Ni	60	-0.000	ug/L	1846.482	110	-0.000
Cu	63		ug/L		182	0.000
Cu	65	-0.004	ug/L	355.585	99	-0.000
Zn	66	0.081	ug/L	48.787	78	0.000
Zn	67		ug/L		7614	-0.006
Zn	68		ug/L		659	-0.001
> Ge	74		ug/L		115671	115671.228
As	75	0.728	ug/L	179.090	345	0.002
Se	77		ug/L		5597	-0.002
Se	82	-0.307	ug/L	85.543	-21	-0.000
Kr	83		ug/L		50	0.000
Sr	88	0.009	ug/L	15.090	180	0.001
Y	89		ug/L		14	0.000
Zr	90	0.109	ug/L	18.137	573	0.004
Mo	98	0.043	ug/L	37.648	90	0.001
Ag	107	0.020	ug/L	18.163	83	0.000
Cd	111	0.022	ug/L	35.432	21	0.000
Cd	114		ug/L		35	0.000
> In	115		ug/L		74842	74841.951
Sn	120	0.198	ug/L	19.215	526	0.005
Sb	121	0.722	ug/L	21.271	1224	0.013
Sb	123		ug/L		954	0.010
Ba	135		ug/L		23	0.000
Ba	137	0.007	ug/L	43.491	35	0.000
Ho	165		ug/L		5	-0.000
> Lu	175		ug/L		68704	68704.167
Tl	205	0.183	ug/L	7.083	165	0.002
Pb	208	0.035	ug/L	7.293	531	0.002
Bi	209		ug/L		14	-0.000
Th	232	0.099	ug/L	32.862	939	0.008
U	238	0.017	ug/L	25.236	296	0.002

Sample ID: QC Std 7

Report Date/Time: Wednesday, January 13, 2010 21:22:19

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	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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		99.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		98.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		99.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Wednesday, January 13, 2010 21:22:19

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# ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, January 13, 2010 22:03:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 6.154

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	48.957	ug/L	10.009	6082	0.035
Be	9	48.893	ug/L	4.110	2427	0.014
B	11	99.254	ug/L	2.102	5003	0.029
Na	23	5259.138	ug/L	2.819	6569073	37.847
Mg	24	5045.312	ug/L	14.078	4279628	24.800
Al	27	4774.996	ug/L	3.229	5737728	33.275
P	31	4997.529	ug/L	0.600	299321	1.720
K	39	4932.864	ug/L	1.734	10956990	61.305
Ca	43	4962.331	ug/L	1.530	20951	0.119
> Sc	45		ug/L		172382	172381.571
Ti	47	50.808	ug/L	0.534	10043	0.057
V	51	48.967	ug/L	1.942	79845	0.501
Cr	52	50.768	ug/L	0.557	92692	0.525
Cr	53		ug/L		152285	0.018
Mn	55	50.924	ug/L	2.660	149174	0.860
Fe	57	4974.400	ug/L	2.721	292095	1.679
Co	59	49.420	ug/L	2.344	104355	0.605
Ni	60	52.241	ug/L	1.568	23078	0.133
Cu	63		ug/L		49911	0.289
Cu	65	50.335	ug/L	0.905	23795	0.137
Zn	66	50.836	ug/L	0.865	12690	0.108
Zn	67		ug/L		9493	0.010
Zn	68		ug/L		9681	0.077
> Ge	74		ug/L		116618	116617.557
As	75	47.938	ug/L	4.291	14364	0.122
Se	77		ug/L		7411	0.013
Se	82	50.521	ug/L	3.338	1411	0.012
Kr	83		ug/L		47	-0.000
Sr	88	50.309	ug/L	1.996	222129	2.990
Y	89		ug/L		48	0.000
Zr	90	48.237	ug/L	1.819	116582	1.566
Mo	98	48.594	ug/L	2.113	50798	0.684
Ag	107	49.027	ug/L	1.210	80957	1.090
Cd	111	50.203	ug/L	0.587	19645	0.264
Cd	114		ug/L		46570	0.627
> In	115		ug/L		74252	74251.529
Sn	120	48.754	ug/L	1.672	86391	1.161
Sb	121	49.111	ug/L	4.715	66804	0.897
Sb	123		ug/L		51071	0.685
Ba	135		ug/L		19927	0.284
Ba	137	49.383	ug/L	2.615	33836	0.483
Ho	165		ug/L		9	0.000
> Lu	175		ug/L		70058	70057.744
Tl	205	49.128	ug/L	1.792	29486	0.420
Pb	208	50.167	ug/L	1.577	215867	3.076
Bi	209		ug/L		55	0.001
Th	232	50.082	ug/L	2.142	293095	4.179
U	238	51.769	ug/L	1.186	316247	4.512

Sample ID: QC Std 6

Report Date/Time: Wednesday, January 13, 2010 22:05:47

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	97.914				
Be	9	97.785				
B	11	99.254				
Na	23	105.183				
Mg	24	100.906				
Al	27	94.554				
P	31	99.951				
K	39	98.657				
Ca	43	99.247				
> Sc	45		100.7			
Ti	47	101.617				
V	51	97.933				
Cr	52	101.535				
Cr	53					
Mn	55	101.847				
Fe	57	99.488				
Co	59	98.841				
Ni	60	104.482				
Cu	63					
Cu	65	100.670				
Zn	66	101.672				
Zn	67					
Zn	68					
> Ge	74		99.1			
As	75	95.876				
Se	77					
Se	82	101.042				
Kr	83					
Sr	88	100.617				
Y	89					
Zr	90	96.474				
Mo	98	97.188				
Ag	107	98.054				
Cd	111	100.406				
Cd	114					
> In	115		98.5			
Sn	120	97.507				
Sb	121	98.221				
Sb	123					
Ba	135					
Ba	137	98.765				
Ho	165					
> Lu	175		99.9			
Tl	205	98.256				
Pb	208	100.334				
Bi	209					
Th	232	100.163				
U	238	103.538				

### 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 6

Report Date/Time: Wednesday, January 13, 2010 22:05:47

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, January 13, 2010 22:09:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 7.155

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.018	ug/L	160.034	25	0.000
Be	9	0.027	ug/L	45.484	5	0.000
B	11	2.419	ug/L	22.696	184	0.001
Na	23	-17.624	ug/L	38.470	23688	-0.127
Mg	24	-0.816	ug/L	160.634	2667	-0.004
Al	27	1.965	ug/L	86.814	3000	0.014
P	31	-3.639	ug/L	63.100	2529	-0.001
K	39	-10.763	ug/L	73.571	365289	-0.134
Ca	43	-10.333	ug/L	98.913	362	-0.000
> Sc	45		ug/L		171744	171744.400
Ti	47	0.060	ug/L	101.971	192	0.000
V	51	-0.796	ug/L	195.875	-7897	-0.008
Cr	52	0.157	ug/L	44.741	2532	0.002
Cr	53		ug/L		136400	-0.072
Mn	55	0.024	ug/L	19.317	1010	0.000
Fe	57	5.417	ug/L	10.659	3000	0.002
Co	59	0.007	ug/L	75.762	124	0.000
Ni	60	0.028	ug/L	51.470	124	0.000
Cu	63		ug/L		182	0.000
Cu	65	-0.001	ug/L	4180.240	102	-0.000
Zn	66	0.037	ug/L	127.592	68	0.000
Zn	67		ug/L		7262	-0.009
Zn	68		ug/L		633	-0.001
> Ge	74		ug/L		116829	116829.271
As	75	0.640	ug/L	298.367	324	0.002
Se	77		ug/L		5863	-0.000
Se	82	0.093	ug/L	374.560	-10	0.000
Kr	83		ug/L		43	-0.000
Sr	88	0.010	ug/L	12.564	187	0.001
Y	89		ug/L		20	0.000
Zr	90	0.109	ug/L	14.516	572	0.004
Mo	98	0.035	ug/L	15.183	82	0.000
Ag	107	0.019	ug/L	17.643	80	0.000
Cd	111	-0.011	ug/L	135.579	8	-0.000
Cd	114		ug/L		31	0.000
> In	115		ug/L		74755	74755.488
Sn	120	0.137	ug/L	8.058	417	0.003
Sb	121	0.584	ug/L	15.827	1035	0.011
Sb	123		ug/L		776	0.008
Ba	135		ug/L		24	0.000
Ba	137	0.019	ug/L	122.024	43	0.000
Ho	165		ug/L		8	0.000
> Lu	175		ug/L		68649	68649.238
Tl	205	0.121	ug/L	21.396	129	0.001
Pb	208	0.023	ug/L	24.881	478	0.001
Bi	209		ug/L		14	-0.000
Th	232	0.103	ug/L	34.779	961	0.009
U	238	0.018	ug/L	20.080	300	0.002

Sample ID: QC Std 7

Report Date/Time: Wednesday, January 13, 2010 22:12:02

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000



### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		100.3			
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		99.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		99.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		97.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Wednesday, January 13, 2010 22:12:02

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, January 13, 2010 22:58:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 6.163

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.079	ug/L	8.201	6131	0.036
Be	9	50.763	ug/L	2.319	2483	0.015
B	11	100.047	ug/L	3.181	4970	0.029
Na	23	5359.599	ug/L	12.231	6593091	38.570
Mg	24	5079.810	ug/L	3.394	4245601	24.970
Al	27	5333.591	ug/L	1.833	6314019	37.168
P	31	5020.101	ug/L	1.283	296281	1.728
K	39	4813.586	ug/L	8.119	10549855	59.823
Ca	43	5000.568	ug/L	1.942	20804	0.120
> Sc	45		ug/L		169870	169870.043
Ti	47	49.901	ug/L	1.440	9724	0.056
V	51	49.070	ug/L	3.847	78885	0.502
Cr	52	50.434	ug/L	0.393	90753	0.521
Cr	53		ug/L		149373	0.013
Mn	55	50.929	ug/L	0.657	147035	0.860
Fe	57	5039.342	ug/L	0.869	291622	1.701
Co	59	50.142	ug/L	0.307	104348	0.614
Ni	60	52.159	ug/L	0.815	22709	0.133
Cu	63		ug/L		48957	0.287
Cu	65	50.530	ug/L	0.993	23538	0.138
Zn	66	50.620	ug/L	1.188	12521	0.108
Zn	67		ug/L		9096	0.007
Zn	68		ug/L		9498	0.076
> Ge	74		ug/L		115554	115553.954
As	75	47.656	ug/L	3.660	14149	0.121
Se	77		ug/L		7299	0.013
Se	82	50.620	ug/L	2.871	1401	0.012
Kr	83		ug/L		44	-0.000
Sr	88	50.066	ug/L	2.975	220689	2.976
Y	89		ug/L		75	0.001
Zr	90	48.410	ug/L	3.552	116791	1.572
Mo	98	48.546	ug/L	4.081	50655	0.683
Ag	107	47.952	ug/L	1.841	79060	1.066
Cd	111	49.026	ug/L	2.935	19151	0.258
Cd	114		ug/L		45721	0.616
> In	115		ug/L		74152	74151.761
Sn	120	49.039	ug/L	2.475	86753	1.168
Sb	121	48.909	ug/L	5.099	66416	0.893
Sb	123		ug/L		51149	0.688
Ba	135		ug/L		19817	0.286
Ba	137	49.413	ug/L	2.009	33448	0.483
Ho	165		ug/L		11	0.000
> Lu	175		ug/L		69207	69206.587
Tl	205	49.518	ug/L	1.666	29362	0.423
Pb	208	50.537	ug/L	0.329	214831	3.099
Bi	209		ug/L		56	0.001
Th	232	50.681	ug/L	1.498	293042	4.229
U	238	52.504	ug/L	1.438	316866	4.576

Sample ID: QC Std 6

Report Date/Time: Wednesday, January 13, 2010 23:01:46

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	100.158				
	Be	9	101.526				
	B	11	100.047				
	Na	23	107.192				
	Mg	24	101.596				
	Al	27	105.616				
	P	31	100.402				
	K	39	96.272				
	Ca	43	100.011				
>	Sc	45		99.2			
	Ti	47	99.802				
	V	51	98.139				
	Cr	52	100.868				
	Cr	53					
	Mn	55	101.858				
	Fe	57	100.787				
	Co	59	100.284				
	Ni	60	104.318				
	Cu	63					
	Cu	65	101.060				
[	Zn	66	101.240				
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
	As	75	95.312				
	Se	77					
	Se	82	101.241				
	Kr	83					
[	Sr	88	100.132				
	Y	89					
	Zr	90	96.819				
	Mo	98	97.092				
	Ag	107	95.904				
	Cd	111	98.052				
	Cd	114					
>	In	115		98.3			
	Sn	120	98.078				
	Sb	121	97.818				
	Sb	123					
[	Ba	135					
	Ba	137	98.826				
	Ho	165					
>	Lu	175		98.7			
	Tl	205	99.035				
	Pb	208	101.073				
	Bi	209					
	Th	232	101.361				
	U	238	105.008				

### 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: Wednesday, January 13, 2010 23:01:46

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, January 13, 2010 23:05:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 7.164

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.033	ug/L	146.192	27	0.000
Be	9	-0.020	ug/L	100.403	3	-0.000
B	11	2.049	ug/L	16.710	164	0.001
Na	23	-15.921	ug/L	16.808	25690	-0.115
Mg	24	0.025	ug/L	10044.904	3334	0.000
Al	27	3.643	ug/L	22.340	5001	0.025
P	31	-0.569	ug/L	318.707	2695	-0.000
K	39	-5.066	ug/L	150.950	374861	-0.063
Ca	43	-16.911	ug/L	40.233	333	-0.000
> Sc	45		ug/L		170634	170634.094
Ti	47	0.093	ug/L	45.486	197	0.000
V	51	-2.000	ug/L	47.098	-9914	-0.020
Cr	52	0.003	ug/L	1603.125	2246	0.000
Cr	53		ug/L		138774	-0.053
Mn	55	0.031	ug/L	64.535	1022	0.001
Fe	57	8.060	ug/L	23.551	3133	0.003
Co	59	0.017	ug/L	16.226	144	0.000
Ni	60	0.023	ug/L	71.694	121	0.000
Cu	63		ug/L		185	0.000
Cu	65	-0.016	ug/L	75.986	94	-0.000
Zn	66	0.073	ug/L	54.872	76	0.000
Zn	67		ug/L		6988	-0.011
Zn	68		ug/L		634	-0.001
> Ge	74		ug/L		115613	115612.789
As	75	-0.742	ug/L	67.205	-86	-0.002
Se	77		ug/L		5813	-0.000
Se	82	0.629	ug/L	17.600	5	0.000
Kr	83		ug/L		35	-0.000
Sr	88	0.011	ug/L	22.147	189	0.001
Y	89		ug/L		20	0.000
Zr	90	0.119	ug/L	32.140	594	0.004
Mo	98	0.026	ug/L	25.720	72	0.000
Ag	107	0.009	ug/L	82.112	64	0.000
Cd	111	0.012	ug/L	141.714	17	0.000
Cd	114		ug/L		35	0.000
> In	115		ug/L		74218	74217.685
Sn	120	0.136	ug/L	17.838	411	0.003
Sb	121	0.545	ug/L	24.286	975	0.010
Sb	123		ug/L		770	0.008
Ba	135		ug/L		22	0.000
Ba	137	0.008	ug/L	94.053	36	0.000
Ho	165		ug/L		5	-0.000
> Lu	175		ug/L		68611	68611.392
Tl	205	0.082	ug/L	30.080	106	0.001
Pb	208	0.011	ug/L	22.721	429	0.001
Bi	209		ug/L		10	-0.000
Th	232	0.097	ug/L	35.943	928	0.008
U	238	0.017	ug/L	15.605	291	0.001

Sample ID: QC Std 7

Report Date/Time: Wednesday, January 13, 2010 23:08:01

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		99.7			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
L Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		98.2			
As	75					
Se	77					
Se	82					
L Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		98.4			
Sn	120					
Sb	121					
L Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		97.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
L 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: Wednesday, January 13, 2010 23:08:01

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, January 13, 2010 23:36:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 6.169

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.801	ug/L	6.024	6201	0.036
Be	9	49.971	ug/L	1.894	2437	0.014
B	11	100.510	ug/L	1.061	4976	0.029
Na	23	5403.890	ug/L	10.937	6631521	38.889
Mg	24	5178.197	ug/L	4.615	4313656	25.453
Al	27	5163.183	ug/L	2.686	6093014	35.981
P	31	5020.295	ug/L	0.381	295319	1.728
K	39	4969.661	ug/L	6.765	10838119	61.763
Ca	43	5013.358	ug/L	1.978	20786	0.120
> Sc	45		ug/L		169318	169317.855
Ti	47	50.616	ug/L	1.083	9829	0.057
V	51	49.200	ug/L	4.446	78832	0.503
Cr	52	50.363	ug/L	2.275	90330	0.520
Cr	53		ug/L		147194	0.004
Mn	55	51.478	ug/L	1.014	148132	0.869
Fe	57	5007.191	ug/L	0.461	288828	1.690
Co	59	49.894	ug/L	0.993	103497	0.611
Ni	60	52.124	ug/L	0.269	22619	0.133
Cu	63		ug/L		49327	0.290
Cu	65	50.108	ug/L	0.769	23267	0.137
Zn	66	50.753	ug/L	0.818	12400	0.108
Zn	67		ug/L		8865	0.006
Zn	68		ug/L		9529	0.077
> Ge	74		ug/L		114140	114139.676
As	75	47.305	ug/L	3.739	13875	0.120
Se	77		ug/L		6965	0.010
Se	82	49.785	ug/L	1.893	1361	0.012
Kr	83		ug/L		40	-0.000
Sr	88	49.941	ug/L	1.590	220599	2.968
Y	89		ug/L		76	0.001
Zr	90	48.478	ug/L	2.046	117202	1.574
Mo	98	48.333	ug/L	3.161	50540	0.680
Ag	107	47.929	ug/L	3.136	79166	1.065
Cd	111	49.607	ug/L	1.759	19418	0.261
Cd	114		ug/L		45539	0.613
> In	115		ug/L		74277	74276.651
Sn	120	49.069	ug/L	1.344	86978	1.169
Sb	121	48.831	ug/L	4.081	66463	0.892
Sb	123		ug/L		50317	0.675
Ba	135		ug/L		19601	0.278
Ba	137	48.826	ug/L	1.041	33623	0.477
Ho	165		ug/L		12	0.000
> Lu	175		ug/L		70399	70399.407
Tl	205	49.358	ug/L	1.221	29772	0.422
Pb	208	50.442	ug/L	0.610	218123	3.093
Bi	209		ug/L		58	0.001
Th	232	49.541	ug/L	1.237	291387	4.134
U	238	51.378	ug/L	0.249	315423	4.478

Sample ID: QC Std 6

Report Date/Time: Wednesday, January 13, 2010 23:39:09

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	101.603				
	Be	9	99.941				
	B	11	100.510				
	Na	23	108.078				
	Mg	24	103.564				
	Al	27	102.241				
	P	31	100.406				
	K	39	99.393				
	Ca	43	100.267				
>	Sc	45		98.9			
	Ti	47	101.232				
	V	51	98.400				
	Cr	52	100.726				
	Cr	53					
	Mn	55	102.956				
	Fe	57	100.144				
	Co	59	99.787				
	Ni	60	104.248				
	Cu	63					
	Cu	65	100.216				
	Zn	66	101.506				
	Zn	67					
	Zn	68					
>	Ge	74		97.0			
	As	75	94.610				
	Se	77					
	Se	82	99.570				
	Kr	83					
	Sr	88	99.883				
	Y	89					
	Zr	90	96.956				
	Mo	98	96.666				
	Ag	107	95.859				
	Cd	111	99.213				
	Cd	114					
>	In	115		98.5			
	Sn	120	98.137				
	Sb	121	97.661				
	Sb	123					
	Ba	135					
	Ba	137	97.653				
	Ho	165					
>	Lu	175		100.4			
	Tl	205	98.715				
	Pb	208	100.885				
	Bi	209					
	Th	232	99.082				
	U	238	102.756				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, January 13, 2010 23:42:35

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 7.170

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.004	ug/L	577.610	23	0.000
Be	9	-0.020	ug/L	101.133	3	-0.000
B	11	1.668	ug/L	39.216	145	0.000
Na	23	-14.697	ug/L	34.615	27026	-0.106
Mg	24	1.625	ug/L	151.367	4668	0.008
Al	27	3.095	ug/L	78.376	4334	0.022
P	31	2.034	ug/L	38.022	2831	0.001
K	39	-4.404	ug/L	164.787	374177	-0.055
Ca	43	-22.510	ug/L	33.549	308	-0.001
> Sc	45		ug/L		169663	169662.598
Ti	47	0.087	ug/L	112.123	195	0.000
V	51	0.137	ug/L	1130.564	-6161	0.001
Cr	52	-0.124	ug/L	18.852	2011	-0.001
Cr	53		ug/L		134238	-0.075
Mn	55	0.029	ug/L	50.106	1010	0.000
Fe	57	4.841	ug/L	24.340	2931	0.002
Co	59	0.007	ug/L	117.785	122	0.000
Ni	60	-0.002	ug/L	1660.019	110	-0.000
Cu	63		ug/L		153	-0.000
Cu	65	-0.014	ug/L	83.973	95	-0.000
Zn	66	0.043	ug/L	41.580	68	0.000
Zn	67		ug/L		6859	-0.012
Zn	68		ug/L		653	-0.001
> Ge	74		ug/L		115080	115080.150
As	75	0.571	ug/L	255.485	298	0.001
Se	77		ug/L		5576	-0.002
Se	82	0.206	ug/L	175.727	-7	0.000
Kr	83		ug/L		42	-0.000
Sr	88	0.008	ug/L	39.908	179	0.001
Y	89		ug/L		22	0.000
Zr	90	0.127	ug/L	12.799	617	0.004
Mo	98	0.034	ug/L	30.057	80	0.000
Ag	107	0.018	ug/L	40.555	80	0.000
Cd	111	0.017	ug/L	35.737	19	0.000
Cd	114		ug/L		36	0.000
> In	115		ug/L		74753	74753.201
Sn	120	0.127	ug/L	25.188	398	0.003
Sb	121	0.549	ug/L	20.280	987	0.010
Sb	123		ug/L		760	0.008
Ba	135		ug/L		19	0.000
Ba	137	0.012	ug/L	70.263	39	0.000
Ho	165		ug/L		3	-0.000
> Lu	175		ug/L		70025	70024.901
Tl	205	0.072	ug/L	36.263	102	0.001
Pb	208	-0.003	ug/L	81.886	376	-0.000
Bi	209		ug/L		14	-0.000
Th	232	0.104	ug/L	34.873	990	0.009
U	238	0.011	ug/L	19.465	263	0.001

Sample ID: QC Std 7

Report Date/Time: Wednesday, January 13, 2010 23:45:23

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: QC Std 7

Report Date/Time: Wednesday, January 13, 2010 23:45:23

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## 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		99.1			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		97.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		99.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		99.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Wednesday, January 13, 2010 23:45:23

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 14, 2010 00:13:44

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 6.175

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	51.343	ug/L	8.913	6319	0.037
Be	9	51.647	ug/L	3.754	2541	0.015
B	11	100.480	ug/L	4.177	5019	0.029
Na	23	5186.421	ug/L	5.365	6420158	37.324
Mg	24	5005.907	ug/L	0.700	4208955	24.606
Al	27	4822.096	ug/L	3.867	5743323	33.604
P	31	4961.103	ug/L	1.199	294563	1.708
K	39	5020.332	ug/L	9.784	11037229	62.392
Ca	43	4913.224	ug/L	0.822	20569	0.118
> Sc	45		ug/L		170903	170902.760
Ti	47	50.909	ug/L	0.869	9976	0.057
V	51	47.255	ug/L	2.876	76195	0.483
Cr	52	50.639	ug/L	0.879	91660	0.523
Cr	53		ug/L		149022	0.006
Mn	55	51.383	ug/L	1.052	149228	0.868
Fe	57	4951.768	ug/L	1.924	288268	1.671
Co	59	49.965	ug/L	0.684	104604	0.611
Ni	60	52.575	ug/L	0.085	23027	0.134
Cu	63		ug/L		49484	0.289
Cu	65	50.443	ug/L	0.588	23640	0.138
Zn	66	50.713	ug/L	0.736	12618	0.108
Zn	67		ug/L		9006	0.006
Zn	68		ug/L		9559	0.076
> Ge	74		ug/L		116234	116233.779
As	75	48.771	ug/L	4.122	14564	0.124
Se	77		ug/L		7488	0.014
Se	82	49.706	ug/L	2.958	1384	0.012
Kr	83		ug/L		39	-0.000
Sr	88	50.265	ug/L	0.968	222253	2.987
Y	89		ug/L		84	0.001
Zr	90	47.883	ug/L	1.676	115909	1.555
Mo	98	48.288	ug/L	1.255	50552	0.679
Ag	107	48.471	ug/L	1.567	80145	1.077
Cd	111	49.565	ug/L	2.209	19419	0.261
Cd	114		ug/L		45908	0.617
> In	115		ug/L		74350	74350.053
Sn	120	48.860	ug/L	0.272	86703	1.164
Sb	121	48.883	ug/L	2.640	66619	0.893
Sb	123		ug/L		51211	0.686
Ba	135		ug/L		19971	0.284
Ba	137	49.099	ug/L	0.253	33783	0.480
Ho	165		ug/L		9	0.000
> Lu	175		ug/L		70345	70345.154
Tl	205	49.465	ug/L	0.368	29813	0.423
Pb	208	50.351	ug/L	0.814	217551	3.087
Bi	209		ug/L		48	0.000
Th	232	50.200	ug/L	0.648	295027	4.189
U	238	52.157	ug/L	0.329	319947	4.546

Sample ID: QC Std 6

Report Date/Time: Thursday, January 14, 2010 00:16:31

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	102.686				
Be	9	103.294				
B	11	100.480				
Na	23	103.728				
Mg	24	100.118				
Al	27	95.487				
P	31	99.222				
K	39	100.407				
Ca	43	98.264				
> Sc	45		99.8			
Ti	47	101.818				
V	51	94.509				
Cr	52	101.278				
Cr	53					
Mn	55	102.767				
Fe	57	99.035				
Co	59	99.929				
Ni	60	105.151				
Cu	63					
Cu	65	100.885				
Zn	66	101.426				
Zn	67					
Zn	68					
> Ge	74		98.7			
As	75	97.542				
Se	77					
Se	82	99.411				
Kr	83					
Sr	88	100.529				
Y	89					
Zr	90	95.766				
Mo	98	96.576				
Ag	107	96.943				
Cd	111	99.130				
Cd	114					
> In	115		98.6			
Sn	120	97.719				
Sb	121	97.767				
Sb	123					
Ba	135					
Ba	137	98.199				
Ho	165					
> Lu	175		100.3			
Tl	205	98.929				
Pb	208	100.702				
Bi	209					
Th	232	100.400				
U	238	104.315				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 14, 2010 00:19:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 7.176

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.032	ug/L	143.207	27	0.000
Be	9	-0.027	ug/L	87.595	3	-0.000
B	11	1.839	ug/L	21.389	155	0.001
Na	23	-19.873	ug/L	15.656	21016	-0.143
Mg	24	-0.016	ug/L	19205.761	3334	-0.000
Al	27	3.320	ug/L	93.712	4668	0.023
P	31	-2.157	ug/L	117.973	2618	-0.001
K	39	11.090	ug/L	88.313	411861	0.138
Ca	43	-10.685	ug/L	8.902	361	-0.000
> Sc	45		ug/L		171802	171801.648
Ti	47	0.119	ug/L	112.105	203	0.000
V	51	-2.258	ug/L	50.224	-10429	-0.023
Cr	52	0.032	ug/L	119.099	2312	0.000
Cr	53		ug/L		137395	-0.066
Mn	55	0.028	ug/L	14.283	1022	0.000
Fe	57	8.151	ug/L	24.666	3160	0.003
Co	59	0.012	ug/L	71.706	135	0.000
Ni	60	0.024	ug/L	184.648	123	0.000
Cu	63		ug/L		181	0.000
Cu	65	-0.013	ug/L	121.656	96	-0.000
Zn	66	0.044	ug/L	69.293	69	0.000
Zn	67		ug/L		7008	-0.011
Zn	68		ug/L		602	-0.001
> Ge	74		ug/L		116141	116140.699
As	75	0.323	ug/L	368.883	230	0.001
Se	77		ug/L		6035	0.001
Se	82	0.293	ug/L	146.828	-4	0.000
Kr	83		ug/L		41	-0.000
Sr	88	0.010	ug/L	8.734	186	0.001
Y	89		ug/L		14	-0.000
Zr	90	0.127	ug/L	23.361	619	0.004
Mo	98	0.036	ug/L	19.058	83	0.001
Ag	107	0.014	ug/L	45.776	72	0.000
Cd	111	0.000	ug/L	8562.402	13	0.000
Cd	114		ug/L		32	0.000
> In	115		ug/L		75043	75043.115
Sn	120	0.122	ug/L	12.022	392	0.003
Sb	121	0.541	ug/L	21.728	980	0.010
Sb	123		ug/L		750	0.007
Ba	135		ug/L		17	0.000
Ba	137	0.013	ug/L	137.676	39	0.000
Ho	165		ug/L		8	0.000
> Lu	175		ug/L		69465	69465.173
Tl	205	0.081	ug/L	31.784	106	0.001
Pb	208	0.004	ug/L	112.615	405	0.000
Bi	209		ug/L		11	-0.000
Th	232	0.101	ug/L	24.163	964	0.008
U	238	0.014	ug/L	15.980	280	0.001

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 00:22:45

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % 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		98.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		99.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		99.1			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 00:22:45

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## ICPMS#4 - Summary Report

Sample ID: 1202011703

Sample Date/Time: Thursday, January 14, 2010 00:26:12

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 940082|1|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\1202011703.177

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.079	ug/L	112.602	32	0.000
Be	9	-0.020	ug/L	203.173	3	-0.000
B	11	0.773	ug/L	37.624	101	0.000
Na	23	-14.749	ug/L	10.209	27026	-0.106
Mg	24	-3.159	ug/L	22.003	667	-0.016
Al	27	1.123	ug/L	128.432	2000	0.008
P	31	-7.670	ug/L	3.560	2267	-0.003
K	39	6.609	ug/L	242.467	397473	0.082
Ca	43	26.832	ug/L	36.720	509	0.001
> Sc	45		ug/L		169826	169826.235
Ti	47	0.333	ug/L	19.638	242	0.000
V	51	-12.373	ug/L	13.760	-27905	-0.127
Cr	52	3.004	ug/L	3.548	7501	0.031
Cr	53		ug/L		275733	0.757
Mn	55	0.356	ug/L	7.721	1950	0.006
Fe	57	15.246	ug/L	5.434	3530	0.005
Co	59	-0.005	ug/L	102.411	99	-0.000
Ni	60	-0.169	ug/L	16.890	38	-0.000
Cu	63		ug/L		108	-0.000
Cu	65	-0.076	ug/L	20.627	66	-0.000
Zn	66	0.974	ug/L	12.632	296	0.002
Zn	67		ug/L		15550	0.064
Zn	68		ug/L		1292	0.005
> Ge	74		ug/L		114851	114850.720
As	75	2.044	ug/L	79.387	727	0.005
Se	77		ug/L		16483	0.093
Se	82	-0.098	ug/L	248.704	-15	-0.000
Kr	83		ug/L		48	0.000
Sr	88	0.008	ug/L	34.668	171	0.000
Y	89		ug/L		27	0.000
Zr	90	0.164	ug/L	32.614	680	0.005
Mo	98	0.001	ug/L	1311.947	44	0.000
Ag	107	-0.002	ug/L	195.602	43	-0.000
Cd	111	-0.008	ug/L	99.674	9	-0.000
Cd	114		ug/L		11	-0.000
> In	115		ug/L		71744	71743.712
Sn	120	0.219	ug/L	19.543	541	0.005
Sb	121	0.154	ug/L	25.738	430	0.003
Sb	123		ug/L		340	0.002
Ba	135		ug/L		25	0.000
Ba	137	-0.002	ug/L	195.675	28	-0.000
Ho	165		ug/L		9	0.000
> Lu	175		ug/L		66619	66618.636
Tl	205	-0.031	ug/L	26.296	39	-0.000
Pb	208	-0.024	ug/L	26.033	273	-0.001
Bi	209		ug/L		13	-0.000
Th	232	0.005	ug/L	155.506	388	0.000
U	238	-0.027	ug/L	0.980	27	-0.002

Sample ID: 1202011703

Report Date/Time: Thursday, January 14, 2010 00:29:01

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		99.2			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		97.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		95.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		95.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message  
V 51 Sample is out of limits (<-PQL)

## QC Action

QC Action Line: Continue

Sample ID: 1202011703  
Report Date/Time: Thursday, January 14, 2010 00:29:01  
Page 3

## ICPMS#4 - Summary Report

Sample ID: 1202011704

Sample Date/Time: Thursday, January 14, 2010 00:32:28

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 940082|1|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\1202011704.178

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	53.212	ug/L	6.806	6506	0.038
Be	9	55.451	ug/L	2.319	2710	0.016
B	11	113.350	ug/L	3.110	5618	0.033
Na	23	2153.448	ug/L	18.439	2680470	15.497
Mg	24	1933.112	ug/L	5.774	1615991	9.502
Al	27	1932.643	ug/L	4.730	2285580	13.468
P	31	1990.829	ug/L	0.436	119065	0.685
K	39	1907.424	ug/L	7.296	4404193	23.705
Ca	43	1950.110	ug/L	1.310	8350	0.047
> Sc	45		ug/L		169773	169772.507
Ti	47	43.745	ug/L	2.515	8538	0.049
V	51	33.573	ug/L	1.918	51897	0.343
Cr	52	52.327	ug/L	2.840	93990	0.541
Cr	53		ug/L		299220	0.897
Mn	55	49.346	ug/L	1.318	142390	0.833
Fe	57	1951.733	ug/L	1.504	114481	0.659
Co	59	48.888	ug/L	1.173	101672	0.598
Ni	60	49.425	ug/L	0.823	21509	0.126
Cu	63		ug/L		48843	0.287
Cu	65	49.719	ug/L	1.156	23148	0.136
Zn	66	48.533	ug/L	2.458	12211	0.103
Zn	67		ug/L		18809	0.089
Zn	68		ug/L		9859	0.077
> Ge	74		ug/L		117520	117519.589
As	75	50.698	ug/L	4.346	15305	0.129
Se	77		ug/L		18330	0.105
Se	82	48.428	ug/L	1.300	1363	0.012
Kr	83		ug/L		53	0.000
Sr	88	49.344	ug/L	2.638	209448	2.933
Y	89		ug/L		41	0.000
Zr	90	48.649	ug/L	2.099	113036	1.580
Mo	98	48.460	ug/L	1.947	48704	0.682
Ag	107	49.572	ug/L	0.485	78700	1.102
Cd	111	49.005	ug/L	0.862	18435	0.258
Cd	114		ug/L		42877	0.600
> In	115		ug/L		71384	71384.083
Sn	120	48.168	ug/L	1.958	82057	1.147
Sb	121	51.829	ug/L	2.858	67780	0.947
Sb	123		ug/L		52314	0.730
Ba	135		ug/L		18273	0.269
Ba	137	47.304	ug/L	1.082	31354	0.462
Ho	165		ug/L		11	0.000
> Lu	175		ug/L		67766	67766.377
Tl	205	45.323	ug/L	2.764	26323	0.388
Pb	208	49.839	ug/L	1.263	207447	3.056
Bi	209		ug/L		160231	2.364
Th	232	48.445	ug/L	1.049	274277	4.042
U	238	50.671	ug/L	2.101	299393	4.416

Sample ID: 1202011704

Report Date/Time: Thursday, January 14, 2010 00:35:17

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 1202011704

Report Date/Time: Thursday, January 14, 2010 00:35:17

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### 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		99.2			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		99.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		94.7			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		96.7			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011704

Report Date/Time: Thursday, January 14, 2010 00:35:17

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 14, 2010 01:03:37

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 6.183

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	54.054	ug/L	7.865	6684	0.039
Be	9	54.404	ug/L	1.709	2689	0.016
B	11	102.776	ug/L	1.784	5158	0.030
Na	23	5285.394	ug/L	6.672	6583484	38.036
Mg	24	4784.615	ug/L	2.882	4041435	23.519
Al	27	4956.095	ug/L	1.787	5930757	34.537
P	31	5022.535	ug/L	1.258	299641	1.729
K	39	4726.667	ug/L	6.340	10469617	58.743
Ca	43	4993.198	ug/L	1.531	20997	0.120
> Sc	45		ug/L		171720	171720.277
Ti	47	50.252	ug/L	2.562	9901	0.057
V	51	46.767	ug/L	12.247	75741	0.478
Cr	52	51.355	ug/L	1.451	93360	0.531
Cr	53		ug/L		185776	0.217
Mn	55	50.873	ug/L	0.826	148462	0.859
Fe	57	4918.367	ug/L	1.767	287701	1.660
Co	59	49.242	ug/L	1.286	103576	0.603
Ni	60	51.387	ug/L	1.834	22613	0.131
Cu	63		ug/L		49370	0.287
Cu	65	50.285	ug/L	1.281	23677	0.137
Zn	66	50.995	ug/L	1.436	12739	0.109
Zn	67		ug/L		11291	0.025
Zn	68		ug/L		9826	0.078
> Ge	74		ug/L		116713	116713.004
As	75	47.997	ug/L	3.833	14396	0.122
Se	77		ug/L		9243	0.029
Se	82	49.667	ug/L	0.910	1388	0.012
Kr	83		ug/L		53	0.000
Sr	88	50.793	ug/L	1.051	221163	3.019
Y	89		ug/L		75	0.001
Zr	90	48.629	ug/L	1.588	115910	1.579
Mo	98	49.098	ug/L	1.003	50615	0.691
Ag	107	48.440	ug/L	1.541	78882	1.077
Cd	111	50.398	ug/L	1.785	19445	0.265
Cd	114		ug/L		45460	0.621
> In	115		ug/L		73214	73214.255
Sn	120	49.120	ug/L	1.331	85826	1.170
Sb	121	49.164	ug/L	2.926	65970	0.898
Sb	123		ug/L		50449	0.686
Ba	135		ug/L		19535	0.279
Ba	137	49.021	ug/L	1.248	33522	0.479
Ho	165		ug/L		16	0.000
> Lu	175		ug/L		69911	69911.013
Tl	205	45.072	ug/L	1.671	27004	0.385
Pb	208	50.469	ug/L	0.732	216724	3.094
Bi	209		ug/L		49	0.000
Th	232	49.962	ug/L	0.401	291835	4.169
U	238	51.665	ug/L	1.350	314986	4.503

Sample ID: QC Std 6

Report Date/Time: Thursday, January 14, 2010 01:06:24

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	108.108				
Be	9	108.808				
B	11	102.776				
Na	23	105.708				
Mg	24	95.692				
Al	27	98.140				
P	31	100.451				
K	39	94.533				
Ca	43	99.864				
> Sc	45		100.3			
Ti	47	100.504				
V	51	93.533				
Cr	52	102.709				
Cr	53					
Mn	55	101.746				
Fe	57	98.367				
Co	59	98.483				
Ni	60	102.774				
Cu	63					
Cu	65	100.571				
Zn	66	101.990				
Zn	67					
Zn	68					
> Ge	74		99.2			
As	75	95.995				
Se	77					
Se	82	99.335				
Kr	83					
Sr	88	101.585				
Y	89					
Zr	90	97.257				
Mo	98	98.196				
Ag	107	96.881				
Cd	111	100.796				
Cd	114					
> In	115		97.1			
Sn	120	98.241				
Sb	121	98.327				
Sb	123					
Ba	135					
Ba	137	98.043				
Ho	165					
> Lu	175		99.7			
Tl	205	90.143				
Pb	208	100.938				
Bi	209					
Th	232	99.924				
U	238	103.331				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, January 14, 2010 01:06:24

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 14, 2010 01:09:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 7.184

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.017	ug/L	177.865	25	0.000
Be	9	0.012	ug/L	327.701	5	0.000
B	11	2.355	ug/L	15.203	182	0.001
Na	23	-16.779	ug/L	24.751	25023	-0.121
Mg	24	-0.405	ug/L	781.826	3000	-0.002
Al	27	3.336	ug/L	77.151	4668	0.023
P	31	-4.013	ug/L	3.748	2524	-0.001
K	39	-1.009	ug/L	660.235	388206	-0.013
Ca	43	-13.492	ug/L	90.975	351	-0.000
> Sc	45		ug/L		172813	172812.519
Ti	47	-0.064	ug/L	184.254	169	-0.000
V	51	-0.479	ug/L	630.898	-7317	-0.005
Cr	52	0.468	ug/L	16.305	3106	0.005
Cr	53		ug/L		152091	0.015
Mn	55	0.011	ug/L	190.521	976	0.000
Fe	57	5.943	ug/L	19.178	3049	0.002
Co	59	0.015	ug/L	47.180	142	0.000
Ni	60	0.049	ug/L	37.789	134	0.000
Cu	63		ug/L		194	0.000
Cu	65	0.001	ug/L	3845.607	103	0.000
Zn	66	0.072	ug/L	28.025	76	0.000
Zn	67		ug/L		7765	-0.005
Zn	68		ug/L		675	-0.001
> Ge	74		ug/L		116154	116154.172
As	75	-0.316	ug/L	384.040	38	-0.001
Se	77		ug/L		7047	0.010
Se	82	0.414	ug/L	86.411	-1	0.000
Kr	83		ug/L		41	-0.000
Sr	88	0.009	ug/L	45.781	182	0.001
Y	89		ug/L		18	0.000
Zr	90	0.154	ug/L	15.910	680	0.005
Mo	98	0.036	ug/L	27.095	82	0.001
Ag	107	0.018	ug/L	29.126	79	0.000
Cd	111	0.017	ug/L	114.668	19	0.000
Cd	114		ug/L		35	0.000
> In	115		ug/L		74485	74484.752
Sn	120	0.115	ug/L	21.658	375	0.003
Sb	121	0.535	ug/L	28.075	963	0.010
Sb	123		ug/L		768	0.008
Ba	135		ug/L		18	0.000
Ba	137	-0.000	ug/L	747.307	30	-0.000
Ho	165		ug/L		5	-0.000
> Lu	175		ug/L		69306	69306.080
Tl	205	0.688	ug/L	13.466	466	0.006
Pb	208	-0.000	ug/L	4433.730	386	-0.000
Bi	209		ug/L		14	0.000
Th	232	0.170	ug/L	31.544	1356	0.014
U	238	0.016	ug/L	20.015	293	0.001

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 01:12:39

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	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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		100.9			
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		98.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		98.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 01:12:39

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## ICPMS#4 - Summary Report

Sample ID: 244145001

Sample Date/Time: Thursday, January 14, 2010 01:22:21

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940082|1|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\244145001.186

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.241	ug/L	33.687	52	0.000
Be	9	-0.005	ug/L	1051.619	4	-0.000
B	11	20.568	ug/L	2.148	1061	0.006
Na	23	239.578	ug/L	8.800	334555	1.724
Mg	24	25.122	ug/L	11.020*	24020	0.123
Al	27	208.917	ug/L	8.512	245434	1.456
P	31	-4.085	ug/L	58.238	2451	-0.001
K	39	168.959	ug/L	11.520	733042	2.100
Ca	43	95.523	ug/L	2.664	782	0.002
> Sc	45		ug/L		168143	168142.832
Ti	47	5.568	ug/L	3.164	1231	0.006
V	51	-17.730	ug/L	21.227	-36781	-0.181
Cr	52	5.801	ug/L	5.928	12290	0.060
Cr	53		ug/L		298693	0.910
Mn	55	4.627	ug/L	0.782	14060	0.078
Fe	57	178.895	ug/L	1.336	12783	0.060
Co	59	0.057	ug/L	15.282	225	0.001
Ni	60	0.854	ug/L	7.922	476	0.002
Cu	63		ug/L		3896	0.022
Cu	65	3.833	ug/L	2.911	1860	0.010
Zn	66	2.801	ug/L	3.681	752	0.006
Zn	67		ug/L		17741	0.081
Zn	68		ug/L		1697	0.008
> Ge	74		ug/L		116234	116233.773
As	75	0.351	ug/L	791.551	238	0.001
Se	77		ug/L		18863	0.112
Se	82	-0.148	ug/L	299.898	-17	-0.000
Kr	83		ug/L		51	0.000
Sr	88	0.569	ug/L	2.083	2490	0.034
Y	89		ug/L		610	0.009
Zr	90	0.350	ug/L	8.300	1081	0.011
Mo	98	0.005	ug/L	134.359	46	0.000
Ag	107	0.005	ug/L	54.743	54	0.000
Cd	111	0.021	ug/L	30.148	19	0.000
Cd	114		ug/L		20	-0.000
> In	115		ug/L		69765	69765.320
Sn	120	0.460	ug/L	6.907	924	0.011
Sb	121	-0.009	ug/L	37.681	211	-0.000
Sb	123		ug/L		192	0.000
Ba	135		ug/L		1138	0.017
Ba	137	2.841	ug/L	2.220	1885	0.028
Ho	165		ug/L		33	0.000
> Lu	175		ug/L		66855	66855.418
Tl	205	0.065	ug/L	16.700	94	0.001
Pb	208	0.461	ug/L	2.200	2261	0.028
Bi	209		ug/L		44	0.000
Th	232	0.050	ug/L	7.477	641	0.004
U	238	-0.001	ug/L	222.140	180	-0.000

Sample ID: 244145001

Report Date/Time: Thursday, January 14, 2010 01:25:10

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			98.2		
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74			98.7		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			92.5		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			95.4		
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message  
V 51Sample is out of limits (<-PQL)

### QC Action

QC Action Line: Continue

Sample ID: 244145001  
Report Date/Time: Thursday, January 14, 2010 01:25:10  
Page 3

## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 14, 2010 01:53:34

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 6.191

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	57.756	ug/L	6.895	7067	0.041
Be	9	56.317	ug/L	3.933	2754	0.016
B	11	108.648	ug/L	4.327	5390	0.031
Na	23	5008.770	ug/L	4.819	6167963	36.045
Mg	24	4945.775	ug/L	5.012	4133048	24.311
Al	27	5156.152	ug/L	5.925	6101407	35.932
P	31	5000.604	ug/L	1.237	295190	1.721
K	39	4829.980	ug/L	1.273	10582545	60.027
Ca	43	4980.693	ug/L	1.323	20730	0.120
> Sc	45		ug/L		169914	169914.475
Ti	47	49.265	ug/L	1.923	9604	0.055
V	51	49.140	ug/L	4.421	79062	0.503
Cr	52	50.589	ug/L	1.266	91038	0.523
Cr	53		ug/L		183097	0.212
Mn	55	50.226	ug/L	3.439	145013	0.848
Fe	57	4883.089	ug/L	2.387	282664	1.648
Co	59	48.954	ug/L	1.299	101895	0.599
Ni	60	51.333	ug/L	1.256	22352	0.131
Cu	63		ug/L		48705	0.286
Cu	65	49.591	ug/L	2.723	23102	0.135
Zn	66	50.697	ug/L	0.672	12530	0.108
Zn	67		ug/L		11010	0.024
Zn	68		ug/L		9535	0.076
> Ge	74		ug/L		115455	115454.829
As	75	47.248	ug/L	2.081	14018	0.120
Se	77		ug/L		9590	0.032
Se	82	49.822	ug/L	4.583	1377	0.012
Kr	83		ug/L		43	-0.000
Sr	88	51.209	ug/L	1.305	219605	3.044
Y	89		ug/L		69	0.001
Zr	90	47.702	ug/L	2.765	111971	1.549
Mo	98	48.441	ug/L	1.592	49183	0.681
Ag	107	48.743	ug/L	2.006	78174	1.083
Cd	111	49.766	ug/L	1.350	18913	0.262
Cd	114		ug/L		44663	0.619
> In	115		ug/L		72115	72114.792
Sn	120	48.837	ug/L	1.780	84050	1.163
Sb	121	48.308	ug/L	4.280	63851	0.882
Sb	123		ug/L		49531	0.684
Ba	135		ug/L		19113	0.277
Ba	137	48.780	ug/L	1.395	32865	0.477
Ho	165		ug/L		12	0.000
> Lu	175		ug/L		68883	68882.700
Tl	205	43.334	ug/L	3.566	25577	0.371
Pb	208	50.441	ug/L	1.972	213397	3.093
Bi	209		ug/L		58	0.001
Th	232	50.095	ug/L	1.544	288277	4.180
U	238	51.692	ug/L	1.600	310494	4.505

Sample ID: QC Std 6

Report Date/Time: Thursday, January 14, 2010 01:56:21

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	115.512				
	Be	9	112.633				
	B	11	108.648				
	Na	23	100.175				
	Mg	24	98.916				
	Al	27	102.102				
	P	31	100.012				
	K	39	96.600				
	Ca	43	99.614				
>	Sc	45		99.3			
	Ti	47	98.529				
	V	51	98.280				
	Cr	52	101.177				
	Cr	53					
	Mn	55	100.452				
	Fe	57	97.662				
	Co	59	97.908				
	Ni	60	102.666				
	Cu	63					
	Cu	65	99.182				
[	Zn	66	101.394				
	Zn	67					
	Zn	68					
>	Ge	74		98.1			
	As	75	94.496				
	Se	77					
	Se	82	99.643				
	Kr	83					
[	Sr	88	102.417				
	Y	89					
	Zr	90	95.404				
	Mo	98	96.882				
	Ag	107	97.487				
	Cd	111	99.531				
	Cd	114					
>	In	115		95.6			
	Sn	120	97.674				
	Sb	121	96.615				
	Sb	123					
[	Ba	135					
	Ba	137	97.561				
	Ho	165					
>	Lu	175		98.3			
	Tl	205	86.668				
	Pb	208	100.881				
	Bi	209					
	Th	232	100.191				
	U	238	103.384				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	7CCV is out of limits (+/- 10%)
QC Std 6	Be	9	9CCV is out of limits (+/- 10%)
QC Std 6	Tl	205	205CCV is out of limits (+/- 10%)

Sample ID: QC Std 6

Report Date/Time: Thursday, January 14, 2010 01:56:21

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## QC Action

QC Action Line: Continue

## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 14, 2010 01:59:47

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 7.192

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.020	ug/L	218.117	25	0.000
Be	9	0.029	ug/L	216.538	5	0.000
B	11	2.296	ug/L	32.472	174	0.001
Na	23	-18.397	ug/L	59.447	22355	-0.132
Mg	24	-1.132	ug/L	124.899	2334	-0.006
Al	27	1.986	ug/L	112.146	3000	0.014
P	31	-2.475	ug/L	47.185	2546	-0.001
K	39	-3.368	ug/L	170.529	373148	-0.042
Ca	43	-6.392	ug/L	53.198	371	-0.000
> Sc	45		ug/L		168239	168238.970
Ti	47	-0.084	ug/L	153.500	161	-0.000
V	51	-2.508	ug/L	64.659	-10656	-0.026
Cr	52	0.688	ug/L	20.361	3404	0.007
Cr	53		ug/L		153117	0.044
Mn	55	0.016	ug/L	127.823	965	0.000
Fe	57	5.981	ug/L	17.980	2971	0.002
Co	59	0.011	ug/L	45.349	129	0.000
Ni	60	0.015	ug/L	63.444	116	0.000
Cu	63		ug/L		178	0.000
Cu	65	-0.016	ug/L	289.718	93	-0.000
Zn	66	0.087	ug/L	91.309	79	0.000
Zn	67		ug/L		7730	-0.004
Zn	68		ug/L		660	-0.001
> Ge	74		ug/L		115162	115161.529
As	75	-0.718	ug/L	46.140	-80	-0.002
Se	77		ug/L		7229	0.012
Se	82	0.018	ug/L	2814.039	-12	0.000
Kr	83		ug/L		45	-0.000
Sr	88	0.013	ug/L	18.974	194	0.001
Y	89		ug/L		14	0.000
Zr	90	0.156	ug/L	29.484	674	0.005
Mo	98	0.039	ug/L	17.096	85	0.001
Ag	107	0.015	ug/L	63.614	72	0.000
Cd	111	0.007	ug/L	43.190	15	0.000
Cd	114		ug/L		30	0.000
> In	115		ug/L		73412	73412.481
Sn	120	0.105	ug/L	23.692	352	0.002
Sb	121	0.494	ug/L	25.674	894	0.009
Sb	123		ug/L		752	0.008
Ba	135		ug/L		20	0.000
Ba	137	-0.003	ug/L	226.199	28	-0.000
Ho	165		ug/L		5	-0.000
> Lu	175		ug/L		68996	68995.948
Tl	205	0.820	ug/L	16.070	541	0.007
Pb	208	-0.003	ug/L	199.610	370	-0.000
Bi	209		ug/L		15	0.000
Th	232	0.178	ug/L	31.772	1399	0.015
U	238	0.015	ug/L	7.578	282	0.001

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 02:02:35

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 02:02:35

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## 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			98.3		
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			97.8		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			97.4		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			98.4		
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 02:02:35

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 14, 2010 02:43:35

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 6.199

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	68.118	ug/L	6.724	7901	0.049
Be	9	61.565	ug/L	4.757	2854	0.018
B	11	114.881	ug/L	0.243	5403	0.033
Na	23	5050.267	ug/L	9.634	5894151	36.344
Mg	24	5282.392	ug/L	11.877	4188015	25.965
Al	27	4890.988	ug/L	1.148	5491546	34.084
P	31	5002.995	ug/L	1.336	280036	1.722
K	39	4874.901	ug/L	2.164	10124889	60.585
Ca	43	4880.351	ug/L	0.334	19264	0.117
> Sc	45		ug/L		161098	161097.566
Ti	47	49.409	ug/L	1.300	9132	0.056
V	51	46.609	ug/L	2.847	70751	0.477
Cr	52	51.932	ug/L	0.853	88566	0.537
Cr	53		ug/L		189490	0.311
Mn	55	50.908	ug/L	0.389	139386	0.860
Fe	57	4939.009	ug/L	0.441	271091	1.667
Co	59	49.581	ug/L	1.319	97855	0.607
Ni	60	51.474	ug/L	0.579	21254	0.131
Cu	63		ug/L		46394	0.287
Cu	65	50.232	ug/L	1.018	22193	0.137
Zn	66	50.236	ug/L	0.886	11994	0.107
Zn	67		ug/L		10811	0.026
Zn	68		ug/L		9274	0.077
> Ge	74		ug/L		111538	111537.518
As	75	49.801	ug/L	2.674	14268	0.127
Se	77		ug/L		11120	0.049
Se	82	50.401	ug/L	1.561	1346	0.012
Kr	83		ug/L		43	-0.000
Sr	88	51.015	ug/L	0.368	211883	3.032
Y	89		ug/L		78	0.001
Zr	90	47.826	ug/L	1.309	108738	1.553
Mo	98	48.364	ug/L	0.838	47557	0.680
Ag	107	47.956	ug/L	1.012	74484	1.066
Cd	111	49.657	ug/L	0.470	18277	0.262
Cd	114		ug/L		42928	0.614
> In	115		ug/L		69839	69839.156
Sn	120	48.089	ug/L	0.370	80160	1.145
Sb	121	47.740	ug/L	3.198	61119	0.872
Sb	123		ug/L		47385	0.676
Ba	135		ug/L		18076	0.269
Ba	137	47.539	ug/L	1.428	31192	0.465
Ho	165		ug/L		14	0.000
> Lu	175		ug/L		67083	67083.147
Tl	205	44.215	ug/L	1.039	25419	0.378
Pb	208	50.728	ug/L	1.212	209012	3.110
Bi	209		ug/L		51	0.001
Th	232	50.151	ug/L	0.927	281074	4.185
U	238	51.909	ug/L	0.623	303656	4.524

Sample ID: QC Std 6

Report Date/Time: Thursday, January 14, 2010 02:46:22

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	136.236				
Be	9	123.130				
B	11	114.881				
Na	23	101.005				
Mg	24	105.648				
Al	27	96.851				
P	31	100.060				
K	39	97.498				
Ca	43	97.607				
> Sc	45		94.1			
Ti	47	98.818				
V	51	93.218				
Cr	52	103.865				
Cr	53					
Mn	55	101.816				
Fe	57	98.780				
Co	59	99.162				
Ni	60	102.948				
Cu	63					
Cu	65	100.465				
Zn	66	100.472				
Zn	67					
Zn	68					
> Ge	74		94.8			
As	75	99.602				
Se	77					
Se	82	100.801				
Kr	83					
Sr	88	102.030				
Y	89					
Zr	90	95.653				
Mo	98	96.727				
Ag	107	95.912				
Cd	111	99.314				
Cd	114					
> In	115		92.6			
Sn	120	96.178				
Sb	121	95.479				
Sb	123					
Ba	135					
Ba	137	95.078				
Ho	165					
> Lu	175		95.7			
Tl	205	88.431				
Pb	208	101.456				
Bi	209					
Th	232	100.302				
U	238	103.818				

### QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
QC Std 6	Li	7CCV is out of limits (+/- 10%)
QC Std 6	Be	9CCV is out of limits (+/- 10%)
QC Std 6	B	11CCV is out of limits (+/- 10%)
QC Std 6	Tl	205CCV is out of limits (+/- 10%)

Sample ID: QC Std 6

Report Date/Time: Thursday, January 14, 2010 02:46:22

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## QC Action

QC Action Line: Continue

## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 14, 2010 02:49:48

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 7.200

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.035	ug/L	104.498	26	0.000
Be	9	0.012	ug/L	90.407	4	0.000
B	11	2.338	ug/L	22.292	169	0.001
Na	23	-17.356	ug/L	28.815	22686	-0.125
Mg	24	-0.635	ug/L	294.065	2667	-0.003
Al	27	2.071	ug/L	144.822	3001	0.014
P	31	-5.311	ug/L	48.715	2285	-0.002
K	39	-16.459	ug/L	27.766	332158	-0.205
Ca	43	-12.614	ug/L	107.004	331	-0.000
> Sc	45		ug/L		161540	161540.307
Ti	47	-0.095	ug/L	19.766	152	-0.000
V	51	-0.472	ug/L	459.375	-6821	-0.005
Cr	52	1.446	ug/L	4.105	4532	0.015
Cr	53		ug/L		159702	0.124
Mn	55	0.061	ug/L	34.258	1048	0.001
Fe	57	4.955	ug/L	49.946	2794	0.002
Co	59	0.012	ug/L	26.878	128	0.000
Ni	60	0.007	ug/L	344.437	108	0.000
Cu	63		ug/L		169	0.000
Cu	65	-0.040	ug/L	62.974	79	-0.000
Zn	66	0.066	ug/L	109.059	72	0.000
Zn	67		ug/L		7610	-0.003
Zn	68		ug/L		585	-0.001
> Ge	74		ug/L		111716	111716.267
As	75	1.520	ug/L	27.556	559	0.004
Se	77		ug/L		8677	0.027
Se	82	0.249	ug/L	94.138	-5	0.000
Kr	83		ug/L		42	-0.000
Sr	88	0.012	ug/L	31.045	181	0.001
Y	89		ug/L		14	0.000
Zr	90	0.166	ug/L	11.597	663	0.005
Mo	98	0.064	ug/L	13.165	104	0.001
Ag	107	0.012	ug/L	50.214	65	0.000
Cd	111	0.029	ug/L	74.265	22	0.000
Cd	114		ug/L		32	0.000
> In	115		ug/L		69740	69740.035
Sn	120	0.122	ug/L	35.589	364	0.003
Sb	121	0.483	ug/L	18.077	837	0.009
Sb	123		ug/L		699	0.007
Ba	135		ug/L		13	-0.000
Ba	137	0.003	ug/L	280.538	30	0.000
Ho	165		ug/L		6	0.000
> Lu	175		ug/L		65565	65564.770
Tl	205	0.712	ug/L	15.638	454	0.006
Pb	208	-0.002	ug/L	256.354	359	-0.000
Bi	209		ug/L		9	-0.000
Th	232	0.183	ug/L	27.547	1358	0.015
U	238	0.014	ug/L	24.461	266	0.001

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 02:52:36

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			94.4		
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			94.9		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			92.5		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			93.5		
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 02:52:36

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## ICPMS#4 - Summary Report

Sample ID: 1202011705

Sample Date/Time: Thursday, January 14, 2010 03:14:51

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 940082|1|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\1202011705.204

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	4.942	ug/L	7.230	600	0.004
Be	9	0.147	ug/L	94.204	11	0.000
B	11	22.404	ug/L	3.020	1114	0.006
Na	23	22366.813	ug/L	6.356	26285898	160.962
Mg	24	3576.800	ug/L	6.105	2868791	17.582
Al	27	25.843	ug/L	19.029	30032	0.180
P	31	36.495	ug/L	2.712	4651	0.013
K	39	5038.467	ug/L	6.163	10564714	62.618
Ca	43	11844.800	ug/L	1.574	46730	0.284
> Sc	45		ug/L		162922	162921.542
Ti	47	3.068	ug/L	8.982	734	0.003
V	51	-21.530	ug/L	41.961	-42126	-0.220
Cr	52	15.142	ug/L	0.548	27629	0.156
Cr	53		ug/L		302845	0.993
Mn	55	0.727	ug/L	4.139	2892	0.012
Fe	57	51.406	ug/L	6.168	5375	0.017
Co	59	0.067	ug/L	12.763	237	0.001
Ni	60	0.335	ug/L	17.411	246	0.001
Cu	63		ug/L		1264	0.007
Cu	65	0.834	ug/L	1.071	468	0.002
Zn	66	2.635	ug/L	2.199	657	0.006
Zn	67		ug/L		16637	0.083
Zn	68		ug/L		1575	0.008
> Ge	74		ug/L		107412	107412.388
As	75	4.279	ug/L	61.868	1288	0.011
Se	77		ug/L		23044	0.164
Se	82	0.446	ug/L	63.990	-0	0.000
Kr	83		ug/L		44	-0.000
Sr	88	94.019	ug/L	1.620	365110	5.588
Y	89		ug/L		6292	0.096
Zr	90	0.042	ug/L	41.149	359	0.001
Mo	98	1.843	ug/L	3.110	1733	0.026
Ag	107	-0.004	ug/L	55.762	38	-0.000
Cd	111	-0.029	ug/L	87.901	1	-0.000
Cd	114		ug/L		11	-0.000
> In	115		ug/L		65324	65323.901
Sn	120	0.438	ug/L	7.913	832	0.010
Sb	121	-0.022	ug/L	52.921	182	-0.000
Sb	123		ug/L		174	0.000
Ba	135		ug/L		7850	0.122
Ba	137	21.276	ug/L	1.576	13385	0.208
Ho	165		ug/L		198	0.003
> Lu	175		ug/L		64249	64249.480
Tl	205	0.062	ug/L	43.432	88	0.001
Pb	208	-0.032	ug/L	10.871	233	-0.002
Bi	209		ug/L		13	0.000
Th	232	-0.012	ug/L	6.223	282	-0.001
U	238	0.621	ug/L	4.869	3658	0.054

Sample ID: 1202011705

Report Date/Time: Thursday, January 14, 2010 03:17:41

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 1202011705

Report Date/Time: Thursday, January 14, 2010 03:17:41

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## 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		95.2			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		91.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		86.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		91.6			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message  
V 51 Sample is out of limits (<-PQL)

## QC Action

QC Action Line: Continue

Sample ID: 1202011705  
Report Date/Time: Thursday, January 14, 2010 03:17:41  
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# ICPMS#4 - Summary Report

Sample ID: 1202011706

Sample Date/Time: Thursday, January 14, 2010 03:21:09

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 940082|1|skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\1202011706.205

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	76.725	ug/L	4.123	8933	0.055
Be	9	63.789	ug/L	2.089	2970	0.018
B	11	143.406	ug/L	3.068	6757	0.041
Na	23	22806.040	ug/L	1.430	26593335	164.123
Mg	24	5354.946	ug/L	8.272	4258688	26.322
Al	27	1752.433	ug/L	12.436	1977155	12.212
P	31	1869.404	ug/L	1.435	106667	0.644
K	39	6817.784	ug/L	2.294	14068455	84.731
Ca	43	13654.696	ug/L	1.352	53425	0.328
> Sc	45		ug/L		161761	161761.477
Ti	47	44.257	ug/L	1.722	8230	0.050
V	51	28.960	ug/L	17.456	41734	0.296
Cr	52	59.335	ug/L	2.352	101274	0.613
Cr	53		ug/L		296325	0.966
Mn	55	45.234	ug/L	1.376	124444	0.764
Fe	57	1836.569	ug/L	1.745	102798	0.620
Co	59	44.942	ug/L	1.798	89056	0.550
Ni	60	45.906	ug/L	1.745	19041	0.117
Cu	63		ug/L		43846	0.270
Cu	65	46.697	ug/L	2.847	20717	0.128
Zn	66	50.657	ug/L	1.588	11394	0.108
Zn	67		ug/L		18168	0.101
Zn	68		ug/L		9259	0.082
> Ge	74		ug/L		105087	105087.182
As	75	77.544	ug/L	3.435	20862	0.197
Se	77		ug/L		21638	0.155
Se	82	19.169	ug/L	7.487	475	0.005
Kr	83		ug/L		49	0.000
Sr	88	145.265	ug/L	1.436	551735	8.634
Y	89		ug/L		6232	0.097
Zr	90	49.329	ug/L	1.316	102592	1.602
Mo	98	49.928	ug/L	0.879	44926	0.702
Ag	107	48.453	ug/L	3.453	68834	1.077
Cd	111	10.319	ug/L	1.838	3483	0.054
Cd	114		ug/L		7880	0.123
> In	115		ug/L		63900	63900.047
Sn	120	49.042	ug/L	1.267	74781	1.168
Sb	121	213.589	ug/L	1.660	249403	3.901
Sb	123		ug/L		191318	2.992
Ba	135		ug/L		23921	0.374
Ba	137	66.729	ug/L	0.551	41666	0.652
Ho	165		ug/L		253	0.004
> Lu	175		ug/L		63853	63852.688
Tl	205	80.070	ug/L	4.640	43779	0.685
Pb	208	39.066	ug/L	1.597	153301	2.395
Bi	209		ug/L		56	0.001
Th	232	48.690	ug/L	0.101	259764	4.063
U	238	51.474	ug/L	0.461	286620	4.486

Sample ID: 1202011706

Report Date/Time: Thursday, January 14, 2010 03:23:59

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			94.5		
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74			89.3		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			84.7		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			91.1		
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011706

Report Date/Time: Thursday, January 14, 2010 03:23:59

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# ICPMS#4 - Summary Report

Sample ID: 1202011707

Sample Date/Time: Thursday, January 14, 2010 03:27:25

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 94008211skj

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\1202011707.206

## Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	1.032	ug/L	1.705	134	0.001
Be	9	0.032	ug/L	211.217	5	0.000
B	11	6.648	ug/L	10.706	351	0.002
Na	23	4674.040	ug/L	4.562	5190408	33.637
Mg	24	669.234	ug/L	1.795	506490	3.290
Al	27	6.638	ug/L	30.139	7669	0.046
P	31	-2.590	ug/L	54.647	2311	-0.001
K	39	1078.712	ug/L	3.547	2398235	13.406
Ca	43	2477.594	ug/L	3.936	9471	0.060
Sc	45		ug/L		153070	153069.572
Ti	47	0.608	ug/L	14.063	265	0.001
V	51	-8.080	ug/L	9.207	-18423	-0.083
Cr	52	3.254	ug/L	2.719	7157	0.034
Cr	53		ug/L		176849	0.290
Mn	55	0.151	ug/L	4.056	1229	0.003
Fe	57	8.648	ug/L	5.992	2841	0.003
Co	59	0.011	ug/L	26.689	118	0.000
Ni	60	-0.080	ug/L	26.525	69	-0.000
Cu	63		ug/L		265	0.001
Cu	65	0.051	ug/L	66.531	113	0.000
Zn	66	0.724	ug/L	9.042	214	0.002
Zn	67		ug/L		8749	0.012
Zn	68		ug/L		802	0.001
Ge	74		ug/L		104489	104489.251
As	75	2.719	ug/L	79.253	838	0.007
Se	77		ug/L		10201	0.047
Se	82	0.001	ug/L	42489.260	-11	0.000
Kr	83		ug/L		39	-0.000
Sr	88	18.398	ug/L	1.156	72236	1.093
Y	89		ug/L		1243	0.019
Zr	90	-0.044	ug/L	13.000	178	-0.001
Mo	98	0.368	ug/L	9.055	381	0.005
Ag	107	0.002	ug/L	196.330	47	0.000
Cd	111	-0.022	ug/L	14.418	3	-0.000
Cd	114		ug/L		11	-0.000
In	115		ug/L		65956	65955.560
Sn	120	0.010	ug/L	140.159	167	0.000
Sb	121	0.435	ug/L	5.885	734	0.008
Sb	123		ug/L		546	0.006
Ba	135		ug/L		1588	0.025
Ba	137	4.174	ug/L	1.010	2633	0.041
Ho	165		ug/L		39	0.001
Lu	175		ug/L		63876	63875.804
Tl	205	1.562	ug/L	14.956	906	0.013
Pb	208	-0.032	ug/L	30.523	233	-0.002
Bi	209		ug/L		10	-0.000
Th	232	0.081	ug/L	28.005	777	0.007
U	238	0.117	ug/L	11.152	828	0.010

Sample ID: 1202011707

Report Date/Time: Thursday, January 14, 2010 03:30:14

## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 1202011707

Report Date/Time: Thursday, January 14, 2010 03:30:14

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## 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		89.4			
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		88.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		87.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		91.1			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011707

Report Date/Time: Thursday, January 14, 2010 03:30:14

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 14, 2010 03:39:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 6.208

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li 7	74.346	ug/L	6.627	8075	0.053
Be 9	61.392	ug/L	1.926	2667	0.018
B 11	116.961	ug/L	1.464	5152	0.034
Na 23	4876.433	ug/L	3.367	5334519	35.093
Mg 24	4892.036	ug/L	4.048	3630486	24.047
Al 27	4896.211	ug/L	4.246	5147450	34.120
P 31	5026.558	ug/L	1.270	263538	1.730
K 39	4977.455	ug/L	2.865	9679120	61.859
Ca 43	4879.609	ug/L	0.568	18043	0.117
> Sc 45		ug/L		150912	150911.878
Ti 47	48.736	ug/L	0.605	8441	0.055
V 51	43.953	ug/L	5.944	62164	0.450
Cr 52	50.694	ug/L	0.937	81037	0.524
Cr 53		ug/L		171334	0.270
Mn 55	50.127	ug/L	1.146	128580	0.847
Fe 57	4860.108	ug/L	0.570	249921	1.641
Co 59	48.459	ug/L	0.976	89585	0.593
Ni 60	51.062	ug/L	1.657	19753	0.130
Cu 63		ug/L		43366	0.286
Cu 65	49.229	ug/L	2.206	20372	0.134
Zn 66	50.406	ug/L	1.649	11069	0.107
Zn 67		ug/L		9830	0.024
Zn 68		ug/L		8531	0.077
> Ge 74		ug/L		102604	102603.590
As 75	48.197	ug/L	2.262	12703	0.123
Se 77		ug/L		9863	0.046
Se 82	49.835	ug/L	2.414	1224	0.012
Kr 83		ug/L		46	0.000
Sr 88	50.090	ug/L	1.116	195382	2.977
Y 89		ug/L		70	0.001
Zr 90	46.999	ug/L	3.500	100358	1.526
Mo 98	47.684	ug/L	2.486	44038	0.671
Ag 107	47.602	ug/L	0.638	69437	1.058
Cd 111	49.186	ug/L	0.539	17001	0.259
Cd 114		ug/L		39896	0.608
> In 115		ug/L		65585	65585.455
Sn 120	48.443	ug/L	1.197	75832	1.154
Sb 121	47.937	ug/L	4.132	57627	0.875
Sb 123		ug/L		44498	0.676
Ba 135		ug/L		17188	0.267
Ba 137	46.753	ug/L	1.713	29401	0.457
Ho 165		ug/L		10	0.000
> Lu 175		ug/L		64295	64295.367
Tl 205	45.862	ug/L	1.950	25272	0.392
Pb 208	50.430	ug/L	2.141	199122	3.092
Bi 209		ug/L		41	0.000
Th 232	50.508	ug/L	1.037	271288	4.214
U 238	52.410	ug/L	0.338	293845	4.568

Sample ID: QC Std 6

Report Date/Time: Thursday, January 14, 2010 03:42:42

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	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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	148.692				
Be	9	122.783				
B	11	116.961				
Na	23	97.529				
Mg	24	97.841				
Al	27	96.955				
P	31	100.531				
K	39	99.549				
Ca	43	97.592				
> Sc	45		88.2			
Ti	47	97.473				
V	51	87.905				
Cr	52	101.387				
Cr	53					
Mn	55	100.254				
Fe	57	97.202				
Co	59	96.917				
Ni	60	102.124				
Cu	63					
Cu	65	98.459				
Zn	66	100.812				
Zn	67					
Zn	68					
> Ge	74		87.2			
As	75	96.394				
Se	77					
Se	82	99.670				
Kr	83					
Sr	88	100.180				
Y	89					
Zr	90	93.998				
Mo	98	95.368				
Ag	107	95.203				
Cd	111	98.371				
Cd	114					
> In	115		87.0			
Sn	120	96.887				
Sb	121	95.873				
Sb	123					
Ba	135					
Ba	137	93.505				
Ho	165					
> Lu	175		91.7			
Tl	205	91.725				
Pb	208	100.860				
Bi	209					
Th	232	101.016				
U	238	104.821				

### QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
QC Std 6	Li	7CCV is out of limits (+/- 10%)
QC Std 6	Be	9CCV is out of limits (+/- 10%)
QC Std 6	B	11CCV is out of limits (+/- 10%)
QC Std 6	V	51CCV is out of limits (+/- 10%)

Sample ID: QC Std 6

Report Date/Time: Thursday, January 14, 2010 03:42:42

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## QC Action

QC Action Line: Continue

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Sample ID: QC Std 6

Report Date/Time: Thursday, January 14, 2010 03:42:42

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 14, 2010 03:46:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: C:\elandata\Dataset\100113\QC Std 7.209

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.049	ug/L	75.599	25	0.000
Be	9	0.066	ug/L	87.201	6	0.000
B	11	2.568	ug/L	16.008	166	0.001
Na	23	-17.610	ug/L	19.683	20682	-0.127
Mg	24	-0.787	ug/L	99.391	2334	-0.004
Al	27	0.088	ug/L	1270.572	667	0.001
P	31	-4.365	ug/L	45.315	2165	-0.002
K	39	-7.160	ug/L	182.115	324664	-0.089
Ca	43	-12.831	ug/L	73.051	306	-0.000
> Sc	45		ug/L		149508	149508.485
Ti	47	-0.078	ug/L	102.715	144	-0.000
V	51	-0.203	ug/L	111.519	-5942	-0.002
Cr	52	1.085	ug/L	12.296	3638	0.011
Cr	53		ug/L		145662	0.109
Mn	55	0.045	ug/L	25.609	930	0.001
Fe	57	2.447	ug/L	37.782	2462	0.001
Co	59	0.012	ug/L	81.752	117	0.000
Ni	60	0.034	ug/L	17.961	111	0.000
Cu	63		ug/L		173	0.000
Cu	65	-0.021	ug/L	67.318	81	-0.000
Zn	66	0.028	ug/L	72.725	58	0.000
Zn	67		ug/L		7097	-0.003
Zn	68		ug/L		569	-0.001
> Ge	74		ug/L		103357	103356.653
As	75	1.299	ug/L	32.656	458	0.003
Se	77		ug/L		7776	0.025
Se	82	0.221	ug/L	107.969	-6	0.000
Kr	83		ug/L		40	-0.000
Sr	88	0.015	ug/L	21.558	182	0.001
Y	89		ug/L		14	0.000
Zr	90	0.146	ug/L	30.954	578	0.005
Mo	98	0.040	ug/L	39.785	76	0.001
Ag	107	0.022	ug/L	58.974	75	0.000
Cd	111	0.005	ug/L	102.729	12	0.000
Cd	114		ug/L		27	0.000
> In	115		ug/L		65157	65157.334
Sn	120	0.112	ug/L	24.133	323	0.003
Sb	121	0.523	ug/L	25.884	829	0.010
Sb	123		ug/L		670	0.008
Ba	135		ug/L		21	0.000
Ba	137	-0.004	ug/L	41.229	25	-0.000
Ho	165		ug/L		4	-0.000
> Lu	175		ug/L		63323	63323.026
Tl	205	0.755	ug/L	19.253	461	0.006
Pb	208	-0.004	ug/L	120.040	338	-0.000
Bi	209		ug/L		9	-0.000
Th	232	0.176	ug/L	28.277	1270	0.015
U	238	0.020	ug/L	8.937	285	0.002

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 03:48:56

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## 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	0.9999
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	0.9999
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
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Ret. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		87.3			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		87.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		86.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		90.3			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 03:48:56

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## Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Thursday, January 14, 2010 11:51:22

#### Sample Description:

Method File: C:\elandata\Method\daily2.mth

Dataset File: c:\elandata\Dataset\090811\Sample.356

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	1250.1	1250.055	27.661	2.2
Mg	24.0	18900.3	18900.295	145.654	0.8
Co	58.9	47612.8	47612.816	381.058	0.8
Rh	102.9	90147.1	90147.139	463.368	0.5
In	114.9	120298.0	120298.011	1009.425	0.8
Pb	208.0	42306.4	42306.353	263.865	0.6
[> Ba	137.9	97823.1	97823.144	541.480	0.6
[ Ba++	69.0	1811.1	0.019	0.001	3.4
[> Ce	139.9	116201.1	116201.083	352.735	0.3
[ CeO	155.9	2803.1	0.024	0.000	1.1
Bkgd	220.0	6.4	6.400	2.702	42.2

### Current Optimization File Data

Current Value	Description
0.86	Nebulizer Gas Flow
9.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	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	8.5	1144.7
Co	59	13	8.8	36254.6
In	115	13	9.5	87651.1

## ICPMS #4 TUNING REPORT

File Name: default2.tun  
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	603	2060	0.684
Be	9.0	9.0	2052	2045	0.748
Mg	24.0	24.0	5687	2075	0.706
Mg	25.0	25.0	5949	2080	0.755
Mg	26.0	25.9	6154	2085	0.706
Co	58.9	58.9	14166	2140	0.711
Rh	102.9	102.9	24865	2230	0.693
In	114.9	114.9	27774	2255	0.708
Ce	139.9	139.9	33851	2310	0.665
Pb	206.0	205.9	49933	2500	0.700
Pb	207.0	207.0	50101	2380	0.613
Pb	208.0	208.0	50448	2570	0.632
U	238.1	238.0	57691	2510	0.647

## ICPMS#4 - Summary Report

Sample ID: Blank  
Sample Date/Time: Thursday, January 14, 2010 21:54:56  
Sample Type:  
Sample Description:  
Number of Replicates: 3  
Batch ID:  
Method File: c:\elandata\Method\be,ni,as,se,tl.mth  
Dataset File: c:\elandata\dataset\100114\Blank.139

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	ug/L		5	
[>	Sc	45	ug/L		242632	
[	Ni	60	ug/L		35	
[>	Ge	74	ug/L		121181	
[	As	75	ug/L		218	
[	Se	77	ug/L		3775	
[	Se	82	ug/L		-6	
[	Kr	83	ug/L		41	
[>	Lu	175	ug/L		70811	
[	Tl	205	ug/L		136	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	

### QC Calculated Values

	Analyte Mass	QC Std	% Recovery	Int Std	% Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9						
[>	Sc	45						
[	Ni	60						
[>	Ge	74						
[	As	75						
[	Se	77						
[	Se	82						
[	Kr	83						
[>	Lu	175						
[	Tl	205						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank  
Report Date/Time: Thursday, January 14, 2010 21:55:37  
Page 1

## ICPMS#4 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, January 14, 2010 21:59:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\Standard 1.140

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	10.000	ug/L	3.695	604	0.002
[> Sc 45		ug/L		240701	240700.628
[ Ni 60	10.000	ug/L	2.277	4538	0.019
[> Ge 74		ug/L		118932	118931.548
[ As 75	10.000	ug/L	11.573	3096	0.024
[ Se 77		ug/L		5018	0.011
[ Se 82	10.000	ug/L	6.737	286	0.002
[ Kr 83		ug/L		41	0.000
[> Lu 175		ug/L		68854	68853.567
[ Tl 205	10.000	ug/L	0.747	12080	0.174

### 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

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
[> Sc 45					
[ Ni 60					
[> Ge 74					
[ As 75					
[ Se 77					
[ Se 82					
[ Kr 83					
[> Lu 175					
[ Tl 205					

### QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Thursday, January 14, 2010 21:59:38

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## ICPMS#4 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, January 14, 2010 22:03:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\Standard 2.141

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	99.966	ug/L	1.784	5893	0.024
[>	Sc 45		ug/L		244506	244506.433
[	Ni 60	99.973	ug/L	1.321	44563	0.182
[>	Ge 74		ug/L		121014	121014.293
	As 75	100.028	ug/L	0.880	30390	0.249
	Se 77		ug/L		7496	0.031
	Se 82	100.029	ug/L	1.126	3053	0.025
[	Kr 83		ug/L		43	0.000
[>	Lu 175		ug/L		69886	69885.895
[	Tl 205	99.978	ug/L	0.626	118809	1.698

### 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

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
[> Sc 45					
[ Ni 60					
[> Ge 74					
As 75					
Se 77					
Se 82					
[ Kr 83					
[> Lu 175					
[ Tl 205					

### 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: Thursday, January 14, 2010 22:03:40

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## ICPMS#4 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Thursday, January 14, 2010 22:07:03

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 1.142

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	51.024	ug/L	1.536	3062	0.012
[>	Sc 45		ug/L		248724	248724.125
[	Ni 60	52.069	ug/L	1.595	23625	0.095
[>	Ge 74		ug/L		123205	123205.242
	As 75	47.813	ug/L	4.546	14907	0.119
	Se 77		ug/L		6615	0.023
	Se 82	49.022	ug/L	2.790	1520	0.012
[	Kr 83		ug/L		45	0.000
[>	Lu 175		ug/L		70724	70724.375
[	Tl 205	48.597	ug/L	1.145	58507	0.825

### 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

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9	102.049				
[>	Sc 45		102.5			
[	Ni 60	104.138				
[>	Ge 74		101.7			
	As 75	95.627				
	Se 77					
	Se 82	98.044				
[	Kr 83					
[>	Lu 175		99.9			
[	Tl 205	97.193				

### 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: Thursday, January 14, 2010 22:07:42

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## ICPMS#4 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, January 14, 2010 22:11:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 2.143

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	-0.004	ug/L	1087.637	5	-0.000
> Sc	45		ug/L		254204	254204.080
[ Ni	60	0.012	ug/L	242.431	43	0.000
[> Ge	74		ug/L		127379	127378.659
As	75	0.009	ug/L	11871.007	231	0.000
Se	77		ug/L		4253	0.002
Se	82	0.103	ug/L	126.785	-3	0.000
[ Kr	83		ug/L		43	0.000
[> Lu	175		ug/L		71935	71934.727
[ Tl	205	0.064	ug/L	9.232	217	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
> Sc	45		104.8			
[ Ni	60					
[> Ge	74		105.1			
As	75					
Se	77					
Se	82					
[ Kr	83					
[> Lu	175		101.6			
[ Tl	205					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Thursday, January 14, 2010 22:11:49

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## ICPMS#4 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Thursday, January 14, 2010 22:15:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 3.144

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	0.516	ug/L	26.225	36	0.000
> Sc	45		ug/L		248404	248404.383
[ Ni	60	2.178	ug/L	5.470	1022	0.004
[> Ge	74		ug/L		124251	124250.964
As	75	5.160	ug/L	33.122	1825	0.013
Se	77		ug/L		5542	0.013
Se	82	5.079	ug/L	3.469	153	0.001
[ Kr	83		ug/L		45	0.000
[> Lu	175		ug/L		69404	69404.220
[ Tl	205	1.037	ug/L	3.805	1356	0.018

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9	103.123				
> Sc	45		102.4			
[ Ni	60	108.915				
[> Ge	74		102.5			
As	75	103.191				
Se	77					
Se	82	101.579				
[ Kr	83					
[> Lu	175		98.0			
[ Tl	205	103.718				

### QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 3

Report Date/Time: Thursday, January 14, 2010 22:15:52

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## ICPMS#4 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, January 14, 2010 22:19:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 4.145

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	0.017	ug/L	116.638	6	0.000
[>	Sc 45		ug/L		242939	242939.010
[	Ni 60	3.303	ug/L	3.595	1497	0.006
[>	Ge 74		ug/L		118785	118785.033
[	As 75	-1.507	ug/L	74.902	-234	-0.004
[	Se 77		ug/L		5859	0.018
[	Se 82	-1.106	ug/L	27.117	-39	-0.000
[	Kr 83		ug/L		90	0.000
[>	Lu 175		ug/L		68617	68617.081
[	Tl 205	-0.034	ug/L	35.911	93	-0.001

### 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

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
[> Sc 45		100.1			
[ Ni 60	122.338				
[> Ge 74		98.0			
[ As 75					
[ Se 77					
[ Se 82					
[ Kr 83					
[> Lu 175		96.9			
[ Tl 205					

### 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 4

Report Date/Time: Thursday, January 14, 2010 22:19:55

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## ICPMS#4 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, January 14, 2010 22:23:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 5.146

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	18.845	ug/L	1.523	1097	0.005
[>	Sc 45		ug/L		240640	240639.654
[	Ni 60	22.347	ug/L	0.841	9831	0.041
[>	Ge 74		ug/L		118984	118983.657
	As 75	20.724	ug/L	6.562	6360	0.052
	Se 77		ug/L		6081	0.020
	Se 82	21.277	ug/L	2.972	634	0.005
[	Kr 83		ug/L		75	0.000
[>	Lu 175		ug/L		68986	68985.521
[	Tl 205	17.452	ug/L	1.840	20583	0.296

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9	94.225				
[>	Sc 45		99.2			
[	Ni 60	98.444				
[>	Ge 74		98.2			
	As 75	103.619				
	Se 77					
	Se 82	106.386				
[	Kr 83					
[>	Lu 175		97.4			
[	Tl 205	87.258				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Thursday, January 14, 2010 22:23:59

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 14, 2010 22:27:24

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 6.147

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	50.334	ug/L	1.303	3028	0.012
Sc	45		ug/L		249355	249354.657
Ni	60	51.632	ug/L	0.934	23487	0.094
Ge	74		ug/L		124395	124395.197
As	75	49.160	ug/L	3.861	15470	0.123
Se	77		ug/L		7370	0.028
Se	82	49.381	ug/L	1.407	1546	0.012
Kr	83		ug/L		49	0.000
Lu	175		ug/L		71384	71383.627
Tl	205	47.862	ug/L	0.946	58165	0.813

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	100.668				
Sc	45		102.8			
Ni	60	103.263				
Ge	74		102.7			
As	75	98.319				
Se	77					
Se	82	98.763				
Kr	83					
Lu	175		100.8			
Tl	205	95.724				

### QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, January 14, 2010 22:28:04

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 14, 2010 22:31:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 7.148

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	0.013	ug/L	197.874	6	0.000
[> Sc	45		ug/L		253946	253945.584
[ Ni	60	0.000	ug/L	21763.972	37	0.000
[> Ge	74		ug/L		129008	129007.929
[ As	75	-0.038	ug/L	3798.624	224	-0.000
[ Se	77		ug/L		4873	0.007
[ Se	82	-0.094	ug/L	264.981	-9	-0.000
[ Kr	83		ug/L		48	0.000
[> Lu	175		ug/L		71668	71668.395
[ Tl	205	0.059	ug/L	23.660	209	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
[> Sc	45			104.7		
[ Ni	60					
[> Ge	74			106.5		
[ As	75					
[ Se	77					
[ Se	82					
[ Kr	83					
[> Lu	175			101.2		
[ Tl	205					

### QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 22:32:10

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## ICPMS#4 - Summary Report

Sample ID: 1202011703

Sample Date/Time: Thursday, January 14, 2010 22:35:37

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 940082|1|skj

Method File: c:\elandata\Method\be,nl,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\1202011703.149

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	-0.029	ug/L	158.634	3	-0.000
[> Sc	45		ug/L		241709	241709.466
[ Ni	60	0.012	ug/L	154.776	40	0.000
[> Ge	74		ug/L		122245	122245.050
[ As	75	0.253	ug/L	971.257	292	0.001
[ Se	77		ug/L		14916	0.091
[ Se	82	-0.316	ug/L	72.981	-16	-0.000
[ Kr	83		ug/L		53	0.000
[> Lu	175		ug/L		66075	66075.120
[ Tl	205	-0.033	ug/L	16.209	90	-0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
[> Sc	45			99.6		
[ Ni	60					
[> Ge	74			100.9		
[ As	75					
[ Se	77					
[ Se	82					
[ Kr	83					
[> Lu	175			93.3		
[ Tl	205					

### QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011703

Report Date/Time: Thursday, January 14, 2010 22:36:18

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## ICPMS#4 - Summary Report

Sample ID: 1202011704

Sample Date/Time: Thursday, January 14, 2010 22:39:45

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 940082|1|skj

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\1202011704.150

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	51.493	ug/L	1.949	3098	0.012
[> Sc	45		ug/L		249348	249348.466
[ Ni	60	50.374	ug/L	0.498	22917	0.092
[> Ge	74		ug/L		124642	124642.308
[ As	75	46.941	ug/L	4.080	14809	0.117
[ Se	77		ug/L		16381	0.100
[ Se	82	51.075	ug/L	1.970	1602	0.013
[ Kr	83		ug/L		46	0.000
[> Lu	175		ug/L		67161	67161.181
[ Tl	205	44.238	ug/L	0.922	50594	0.751

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
[> Sc	45			102.8		
[ Ni	60					
[> Ge	74			102.9		
[ As	75					
[ Se	77					
[ Se	82					
[ Kr	83					
[> Lu	175			94.8		
[ Tl	205					

### QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011704

Report Date/Time: Thursday, January 14, 2010 22:40:27

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 14, 2010 23:00:17

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 6.155

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	50.188	ug/L	1.455	3077	0.012
[>	Sc 45		ug/L		254134	254134.400
[	Ni 60	51.771	ug/L	0.962	24003	0.094
[>	Ge 74		ug/L		126064	126063.704
	As 75	48.264	ug/L	2.097	15393	0.120
	Se 77		ug/L		8244	0.034
	Se 82	49.167	ug/L	2.633	1560	0.012
[	Kr 83		ug/L		51	0.000
[>	Lu 175		ug/L		71241	71240.573
[	Tl 205	46.896	ug/L	0.603	56884	0.797

### 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

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9	100.376				
[>	Sc 45		104.7			
[	Ni 60	103.541				
[>	Ge 74		104.0			
	As 75	96.527				
	Se 77					
	Se 82	98.333				
[	Kr 83					
[>	Lu 175		100.6			
[	Tl 205	93.793				

### 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 6

Report Date/Time: Thursday, January 14, 2010 23:00:57

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 14, 2010 23:04:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 7.156

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	-0.016	ug/L	259.933	4	-0.000
>	Sc 45		ug/L		258627	258626.506
[	Ni 60	0.008	ug/L	259.091	41	0.000
[>	Ge 74		ug/L		129123	129122.901
	As 75	-0.774	ug/L	213.654	-15	-0.002
	Se 77		ug/L		5041	0.008
	Se 82	-0.248	ug/L	46.789	-14	-0.000
[	Kr 83		ug/L		54	0.000
[>	Lu 175		ug/L		72126	72125.679
[	Tl 205	0.161	ug/L	12.832	336	0.003

### 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

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
> Sc 45		106.6			
[ Ni 60					
[> Ge 74		106.6			
As 75					
Se 77					
Se 82					
[ Kr 83					
[> Lu 175		101.9			
[ Tl 205					

### 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: Thursday, January 14, 2010 23:05:04

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## ICPMS#4 - Summary Report

Sample ID: 244145001

Sample Date/Time: Thursday, January 14, 2010 23:12:38

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940082|1|skj

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\244145001.158

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	-0.017	ug/L	154.737	4	-0.000
[>	Sc 45		ug/L		244136	244136.433
[	Ni 60	1.075	ug/L	3.268	513	0.002
[>	Ge 74		ug/L		123403	123402.597
[	As 75	-1.583	ug/L	87.385	-265	-0.004
[	Se 77		ug/L		15904	0.098
[	Se 82	-0.126	ug/L	77.520	-10	-0.000
[	Kr 83		ug/L		45	0.000
[>	Lu 175		ug/L		66620	66619.646
[	Tl 205	-0.016	ug/L	79.412	110	-0.000

### 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

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
[> Sc 45		100.6			
[ Ni 60					
[> Ge 74		101.8			
[ As 75					
[ Se 77					
[ Se 82					
[ Kr 83					
[> Lu 175		94.1			
[ Tl 205					

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 244145001

Report Date/Time: Thursday, January 14, 2010 23:13:20

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 14, 2010 23:29:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 6.162

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	50.414	ug/L	0.921	3075	0.012
>	Sc 45		ug/L		252815	252814.669
[	Ni 60	52.266	ug/L	1.138	24106	0.095
>	Ge 74		ug/L		124644	124644.314
	As 75	46.343	ug/L	3.874	14623	0.116
	Se 77		ug/L		8392	0.036
	Se 82	48.073	ug/L	2.443	1508	0.012
[	Kr 83		ug/L		52	0.000
>	Lu 175		ug/L		69748	69747.552
[	Tl 205	46.209	ug/L	1.017	54875	0.785

### 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

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9	100.828				
> Sc 45		104.2			
[ Ni 60	104.531				
> Ge 74		102.9			
As 75	92.686				
Se 77					
Se 82	96.146				
[ Kr 83					
> Lu 175		98.5			
[ Tl 205	92.418				

### 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 6

Report Date/Time: Thursday, January 14, 2010 23:29:46

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 14, 2010 23:33:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 7.163

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	-0.015	ug/L	102.561	4	-0.000
[>	Sc 45		ug/L		257169	257168.722
[	Ni 60	-0.003	ug/L	382.236	36	-0.000
[>	Ge 74		ug/L		128419	128418.949
[	As 75	-0.362	ug/L	238.696	116	-0.001
[	Se 77		ug/L		5152	0.009
[	Se 82	-0.269	ug/L	18.746	-15	-0.000
[	Kr 83		ug/L		51	0.000
[>	Lu 175		ug/L		72343	72343.464
[	Tl 205	0.223	ug/L	11.218	414	0.004

### 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

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9					
[>	Sc 45		106.0			
[	Ni 60					
[>	Ge 74		106.0			
[	As 75					
[	Se 77					
[	Se 82					
[	Kr 83					
[>	Lu 175		102.2			
[	Tl 205					

### 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: Thursday, January 14, 2010 23:33:53

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 14, 2010 23:57:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 6.169

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	53.664	ug/L	0.494	3068	0.013
[>	Sc 45		ug/L		236968	236967.986
[	Ni 60	50.776	ug/L	2.240	21952	0.092
[>	Ge 74		ug/L		116396	116396.451
[	As 75	47.062	ug/L	1.094	13863	0.117
[	Se 77		ug/L		8252	0.040
[	Se 82	48.056	ug/L	0.947	1408	0.012
[	Kr 83		ug/L		49	0.000
[>	Lu 175		ug/L		66851	66851.410
[	Tl 205	47.315	ug/L	1.461	53858	0.804

### 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

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9	107.328				
[>	Sc 45		97.7			
[	Ni 60	101.551				
[>	Ge 74		96.1			
[	As 75	94.125				
[	Se 77					
[	Se 82	96.111				
[	Kr 83					
[>	Lu 175		94.4			
[	Tl 205	94.630				

### 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 6

Report Date/Time: Thursday, January 14, 2010 23:58:39

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, January 15, 2010 00:02:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 7.170

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	-0.051	ug/L	52.055	2	-0.000
[> Sc	45		ug/L		240156	240155.890
[ Ni	60	0.008	ug/L	138.180	39	0.000
[> Ge	74		ug/L		119567	119567.485
As	75	0.061	ug/L	1182.282	233	0.000
Se	77		ug/L		5371	0.014
Se	82	-0.148	ug/L	175.457	-10	-0.000
[ Kr	83		ug/L		48	0.000
[> Lu	175		ug/L		69741	69740.517
[ Tl	205	0.202	ug/L	4.221	374	0.003

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9					
[> Sc	45		99.0			
[ Ni	60					
[> Ge	74		98.7			
As	75					
Se	77					
Se	82					
[ Kr	83					
[> Lu	175		98.5			
[ Tl	205					

### 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: Friday, January 15, 2010 00:02:46

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## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, January 15, 2010 00:22:41

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 6.175

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	53.657	ug/L	2.292	2982	0.013
[> Sc	45		ug/L		230325	230325.333
[ Ni	60	51.188	ug/L	1.124	21510	0.093
[> Ge	74		ug/L		112737	112736.545
[ As	75	48.333	ug/L	1.076	13785	0.120
[ Se	77		ug/L		8144	0.041
[ Se	82	48.963	ug/L	2.647	1389	0.012
[ Kr	83		ug/L		49	0.000
[> Lu	175		ug/L		67021	67020.539
[ Tl	205	47.726	ug/L	1.387	54451	0.811

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9	107.314				
[> Sc	45		94.9			
[ Ni	60	102.377				
[> Ge	74		93.0			
[ As	75	96.666				
[ Se	77					
[ Se	82	97.927				
[ Kr	83					
[> Lu	175		94.6			
[ Tl	205	95.452				

### 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: Friday, January 15, 2010 00:23:21

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, January 15, 2010 00:26:47

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 7.176

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	0.009	ug/L	593.721	5	0.000
[>	Sc 45		ug/L		233348	233348.047
[	Ni 60	0.006	ug/L	105.914	36	0.000
[>	Ge 74		ug/L		117105	117104.914
	As 75	-0.385	ug/L	61.629	98	-0.001
	Se 77		ug/L		5240	0.014
	Se 82	-0.162	ug/L	242.452	-11	-0.000
[	Kr 83		ug/L		41	0.000
[>	Lu 175		ug/L		67954	67953.590
[	Tl 205	0.150	ug/L	10.522	304	0.003

### 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

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
[> Sc 45		96.2			
[ Ni 60					
[> Ge 74		96.6			
As 75					
Se 77					
Se 82					
[ Kr 83					
[> Lu 175		96.0			
[ Tl 205					

### 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: Friday, January 15, 2010 00:27:28

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## ICPMS#4 - Summary Report

Sample ID: 1202011705

Sample Date/Time: Friday, January 15, 2010 00:35:04

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 940082|1|skj

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\1202011705.178

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	0.127	ug/L	39.290	11	0.000
[>	Sc 45		ug/L		220722	220721.932
[	Ni 60	0.552	ug/L	3.495	254	0.001
[>	Ge 74		ug/L		106933	106933.122
[	As 75	0.682	ug/L	190.954	374	0.002
[	Se 77		ug/L		15967	0.118
[	Se 82	-0.101	ug/L	300.532	-8	-0.000
[	Kr 83		ug/L		44	0.000
[>	Lu 175		ug/L		61393	61392.581
[	Tl 205	0.018	ug/L	87.450	137	0.000

### 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

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
[> Sc 45		91.0			
[ Ni 60					
[> Ge 74		88.2			
[ As 75					
[ Se 77					
[ Se 82					
[ Kr 83					
[> Lu 175		86.7			
[ Tl 205					

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011705

Report Date/Time: Friday, January 15, 2010 00:35:47

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## ICPMS#4 - Summary Report

Sample ID: 1202011706

Sample Date/Time: Friday, January 15, 2010 00:39:14

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 940082|1|skj

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\1202011706.179

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	55.958	ug/L	2.083	2965	0.013
Sc	45		ug/L		219646	219645.972
Ni	60	48.991	ug/L	0.888	19632	0.089
Ge	74		ug/L		105343	105342.688
As	75	80.107	ug/L	1.624	21224	0.200
Se	77		ug/L		14951	0.111
Se	82	19.538	ug/L	4.880	515	0.005
Kr	83		ug/L		56	0.000
Lu	175		ug/L		61616	61615.540
Tl	205	83.171	ug/L	1.859	87160	1.413

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45			90.5		
Ni	60					
Ge	74			86.9		
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175			87.0		
Tl	205					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011706

Report Date/Time: Friday, January 15, 2010 00:39:57

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## ICPMS#4 - Summary Report

Sample ID: 1202011707

Sample Date/Time: Friday, January 15, 2010 00:43:23

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 94008211skj 5 EAQ 1/25/10

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\1202011707.180

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	0.041	ug/L	98.580	6	0.000
>	Sc 45		ug/L		217747	217746.517
[	Ni 60	0.113	ug/L	1.934	77	0.000
>	Ge 74		ug/L		108702	108702.100
	As 75	-0.583	ug/L	168.389	36	-0.001
	Se 77		ug/L		6922	0.033
	Se 82	-0.020	ug/L	680.092	-6	-0.000
[	Kr 83		ug/L		34	-0.000
>	Lu 175		ug/L		67579	67578.815
[	Tl 205	1.126	ug/L	2.402	1423	0.019

### 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

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be 9					
>	Sc 45		89.7			
[	Ni 60					
>	Ge 74		89.7			
	As 75					
	Se 77					
	Se 82					
[	Kr 83					
>	Lu 175		95.4			
[	Tl 205					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011707

Report Date/Time: Friday, January 15, 2010 00:44:04

## ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, January 15, 2010 00:51:37

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 6.182

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	53.199	ug/L	2.819	2814	0.013
[> Sc	45		ug/L		219273	219273.368
[ Ni	60	51.377	ug/L	1.485	20551	0.094
[> Ge	74		ug/L		108100	108100.202
As	75	47.697	ug/L	1.625	13046	0.119
Se	77		ug/L		6719	0.031
Se	82	49.717	ug/L	2.448	1353	0.013
[ Kr	83		ug/L		42	0.000
[> Lu	175		ug/L		67112	67111.628
[ Tl	205	48.137	ug/L	1.067	54996	0.818

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9	106.398				
[> Sc	45		90.4			
[ Ni	60	102.753				
[> Ge	74		89.2			
As	75	95.393				
Se	77					
Se	82	99.434				
[ Kr	83					
[> Lu	175		94.8			
[ Tl	205	96.273				

### 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: Friday, January 15, 2010 00:52:17

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## ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, January 15, 2010 00:55:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be,ni,as,se,tl.mth

Dataset File: c:\elandata\dataset\100114\QC Std 7.183

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	-0.011	ug/L	385.995	4	-0.000
[> Sc 45		ug/L		220756	220755.603
[ Ni 60	0.012	ug/L	180.158	37	0.000
[> Ge 74		ug/L		110434	110433.979
[ As 75	-0.175	ug/L	394.468	150	-0.000
[ Se 77		ug/L		4374	0.008
[ Se 82	-0.032	ug/L	791.144	-6	-0.000
[ Kr 83		ug/L		43	0.000
[> Lu 175		ug/L		67009	67009.478
[ Tl 205	0.291	ug/L	2.832	461	0.005

### 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

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
[> Sc 45		91.0			
[ Ni 60					
[> Ge 74		91.1			
[ As 75					
[ Se 77					
[ Se 82					
[ Kr 83					
[> Lu 175		94.6			
[ Tl 205					

### 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: Friday, January 15, 2010 00:56:24

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## ICPMS #5 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Thursday, January 21, 2010 09:41:58

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default2\Sample.1718

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		1601.7		1601.690		53.319		3.3
Mg	24.0		24720.2		24720.171		248.944		1.0
Co	58.9		67841.5		67841.517		645.780		1.0
Rh	102.9		121539.2		121539.231		542.480		0.4
In	114.9		179498.9		179498.858		386.714		0.2
Pb	208.0		196661.1		196661.051		1475.462		0.8
[> Ba	137.9		170816.9		170816.910		695.460		0.4
[ Ba++	69.0		2258.3		0.013		0.000		1.5
[> Ce	139.9		209506.3		209506.283		745.756		0.4
[ CeO	155.9		4420.2		0.021		0.000		1.1
Bkgd	220.0		14.0		14.000		2.622		18.7

### Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-1718.75	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

### Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	8.5	3991.2
Co	59	21	9.8	64642.3
In	115	21	11.5	167168.1

## ICPMS #5 Instrument Tuning Report

File Name: default2.tun  
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	583	2050	0.637
Be	9.0	9.0	2043	2070	0.611
Mg	24.0	24.0	5697	2070	0.617
Mg	25.0	25.0	5937	2070	0.609
Mg	26.0	26.0	6184	2070	0.624
Co	58.9	58.9	14190	2105	0.603
Rh	102.9	102.9	24873	2165	0.598
In	114.9	114.9	27799	2185	0.596
Ce	139.9	139.9	33871	2200	0.614
Pb	206.0	206.0	49948	2270	0.653
Pb	207.0	207.0	50159	2235	0.651
Pb	208.0	208.0	50451	2260	0.695
U	238.1	238.0	57724	2275	0.694

## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, January 21, 2010 16:05:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\Blank.070

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9		ug/L			13
45		ug/L			1329035	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[ Be	9					
45						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Thursday, January 21, 2010 16:05:19

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## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, January 21, 2010 16:06:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\Standard 1.071

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	10.000	ug/L	0.899	3515	0.003
Sc	45		ug/L		1259526	1259526.444

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Thursday, January 21, 2010 16:06:55

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## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, January 21, 2010 16:08:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\Standard 2.072

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	99.986	ug/L	0.657	34425	0.027
Sc	45		ug/L		1255255	1255254.771

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Thursday, January 21, 2010 16:10:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 1.073

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	51.482	ug/L	2.477	17811	0.014
>	Sc	45		ug/L		1261163	1261163.489

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution %	Duplicate Rel. % Difference
[	Be	9	102.963				
>	Sc	45		94.9			

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 1

Report Date/Time: Thursday, January 21, 2010 16:10:10

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## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, January 21, 2010 16:11:40

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 2.074

### Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.016		ug/L	81.887	19	0.000
>	Sc	45			ug/L		1349921	1349920.828

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		101.6			

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

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Sample ID: QC Std 2

Report Date/Time: Thursday, January 21, 2010 16:11:52

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## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Thursday, January 21, 2010 16:13:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 3.075

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.513	ug/L	3.843	190	0.000
Sc	45		ug/L		1259817	1259816.615	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

### QC Calculated Values

	Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recov	Dilution	% Dil	Duplicate	Rel. % Difference
[	Be	9		102.508								
Sc	45				94.8							

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 3

Report Date/Time: Thursday, January 21, 2010 16:13:30

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## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, January 21, 2010 16:14:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 4.076

### Concentration Results

Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.051	ug/L	35.738	28	0.000	
Sc	45		ug/L		1180354	1180353.753	

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
Sc	45		88.8			

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Thursday, January 21, 2010 16:15:09

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## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, January 21, 2010 16:16:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 5.077

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	19.575	ug/L	1.518	6486	0.005
Sc	45		ug/L		1206162	1206162.221

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9	97.873				
Sc	45		90.8			

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Thursday, January 21, 2010 16:16:49

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## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 21, 2010 16:18:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 6.078

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.209	ug/L	1.513	17826	0.014
Sc	45		ug/L		1268741	1268740.637

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9	102.419				
Sc	45		95.5			

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 21, 2010 16:19:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 7.079

### Concentration Results

Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.012	ug/L		133.470	18	0.000
Sc	45		ug/L			1333049	1333048.865

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		100.3			

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 21, 2010 16:20:11

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## ICPMS#5 - Summary Report

Sample ID: 1202011703

Sample Date/Time: Thursday, January 21, 2010 16:21:40

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 940082|1|baj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\1202011703.080

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.001	ug/L	189.083	13	0.000
Sc	45		ug/L		1247422	1247422.189

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		93.9			

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202011704

Sample Date/Time: Thursday, January 21, 2010 16:23:20

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 940082|1|baj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\1202011704.081

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	55.135	ug/L	2.495	19282	0.015
Sc	45		ug/L		1274913	1274913.357

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		95.9			

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 244145001

Sample Date/Time: Thursday, January 21, 2010 16:33:35

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 940082|1|baj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\244145001.087

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.008	ug/L	153.950	15	0.000
Sc	45		ug/L		1260862	1260862.040

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		94.9			

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 21, 2010 16:35:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 6.088

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.384	ug/L	1.662	17894	0.014
Sc	45		ug/L		1269459	1269458.745

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9	102.768				
Sc	45		95.5			

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 21, 2010 16:36:56

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 7.089

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.017	ug/L	68.991	20	0.000
Sc	45		ug/L		1365106	1365105.805

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		102.7			

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 21, 2010 16:53:44

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 6.097

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.311	ug/L	0.804	17928	0.014
Sc	45		ug/L		1273422	1273422.437

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9	102.622				
Sc	45		95.8			

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, January 21, 2010 16:53:55

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 21, 2010 16:55:25

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 7.098

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.018	ug/L	52.479	20	0.000
Sc	45		ug/L		1345791	1345791.027

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
Sc	45		101.3			

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202011705

Sample Date/Time: Thursday, January 21, 2010 17:04:47

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 940082|1|baj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\1202011705.100

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.110	ug/L	17.881	50	0.000
Sc	45		ug/L		1251736	1251735.943

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		94.2			

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202011705

Report Date/Time: Thursday, January 21, 2010 17:05:00

Page 1



## ICPMS#5 - Summary Report

Sample ID: 1202011706

Sample Date/Time: Thursday, January 21, 2010 17:06:32

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 940082|1|baj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\1202011706.101

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	55.184	ug/L	1.617	19062	0.015
Sc	45		ug/L		1259050	1259050.144

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		94.7			

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202011707

Sample Date/Time: Thursday, January 21, 2010 17:08:17

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 940082|5|baj

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\1202011707.102

### Concentration Results

Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.027		ug/L	97.666	21	0.000
Sc	45			ug/L		1212258	1212258.477

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		91.2			

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, January 21, 2010 17:10:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 6.103

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	53.971	ug/L	1.571	17533	0.015
Sc	45		ug/L		1184102	1184102.141

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9	107.942				
Sc	45		89.1			

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, January 21, 2010 17:10:11

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, January 21, 2010 17:11:41

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be only.mth

Dataset File: C:\elandata\Dataset\100121\QC Std 7.104

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.013	ug/L	38.420	17	0.000
Sc	45		ug/L		1240107	1240106.621

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Duplicate Rel. % Difference
Be	9					
Sc	45		93.3			

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### 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: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\011410W1.SIF

Batch ID:

Results Data Set: 011410W1

Results Library: C:\data-AA\Administrator\Results\Results.mdb

=====  
Sequence No.: 1

Sample ID: Calib Blank

Analyst:

Autosampler Location: 1

Date Collected: 1/14/2010 09:33:43

Data Type: Original

-----  
Replicate Data: Calib Blank

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1		[0.00]	0.0003	0.0004	0.0003	09:34:44	Yes
2		[0.00]	0.0002	-0.0003	0.0002	09:35:18	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	10.68				

Auto-zero performed.

=====  
Sequence No.: 2

Sample ID: S0.2

Analyst:

Autosampler Location: 2

Date Collected: 1/14/2010 09:35:37

Data Type: Original

-----  
Replicate Data: S0.2

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1		[0.2]	0.0018	0.0084	0.0020	09:36:38	Yes
2		[0.2]	0.0018	0.0082	0.0020	09:37:12	Yes
Mean:		[0.2]	0.0018				
SD:		0.0	0.0000				
%RSD:		0.0	0.45				

Standard number 1 applied. [0.2]  
Correlation Coef.: 1.000000 Slope: 0.00894 Intercept: 0.00000

=====  
Sequence No.: 3

Sample ID: S0.5

Analyst:

Autosampler Location: 3

Date Collected: 1/14/2010 09:37:32

Data Type: Original

-----  
Replicate Data: S0.5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1		[0.5]	0.0047	0.0212	0.0050	09:38:33	Yes
2		[0.5]	0.0047	0.0215	0.0050	09:39:07	Yes
Mean:		[0.5]	0.0047				
SD:		0.0	0.0000				
%RSD:		0.0	0.12				

Standard number 2 applied. [0.5]  
Correlation Coef.: 0.999697 Slope: 0.00948 Intercept: -0.00004

=====  
Sequence No.: 4

Sample ID: S2.0

Analyst:

Autosampler Location: 4

Date Collected: 1/14/2010 09:39:27

Data Type: Original

-----  
Replicate Data: S2.0

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored

1	[2.0]	0.0199	0.0890	0.0202	09:40:28	Yes
2	[2.0]	0.0198	0.0880	0.0201	09:41:03	Yes
Mean:	[2.0]	0.0199				
SD:	0.0	0.0001				
%RSD:	0.0	0.50				
Standard number 3 applied. [2.0]						
Correlation Coef.: 0.999915 Slope: 0.00999 Intercept: -0.00015						

Sequence No.: 5	Autosampler Location: 5
Sample ID: S5.0	Date Collected: 1/14/2010 09:41:23
Analyst:	Data Type: Original

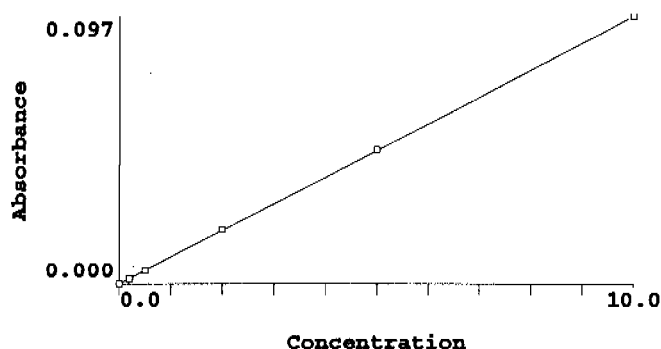
## Replicate Data: S5.0

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0490	0.2185	0.0493	09:42:25	Yes
2		[5.0]	0.0487	0.2166	0.0490	09:43:00	Yes
Mean:		[5.0]	0.0489				
SD:		0.0	0.0002				
%RSD:		0.0	0.45				
Standard number 4 applied. [5.0]							
Correlation Coef.: 0.999958 Slope: 0.00981 Intercept: -0.00005							

Sequence No.: 6	Autosampler Location: 6
Sample ID: S10.0	Date Collected: 1/14/2010 09:43:20
Analyst:	Data Type: Original

## Replicate Data: S10.0

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0976	0.4372	0.0978	09:44:20	Yes
2		[10.0]	0.0971	0.4351	0.0973	09:44:55	Yes
Mean:		[10.0]	0.0974				
SD:		0.0	0.0004				
%RSD:		0.0	0.37				
Standard number 5 applied. [10.0]							
Correlation Coef.: 0.999985 Slope: 0.00975 Intercept: 0.00002							



## 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	-0.002	0.00	10.7
S0.2	0.0018	0.2	0.181	0.00	0.5
S0.5	0.0047	0.5	0.483	0.00	0.1
S2.0	0.0199	2.0	2.037	0.00	0.5
S5.0	0.0489	5.0	5.014	0.00	0.4
S10.0	0.0974	10.0	9.987	0.00	0.4
Correlation Coef.: 0.999985 Slope: 0.00975 Intercept: 0.00002					

Sequence No.: 7  
Sample ID: ICV  
Analyst:

Autosampler Location: 9  
Date Collected: 1/14/2010 09:45:14  
Data Type: Original

-----  
Replicate Data: ICV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.072	5.072	0.0494	0.2217	0.0497	09:46:16	Yes
2	5.038	5.038	0.0491	0.2188	0.0494	09:46:51	Yes
Mean:	5.055	5.055	0.0493				
SD:	0.024	0.024	0.0002				
%RSD:	0.474	0.474	0.47				

QC value within limits for Hg 253.7 Recovery = 101.09%  
All analyte(s) passed QC.

Sequence No.: 8  
Sample ID: ICB  
Analyst:

Autosampler Location: 10  
Date Collected: 1/14/2010 09:47:10  
Data Type: Original

-----  
Replicate Data: ICB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.013	-0.013	-0.0001	0.0001	0.0001	09:48:11	Yes
2	-0.014	-0.014	-0.0001	-0.0001	0.0001	09:48:46	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.223	4.223	5.02				

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: 1/14/2010 09:49:06  
Data Type: Original

-----  
Replicate Data: CRDL

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.235	0.235	0.0023	0.0106	0.0026	09:50:08	Yes
2	0.240	0.240	0.0024	0.0112	0.0026	09:50:43	Yes
Mean:	0.238	0.238	0.0023				
SD:	0.003	0.003	0.0000				
%RSD:	1.315	1.315	1.30				

QC value within limits for Hg 253.7 Recovery = 118.80%  
All analyte(s) passed QC.

Sequence No.: 10  
Sample ID: CCV  
Analyst:

Autosampler Location: 7  
Date Collected: 1/14/2010 09:51:03  
Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.056	5.056	0.0493	0.2207	0.0495	09:52:03	Yes
2	5.071	5.071	0.0494	0.2190	0.0497	09:52:38	Yes
Mean:	5.063	5.063	0.0494				
SD:	0.011	0.011	0.0001				
%RSD:	0.211	0.211	0.21				

QC value within limits for Hg 253.7 Recovery = 101.27%  
All analyte(s) passed QC.

Sequence No.: 11  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 1/14/2010 09:52:57  
Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.017	-0.017	-0.0001	-0.0001	0.0001	09:53:58	Yes
2	-0.016	-0.016	-0.0001	0.0002	0.0001	09:54:33	Yes
Mean:	-0.016	-0.016	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.963	4.963	5.70				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

## =====

Sequence No.: 12  
Sample ID: 1202014282|941137|1  
Analyst: JXL

Autosampler Location: 12  
Date Collected: 1/14/2010 09:54:52  
Data Type: Original

-----  
Replicate Data: 1202014282|941137|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.039	0.039	0.0004	0.0030	0.0006	09:55:54	Yes
2	0.039	0.039	0.0004	0.0030	0.0006	09:56:28	Yes
Mean:	0.039	0.039	0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	0.047	0.047	0.04				

## =====

Sequence No.: 13  
Sample ID: 1202014283|941137|1  
Analyst: JXL

Autosampler Location: 13  
Date Collected: 1/14/2010 09:56:49  
Data Type: Original

-----  
Replicate Data: 1202014283|941137|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.099	2.099	0.0205	0.0938	0.0207	09:57:50	Yes
2	2.114	2.114	0.0206	0.0939	0.0209	09:58:26	Yes
Mean:	2.106	2.106	0.0205				
SD:	0.011	0.011	0.0001				
%RSD:	0.506	0.506	0.51				

## =====

Sequence No.: 14  
Sample ID: 244537001|941137|1  
Analyst: JXL

Autosampler Location: 14  
Date Collected: 1/14/2010 09:58:46  
Data Type: Original

-----  
Replicate Data: 244537001|941137|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.025	0.025	0.0003	0.0034	0.0005	09:59:47	Yes
2	0.015	0.015	0.0002	0.0023	0.0004	10:00:22	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.007	0.007	0.0001				
%RSD:	35.59	35.59	32.24				

## =====

Sequence No.: 15  
Sample ID: 1202014284|941137|1  
Analyst: JXL

Autosampler Location: 15  
Date Collected: 1/14/2010 10:00:41  
Data Type: Original

-----  
Replicate Data: 1202014284|941137|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.034	0.034	0.0003	0.0021	0.0006	10:01:41	Yes
2	0.037	0.037	0.0004	0.0022	0.0006	10:02:16	Yes
Mean:	0.035	0.035	0.0004				
SD:	0.003	0.003	0.0000				



1	0.065	0.065	0.0007	0.0036	0.0009	10:11:14	Yes
2	0.074	0.074	0.0007	0.0046	0.0010	10:11:49	Yes
Mean:	0.069	0.069	0.0007				
SD:	0.007	0.007	0.0001				
%RSD:	9.399	9.399	9.12				

Sequence No.: 21

Autosampler Location: 21

Sample ID: 1202014320|941153|1

Date Collected: 1/14/2010 10:12:08

Analyst: JXL

Data Type: Original

Replicate Data: 1202014320|941153|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.207	0.207	0.0020	0.0102	0.0023	10:13:09	Yes
2	0.211	0.211	0.0021	0.0108	0.0023	10:13:44	Yes
Mean:	0.209	0.209	0.0021				
SD:	0.003	0.003	0.0000				
%RSD:	1.512	1.512	1.50				

Sequence No.: 22

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/14/2010 10:14:04

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.209	5.209	0.0508	0.2254	0.0510	10:15:04	Yes
2	5.235	5.235	0.0510	0.2262	0.0513	10:15:39	Yes
Mean:	5.222	5.222	0.0509				
SD:	0.018	0.018	0.0002				
%RSD:	0.347	0.347	0.35				

QC value within limits for Hg 253.7 Recovery = 104.44%  
All analyte(s) passed QC.

Sequence No.: 23

Autosampler Location: 8

Sample ID: CCB

Date Collected: 1/14/2010 10:15:58

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	-0.0001	-0.0006	0.0001	10:16:59	Yes
2	-0.008	-0.008	-0.0001	0.0000	0.0002	10:17:33	Yes
Mean:	-0.010	-0.010	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	31.63	31.63	39.93				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 24

Autosampler Location: 22

Sample ID: 1202014321|941153|1

Date Collected: 1/14/2010 10:17:53

Analyst: JXL

Data Type: Original

Replicate Data: 1202014321|941153|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.151	2.151	0.0210	0.0932	0.0212	10:18:54	Yes
2	2.138	2.138	0.0209	0.0928	0.0211	10:19:29	Yes
Mean:	2.144	2.144	0.0209				
SD:	0.009	0.009	0.0001				
%RSD:	0.430	0.430	0.43				

Sequence No.: 25  
Sample ID: 1202014322|941153|5  
Analyst: JXL

Autosampler Location: 23  
Date Collected: 1/14/2010 10:19:49  
Data Type: Original

-----  
Replicate Data: 1202014322|941153|5

Repl	SampleConc	StdndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.009	0.009	0.0001	0.0011	0.0003	10:20:50	Yes
2	0.011	0.011	0.0001	0.0010	0.0004	10:21:25	Yes
Mean:	0.010	0.010	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	15.76	15.76	12.96				

=====

Sequence No.: 26  
Sample ID: 1202014309|941150|1  
Analyst: JXL

Autosampler Location: 24  
Date Collected: 1/14/2010 10:21:45  
Data Type: Original

-----  
Replicate Data: 1202014309|941150|1

Repl	SampleConc	StdndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.008	0.008	0.0001	0.0014	0.0003	10:22:47	Yes
2	0.007	0.007	0.0001	0.0010	0.0003	10:23:22	Yes
Mean:	0.008	0.008	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	8.425	8.425	6.66				

-----

Sequence No.: 27  
Sample ID: 1202014310|941150|1  
Analyst: JXL

Autosampler Location: 25  
Date Collected: 1/14/2010 10:23:42  
Data Type: Original

-----  
Replicate Data: 1202014310|941150|1

Repl	SampleConc	StdndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.153	2.153	0.0210	0.0942	0.0212	10:24:44	Yes
2	2.140	2.140	0.0209	0.0927	0.0211	10:25:18	Yes
Mean:	2.146	2.146	0.0209				
SD:	0.009	0.009	0.0001				
%RSD:	0.436	0.436	0.44				

-----

Sequence No.: 28  
Sample ID: 244141001|941150|1  
Analyst: JXL

Autosampler Location: 26  
Date Collected: 1/14/2010 10:25:39  
Data Type: Original

-----  
Replicate Data: 244141001|941150|1

Repl	SampleConc	StdndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.070	0.070	0.0007	0.0042	0.0009	10:26:39	Yes
2	0.070	0.070	0.0007	0.0041	0.0009	10:27:14	Yes
Mean:	0.070	0.070	0.0007				
SD:	0.000	0.000	0.0000				
%RSD:	0.039	0.039	0.04				

-----

Sequence No.: 29  
Sample ID: 244141002|941150|1  
Analyst: JXL

Autosampler Location: 27  
Date Collected: 1/14/2010 10:27:34  
Data Type: Original

-----  
Replicate Data: 244141002|941150|1

Repl	SampleConc	StdndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.010	-0.010	-0.0001	-0.0001	0.0002	10:28:34	Yes
2	-0.005	-0.005	-0.0000	0.0006	0.0002	10:29:10	Yes
Mean:	-0.007	-0.007	-0.0001				

SD: 0.004 0.004 0.0000  
%RSD: 51.69 51.69 72.52

Sequence No.: 30  
Sample ID: 244145001|941150|1  
Analyst: JXL

Autosampler Location: 28  
Date Collected: 1/14/2010 10:29:29  
Data Type: Original

## Replicate Data: 244145001|941150|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.006	-0.006	-0.0000	0.0006	0.0002	10:30:30	Yes
2	0.002	0.002	0.0000	0.0010	0.0003	10:31:04	Yes
Mean:	-0.002	-0.002	0.0000				
SD:	0.006	0.006	0.0001				
%RSD:	344.1	344.1	>999.9%				

Sequence No.: 31  
Sample ID: 244226001|941150|1  
Analyst: JXL

Autosampler Location: 29  
Date Collected: 1/14/2010 10:31:23  
Data Type: Original

## Replicate Data: 244226001|941150|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.003	0.003	0.0000	0.0006	0.0003	10:32:24	Yes
2	0.007	0.007	0.0001	0.0014	0.0003	10:32:59	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	59.95	59.95	41.40				

Sequence No.: 32  
Sample ID: 1202014311|941150|1  
Analyst: JXL

Autosampler Location: 30  
Date Collected: 1/14/2010 10:33:18  
Data Type: Original

## Replicate Data: 1202014311|941150|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.001	0.001	0.0000	0.0010	0.0003	10:34:19	Yes
2	-0.006	-0.006	-0.0000	0.0000	0.0002	10:34:54	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	222.7	222.7	>999.9%				

Sequence No.: 33  
Sample ID: 1202014312|941150|1  
Analyst: JXL

Autosampler Location: 31  
Date Collected: 1/14/2010 10:35:13  
Data Type: Original

## Replicate Data: 1202014312|941150|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.140	2.140	0.0209	0.0938	0.0211	10:36:14	Yes
2	2.134	2.134	0.0208	0.0938	0.0211	10:36:48	Yes
Mean:	2.137	2.137	0.0208				
SD:	0.004	0.004	0.0000				
%RSD:	0.195	0.195	0.19				

Sequence No.: 34  
Sample ID: CCV  
Analyst:

Autosampler Location: 7  
Date Collected: 1/14/2010 10:37:08  
Data Type: Original

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.303	5.303	0.0517	0.2315	0.0520	10:38:08	Yes
2	5.305	5.305	0.0517	0.2305	0.0520	10:38:43	Yes
Mean:	5.304	5.304	0.0517				
SD:	0.001	0.001	0.0000				
%RSD:	0.019	0.019	0.02				

QC value within limits for Hg 253.7 Recovery = 106.08%  
All analyte(s) passed QC.

Sequence No.: 35

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 1/14/2010 10:39:02

Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.005	0.005	0.0001	0.0011	0.0003	10:40:03	Yes
2	-0.001	-0.001	0.0000	0.0007	0.0003	10:40:38	Yes
Mean:	0.002	0.002	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	178.9	178.9	95.51				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 36

Sample ID: 1202014313|941150|5

Analyst: JXL

Autosampler Location: 32

Date Collected: 1/14/2010 10:40:57

Data Type: Original

## Replicate Data: 1202014313|941150|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.004	-0.004	-0.0000	0.0001	0.0002	10:41:58	Yes
2	0.003	0.003	0.0000	0.0013	0.0003	10:42:33	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.005	0.005	0.0000				
%RSD:	622.2	622.2	385.25				

Sequence No.: 37

Sample ID: 244226002|941150|1

Analyst: JXL

Autosampler Location: 33

Date Collected: 1/14/2010 10:42:53

Data Type: Original

## Replicate Data: 244226002|941150|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.002	-0.002	0.0000	0.0005	0.0002	10:43:54	Yes
2	-0.002	-0.002	0.0000	0.0008	0.0002	10:44:29	Yes
Mean:	-0.002	-0.002	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	3.167	3.167	50.78				

Sequence No.: 38

Sample ID: 1202014327|941158|1

Analyst: JXL

Autosampler Location: 34

Date Collected: 1/14/2010 10:44:48

Data Type: Original

## Replicate Data: 1202014327|941158|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.012	-0.012	-0.0001	-0.0007	0.0001	10:45:50	Yes
2	-0.001	-0.001	0.0000	0.0010	0.0003	10:46:25	Yes
Mean:	-0.007	-0.007	-0.0000				
SD:	0.008	0.008	0.0001				
%RSD:	119.2	119.2	174.12				

Mean: 0.044 0.044 0.0004  
SD: 0.008 0.008 0.0001  
%RSD: 17.68 17.68 16.88

Sequence No.: 44

Sample ID: 1202014329|941158|1

Analyst: JXL

Autosampler Location: 40

Date Collected: 1/14/2010 10:56:26

Data Type: Original

Replicate Data: 1202014329|941158|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.043	0.043	0.0004	0.0025	0.0007	10:57:27	Yes
2	0.043	0.043	0.0004	0.0023	0.0007	10:58:02	Yes
Mean:	0.043	0.043	0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	0.029	0.029	0.03				

Sequence No.: 45

Sample ID: 1202014330|941158|1

Analyst: JXL

Autosampler Location: 41

Date Collected: 1/14/2010 10:58:22

Data Type: Original

Replicate Data: 1202014330|941158|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.172	2.172	0.0212	0.0961	0.0214	10:59:23	Yes
2	2.181	2.181	0.0213	0.0956	0.0215	10:59:58	Yes
Mean:	2.176	2.176	0.0212				
SD:	0.006	0.006	0.0001				
%RSD:	0.295	0.295	0.30				

Sequence No.: 46

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 1/14/2010 11:00:17

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.041	5.041	0.0492	0.2212	0.0494	11:01:18	Yes
2	5.066	5.066	0.0494	0.2207	0.0496	11:01:52	Yes
Mean:	5.053	5.053	0.0493				
SD:	0.017	0.017	0.0002				
%RSD:	0.338	0.338	0.34				

QC value within limits for Hg 253.7 Recovery = 101.07%  
All analyte(s) passed QC.

Sequence No.: 47

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 1/14/2010 11:02:11

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	-0.0001	0.0001	0.0002	11:03:12	Yes
2	-0.006	-0.006	-0.0000	-0.0004	0.0002	11:03:47	Yes
Mean:	-0.007	-0.007	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	9.310	9.310	13.32				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 48

Sample ID: 1202014334|941158|5

Autosampler Location: 42

Date Collected: 1/14/2010 11:04:06

# Miscellaneous

# Prep LogBook

Analyst: FGA  
 Batch: 940079  
 Lab SOP: GL-MA-E-006 REV# 9

Verified by: \_\_\_\_\_

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202011704	U11246651-A	.5	mL
LCS	1202011704	U11246654-B	.5	mL
MS	1202011706	U1090828-A	.5	mL
MS	1202011706	U1090828-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202011703		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER
LCS	1202011704		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	244129001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244129002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244129003		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244141001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244141002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244145001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244208001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244208002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244213001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244217001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244217002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244226001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244226002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER
SAMPLE	244236001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	244236002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	244236003		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	244236004		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	244236005		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	244240001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER
DUP	1202011705	244240001	SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER
MS	1202011706	244240001	SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER
SDILT	1202011707	244240001	SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	244240002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER

Comments:

Reagent/Solvent Lot ID	Amount	Description
1252838	2.5 mL	HYDROCHLORIC ACID
1252836	1 mL	Nitric Acid CONC.

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GEL Laboratories LLC

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# Prep LogBook

Analyst: FGA  
Batch: 940083  
Lab SOP: GL-MA-E-006 REV# 9

Verified by: \_\_\_\_\_

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix	Spike Amount	Spike Units
MB	1202011708		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
LCS	1202011709		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244129001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244129002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244129003		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244141001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244141002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244145001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
DUP	1202011710	244145001	SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
MS	1202011711	244145001	SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SDILT	1202011712	244145001	SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244208001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244208002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244213001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244217001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244217002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244226001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244226002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	WATER	.25	mL
SAMPLE	244236001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER	.25	mL
SAMPLE	244236002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER	.25	mL
SAMPLE	244236003		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER	.25	mL
SAMPLE	244236004		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER	.25	mL
SAMPLE	244236005		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER	.25	mL
SAMPLE	244240001		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER	.25	mL
SAMPLE	244240002		SW846 3005A	11-JAN-2010 13:00	<2	50 mL	50 mL	1	GROUND WATER	.25	mL

Comments:

Reagent/Solvent Lot ID Amount Description  
1252838 2.5 mL HYDROCHLORIC ACID  
1252836 1 mL Nitric Acid CONC.

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GEL Laboratories LLC

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# Prep LogBook

Analyst: TXB3  
 Batch: 941148  
 Lab SOP: GL-MA-E-010 REV# 23

Verified by: \_\_\_\_\_

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202014309		SW846 7470A Prep	13-JAN-2010 12:10	<2	20 mL	20 mL	1		mL
LCS	1202014310		SW846 7470A Prep	13-JAN-2010 12:10	<2	20 mL	20 mL	1	.2	mL
SAMPLE	244141001		SW846 7470A Prep	13-JAN-2010 12:10	<2	20 mL	20 mL	1		
SAMPLE	244141002		SW846 7470A Prep	13-JAN-2010 12:10	<2	20 mL	20 mL	1		
SAMPLE	244145001		SW846 7470A Prep	13-JAN-2010 12:10	<2	20 mL	20 mL	1		
SAMPLE	244226001		SW846 7470A Prep	13-JAN-2010 12:10	<2	20 mL	20 mL	1		
DUP	1202014311	244226001	SW846 7470A Prep	13-JAN-2010 12:10	<2	20 mL	20 mL	1		
MS	1202014312	244226001	SW846 7470A Prep	13-JAN-2010 12:10	<2	20 mL	20 mL	1		
SDILT	1202014313	244226001	SW846 7470A Prep	13-JAN-2010 12:10	<2	20 mL	20 mL	1		
SAMPLE	244226002		SW846 7470A Prep	13-JAN-2010 12:10	<2	20 mL	20 mL	1		

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG100113-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100113-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100113-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100113-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100113-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100113-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 13-JAN-10 12:10  
 Digestion End Date: 13-JAN-10 14:10

# Standard Logbook

**Serial ID:** UHG1167639-01      **Opened:** 13-AUG-09      **Amount :** 125 mL  
**Name:** MHGSTOCK1      **Received:** 13-AUG-09      **Catalog Number :** PLHG4-2Y  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 15-37HG  
**Employee:** Bryan Davis      **Solvent :** 10% HNO3  
**Supplier:** Spex  
**Description:** Mercury Source Standard #1 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

**Serial ID:** UHG1167641-02      **Opened:** 13-AUG-09      **Amount :** 100 mL  
**Name:** MHGSTOCK2      **Received:** 13-AUG-09      **Catalog Number :** AHG1KN-100  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 4905530  
**Employee:** Bryan Davis      **Solvent :** 3% HNO3  
**Supplier:** Ricca Chemical Company  
**Description:** Mercury Source Standard #2 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

**Serial ID:** UI090422-40      **Opened:** 04-MAY-09      **Amount :** 500 mL  
**Name:** TRACE ICP ICSA SOLN A      **Received:** 22-APR-09      **Catalog Number :** 160005-01-03  
**Type:** Source Material      **Expires:** 04-MAY-10      **Lot Number :** 1013357  
**Employee:** Helen Camello      **Solvent :** 5%HNO3  
**Supplier:** o2si  
**Description:** TRACE ICP ICSA SOLN A mg/L +/- 0.5% 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:** UI090610-03      **Opened:** 10-JUN-09      **Catalog Number :** 060074-06-01  
**Name:** ICPMS Tungsten - 10mg/L      **Received:** 10-JUN-09      **Lot Number :** 1016338  
**Type:** Source Material      **Expires:** 10-JUN-10      **Solvent :** 2% HNO3  
**Employee:** Paul Boyd  
**Supplier:** O2SI  
**Description:** ICPMS Tungsten standard SPIKE - 10mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

# Standard Logbook

**Serial ID:** UI090701-09      **Opened:** 01-JUL-09      **Amount :** 250 mL  
**Name:** ICP-MS CRDL Master #1      **Received:** 01-JUL-09      **Catalog Number :** 160044-09-02  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016477  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% IN 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS CRDL Master Soln #1  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

**Serial ID:** UI090701-10      **Opened:** 01-JUL-09      **Amount :** 250 mL  
**Name:** ICP-MS CRDL Master #2      **Received:** 01-JUL-09      **Catalog Number :** 160044-08-02  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016476  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% IN 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS CRDL Soln #2  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

**Serial ID:** UI090701-40      **Opened:** 01-JUL-09      **Amount :** 500 mL  
**Name:** TRACE ICP Stock PQL 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
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# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

**Serial ID:** UI090828-42      **Opened:** 16-SEP-09      **Amount :** 500 mL  
**Name:** TRACE ICP Na-1000SOUR      **Received:** 27-AUG-09      **Catalog Number :** 060011-02-03  
**Type:** Source Material      **Expires:** 16-SEP-10      **Lot Number :** 1017098  
**Employee:** Helen Camello      **Solvent :** 1%HNO3  
**Supplier:** O2Si  
**Description:** Sodium 1000 +/- 3 ug/mL in 1% HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

**Serial ID:** UI090828-A      **Opened:** 28-AUG-09      **Catalog Number :** 160067-02  
**Name:** ICP-MS DOE Liquid SPIKE      **Received:** 27-AUG-09      **Lot Number :** 1017141  
**Type:** Source Material      **Expires:** 28-AUG-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

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

**Serial ID:** UI090828-B      **Opened:** 28-AUG-09      **Catalog Number :** 160067-02  
**Name:** ICP-MS DOE Liquid SPIKE      **Received:** 27-AUG-09      **Lot Number :** 1017141  
**Type:** Source Material      **Expires:** 28-AUG-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:** 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

# Standard Logbook

**Description:** SECOND SOURCE STD #1B

**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

**Serial ID:** UI091015-42      **Opened:** 28-OCT-09      **Amount :** 500 mL  
**Name:** SI 1000mg/L      **Received:** 15-OCT-09      **Catalog Number :** 060014-02-03  
**Type:** Source Material      **Expires:** 28-OCT-10      **Lot Number :** 1017581  
**Employee:** Helen Camello      **Solvent :** 0.3%H2O(NH4)2SiF6  
**Supplier:** o2si  
**Description:** Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI091102-40      **Opened:** 16-NOV-09      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1A SOUF      **Received:** 02-NOV-09      **Catalog Number :** HP2270-1-500  
**Type:** Source Material      **Expires:** 31-OCT-10      **Lot Number :** 0930215  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Std #1A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
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:** ENVIRNMENTAL EXPRESS  
**Description:** SILICON 1000mg/L H2O/tr HF  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI091212-11      **Opened:** 12-DEC-09      **Amount :** 1000 mL  
**Name:** ICP-MS ICSA Master A      **Received:** 12-DEC-09      **Catalog Number :** 160013-01-01L  
**Type:** Source Material      **Expires:** 12-DEC-10      **Lot Number :** 1015303  
**Employee:** Paul Boyd      **Solvent :** 2% HNO3  
**Supplier:** O2SI  
**Description:** ICP-MS ICSA Master A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

**Serial ID:** UI091212-60      **Opened:** 12-DEC-09      **Amount :** .5 mL  
**Name:** ICPMS High Range Standa      **Received:** 12-DEC-09      **Catalog Number :** 160212-02-01  
**Type:** Source Material      **Expires:** 12-DEC-10      **Lot Number :** 1018064  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3 + Tr HF  
**Supplier:** O2SI  
**Description:** Linear Range Standard A

# Standard Logbook

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61      Opened: 12-DEC-09      Amount : .5 mL  
 Name: ICPMS High Range Standard      Received: 12-DEC-09      Catalog Number : 160212-02-01  
 Type: Source Material      Expires: 12-DEC-10      Lot Number : 1018064  
 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: UI091215-48      Opened: 04-JAN-10      Amount : 1000 mL  
 Name: Trace ICP ICSEA      Received: 18-DEC-09      Catalog Number : 160005-02  
 Type: Source Material      Expires: 04-JAN-11      Lot Number : 1018219  
 Employee: Helen Camello      Solvent : 3% HCl + 1% HNO3  
 Supplier: o2si  
 Description: Trace ICP Interferent Check Standard A  
 Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L



# Standard Logbook

**Serial ID:** UI091216-01      **Opened:** 16-DEC-09      **Lot Number :** 1018095  
**Name:** METALSPIKE-1      **Received:** 16-DEC-09  
**Type:** Source Material      **Expires:** 16-DEC-10  
**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

**Serial ID:** UI091216-06      **Opened:** 16-DEC-09      **Lot Number :** 1018096  
**Name:** METALSPIKE-2      **Received:** 16-DEC-09  
**Type:** Source Material      **Expires:** 16-DEC-10  
**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
Vanadium	100 ug/mL	Zinc	100 ug/mL

**Serial ID:** UI091217-06      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master A      **Received:** 17-DEC-09      **Catalog Number :** 160055-01  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018209  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** O2SI  
**Description:** ICPMS ICV/CCV SOLN A - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

**Serial ID:** UI091217-07      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master B      **Received:** 17-DEC-09      **Catalog Number :** 160054-02  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018210  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** 02SI  
**Description:** ICPMS ICV/CCV Soln B - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

**Serial ID:** UI091217-08      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICV/CCV Master C      **Received:** 17-DEC-09      **Catalog Number :** 160054-03  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018211  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 5% HNO3 100 cm2  
**Supplier:** 02SI  
**Description:** ICPMS ICV/CCV Soln C - 10ppm  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

**Serial ID:** UI091217-12      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master B      **Received:** 17-DEC-09      **Catalog Number :** 160033-02  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1018212  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS ICSAB Master B

# Standard Logbook

Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

**Serial ID:** UI091217-13      **Opened:** 17-DEC-09      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master C      **Received:** 17-DEC-09      **Catalog Number :** 160033-03  
**Type:** Source Material      **Expires:** 17-DEC-10      **Lot Number :** 1016926  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS ICSAB Master C  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

**Serial ID:** UI100114-40      **Opened:** 14-JAN-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD-A      **Received:** 14-JAN-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 14-JAN-11      **Lot Number :** 1018160  
**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

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
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:** UI100114-41      **Opened:** 14-JAN-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD B      **Received:** 14-JAN-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 14-JAN-11      **Lot Number :** 1018160  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3  
**Supplier:** O2SI  
**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:** UI1246651-A      **Opened:** 23-DEC-09      **Catalog Number :** 160067-05  
**Name:** ICP-MS ALL OTHER SPIKE      **Received:** 23-DEC-09      **Lot Number :** 1018097  
**Type:** Source Material      **Expires:** 23-DEC-10  
**Employee:** Bryan Davis  
**Supplier:** O2si  
**Description:** ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

# Standard Logbook

**Serial ID:** UI1246654-B      **Opened:** 23-DEC-09      **Catalog Number :** 160067-05  
**Name:** ICP-MS ALL OTHER SPIKE      **Received:** 23-DEC-09      **Lot Number :** 1017644  
**Type:** Source Material      **Expires:** 23-DEC-10  
**Employee:** Bryan Davis  
**Supplier:** O2si  
**Description:** MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

**Serial ID:** UMS090303-01      **Opened:** 03-MAR-09      **Amount :** 250 mL  
**Name:** ICPMSCalSPIKEB      **Received:** 03-MAR-09      **Catalog Number :** ZGEL-100-250  
**Type:** Source Material      **Expires:** 28-FEB-10      **Lot Number :** 14-81JB  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

**Serial ID:** UMS090303-02      **Opened:** 03-MAR-09      **Catalog Number :** ZGEL-102-250  
**Name:** ICPMSCalSPIKEA      **Received:** 03-MAR-09      **Lot Number :** 14-83JB  
**Type:** Source Material      **Expires:** 28-FEB-10  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

# Standard Logbook

**Serial ID:** UMS090303-03      **Opened:** 03-MAR-09      **Amount :** 250 ml  
**Name:** ICPMSCalSPIKEC      **Received:** 03-MAR-09      **Catalog Number :** ZGEL-101-250  
**Type:** Source Material      **Expires:** 28-FEB-10      **Lot Number :** 15-199JB  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution C  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

**Serial ID:** IHG100113-01      **Opened:** 13-JAN-10      **Instrument Id :** Mercury  
**Name:** MHGINTER1      **Received:** 13-JAN-10      **Pipet Id :** Minou1  
**Type:** Intermediate      **Expires:** 14-JAN-10      **Solvent :** 1mL HNO3 + TypeI H2O  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Intermediate 1st Source 200 ug/L  
**Comments:** Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** IHG100113-02      **Opened:** 13-JAN-10      **Pipet Id :** Minou1  
**Name:** MHGINTER2      **Received:** 13-JAN-10      **Solvent :** 2% HNO3-1240182  
**Type:** Intermediate      **Expires:** 14-JAN-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Intermediate 2nd Source 200 ug/L  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** WHG100113-01a      **Opened:** 13-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL0.2CRA      **Received:** 13-JAN-10      **Solvent :** 2% HNO3-1240182  
**Type:** Working      **Expires:** 20-JAN-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 0.2/CRA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
IHG100113-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

# Standard Logbook

**Serial ID:** WHG100113-02      **Opened:** 13-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL0.5      **Received:** 13-JAN-10      **Solvent :** 2% HNO3-1240182  
**Type:** Working      **Expires:** 20-JAN-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 0.5  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100113-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

**Serial ID:** WHG100113-03      **Opened:** 13-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL2.0      **Received:** 13-JAN-10      **Solvent :** 2% HNO3-1240182  
**Type:** Working      **Expires:** 20-JAN-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 2.0  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100113-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

**Serial ID:** WHG100113-04      **Opened:** 13-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL5.0CCV      **Received:** 13-JAN-10      **Solvent :** 2% HNO3-1240182  
**Type:** Working      **Expires:** 20-JAN-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 5.0/CCV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100113-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

**Serial ID:** WHG100113-05      **Opened:** 13-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL10.0      **Received:** 13-JAN-10      **Solvent :** 2% HNO3-1240182  
**Type:** Working      **Expires:** 20-JAN-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 10.0  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100113-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

# Standard Logbook

**Serial ID:** WHG100113-06      **Opened:** 13-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORK5.0ICV      **Received:** 13-JAN-10      **Solvent :** 2% HNO3-1240182  
**Type:** Working      **Expires:** 20-JAN-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 2nd Source 5.0/ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
IHG100113-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

**Serial ID:** WHG100113-13      **Opened:** 13-JAN-10      **Pipet Id :** Hg1289245  
**Name:** MHGLIQLCSMSSPIKE      **Received:** 13-JAN-10      **Solvent :** 2% HNO3-1240182  
**Type:** Working      **Expires:** 20-JAN-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:** WI100118-42      **Opened:** 18-JAN-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 02-NOV-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 19-JAN-10      **Solvent :** 3%HCL and 1%HNO3 -1256122  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP 0.1 PPM CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
WI100118-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100118-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100118-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100118-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100118-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L



# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100118-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100118-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100118-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100118-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100118-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100118-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100118-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100118-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

**Serial ID:** WI100118-43      **Opened:** 18-JAN-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 02-NOV-09      **Pipet Id :** 1099667  
**Type:** Working      **Expres:** 19-JAN-10      **Solvent :** 3%HCL and 1%HNO3 -1256122  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP 0.5/CCV CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

**Serial ID:** WI100118-44      **Opened:** 18-JAN-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 02-NOV-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 19-JAN-10      **Solvent :** 3%HCL and 1 %HNO3-1256122  
**Employee:** Helen Camello  
**Supplier:** o2si  
**Description:** Trace ICP Calibration Standard 1.0ppm  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

## Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

**Serial ID:** WI100118-45      **Opened:** 18-JAN-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 19-JAN-10      **Solvent :** 3%HCL and 1%HNO3 -1256122  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** TRACE ICP S-10 CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

**Serial ID:** WI100118-46      **Opened:** 18-JAN-10      **Balance Id :** 216  
**Name:** ICP TRACE ICPV      **Received:** 25-SEP-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 19-JAN-10      **Solvent :** 3%HCL AND 1%HNO3-1256122  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** Initial Calibration Verification ICP Trace Metals  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

**Serial ID:** WI100118-47      **Opened:** 18-JAN-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-09      **Pipet Id :** 1099667  
**Type:** Working      **Expires:** 19-JAN-10      **Solvent :** 3%HCL &1%HNO3-1256122  
**Employee:** Helen Camello  
**Supplier:** 02si  
**Description:** PQL Working Standard  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

**Serial ID:** WMS100112-04B      **Opened:** 12-JAN-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 12-JAN-10      **Balance Id :** 40245216  
**Type:** Working      **Expires:** 13-JAN-10      **Pipet Id :** 1758088  
**Employee:** Rose Jenkins      **Solvent :** 2%HNO3/1%HCl- 1238829  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

**Serial ID:** WMS100113-04      **Opened:** 13-JAN-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 13-JAN-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 14-JAN-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1253206  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100113-04A      **Opened:** 13-JAN-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 13-JAN-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 14-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100112-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100112-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100112-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100112-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100112-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100112-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100113-05      **Opened:** 13-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 13-JAN-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 14-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L



# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

**Serial ID:** WMS100113-06      **Opened:** 13-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 13-JAN-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 14-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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:** WMS100113-07      **Opened:** 13-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 13-JAN-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 14-JAN-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100113-08      **Opened:** 13-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 13-JAN-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 14-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

**Serial ID:** WMS100113-70      **Opened:** 13-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS LINEAR RANGE ST      **Received:** 13-JAN-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 14-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Employee:** Paul Boyd  
**Supplier:** Q2SI  
**Description:** ICPMS LINEAR RANGE STANDARD  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

**Serial ID:** WMS100114-04      **Opened:** 14-JAN-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 14-JAN-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 15-JAN-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1253206  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100114-04A      **Opened:** 14-JAN-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 14-JAN-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 15-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100114-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100114-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100114-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100114-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100114-05      **Opened:** 14-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 14-JAN-10      **Pipet Id :** 3541598  
**Type:** Working      **Expres:** 15-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

**Serial ID:** WMS100114-06      **Opened:** 14-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 14-JAN-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 15-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS CRDL  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

**Serial ID:** WMS100114-07      **Opened:** 14-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 14-JAN-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 15-JAN-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L



# Standard Logbook

**Serial ID:** WMS100114-08      **Opened:** 14-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 14-JAN-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 15-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1253206  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

# Standard Logbook

**Serial ID:** WMS100121-04      **Opened:** 21-JAN-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 21-JAN-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 22-JAN-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1256053  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

# Standard Logbook

**Serial ID:** WMS100121-04A      **Opened:** 21-JAN-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 21-JAN-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 22-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1256053  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100121-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100121-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100121-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100121-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100121-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100121-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100121-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100121-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100121-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100121-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100121-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

# Standard Logbook

**Serial ID:** WMS100121-05      **Opened:** 21-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 21-JAN-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 22-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1256053  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

# Standard Logbook

**Serial ID:** WMS100121-06      **Opened:** 21-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 21-JAN-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 22-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1256053  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS CRDL  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	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:** WMS100121-07      **Opened:** 21-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 21-JAN-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 22-JAN-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1256053  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100121-08      **Opened:** 21-JAN-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 21-JAN-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 22-JAN-10      **Solvent :** 2%HNO3/1%HCl - 1256053  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

**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:** 1164796-A      **Opened:** 06-AUG-09      **Lot Number :** 49149927  
**Name:** B-NH2OH.HCl-MER      **Received:** 06-AUG-09  
**Type:** Reagent/Solvent      **Expires:** 06-AUG-10  
**Employee:** Tara Griffin  
**Supplier:** Fisher Scientific  
**Description:** Hydroxylamine Hydrochloride  
**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

# Standard Logbook

**Serial ID:** 1206350-C      **Opened:** 22-OCT-09      **Balance Id :** BAL-002  
**Name:** B-NaCl.NH2OH.HCl-MER      **Received:** 22-OCT-09  
**Type:** Reagent/Solvent      **Expires:** 15-JAN-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Hg reducing agent  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

**Serial ID:** 1215906      **Opened:** 06-NOV-09      **Lot Number :** H44465  
**Name:** B-K2S2O8S-MER      **Received:** 06-NOV-09  
**Type:** Reagent/Solvent      **Expires:** 06-NOV-10  
**Employee:** Tara Griffin  
**Supplier:** J.T BAKER  
**Description:** Potassium Persulfate Concentrate.  
**Comments:** None

**Serial ID:** 1234385-C      **Opened:** 25-NOV-09      **Balance Id :** BAL-002  
**Name:** B-K2S2O8S-MER      **Received:** 25-NOV-09  
**Type:** Reagent/Solvent      **Expires:** 25-MAY-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** 5% Potassium Persulfate  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

**Serial ID:** 1238345      **Opened:** 04-DEC-09      **Lot Number :** H20053 L  
**Name:** I-HNO3      **Received:** 04-DEC-09  
**Type:** Reagent/Solvent      **Expires:** 04-DEC-10  
**Employee:** Francena Armstrong  
**Supplier:** BAKER  
**Description:** Nitric Acid CONC.  
**Comments:** None

**Serial ID:** 1240182-1      **Opened:** 09-DEC-09      **Instrument Id :** MERCURY  
**Name:** B-HNO3-MER      **Received:** 09-DEC-09      **Lot Number :** H34040  
**Type:** Reagent/Solvent      **Expires:** 09-DEC-10  
**Employee:** Tara Griffin  
**Supplier:** Mallinckrodt Chemicals  
**Description:** NITRIC ACID



# Standard Logbook

Comments: None

Serial ID: 1244904-C      Opened: 18-DEC-09      Balance Id : BAL-002  
 Name: B-KMnO4-MER      Received: 18-DEC-09  
 Type: Reagent/Solvent      Expires: 18-JUN-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: 1244970      Opened: 18-DEC-09      Lot Number : H41032  
 Name: I-HCL      Received: 18-DEC-09      Preservative\_Id : 5 none  
 Type: Reagent/Solvent      Expires: 18-DEC-10  
 Employee: Francena Armstrong  
 Supplier: J.T. BAKER  
 Description: HYDROCHLORIC ACID  
 Comments: None

Serial ID: 1252836      Opened: 08-JAN-10      Lot Number : H20053 L  
 Name: I-HNO3      Received: 08-JAN-10  
 Type: Reagent/Solvent      Expires: 08-JAN-11  
 Employee: Francena Armstrong  
 Supplier: BAKER  
 Description: Nitric Acid CONC.  
 Comments: None

Serial ID: 1252838      Opened: 08-JAN-10      Lot Number : H41032  
 Name: I-HCL      Received: 08-JAN-10      Preservative\_Id : 5 none  
 Type: Reagent/Solvent      Expires: 08-JAN-11  
 Employee: Francena Armstrong  
 Supplier: J.T. BAKER  
 Description: HYDROCHLORIC ACID  
 Comments: None

Serial ID: 1253206      Opened: 11-JAN-10      Solvent : Type I Water  
 Name: B-2%HNO3/1%HCl-ICPMS      Received: 11-JAN-10  
 Type: Reagent/Solvent      Expires: 18-JAN-10  
 Employee: Paul Boyd  
 Supplier: GEL

# Standard Logbook

**Description:** 2%HNO3/1%HCl Solution (Type I Water)

**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

**Serial ID:** 1256053      **Opened:** 18-JAN-10      **Solvent :** Type I Water

**Name:** B-2%HNO3/1%HCl-ICPMS      **Received:** 18-JAN-10

**Type:** Reagent/Solvent      **Expires:** 25-JAN-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.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

**Serial ID:** 1256122      **Opened:** 18-JAN-10      **Amount :** 20 L

**Name:** B-ICP-RINSE SOLN      **Received:** 18-DEC-10      **Lot Number :** H04040+G34050

**Type:** Reagent/Solvent      **Expires:** 24-JAN-10      **Solvent :** 3%HCL+1%HNO3

**Employee:** Helen Camello

**Supplier:** GEL

**Description:** 3%HCL+1%HNO3 RINSE SOLN.

**Comments:** None

# **General Chemistry Analysis**

# Case Narrative

**General Chemistry Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1128**

**Method/Analysis Information**

**Product:**                **Cyanide, Total**

**Analytical Batch:**   940229 and 940232    **Method:**    SW846 9012A

**Prep Batch :**        940226 and 940231    **Method:**    SW846 9010B Prep

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
244144001	RE12-10-7619
244144002	RE12-10-7618
244144003	RE12-10-7623
244144004	RE12-10-7622
244144005	RE12-10-7621
244144006	RE12-10-7617
244144007	RE12-10-7620
244144008	RE12-10-7624
244144009	RE12-10-7630
244144010	RE12-10-7628
244144011	RE12-10-7632
244144012	RE12-10-7629
244144013	RE12-10-7626
244144014	RE12-10-7631
244144015	RE12-10-7627
244144016	RE12-10-7625
244144017	RE12-10-7656
244144018	RE12-10-7655
1202012020	Method Blank (MB)
1202012021	244137005(RE12-10-7853) Sample Duplicate (DUP)
1202012022	244137006(RE12-10-7848) Sample Duplicate (DUP)
1202012023	244137005(RE12-10-7853) Matrix Spike (MS)
1202012024	244137006(RE12-10-7848) Matrix Spike (MS)
1202012025	244137005(RE12-10-7853) Matrix Spike Duplicate (MSD)
1202012026	244137006(RE12-10-7848) Matrix Spike Duplicate (MSD)
1202012027	Laboratory Control Sample (LCS)
1202012035	Method Blank (MB)
1202012036	244144018(RE12-10-7655) Sample Duplicate (DUP)
1202012037	244207001(RE16-10-415) Sample Duplicate (DUP)
1202012038	244144018(RE12-10-7655) Matrix Spike (MS)
1202012039	244207001(RE16-10-415) Matrix Spike (MS)
1202012040	244144018(RE12-10-7655) Matrix Spike Duplicate (MSD)
1202012041	244207001(RE16-10-415) Matrix Spike Duplicate (MSD)
1202012042	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: 244137005 (RE12-10-7853), 244137006 (RE12-10-7848)- Batch 940229, 244144018 (RE12-10-7655) and 244207001 (RE16-10-415)- Batch 940232.

**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. 1202012022 (RE12-10-7848)- Batch 940229.

**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: 1202012027 (LCS)- Batch 940229 and 1202012042 (LCS)- Batch 940232.

**Sample Re-analysis**

The following sample was re-analyzed due to instrument failure: 244144009 (RE12-10-7630)- Batch 940229.

**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:  Date: 02Feb10

# **Sample Data Summary**

## **GEL LABORATORIES LLC**

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - [www.gel.com](http://www.gel.com)

### **Certificate of Analysis Report for**

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

Client SDG: 10-1128 GEL Work Order: 244144

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

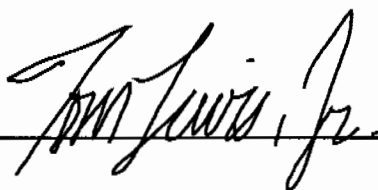
- \* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- \*\* Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by

A handwritten signature in black ink, appearing to read "Tom Lewis, Jr.", is written over a horizontal line.

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## Certificate of Analysis

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7629  
Sample ID: 244144012  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 18.3%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	75.6	278	ug/kg	1	AXC2	01/13/10	1159	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7626  
Sample ID: 244144013  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 10%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	J	81.2	74.1	272	ug/kg	1	AXC2	01/13/10	1200	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7631  
Sample ID: 244144014  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 16.8%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	80.2	295	ug/kg	1	AXC2	01/13/10	1201	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7627  
Sample ID: 244144015  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 23.8%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	J	136	87.5	322	ug/kg	1	AXC2	01/13/10	1202	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7625  
Sample ID: 244144016  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 17.6%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	J	77.0	76.4	281	ug/kg	1	AXC2	01/13/10	1203	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	



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Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7656  
Sample ID: 244144017  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 7.58%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	65.7	242	ug/kg	1	AXC2	01/13/10	1204	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7655  
Sample ID: 244144018  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 9.91%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	75.5	277	ug/kg	1	AXC2	01/13/10	1059	940232	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1530	940231

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7619  
Sample ID: 244144001  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 16.2%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	75.1	276	ug/kg	1	AXC2	01/13/10	1142	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7618  
Sample ID: 244144002  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 18.9%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	76.2	280	ug/kg	1	AXC2	01/13/10	1147	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7623  
Sample ID: 244144003  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 15.4%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	71.7	264	ug/kg	1	AXC2	01/13/10	1147	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7622  
Sample ID: 244144004  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 8.99%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	74.7	275	ug/kg	1	AXC2	01/13/10	1148	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7621  
Sample ID: 244144005  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 7.57%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	72.1	265	ug/kg	1	AXC2	01/13/10	1149	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7617  
Sample ID: 244144006  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 9.24%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	70.7	260	ug/kg	1	AXC2	01/13/10	1150	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	



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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7620  
Sample ID: 244144007  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 11.2%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	75.1	276	ug/kg	1	AXC2	01/13/10	1151	940229	1
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### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7624  
Sample ID: 244144008  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 8.44%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	65.1	240	ug/kg	1	AXC2	01/13/10	1152	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	SW846 9012A		

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Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7630  
Sample ID: 244144009  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 12.4%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	76.1	280	ug/kg	1	AXC2	01/13/10	1244	940229	1

### **The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### **The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9012A	

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## Certificate of Analysis

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7628  
Sample ID: 244144010  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 10.4%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	69.0	254	ug/kg	1	AXC2	01/13/10	1154	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: January 22, 2010

Client SDG: 10-1128

Client Sample ID: RE12-10-7632  
Sample ID: 244144011  
Matrix: R  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-10  
Collector: Client  
Moisture: 9.24%

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 Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	69.4	255	ug/kg	1	AXC2	01/13/10	1155	940229	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/12/10	1551	940226

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

# **Quality Control Summary**

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## QC Summary

Report Date: January 22, 2010

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

Contact: Ms. Joylene Valdez

Workorder: 244144

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Flow Injection Analysis</b>											
Batch	940229										
QC1202012021	244137005	DUP									
Cyanide, Total		J	76.5	U	ND	ug/kg	200 ^		AXC2	01/13/10	11:35
QC1202012022	244137006	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			01/13/10	11:39
QC1202012027	LCS										
Cyanide, Total	67900				75500	ug/kg	111	(46%-145%)		01/13/10	11:30
QC1202012020	MB										
Cyanide, Total				U	250	ug/kg				01/13/10	11:29
QC1202012023	244137005	MS									
Cyanide, Total	4990	J	76.5		4990	ug/kg	98.5	(50%-130%)		01/13/10	11:36
QC1202012024	244137006	MS									
Cyanide, Total	5320	U	ND		5370	ug/kg	101	(50%-130%)		01/13/10	11:39
QC1202012025	244137005	MSD									
Cyanide, Total	5280	J	76.5		5440	ug/kg	8.67	102	(0%-30%)	01/13/10	11:37
QC1202012026	244137006	MSD									
Cyanide, Total	5420	U	ND		5630	ug/kg	4.73	104	(0%-30%)	01/13/10	11:40
Batch	940232										
QC1202012036	244144018	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	01/13/10	11:00
QC1202012037	244207001	DUP									
Cyanide, Total			433		522	ug/kg	18.8 ^	(+/-282)		01/13/10	11:03
QC1202012042	LCS										
Cyanide, Total	67900				65500	ug/kg	96.5	(46%-145%)		01/13/10	10:58
QC1202012035	MB										
Cyanide, Total				U	250	ug/kg				01/13/10	10:57
QC1202012038	244144018	MS									
Cyanide, Total	5440	U	ND		5260	ug/kg	96.6	(50%-130%)		01/13/10	11:00
QC1202012039	244207001	MS									
Cyanide, Total	5650		433		5040	ug/kg	81.6	(50%-130%)		01/13/10	11:04
QC1202012040	244144018	MSD									
Cyanide, Total	5550	U	ND		5270	ug/kg	0.310	95	(0%-30%)	01/13/10	11:01
QC1202012041	244207001	MSD									
Cyanide, Total	6210		433		5660	ug/kg	11.5	84.1	(0%-30%)	01/13/10	11:05

### 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

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## QC Summary

Workorder: 244144

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Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.										
BD	Results are either below the MDC or tracer recovery is low										
C	Analyte has been confirmed by GC/MS analysis										
D	Results are reported from a diluted aliquot of the sample										
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range										
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria										
E	Organics--Concentration of the target analyte exceeds the instrument calibration range										
F	Estimated Value										
H	Analytical holding time was exceeded										
J	Value is estimated										
M	M if above MDC and less than LLD										
M	Matrix Related Failure										
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor										
N/A	RPD or %Recovery limits do not apply.										
ND	Analyte concentration is not detected above the detection limit										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%										
R	Sample results are rejected										
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.										
UI	Gamma Spectroscopy--Uncertain identification										
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Y	QC Samples were not spiked with this compound										
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
d	5-day BOD--The 2:1 depletion requirement was not met for this sample										
h	Preparation or preservation holding time was exceeded										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



# **Instrument QC Data Summary**

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 22-JAN-2010 12:20

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1128

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	13-JAN-2010 10:51:54	OM_1-13-2010_10-41-26	149	150	99	(90%-110%)	Yes
CCV	13-JAN-2010 11:06:10	OM_1-13-2010_10-41-26	102	100	102	(90%-110%)	Yes
CCV	13-JAN-2010 11:18:35	OM_1-13-2010_10-41-26	102	100	102	(90%-110%)	Yes
CCV	13-JAN-2010 11:30:57	OM_1-13-2010_10-41-26	103	100	103	(90%-110%)	Yes
CCV	13-JAN-2010 11:43:28	OM_1-13-2010_10-41-26	104	100	104	(90%-110%)	Yes
CCV	13-JAN-2010 11:55:57	OM_1-13-2010_10-41-26	103	100	103	(90%-110%)	Yes
CCV	13-JAN-2010 12:08:23	OM_1-13-2010_10-41-26	103	100	103	(90%-110%)	Yes
CCV	13-JAN-2010 12:41:13	OM_1-13-2010_12-39-40	105	100	105	(90%-110%)	Yes
CCV	13-JAN-2010 12:45:45	OM_1-13-2010_12-39-40	102	100	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	13-JAN-2010 10:53:43	OM_1-13-2010_10-41-26	-1.32	5	Yes
CCB	13-JAN-2010 11:08:00	OM_1-13-2010_10-41-26	-1.55	5	Yes
CCB	13-JAN-2010 11:20:25	OM_1-13-2010_10-41-26	-1.57	5	Yes
CCB	13-JAN-2010 11:32:47	OM_1-13-2010_10-41-26	-1.27	5	Yes
CCB	13-JAN-2010 11:45:19	OM_1-13-2010_10-41-26	-1.21	5	Yes
CCB	13-JAN-2010 11:57:47	OM_1-13-2010_10-41-26	-1.62	5	Yes
CCB	13-JAN-2010 12:10:13	OM_1-13-2010_10-41-26	-1.59	5	Yes
CCB	13-JAN-2010 12:43:03	OM_1-13-2010_12-39-40	-1.44	5	Yes
CCB	13-JAN-2010 12:47:35	OM_1-13-2010_12-39-40	-1.58	5	Yes

# Cyanide, Total

# Prep LogBook

Analyst: AXS5 Verified by: \_\_\_\_\_

Batch: 940231

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot Id	Spike Amount	Spike Units
LCS	1202012042	URF1200957-01	.25	g
MS	1202012038	URF1184831-02	.025	mL
MS	1202012039	URF1184831-02	.025	mL
MSD	1202012040	URF1184831-02	.025	mL
MSD	1202012041	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202012035		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.5 g	25 mL	50	SOIL
LCS	1202012042		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.25 g	25 mL	100	SOIL
SAMPLE	244144018		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.5 g	25 mL	50	SOIL
DUP	1202012036	244144018	SW846 9010B Prep	12-JAN-2010 15:30	>12	0.51 g	25 mL	49.01961	SOIL
MS	1202012038	244144018	SW846 9010B Prep	12-JAN-2010 15:30	>12	0.51 g	25 mL	49.01961	SOIL
MSD	1202012040	244144018	SW846 9010B Prep	12-JAN-2010 15:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	244207001		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.56 g	25 mL	44.64286	SOIL
DUP	1202012037	244207001	SW846 9010B Prep	12-JAN-2010 15:30	>12	0.55 g	25 mL	45.45455	SOIL
MS	1202012039	244207001	SW846 9010B Prep	12-JAN-2010 15:30	>12	0.55 g	25 mL	45.45455	SOIL
MSD	1202012041	244207001	SW846 9010B Prep	12-JAN-2010 15:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	244207002		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	244207003		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	244207005		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	244207006		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	244214001		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	244214002		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	244214003		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	244214004		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	244214005		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	244214006		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	244224011		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	244224012		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	244224013		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	244224014		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	244224015		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	244224016		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	244224017		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	244224018		SW846 9010B Prep	12-JAN-2010 15:30	>12	0.52 g	25 mL	48.07692	SOIL

Prep Data Logbook Version 1.1

GEL Laboratories LLC

Page#

# Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100112-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1238146-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

# Prep LogBook

Analyst: AXS5  
Batch: 940226  
Lab SOP: GL-GC-E-067 REV# 13

Verified by: \_\_\_\_\_

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202012027	URF1200957-01	.25	g
MS	1202012023	URF1184831-02	.025	mL
MS	1202012024	URF1184831-02	.025	mL
MSD	1202012025	URF1184831-02	.025	mL
MSD	1202012026	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202012020		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.5 g	25 mL	50	SOIL
LCS	1202012027		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.25 g	25 mL	100	SOIL
SAMPLE	244137005		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.5 g	25 mL	50	SOIL
DUP	1202012021	244137005	SW846 9010B Prep	12-JAN-2010 15:51	>12	0.53 g	25 mL	47.16981	SOIL
MS	1202012023	244137005	SW846 9010B Prep	12-JAN-2010 15:51	>12	0.54 g	25 mL	46.2963	SOIL
MSD	1202012025	244137005	SW846 9010B Prep	12-JAN-2010 15:51	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	244137006		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.52 g	25 mL	48.07692	SOIL
DUP	1202012022	244137006	SW846 9010B Prep	12-JAN-2010 15:51	>12	0.56 g	25 mL	44.64286	SOIL
MS	1202012024	244137006	SW846 9010B Prep	12-JAN-2010 15:51	>12	0.56 g	25 mL	44.64286	SOIL
MSD	1202012026	244137006	SW846 9010B Prep	12-JAN-2010 15:51	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	244137007		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	244144001		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	244144002		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	244144003		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	244144004		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.5 g	25 mL	50	SOIL
SAMPLE	244144005		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	244144006		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	244144007		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	244144008		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	244144009		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	244144010		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	244144011		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	244144012		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	244144013		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	244144014		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	244144015		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	244144016		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	244144017		SW846 9010B Prep	12-JAN-2010 15:51	>12	0.56 g	25 mL	44.64286	SOIL

## Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100112-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1238146-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	1/13/2010 10:44:45	OM_1-13-2010_10-41-26
150 ppb		1	axc2	1/13/2010 10:45:37	OM_1-13-2010_10-41-26
100 ppb		1	axc2	1/13/2010 10:46:29	OM_1-13-2010_10-41-26
50 ppb		1	axc2	1/13/2010 10:47:22	OM_1-13-2010_10-41-26
10 ppb		1	axc2	1/13/2010 10:48:16	OM_1-13-2010_10-41-26
CRDL 5.0 ppb		1	axc2	1/13/2010 10:49:09	OM_1-13-2010_10-41-26
ICAL-00		1	axc2	1/13/2010 10:50:03	OM_1-13-2010_10-41-26
ICV		1	axc2	1/13/2010 10:51:54	OM_1-13-2010_10-41-26
ICB		1	axc2	1/13/2010 10:53:43	OM_1-13-2010_10-41-26
CRDL		1	axc2	1/13/2010 10:55:33	OM_1-13-2010_10-41-26
1202012035	940232	1	axc2	1/13/2010 10:57:23	OM_1-13-2010_10-41-26
1202012042	940232	25	axc2	1/13/2010 10:58:16	OM_1-13-2010_10-41-26
244144018	940232	1	axc2	1/13/2010 10:59:09	OM_1-13-2010_10-41-26
1202012036	940232	1	axc2	1/13/2010 11:00:02	OM_1-13-2010_10-41-26
1202012038	940232	1	axc2	1/13/2010 11:00:55	OM_1-13-2010_10-41-26
1202012040	940232	1	axc2	1/13/2010 11:01:48	OM_1-13-2010_10-41-26
244207001	940232	1	axc2	1/13/2010 11:02:40	OM_1-13-2010_10-41-26
1202012037	940232	1	axc2	1/13/2010 11:03:33	OM_1-13-2010_10-41-26
1202012039	940232	1	axc2	1/13/2010 11:04:26	OM_1-13-2010_10-41-26
1202012041	940232	1	axc2	1/13/2010 11:05:18	OM_1-13-2010_10-41-26
CCV		1	axc2	1/13/2010 11:06:10	OM_1-13-2010_10-41-26
CCB		1	axc2	1/13/2010 11:08:00	OM_1-13-2010_10-41-26
244207002	940232	1	axc2	1/13/2010 11:09:48	OM_1-13-2010_10-41-26
244207003	940232	1	axc2	1/13/2010 11:10:40	OM_1-13-2010_10-41-26
244207005	940232	1	axc2	1/13/2010 11:11:32	OM_1-13-2010_10-41-26
244207006	940232	1	axc2	1/13/2010 11:12:24	OM_1-13-2010_10-41-26
244214001	940232	1	axc2	1/13/2010 11:13:16	OM_1-13-2010_10-41-26
244214002	940232	1	axc2	1/13/2010 11:14:09	OM_1-13-2010_10-41-26
244214003	940232	1	axc2	1/13/2010 11:15:03	OM_1-13-2010_10-41-26
244214004	940232	1	axc2	1/13/2010 11:15:56	OM_1-13-2010_10-41-26
244214005	940232	1	axc2	1/13/2010 11:16:49	OM_1-13-2010_10-41-26
244214006	940232	1	axc2	1/13/2010 11:17:42	OM_1-13-2010_10-41-26
CCV		1	axc2	1/13/2010 11:18:35	OM_1-13-2010_10-41-26
CCB		1	axc2	1/13/2010 11:20:25	OM_1-13-2010_10-41-26
244224011	940232	1	axc2	1/13/2010 11:22:14	OM_1-13-2010_10-41-26
244224012	940232	1	axc2	1/13/2010 11:23:07	OM_1-13-2010_10-41-26
244224013	940232	1	axc2	1/13/2010 11:23:59	OM_1-13-2010_10-41-26
244224014	940232	1	axc2	1/13/2010 11:24:52	OM_1-13-2010_10-41-26
244224015	940232	1	axc2	1/13/2010 11:25:45	OM_1-13-2010_10-41-26
244224016	940232	1	axc2	1/13/2010 11:26:37	OM_1-13-2010_10-41-26
244224017	940232	1	axc2	1/13/2010 11:27:29	OM_1-13-2010_10-41-26
244224018	940232	1	axc2	1/13/2010 11:28:21	OM_1-13-2010_10-41-26
1202012020	940229	1	axc2	1/13/2010 11:29:13	OM_1-13-2010_10-41-26
1202012027	940229	25	axc2	1/13/2010 11:30:05	OM_1-13-2010_10-41-26
CCV		1	axc2	1/13/2010 11:30:57	OM_1-13-2010_10-41-26
CCB		1	axc2	1/13/2010 11:32:47	OM_1-13-2010_10-41-26
244137005	940229	1	axc2	1/13/2010 11:34:38	OM_1-13-2010_10-41-26
1202012021	940229	1	axc2	1/13/2010 11:35:31	OM_1-13-2010_10-41-26
1202012023	940229	1	axc2	1/13/2010 11:36:25	OM_1-13-2010_10-41-26
1202012025	940229	1	axc2	1/13/2010 11:37:18	OM_1-13-2010_10-41-26
244137006	940229	1	axc2	1/13/2010 11:38:11	OM_1-13-2010_10-41-26
1202012022	940229	1	axc2	1/13/2010 11:39:04	OM_1-13-2010_10-41-26
1202012024	940229	1	axc2	1/13/2010 11:39:58	OM_1-13-2010_10-41-26
1202012026	940229	1	axc2	1/13/2010 11:40:51	OM_1-13-2010_10-41-26
244137007	940229	1	axc2	1/13/2010 11:41:43	OM_1-13-2010_10-41-26
244144001	940229	1	axc2	1/13/2010 11:42:36	OM_1-13-2010_10-41-26
CCV		1	axc2	1/13/2010 11:43:28	OM_1-13-2010_10-41-26
CCB		1	axc2	1/13/2010 11:45:19	OM_1-13-2010_10-41-26



244144002	940229	1	axc2	1/13/2010	11:47:07	OM_1-13-2010_10-41-26
244144003	940229	1	axc2	1/13/2010	11:47:59	OM_1-13-2010_10-41-26
244144004	940229	1	axc2	1/13/2010	11:48:51	OM_1-13-2010_10-41-26
244144005	940229	1	axc2	1/13/2010	11:49:44	OM_1-13-2010_10-41-26
244144006	940229	1	axc2	1/13/2010	11:50:35	OM_1-13-2010_10-41-26
244144007	940229	1	axc2	1/13/2010	11:51:30	OM_1-13-2010_10-41-26
244144008	940229	1	axc2	1/13/2010	11:52:24	OM_1-13-2010_10-41-26
244144009*	940229	1	axc2	1/13/2010	11:53:18	OM_1-13-2010_10-41-26
244144010	940229	1	axc2	1/13/2010	11:54:12	OM_1-13-2010_10-41-26
244144011	940229	1	axc2	1/13/2010	11:55:05	OM_1-13-2010_10-41-26
CCV		1	axc2	1/13/2010	11:55:57	OM_1-13-2010_10-41-26
CCB		1	axc2	1/13/2010	11:57:47	OM_1-13-2010_10-41-26
244144012	940229	1	axc2	1/13/2010	11:59:36	OM_1-13-2010_10-41-26
244144013	940229	1	axc2	1/13/2010	12:00:30	OM_1-13-2010_10-41-26
244144014	940229	1	axc2	1/13/2010	12:01:23	OM_1-13-2010_10-41-26
244144015	940229	1	axc2	1/13/2010	12:02:16	OM_1-13-2010_10-41-26
244144016	940229	1	axc2	1/13/2010	12:03:08	OM_1-13-2010_10-41-26
244144017	940229	1	axc2	1/13/2010	12:04:01	OM_1-13-2010_10-41-26
1202013057	940624	1	axc2	1/13/2010	12:04:54	OM_1-13-2010_10-41-26
1202013058	940624	25	axc2	1/13/2010	12:05:46	OM_1-13-2010_10-41-26
1202013059	940624	25	axc2	1/13/2010	12:06:38	OM_1-13-2010_10-41-26
244272001	940624	1	axc2	1/13/2010	12:07:30	OM_1-13-2010_10-41-26
CCV		1	axc2	1/13/2010	12:08:23	OM_1-13-2010_10-41-26
CCB		1	axc2	1/13/2010	12:10:13	OM_1-13-2010_10-41-26
244272002	940624	1	axc2	1/13/2010	12:12:03	OM_1-13-2010_10-41-26
244272003	940624	1	axc2	1/13/2010	12:12:57	OM_1-13-2010_10-41-26
244272004	940624	1	axc2	1/13/2010	12:13:52	OM_1-13-2010_10-41-26
244272005	940624	1	axc2	1/13/2010	12:14:45	OM_1-13-2010_10-41-26
1202013050	940621	1	axc2	1/13/2010	12:15:39	OM_1-13-2010_10-41-26
1202013051	940621	1	axc2	1/13/2010	12:16:32	OM_1-13-2010_10-41-26
1202013052	940621	1	axc2	1/13/2010	12:17:25	OM_1-13-2010_10-41-26
244272001	940621	1	axc2	1/13/2010	12:18:19	OM_1-13-2010_10-41-26
244272002	940621	1	axc2	1/13/2010	12:19:12	OM_1-13-2010_10-41-26
244272003	940621	1	axc2	1/13/2010	12:20:05	OM_1-13-2010_10-41-26
CCV		1	axc2	1/13/2010	12:20:57	OM_1-13-2010_10-41-26
CCB		1	axc2	1/13/2010	12:22:47	OM_1-13-2010_10-41-26
244272004	940621	1	axc2	1/13/2010	12:24:36	OM_1-13-2010_10-41-26
244272005	940621	1	axc2	1/13/2010	12:25:29	OM_1-13-2010_10-41-26
CCV		1	axc2	1/13/2010	12:26:21	OM_1-13-2010_10-41-26
CCB		1	axc2	1/13/2010	12:28:11	OM_1-13-2010_10-41-26

Original Run Filename: OM\_1-13-2010\_10-41-26.OMN created 1/13/2010 10:41:26  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_1-13-2010\_10-41-26.OMN last modified 1/13/2010 12:29:15  
 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)				
WCN100113-01	1	S1	200	7.60	1/13/2010@10:44:45			200 ppb
WCN100113-02	1	S2	150	5.78	1/13/2010@10:45:37			150 ppb
WCN100113-03	1	S3	100	3.73	1/13/2010@10:46:29			100 ppb
WCN100113-04	1	S4	50.0	2.06	1/13/2010@10:47:22			50 ppb
WCN100113-05	1	S5	10.0	0.490	1/13/2010@10:48:16			10 ppb
WCN100113-06	1	S6	5.00	0.309	1/13/2010@10:49:09			CRDL 5.0 ppb
WCN100113-08	1	S7	0.00	0.0320	1/13/2010@10:50:03			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99973 > 0.99500					
Message			Pass					
Action			Continue					
WCN100113-07	1	S8	149	5.68	1/13/2010@10:51:54			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					
WCN100113-08	1	S7	-1.32	0.0435	1/13/2010@10:53:43			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.32 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.32 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100113-06	1	S6	6.37	0.332	1/13/2010@10:55:33			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			6.37 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			6.37 > 2.50					
Message			Pass					
Action			None					
1202012035 940232 MB	1	1	-1.87	0.0229	1/13/2010@10:57:23			
1202012042 LCS	1	2	26.2	1.08	1/13/2010@10:58:16		25.00	
244144018	1	3	-0.743	0.0651	1/13/2010@10:59:09			
1202012036 DUP	1	4	-0.792	0.0633	1/13/2010@11:00:02			
1202012038 MS	1	5	96.6	3.72	1/13/2010@11:00:55			
1202012040 MSD	1	6	95.0	3.66	1/13/2010@11:01:48			
244207001	1	7	7.80	0.386	1/13/2010@11:02:40			
1202012037 DUP	1	8	9.25	0.440	1/13/2010@11:03:33			
1202012039 MS	1	9	89.3	3.45	1/13/2010@11:04:26			
1202012041 MSD	1	10	91.1	3.52	1/13/2010@11:05:18			
WCN100113-03	1	S3	102	3.93	1/13/2010@11:06:10			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			2.0 < 10.0					

Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			2.0 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100113-08	1	S7	-1.55	0.0350	1/13/2010@11:08:00			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.55 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.55 > -5.00					
Message			CCB Passed					
Action			Continue					
244207002	1	11	4.20	0.251	1/13/2010@11:09:48			
244207003	1	12	0.714	0.120	1/13/2010@11:10:40			
244207005	1	13	0.784	0.122	1/13/2010@11:11:32			
244207006	1	14	0.512	0.112	1/13/2010@11:12:24			
244214001	1	15	-1.73	0.0281	1/13/2010@11:13:16			
244214002	1	16	-1.05	0.0535	1/13/2010@11:14:09			
244214003	1	17	-1.67	0.0302	1/13/2010@11:15:03			
244214004	1	18	-1.71	0.0287	1/13/2010@11:15:56			
244214005	1	19	-0.355	0.0797	1/13/2010@11:16:49			
244214006	1	20	-1.88	0.0223	1/13/2010@11:17:42			
WCN100113-03	1	S3	102	3.94	1/13/2010@11:18:35			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			2.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			2.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100113-08	1	S7	-1.57	0.0339	1/13/2010@11:20:25			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.57 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.57 > -5.00					
Message			CCB Passed					
Action			Continue					
244224011	1	21	3.40	0.221	1/13/2010@11:22:14			
244224012	1	22	-1.57	0.0339	1/13/2010@11:23:07			
244224013	1	23	0.416	0.109	1/13/2010@11:23:59			
244224014	1	24	-1.67	0.0302	1/13/2010@11:24:52			
244224015	1	25	-0.456	0.0759	1/13/2010@11:25:45			
244224016	1	26	-1.37	0.0417	1/13/2010@11:26:37			
244224017	1	27	-0.586	0.0710	1/13/2010@11:27:29			
244224018	1	28	2.70	0.194	1/13/2010@11:28:21			
1202012020 940229 MB	1	29	-1.47	0.0378	1/13/2010@11:29:13			
1202012027 LCS	1	30	30.2	1.23	1/13/2010@11:30:05		25.00	
WCN100113-03	1	S3	103	3.95	1/13/2010@11:30:57			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			2.7 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			2.7 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100113-08	1	S7	-1.27	0.0452	1/13/2010@11:32:47			CCB
Known Conc:			0.00					

DQM Test: > + Concentration Limit						
Result:		-1.27 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.27 > -5.00				
Message		CCB Passed				
Action		Continue				
244137005	1	31	1.42	0.147	1/13/2010@11:34:38	
1202012021	DUP	1	32	1.26	0.141	1/13/2010@11:35:31
1202012023	MS	1	33	100	3.86	1/13/2010@11:36:25
1202012025	MSD	1	34	103	3.97	1/13/2010@11:37:18
244137006		1	35	0.307	0.105	1/13/2010@11:38:11
1202012022	DUP	1	36	-0.421	0.0772	1/13/2010@11:39:04
1202012024	MS	1	37	101	3.87	1/13/2010@11:39:58
1202012026	MSD	1	38	104	3.99	1/13/2010@11:40:51
244137007		1	39	-0.733	0.0655	1/13/2010@11:41:43
244144001		1	40	0.0245	0.0940	1/13/2010@11:42:36
WCN100113-03		1	S3	104	3.98	1/13/2010@11:43:28
Known Conc:			100			CCV
DQM Test: > + Percent Relative Difference						
Result:		3.5 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		3.5 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100113-08	1	S7	-1.21	0.0476	1/13/2010@11:45:19	CCB
Known Conc:			0.00			
DQM Test: > + Concentration Limit						
Result:		-1.21 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.21 > -5.00				
Message		CCB Passed				
Action		Continue				
244144002	1	41	-1.29	0.0445	1/13/2010@11:47:07	
244144003	1	42	1.09	0.134	1/13/2010@11:47:59	
244144004	1	43	-0.669	0.0679	1/13/2010@11:48:51	
244144005	1	44	1.34	0.143	1/13/2010@11:49:44	
244144006	1	45	1.23	0.139	1/13/2010@11:50:35	
244144007	1	46	-0.0212	0.0922	1/13/2010@11:51:30	
244144008	1	47	-0.108	0.0890	1/13/2010@11:52:24	
244144009	1	48	6.47	0.336	1/13/2010@11:53:18	
244144010	1	49	0.0423	0.0946	1/13/2010@11:54:12	
244144011	1	50	-0.717	0.0661	1/13/2010@11:55:05	
WCN100113-03	1	S3	103	3.97	1/13/2010@11:55:57	CCV
Known Conc:			100			
DQM Test: > + Percent Relative Difference						
Result:		3.2 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		3.2 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100113-08	1	S7	-1.62	0.0322	1/13/2010@11:57:47	CCB
Known Conc:			0.00			
DQM Test: > + Concentration Limit						
Result:		-1.62 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.62 > -5.00				
Message		CCB Passed				
Action		Continue				

244144012	1	51	0.402	0.108	1/13/2010@11:59:36		
244144013	1	52	1.49	0.149	1/13/2010@12:00:30		
244144014	1	53	0.704	0.119	1/13/2010@12:01:23		
244144015	1	54	2.12	0.172	1/13/2010@12:02:16		
244144016	1	55	1.37	0.145	1/13/2010@12:03:08		
244144017	1	56	0.338	0.106	1/13/2010@12:04:01		
1202013057 940624 MB	1	57	-1.86	0.0233	1/13/2010@12:04:54		
1202013058 LCS	1	58	21.5	0.901	1/13/2010@12:05:46	25.00	
1202013059 LCSD	1	59	17.3	0.742	1/13/2010@12:06:38	25.00	
244272001	1	60	-1.18	0.0487	1/13/2010@12:07:30		
WCN100113-03	1	S3	103	3.96	1/13/2010@12:08:23		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				
WCN100113-08	1	S7	-1.59	0.0332	1/13/2010@12:10:13		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.59 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.59 > -5.00				
Message			CCB Passed				
Action			Continue				
244272002	1	61	-1.85	0.0235	1/13/2010@12:12:03		
244272003	1	62	-1.31	0.0437	1/13/2010@12:12:57		
244272004	1	63	1.34	0.143	1/13/2010@12:13:52		
244272005	1	64	-1.59	0.0334	1/13/2010@12:14:45		
1202013050 940621 MB	1	65	-1.84	0.0239	1/13/2010@12:15:39		
1202013051 LCS	1	66	-2.98	-0.0188	1/13/2010@12:16:32		
1202013052 LCSD	1	67	-1.30	0.0440	1/13/2010@12:17:25		
244272001	1	68	4.77	0.272	1/13/2010@12:18:19		
244272002	1	69	0.727	0.120	1/13/2010@12:19:12		
244272003	1	70	5.79	0.311	1/13/2010@12:20:05		
WCN100113-03	1	S3	103	3.96	1/13/2010@12:20:57		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			2.9 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			2.9 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100113-08	1	S7	-1.13	0.0506	1/13/2010@12:22:47		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.13 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.13 > -5.00				
Message			CCB Passed				
Action			Continue				
244272004	1	71	15.6	0.680	1/13/2010@12:24:36		
244272005	1	72	5.90	0.315	1/13/2010@12:25:29		
WCN100113-03	1	S3	102	3.94	1/13/2010@12:26:21		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			2.3 < 10.0				
Message			CCV Passed				
Action			Continue				

DQM Test: < - Percent Relative Difference							
Result:		2.3 < 10.0					
Message		CCV Passed					
Action		Continue					
WCN100113-08	1	S7	-1.53	0.0355	1/13/2010@12:28:11		CCB
Known Conc:		0.00					
DQM Test: > + Concentration Limit							
Result:		-1.53 < 5.00					
Message		CCB Passed					
Action		Continue					
DQM Test: < - Concentration Limit							
Result:		-1.53 > -5.00					
Message		CCB Passed					
Action		Continue					

Analyte Properties Table for OM\_1-13-2010\_10-41-26.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

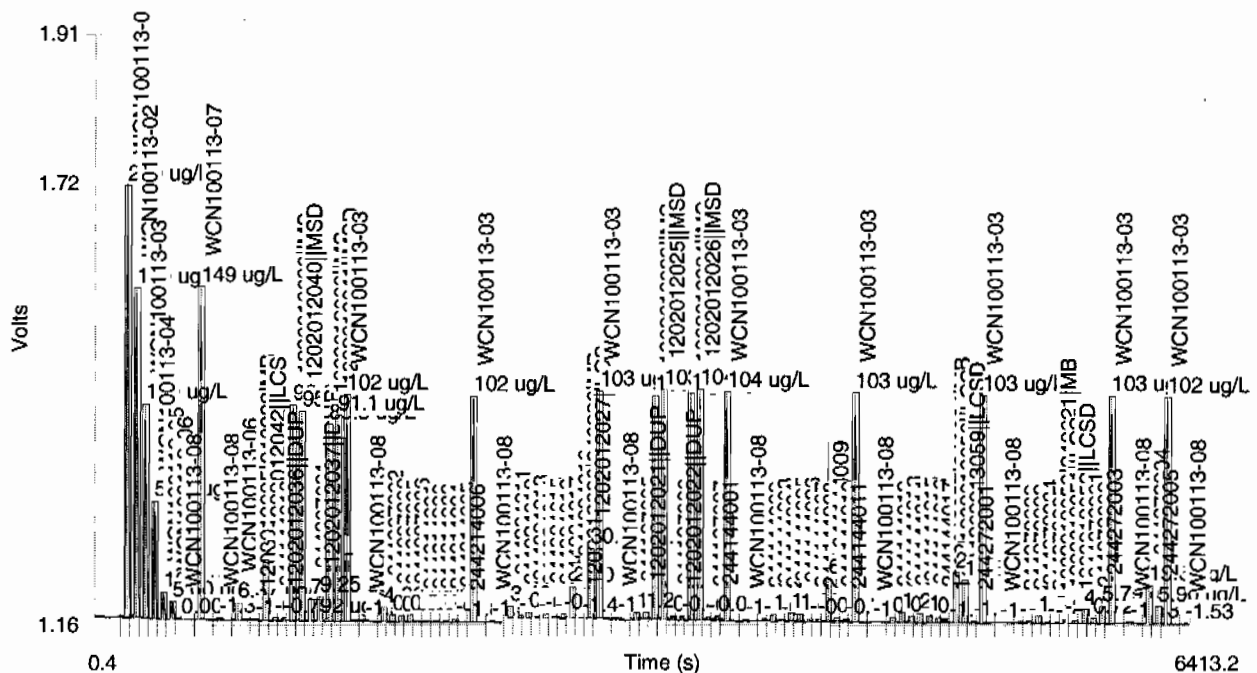
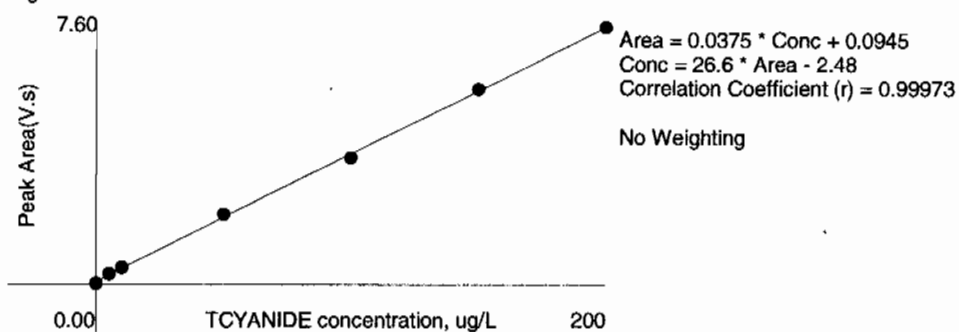


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.60	0.546	0.0	1/13/2010	10:45:48
2	150	1	5.78	0.415	-0.9	1/13/2010	10:46:40
3	100	1	3.73	0.269	3.0	1/13/2010	10:47:32
4	50.0	1	2.06	0.148	-4.2	1/13/2010	10:48:25
5	10.0	1	0.490	0.0337	-4.3	1/13/2010	10:49:18
6	5.00	1	0.309	0.0212	-9.6	1/13/2010	10:50:12
7	0.00	1	0.0320	7.42e-4		1/13/2010	10:51:06

Figure 1: TCYANIDE



This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	1/13/2010 12:41:13	OM_1-13-2010_12-39-40
CCB		1	axc2	1/13/2010 12:43:03	OM_1-13-2010_12-39-40
244144009	940229	1	axc2	1/13/2010 12:44:53	OM_1-13-2010_12-39-40
CCV		1	axc2	1/13/2010 12:45:45	OM_1-13-2010_12-39-40
CCB		1	axc2	1/13/2010 12:47:35	OM_1-13-2010_12-39-40



Original Run Filename: OM\_1-13-2010\_12-39-40.OMN created 1/13/2010 12:39:40  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_1-13-2010\_12-39-40.OMN last modified 1/13/2010 12:48:39  
 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					
			Conc. (ug/L)	Area (Vs)				
WCN100113-03	1	S3	105	4.05	1/13/2010@12:41:13			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			5.5 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.5 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100113-08	1	S7	-1.44	0.0390	1/13/2010@12:43:03			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.44 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.44 > -5.00					
Message			CCB Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
244144009 940229	1	48	-0.940	0.0577	1/13/2010@12:44:53			
WCN100113-03	1	S3	102	3.91	1/13/2010@12:45:45			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			1.5 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			1.5 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100113-08	1	S7	-1.58	0.0335	1/13/2010@12:47:35			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.58 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.58 > -5.00					
Message			CCB Passed					
Action			Continue					

Analyte Properties Table for OM\_1-13-2010\_12-39-40.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

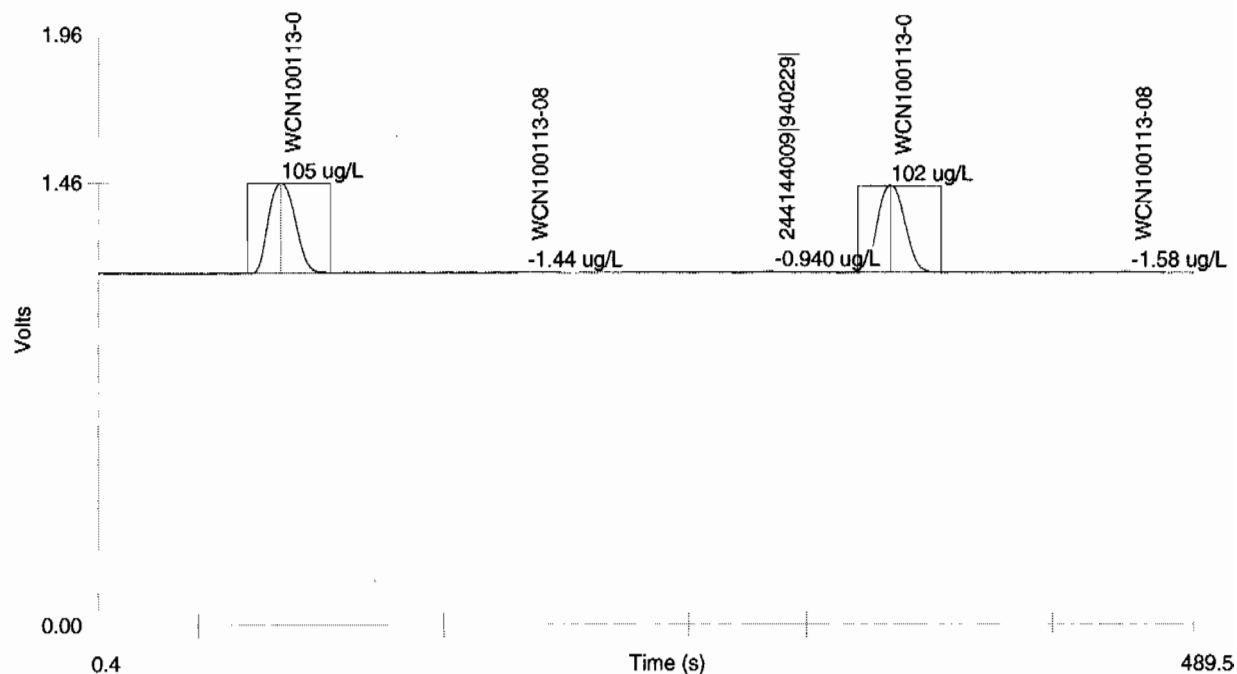
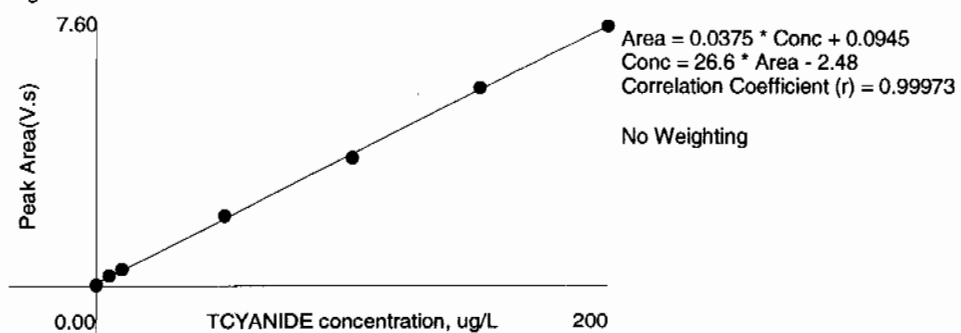


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.60	0.546	0.0	1/13/2010	10:45:48
2	150	1	5.78	0.415	-0.9	1/13/2010	10:46:40
3	100	1	3.73	0.269	3.0	1/13/2010	10:47:32
4	50.0	1	2.06	0.148	-4.2	1/13/2010	10:48:25
5	10.0	1	0.490	0.0337	-4.3	1/13/2010	10:49:18
6	5.00	1	0.309	0.0212	-9.6	1/13/2010	10:50:12
7	0.00	1	0.0320	7.42e-4		1/13/2010	10:51:06

Figure 1: TCYANIDE



# **General Chemistry Analysis**

# Case Narrative

**General Chemistry Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1128-1**

**Method/Analysis Information**

**Product:** Cyanide, Total  
**Analytical Batch:** 939574      **Method:** SW846 9012A  
**Prep Batch :** 939573      **Method:** SW846 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>
244145001	RE12-10-7662
1202010616	Method Blank (MB)
1202010617	244041001(NPDES03A130-10-10006) Sample Duplicate (DUP)
1202010618	244038001(RE52-10-9514) Sample Duplicate (DUP)
1202010620	244041001(NPDES03A130-10-10006) Matrix Spike (MS)
1202010621	244038001(RE52-10-9514) Matrix Spike (MS)
1202010623	244041001(NPDES03A130-10-10006) Matrix Spike Duplicate (MSD)
1202010624	244038001(RE52-10-9514) Matrix Spike Duplicate (MSD)
1202010626	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: 244038001 (RE52-10-9514) and 244041001 (NPDES03A130-10-10006).

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202010620 (NPDES03A130-10-10006).

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

The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1202010623 (NPDES03A130-10-10006).

**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. 1202010617 (NPDES03A130-10-10006) and 1202010618 (RE52-10-9514).

**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 following sample was re-analyzed due to CCV failure: 244145001 (RE12-10-7662).

### **Miscellaneous Information**

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

The following DER was generated for this SDG: 779837 1202010620 (NPDES03A130-10-10006) and 1202010623 (NPDES03A130-10-10006).

#### **Additional Comments**

Additional comments were not required for this SDG.

#### **Electronic Packaging Comment**

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.



**Certification Statement**

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

**Review Validation:**

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

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

Reviewer:  Date: 02Feb10

# 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: 10-1128-1 GEL Work Order: 244145

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

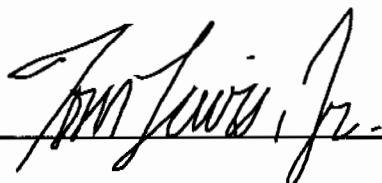
- \* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- \*\* Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by

A handwritten signature in black ink, appearing to read "Tom Lewis, Jr.", is written over a horizontal line.

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: January 15, 2010

Client SDG: 10-1128-1

Client Sample ID: RE12-10-7662  
Sample ID: 244145001  
Matrix: W  
Collect Date: 04-JAN-10 12:00  
Receive Date: 08-JAN-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	01/12/10	1344	939574	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/11/10	1322	939573

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

# **Quality Control Summary**

# GEL LABORATORIES LLC

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

## QC Summary

Report Date: January 15, 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: 244145

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Flow Injection Analysis</b>											
Batch	939574										
QC1202010617	244041001	DUP									
Cyanide, Total		U	ND	U	ND	ug/L	N/A		AXC2	01/12/10	12:14
QC1202010618	244038001	DUP									
Cyanide, Total		J	1.96	U	ND	ug/L	200 ^			01/12/10	12:04
QC1202010626	LCS										
Cyanide, Total	50.0				48.8	ug/L		97.6 (90%-110%)		01/12/10	11:54
QC1202010616	MB										
Cyanide, Total				U	5.00	ug/L				01/12/10	11:53
QC1202010620	244041001	MS									
Cyanide, Total	100	U	ND		33.0	ug/L		33 * (60%-127%)		01/12/10	12:14
QC1202010621	244038001	MS									
Cyanide, Total	100	J	1.96		101	ug/L		99 (60%-127%)		01/12/10	12:05
QC1202010623	244041001	MSD									
Cyanide, Total	100	U	ND		34.1	ug/L	3.28	34.1 * (0%-20%)		01/12/10	12:15
QC1202010624	244038001	MSD									
Cyanide, Total	100	J	1.96		105	ug/L	3.88	103 (0%-20%)		01/12/10	12:06

**Notes:**

RER is calculated at the 95% confidence level (2-sigma).

The Qualifiers in this report are defined as follows:

- \*\* Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E 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

## GEL LABORATORIES LLC

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

### QC Summary

Workorder: 244145

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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: 15-JAN-2010 11:04

**GEL Laboratories LLC**

**Contract: LANL01004**

**SDG #: 10-1128-1**

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
<b>ICV</b>	<b>12-JAN-2010 11:16:16</b>	<b>OM_1-12-2010_11-08-12</b>	<b>145</b>	<b>150</b>	<b>97</b>	<b>(90%-110%)</b>	<b>Yes</b>
CCV	12-JAN-2010 11:42:58	OM_1-12-2010_11-08-12	96.9	100	97	(90%-110%)	Yes
CCV	12-JAN-2010 11:55:19	OM_1-12-2010_11-08-12	97.9	100	98	(90%-110%)	Yes
CCV	12-JAN-2010 12:07:50	OM_1-12-2010_11-08-12	97.1	100	97	(90%-110%)	Yes
CCV	12-JAN-2010 12:20:19	OM_1-12-2010_11-08-12	96.9	100	97	(90%-110%)	Yes
CCV	12-JAN-2010 13:37:09	OM_1-12-2010_13-35-37	95.1	100	95	(90%-110%)	Yes
CCV	12-JAN-2010 13:49:37	OM_1-12-2010_13-35-37	96.4	100	96	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
<b>ICB</b>	<b>12-JAN-2010 11:18:06</b>	<b>OM_1-12-2010_11-08-12</b>	<b>-1.77</b>	<b>5</b>	<b>Yes</b>
CCB	12-JAN-2010 11:44:47	OM_1-12-2010_11-08-12	1.24	5	Yes
CCB	12-JAN-2010 11:57:09	OM_1-12-2010_11-08-12	1.11	5	Yes
CCB	12-JAN-2010 12:09:40	OM_1-12-2010_11-08-12	1.77	5	Yes
CCB	12-JAN-2010 12:22:09	OM_1-12-2010_11-08-12	1.19	5	Yes
CCB	12-JAN-2010 13:39:00	OM_1-12-2010_13-35-37	1.81	5	Yes
CCB	12-JAN-2010 13:51:27	OM_1-12-2010_13-35-37	1.51	5	Yes

# Cyanide, Total

# Prep LogBook

Analyst: AXS5  
Batch: 939573  
Lab SOP: GL-GC-E-067 REV# 13

Verified by:

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix	Type	Sample Id	Lot. Id	Spike Amount	Spike Units
MB	1202010616		EPA 335.4	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WASTE WATER	LCS	1202010626	URF1184831-02	.0125	mL
LCS	1202010626		EPA 335.4	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WASTE WATER	MS	1202010620	URF1184831-02	.025	mL
SAMPLE	244017002		EPA 335.4	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WASTE WATER	MS	1202010621	URF1184831-02	.025	mL
SAMPLE	244032002		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER	MS	1202010622	URF1184831-02	.025	mL
DUP	1202010619	244032002	SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER	MSD	1202010623	URF1184831-02	.025	mL
MS	1202010622	244032002	SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER	MSD	1202010624	URF1184831-02	.025	mL
MSD	1202010625	244032002	SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER	MSD	1202010625	URF1184831-02	.025	mL
SAMPLE	244038001		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					
DUP	1202010618	244038001	SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					
MS	1202010621	244038001	SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					
MSD	1202010624	244038001	SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					
SAMPLE	244038002		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					
SAMPLE	244038003		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					
SAMPLE	244038004		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					
SAMPLE	244041001		EPA 335.4	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WASTE WATER					
DUP	1202010617	244041001	EPA 335.4	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WASTE WATER					
MS	1202010620	244041001	EPA 335.4	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WASTE WATER					
MSD	1202010623	244041001	EPA 335.4	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WASTE WATER					
SAMPLE	244069002		EPA 335.4	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WASTE WATER					
SAMPLE	244080002		EPA 335.4	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WASTE WATER					
SAMPLE	244129001		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					
SAMPLE	244129002		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					
SAMPLE	244129003		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					
SAMPLE	244141001		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					
SAMPLE	244141002		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					
SAMPLE	244145001		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	WATER					

Prep Data Logbook Version 1:1

GEL Laboratories LLC

Page#

# Prep LogBook

Analyst: AXS5  
 Batch: 939573  
 Lab SOP: GL-GC-E-067 REV# 13

Verified by: \_\_\_\_\_

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
SAMPLE	244208001		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	.0125	mL
SAMPLE	244208002		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	.025	mL
SAMPLE	244213001		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	.025	mL
SAMPLE	244217001		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	.025	mL
SAMPLE	244217002		SW846 9010B Prep	11-JAN-2010 13:22	>12	25 mL	25 mL	1	.025	mL

## Comments:

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100111-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H2SO4
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	1/12/2010 11:09:07	OM_1-12-2010_11-08-12
150 ppb		1	axc2	1/12/2010 11:10:00	OM_1-12-2010_11-08-12
100 ppb		1	axc2	1/12/2010 11:10:52	OM_1-12-2010_11-08-12
50 ppb		1	axc2	1/12/2010 11:11:45	OM_1-12-2010_11-08-12
10 ppb		1	axc2	1/12/2010 11:12:38	OM_1-12-2010_11-08-12
CRDL 5.0 ppb		1	axc2	1/12/2010 11:13:32	OM_1-12-2010_11-08-12
ICAL-00		1	axc2	1/12/2010 11:14:26	OM_1-12-2010_11-08-12
ICV		1	axc2	1/12/2010 11:16:16	OM_1-12-2010_11-08-12
ICB		1	axc2	1/12/2010 11:18:06	OM_1-12-2010_11-08-12
CRDL		1	axc2	1/12/2010 11:19:56	OM_1-12-2010_11-08-12
1202011987	940215	1	axc2	1/12/2010 11:21:45	OM_1-12-2010_11-08-12
1202011994	940215	25	axc2	1/12/2010 11:22:38	OM_1-12-2010_11-08-12
244137001	940215	1	axc2	1/12/2010 11:23:31	OM_1-12-2010_11-08-12
244137002	940215	1	axc2	1/12/2010 11:24:25	OM_1-12-2010_11-08-12
244137003	940215	1	axc2	1/12/2010 11:25:17	OM_1-12-2010_11-08-12
244137004	940215	1	axc2	1/12/2010 11:26:10	OM_1-12-2010_11-08-12
244207004	940215	1	axc2	1/12/2010 11:27:03	OM_1-12-2010_11-08-12
1202011988	940215	1	axc2	1/12/2010 11:27:55	OM_1-12-2010_11-08-12
1202011990	940215	1	axc2	1/12/2010 11:28:48	OM_1-12-2010_11-08-12
1202011992	940215	1	axc2	1/12/2010 11:29:40	OM_1-12-2010_11-08-12
CCV		1	axc2	1/12/2010 11:30:33	OM_1-12-2010_11-08-12
CCB		1	axc2	1/12/2010 11:32:23	OM_1-12-2010_11-08-12
244218001	940215	1	axc2	1/12/2010 11:34:11	OM_1-12-2010_11-08-12
1202011989	940215	1	axc2	1/12/2010 11:35:02	OM_1-12-2010_11-08-12
1202011991	940215	1	axc2	1/12/2010 11:35:54	OM_1-12-2010_11-08-12
1202011993	940215	1	axc2	1/12/2010 11:36:46	OM_1-12-2010_11-08-12
244218002	940215	1	axc2	1/12/2010 11:37:38	OM_1-12-2010_11-08-12
244218003	940215	1	axc2	1/12/2010 11:38:32	OM_1-12-2010_11-08-12
244218004	940215	1	axc2	1/12/2010 11:39:25	OM_1-12-2010_11-08-12
244218005*	940215	1	axc2	1/12/2010 11:40:19	OM_1-12-2010_11-08-12
244224001	940215	1	axc2	1/12/2010 11:41:12	OM_1-12-2010_11-08-12
244224002	940215	1	axc2	1/12/2010 11:42:05	OM_1-12-2010_11-08-12
CCV		1	axc2	1/12/2010 11:42:58	OM_1-12-2010_11-08-12
CCB		1	axc2	1/12/2010 11:44:47	OM_1-12-2010_11-08-12
244224003	940215	1	axc2	1/12/2010 11:46:36	OM_1-12-2010_11-08-12
244224004	940215	1	axc2	1/12/2010 11:47:29	OM_1-12-2010_11-08-12
244224005	940215	1	axc2	1/12/2010 11:48:22	OM_1-12-2010_11-08-12
244224006	940215	1	axc2	1/12/2010 11:49:14	OM_1-12-2010_11-08-12
244224007	940215	1	axc2	1/12/2010 11:50:07	OM_1-12-2010_11-08-12
244224008	940215	1	axc2	1/12/2010 11:50:59	OM_1-12-2010_11-08-12
244224009	940215	1	axc2	1/12/2010 11:51:51	OM_1-12-2010_11-08-12
244224010	940215	1	axc2	1/12/2010 11:52:44	OM_1-12-2010_11-08-12
1202010616	939574	1	axc2	1/12/2010 11:53:35	OM_1-12-2010_11-08-12
1202010626	939574	1	axc2	1/12/2010 11:54:27	OM_1-12-2010_11-08-12
CCV		1	axc2	1/12/2010 11:55:19	OM_1-12-2010_11-08-12
CCB		1	axc2	1/12/2010 11:57:09	OM_1-12-2010_11-08-12
244017002	939574	1	axc2	1/12/2010 11:58:59	OM_1-12-2010_11-08-12
244032002	939574	1	axc2	1/12/2010 11:59:53	OM_1-12-2010_11-08-12
1202010619	939574	1	axc2	1/12/2010 12:00:46	OM_1-12-2010_11-08-12
1202010622	939574	1	axc2	1/12/2010 12:01:40	OM_1-12-2010_11-08-12
1202010625	939574	1	axc2	1/12/2010 12:02:33	OM_1-12-2010_11-08-12
244038001	939574	1	axc2	1/12/2010 12:03:27	OM_1-12-2010_11-08-12
1202010618	939574	1	axc2	1/12/2010 12:04:19	OM_1-12-2010_11-08-12
1202010621	939574	1	axc2	1/12/2010 12:05:12	OM_1-12-2010_11-08-12
1202010624	939574	1	axc2	1/12/2010 12:06:05	OM_1-12-2010_11-08-12
244038002	939574	1	axc2	1/12/2010 12:06:58	OM_1-12-2010_11-08-12
CCV		1	axc2	1/12/2010 12:07:50	OM_1-12-2010_11-08-12
CCB		1	axc2	1/12/2010 12:09:40	OM_1-12-2010_11-08-12

244038003	939574	1	axc2	1/12/2010	12:11:28	OM_1-12-2010_11-08-12
244038004	939574	1	axc2	1/12/2010	12:12:21	OM_1-12-2010_11-08-12
244041001	939574	1	axc2	1/12/2010	12:13:13	OM_1-12-2010_11-08-12
1202010617	939574	1	axc2	1/12/2010	12:14:05	OM_1-12-2010_11-08-12
1202010620	939574	1	axc2	1/12/2010	12:14:57	OM_1-12-2010_11-08-12
1202010623	939574	1	axc2	1/12/2010	12:15:52	OM_1-12-2010_11-08-12
244069002	939574	1	axc2	1/12/2010	12:16:45	OM_1-12-2010_11-08-12
244080002	939574	1	axc2	1/12/2010	12:17:39	OM_1-12-2010_11-08-12
244129001	939574	1	axc2	1/12/2010	12:18:33	OM_1-12-2010_11-08-12
244129002	939574	1	axc2	1/12/2010	12:19:26	OM_1-12-2010_11-08-12
CCV		1	axc2	1/12/2010	12:20:19	OM_1-12-2010_11-08-12
CCB		1	axc2	1/12/2010	12:22:09	OM_1-12-2010_11-08-12
244129003*	939574	1	axc2	1/12/2010	12:23:58	OM_1-12-2010_11-08-12
244141001*	939574	1	axc2	1/12/2010	12:24:51	OM_1-12-2010_11-08-12
244141002*	939574	1	axc2	1/12/2010	12:25:44	OM_1-12-2010_11-08-12
244145001*	939574	1	axc2	1/12/2010	12:26:37	OM_1-12-2010_11-08-12
244208001*	939574	1	axc2	1/12/2010	12:27:30	OM_1-12-2010_11-08-12
244208002*	939574	1	axc2	1/12/2010	12:28:23	OM_1-12-2010_11-08-12
244213001*	939574	1	axc2	1/12/2010	12:29:15	OM_1-12-2010_11-08-12
244217001*	939574	1	axc2	1/12/2010	12:30:07	OM_1-12-2010_11-08-12
244217002*	939574	1	axc2	1/12/2010	12:30:59	OM_1-12-2010_11-08-12
CCV		1	axc2	1/12/2010	12:31:52	OM_1-12-2010_11-08-12

Original Run Filename: OM\_1-12-2010\_11-08-12.OMN created 1/12/2010 11:08:12  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_1-12-2010\_11-08-12.OMN last modified 1/12/2010 12:32:57  
 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)				
WCN100112-01	1	S1	200	7.94	1/12/2010@11:09:07			200 ppb
WCN100112-02	1	S2	150	6.02	1/12/2010@11:10:00			150 ppb
WCN100112-03	1	S3	100	3.87	1/12/2010@11:10:52			100 ppb
WCN100112-04	1	S4	50.0	2.13	1/12/2010@11:11:45			50 ppb
WCN100112-05	1	S5	10.0	0.488	1/12/2010@11:12:38			10 ppb
WCN100112-06	1	S6	5.00	0.309	1/12/2010@11:13:32			CRDL 5.0 ppb
WCN100112-08	1	S7	0.00	0.00873	1/12/2010@11:14:26			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99970 > 0.99500					
Message			Pass					
Action			Continue					
WCN100112-07	1	S8	145	5.76	1/12/2010@11:16:16			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-3.6 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-3.6 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100112-08	1	S7	-1.77	0.00574	1/12/2010@11:18:06			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.77 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.77 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100112-06	1	S6	5.80	0.303	1/12/2010@11:19:56			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			5.80 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			5.80 > 2.50					
Message			Pass					
Action			None					
1202011987 940215 MB	1	1	-1.57	0.0133	1/12/2010@11:21:45			
1202011994 LCS	1	2	30.1	1.26	1/12/2010@11:22:38		25.00	
244137001	1	3	1.04	0.116	1/12/2010@11:23:31			
244137002	1	4	-0.267	0.0647	1/12/2010@11:24:25			
244137003	1	5	0.553	0.0969	1/12/2010@11:25:17			
244137004	1	6	0.0801	0.0783	1/12/2010@11:26:10			
244207004	1	7	0.151	0.0811	1/12/2010@11:27:03			
1202011988 DUP	1	8	-0.229	0.0662	1/12/2010@11:27:55			
1202011990 MS	1	9	86.3	3.47	1/12/2010@11:28:48			
1202011992 MSD	1	10	83.3	3.35	1/12/2010@11:29:40			
WCN100112-03	1	S3	98.8	3.96	1/12/2010@11:30:33			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-1.2 < 10.0					

			Message	CCV Passed					
			Action	Continue					
			DQM Test: < - Percent Relative Difference						
			Result:	-1.2 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100112-08	1	S7		1.80	0.146	1/12/2010@11:32:23			CCB
			Known Conc:	0.00					
			DQM Test: > + Concentration Limit						
			Result:	1.80 < 5.00					
			Message	CCB Passed					
			Action	Continue					
			DQM Test: < - Concentration Limit						
			Result:	1.80 > -5.00					
			Message	CCB Passed					
			Action	Continue					
244218001	1	11		2.38	0.169	1/12/2010@11:34:11			
1202011989  DUP	1	12		3.58	0.216	1/12/2010@11:35:02			
1202011991  MS	1	13		90.1	3.62	1/12/2010@11:35:54			
1202011993  MSD	1	14		94.2	3.78	1/12/2010@11:36:46			
244218002	1	15		7.26	0.361	1/12/2010@11:37:38			
244218003	1	16		6.17	0.318	1/12/2010@11:38:32			
244218004	1	17		3.93	0.230	1/12/2010@11:39:25			
244218005	1	18		7.79	0.381	1/12/2010@11:40:19			
244224001	1	19		1.11	0.119	1/12/2010@11:41:12			
244224002	1	20		0.132	0.0804	1/12/2010@11:42:05			
WCN100112-03	1	S3		96.9	3.88	1/12/2010@11:42:58			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					
WCN100112-08	1	S7		1.24	0.124	1/12/2010@11:44:47			CCB
			Known Conc:	0.00					
			DQM Test: > + Concentration Limit						
			Result:	1.24 < 5.00					
			Message	CCB Passed					
			Action	Continue					
			DQM Test: < - Concentration Limit						
			Result:	1.24 > -5.00					
			Message	CCB Passed					
			Action	Continue					
244224003	1	21		6.68	0.338	1/12/2010@11:46:36			
244224004	1	22		0.274	0.0860	1/12/2010@11:47:29			
244224005	1	23		6.44	0.328	1/12/2010@11:48:22			
244224006	1	24		2.57	0.176	1/12/2010@11:49:14			
244224007	1	25		6.77	0.341	1/12/2010@11:50:07			
244224008	1	26		0.952	0.113	1/12/2010@11:50:59			
244224009	1	27		5.13	0.277	1/12/2010@11:51:51			
244224010	1	28		1.33	0.127	1/12/2010@11:52:44			
1202010616 939574 MB	1	29		-1.88	0.00114	1/12/2010@11:53:35			
1202010626 LCS	1	30		48.8	1.99	1/12/2010@11:54:27			
WCN100112-03	1	S3		97.9	3.92	1/12/2010@11:55:19			CCV
			Known Conc:	100					
			DQM Test: > + Percent Relative Difference						
			Result:	-2.1 < 10.0					
			Message	CCV Passed					
			Action	Continue					
			DQM Test: < - Percent Relative Difference						
			Result:	-2.1 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100112-08	1	S7		1.11	0.119	1/12/2010@11:57:09			CCB
			Known Conc:	0.00					



DQM Test: > + Concentration Limit						
Result:	1.11 < 5.00					
Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	1.11 > -5.00					
Message	CCB Passed					
Action	Continue					
244017002	1	31	91.7	3.68	1/12/2010@11:58:59	
244032002	1	32	2.39	0.169	1/12/2010@11:59:53	
1202010619  DUP	1	33	-0.641	0.0500	1/12/2010@12:00:46	
1202010622  MS	1	34	96.7	3.88	1/12/2010@12:01:40	
1202010625  MSD	1	35	106	4.23	1/12/2010@12:02:33	
244038001	1	36	1.96	0.152	1/12/2010@12:03:27	
1202010618  DUP	1	37	-0.657	0.0494	1/12/2010@12:04:19	
1202010621  MS	1	38	101	4.04	1/12/2010@12:05:12	
1202010624  MSD	1	39	105	4.21	1/12/2010@12:06:05	
244038002	1	40	2.36	0.168	1/12/2010@12:06:58	
WCN100112-03	1	S3	97.1	3.89	1/12/2010@12:07:50	CCV
Known Conc:			100			
DQM Test: > + Percent Relative Difference						
Result:	-2.9 < 10.0					
Message	CCV Passed					
Action	Continue					
DQM Test: < - Percent Relative Difference						
Result:	-2.9 < 10.0					
Message	CCV Passed					
Action	Continue					
WCN100112-08	1	S7	1.77	0.145	1/12/2010@12:09:40	CCB
Known Conc:			0.00			
DQM Test: > + Concentration Limit						
Result:	1.77 < 5.00					
Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	1.77 > -5.00					
Message	CCB Passed					
Action	Continue					
244038003	1	41	-1.09	0.0323	1/12/2010@12:11:28	
244038004	1	42	-1.38	0.0208	1/12/2010@12:12:21	
244041001	1	43	-0.838	0.0423	1/12/2010@12:13:13	
1202010617  DUP	1	44	-1.41	0.0196	1/12/2010@12:14:05	
1202010620  MS	1	45	33.0	1.37	1/12/2010@12:14:57	
1202010623  MSD	1	46	34.1	1.42	1/12/2010@12:15:52	
244069002	1	47	15.1	0.669	1/12/2010@12:16:45	
244080002	1	48	53.7	2.19	1/12/2010@12:17:39	
244129001	1	49	1.22	0.123	1/12/2010@12:18:33	
244129002	1	50	-1.56	0.0139	1/12/2010@12:19:26	
WCN100112-03	1	S3	96.9	3.89	1/12/2010@12:20:19	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					
WCN100112-08	1	S7	1.19	0.122	1/12/2010@12:22:09	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					

244129003	1	51	-1.28	0.0250	1/12/2010@12:23:58			
244141001	1	52	-1.79	0.00481	1/12/2010@12:24:51			
244141002	1	53	-1.59	0.0126	1/12/2010@12:25:44			
244145001	1	54	-1.29	0.0245	1/12/2010@12:26:37			
244208001	1	55	-2.04	-0.00515	1/12/2010@12:27:30			
244208002	1	56	-1.71	0.00813	1/12/2010@12:28:23			
244213001	1	57	-1.90	3.21e-4	1/12/2010@12:29:15			
244217001	1	58	-2.17	-0.0101	1/12/2010@12:30:07			
244217002	1	59	-1.27	0.0253	1/12/2010@12:30:59			
WCN100112-03	1	S3	17.8	0.775	1/12/2010@12:31:52			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-82.2 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-82.2 < 10.0					
Message			CCV Failed					
Action			Stop Run					

Analyte Properties Table for OM\_1-12-2010\_11-08-12.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

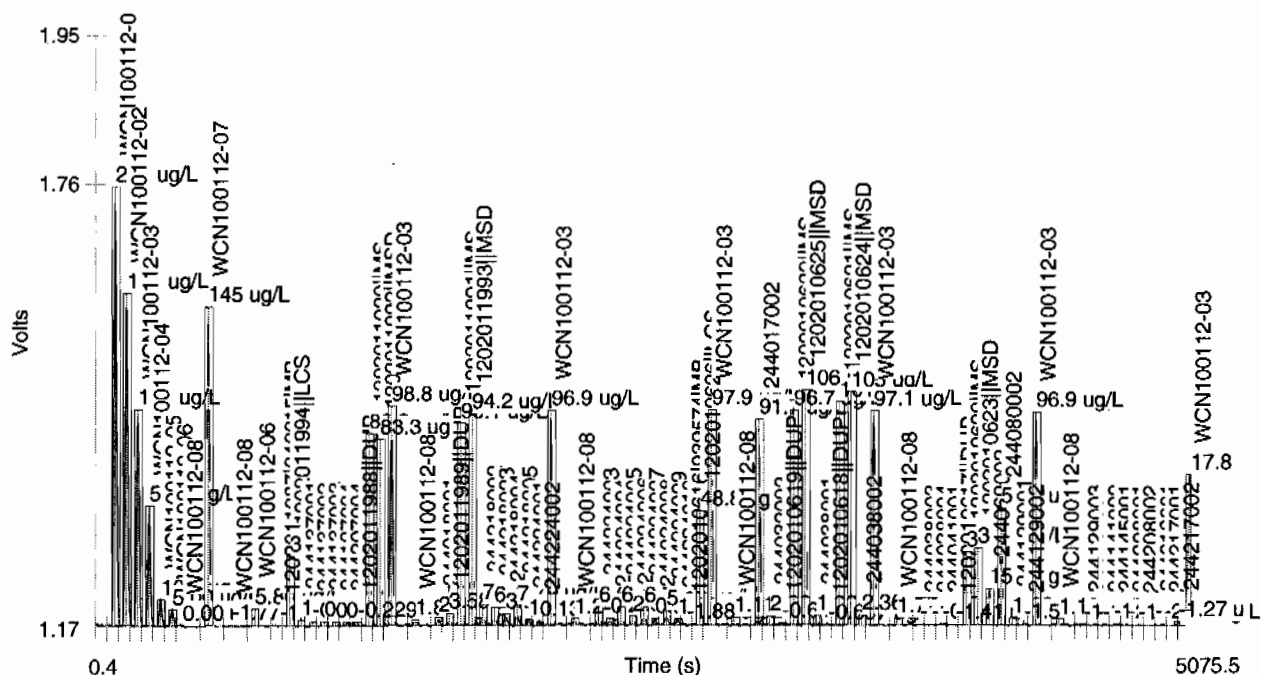
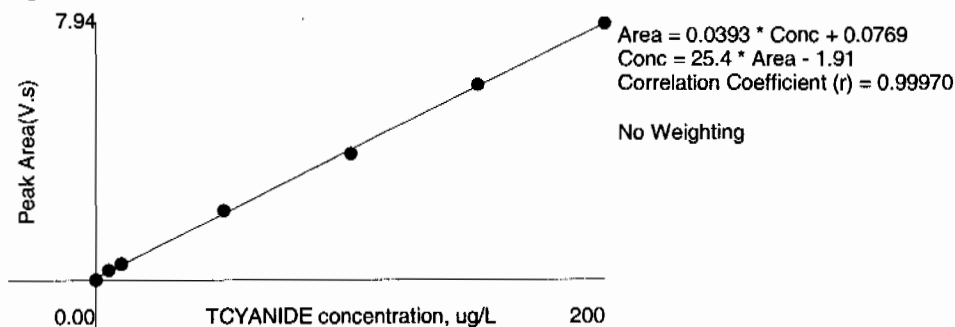


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.94	0.578	-0.0	1/12/2010	11:10:10
2	150	1	6.02	0.438	-0.8	1/12/2010	11:11:02
3	100	1	3.87	0.285	3.3	1/12/2010	11:11:55
4	50.0	1	2.13	0.156	-4.6	1/12/2010	11:12:48
5	10.0	1	0.488	0.0340	-3.9	1/12/2010	11:13:41
6	5.00	1	0.309	0.0212	-12.9	1/12/2010	11:14:35
7	0.00	1	0.00873	7.24e-4		1/12/2010	11:15:29

Figure 1: TCYANIDE



This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	1/12/2010 13:37:09	OM_1-12-2010_13-35-37
CCB		1	axc2	1/12/2010 13:39:00	OM_1-12-2010_13-35-37
244218005	940215	1	axc2	1/12/2010 13:40:49	OM_1-12-2010_13-35-37
244129003	939574	1	axc2	1/12/2010 13:41:43	OM_1-12-2010_13-35-37
244141001	939574	1	axc2	1/12/2010 13:42:36	OM_1-12-2010_13-35-37
244141002	939574	1	axc2	1/12/2010 13:43:29	OM_1-12-2010_13-35-37
244145001	939574	1	axc2	1/12/2010 13:44:21	OM_1-12-2010_13-35-37
244208001	939574	1	axc2	1/12/2010 13:45:14	OM_1-12-2010_13-35-37
244208002	939574	1	axc2	1/12/2010 13:46:07	OM_1-12-2010_13-35-37
244213001	939574	1	axc2	1/12/2010 13:46:59	OM_1-12-2010_13-35-37
244217001	939574	1	axc2	1/12/2010 13:47:52	OM_1-12-2010_13-35-37
244217002	939574	1	axc2	1/12/2010 13:48:45	OM_1-12-2010_13-35-37
CCV		1	axc2	1/12/2010 13:49:37	OM_1-12-2010_13-35-37
CCB		1	axc2	1/12/2010 13:51:27	OM_1-12-2010_13-35-37

Original Run Filename: OM\_1-12-2010\_13-35-37.OMN created 1/12/2010 13:35:37  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_1-12-2010\_13-35-37.OMN last modified 1/12/2010 13:52:31  
 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)				
WCN100112-03	1	S3	95.1	3.81	1/12/2010@13:37:09			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					
WCN100112-08	1	S7	1.81	0.146	1/12/2010@13:39:00			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			1.81 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.81 > -5.00					
Message			CCB Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
244218005 940215	1	18	5.84	0.305	1/12/2010@13:40:49			
244129003 939574	1	51	-0.821	0.0429	1/12/2010@13:41:43			
244141001	1	52	-1.42	0.0195	1/12/2010@13:42:36			
244141002	1	53	-1.44	0.0185	1/12/2010@13:43:29			
244145001	1	54	-1.06	0.0334	1/12/2010@13:44:21			
244208001	1	55	-1.93	-6.36e-4	1/12/2010@13:45:14			
244208002	1	56	-1.96	-0.00202	1/12/2010@13:46:07			
244213001	1	57	-0.831	0.0425	1/12/2010@13:46:59			
244217001	1	58	-1.36	0.0216	1/12/2010@13:47:52			
244217002	1	59	-1.65	0.0104	1/12/2010@13:48:45			
WCN100112-03	1	S3	96.4	3.87	1/12/2010@13:49:37			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-3.6 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-3.6 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100112-08	1	S7	1.51	0.135	1/12/2010@13:51:27			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			1.51 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.51 > -5.00					
Message			CCB Passed					
Action			Continue					

Analyte Properties Table for OM\_1-12-2010\_13-35-37.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

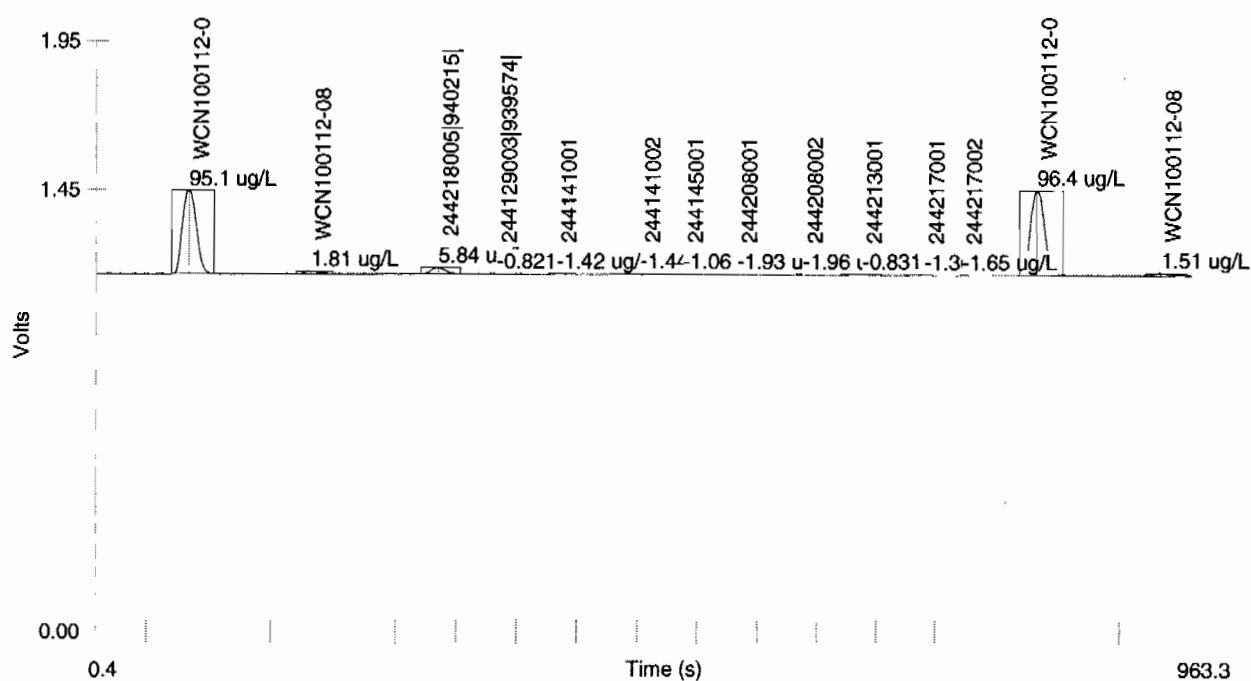
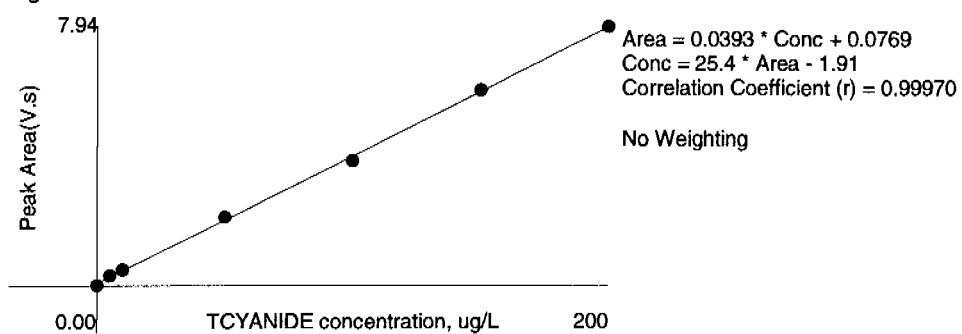


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7	0.00	1	0.00873	7.24e-4		1/12/2010	11:15:29

Figure 1: TCYANIDE



# Miscellaneous



### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 13-JAN-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> EPA 335.4	<b>Matrix Type:</b> Liquid	<b>Client Code:</b> BOSH, BRKL, EASV, ESHL,
<b>Batch ID:</b> 939574	<b>Sample Numbers:</b> See Below		
<p><b>Potentially affected work order(s)(SDG):</b> 244017,244032,244038(10-1119-1),244041(10-1121),244069,244080,244129(10-1132-1),244141(10-1145-1),244145(10-1128-1),244208(10-1159-1),244213(10-1154),244217(10-1152)</p> <p><b>Application Issues:</b></p> <p>Failed Recovery for MS/PS Failed Recovery for MSD/PSD</p>			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<p><b>Exception Description:</b></p> <p>1. Failed Recovery for MS/MSD:</p> <p>QC 1202010620MS QC 1202010623MSD</p>		<p>1. The matrix spike falls outside of the required acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.</p>	

**Originator's Name:**

Ashley Earl

13-JAN-10

**Data Validator/Group Leader:**

Elzbieta Szulc

13-JAN-10