

Wednesday, December 23, 2009

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: 10-1075
Per Agreement Number: 126310011
Project Cost Code: MR3A05529E00

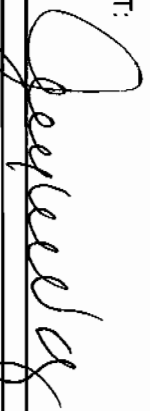
Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/23/2009
TURNAROUND/REPORT DUE: 1/22/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Received
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:6020		1	RE12-10-7596	R	12/21/2009	
		1	RE12-10-7597	R	12/21/2009	
		1	RE12-10-7598	R	12/21/2009	
		1	RE12-10-7599	R	12/21/2009	
		1	RE12-10-7600	R	12/21/2009	
		1	RE12-10-7601	R	12/21/2009	
		1	RE12-10-7602	R	12/21/2009	
		1	RE12-10-7603	R	12/21/2009	
		1	RE12-10-7606	R	12/21/2009	

Wednesday, December 23, 2009

REQUEST NUMBER: 10-1075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:9012A						
		1	RE12-10-7600	R	12/21/2009	
		1	RE12-10-7601	R	12/21/2009	
		1	RE12-10-7602	R	12/21/2009	
		1	RE12-10-7603	R	12/21/2009	
		1	RE12-10-7606	R	12/21/2009	
		1	RE12-10-7607	R	12/21/2009	
		1	RE12-10-7608	R	12/21/2009	

Final Page of REQUEST NUMBER 10-1075

Wednesday, December 23, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1075

LOS ALAMOS

REQUEST NUMBER: 10-1075

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/22/2010

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
RE12-10-7606	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7607	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7596	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7597	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7608	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7600	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7601	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7602	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7599	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7598	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7603	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2489

EVENT NAME: 4thQtr. FY09 - AOC C-12-003 - Threemile Canyon

SAMPLE ID: RE12-10-7596

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/2009		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		1155		SUB-MEDIA:		TUFF 1	
PRS ID: C-12-003		OK		SAMPLE TECH CODE: HA		NA	
LOCATION ID: 12-610634		↓		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	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY 12/21/09	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: Light brown silty sand, small rocks and roots

SAMPLE COMMENTS: NA

LOCATION DESC: 3-5, center of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 49$ dpm
 $\text{B8} \leq 2530$ dpm

P10 ambient reading 0.0 ppm
 WE negative

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Daniel Byers

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) <i>Tracy McFarland</i>	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) <i>Tracy McFarland</i> (Signature) <i>Tracy McFarland</i>	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2489

EVENT NAME: 4thQtr. FY09 - AOC C-12-003 - Threemile Canyon

SAMPLE ID: RE12-10-7597

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/21/2009	MEDIA:		QBT3
TIME COLLECTED (HH:MM)		1204	SUB-MEDIA:		TUFF 1
PRS ID:	C-12-003	ok	SAMPLE TECH CODE:		HA
LOCATION ID:	12-610634	↓	FIELD QC TYPE:		NA
LOCATION TYPE:	GENERIC	↓	FIELD PREP:		NA
TOP DEPTH:	0	2.5	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	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY 12M 12/21/09	None	y	
1		Met+U+CLO4+C N	1 LITER POLY 1 L	Ice	y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	y	

SAMPLE DESC:

light brown silty sand, small rocks and roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

3-5

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 49$ dpm
 $\beta \leq 2160$ dpm

PID ambient reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Daniel Byers

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) Tracy	Date/Time 12/21/09 1616	RECEIVED BY (Printed Name) (Signature) [Signature]	Date/Time 12/21/09 1616
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2489

EVENT NAME: 4thQtr. FY09 - AOC C-12-003 - Threemile Canyon

SAMPLE ID: RE12-10-7598

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/09		MEDIA:	OBT3		All h
TIME COLLECTED (HH:MM)		1223		SUB-MEDIA:	TUFF 1		NA
PRS ID:	C-12-003	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	12-610635	↓		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	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	AM241+GS+ISO PU+ISOU	1 LITER POLY 1 L	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 slightly moist silty sand, numerous rocks, few roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

3-3, south side of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 33$ dpm $\text{Bx} \leq 2280$ dpmPID ambient reading $\frac{0.0}{0.0}$ ppm

HE negative

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

Daniel Byers

RELINQUISHED BY (Printed Name) TL McFarland (Signature) <i>Tracy McFarland</i>	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) (Signature) <i>Jeffery</i>	Date/Time 12/21/09 1616
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2489

EVENT NAME: 4thQtr. FY09 - AOC C-12-003 - Threemile Canyon

SAMPLE ID: RE12-10-7599

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/2009		MEDIA: QBT3		ok	
TIME COLLECTED (HH:MM)		1230		SUB-MEDIA: TUFF 1		↓	
PRS ID: C-12-003		ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID: 12-610635		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		↓		FIELD PREP: NA		↓	
TOP DEPTH: 0		2.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		2.9		SCREEN/PORT DESC: NA			
FIELD MATRIX: R		ok		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY 72m 12/21/09	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:

Pinkish gray dry tuff

RE12-10-7610 FR

SAMPLE COMMENTS:

LOCATION DESC: 3-3 south side of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 33$ dpm $\beta \leq 2190$ dpmPID $\frac{\text{ambient reading}}{\text{reading}} = \frac{0.0}{0.0}$ ppm

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Daniel Byers

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) <i>TLMcFarland</i>	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) <i>Jeffrey G.</i> (Signature) <i>Jeffrey G.</i>	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2489

EVENT NAME: 4thQtr. FY09 - AOC C-12-003 - Threemile Canyon

SAMPLE ID: RE12-10-7600

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/2009		MEDIA:	QBT3		Allh
TIME COLLECTED (HH:MM)		1310		SUB-MEDIA:	TUFF 1		NA
PRS ID:	C-12-003	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	12-610636	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:	NA		
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY TAM 12/21/09	None	Y	
1	↓	Met+U+CLO4+C N	1 GAL POLY 1L	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:

Brownish beach moist silty sand, some rocks and roots

SAMPLE COMMENTS:

LOCATION DESC: 3-4 west side of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 22$ dpm PID ambient $\frac{0.0}{0.0}$ ppm
 $\text{Bx} \leq 1859$ dpm
HE negative

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

Nicholas Gallegos

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) Tracy	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) (Signature) [Signature]	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2489

EVENT NAME: 4thQtr. FY09 - AOC C-12-003 - Threemile Canyon

SAMPLE ID: RE12-10-7601

WORK ORDER:

AS PLANNED	AS COLLECTED	AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):	12/21/2009	MEDIA:	QBT3
TIME COLLECTED (HH:MM)	1319	SUB-MEDIA:	TUFF 1
PRS ID: C-12-003	ok	SAMPLE TECH CODE: HA	ok
LOCATION ID: 12-610636	↓	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: B	ok	EXCAVATED: YES/NO/NA	
COMPOSITE TYPE: NA	COMPOSITE TIME INTERVAL: NA	WATER FLOWING: YES/NO/NA	
BOREHOLE: YES/NO/NA	BOREHOLE DECLINATION: NA	BOREHOLE DIRECTION: NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY 73m 12/21/09	None	Y	
1	↓	Met+U+CLO4+C N	1 GAL POLY 1L	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Pinkish gray dry stuff

FD RE12-10-7608

SAMPLE COMMENTS:

NA

LOCATION DESC: 3-4, west side of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

 $\alpha \leq 60$ dpm
 $\beta \leq 2700$ dpmPID $\frac{\text{ambient reading}}{0.0}$ ppm

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

Nickolas Gallegos

RELINQUISHED BY (Printed Name) TL McFarland (Signature)	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) (Signature)	Date/Time 12/21/09 1616
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2489

EVENT NAME: 4thQtr. FY09 - AOC C-12-003 - Threemile Canyon

SAMPLE ID: RE12-10-7602

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/2009		MEDIA:	OBT3		Allh
TIME COLLECTED (HH:MM)		1331		SUB-MEDIA:	TUFF 1		NA
PRS ID:	C-12-003	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	12-610637	↓		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	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	AM241+GS+ISO PU+ISOU	1 LITER POLY 72m 12/21/09	None	Y	
1	↓	Met+U+CLO4+C N	1 LITER 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, slightly moist, numerous rocks, few roots

SAMPLE COMMENTS: NA

LOCATION DESC: 3-1, north side of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 22 dpm
β ≤ 2120 dpm



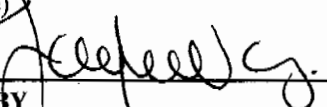
PID ambient reading 0.0 ppm
1.8
HE negative

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Nicholas Gallegos

RELINQUISHED BY (Printed Name) Kelly Henderson (Signature) 	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name)  (Signature) 	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2489

EVENT NAME: 4thQtr. FY09 - AOC C-12-003 - Threemile Canyon

SAMPLE ID: RE12-10-7603

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/21/2009	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1405	SUB-MEDIA:	TUFF 1	↓
PRS ID:	C-12-003	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	12-610637	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.9	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	ok	EXCAVATED: YES/NO/NA		
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA	
			WATER FLOWING: YES/NO/NA		
BOREHOLE: YES/NO/NA			BOREHOLE DECLINATION:	NA	
			BOREHOLE DIRECTION:	NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY 7m 12/21/09	None	Y	
1	↓	Met+U+CLO4+C N	1 GAL POLY 1L	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:

Pebble gray dry tuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

3-1, north side of AOC

FIELD SCREENING/MEASUREMENT RESULTS:


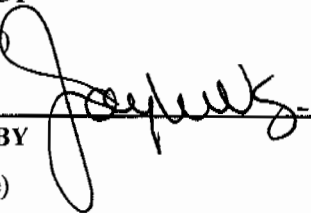
 $\alpha \leq 49$ dpm
 $\text{Bg} \leq 2730$ dpmPID ambient reading $\frac{0.0}{0.0}$ ppm

COLLECTED BY (PRINT)

Th McFarland

REVIEWED BY (PRINT)

Nikolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Kelly Henderson	12/21/09	(Printed Name)	12/21/09
(Signature) 	1610	(Signature) 	1610
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2489

EVENT NAME: 4thQtr. FY09 - AOC C-12-003 - Threemile Canyon

SAMPLE ID: RE12-10-7606

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/2009		MEDIA:	QBT3		Alh
TIME COLLECTED (HH:MM)		1415		SUB-MEDIA:	TUFF 1		NA
PRS ID:	C-12-003	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	UNK	12-410638		FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC	OK		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	NA		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	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 7th 12/21/09	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 silty sand, slightly moist, few roots, few rocks

SAMPLE COMMENTS:

NA

LOCATION DESC:

3-2, east side of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 55 dpm
 BX ≤ 2080 dpm

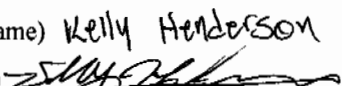
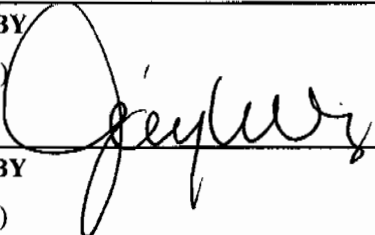
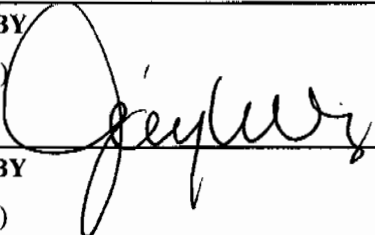
PID $\frac{\text{ambient}}{\text{reading}} = \frac{0.0}{1.3} \text{ ppm}$
 HE negative

COLLECTED BY (PRINT)

T McFarland

REVIEWED BY (PRINT)

Kelly Henderson

RELINQUISHED BY (Printed Name) Kelly Henderson (Signature) 	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name)  (Signature) 	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2489

EVENT NAME: 4thQtr. FY09 - AOC C-12-003 - Threemile Canyon

SAMPLE ID: RE12-10-7607

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/2009		MEDIA: QBT3		ok	
TIME COLLECTED (HH:MM)		1438		SUB-MEDIA: TUFF 1		↓	
PRS ID:	C-12-003	ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID:	UNK	12-G10638		FIELD QC TYPE: NA		↓	
LOCATION TYPE:	GENERIC	ok		FIELD PREP: NA		↓	
TOP DEPTH:	0	2.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH:	0	2.7		SCREEN/PORT DESC: NA			
FIELD MATRIX:	R	ok		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY 72m 12/21/09	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:

Pinkish gray tuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

3-2, east side of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

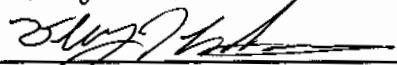
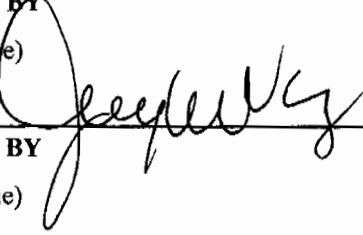
$\alpha \leq 66$ dpm
 $\text{BY} \leq 2490$ dpm
 PID ambient reading $\frac{0.0}{0.6}$ ppm

COLLECTED BY (PRINT)

Th McFarlane

REVIEWED BY (PRINT)

Nicholas Gallegos

RELINQUISHED BY (Printed Name) Kelly Henderson (Signature) 	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) (Signature) 	Date/Time 12/21/09 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2489

EVENT NAME: 4thQtr. FY09 - AOC C-12-003 - Threemile Canyon

SAMPLE ID: RE12-10-7608

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		12/21/2009		MEDIA:	QBT3		ok
TIME COLLECTED (HH:MM)		1319		SUB-MEDIA:	TUFF 1		↓
PRS ID:	C-12-003	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	UNK	12m 12/21/09 12-G10636		FIELD QC TYPE:	ED		↓
LOCATION TYPE:	GENERIC	ok		FIELD PREP:	NA		↓
TOP DEPTH:	0	2.0		SAMPLE USAGE:	QC		↓
BOTTOM DEPTH:	0	3.2		SCREEN/PORT DESC:	NA		
FIELD MATRIX:	R	ok		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	12m 12/21/09 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 RE12-10-7601

Pinkish gray dry stuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

3-4, west side of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

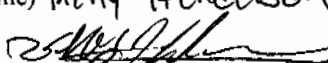
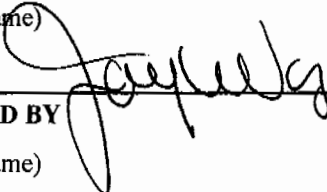
$\alpha \pm 60$ dpm PID $\frac{\text{ambient}}{\text{reading}} = \frac{0.0}{0.0}$ ppm
 $\text{BX} \pm 2700$ dpm

COLLECTED BY (PRINT)

Th McFarlane

REVIEWED BY (PRINT)

Nikolas Gallegos

RELINQUISHED BY (Printed Name) Kelly Henderson (Signature) 	Date/Time 12/21/09 1610	RECEIVED BY (Printed Name) (Signature) 	Date/Time 12/21/09 1610
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):

RE12-10-7555

56

57

58

61

62

63

96

97

98

99

RE12-10-7600

7603

7606

7601

7608

7602

7607

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):

.....

Henderson

Signature



Date

12/21/09

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1075 VALIDATION DATE: 2/8/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

None.

Reviewed by: CLL

Level: 1

Date: 2/9/10

VALIDATOR'S SIGNATURE:


Eric T. Mink

DATE: 2/8/10


Form 5121-1, Revision 0.0

LOS ALAMOS


Environmental Restoration Project

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

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

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

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

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

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

P perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846.6850 Modified

Matrix: SOIL

Extraction Batch ID: 236779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7606

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521001

Date Filtered: 07-JAN-10

Injection Volume (mL): 20

%Solids: 90

CAS No.	Analyte [^]	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	07-JAN-10 20:15	per0107036a
	Perchlorate Isotope Ratio						1	07-JAN-10 20:15	per0107036a
14797-73-0	Perchlorate-101	.558	2.23	0.558	ug/kg	U	1	07-JAN-10 20:15	per0107036a
	Perchlorate-O(18)			5.50	ug/kg		1	07-JAN-10 20:15	per0107036a

[^] 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: 236779
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7607
 Date Received: 24-DEC-02
 GEL Job No (SDG): 10-1075
 GEL Sample ID: 243521002
 Date Filtered: 07-JAN-10
 Injection Volume (uL): 20
 %Solids: 93.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.533	2.13	0.533	ug/kg	U	1	07-JAN-10 20:36	per0107039a
	Perchlorate Isotope Ratio						1	07-JAN-10 20:36	per0107039a
14797-73-0	Perchlorate-101	.533	2.13	0.533	ug/kg	U	1	07-JAN-10 20:36	per0107039a
	Perchlorate-O(18)			5.42	ug/kg		1	07-JAN-10 20:36	per0107039a

[^] 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: 236779
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7596
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1075
 GEL Sample ID: 243521003
 Date Filtered: 07-JAN-10
 Injection Volume (uL): 20
 %Solids: 90

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.22	0.556	ug/kg	U	1	07-JAN-10 20:43	per0107040a
	Perchlorate Isotope Ratio						1	07-JAN-10 20:43	per0107040a
14797-73-0	Perchlorate-101	.556	2.22	0.556	ug/kg	U	1	07-JAN-10 20:43	per0107040a
	Perchlorate-O(18)			5.58	ug/kg		1	07-JAN-10 20:43	per0107040a

[^] 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: 236779
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7597
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1075
 GEL Sample ID: 243521004
 Date Filtered: 07-JAN-10
 Injection Volume (uL): 20
 %Solids: 94.9

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.527	2.11	1.90	ug/kg	J	1	07-JAN-10 20:50	per0107041a
	Perchlorate Isotope Ratio			3.19			1	07-JAN-10 20:50	per0107041a
14797-73-0	Perchlorate-101	.527	2.11	1.77	ug/kg	J	1	07-JAN-10 20:50	per0107041a
	Perchlorate-O(18)			5.51	ug/kg		1	07-JAN-10 20:50	per0107041a

[^] 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: 936779
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7608
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1075
 GEL Sample ID: 243521005
 Date Filtered: 07-JAN-10
 Injection Volume (uL): 20
 %Solids: 89

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	07-JAN-10 21:18	per0107045a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:18	per0107045a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	07-JAN-10 21:18	per0107045a
	Perchlorate-O(18)			5.57	ug/kg		1	07-JAN-10 21:18	per0107045a

[^] 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: 936772
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7600
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1075
 GEL Sample ID: 243521006
 Date Filtered: 07-JAN-10
 Injection Volume (uL): 20
 %Solids: 86

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.582	2.33	0.582	ug/kg	U	1	07-JAN-10 21:25	per0107046a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:25	per0107046a
14797-73-0	Perchlorate-101	.582	2.33	0.582	ug/kg	U	1	07-JAN-10 21:25	per0107046a
	Perchlorate-O(18)			6.08	ug/kg		1	07-JAN-10 21:25	per0107046a

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

*Concentration =
 Instrument Value X Concentrated Extract Volume X 1
 Aliquot %Solids

Form 1

P perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 236772
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7601
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1075
 GEL Sample ID: 243521007
 Date Filtered: 07-JAN-10
 Injection Volume (uL): 20
 %Solids: 90

CAS No.	Analyte [^]	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	07-JAN-10 21:33	per0107047a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:33	per0107047a
14797-73-0	Perchlorate-101	.558	2.23	0.558	ug/kg	U	1	07-JAN-10 21:33	per0107047a
	Perchlorate-O(18)			5.62	ug/kg		1	07-JAN-10 21:33	per0107047a

[^] 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: 236772

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7602

Date Received: 24-DEC-02

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521008

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 93

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	07-JAN-10 21:40	per0107048a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:40	per0107048a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	07-JAN-10 21:40	per0107048a
	Perchlorate-O(18)			5.07	ug/kg		1	07-JAN-10 21:40	per0107048a

[^] 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: 236779

Extraction Type: Solid Prep

Client Sample No.

RE12-10-7599

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521009

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 91

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.549	2.2	0.549	ug/kg	U	1	07-JAN-10 21:47	per0107049a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:47	per0107049a
14797-73-0	Perchlorate-101	.549	2.2	0.549	ug/kg	U	1	07-JAN-10 21:47	per0107049a
	Perchlorate-O(18)			5.48	ug/kg		1	07-JAN-10 21:47	per0107049a

[^] 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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7598

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521010

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.21	0.554	ug/kg	U	1	07-JAN-10 21:54	per0107050a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:54	per0107050a
14797-73-0	Perchlorate-101	.554	2.21	0.554	ug/kg	U	1	07-JAN-10 21:54	per0107050a
	Perchlorate-O(18)			5.49	ug/kg		1	07-JAN-10 21:54	per0107050a

[^] 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


Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 936779
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7603
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1075
 GEL Sample ID: 243521011
 Date Filtered: 07-JAN-10
 Injection Volume (uL): 20
 %Solids: 96.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	07-JAN-10 22:01	per0107051a
	Perchlorate Isotope Ratio						1	07-JAN-10 22:01	per0107051a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	07-JAN-10 22:01	per0107051a
	Perchlorate-O(18)			5.12	ug/kg		1	07-JAN-10 22:01	per0107051a

[^] 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	
<div style="display: flex; justify-content: space-between;"> <div>5118-1</div> <div style="text-align: center;">Data Validation Cover Sheet</div> </div>	<div style="text-align: center;">Records Use only</div> <div style="text-align: center;">  </div>


Section I.	
REQUEST NUMBER: <u>10-1075</u>	VALIDATION DATE: <u>2/8/10</u>
LAB CODE: <u>GEL</u>	
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>	
VALIDATOR: <u>Eric T. Mink</u>	ORGANIZATION: <u>Analytical Quality Associates, Inc.</u>
ANALYTICAL SUITE (CHECK ALL THAT APPLY):	
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES
<input type="checkbox"/> TPH-DRO	<input checked="" type="checkbox"/> METALS
<input type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY
	<input type="checkbox"/> DIOXIN FURANS
	<input type="checkbox"/> PCB CONGENERS
	<input type="checkbox"/> LCMSMS HIGH EXPLOSIVES
	<input type="checkbox"/> LCMSMS PERCHLORATES
	<input type="checkbox"/> ORGANOCHLORINE 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, Sb and Fe were detected. All the Fe sample results were detects >50X the MB concentration and, thus, were not qualified, based on professional judgment. The Sb result for samples RE12-10-7607, -7608, -7601, -7599 and -7603 were detects ≤5X the MB concentration and, thus, were qualified U,I4. The Sb result for sample -7597 was a detect >5X but ≤50X the MB concentration and, thus, was qualified J,I4a. All the other Sb sample results were also detects >5X but ≤50X the MB concentration, but were qualified ND due to CCB contamination and, thus, were not further qualified.
2. In the ICB and/or CCB, Sb, Fe, Pb and U were detected. The Sb results for all the samples except -7597 were detects ≤5X the greatest blank concentration and, thus, were qualified U,I4b. All the other associated sample results were detects >5X the greatest blank concentration and, thus, were not qualified.
3. In the FR blank, sample -7610 (from RN 10-1105), associated with all the samples, Na and K were detected. The


DATA VALIDATION COVER SHEET	
5118-1	Records Use only
<p align="center">Data Validation Cover Sheet</p> 	
<p>Na results for sample -7602, -7600, -7597 and -7606 were detects $\leq 5X$ the blank concentration and, thus, were qualified U,I4d. All the other associated sample results were detects $> 5X$ the blank concentrations and, thus, were not qualified.</p> <p>4. The MS %Rs were $>$ the laboratory's UAL for Ba, K and Mg. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %R was $<$ the laboratory's LAL but $\geq 10\%$ for Se. The associated sample results were NDs and, thus, were qualified UJ,I6a. The MS %Rs were also $>$ the laboratory's UAL for Al, Fe and Mn. However, the associated parent sample concentrations were $> 4X$ the spike concentrations. Thus, the associated sample results were not qualified, based on professional judgment.</p> <p>5. It should be noted that the Hg matrix QC analyses were performed on a LANL sample from a different RN. No sample data were qualified.</p>	
Reviewed by: CLL	Level: 1
Date: 2/9/10	
<p>VALIDATOR'S SIGNATURE: <u>Eli T. Mih</u> DATE: 2/8/10</p>	
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. The sample result is $\leq 5X$ the concentration of the related analyte in the method blank.	U, I4	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was $> 5X$.	N/A	J, I4a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18. The sample result is $\leq 5X$ the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. The associated matrix spike recovery was $< 10\%$. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23. The associated matrix spike recovery was $< \text{the LAL}$ but $> 10\%$. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. The associated matrix spike recovery was $> \text{the UAL}$. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

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

Yes No N/A				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 Metals Analytical Data Validation Checklist	Records Use only 

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521001

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7606

LEVEL: Low

DATE RECEIVED 24-DEC-09

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	9050000	ug/Kg		7550	22200	22200	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-36-0	Antimony U,14b	2240	ug/Kg		366	1110	1110	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-38-2	Arsenic	1.74	mg/kg		0.216	1.08	1.08	2	MS	RMJ	01/15/10 06:09	100114-2	936820
7440-39-3	Barium J+,16b	122000	ug/Kg	N	111	555	555	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-41-7	Beryllium	0.698	mg/kg		0.0216	0.108	0.108	2	MS	RMJ	01/15/10 06:09	100114-2	936820
7440-43-9	Cadmium	555	ug/Kg	U	111	555	555	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-70-2	Calcium	1830000	ug/Kg		8880	27700	27700	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-47-3	Chromium	14500	ug/Kg		166	555	555	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-48-4	Cobalt	5160	ug/Kg		166	555	555	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-50-8	Copper	6870	ug/Kg		333	1110	1110	1	P	HSC	01/11/10 15:38	011110A-1	936817
7439-89-6	Iron	11800000	ug/Kg		8880	27700	27700	1	P	HSC	01/11/10 15:38	011110A-1	936817
7439-92-1	Lead	12100	ug/Kg		277	1110	1110	1	P	HSC	01/11/10 15:38	011110A-1	936817
7439-95-4	Magnesium J+,16b	1680000	ug/Kg	N	9430	33300	33300	1	P	HSC	01/11/10 15:38	011110A-1	936817
7439-96-5	Manganese	306000	ug/Kg		222	1110	1110	1	P	HSC	01/11/10 15:38	011110A-1	936817
7439-97-6	Mercury	13.4	ug/kg		4.32	12.7	12.7	1	AV	JXL	01/07/10 11:49	010710S2-4	937638
7440-02-0	Nickel	5.87	mg/kg		0.108	0.432	0.432	2	MS	RMJ	01/15/10 06:09	100114-2	936820
7440-09-7	Potassium J+,16b	1510000	ug/Kg	N	7100	27700	27700	1	P	HSC	01/11/10 15:38	011110A-1	936817
7782-49-2	Selenium UJ,16a	1.08	mg/kg	UN	0.54	1.08	1.08	2	MS	RMJ	01/15/10 06:09	100114-2	936820
7440-22-4	Silver	555	ug/Kg	U	111	555	555	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-23-5	Sodium U,14d	54500	ug/Kg		7770	27700	27700	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-28-0	Thallium	0.167	mg/kg	J	0.0648	0.216	0.216	2	MS	RMJ	01/16/10 06:59	100115-3	936820
7440-61-1	Uranium	2.35	mg/kg	*E	0.0142	0.0432	0.0432	2	MS	RMJ	01/16/10 06:59	100115-3	936820
7440-62-2	Vanadium	27900	ug/Kg		111	555	555	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-66-6	Zinc	22700	ug/Kg		366	1110	1110	1	P	HSC	01/11/10 15:38	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.503	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.517	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.527	g	30	mL	01/06/10	TXB3

ETM
2/8/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521002

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7607

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 93.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7170000	ug/Kg		7250	21300	21300	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-36-0	Antimony U,14	1450	ug/Kg		352	1070	1070	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-38-2	Arsenic	1.3	mg/kg		0.207	1.03	1.03	2	MS	RMJ	01/15/10 06:38	100114-2	936820
7440-39-3	Barium J+,16b	111000	ug/Kg	N	107	533	533	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-41-7	Beryllium	0.524	mg/kg		0.0207	0.103	0.103	2	MS	RMJ	01/15/10 06:38	100114-2	936820
7440-43-9	Cadmium	533	ug/Kg	U	107	533	533	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-70-2	Calcium	1370000	ug/Kg		8530	26600	26600	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-47-3	Chromium	37200	ug/Kg		160	533	533	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-48-4	Cobalt	3440	ug/Kg		160	533	533	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-50-8	Copper	3390	ug/Kg		320	1070	1070	1	P	HSC	01/11/10 15:57	011110A-1	936817
7439-89-6	Iron	12000000	ug/Kg		8530	26600	26600	1	P	HSC	01/11/10 15:57	011110A-1	936817
7439-92-1	Lead	5410	ug/Kg		266	1070	1070	1	P	HSC	01/11/10 15:57	011110A-1	936817
7439-95-4	Magnesium J+,16b	1340000	ug/Kg	N	9060	32000	32000	1	P	HSC	01/11/10 15:57	011110A-1	936817
7439-96-5	Manganese	286000	ug/Kg		213	1070	1070	1	P	HSC	01/11/10 15:57	011110A-1	936817
7439-97-6	Mercury	32.2	ug/kg		4.21	12.4	12.4	1	AV	JXL1	01/07/10 11:51	010710S2-4	937638
7440-02-0	Nickel	6.08	mg/kg		0.103	0.413	0.413	2	MS	RMJ	01/15/10 06:38	100114-2	936820
7440-09-7	Potassium J+,16b	1040000	ug/Kg	N	6820	26600	26600	1	P	HSC	01/11/10 15:57	011110A-1	936817
7782-49-2	Selenium UJ,16a	1.03	mg/kg	UN	0.516	1.03	1.03	2	MS	RMJ	01/15/10 06:38	100114-2	936820
7440-22-4	Silver	533	ug/Kg	U	107	533	533	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-23-5	Sodium	216000	ug/Kg		7460	26600	26600	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-28-0	Thallium	0.119	mg/kg	J	0.062	0.207	0.207	2	MS	RMJ	01/16/10 07:17	100115-3	936820
7440-61-1	Uranium	0.345	mg/kg	*E	0.0136	0.0413	0.0413	2	MS	RMJ	01/16/10 07:17	100115-3	936820
7440-62-2	Vanadium	14300	ug/Kg		107	533	533	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-66-6	Zinc	34300	ug/Kg		352	1070	1070	1	P	HSC	01/11/10 15:57	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.5	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.516	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.516	g	30	mL	01/06/10	TXB3

ETM
2/8/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521003

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7596

LEVEL: Low

DATE RECEIVED 24-DEC-09

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	13200000	ug/Kg		7420	21800	21800	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-36-0	Antimony U,14b	2370	ug/Kg		360	1090	1090	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-38-2	Arsenic	2.24	mg/kg		0.219	1.09	1.09	2	MS	RMJ	01/15/10 06:44	100114-2	936820
7440-39-3	Barium J+,16b	161000	ug/Kg	N	109	546	546	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-41-7	Beryllium	0.984	mg/kg		0.0219	0.109	0.109	2	MS	RMJ	01/15/10 06:44	100114-2	936820
7440-43-9	Cadmium	546	ug/Kg	U	109	546	546	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-70-2	Calcium	2050000	ug/Kg		8730	27300	27300	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-47-3	Chromium	11900	ug/Kg		164	546	546	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-48-4	Cobalt	5430	ug/Kg		164	546	546	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-50-8	Copper	6300	ug/Kg		327	1090	1090	1	P	HSC	01/11/10 16:01	011110A-1	936817
7439-89-6	Iron	12700000	ug/Kg		8730	27300	27300	1	P	HSC	01/11/10 16:01	011110A-1	936817
7439-92-1	Lead	14600	ug/Kg		273	1090	1090	1	P	HSC	01/11/10 16:01	011110A-1	936817
7439-95-4	Magnesium J+,16b	1820000	ug/Kg	N	9280	32700	32700	1	P	HSC	01/11/10 16:01	011110A-1	936817
7439-96-5	Manganese	265000	ug/Kg		218	1090	1090	1	P	HSC	01/11/10 16:01	011110A-1	936817
7439-97-6	Mercury	24.4	ug/kg		3.88	11.4	11.4	1	AV	JXL1	01/07/10 11:53	010710S2-4	937638
7440-02-0	Nickel	7.43	mg/kg		0.109	0.438	0.438	2	MS	RMJ	01/15/10 06:44	100114-2	936820
7440-09-7	Potassium J+,16b	1600000	ug/Kg	N	6990	27300	27300	1	P	HSC	01/11/10 16:01	011110A-1	936817
7782-49-2	Selenium UJ,16a	1.09	mg/kg	UN	0.547	1.09	1.09	2	MS	RMJ	01/15/10 06:44	100114-2	936820
7440-22-4	Silver	546	ug/Kg	U	109	546	546	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-23-5	Sodium	183000	ug/Kg		7640	27300	27300	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-28-0	Thallium	0.217	mg/kg	J	0.0656	0.219	0.219	2	MS	RMJ	01/16/10 07:29	100115-3	936820
7440-61-1	Uranium	0.937	mg/kg	*E	0.0144	0.0438	0.0438	2	MS	RMJ	01/16/10 07:29	100115-3	936820
7440-62-2	Vanadium	29700	ug/Kg		109	546	546	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-66-6	Zinc	21800	ug/Kg		360	1090	1090	1	P	HSC	01/11/10 16:01	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.509	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.508	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.584	g	30	mL	01/06/10	TXB3

ETM
2/8/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521004

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7597

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 94.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7600000	ug/Kg		7110	20900	20900	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-36-0	Antimony J,14a	2740	ug/Kg		345	1050	1050	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-38-2	Arsenic	1.64	mg/kg		0.203	1.01	1.01	2	MS	RMJ	01/15/10 06:50	100114-2	936820
7440-39-3	Barium J+,16b	125000	ug/Kg	N	105	523	523	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-41-7	Beryllium	0.626	mg/kg		0.0203	0.101	0.101	2	MS	RMJ	01/15/10 06:50	100114-2	936820
7440-43-9	Cadmium	523	ug/Kg	U	105	523	523	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-70-2	Calcium	1340000	ug/Kg		8370	26100	26100	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-47-3	Chromium	10400	ug/Kg		157	523	523	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-48-4	Cobalt	6660	ug/Kg		157	523	523	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-50-8	Copper	3860	ug/Kg		314	1050	1050	1	P	HSC	01/11/10 16:12	011110A-1	936817
7439-89-6	Iron	11100000	ug/Kg		8370	26100	26100	1	P	HSC	01/11/10 16:12	011110A-1	936817
7439-92-1	Lead	12700	ug/Kg		261	1050	1050	1	P	HSC	01/11/10 16:12	011110A-1	936817
7439-95-4	Magnesium J+,16b	1340000	ug/Kg	N	8890	31400	31400	1	P	HSC	01/11/10 16:12	011110A-1	936817
7439-96-5	Manganese	363000	ug/Kg		209	1050	1050	1	P	HSC	01/11/10 16:12	011110A-1	936817
7439-97-6	Mercury	9.76	ug/kg	J	3.84	11.3	11.3	1	AV	JXL1	01/07/10 11:55	010710S2-4	937638
7440-02-0	Nickel	5.03	mg/kg		0.101	0.405	0.405	2	MS	RMJ	01/15/10 06:50	100114-2	936820
7440-09-7	Potassium J+,16b	1410000	ug/Kg	N	6690	26100	26100	1	P	HSC	01/11/10 16:12	011110A-1	936817
7782-49-2	Selenium UJ,16a	1.01	mg/kg	UN	0.507	1.01	1.01	2	MS	RMJ	01/15/10 06:50	100114-2	936820
7440-22-4	Silver	523	ug/Kg	U	105	523	523	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-23-5	Sodium U,14d	78100	ug/Kg		7320	26100	26100	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-28-0	Thallium	0.158	mg/kg	J	0.0608	0.203	0.203	2	MS	RMJ	01/16/10 07:32	100115-3	936820
7440-61-1	Uranium	0.641	mg/kg	*E	0.0134	0.0405	0.0405	2	MS	RMJ	01/16/10 07:32	100115-3	936820
7440-62-2	Vanadium	28000	ug/Kg		105	523	523	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-66-6	Zinc	21000	ug/Kg		345	1050	1050	1	P	HSC	01/11/10 16:12	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.504	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.52	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.56	g	30	mL	01/06/10	TXB3

ETM
2/8/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521005

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7608

LEVEL: Low

DATE RECEIVED 24-DEC-09

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	6250000	ug/Kg		7500	22100	22100	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-36-0	Antimony U,14	1360	ug/Kg		364	1100	1100	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-38-2	Arsenic	1.08	mg/kg	J	0.22	1.1	1.1	2	MS	RMJ	01/15/10 07:08	100114-2	936820
7440-39-3	Barium J+,16b	63600	ug/Kg	N	110	551	551	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-41-7	Beryllium	0.424	mg/kg		0.022	0.11	0.11	2	MS	RMJ	01/15/10 07:08	100114-2	936820
7440-43-9	Cadmium	551	ug/Kg	U	110	551	551	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-70-2	Calcium	1330000	ug/Kg		8820	27600	27600	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-47-3	Chromium	6190	ug/Kg		165	551	551	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-48-4	Cobalt	3130	ug/Kg		165	551	551	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-50-8	Copper	2910	ug/Kg		331	1100	1100	1	P	HSC	01/11/10 16:15	011110A-1	936817
7439-89-6	Iron	11100000	ug/Kg		8820	27600	27600	1	P	HSC	01/11/10 16:15	011110A-1	936817
7439-92-1	Lead	4620	ug/Kg		276	1100	1100	1	P	HSC	01/11/10 16:15	011110A-1	936817
7439-95-4	Magnesium J+,16b	1210000	ug/Kg	N	9370	33100	33100	1	P	HSC	01/11/10 16:15	011110A-1	936817
7439-96-5	Manganese	243000	ug/Kg		221	1100	1100	1	P	HSC	01/11/10 16:15	011110A-1	936817
7439-97-6	Mercury	16.6	ug/kg		4.53	13.3	13.3	1	AV	JXL1	01/07/10 11:57	010710S2-4	937638
7440-02-0	Nickel	3.94	mg/kg		0.11	0.44	0.44	2	MS	RMJ	01/15/10 07:08	100114-2	936820
7440-09-7	Potassium J+,16b	939000	ug/Kg	N	7060	27600	27600	1	P	HSC	01/11/10 16:15	011110A-1	936817
7782-49-2	Selenium UJ,16a	1.1	mg/kg	UN	0.55	1.1	1.1	2	MS	RMJ	01/15/10 07:08	100114-2	936820
7440-22-4	Silver	551	ug/Kg	U	110	551	551	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-23-5	Sodium	243000	ug/Kg		7720	27600	27600	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-28-0	Thallium	0.070	mg/kg	J	0.066	0.22	0.22	2	MS	RMJ	01/16/10 07:36	100115-3	936820
7440-61-1	Uranium	0.343	mg/kg	*E	0.0145	0.044	0.044	2	MS	RMJ	01/16/10 07:36	100115-3	936820
7440-62-2	Vanadium	12400	ug/Kg		110	551	551	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-66-6	Zinc	34400	ug/Kg		364	1100	1100	1	P	HSC	01/11/10 16:15	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.508	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.509	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.505	g	30	mL	01/06/10	TXB3

ETM
2/8/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521006

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7600

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5470000	ug/Kg		7550	22200	22200	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-36-0	Antimony U,14b	2610	ug/Kg		366	1110	1110	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-38-2	Arsenic	0.820	mg/kg	J	0.224	1.12	1.12	2	MS	RMJ	01/15/10 07:13	100114-2	936820
7440-39-3	Barium J+,16b	94300	ug/Kg	N	111	555	555	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-41-7	Beryllium	0.331	mg/kg		0.0224	0.112	0.112	2	MS	RMJ	01/15/10 07:13	100114-2	936820
7440-43-9	Cadmium	555	ug/Kg	U	111	555	555	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-70-2	Calcium	2860000	ug/Kg		8880	27700	27700	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-47-3	Chromium	104000	ug/Kg		166	555	555	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-48-4	Cobalt	5840	ug/Kg		166	555	555	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-50-8	Copper	11000	ug/Kg		333	1110	1110	1	P	HSC	01/11/10 16:19	011110A-1	936817
7439-89-6	Iron	12200000	ug/Kg		8880	27700	27700	1	P	HSC	01/11/10 16:19	011110A-1	936817
7439-92-1	Lead	7110	ug/Kg		277	1110	1110	1	P	HSC	01/11/10 16:19	011110A-1	936817
7439-95-4	Magnesium J+,16b	2630000	ug/Kg	N	9430	33300	33300	1	P	HSC	01/11/10 16:19	011110A-1	936817
7439-96-5	Manganese	333000	ug/Kg		222	1110	1110	1	P	HSC	01/11/10 16:19	011110A-1	936817
7439-97-6	Mercury	14.6	ug/kg		4.34	12.8	12.8	1	AV	JXL1	01/07/10 11:59	010710S2-4	937638
7440-02-0	Nickel	6.01	mg/kg		0.112	0.447	0.447	2	MS	RMJ	01/15/10 07:13	100114-2	936820
7440-09-7	Potassium J+,16b	950000	ug/Kg	N	7100	27700	27700	1	P	HSC	01/11/10 16:19	011110A-1	936817
7782-49-2	Selenium UJ,16a	1.12	mg/kg	UN	0.559	1.12	1.12	2	MS	RMJ	01/15/10 07:13	100114-2	936820
7440-22-4	Silver	555	ug/Kg	U	111	555	555	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-23-5	Sodium U,14d	115000	ug/Kg		7770	27700	27700	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-28-0	Thallium	0.101	mg/kg	J	0.0671	0.224	0.224	2	MS	RMJ	01/16/10 07:40	100115-3	936820
7440-61-1	Uranium	1.43	mg/kg	*E	0.0148	0.0447	0.0447	2	MS	RMJ	01/16/10 07:40	100115-3	936820
7440-62-2	Vanadium	31700	ug/Kg		111	555	555	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-66-6	Zinc	33300	ug/Kg		366	1110	1110	1	P	HSC	01/11/10 16:19	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.524	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.52	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.547	g	30	mL	01/06/10	TXB3

ETM
2/8/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521007

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7601

LEVEL: Low

DATE RECEIVED 24-DEC-09

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	5200000	ug/Kg		7590	22300	22300	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-36-0	Antimony U,14	1550	ug/Kg		368	1120	1120	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-38-2	Arsenic	1.21	mg/kg		0.221	1.1	1.1	2	MS	RMJ	01/15/10 07:19	100114-2	936820
7440-39-3	Barium J+,16b	57000	ug/Kg	N	112	558	558	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-41-7	Beryllium	0.477	mg/kg		0.0221	0.11	0.11	2	MS	RMJ	01/15/10 07:19	100114-2	936820
7440-43-9	Cadmium	558	ug/Kg	U	112	558	558	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-70-2	Calcium	1070000	ug/Kg		8930	27900	27900	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-47-3	Chromium	5430	ug/Kg		167	558	558	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-48-4	Cobalt	2690	ug/Kg		167	558	558	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-50-8	Copper	2560	ug/Kg		335	1120	1120	1	P	HSC	01/11/10 16:23	011110A-1	936817
7439-89-6	Iron	10000000	ug/Kg		8930	27900	27900	1	P	HSC	01/11/10 16:23	011110A-1	936817
7439-92-1	Lead	4040	ug/Kg		279	1120	1120	1	P	HSC	01/11/10 16:23	011110A-1	936817
7439-95-4	Magnesium J+,16b	1010000	ug/Kg	N	9490	33500	33500	1	P	HSC	01/11/10 16:23	011110A-1	936817
7439-96-5	Manganese	221000	ug/Kg		223	1120	1120	1	P	HSC	01/11/10 16:23	011110A-1	936817
7439-97-6	Mercury	12.8	ug/kg		4.28	12.6	12.6	1	AV	JXL1	01/07/10 12:01	010710S2-4	937638
7440-02-0	Nickel	4.5	mg/kg		0.11	0.441	0.441	2	MS	RMJ	01/15/10 07:19	100114-2	936820
7440-09-7	Potassium J+,16b	817000	ug/Kg	N	7150	27900	27900	1	P	HSC	01/11/10 16:23	011110A-1	936817
7782-49-2	Selenium UJ,16a	1.1	mg/kg	UN	0.552	1.1	1.1	2	MS	RMJ	01/15/10 07:19	100114-2	936820
7440-22-4	Silver	558	ug/Kg	U	112	558	558	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-23-5	Sodium	213000	ug/Kg		7820	27900	27900	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-28-0	Thallium	0.0724	mg/kg	J	0.0662	0.221	0.221	2	MS	RMJ	01/16/10 07:44	100115-3	936820
7440-61-1	Uranium	0.371	mg/kg	*E	0.0146	0.0441	0.0441	2	MS	RMJ	01/16/10 07:44	100115-3	936820
7440-62-2	Vanadium	11100	ug/Kg		112	558	558	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-66-6	Zinc	34000	ug/Kg		368	1120	1120	1	P	HSC	01/11/10 16:23	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.5	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.506	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.532	g	30	mL	01/06/10	TXB3

ETM
2/8/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521008

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7602

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 93

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5390000	ug/Kg		7270	21400	21400	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-36-0	Antimony U,14b	1900	ug/Kg		353	1070	1070	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-38-2	Arsenic	1.03	mg/kg		0.2	1	1	2	MS	RMJ	01/15/10 07:25	100114-2	936820
7440-39-3	Barium J+,16b	85800	ug/Kg	N	107	535	535	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-41-7	Beryllium	0.351	mg/kg		0.02	0.1	0.1	2	MS	RMJ	01/15/10 07:25	100114-2	936820
7440-43-9	Cadmium	535	ug/Kg	U	107	535	535	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-70-2	Calcium	1390000	ug/Kg		8550	26700	26700	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-47-3	Chromium	11800	ug/Kg		160	535	535	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-48-4	Cobalt	3320	ug/Kg		160	535	535	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-50-8	Copper	6000	ug/Kg		321	1070	1070	1	P	HSC	01/11/10 16:26	011110A-1	936817
7439-89-6	Iron	10700000	ug/Kg		8550	26700	26700	1	P	HSC	01/11/10 16:26	011110A-1	936817
7439-92-1	Lead	8350	ug/Kg		267	1070	1070	1	P	HSC	01/11/10 16:26	011110A-1	936817
7439-95-4	Magnesium J+,16b	950000	ug/Kg	N	9090	32100	32100	1	P	HSC	01/11/10 16:26	011110A-1	936817
7439-96-5	Manganese	354000	ug/Kg		214	1070	1070	1	P	HSC	01/11/10 16:26	011110A-1	936817
7439-97-6	Mercury	5.44	ug/kg	J	3.68	10.8	10.8	1	AV	JXL1	01/07/10 12:03	010710S2-4	937638
7440-02-0	Nickel	4.38	mg/kg		0.1	0.4	0.4	2	MS	RMJ	01/15/10 07:25	100114-2	936820
7440-09-7	Potassium J+,16b	764000	ug/Kg	N	6840	26700	26700	1	P	HSC	01/11/10 16:26	011110A-1	936817
7782-49-2	Selenium UJ,16a	1	mg/kg	UN	0.5	1	1	2	MS	RMJ	01/15/10 07:25	100114-2	936820
7440-22-4	Silver	535	ug/Kg	U	107	535	535	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-23-5	Sodium U,14d	79500	ug/Kg		7480	26700	26700	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-28-0	Thallium	0.0806	mg/kg	J	0.06	0.2	0.2	2	MS	RMJ	01/16/10 07:47	100115-3	936820
7440-61-1	Uranium	0.668	mg/kg	*E	0.0132	0.04	0.04	2	MS	RMJ	01/16/10 07:47	100115-3	936820
7440-62-2	Vanadium	19800	ug/Kg		107	535	535	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-66-6	Zinc	34800	ug/Kg		353	1070	1070	1	P	HSC	01/11/10 16:26	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.503	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.538	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.596	g	30	mL	01/06/10	TXB3

ETM
2/8/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521009

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7599

LEVEL: Low

DATE RECEIVED 24-DEC-09

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	3900000	ug/Kg		7380	21700	21700	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-36-0	Antimony U,14	1020	ug/Kg	J	358	1090	1090	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-38-2	Arsenic	0.393	mg/kg	J	0.215	1.08	1.08	2	MS	RMJ	01/15/10 07:31	100114-2	936820
7440-39-3	Barium J+,16b	53700	ug/Kg	N	109	543	543	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-41-7	Beryllium	0.222	mg/kg		0.0215	0.108	0.108	2	MS	RMJ	01/15/10 07:31	100114-2	936820
7440-43-9	Cadmium	543	ug/Kg	U	109	543	543	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-70-2	Calcium	888000	ug/Kg		8680	27100	27100	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-47-3	Chromium	4820	ug/Kg		163	543	543	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-48-4	Cobalt	2760	ug/Kg		163	543	543	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-50-8	Copper	2100	ug/Kg		326	1090	1090	1	P	HSC	01/11/10 16:30	011110A-1	936817
7439-89-6	Iron	8640000	ug/Kg		8680	27100	27100	1	P	HSC	01/11/10 16:30	011110A-1	936817
7439-92-1	Lead	4600	ug/Kg		271	1090	1090	1	P	HSC	01/11/10 16:30	011110A-1	936817
7439-95-4	Magnesium J+,16b	730000	ug/Kg	N	9230	32600	32600	1	P	HSC	01/11/10 16:30	011110A-1	936817
7439-96-5	Manganese	233000	ug/Kg		217	1090	1090	1	P	HSC	01/11/10 16:30	011110A-1	936817
7439-97-6	Mercury	12.6	ug/kg	U	4.28	12.6	12.6	1	AV	JXL1	01/07/10 12:05	010710S2-4	937638
7440-02-0	Nickel	2.64	mg/kg		0.108	0.431	0.431	2	MS	RMJ	01/15/10 07:31	100114-2	936820
7440-09-7	Potassium J+,16b	729000	ug/Kg	N	6950	27100	27100	1	P	HSC	01/11/10 16:30	011110A-1	936817
7782-49-2	Selenium UJ,16a	1.08	mg/kg	UN	0.539	1.08	1.08	2	MS	RMJ	01/15/10 07:31	100114-2	936820
7440-22-4	Silver	543	ug/Kg	U	109	543	543	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-23-5	Sodium	217000	ug/Kg		7600	27100	27100	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-28-0	Thallium	0.215	mg/kg	U	0.0646	0.215	0.215	2	MS	RMJ	01/16/10 07:51	100115-3	936820
7440-61-1	Uranium	0.298	mg/kg	*E	0.0142	0.0431	0.0431	2	MS	RMJ	01/16/10 07:51	100115-3	936820
7440-62-2	Vanadium	9670	ug/Kg		109	543	543	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-66-6	Zinc	29100	ug/Kg		358	1090	1090	1	P	HSC	01/11/10 16:30	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.506	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.51	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.523	g	30	mL	01/06/10	TXB3

ETM
2/8/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521010

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7598

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4650000	ug/Kg		7380	21700	21700	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-36-0	Antimony U,14b	1790	ug/Kg		358	1090	1090	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-38-2	Arsenic	0.497	mg/kg	J	0.21	1.05	1.05	2	MS	RMJ	01/15/10 07:37	100114-2	936820
7440-39-3	Barium J+,16b	106000	ug/Kg	N	109	543	543	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-41-7	Beryllium	0.261	mg/kg		0.021	0.105	0.105	2	MS	RMJ	01/15/10 07:37	100114-2	936820
7440-43-9	Cadmium	543	ug/Kg	U	109	543	543	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-70-2	Calcium	1950000	ug/Kg		8680	27100	27100	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-47-3	Chromium	40700	ug/Kg		163	543	543	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-48-4	Cobalt	3510	ug/Kg		163	543	543	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-50-8	Copper	6480	ug/Kg		326	1090	1090	1	P	HSC	01/11/10 16:34	011110A-1	936817
7439-89-6	Iron	7930000	ug/Kg		8680	27100	27100	1	P	HSC	01/11/10 16:34	011110A-1	936817
7439-92-1	Lead	6470	ug/Kg		271	1090	1090	1	P	HSC	01/11/10 16:34	011110A-1	936817
7439-95-4	Magnesium J+,16b	1320000	ug/Kg	N	9230	32600	32600	1	P	HSC	01/11/10 16:34	011110A-1	936817
7439-96-5	Manganese	272000	ug/Kg		217	1090	1090	1	P	HSC	01/11/10 16:34	011110A-1	936817
7439-97-6	Mercury	13.2	ug/kg	U	4.5	13.2	13.2	1	AV	JXL1	01/07/10 12:07	010710S2-4	937638
7440-02-0	Nickel	4.94	mg/kg		0.105	0.42	0.42	2	MS	RMJ	01/15/10 07:37	100114-2	936820
7440-09-7	Potassium J+,16b	945000	ug/Kg	N	6950	27100	27100	1	P	HSC	01/11/10 16:34	011110A-1	936817
7782-49-2	Selenium UJ,16a	1.05	mg/kg	UN	0.525	1.05	1.05	2	MS	RMJ	01/15/10 07:37	100114-2	936820
7440-22-4	Silver	543	ug/Kg	U	109	543	543	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-23-5	Sodium	132000	ug/Kg		7600	27100	27100	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-28-0	Thallium	0.079	mg/kg	J	0.063	0.21	0.21	2	MS	RMJ	01/16/10 07:55	100115-3	936820
7440-61-1	Uranium	1.71	mg/kg	*E	0.0139	0.042	0.042	2	MS	RMJ	01/16/10 07:55	100115-3	936820
7440-62-2	Vanadium	22500	ug/Kg		109	543	543	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-66-6	Zinc	16400	ug/Kg		358	1090	1090	1	P	HSC	01/11/10 16:34	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.51	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.527	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.502	g	30	mL	01/06/10	TXB3

ETM
2/8/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521011

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7603

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3070000	ug/Kg		6730	19800	19800	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-36-0	Antimony U,14	1350	ug/Kg		326	989	989	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-38-2	Arsenic	0.683	mg/kg	J	0.199	0.997	0.997	2	MS	RMJ	01/15/10 07:43	100114-2	936820
7440-39-3	Barium J+,16b	36200	ug/Kg	N	98.9	495	495	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-41-7	Beryllium	0.236	mg/kg		0.0199	0.0997	0.0997	2	MS	RMJ	01/15/10 07:43	100114-2	936820
7440-43-9	Cadmium	495	ug/Kg	U	98.9	495	495	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-70-2	Calcium	904000	ug/Kg		7910	24700	24700	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-47-3	Chromium	35200	ug/Kg		148	495	495	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-48-4	Cobalt	1920	ug/Kg		148	495	495	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-50-8	Copper	1910	ug/Kg		297	989	989	1	P	HSC	01/11/10 16:37	011110A-1	936817
7439-89-6	Iron	9760000	ug/Kg		7910	24700	24700	1	P	HSC	01/11/10 16:37	011110A-1	936817
7439-92-1	Lead	3060	ug/Kg		247	989	989	1	P	HSC	01/11/10 16:37	011110A-1	936817
7439-95-4	Magnesium J+,16b	902000	ug/Kg	N	8410	29700	29700	1	P	HSC	01/11/10 16:37	011110A-1	936817
7439-96-5	Manganese	267000	ug/Kg		198	989	989	1	P	HSC	01/11/10 16:37	011110A-1	936817
7439-97-6	Mercury	11.8	ug/kg	U	4.03	11.8	11.8	1	AV	JXL1	01/07/10 13:07	01071052-4	937638
7440-02-0	Nickel	4.64	mg/kg		0.0997	0.399	0.399	2	MS	RMJ	01/15/10 07:43	100114-2	936820
7440-09-7	Potassium J+,16b	695000	ug/Kg	N	6330	24700	24700	1	P	HSC	01/11/10 16:37	011110A-1	936817
7782-49-2	Selenium UJ,16a	0.997	mg/kg	UN	0.498	0.997	0.997	2	MS	RMJ	01/15/10 07:43	100114-2	936820
7440-22-4	Silver	495	ug/Kg	U	98.9	495	495	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-23-5	Sodium	269000	ug/Kg		6920	24700	24700	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-28-0	Thallium	0.199	mg/kg	U	0.0598	0.199	0.199	2	MS	RMJ	01/16/10 07:58	100115-3	936820
7440-61-1	Uranium	0.316	mg/kg	*E	0.0132	0.0399	0.0399	2	MS	RMJ	01/16/10 07:58	100115-3	936820
7440-62-2	Vanadium	10400	ug/Kg		98.9	495	495	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-66-6	Zinc	33600	ug/Kg		326	989	989	1	P	HSC	01/11/10 16:37	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.525	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.521	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.526	g	30	mL	01/06/10	TXB3

ETM
2/8/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1075 VALIDATION DATE: 2/8/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink 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 CN 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. It should be noted that the matrix QC analyses were performed on a LANL sample from a different RN. No sample data were qualified.

Reviewed by: CLL Level: 1 Date: 2/9/10


VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 2/8/10

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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7602
Sample ID: 243521008
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 7.03%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	64.2	236	ug/kg	1	AXC2	01/04/10	1124	936843	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/8/10

Certificate of Analysis

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

Report Date: January 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7601
Sample ID: 243521007
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 10.4%

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	71.6	263	ug/kg	1	AXC2	01/04/10	1124	936843	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	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: January 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7599
Sample ID: 243521009
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 8.97%

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	74.7	275	ug/kg	1	AXC2	01/04/10	1125	936843	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	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/8/10

Certificate of Analysis

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

Report Date: January 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7598
Sample ID: 243521010
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 9.69%

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	72.4	266	ug/kg	1	AXC2	01/04/10	1126	936843	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	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/8/10

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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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7603
Sample ID: 243521011
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 3.72%

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	70.6	260	ug/kg	1	AXC2	01/04/10	1127	936843	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	12/31/09	1509	936841

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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7606
Sample ID: 243521001
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 10.4%

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	70.3	258	ug/kg	1	AXC2	01/04/10	1115	936843	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	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/8/10

GEL LABORATORIES LLC

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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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7607
Sample ID: 243521002
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 6.17%

Project: LANL01004
Client ID: LANL010

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

Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	69.7	256	ug/kg	1	AXC2	01/04/10	1119	936843	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	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/8/10

Certificate of Analysis

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

Report Date: January 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7596
Sample ID: 243521003
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 10%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	68.7	253	ug/kg	1	AXC2	01/04/10	1120	936843	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/8/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: January 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7597
Sample ID: 243521004
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 5.14%

Project: LANL01004
Client ID: LANL010

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

Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	64.0	235	ug/kg	1	AXC2	01/04/10	1121	936843	1
----------------	---	----	------	-----	-------	---	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/8/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: January 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7608
Sample ID: 243521005
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 10.7%

Project: LANL01004
Client ID: LANL010

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

Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	U	ND	73.2	269	ug/kg	1	AXC2	01/04/10	1122	936843	1
----------------	---	----	------	-----	-------	---	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/8/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: January 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7600
Sample ID: 243521006
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 14%

Project: LANL01004
Client ID: LANL010

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

Flow Injection Analysis

SW9012A Cyanide, Total Federal "Dry Weight Corrected"

Cyanide, Total	J	170	69.4	255	ug/kg	1	AXC2	01/04/10	1123	936843	1
----------------	---	-----	------	-----	-------	---	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/8/10

Wednesday, December 23, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1075

LOS ALAMOS

REQUEST NUMBER: 10-1075

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/22/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

2435217.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE12-10-7606	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7607	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7596	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7597	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7608	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7600	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7601	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7602	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7599	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7598	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7603	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

Wednesday, December 23, 2009

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: 10-1075

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/23/2009

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Received
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature: 

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-6020	1	RE12-10-7596	R	12/21/2009	
		1	RE12-10-7597	R	12/21/2009	
		1	RE12-10-7598	R	12/21/2009	
		1	RE12-10-7599	R	12/21/2009	
		1	RE12-10-7600	R	12/21/2009	
		1	RE12-10-7601	R	12/21/2009	
		1	RE12-10-7602	R	12/21/2009	
		1	RE12-10-7603	R	12/21/2009	
		1	RE12-10-7606	R	12/21/2009	

Wednesday, December 23, 2009

Page 2 of 3

REQUEST NUMBER: 10-1075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE12-10-7607	R	12/21/2009	
		1	RE12-10-7608	R	12/21/2009	
	SW-846:6850	1	RE12-10-7596	R	12/21/2009	
		1	RE12-10-7597	R	12/21/2009	
		1	RE12-10-7598	R	12/21/2009	
		1	RE12-10-7599	R	12/21/2009	
		1	RE12-10-7600	R	12/21/2009	
		1	RE12-10-7601	R	12/21/2009	
		1	RE12-10-7602	R	12/21/2009	
		1	RE12-10-7603	R	12/21/2009	
		1	RE12-10-7606	R	12/21/2009	
		1	RE12-10-7607	R	12/21/2009	
		1	RE12-10-7608	R	12/21/2009	
	SW-846:7471A	1	RE12-10-7596	R	12/21/2009	
		1	RE12-10-7597	R	12/21/2009	
		1	RE12-10-7598	R	12/21/2009	
		1	RE12-10-7599	R	12/21/2009	
		1	RE12-10-7600	R	12/21/2009	
		1	RE12-10-7601	R	12/21/2009	
		1	RE12-10-7602	R	12/21/2009	
		1	RE12-10-7603	R	12/21/2009	
		1	RE12-10-7606	R	12/21/2009	
		1	RE12-10-7607	R	12/21/2009	
		1	RE12-10-7608	R	12/21/2009	
	SW-846:9012A	1	RE12-10-7596	R	12/21/2009	
		1	RE12-10-7597	R	12/21/2009	
		1	RE12-10-7598	R	12/21/2009	
		1	RE12-10-7600	R	12/21/2009	

REQUEST NUMBER: 10-1075

Wednesday, December 23, 2009

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-9012A	1	RE12-10-7600	R	12/21/2009	
		1	RE12-10-7601	R	12/21/2009	
		1	RE12-10-7602	R	12/21/2009	
		1	RE12-10-7603	R	12/21/2009	
		1	RE12-10-7606	R	12/21/2009	
		1	RE12-10-7607	R	12/21/2009	
		1	RE12-10-7608	R	12/21/2009	

Final Page of REQUEST NUMBER 10-1075



January 05, 2010

www.gel.com

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

Re: LANL ER Project
Work Order: 243521
SDG: 10-1075

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 24, 2009, 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: 10-1075
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 243521
SDG: 10-1075

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Case Narrative

**Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 243521
SDG # : 10-1075**

January 05, 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 December 24, 2009 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:

<u>Laboratory ID</u>	<u>Client ID</u>
243521001	RE12-10-7606
243521002	RE12-10-7607
243521003	RE12-10-7596
243521004	RE12-10-7597
243521005	RE12-10-7608
243521006	RE12-10-7600
243521007	RE12-10-7601
243521008	RE12-10-7602
243521009	RE12-10-7599
243521010	RE12-10-7598
243521011	RE12-10-7603

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.


for
Valerie Davis

Project Manager

List of current GEL Certifications as of 05 January 2010

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

Chain of Custody and Supporting Documentation

Wednesday, December 23, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1075

LOS ALAMOS

REQUEST NUMBER: 10-1075

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/22/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

2435217.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE12-10-7606	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7607	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7596	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7597	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7608	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7600	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7601	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7602	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7599	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7598	1	POLY	Met+U+CLO4+CN	Ice	R
RE12-10-7603	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:

Date Time

Received By:

Date Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date Time

Remarks:

Printed Name

Signature

Wednesday, December 23, 2009

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:10-1075
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

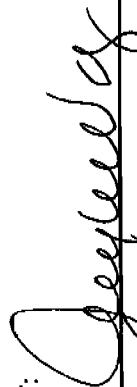
Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/23/2009
TURNAROUND/REPORT DUE: 1/22/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Received
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE12-10-7596	R	12/21/2009	
		1	RE12-10-7597	R	12/21/2009	
		1	RE12-10-7598	R	12/21/2009	
		1	RE12-10-7599	R	12/21/2009	
		1	RE12-10-7600	R	12/21/2009	
		1	RE12-10-7601	R	12/21/2009	
		1	RE12-10-7602	R	12/21/2009	
		1	RE12-10-7603	R	12/21/2009	
		1	RE12-10-7606	R	12/21/2009	

Wednesday, December 23, 2009

Page 2 of 3

REQUEST NUMBER: 10-1075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE12-10-7607	R	12/21/2009	
		1	RE12-10-7608	R	12/21/2009	
	SW-846:6850	1	RE12-10-7596	R	12/21/2009	
		1	RE12-10-7597	R	12/21/2009	
		1	RE12-10-7598	R	12/21/2009	
		1	RE12-10-7599	R	12/21/2009	
		1	RE12-10-7600	R	12/21/2009	
		1	RE12-10-7601	R	12/21/2009	
		1	RE12-10-7602	R	12/21/2009	
		1	RE12-10-7603	R	12/21/2009	
		1	RE12-10-7606	R	12/21/2009	
		1	RE12-10-7607	R	12/21/2009	
		1	RE12-10-7608	R	12/21/2009	
	SW-846:7471A	1	RE12-10-7596	R	12/21/2009	
		1	RE12-10-7597	R	12/21/2009	
		1	RE12-10-7598	R	12/21/2009	
		1	RE12-10-7599	R	12/21/2009	
		1	RE12-10-7600	R	12/21/2009	
		1	RE12-10-7601	R	12/21/2009	
		1	RE12-10-7602	R	12/21/2009	
		1	RE12-10-7603	R	12/21/2009	
		1	RE12-10-7606	R	12/21/2009	
		1	RE12-10-7607	R	12/21/2009	
		1	RE12-10-7608	R	12/21/2009	
	SW-846:9012A	1	RE12-10-7596	R	12/21/2009	
		1	RE12-10-7597	R	12/21/2009	
		1	RE12-10-7598	R	12/21/2009	
		1	RE12-10-7600	R	12/21/2009	

Wednesday, December 23, 2009

Page 3 of 3

REQUEST NUMBER: 10-1075

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE12-10-7600	R	12/21/2009	
		1	RE12-10-7601	R	12/21/2009	
		1	RE12-10-7602	R	12/21/2009	
		1	RE12-10-7603	R	12/21/2009	
		1	RE12-10-7606	R	12/21/2009	
		1	RE12-10-7607	R	12/21/2009	
		1	RE12-10-7608	R	12/21/2009	

Final Page of REQUEST NUMBER 10-1075



SAMPLE RECEIPT & REVIEW FORM

Client: LANL			SDG/ARCOC/Work Order: 10-1075		
Received By: Greg Tyler			Date Received: 12/24/09		
Suspected Hazard Information		Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.	
COC/Samples marked as radioactive?			X	Maximum Counts Observed*: 60cpm	
Classified Radioactive II by RSO?			X		
COC/Samples marked containing PCBs?			X		
Shipped as a DOT Hazardous?			X	Hazard Class Shipped: UN#:	
Samples identified as Foreign Soil?			X		

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags blue ice dry ice none other 3-5C 14,15C
3 Chain of custody documents included with shipment?	X			
4 Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6 VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7 Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8 Samples received within holding time?	X			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?		X		Sample ID's affected: No time on Chain of Custody.
11 Number of containers received match number indicated on COC?	X			Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers

7209 7849 3755 3C 7209 7849 3803 5C
7209 7849 3788 4C 7209 7849 3825 14C
7209 7849 3799 4C 7209 7849 3744 14C
7209 7849 3858 4C 7209 7849 3733 15C
7209 7849 3836 5C 7209 7849 3766 15C
7209 7849 3777 5C
7209 7849 3722 5C
7209 7849 3847 5C

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

SHIP DATE: 23DEC09
ACTWGT: 65.0 LB MAN
CAD: 0014176/CAFE2434
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

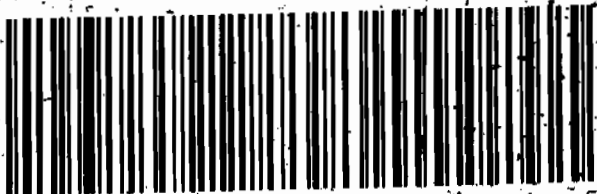
(843)556-8171
REF: 6B01AMR3A0352VA00



2 of 2 THU - 24DEC A1
SH 7209 7849 3755
63
Matr 7209 7849 3744 0201
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS



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

SHIP DATE: 23DEC09
ACTWGT: 65.0 LB MAN
CAD: 0014176/CAFE2434
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843)556-8171
REF: 6B01AMR2A05419D0



1 of 2 THU - 24DEC A1
SH 7209 7849 3799
601
MASTER NM
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Page 11 of 552

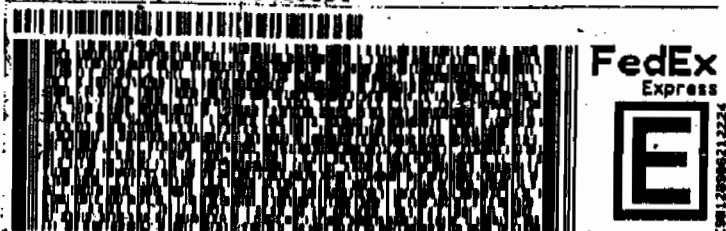
ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
300 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2434
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

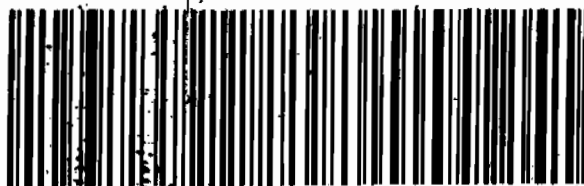
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3 of 3 THU - 24DEC A1
MPSH 7209 7849 3788
0263
Matr 7209 7849 3766 0201
PRIORITY OVERNIGHT

XX CHSA

29407
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CHS



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

SHIP DATE: 23DEC09
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2434
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843)556-8171
REF: 6B01AMR3A0352VA00



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Matr 7209 7849 3847 0201
PRIORITY OVERNIGHT

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CHS

IGIN ID: SAFA (505)665-9968
YLENE VALDEZ
6 ALAMOS NATL LAB
00 BLDG 1237 DPU 03

SHIP DATE: 23DEC09
ACTWGT: 67.0 LB MAN
CAD: 0014176/CAFE2434

6 ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

ALERIE DAVIS
GENERAL ENGINEERING LAB
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CHARLESTON SC 29407

(43)556-8171

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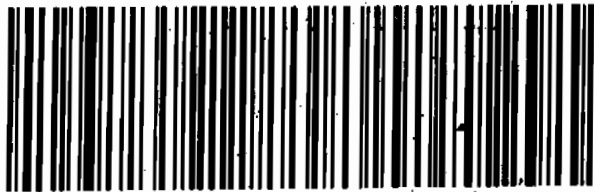
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THU - 24DEC A1
PRIORITY OVERNIGHT

LN 7209 7849 3814 0201

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IGIN ID: SAFA (505)665-9968
YLENE VALDEZ
6 ALAMOS NATL LAB
00 BLDG 1237 DPU 03

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

6 ALAMOS, NM 87545
UNITED STATES US

ALERIE DAVIS
GENERAL ENGINEERING LAB
040 SAVAGE RD

CHARLESTON SC 29407

(43)556-8171

EF: 6B01AMR3A0325VA00

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THU - 24DEC A1
PRIORITY OVERNIGHT

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Page 12 of 552

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

SHIP DATE: 23DEC09
ACTWGT: 65.0 LB MAN
CAD: 0014176/CAFE2434

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407

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REF: 6B01AMR2A054196D0

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MPSH 7209 7849 3777

THU - 24DEC A1
PRIORITY OVERNIGHT

Matr 7209 7849 3768 0201

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SC-US
CHS



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

SHIP DATE: 23DEC09
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2434

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

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2040 SAVAGE RD

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(43)556-8171

REF: 6B01AMR3A0352VA00

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PRIORITY OVERNIGHT

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

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2040 SAVAGE RD

CHARLESTON SC 29407

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REF: 6B01AMR2A0352VAD0



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

ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

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VALERIE DAVIS
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2040 SAVAGE RD

CHARLESTON SC 29407

(843)556-8171

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13 of 552

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

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VALERIE DAVIS
GENERAL ENGINEERING LAB
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CHARLESTON SC 29407

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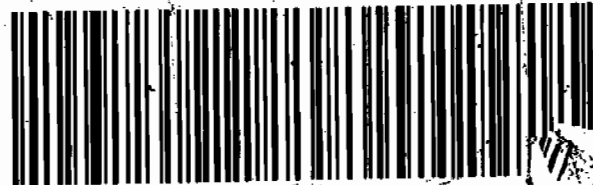
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PRIORITY OVERNIGHT

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

LOS ALAMOS, NM 87545
UNITED STATES US

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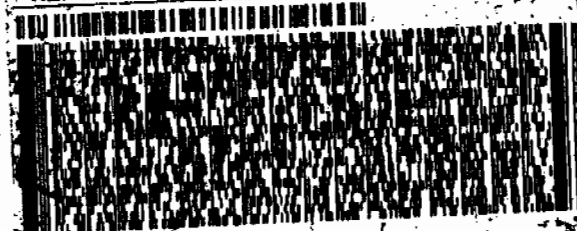
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VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843)556-8171

REF: 6B01AMR3A0352VAD0



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0201

Master 7209 7849 3722 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)666-9066
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWT: 39.9 LB MAN
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BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

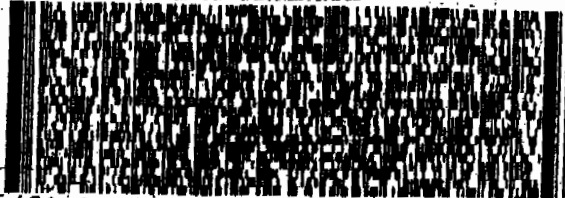
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(843)556-8173

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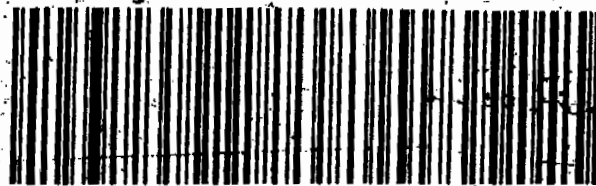
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Part 1 (56) 48-434 NRIT V3 08.09



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 10-1075**

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: 936781

Prep Batch Number: 936779

Sample Analysis

Sample ID	Client ID
243521001	RE12-10-7606
243521002	RE12-10-7607
243521003	RE12-10-7596
243521004	RE12-10-7597
243521005	RE12-10-7608
243521006	RE12-10-7600
243521007	RE12-10-7601
243521008	RE12-10-7602
243521009	RE12-10-7599
243521010	RE12-10-7598
243521011	RE12-10-7603
1202004375	Interference Check Sample (ICS)
1202004371	Method Blank (MB)
1202004374	Laboratory Control Sample (LCS)
1202004372	243521001(RE12-10-7606) Matrix Spike (MS)
1202004373	243521001(RE12-10-7606) Matrix Spike Duplicate (MSD)

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

10-1075-PERLCMS

Page 1 of 4

Preparation/Analytical Method Verification

SOP Reference

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

Calibration Information

Initial Calibration

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

CCV Requirements

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

CCB Requirements

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

CCV Requirements

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

Low Level Standard (CRI) Requirements

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

Quality Control (QC) Information

Method Blank (MB) Statement

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

Interference Check Sample (ICS)

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

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

Sample 243521001 (RE12-10-7606) 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.

10-1075-PERLCMS

Page 2 of 4

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 reports (DER) was not generated for this SDG.

Manual Integrations

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

Method Comments

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

Additional Comments

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

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

Perchlorate Isotope Ratio

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

System Configuration

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

Chromatographic Columns

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

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Herbert M. Maurer Date: 01/15/10

SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7606

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521001

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte [^]	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	07-JAN-10 20:15	per0107036a
	Perchlorate Isotope Ratio						1	07-JAN-10 20:15	per0107036a
14797-73-0	Perchlorate-101	.558	2.23	0.558	ug/kg	U	1	07-JAN-10 20:15	per0107036a
	Perchlorate-O(18)			5.50	ug/kg		1	07-JAN-10 20:15	per0107036a

[^] 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: 936772
 Extraction Type: Solid Prep
 Client Sample No. RE12-10-7607
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1075
 GEL Sample ID: 243521002
 Date Filtered: 07-JAN-10
 Injection Volume (uL): 20
 %Solids: 93.8

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.533	2.13	0.533	ug/kg	U	1	07-JAN-10 20:36	per0107039a
	Perchlorate Isotope Ratio								
14797-73-0	Perchlorate-101	.533	2.13	0.533	ug/kg	U	1	07-JAN-10 20:36	per0107039a
	Perchlorate-O(18)			5.42	ug/kg		1	07-JAN-10 20:36	per0107039a

[^] 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 I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7596

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521003

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.22	0.556	ug/kg	U	1	07-JAN-10 20:43	per0107040a
	Perchlorate Isotope Ratio						1	07-JAN-10 20:43	per0107040a
14797-73-0	Perchlorate-101	.556	2.22	0.556	ug/kg	U	1	07-JAN-10 20:43	per0107040a
	Perchlorate-O(18)			5.58	ug/kg		1	07-JAN-10 20:43	per0107040a

[^] 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: 936779
 Extraction Type: Solid Prep
 Client Sample No. RE12-10-7597
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1075
 GEL Sample ID: 243521004
 Date Filtered: 07-JAN-10
 Injection Volume (uL): 20
 %Solids: 94.9

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.527	2.11	1.90	ug/kg	J	1	07-JAN-10 20:50	per0107041a
	Perchlorate Isotope Ratio			3.19			1	07-JAN-10 20:50	per0107041a
14797-73-0	Perchlorate-101	.527	2.11	1.77	ug/kg	J	1	07-JAN-10 20:50	per0107041a
	Perchlorate-O(18)			5.51	ug/kg		1	07-JAN-10 20:50	per0107041a

^ 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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7608

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521005

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	07-JAN-10 21:18	per0107045a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:18	per0107045a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	07-JAN-10 21:18	per0107045a
	Perchlorate-O(18)			5.57	ug/kg		1	07-JAN-10 21:18	per0107045a

[^] 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: 936779
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE12-10-7600
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1075
 GEL Sample ID: 243521006
 Date Filtered: 07-JAN-10
 Injection Volume (uL): 20
 %Solids: 86

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.582	2.33	0.582	ug/kg	U	1	07-JAN-10 21:25	per0107046a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:25	per0107046a
14797-73-0	Perchlorate-101	.582	2.33	0.582	ug/kg	U	1	07-JAN-10 21:25	per0107046a
	Perchlorate-O(18)			6.08	ug/kg		1	07-JAN-10 21:25	per0107046a

[^] 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: 936772

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7601

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521007

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 20

CAS No.	Analyte [^]	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	07-JAN-10 21:33	per0107047a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:33	per0107047a
14797-73-0	Perchlorate-101	.558	2.23	0.558	ug/kg	U	1	07-JAN-10 21:33	per0107047a
	Perchlorate-O(18)			5.62	ug/kg		1	07-JAN-10 21:33	per0107047a

[^] 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: 936779

Extraction Type: Solid Prep

Client Sample No.

RE12-10-7602

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521008

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

% Solids: 93

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	07-JAN-10 21:40	per0107048a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:40	per0107048a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	07-JAN-10 21:40	per0107048a
	Perchlorate-O(18)			5.07	ug/kg		1	07-JAN-10 21:40	per0107048a

[^] 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: 936772

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7599

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521009

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 91

CAS No.	Analyte [^]	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	07-JAN-10 21:47	per0107049a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:47	per0107049a
14797-73-0	Perchlorate-101	.549	2.2	0.549	ug/kg	U	1	07-JAN-10 21:47	per0107049a
	Perchlorate-O(18)			5.48	ug/kg		1	07-JAN-10 21:47	per0107049a

[^] 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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7598

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521010

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.21	0.554	ug/kg	U	1	07-JAN-10 21:54	per0107050a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:54	per0107050a
14797-73-0	Perchlorate-101	.554	2.21	0.554	ug/kg	U	1	07-JAN-10 21:54	per0107050a
	Perchlorate-O(18)			5.49	ug/kg		1	07-JAN-10 21:54	per0107050a

[^] 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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7603

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521011

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 96.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	07-JAN-10 22:01	per0107051a
	Perchlorate Isotope Ratio						1	07-JAN-10 22:01	per0107051a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	07-JAN-10 22:01	per0107051a
	Perchlorate-O(18)			5.12	ug/kg		1	07-JAN-10 22:01	per0107051a

[^] 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): 10-1075

Extract Batch Code: 936779

Date Filtered: 07-JAN-10

Matrix: SOIL

Sample ID: 1202004374

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.93	ug/kg	96.7		70 - 130
Perchlorate Isotope Ratio		3.08				-
Perchlorate-101	2.00	1.87	ug/kg	93.6		70 - 130
Perchlorate-O(18)		4.83	ug/kg			-

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

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL GEL Job No. (SDG): 10-1075

Extract Batch Code: 936779 Date Filtered: 07-JAN-10

Matrix: SOIL Sample ID: 1202004375

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.9	ug/kg	95		70 - 130
Perchlorate Isotope Ratio		2.97				
Perchlorate-101	2.00	1.91	ug/kg	95.3		70 - 130
Perchlorate-O(18)		4.81	ug/kg			

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Sample Name: per0107035a

Date: 07-Jan-2010

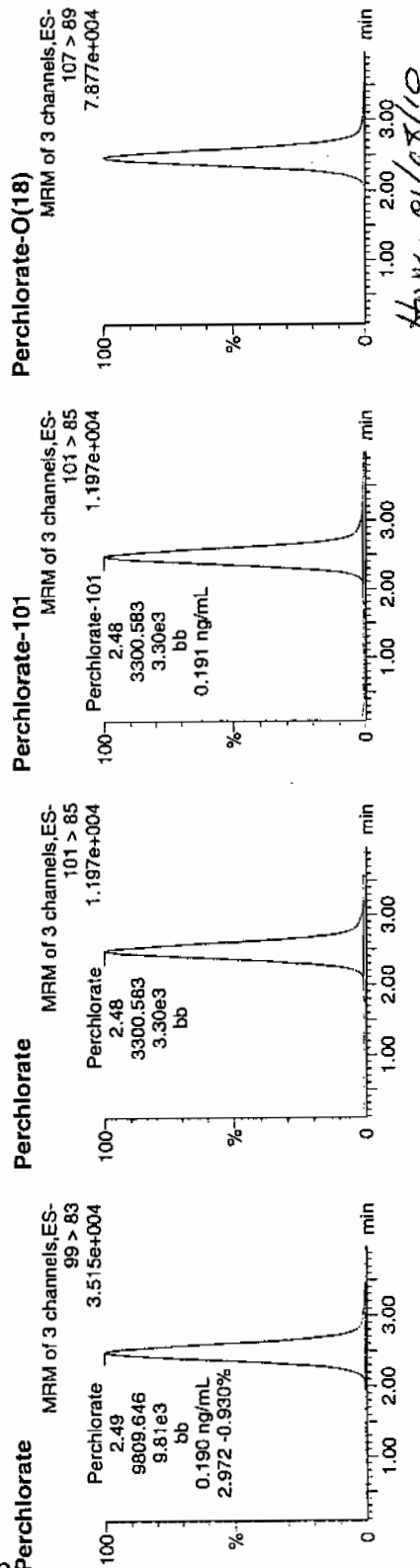
Time: 20:08:22

ID: 1202004375

Vial: 1:6,C

WJ
01-03-10

LANC | 936731 | SURS | TUS | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004375	Perchlorate	99 > 83	2.49	9809.646	9809.646	bb			0.1900	94.99	-5.01	1210.3...	2.97
1202004375	Perchlorate-101	101 > 85	2.48	3300.583	3300.583	bb			0.1905	95.26	-4.74	1128.5...	
1202004375	Perchlorate-O(18)	107 > 89	2.48	21934.885	21934.885	bb			0.4806	96.13	-3.87	2666.4...	

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1075

Extract Batch Code: 936779

Date Extracted: 07-JAN-10

GEL MS/PS ID: 1202004372

Client ID: RE12-10-7606

GEL MSD/PSD ID: 1202004373

QC Type: MS

Compound [^]	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	2.23	0.149	ug/kg	2.28	95.3		2.36	99.2		3.82		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.17			3.03			0			-
Perchlorate-101	2.23	0.152	ug/kg	2.14	89		2.32	97.2		8.25		30	75 - 125
Perchlorate-O(18)	0	5.50	ug/kg	5.62			5.46			2.92			-

[^] 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): 10-1075

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	07-JAN-10	per0107001a	IPB001
Perchlorate-101	0.00	0	NA	07-JAN-10	per0107001a	IPB001
Perchlorate	0.00	0	NA	07-JAN-10	per0107002a	IPB001
Perchlorate-101	0.00	0	NA	07-JAN-10	per0107002a	IPB001

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time

Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per010710a.mdb 08 Jan 2010 08:13:48

Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per010710a.cdb 08 Jan 2010 08:57:24

Name: per0107001a

Date: 07-Jan-2010

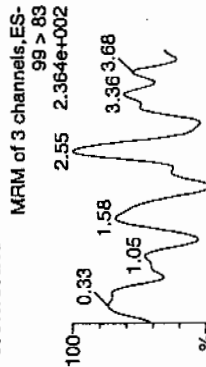
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ID: IPB001

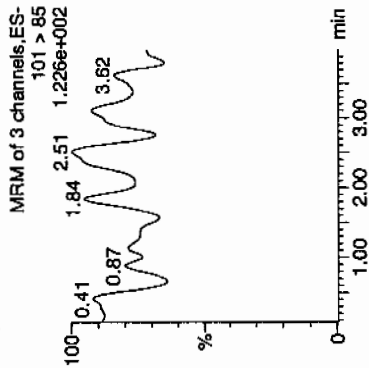
Vial: 1:1,A

01-08-10

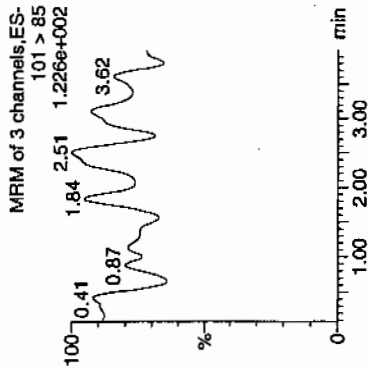
Perchlorate



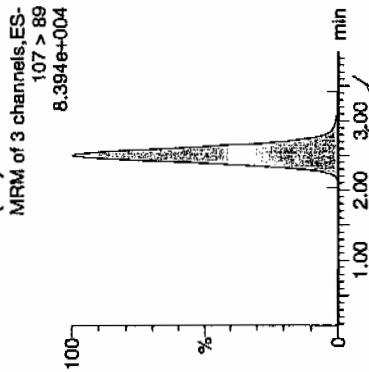
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.50	22868.908	22868.908	bb			0.5011	100.22	0.22	1754.3...	

Quantify Sample Report MassLynx 4.0 SP4

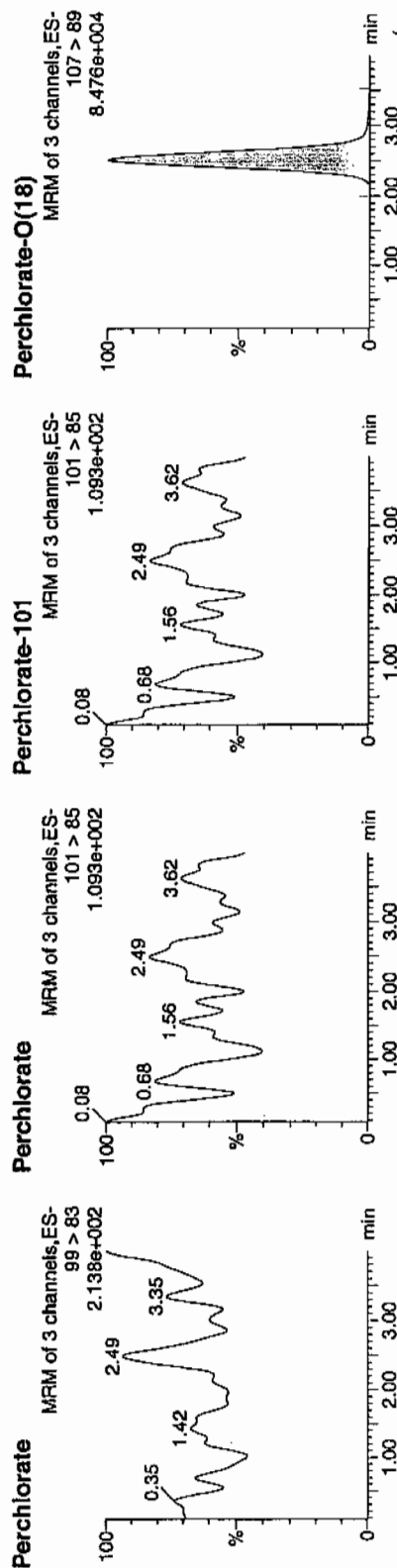
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
 Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107002a
 Date: 07-Jan-2010
 Time: 16:15:52
 IP: IPB001
 Vial: 1:1,A

01-03-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.51	23222.023	23222.023	bb			0.5089	101.77	1.77	11057	...

Perchlorate Continuing Calibration Blank

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GEL Job No.(SDG): 10-1075

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	07-JAN-10	per0107008a	IPB002
Perchlorate-101	0.00	0	NA	07-JAN-10	per0107008a	IPB002
Perchlorate	0.00	0	NA	07-JAN-10	per0107010a	IPB003
Perchlorate-101	0.00	0	NA	07-JAN-10	per0107010a	IPB003
Perchlorate	0.00	0	NA	07-JAN-10	per0107019a	IPB004
Perchlorate-101	0.00	0	NA	07-JAN-10	per0107019a	IPB004
Perchlorate	0.00	0	NA	07-JAN-10	per0107031a	IPB005
Perchlorate-101	0.00	0	NA	07-JAN-10	per0107031a	IPB005
Perchlorate	0.00	0	NA	07-JAN-10	per0107043a	IPB006
Perchlorate-101	0.00	0	NA	07-JAN-10	per0107043a	IPB006
Perchlorate	0.00	0	NA	07-JAN-10	per0107055a	IPB007
Perchlorate-101	0.00	0	NA	07-JAN-10	per0107055a	IPB007

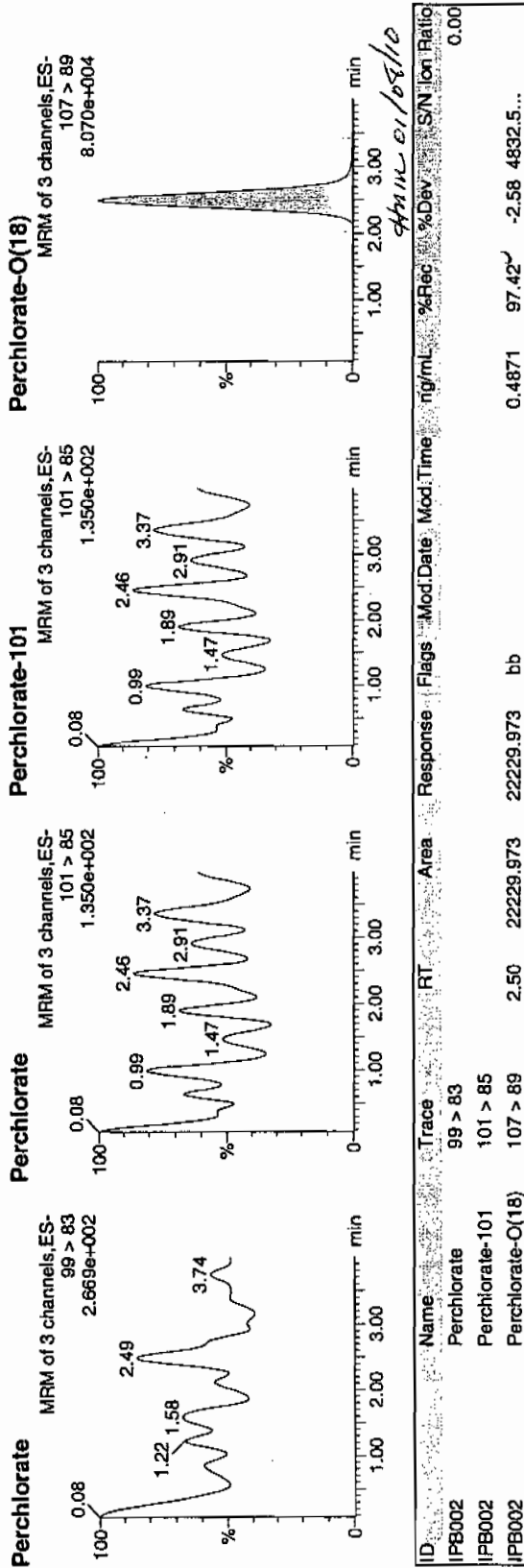
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107008a
Date: 07-Jan-2010
Time: 16:58:10
IP: IPB002
Vial: 1:1,A

01-08-10



ID	Name	Trace	RT	Area	Response	Flags	Mod:Date	Mod:Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	2.50	22229.973	22229.973	bb			0.4871	97.42	-2.58	4832.5...	0.00

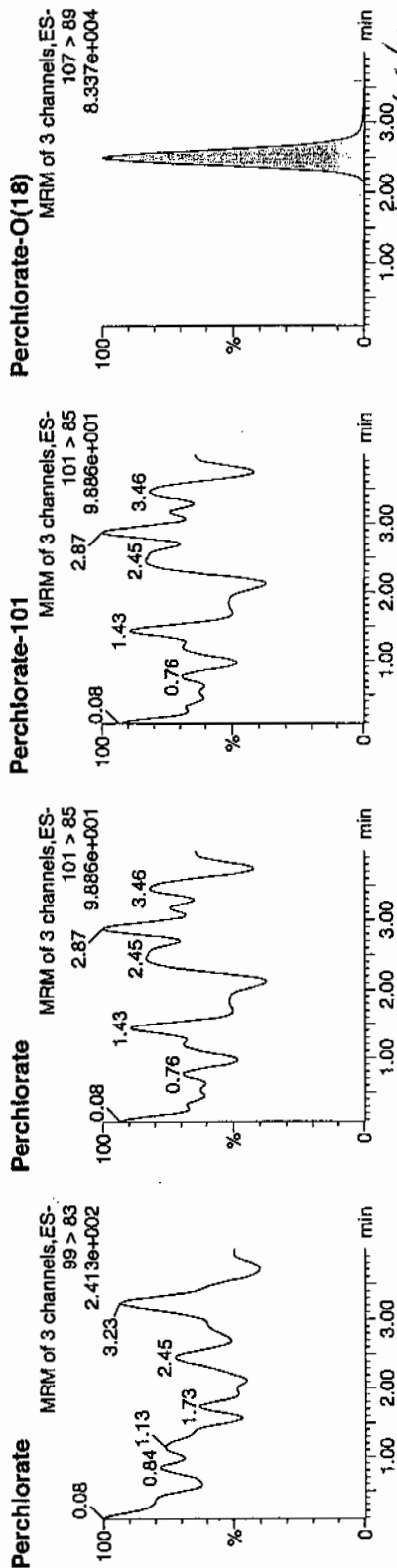
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107010a
Date: 07-Jan-2010
Time: 17:12:15
ID: IPB003
Vial: 1:1,A

01-08-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85	2.50	22629.775	22629.775	bb			0.4959	99.17	-0.83	5182.3...	
IPB003	Perchlorate-O(18)	107 > 89											

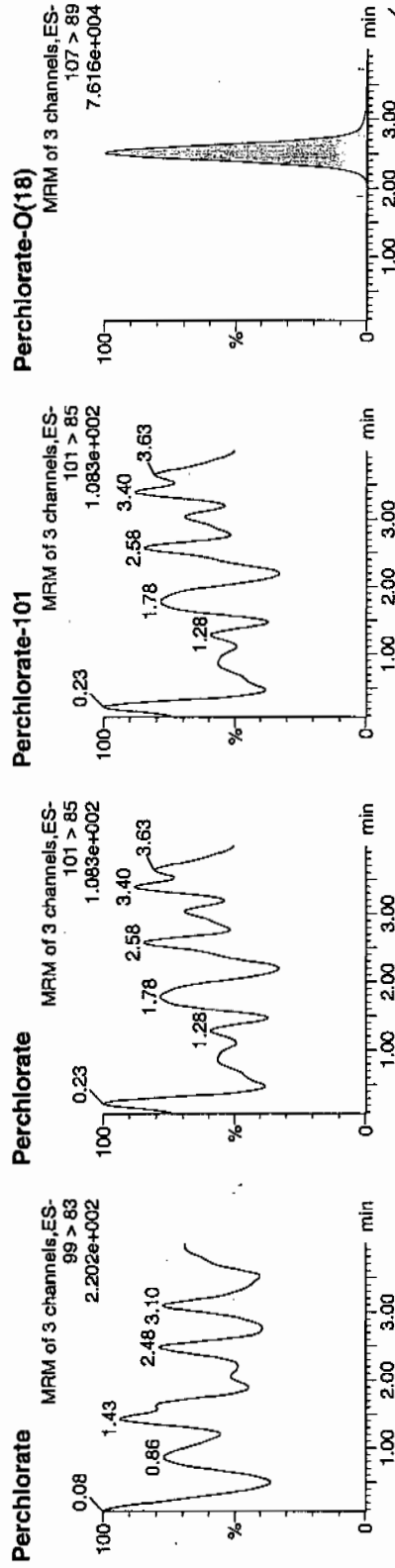
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Sample Name: per0107019a
Date: 07-Jan-2010
Time: 18:15:36
IP: IPB004
Vial: 1:1,A

01-08-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.51	21901.963	21901.963	bb			0.4799	95.99	-4.01	1815.2...	

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

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 Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107031a

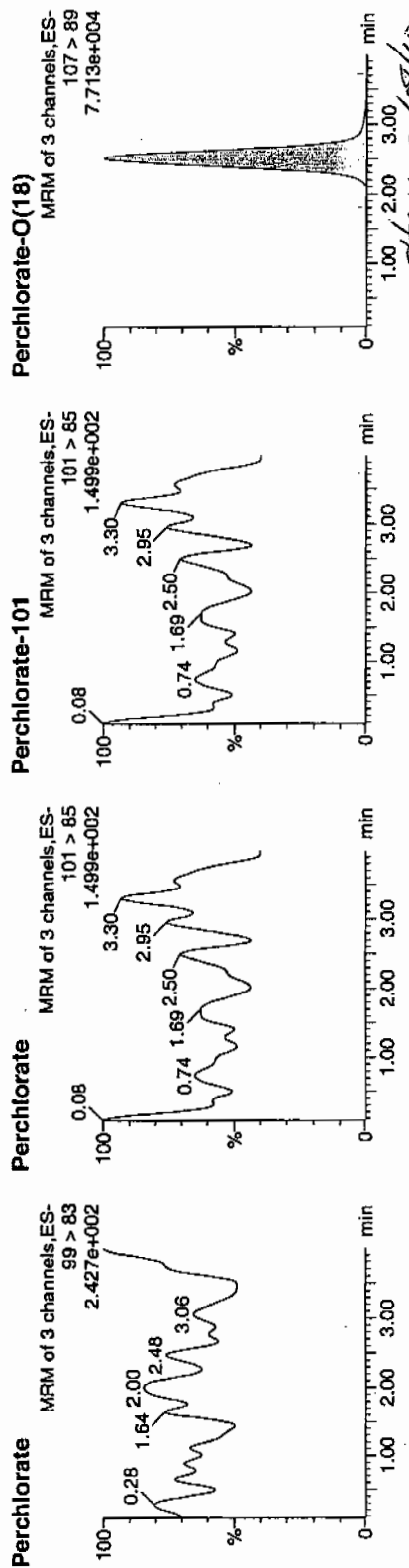
Date: 07-Jan-2010

Time: 19:40:07

IPB005

Vial: 1:1,A

01-08-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85	2.50	22107.498	22107.498	bb			0.4844	96.89	-3.11	4366.4...	
IPB005	Perchlorate-O(18)	107 > 89											

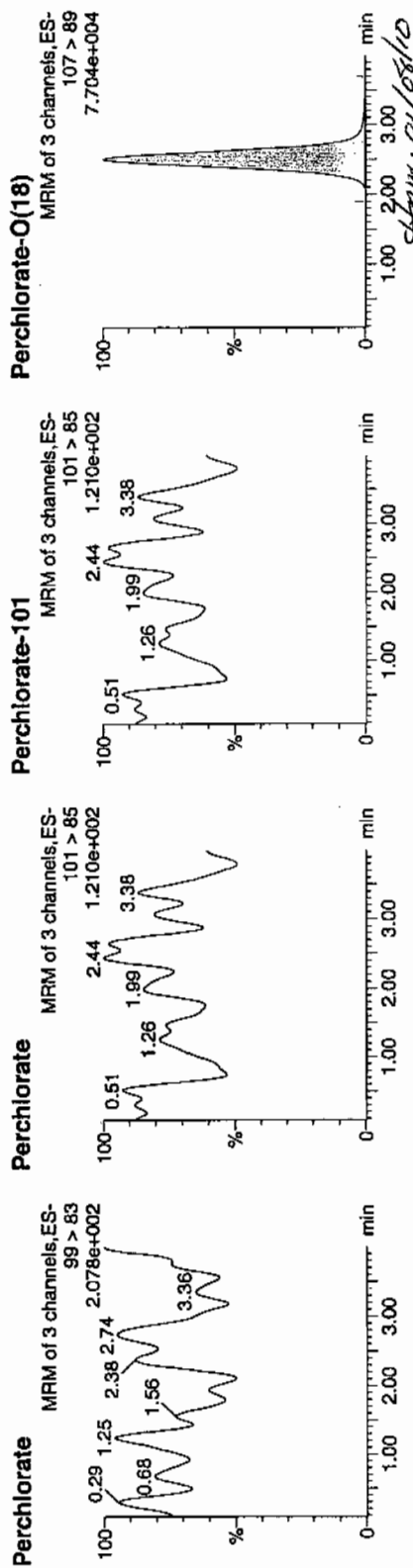
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107043a
Date: 07-Jan-2010
Time: 21:04:50
ID: IPB006
Val: 1:1,A

01-08-10



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85	2.50	21842.248	21842.248	bb			0.4786	95.72	-4.28	1534.9...	
IPB006	Perchlorate-O(18)	107 > 89											

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

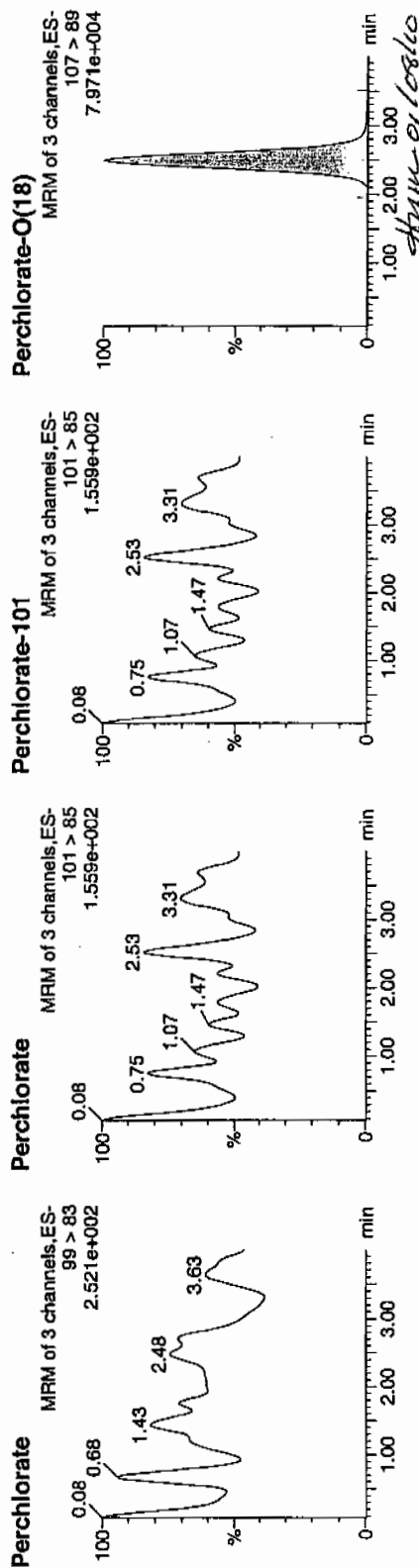
Page 55 of 56

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107055a
Date: 07-Jan-2010
Time: 22:29:31
ID: IPB007
Vial: 1:1A

01-08-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85	2.49	22276.139	22276.139	bb			0.4881	97.62	-2.38	3008.9	
IPB007	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/H₂O.
 ;Most useful general purpose calibrant for all low
 ;MW applications, including MS/MS work.
 ;At high resolution, readily covers from m/z 50-2000.
 ;At reduced resolution, can be used to over m/z 3000.
 ;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.

Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

QUARTO ULTIMA: nairb_01_08_08.ca

Calibration Report - MS1 Static

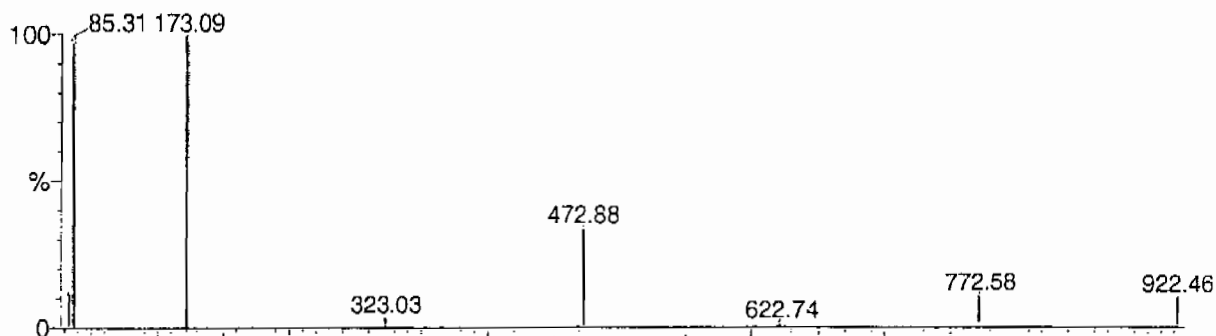
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

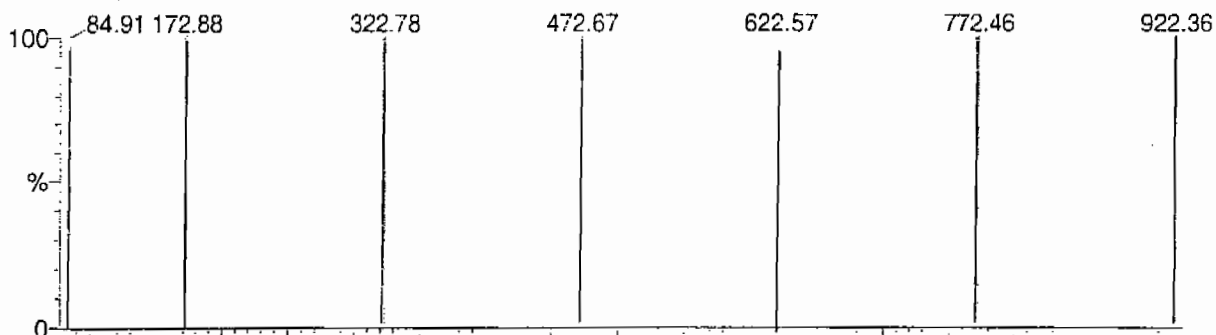
POINTS HIGHLIGHTED BY GMM 01-09-03

Data file: STATMS1 - Uncalibrated

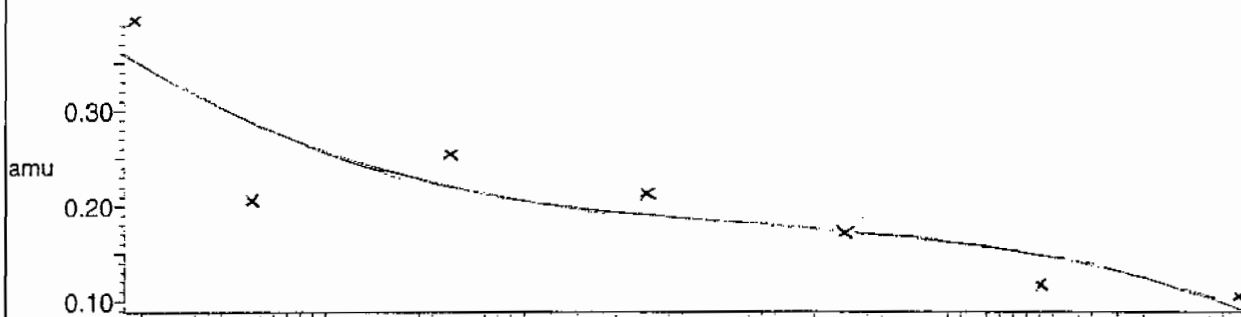
7 matches of 7 tested references



Reference file: Nairb

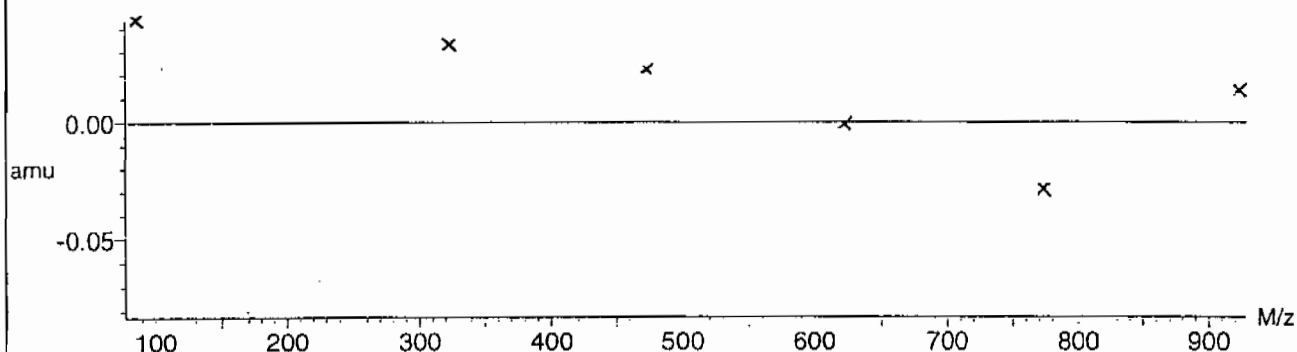


Mass difference (Raw - Ref mass)



Residuals

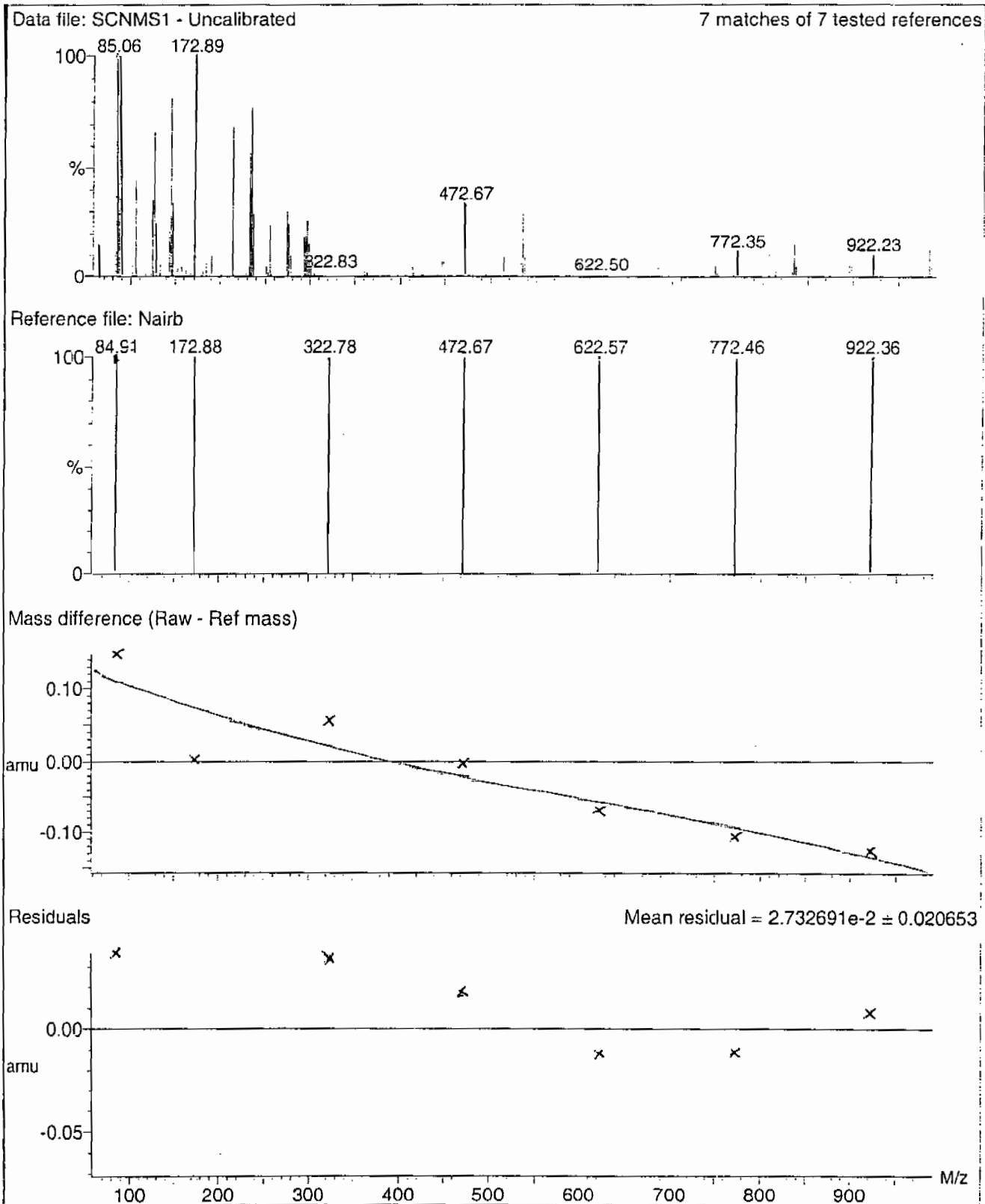
Mean residual = $3.212012 \times 10^{-2} \pm 0.024108$



Calibration Report - MS1 Scanning

Page 1 of 1

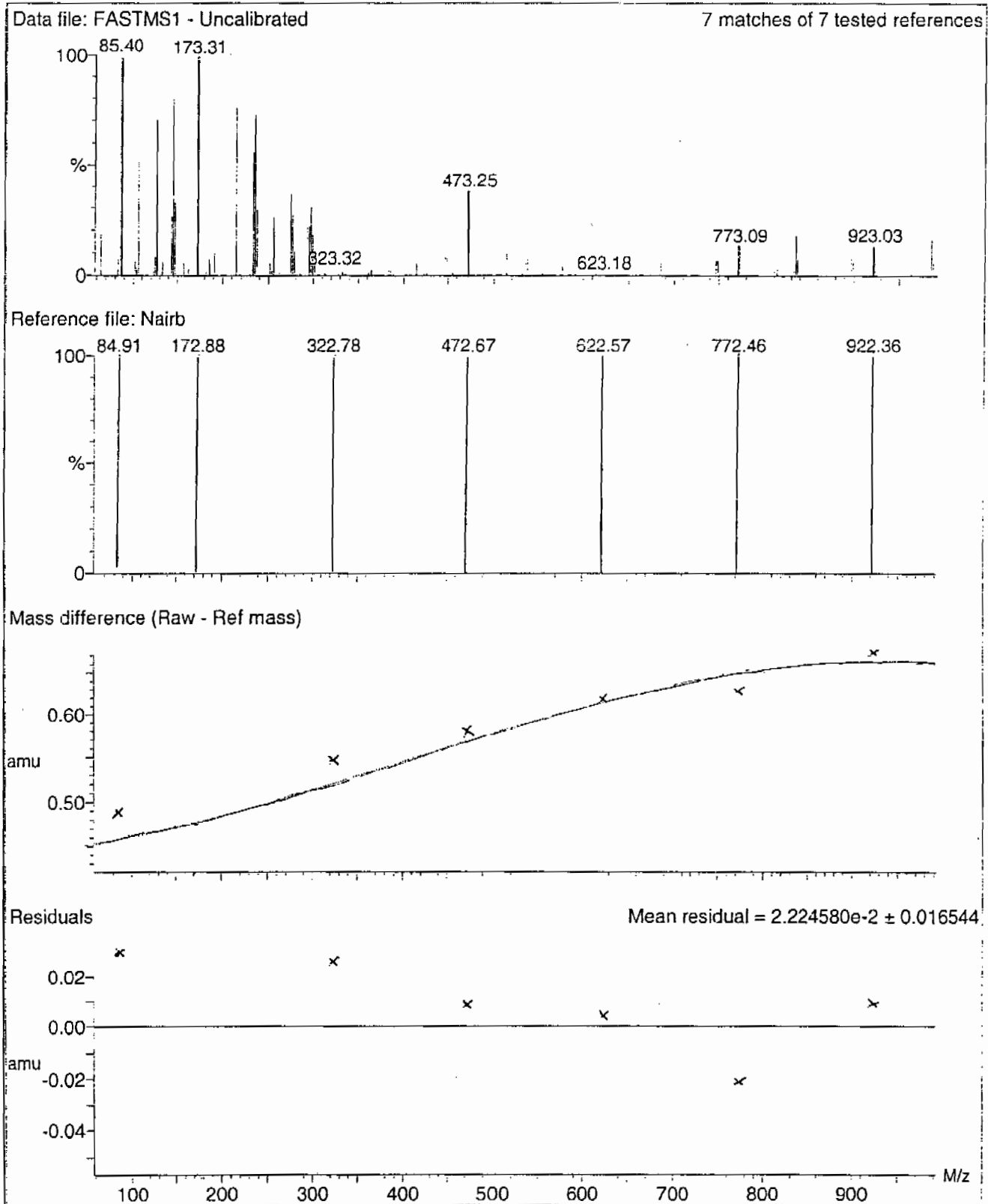
Printed: Tue Jan 08 12:20:09 2008



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

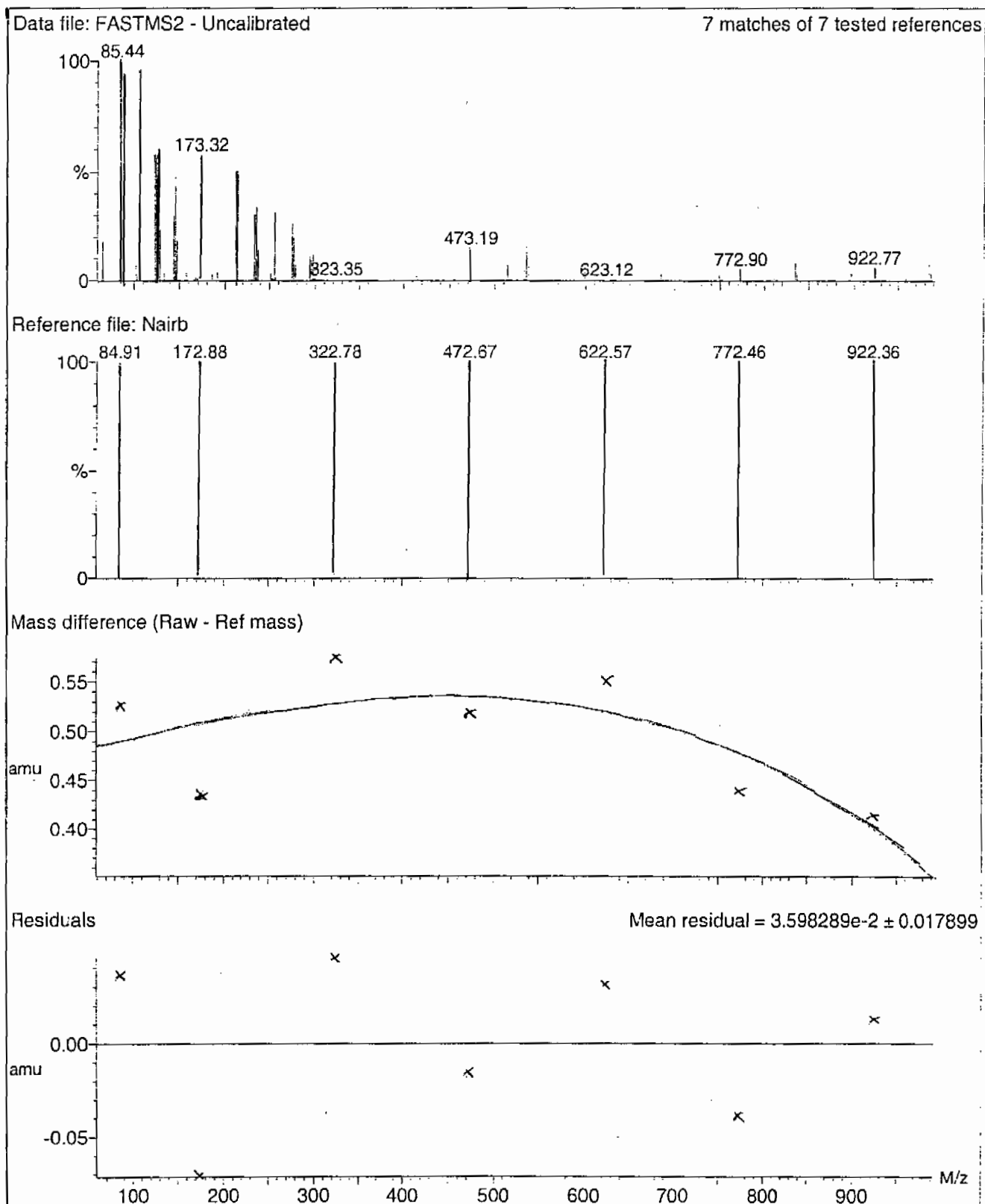
Printed: Tue Jan 08 12:21:04 2008



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

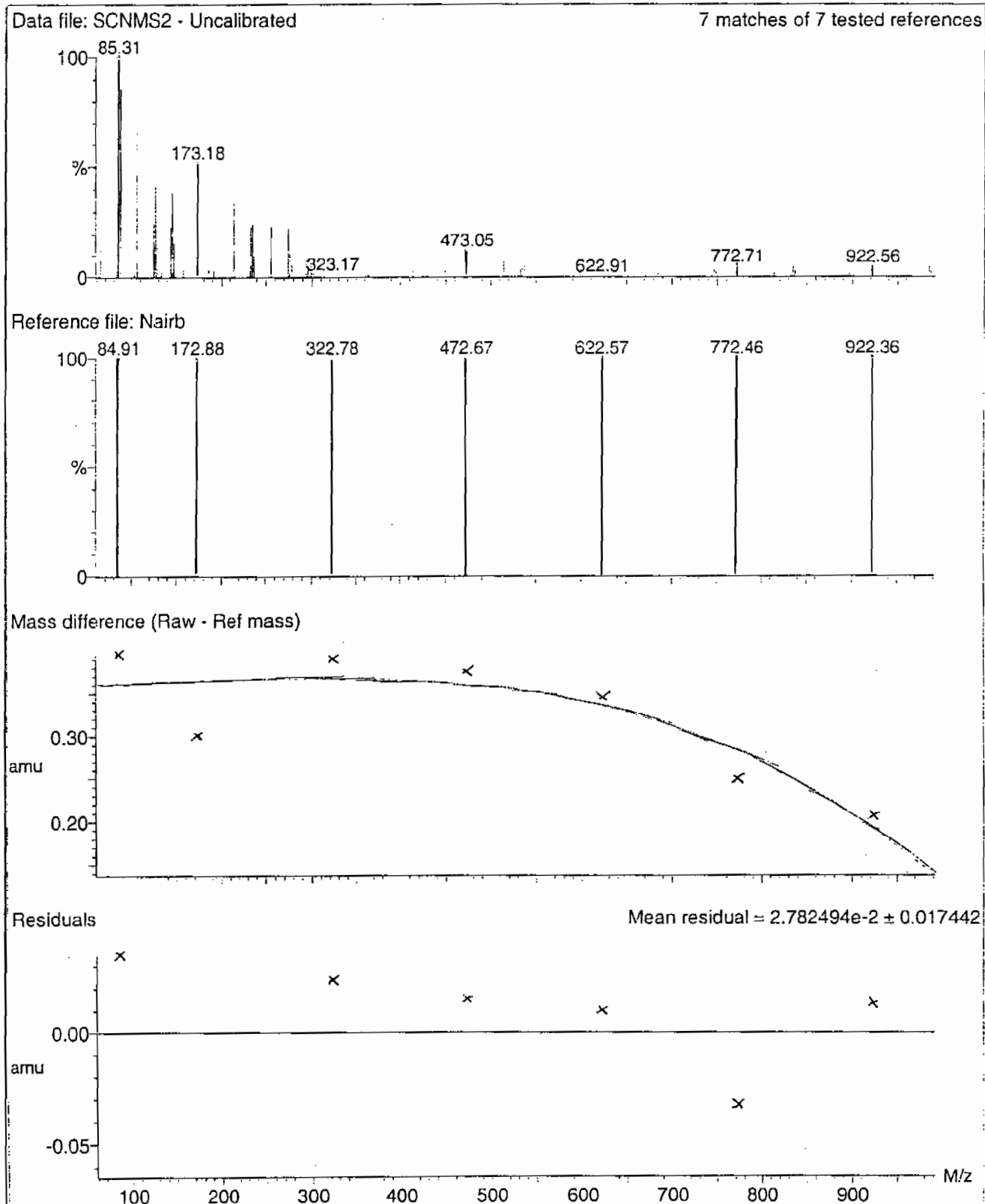
Printed: Tue Jan 08 12:23:51 2008



Calibration Report - MS2 Scanning

Page 1 of 1

Printed: Tue Jan 08 12:22:56 2008



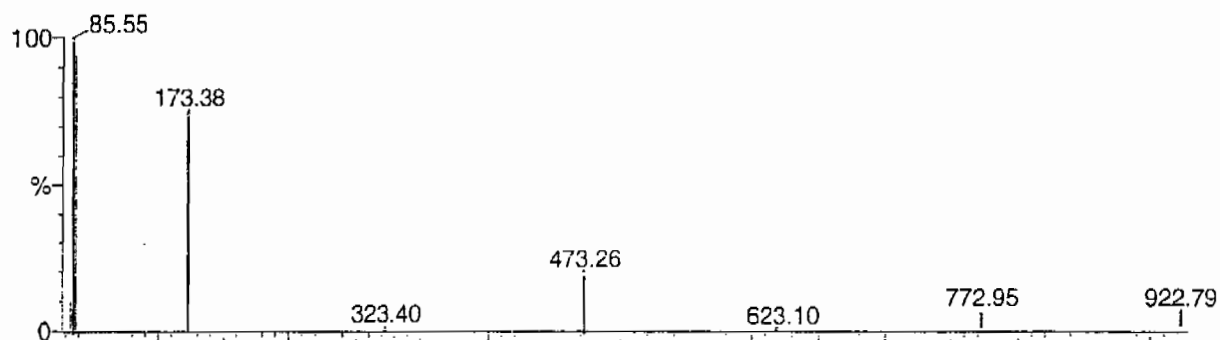
Calibration Report - MS2 Static

Page 1 of 1

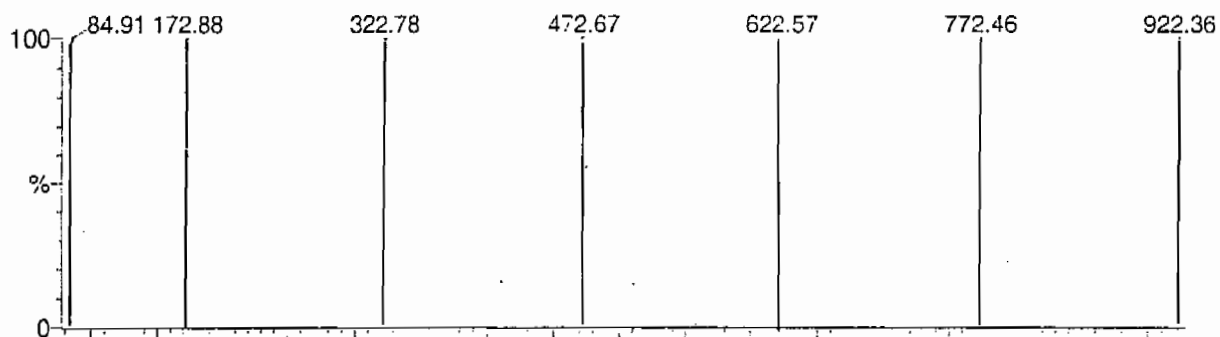
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

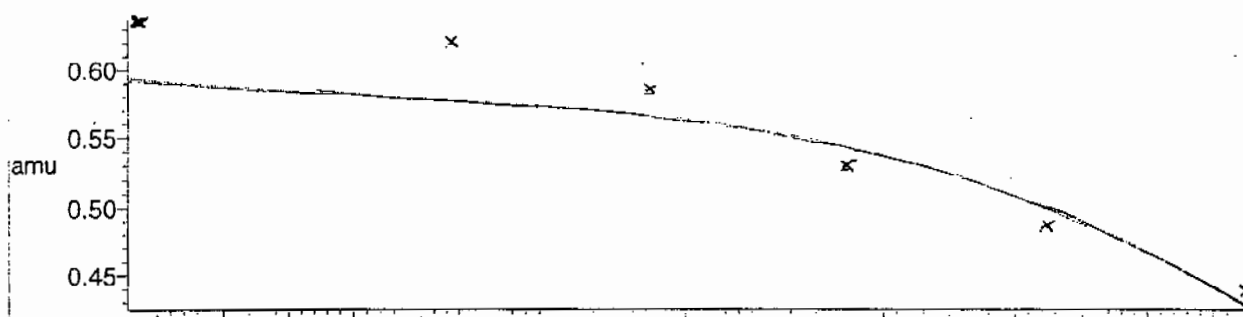
7 matches of 7 tested references



Reference file: Nairb

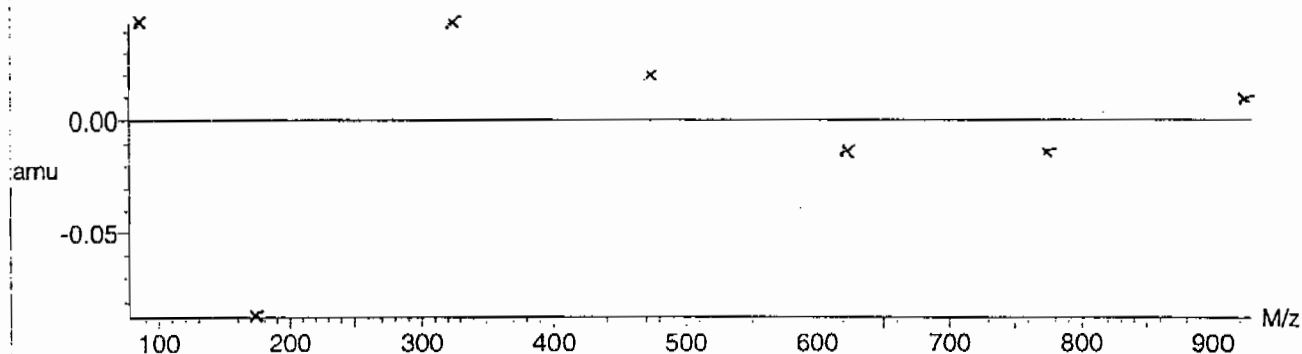


Mass difference (Raw - Ref mass)



Residuals

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



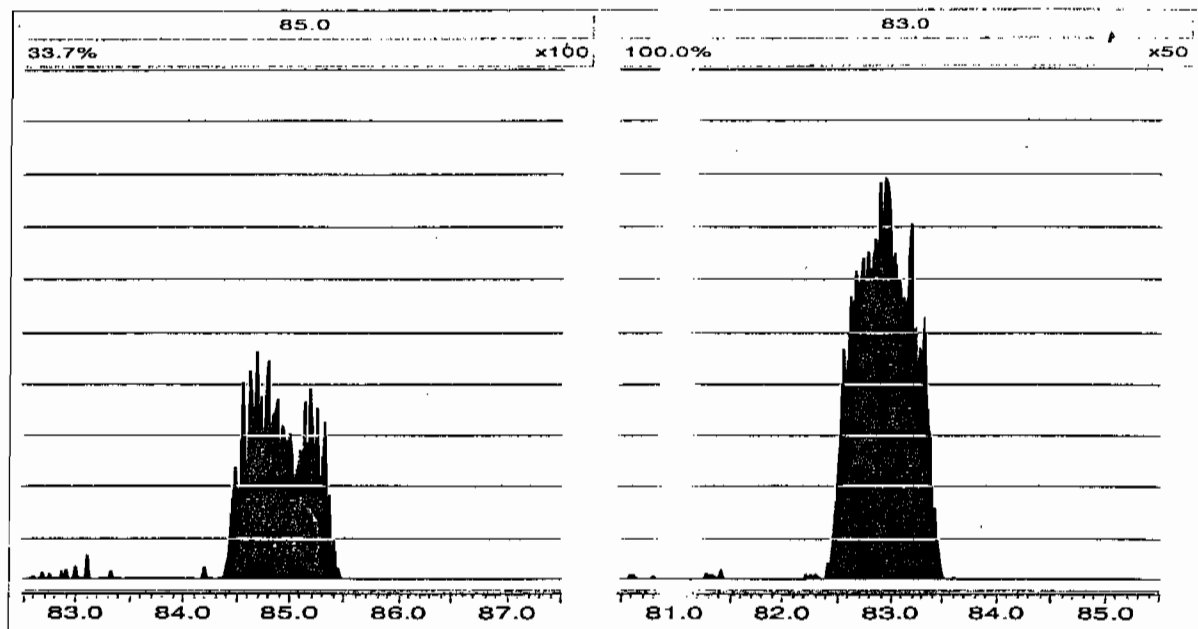
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

Printed: Thursday, January 07, 2010 13:15:46 Eastern Standard Time



Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-1075

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

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

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	per0107006a	07-JAN-10	23066.8				
Lower Area Limit			11533.4				
Upper Area Limit			46133.6				
1202004371	per0107033a	07-JAN-10 19:54	20997.7	2.51	2.53877	1.011	
1202004374	per0107034a	07-JAN-10 20:01	22028.5	2.5	2.51387	1.006	
1202004375	per0107035a	07-JAN-10 20:08	21934.9	2.48	2.48903	1.004	
243521001	per0107036a	07-JAN-10 20:15	22482.8	2.51	2.5263	1.006	
1202004372	per0107037a	07-JAN-10 20:22	22991.3	2.5	2.51382	1.006	
1202004373	per0107038a	07-JAN-10 20:29	22329.5	2.5	2.51382	1.006	
243521002	per0107039a	07-JAN-10 20:36	23189.4	2.5	2.5138	1.006	
243521003	per0107040a	07-JAN-10 20:43	22898.3	2.49	2.51387	1.01	

Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-1075

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

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

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	per0107006a	07-JAN-10	23066.8				
Lower Area Limit			11533.4				
Upper Area Limit			46133.6				
243521004	per0107041a	07-JAN-10 20:50	23854.8	2.5	2.51387	1.006	
243521005	per0107045a	07-JAN-10 21:18	22704.4	2.5	2.51383	1.006	
243521006	per0107046a	07-JAN-10 21:25	23862	2.5	2.51385	1.006	
243521007	per0107047a	07-JAN-10 21:33	22962.4	2.5	2.51385	1.006	
243521008	per0107048a	07-JAN-10 21:40	21509.8	2.49	2.50153	1.005	
243521009	per0107049a	07-JAN-10 21:47	22763.9	2.49	2.5015	1.005	
243521010	per0107050a	07-JAN-10 21:54	22629.5	2.49	2.50148	1.005	
243521011	per0107051a	07-JAN-10 22:01	22487.2	2.49	2.50148	1.005	

SAMPLE DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7606

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521001

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 20

CAS No.	Analyte [^]	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	07-JAN-10 20:15	per0107036a
	Perchlorate Isotope Ratio						1	07-JAN-10 20:15	per0107036a
14797-73-0	Perchlorate-101	.558	2.23	0.558	ug/kg	U	1	07-JAN-10 20:15	per0107036a
	Perchlorate-Q(18)			5.50	ug/kg		1	07-JAN-10 20:15	per0107036a

[^] 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\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107036a

Date: 07-Jan-2010

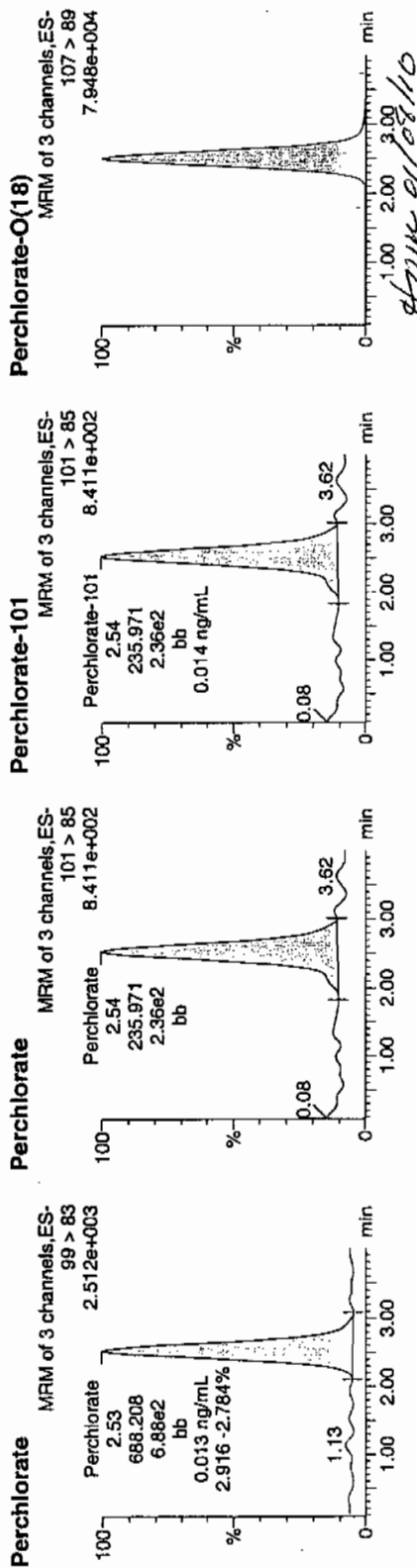
Time: 20:15:25

ID: 243521001

Vial: 1:6,D

9-03-10

LA100 | 936731 | 5070 | 1 |



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243521001	Perchlorate	99 > 83	2.53	688.208	688.208	bb			0.0133			95.532	2.92
243521001	Perchlorate-101	101 > 85	2.54	235.971	235.971	bb			0.0136			44.616	
243521001	Perchlorate-O(18)	107 > 89	2.51	22482.832	22482.832	bb			0.4927	98.53	-1.47	7473.8...	

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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7607

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521002

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 93.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.533	2.13	0.533	ug/kg	U	1	07-JAN-10 20:36	per0107039a
	Perchlorate Isotope Ratio						1	07-JAN-10 20:36	per0107039a
14797-73-0	Perchlorate-101	.533	2.13	0.533	ug/kg	U	1	07-JAN-10 20:36	per0107039a
	Perchlorate-O(18)			5.42	ug/kg		1	07-JAN-10 20:36	per0107039a

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

*Concentration =

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

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

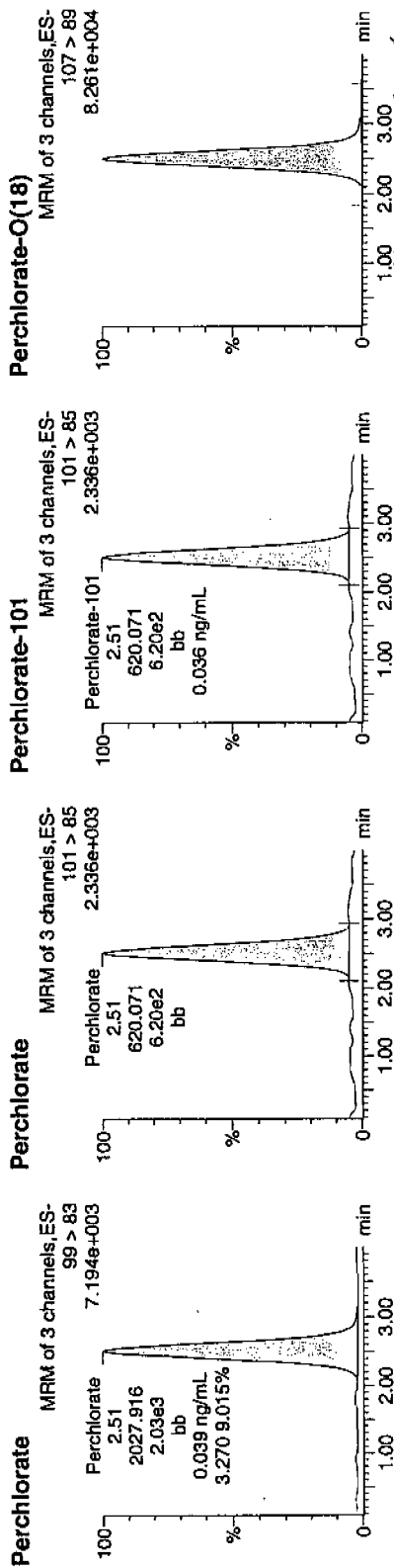
Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107039a
Date: 07-Jan-2010
Time: 20:36:33
ID: 243521002
Vial: 1:7,A

6623
9-08-10

15700-436731 | 5020 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243521002	Perchlorate	99 > 83	2.51	2027.916	2027.916	bb			0.0393			401.232	3.27
243521002	Perchlorate-101	101 > 85	2.51	620.071	620.071	bb			0.0358			109.505	
243521002	Perchlorate-O(18)	107 > 89	2.50	23189.408	23189.408	bb			0.5081	101.63	1.63	3620.5...	

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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7596

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521003

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.22	0.556	ug/kg	U	1	07-JAN-10 20:43	per0107040a
	Perchlorate Isotope Ratio						1	07-JAN-10 20:43	per0107040a
14797-73-0	Perchlorate-101	.556	2.22	0.556	ug/kg	U	1	07-JAN-10 20:43	per0107040a
	Perchlorate-O(18)			5.58	ug/kg		1	07-JAN-10 20:43	per0107040a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

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

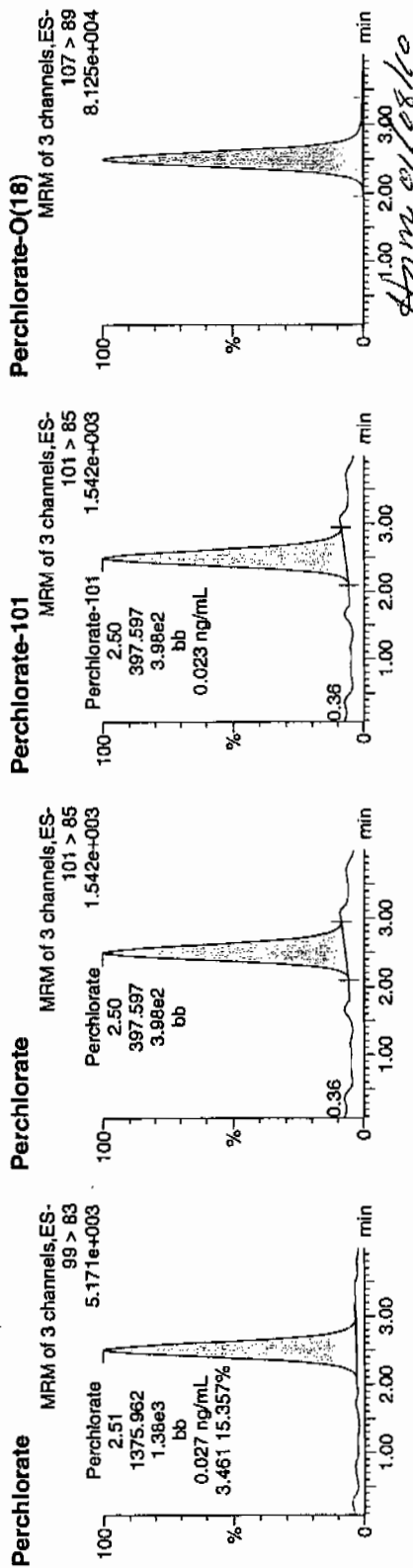
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Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107040a
Date: 07-Jan-2010
Time: 20:43:38
ID: 243521003
Vial: 1:7,B

Q-38-10

LANC 930731 | 5000 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243521003	Perchlorate	99 > 83	2.51	1375.962	1375.962	bb			0.0266		422.568	3.46	
243521003	Perchlorate-101	101 > 85	2.50	397.597	397.597	bb			0.0229		119.534		
243521003	Perchlorate-O(18)	107 > 89	2.49	22898.318	22898.318	bb			0.5018	100.35	0.35	4329.6...	

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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7597

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521004

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 94.9

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.527	2.11	1.90	ug/kg	J	1	07-JAN-10 20:50	per0107041a
	Perchlorate Isotope Ratio			3.19			1	07-JAN-10 20:50	per0107041a
14797-73-0	Perchlorate-101	.527	2.11	1.77	ug/kg	J	1	07-JAN-10 20:50	per0107041a
	Perchlorate-O(18)			5.51	ug/kg		1	07-JAN-10 20:50	per0107041a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids
Aliquot

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

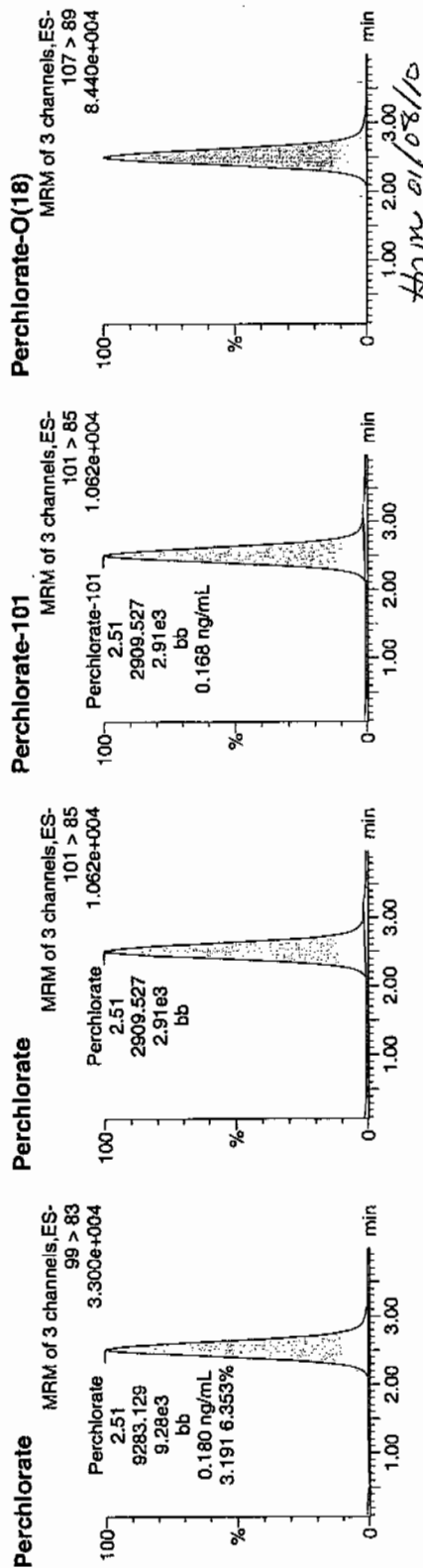
Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107041a
Date: 07-Jan-2010
Time: 20:50:42
ID: 243521004
Vial: 1:7,C

623
01-08-10

LANC | 936781 | 5075 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N	Ion Ratio
243521004	Perchlorate	99 > 83	2.51	9283.129	9283.129	bb			0.1798			2194.8...	3.19
243521004	Perchlorate-101	101 > 85	2.51	2909.527	2909.527	bb			0.1679			44.366	
243521004	Perchlorate-O(18)	107 > 89	2.50	23854.758	23854.758	bb			0.5227	104.54	4.54	10079...	

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: 236779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7608

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521005

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	07-JAN-10 21:18	per0107045a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:18	per0107045a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	07-JAN-10 21:18	per0107045a
	Perchlorate-O(18)			5.57	ug/kg		1	07-JAN-10 21:18	per0107045a

[^] 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

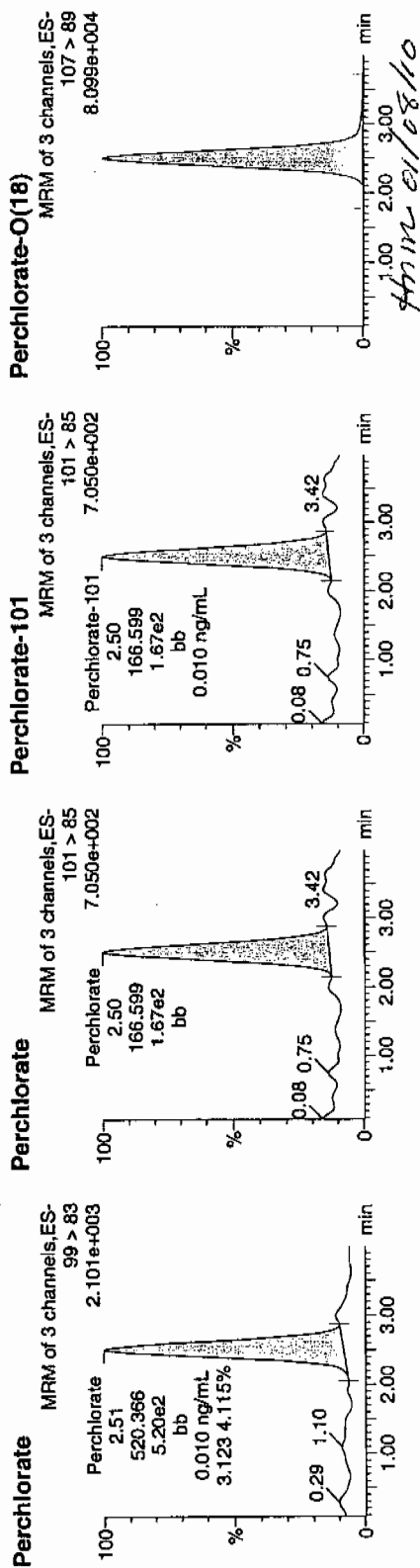
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Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107045a
Date: 07-Jan-2010
Time: 21:18:54
ID: 243521005
Vial: 1:7,D

0-08.10

LAN-1936731 | 5000 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243521005	Perchlorate	99 > 83	2.51	520.366	520.366	bb			0.0101	150.194	3.12		
243521005	Perchlorate-101	101 > 85	2.50	166.599	166.599	bb			0.0096	31.650			
243521005	Perchlorate-O(18)	107 > 89	2.50	22704.408	22704.408	bb			0.4975	99.50	-0.50	2451.2...	

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: 936772
 Extraction Type: Solid Prep
 Client Sample No. RE12-10-7600
 Date Received: 24-DEC-09
 GEL Job No (SDG): 10-1075
 GEL Sample ID: 243521006
 Date Filtered: 07-JAN-10
 Injection Volume (uL): 20
 Sample Volume/Weight: 2.00 g
 %Solids: 86

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.582	2.33	0.582	ug/kg	U	1	07-JAN-10 21:25	per0107046a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:25	per0107046a
14797-73-0	Perchlorate-101	.582	2.33	0.582	ug/kg	U	1	07-JAN-10 21:25	per0107046a
	Perchlorate-O(18)			6.08	ug/kg		1	07-JAN-10 21:25	per0107046a

[^] 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: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107046a

Date: 07-Jan-2010

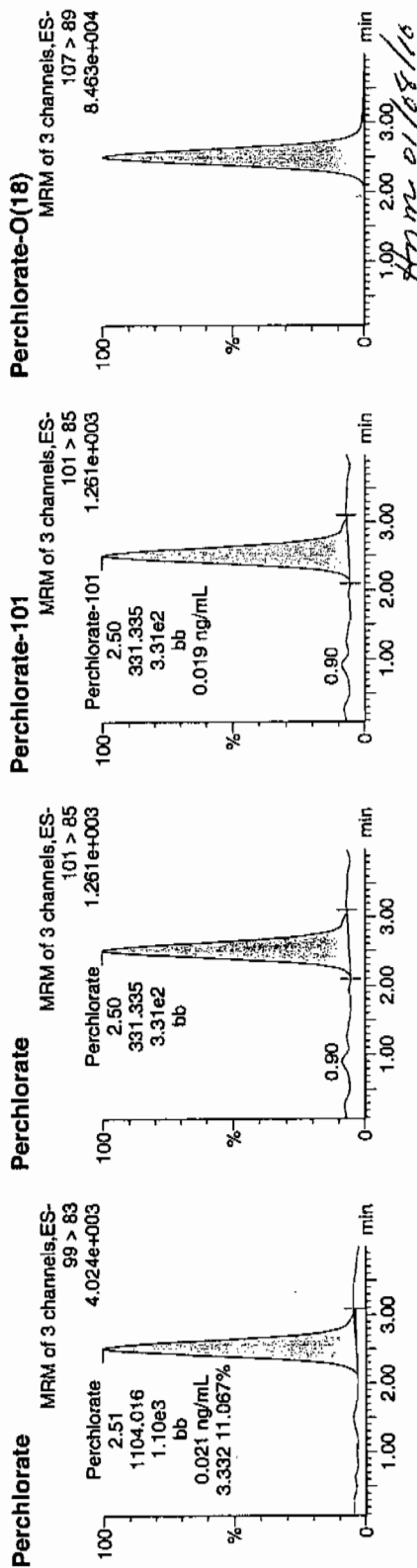
Time: 21:25:57

ID: 243521006

Vial: 1:7,E

Q-08-10

14926 | 936781 | 5070 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243521006	Perchlorate	99 > 83	2.51	1104.016	1104.016	bb			0.0214			180.918	3.33
243521006	Perchlorate-101	101 > 85	2.50	331.335	331.335	bb			0.0191			188.274	
243521006	Perchlorate-O(18)	107 > 89	2.50	23862.033	23862.033	bb			0.5229	104.58	4.58	17378...	

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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7601

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521007

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte [^]	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	07-JAN-10 21:33	per0107047a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:33	per0107047a
14797-73-0	Perchlorate-101	.558	2.23	0.558	ug/kg	U	1	07-JAN-10 21:33	per0107047a
	Perchlorate-O(18)			5.62	ug/kg		1	07-JAN-10 21:33	per0107047a

[^] 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

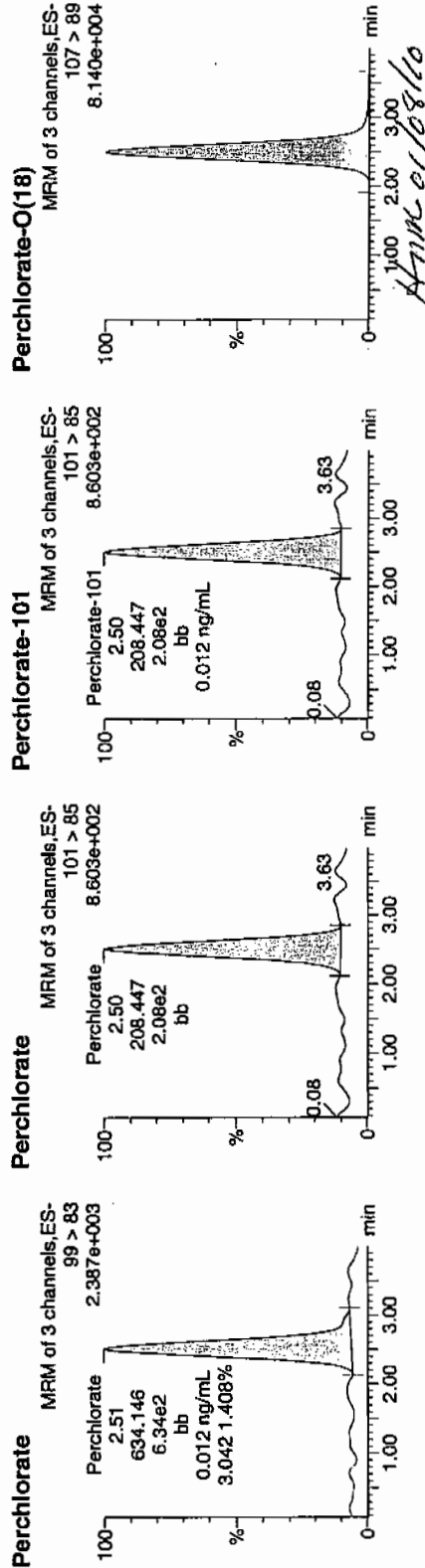
Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107047a
Date: 07-Jan-2010
Time: 21:33:01
ID: 243521007
Vial: 1:7,F

01-08-10

LANU | 936781 | 3020 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243521007	Perchlorate	99 > 83	2.51	634,146	634,146	bb			0.0123			62,580	3.04
243521007	Perchlorate-101	101 > 85	2.50	208,447	208,447	bb			0.0120			25,669	
243521007	Perchlorate-O(18)	107 > 89	2.50	22962,432	22962,432	bb			0.5032	100.63	0.63	6520.5...	

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: 236779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7602

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521008

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 93

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	07-JAN-10 21:40	per0107048a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:40	per0107048a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	07-JAN-10 21:40	per0107048a
	Perchlorate-O(18)			5.07	ug/kg		1	07-JAN-10 21:40	per0107048a

[^] 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

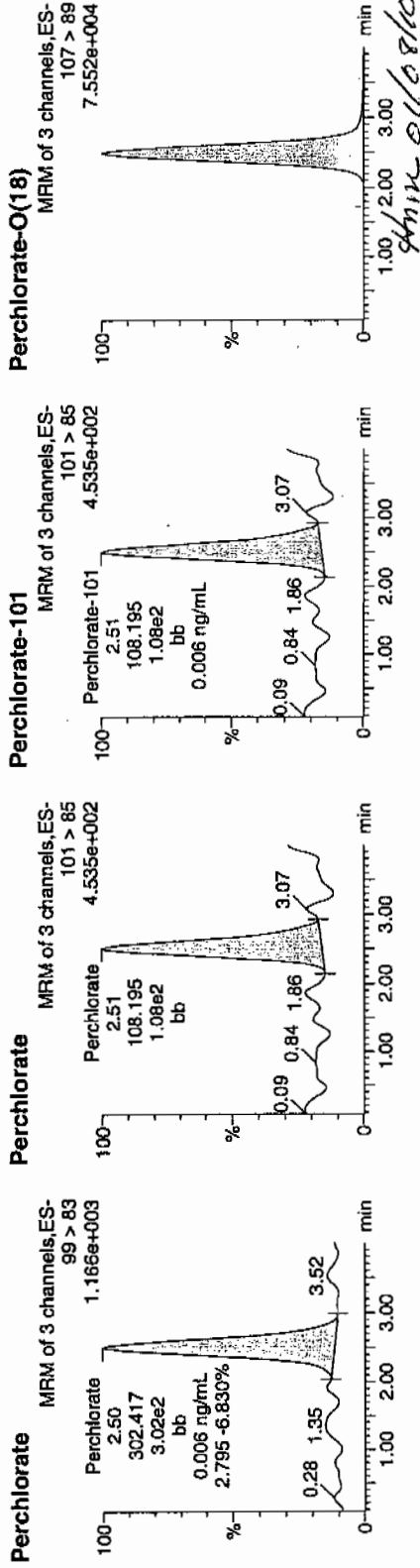
Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107048a
Date: 07-Jan-2010
Time: 21:40:04
ID: 243521008
Vial: 1:8,A

01-08-10

1920-193631-3075-11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243521008	Perchlorate	99 > 83	2.50	302.417	302.417	bb			0.0059			42.994	2.80
243521008	Perchlorate-101	101 > 85	2.51	108.195	108.195	bb			0.0062			43.207	
243521008	Perchlorate-O(18)	107 > 89	2.49	21509.779	21509.779	bb			0.4713	94.27	-5.73	8606.9...	

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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7599

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521009

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 91

CAS No.	Analyte [^]	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	07-JAN-10 21:47	per0107049a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:47	per0107049a
14797-73-0	Perchlorate-101	.549	2.2	0.549	ug/kg	U	1	07-JAN-10 21:47	per0107049a
	Perchlorate-O(18)			5.48	ug/kg		1	07-JAN-10 21:47	per0107049a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids
Aliquot

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

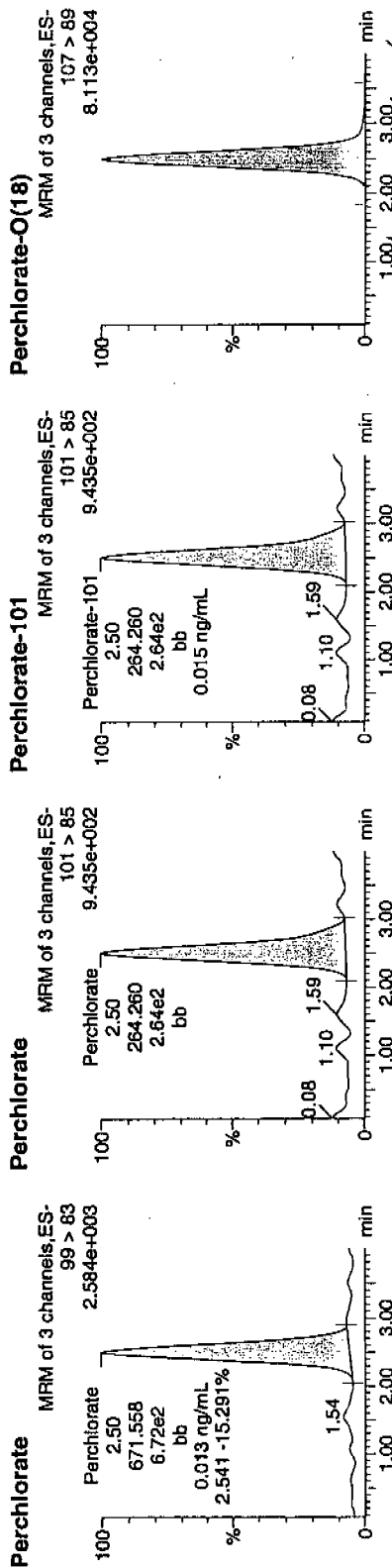
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Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
 Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107049a
 Date: 07-Jan-2010
 Time: 21:47:09
 ID: 243521009
 Vial: 1:8,B

01-08-10

LANC 936731 | 3000 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243521009	Perchlorate	99 > 83	2.50	671.558	671.558	bb			0.0130			205.628	2.54
243521009	Perchlorate-101	101 > 85	2.50	264.260	264.260	bb			0.0153			54.059	
243521009	Perchlorate-O(18)	107 > 89	2.49	22763.859	22763.859	bb			0.4988	99.76	-0.24	9759.2...	

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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7598

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521010

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.21	0.554	ug/kg	U	1	07-JAN-10 21:54	per0107050a
	Perchlorate Isotope Ratio						1	07-JAN-10 21:54	per0107050a
14797-73-0	Perchlorate-101	.554	2.21	0.554	ug/kg	U	1	07-JAN-10 21:54	per0107050a
	Perchlorate-O(18)			5.49	ug/kg		1	07-JAN-10 21:54	per0107050a

[^] 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\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107050a

Date: 07-Jan-2010

Time: 21:54:14

ID: 243521010

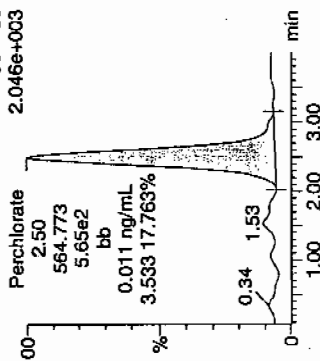
Vial: 1:8,C

01-08-10

1422-1934781 | 5030 | 11

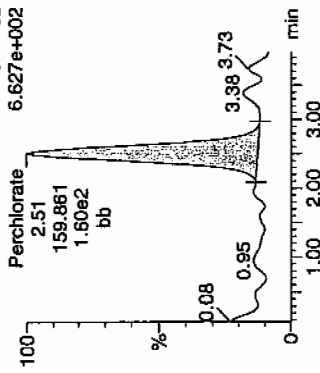
Perchlorate

MRM of 3 channels, ES-
99 > 83



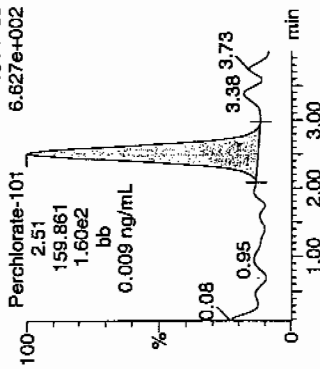
Perchlorate

MRM of 3 channels, ES-
101 > 85



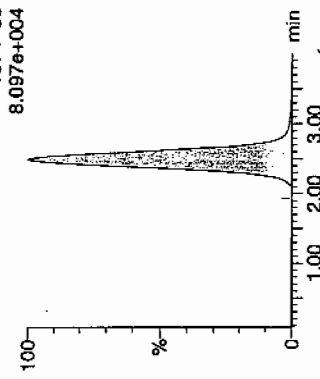
Perchlorate-101

MRM of 3 channels, ES-
101 > 85



Perchlorate-O(18)

MRM of 3 channels, ES-
107 > 89



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion.Ratio
243521010	Perchlorate	99 > 83	2.50	564.773	564.773	bb			0.0109			114.816	3.53
243521010	Perchlorate-101	101 > 85	2.51	159.861	159.861	bb			0.0092			65.384	
243521010	Perchlorate-O(18)	107 > 89	2.49	22629.488	22629.488	bb			0.4959	99.17	-0.83	503.171	

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: 236779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7603

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 243521011

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 26.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	07-JAN-10 22:01	per0107051a
	Perchlorate Isotope Ratio						1	07-JAN-10 22:01	per0107051a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	07-JAN-10 22:01	per0107051a
	Perchlorate-O(18)			5.12	ug/kg		1	07-JAN-10 22:01	per0107051a

[^] 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\per010710a.qld

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 Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107051a

Date: 07-Jan-2010

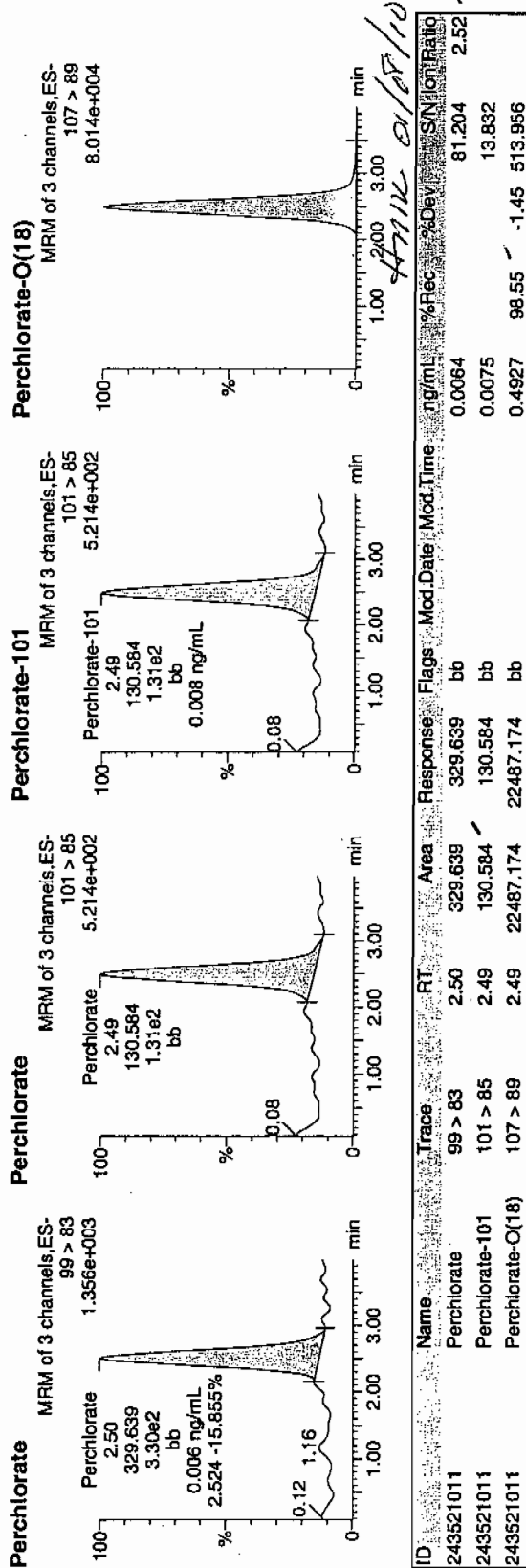
Time: 22:01:18

ID: 243521011

Vial: 1:8,D

0-33-10

LAU 136781 | 5000 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243521011	Perchlorate	99 > 83	2.50	329.639	329.639	bb			0.0064			81.204	2.52
243521011	Perchlorate-101	101 > 85	2.49	130.584	130.584	bb			0.0075			13.832	
243521011	Perchlorate-O(18)	107 > 89	2.49	22487.174	22487.174	bb			0.4927	98.55	-1.45	513.956	

STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1075

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 07-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

Coefficient of Determination:

Calibration Curve: 51634.86

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-1075

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 07-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

Paramname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 17324.94

Response Type: External Standard

Curve Type: RF

Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time

Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per010710a.mdb 08 Jan 2010 08:13:48

Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per010710a.cdb 08 Jan 2010 08:57:24

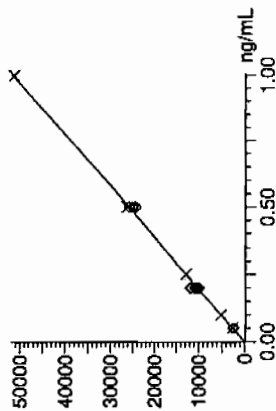
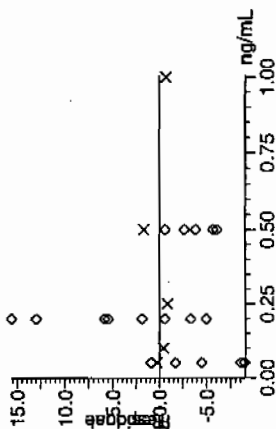
Compound name: Perchlorate

Response Factor: 51634.9

RRF SD: 544.923, % Relative SD: 1.05534

Response type: External Std, Area

Curve type: RF



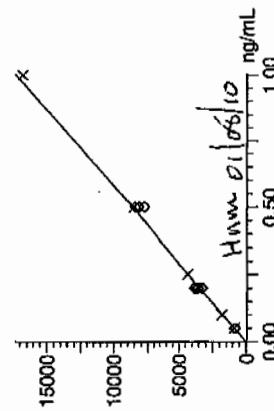
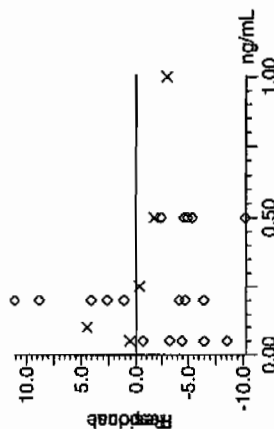
Compound name: Perchlorate-101

Response Factor: 17324.9

RRF SD: 489.508, % Relative SD: 2.82545

Response type: External Std, Area

Curve type: RF



01-08-10

Quantify Calibration Report MassLynx 4.0 SP4

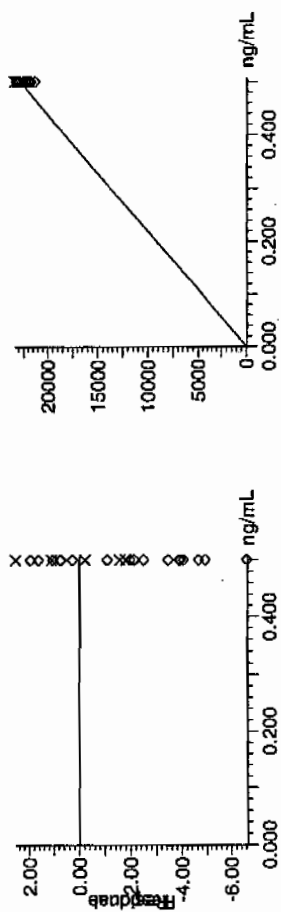
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time

Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
 Response Factor: 45636.2
 RRF SD: 840.481, % Relative SD: 1.8417 -
 Response type: External Std, Area
 Curve type: RF



Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1075

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.39	07-JAN-10 17:05	per0107009a
Perchlorate Isotope Ratio		3.12		07-JAN-10 17:05	per0107009a
Perchlorate-101	.5	.48	95.05	07-JAN-10 17:05	per0107009a

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time

Printed:

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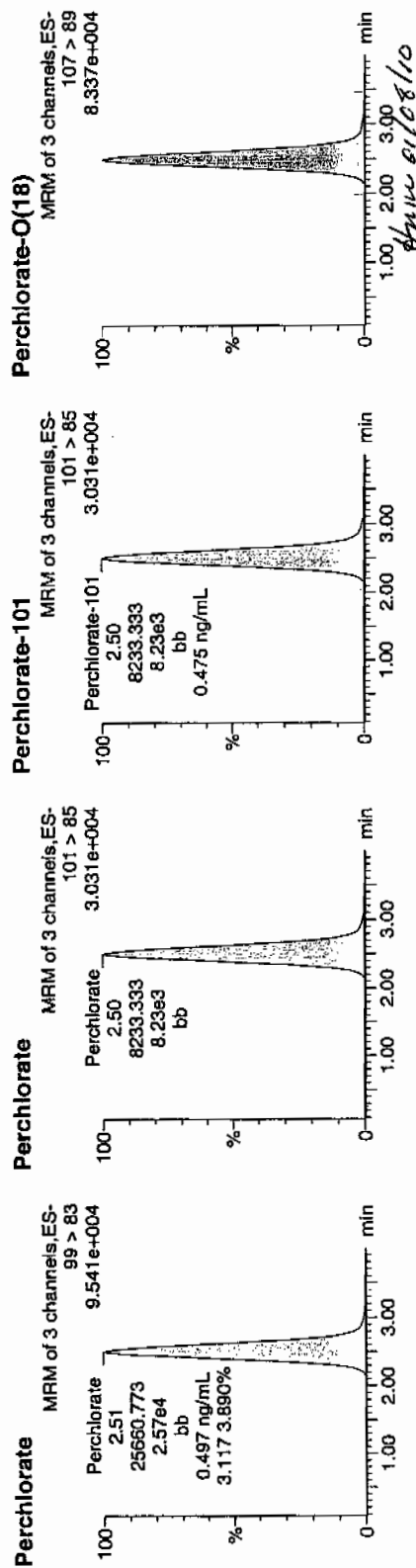
Name: per0107009a

Date: 07-Jan-2010

Time: 17:05:13

ID: WCL100104-06ICV

Vial: 1:2.A



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion.Ratio
WCL100104-06ICV	Perchlorate	99 > 83	2.51	25660.773	25660.773	bb			0.4970	99.39	-0.61	4619.1...	3.12
WCL100104-06ICV	Perchlorate-101	101 > 85	2.50	8233.333	8233.333	bb			0.4752	95.05	-4.95	2344.3...	
WCL100104-06ICV	Perchlorate-O(18)	107 > 89	2.49	22571.494	22571.494	bb			0.4946	98.92	-1.08	1137.0...	

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1075

Lab Code: GEL

Reporting Units: µg/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.47	94.35	07-JAN-10 18:08	per0107018a
Perchlorate Isotope Ratio		2.88		07-JAN-10 18:08	per0107018a
Perchlorate-101	.5	.49	97.55	07-JAN-10 18:08	per0107018a
Perchlorate	.5	.49	97.33	07-JAN-10 19:33	per0107030a
Perchlorate Isotope Ratio		3.07		07-JAN-10 19:33	per0107030a
Perchlorate-101	.5	.47	94.59	07-JAN-10 19:33	per0107030a
Perchlorate	.5	.48	96.14	07-JAN-10 20:57	per0107042a
Perchlorate Isotope Ratio		3.01		07-JAN-10 20:57	per0107042a
Perchlorate-101	.5	.48	95.35	07-JAN-10 20:57	per0107042a
Perchlorate	.5	.47	93.94	07-JAN-10 22:22	per0107054a
Perchlorate Isotope Ratio		3.12		07-JAN-10 22:22	per0107054a
Perchlorate-101	.5	.45	89.78	07-JAN-10 22:22	per0107054a

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107018a

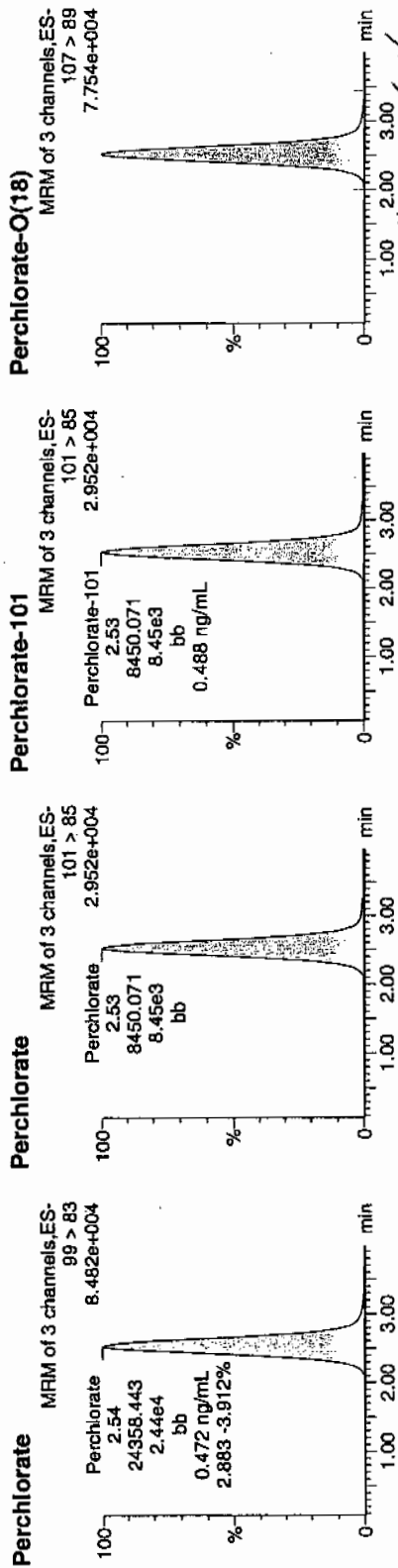
Date: 07-Jan-2010

Time: 18:08:34

ID: WCL100104-06CCV

Vial: 1:2,A

Pure
WCL
01-08-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion	Ratio
WCL100104-06CCV	Perchlorate	99 > 83	2.54	24358.443	24358.443	bb			0.4717	94.35	-5.65	3780.6...		2.88
WCL100104-06CCV	Perchlorate-101	101 > 85	2.53	8450.071	8450.071	bb			0.4877	97.55	-2.45	1000.9...		
WCL100104-06CCV	Perchlorate-O(18)	107 > 89	2.53	22248.279	22248.279	bb			0.4875	97.50	-2.50	16250.0...		

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Page 30 of 56

Dataset: C:\MassLynx\Perchlorate.PRO\per10710a.qld

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Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Sample Name: per107030a

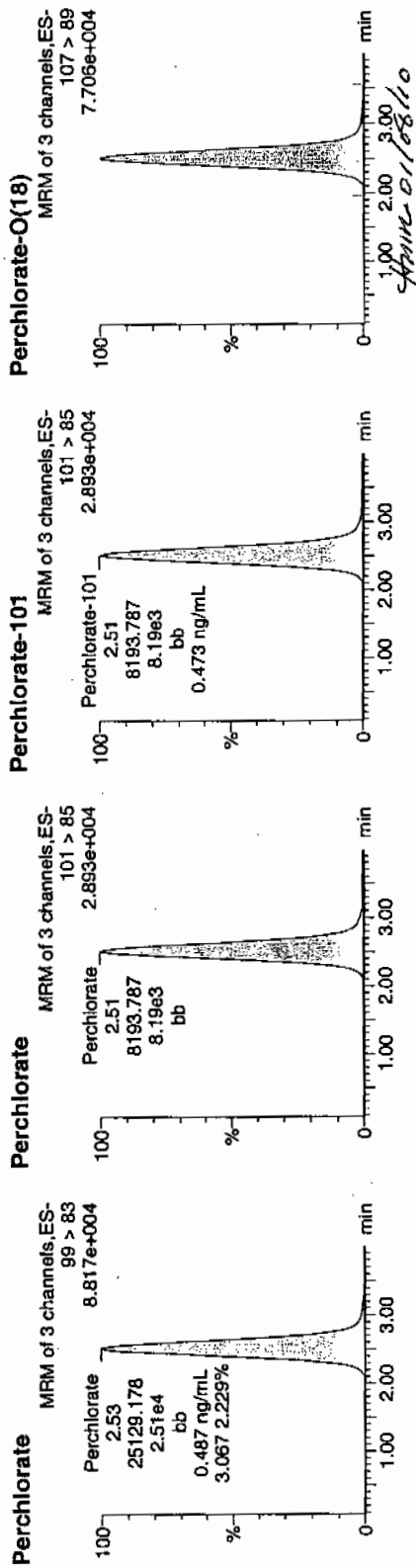
Date: 07-Jan-2010

Time: 19:33:04

ID: WCL100104-06CCV

Vial: 1:2,A

Pass
01-08-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-06CCV	Perchlorate	99 > 83	2.53	25129.178	25129.178	bb			0.4867	97.33	-2.67	7738.1...	3.07
WCL100104-06CCV	Perchlorate-101	101 > 85	2.51	8193.787	8193.787	bb			0.4729	94.59	-5.41	1467.8...	
WCL100104-06CCV	Perchlorate-O(18)	107 > 89	2.50	21916.148	21916.148	bb			0.4802	96.05	-3.95	7350.0...	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

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Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

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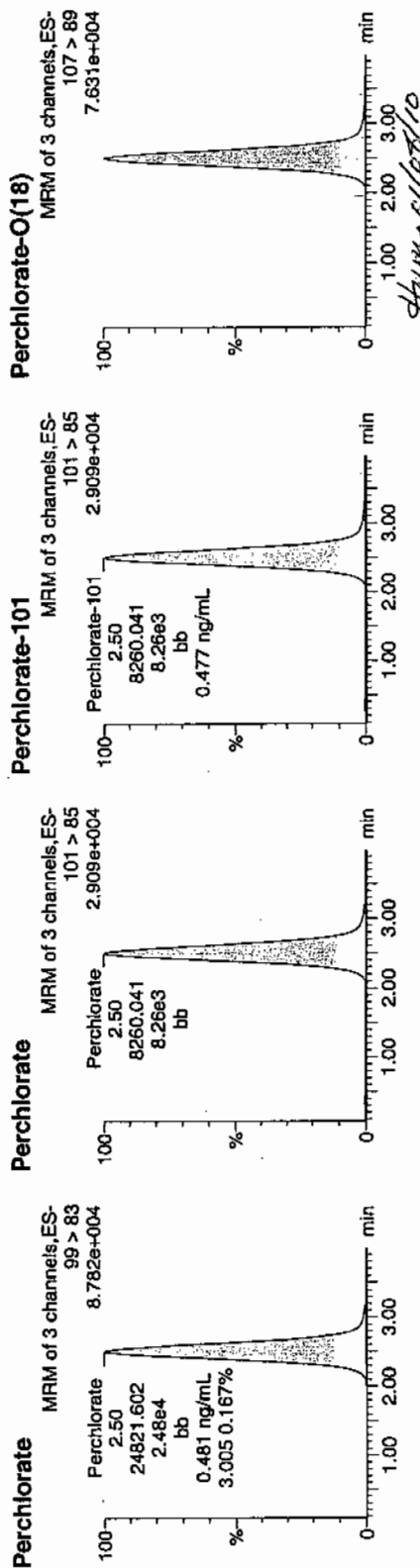
Date: 07-Jan-2010

Time: 20:57:47

ID: WCL100104-06CCV

Val: 1:2,A

Pur
and
01-08-10



ID	Name	Trace	RT	Area	Response	Flags	Mod. Date	Mod. Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-06CCV	Perchlorate	99 > 83	2.50	24821.602	24821.602	bb			0.4807	96.14	-3.86	6036.2...	3.01
WCL100104-06CCV	Perchlorate-101	101 > 85	2.50	8260.041	8260.041	bb			0.4768	95.35	-4.65	1458.0...	
WCL100104-06CCV	Perchlorate-Q(18)	107 > 89	2.49	21757.730	21757.730	bb			0.4768	95.35	-4.65	9641.1...	

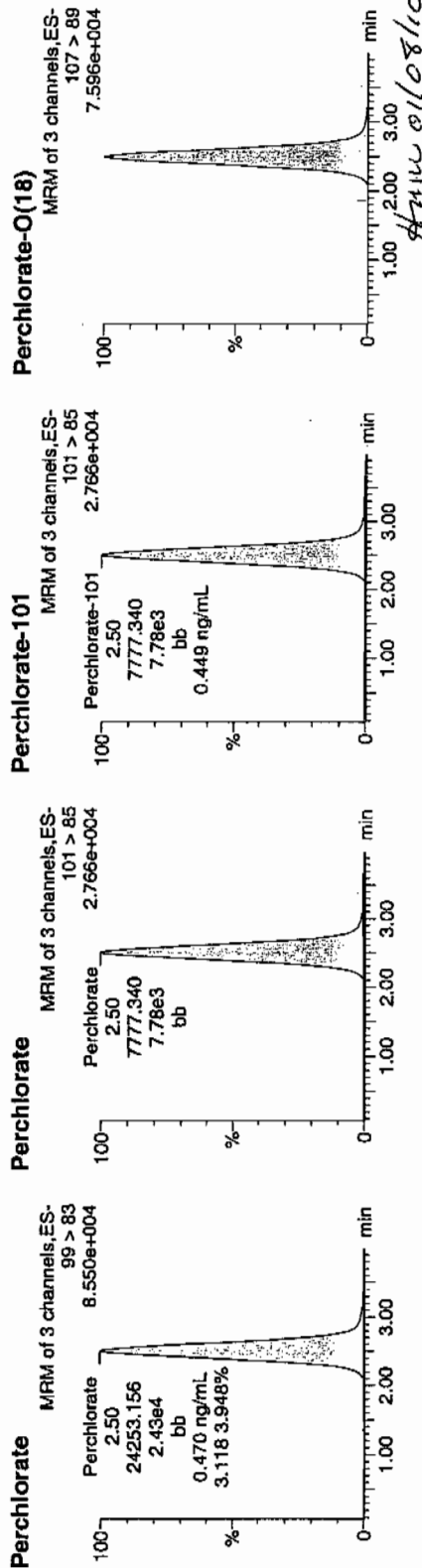
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107054a
Date: 07-Jan-2010
Time: 22:22:28
SP: WCL100104-06CCV
Vial: 1:2,A

*Pass
aw
9-23-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-06CCV	Perchlorate	99 > 83	2.50	24253.156	24253.156	bb			0.4697	93.94	-6.06	4951.2...	3.12
WCL100104-06CCV	Perchlorate-101	101 > 85	2.50	7777.340	7777.340	bb			0.4489	89.78	-10.22	5863.8...	
WCL100104-06CCV	Perchlorate-O(18)	107 > 89	2.49	21309.088	21309.088	bb			0.4669	93.39	-6.61	6285.8...	

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1075

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	98.3	07-JAN-10 17:19	per0107011a
Perchlorate Isotope Ratio		3.03		07-JAN-10 17:19	per0107011a
Perchlorate-101	.05	.05	96.74	07-JAN-10 17:19	per0107011a
Perchlorate	.05	.05	100.97	07-JAN-10 18:22	per0107020a
Perchlorate Isotope Ratio		3.03		07-JAN-10 18:22	per0107020a
Perchlorate-101	.05	.05	99.35	07-JAN-10 18:22	per0107020a
Perchlorate	.05	.05	91.1	07-JAN-10 19:47	per0107032a
Perchlorate Isotope Ratio		2.84		07-JAN-10 19:47	per0107032a
Perchlorate-101	.05	.05	95.55	07-JAN-10 19:47	per0107032a
Perchlorate	.05	.05	95.52	07-JAN-10 21:11	per0107044a
Perchlorate Isotope Ratio		3.04		07-JAN-10 21:11	per0107044a

Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1075

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	93.52	07-JAN-10 21:11	per0107044a
Perchlorate	.05	.05	91.47	07-JAN-10 22:36	per0107056a
Perchlorate Isotope Ratio		2.98		07-JAN-10 22:36	per0107056a
Perchlorate-101	.05	.05	91.45	07-JAN-10 22:36	per0107056a

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
 Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107011a

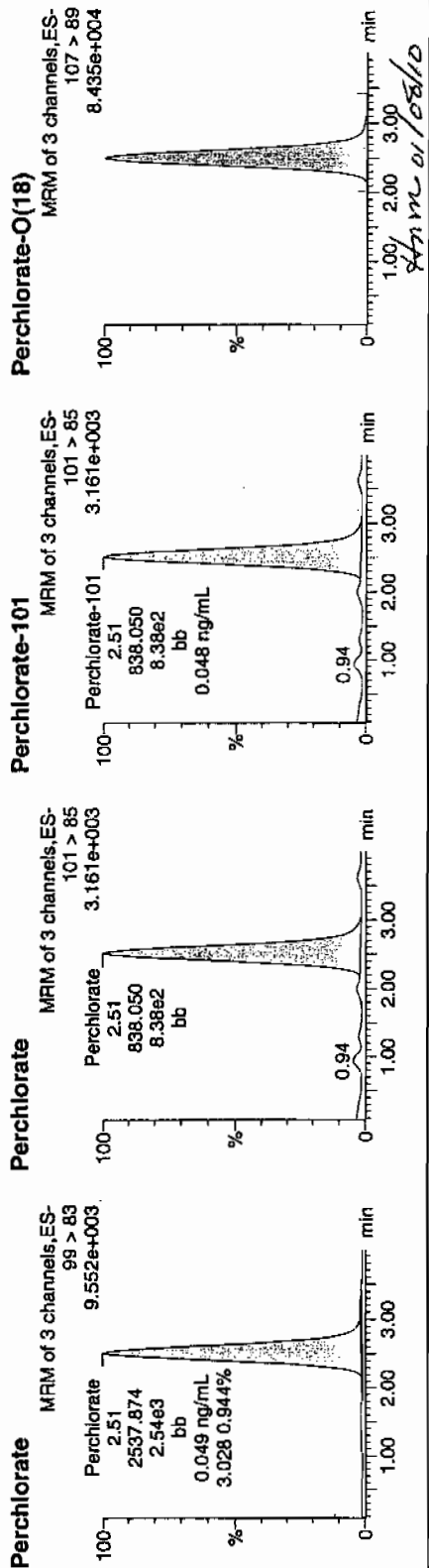
Date: 07-Jan-2010

Time: 17:19:18

IP: WCL100104-07CRI

Vial: 1:2,B

Perchlorate
01-08-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-07CRI	Perchlorate	99 > 83	2.51	2537.874	2537.874	bb			0.0492	96.30	-1.70	442.243	3.03
WCL100104-07CRI	Perchlorate-101	101 > 85	2.51	838.050	838.050	bb			0.0484	96.74	-3.26	741.364	
WCL100104-07CRI	Perchlorate-O(18)	107 > 89	2.50	22983.533	22983.533	bb			0.5036	100.73	0.73	5043.2...	

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
 Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107020a

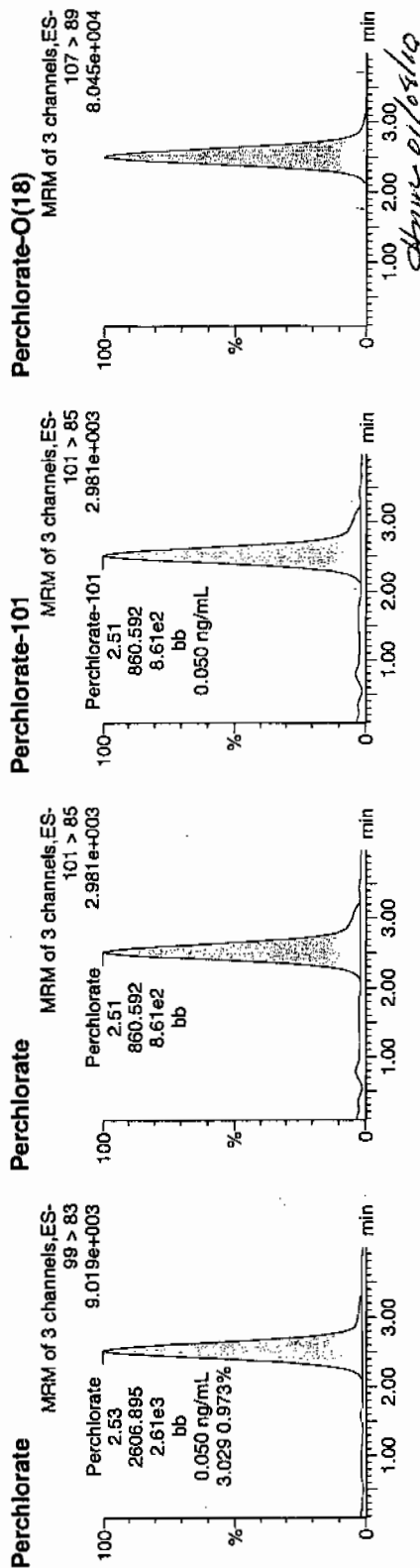
Date: 07-Jan-2010

Time: 18:22:39

ID: WCL100104-07CRI

Vial: 1:2,B

Pur
 and
 0-0.2-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-07CRI	Perchlorate	99 > 83	2.53	2606.895	2606.895	bb			0.0505	100.37	0.97	409.880	3.03
WCL100104-07CRI	Perchlorate-101	101 > 85	2.51	860.592	860.592	bb			0.0497	99.35	-0.65	63.273	
WCL100104-07CRI	Perchlorate-O(18)	107 > 89	2.50	22880.898	22880.898	bb			0.5014	100.28	0.28	10927 ...	

Quantify Sample Report MassLynx 4.0 SP4

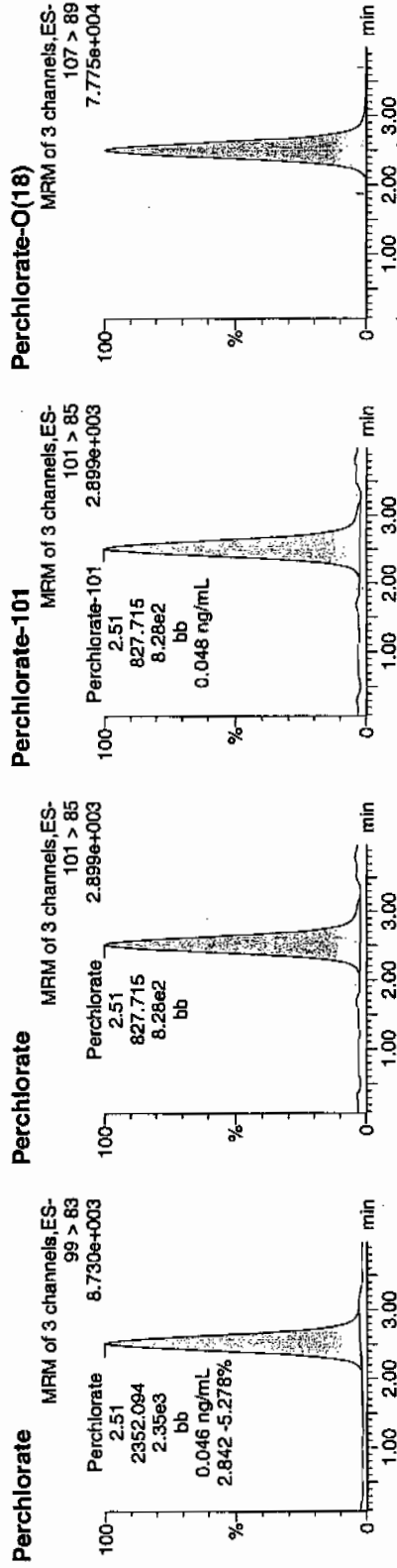
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107032a
Date: 07-Jan-2010
Time: 19:47:08
ID: WCL100104-07CRI
Vial: 1:2,B

Pers
and
01-08-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-07CRI	Perchlorate	99 > 83	2.51	2352.094	2352.094	bb			0.0458	91.10	-8.90	519.643	2.84
WCL100104-07CRI	Perchlorate-101	101 > 85	2.51	827.715	827.715	bb			0.0478	95.55	-4.45	197.311	
WCL100104-07CRI	Perchlorate-O(18)	107 > 89	2.50	21922.520	21922.520	bb			0.4804	96.08	-3.92	4271.7...	

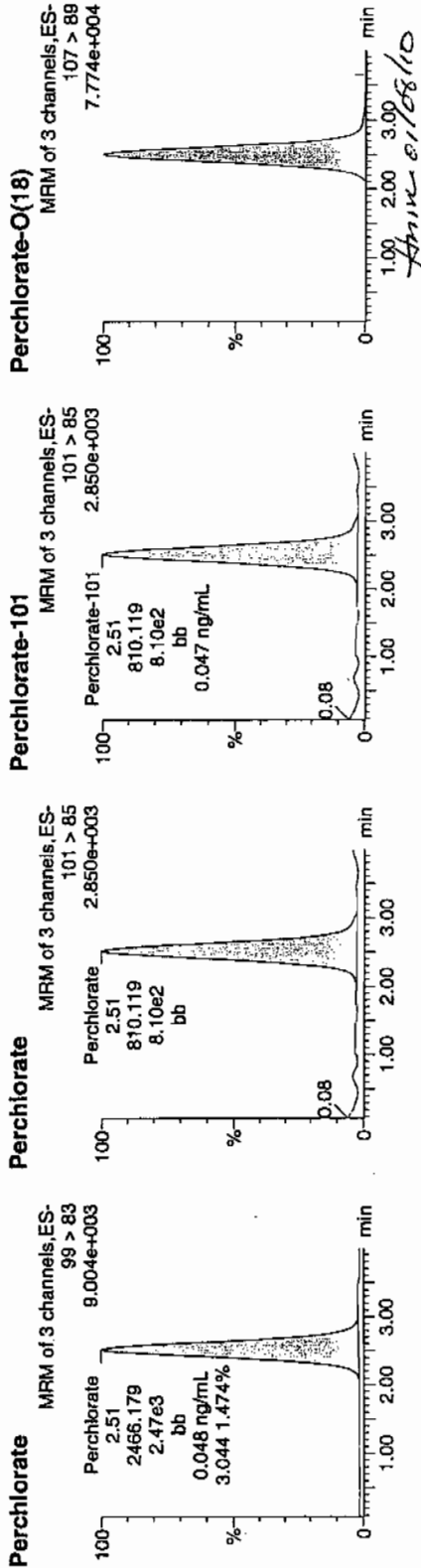
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qtd

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107044a
Date: 07-Jan-2010
Time: 21:11:52
ID: WCL100104-07CRI
Vial: 1:2,B

Pass
and
9-28-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-07CRI	Perchlorate	98 > 83	2.51	2466.179	2466.179	bb			0.0478	95.52	-4.48	670.772	3.04
WCL100104-07CRI	Perchlorate-101	101 > 85	2.51	810.119	810.119	bb			0.0468	93.52	-6.48	148.382	
WCL100104-07CRI	Perchlorate-O(18)	107 > 89	2.50	21890.064	21890.064	bb			0.4797	95.93	-4.07	3072.1...	

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
 Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107056a

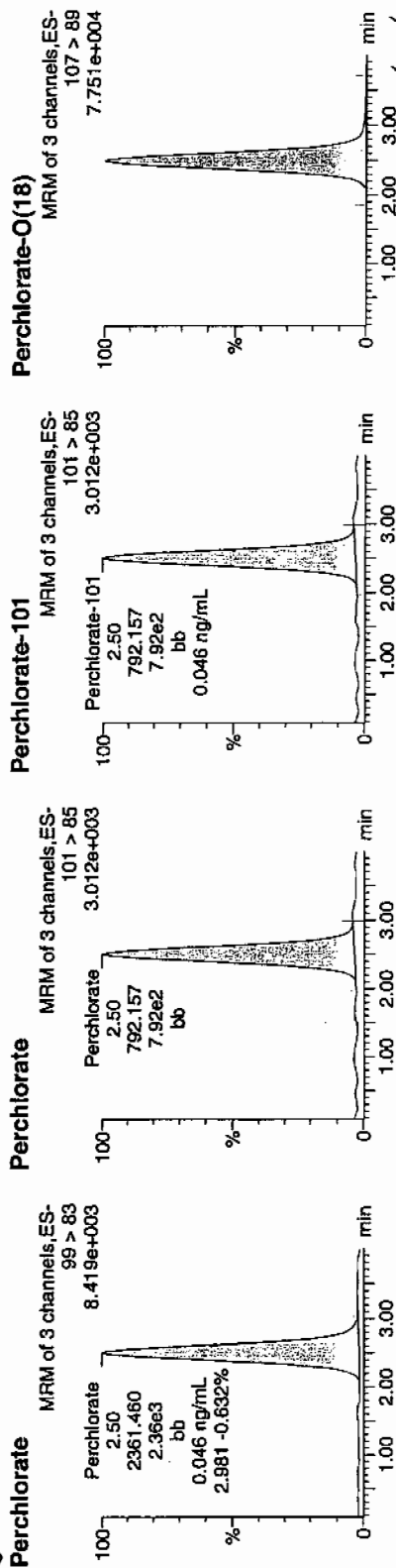
Date: 07-Jan-2010

Time: 22:36:33

ID: WCL100104-07CRI

Vial: 1:2,B

Pass
6m
01-08-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-07CRI	Perchlorate	99 > 83	2.50	2361.460	2361.460	bb			0.0457	91.47	-8.53	239.374	2.98
WCL100104-07CRI	Perchlorate-101	101 > 85	2.50	792.157	792.157	bb			0.0457	91.45	-8.55	17.542	
WCL100104-07CRI	Perchlorate-O(18)	107 > 89	2.49	21691.211	21691.211	bb			0.4753	95.06	-4.94	6264.8...	

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: 936779
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. MB
 Date Received: 07-JAN-10
 GEL Job No (SDG): 10-1075
 GEL Sample ID: 1202004371
 Date Filtered: 07-JAN-10
 Injection Volume (uL): 20
 %Solids: 100

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	07-JAN-10 19:54	per0107033a
	Perchlorate Isotope Ratio						1	07-JAN-10 19:54	per0107033a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	07-JAN-10 19:54	per0107033a
	Perchlorate-O(18)			4.60	ug/kg		1	07-JAN-10 19:54	per0107033a

[^] 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 $\frac{1}{\% \text{Solids}}$

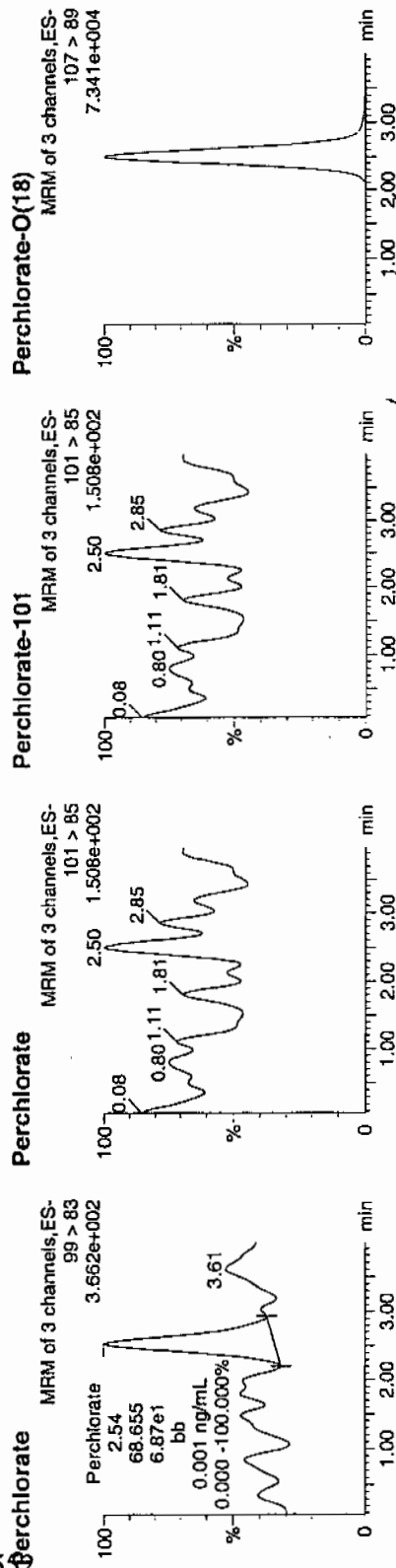
Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107033a
Date: 07-Jan-2010
Time: 19:54:13
ID: 1202004371
Q1: 1.6, A

CWJ
01-03-10

LAZU | 936731 | 5020 | MS | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004371	Perchlorate	99 > 83	2.54	68.655	68.655	bb			0.0013			11.197	0.00
1202004371	Perchlorate-101	101 > 85											
1202004371	Perchlorate-O(18)	107 > 89	2.51	20997.691	20997.691	bb			0.4601	92.02	-7.98	4888.7...	

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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

LCS

Date Received: 07-JAN-10

GEL Job No (SDG): 10-1075

GEL Sample ID: 1202004374

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.93	ug/kg	J	1	07-JAN-10 20:01	per0107034a
	Perchlorate Isotope Ratio			3.08			1	07-JAN-10 20:01	per0107034a
14797-73-0	Perchlorate-101	.5	2	1.87	ug/kg	J	1	07-JAN-10 20:01	per0107034a
	Perchlorate-O(18)			4.83	ug/kg		1	07-JAN-10 20:01	per0107034a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids
Aliquot

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
 Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107034a

Date: 07-Jan-2010

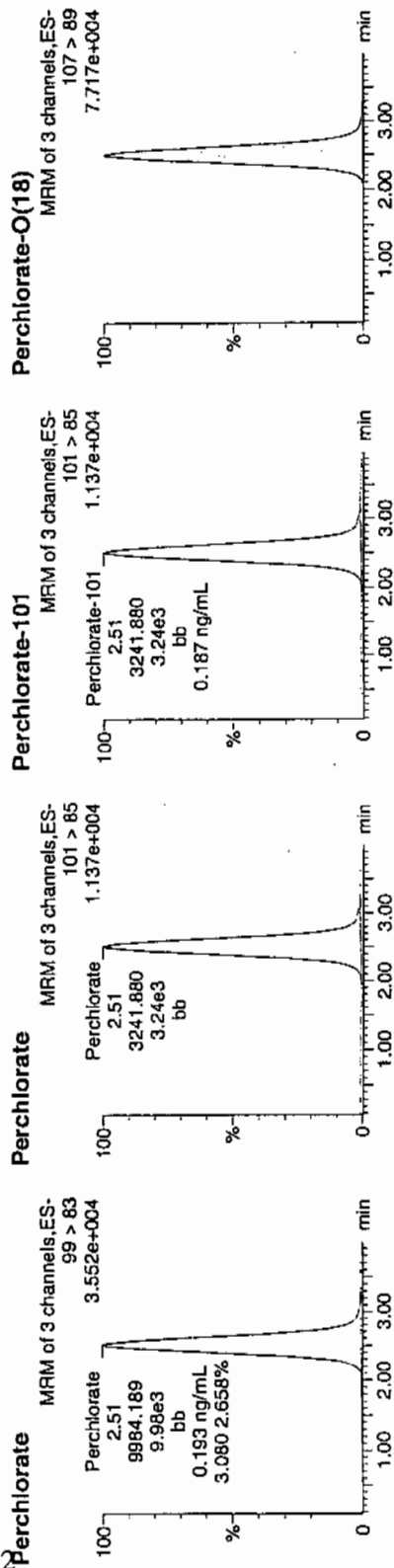
Time: 20:01:17

ID: 1202004374

Vial: 1:5,B

www
 01-03-10

LANC 1936721 | 5000 | L5 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004374	Perchlorate	99 > 83	2.51	9984.189	9984.189	bb			0.1934	96.68	-3.32	1737.4...	3.08
1202004374	Perchlorate-101	101 > 85	2.51	3241.880	3241.880	bb			0.1871	93.56	-6.44	1635.0...	
1202004374	Perchlorate-O(18)	107 > 89	2.50	22028.510	22028.510	bb			0.4827	96.54	-3.46	4866.7...	

$$\frac{9984.189}{51634.9} = 0.1934$$

H111W
 01/08/10

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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7606MS

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 1202004372

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.558	2.23	2.28	ug/kg		1	07-JAN-10 20:22	per0107037a
	Perchlorate Isotope Ratio			3.17			1	07-JAN-10 20:22	per0107037a
14797-73-0	Perchlorate-101	.558	2.23	2.14	ug/kg	J	1	07-JAN-10 20:22	per0107037a
	Perchlorate-O(18)			5.62	ug/kg		1	07-JAN-10 20:22	per0107037a

[^] 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\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107037a

Date: 07-Jan-2010

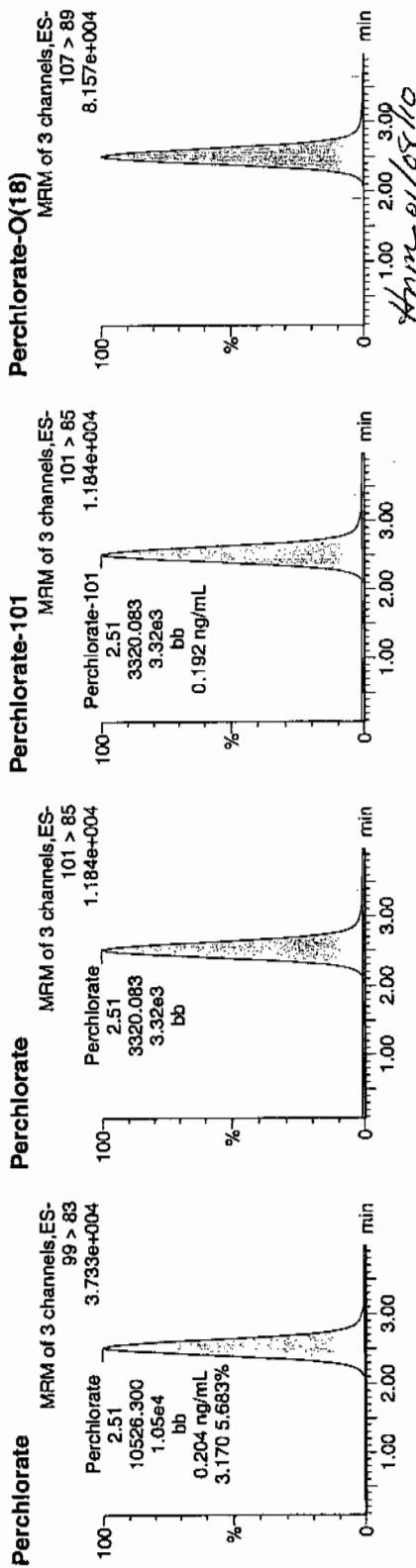
Time: 20:22:27

ID: 1202004372

Vial: 1:6,E

01-08-10

LANC 936781 | SOLID | MS | 1 |



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004372	Perchlorate	99 > 83	2.51	10526.300	10526.300	bb			0.2039	101.93	1.93	2336.6...	3.17
1202004372	Perchlorate-101	101 > 85	2.51	3320.083	3320.083	bb			0.1916	95.82	-4.18	437.419	
1202004372	Perchlorate-O(18)	107 > 89	2.50	22991.307	22991.307	bb			0.5038	100.76	0.76	4825.0...	

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: 936779

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE12-10-7606MSD

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1075

GEL Sample ID: 1202004373

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.558	2.23	2.36	ug/kg		1	07-JAN-10 20:29	per0107038a
	Perchlorate Isotope Ratio			3.03			1	07-JAN-10 20:29	per0107038a
14797-73-0	Perchlorate-101	.558	2.23	2.32	ug/kg		1	07-JAN-10 20:29	per0107038a
	Perchlorate-O(18)			5.46	ug/kg		1	07-JAN-10 20:29	per0107038a

[^] 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\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107038a

Date: 07-Jan-2010

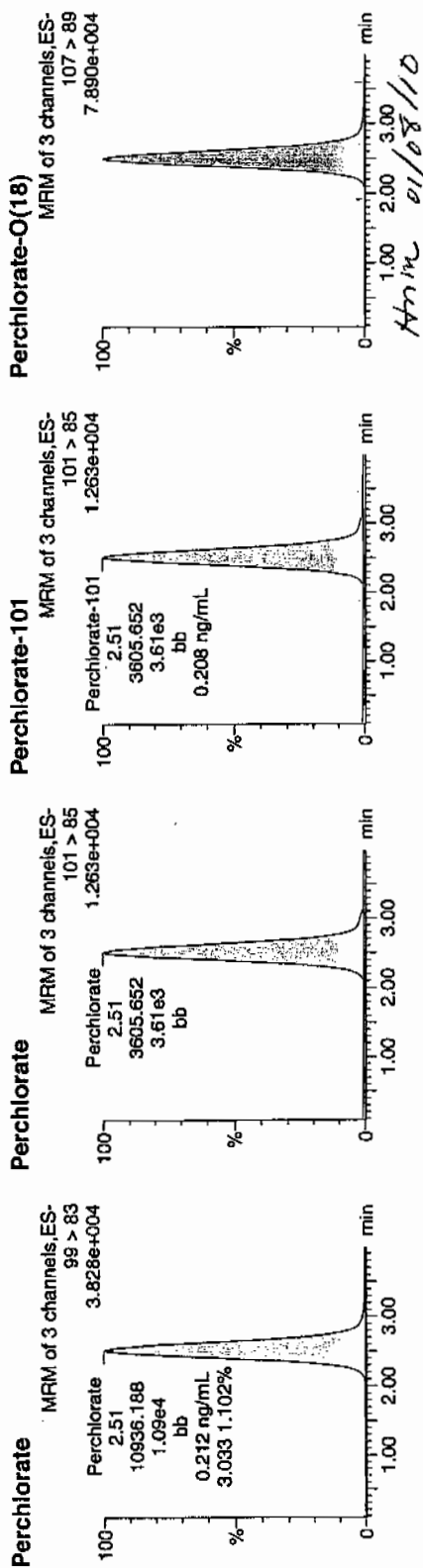
Time: 20:29:30

ID: 1202004373

Vial: 1:6,F

01-08-10

LA 20 | 936781 | 5000 | MS0 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004373	Perchlorate	99 > 83	2.51	10936.188	10936.188	bb			0.2118	105.90	5.90	3823.8...	3.03
1202004373	Perchlorate-101	101 > 85	2.51	3605.652	3605.652	bb			0.2081	104.06	4.06	375.952	
1202004373	Perchlorate-O(18)	107 > 89	2.50	22329.523	22329.523	bb			0.4893	97.86	-2.14	4972.3...	

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: 936779 Verified by: _____
 Analyst: Jareth Shirley Lab SOP: GL-OA-E-067 REV# 6
 Method: SW846 6850 Modified Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202004371 MB	07-JAN-2010 13:58:10	2	20	10
1202004374 LCS	07-JAN-2010 13:58:10	2	20	10
243521001	07-JAN-2010 13:58:10	2	20	10
1202004372 MS (243521001)	07-JAN-2010 13:58:10	2	20	10
1202004373 MSD (243521001)	07-JAN-2010 13:58:10	2	20	10
243521002	07-JAN-2010 13:58:10	2	20	10
243521003	07-JAN-2010 13:58:10	2	20	10
243521004	07-JAN-2010 13:58:10	2	20	10
243521005	07-JAN-2010 13:58:10	2	20	10
243521006	07-JAN-2010 13:58:10	2	20	10
243521007	07-JAN-2010 13:58:10	2	20	10
243521008	07-JAN-2010 13:58:10	2	20	10
243521009	07-JAN-2010 13:58:10	2	20	10
243521010	07-JAN-2010 13:58:10	2	20	10
243521011	07-JAN-2010 13:58:10	2	20	10
243547002	07-JAN-2010 13:58:10	2	20	10
243547003	07-JAN-2010 13:58:10	2	20	10
1202004375 ICS	07-JAN-2010 13:58:10	2	20	10

Comments:

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202004375	10 ug/L ICS/CCV Second Source	UCL091201-01.2	.4	mL
LCS	1202004374	10 ug/L LCS/CCV Second Source	UCL091201-01.2	.4	mL
MS	1202004372	10 ug/L MS/CCV Second Source	UCL091201-01.2	.4	mL
MSD	1202004373	10 ug/L MSD/CCV Second Source	UCL091201-01.2	.4	mL

Desalting cartridges used: 090410-1-Ba & 091002-1-H

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 01/07/10
Extr. Injection Volume: 20uL
Sequence Number: per010710a
Initial Calibration Date: 01/07/10

Method: EPA 6850-Modified
Int. Std.: UCL091019-03.2
Mobile Phase Lot#: 1233781, 1233976
Standard-Samp Reagent Lot#: 1233976

Reviewed BY: *shirley*
Date: *01/08/10*
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
per0107001a	IPB001	CWW	1/7/2010 16:08			1		USE	B
per0107002a	IPB001	CWW	1/7/2010 16:15			1		USE	B
per0107003a	WCLICAL-01	CWW	1/7/2010 16:22			1		USE	I
per0107004a	WCLICAL-02	CWW	1/7/2010 16:29			1		USE	I
per0107005a	WCLICAL-03	CWW	1/7/2010 16:37			1		USE	I
per0107006a	WCLICAL-04	CWW	1/7/2010 16:44			1		USE	I
per0107007a	WCLICAL-05	CWW	1/7/2010 16:51			1		USE	I
per0107008a	IPB002	CWW	1/7/2010 16:58			1		USE	B
per0107009a	WCLICV	CWW	1/7/2010 17:05			1		USE	C
per0107010a	IPB003	CWW	1/7/2010 17:12			1		USE	B
per0107011a	WCLCRI	CWW	1/7/2010 17:19			1		USE	C
per0107012a	1202004148	CWW	1/7/2010 17:26	936672	VARIOUS	1	LANL	USE	S
per0107013a	1202004149	CWW	1/7/2010 17:33	936672	VARIOUS	1	LANL	USE	S
per0107014a	1202004152	CWW	1/7/2010 17:40	936672	VARIOUS	1	LANL	USE	S
per0107015a	243472001	CWW	1/7/2010 17:47	936672	10-1057	1	LANL	USE	S
per0107016a	243472002	CWW	1/7/2010 17:54	936672	10-1057	1	LANL	USE	S
per0107017a	243472003	CWW	1/7/2010 18:01	936672	10-1057	1	LANL	USE	S
per0107018a	WCLCCV	CWW	1/7/2010 18:08			1		USE	C
per0107019a	IPB004	CWW	1/7/2010 18:15			1		USE	B
per0107020a	WCLCRI	CWW	1/7/2010 18:22			1		USE	C
per0107021a	243492001	CWW	1/7/2010 18:29	936672	10-1037	1	LANL	USE	S
per0107022a	1202004150	CWW	1/7/2010 18:36	936672	10-1037	1	LANL	USE	S
per0107023a	1202004151	CWW	1/7/2010 18:43	936672	10-1037	1	LANL	USE	S
per0107024a	243492002	CWW	1/7/2010 18:50	936672	10-1037	1	LANL	USE	S
per0107025a	243492003	CWW	1/7/2010 18:57	936672	10-1037	1	LANL	USE	S
per0107026a	243492004	CWW	1/7/2010 19:04	936672	10-1037	1	LANL	USE	S
per0107027a	243492005	CWW	1/7/2010 19:11	936672	10-1037	1	LANL	USE	S
per0107028a	243492006	CWW	1/7/2010 19:18	936672	10-1037	1	LANL	USE	S
per0107029a	243492007	CWW	1/7/2010 19:26	936672	10-1037	1	LANL	USE	S

per0107030a	WCLCCV	CWW	1/7/2010 19:33	936781	VARIOUS	1	LANL	USE	C
per0107031a	IPB005	CWW	1/7/2010 19:40			1		USE	B
per0107032a	WCLCRI	CWW	1/7/2010 19:47			1		USE	C
per0107033a	1202004371	CWW	1/7/2010 19:54	936781	VARIOUS	1	LANL	USE	S
per0107034a	1202004374	CWW	1/7/2010 20:01	936781	VARIOUS	1	LANL	USE	S
per0107035a	1202004375	CWW	1/7/2010 20:08	936781	VARIOUS	1	LANL	USE	S
per0107036a	243521001	CWW	1/7/2010 20:15	936781	10-1075	1	LANL	USE	S
per0107037a	1202004372	CWW	1/7/2010 20:22	936781	10-1075	1	LANL	USE	S
per0107038a	1202004373	CWW	1/7/2010 20:29	936781	10-1075	1	LANL	USE	S
per0107039a	243521002	CWW	1/7/2010 20:36	936781	10-1075	1	LANL	USE	S
per0107040a	243521003	CWW	1/7/2010 20:43	936781	10-1075	1	LANL	USE	S
per0107041a	243521004	CWW	1/7/2010 20:50	936781	10-1075	1	LANL	USE	S
per0107042a	WCLCCV	CWW	1/7/2010 20:57			1		USE	C
per0107043a	IPB006	CWW	1/7/2010 21:04			1		USE	B
per0107044a	WCLCRI	CWW	1/7/2010 21:11			1		USE	C
per0107045a	243521005	CWW	1/7/2010 21:18	936781	10-1075	1	LANL	USE	S
per0107046a	243521006	CWW	1/7/2010 21:25	936781	10-1075	1	LANL	USE	S
per0107047a	243521007	CWW	1/7/2010 21:33	936781	10-1075	1	LANL	USE	S
per0107048a	243521008	CWW	1/7/2010 21:40	936781	10-1075	1	LANL	USE	S
per0107049a	243521009	CWW	1/7/2010 21:47	936781	10-1075	1	LANL	USE	S
per0107050a	243521010	CWW	1/7/2010 21:54	936781	10-1075	1	LANL	USE	S
per0107051a	243521011	CWW	1/7/2010 22:01	936781	10-1075	1	LANL	USE	S
per0107052a	243547002	CWW	1/7/2010 22:08	936781	10-1084	1	LANL	USE	S
per0107053a	243547003	CWW	1/7/2010 22:15	936781	10-1084	1	LANL	USE	S
per0107054a	WCLCCV	CWW	1/7/2010 22:22			1		USE	C
per0107055a	IPB007	CWW	1/7/2010 22:29			1		USE	B
per0107056a	WCLCRI	CWW	1/7/2010 22:36			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.

Metals Analysis

Case Narrative

**Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1075**

Sample Analysis

Sample ID	Client ID
243521001	RE12-10-7606
243521002	RE12-10-7607
243521003	RE12-10-7596
243521004	RE12-10-7597
243521005	RE12-10-7608
243521006	RE12-10-7600
243521007	RE12-10-7601
243521008	RE12-10-7602
243521009	RE12-10-7599
243521010	RE12-10-7598
243521011	RE12-10-7603
1202004445	Method Blank (MB) ICP
1202004446	Laboratory Control Sample (LCS)
1202004449	243521001(RE12-10-7606L) Serial Dilution (SD)
1202004447	243521001(RE12-10-7606D) Sample Duplicate (DUP)
1202004448	243521001(RE12-10-7606S) Matrix Spike (MS)
1202004450	243521001(RE12-10-7606SD) Matrix Spike Duplicate (MSD)
1202004451	Method Blank (MB) ICP-MS
1202004452	Laboratory Control Sample (LCS)
1202004455	243521001(RE12-10-7606L) Serial Dilution (SD)

1202004453	243521001(RE12-10-7606D) Sample Duplicate (DUP)
1202004454	243521001(RE12-10-7606S) Matrix Spike (MS)
1202004456	243521001(RE12-10-7606SD) Matrix Spike Duplicate (MSD)
1202006448	Method Blank (MB) CVAA
1202006453	Laboratory Control Sample (LCS)
1202006450	243457001(RE12-10-7553L) Serial Dilution (SD)
1202006449	243457001(RE12-10-7553D) Sample Duplicate (DUP)
1202006451	243457001(RE12-10-7553S) Matrix Spike (MS)
1202006452	243457001(RE12-10-7553SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch:	936817, 936820 and 937638
Prep Batch :	936816, 936819 and 937637
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/- 7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

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

Calibration Information

Instrument Calibration

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

CRDL Requirements

All CRDL 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: 243521001 and 243457001.

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 barium, magnesium, potassium and selenium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement

The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of barium, magnesium and potassium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement

The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of uranium, as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement

The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations 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 did not meet the established criteria of less than 10% difference (%D) with the exception of uranium, as indicated by the "E" qualifier.

Technical Information**Holding Time Specifications**

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

Sample Dilutions

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

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: 779274 and 781180. 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 Larson Date: 1/20/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521001

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7606

LEVEL: Low

DATE RECEIVED 24-DEC-09

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	9050000	ug/Kg		7550	22200	22200	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-36-0	Antimony	2240	ug/Kg		366	1110	1110	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-38-2	Arsenic	1.74	mg/kg		0.216	1.08	1.08	2	MS	RMJ	01/15/10 06:09	100114-2	936820
7440-39-3	Barium	122000	ug/Kg	N	111	555	555	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-41-7	Beryllium	0.698	mg/kg		0.0216	0.108	0.108	2	MS	RMJ	01/15/10 06:09	100114-2	936820
7440-43-9	Cadmium	555	ug/Kg	U	111	555	555	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-70-2	Calcium	1830000	ug/Kg		8880	27700	27700	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-47-3	Chromium	14500	ug/Kg		166	555	555	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-48-4	Cobalt	5160	ug/Kg		166	555	555	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-50-8	Copper	6870	ug/Kg		333	1110	1110	1	P	HSC	01/11/10 15:38	011110A-1	936817
7439-89-6	Iron	11800000	ug/Kg		8880	27700	27700	1	P	HSC	01/11/10 15:38	011110A-1	936817
7439-92-1	Lead	12100	ug/Kg		277	1110	1110	1	P	HSC	01/11/10 15:38	011110A-1	936817
7439-95-4	Magnesium	1680000	ug/Kg	N	9430	33300	33300	1	P	HSC	01/11/10 15:38	011110A-1	936817
7439-96-5	Manganese	306000	ug/Kg		222	1110	1110	1	P	HSC	01/11/10 15:38	011110A-1	936817
7439-97-6	Mercury	13.4	ug/kg		4.32	12.7	12.7	1	AV	JXLI	01/07/10 11:49	010710S2-4	937638
7440-02-0	Nickel	5.87	mg/kg		0.108	0.432	0.432	2	MS	RMJ	01/15/10 06:09	100114-2	936820
7440-09-7	Potassium	1510000	ug/Kg	N	7100	27700	27700	1	P	HSC	01/11/10 15:38	011110A-1	936817
7782-49-2	Selenium	1.08	mg/kg	UN	0.54	1.08	1.08	2	MS	RMJ	01/15/10 06:09	100114-2	936820
7440-22-4	Silver	555	ug/Kg	U	111	555	555	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-23-5	Sodium	54500	ug/Kg		7770	27700	27700	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-28-0	Thallium	0.167	mg/kg	J	0.0648	0.216	0.216	2	MS	RMJ	01/16/10 06:59	100115-3	936820
7440-61-1	Uranium	2.35	mg/kg	*E	0.0142	0.0432	0.0432	2	MS	RMJ	01/16/10 06:59	100115-3	936820
7440-62-2	Vanadium	27900	ug/Kg		111	555	555	1	P	HSC	01/11/10 15:38	011110A-1	936817
7440-66-6	Zinc	22700	ug/Kg		366	1110	1110	1	P	HSC	01/11/10 15:38	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.503	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.517	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.527	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521002

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7607

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 93.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7170000	ug/Kg		7250	21300	21300	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-36-0	Antimony	1450	ug/Kg		352	1070	1070	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-38-2	Arsenic	1.3	mg/kg		0.207	1.03	1.03	2	MS	RMJ	01/15/10 06:38	100114-2	936820
7440-39-3	Barium	111000	ug/Kg	N	107	533	533	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-41-7	Beryllium	0.524	mg/kg		0.0207	0.103	0.103	2	MS	RMJ	01/15/10 06:38	100114-2	936820
7440-43-9	Cadmium	533	ug/Kg	U	107	533	533	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-70-2	Calcium	1370000	ug/Kg		8530	26600	26600	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-47-3	Chromium	37200	ug/Kg		160	533	533	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-48-4	Cobalt	3440	ug/Kg		160	533	533	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-50-8	Copper	3390	ug/Kg		320	1070	1070	1	P	HSC	01/11/10 15:57	011110A-1	936817
7439-89-6	Iron	12000000	ug/Kg		8530	26600	26600	1	P	HSC	01/11/10 15:57	011110A-1	936817
7439-92-1	Lead	5410	ug/Kg		266	1070	1070	1	P	HSC	01/11/10 15:57	011110A-1	936817
7439-95-4	Magnesium	1340000	ug/Kg	N	9060	32000	32000	1	P	HSC	01/11/10 15:57	011110A-1	936817
7439-96-5	Manganese	286000	ug/Kg		213	1070	1070	1	P	HSC	01/11/10 15:57	011110A-1	936817
7439-97-6	Mercury	32.2	ug/kg		4.21	12.4	12.4	1	AV	JXL1	01/07/10 11:51	010710S2-4	937638
7440-02-0	Nickel	6.08	mg/kg		0.103	0.413	0.413	2	MS	RMJ	01/15/10 06:38	100114-2	936820
7440-09-7	Potassium	1040000	ug/Kg	N	6820	26600	26600	1	P	HSC	01/11/10 15:57	011110A-1	936817
7782-49-2	Selenium	1.03	mg/kg	UN	0.516	1.03	1.03	2	MS	RMJ	01/15/10 06:38	100114-2	936820
7440-22-4	Silver	533	ug/Kg	U	107	533	533	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-23-5	Sodium	216000	ug/Kg		7460	26600	26600	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-28-0	Thallium	0.119	mg/kg	J	0.062	0.207	0.207	2	MS	RMJ	01/16/10 07:17	100115-3	936820
7440-61-1	Uranium	0.345	mg/kg	*E	0.0136	0.0413	0.0413	2	MS	RMJ	01/16/10 07:17	100115-3	936820
7440-62-2	Vanadium	14300	ug/Kg		107	533	533	1	P	HSC	01/11/10 15:57	011110A-1	936817
7440-66-6	Zinc	34300	ug/Kg		352	1070	1070	1	P	HSC	01/11/10 15:57	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.5	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.516	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.516	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521003

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7596

LEVEL: Low

DATE RECEIVED 24-DEC-09

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	13200000	ug/Kg		7420	21800	21800	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-36-0	Antimony	2370	ug/Kg		360	1090	1090	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-38-2	Arsenic	2.24	mg/kg		0.219	1.09	1.09	2	MS	RMJ	01/15/10 06:44	100114-2	936820
7440-39-3	Barium	161000	ug/Kg	N	109	546	546	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-41-7	Beryllium	0.984	mg/kg		0.0219	0.109	0.109	2	MS	RMJ	01/15/10 06:44	100114-2	936820
7440-43-9	Cadmium	546	ug/Kg	U	109	546	546	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-70-2	Calcium	2050000	ug/Kg		8730	27300	27300	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-47-3	Chromium	11900	ug/Kg		164	546	546	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-48-4	Cobalt	5430	ug/Kg		164	546	546	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-50-8	Copper	6300	ug/Kg		327	1090	1090	1	P	HSC	01/11/10 16:01	011110A-1	936817
7439-89-6	Iron	12700000	ug/Kg		8730	27300	27300	1	P	HSC	01/11/10 16:01	011110A-1	936817
7439-92-1	Lead	14600	ug/Kg		273	1090	1090	1	P	HSC	01/11/10 16:01	011110A-1	936817
7439-95-4	Magnesium	1820000	ug/Kg	N	9280	32700	32700	1	P	HSC	01/11/10 16:01	011110A-1	936817
7439-96-5	Manganese	265000	ug/Kg		218	1090	1090	1	P	HSC	01/11/10 16:01	011110A-1	936817
7439-97-6	Mercury	24.4	ug/kg		3.88	11.4	11.4	1	AV	JXLI	01/07/10 11:53	010710S2-4	937638
7440-02-0	Nickel	7.43	mg/kg		0.109	0.438	0.438	2	MS	RMJ	01/15/10 06:44	100114-2	936820
7440-09-7	Potassium	1600000	ug/Kg	N	6990	27300	27300	1	P	HSC	01/11/10 16:01	011110A-1	936817
7782-49-2	Selenium	1.09	mg/kg	UN	0.547	1.09	1.09	2	MS	RMJ	01/15/10 06:44	100114-2	936820
7440-22-4	Silver	546	ug/Kg	U	109	546	546	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-23-5	Sodium	183000	ug/Kg		7640	27300	27300	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-28-0	Thallium	0.217	mg/kg	J	0.0656	0.219	0.219	2	MS	RMJ	01/16/10 07:29	100115-3	936820
7440-61-1	Uranium	0.937	mg/kg	*E	0.0144	0.0438	0.0438	2	MS	RMJ	01/16/10 07:29	100115-3	936820
7440-62-2	Vanadium	29700	ug/Kg		109	546	546	1	P	HSC	01/11/10 16:01	011110A-1	936817
7440-66-6	Zinc	21800	ug/Kg		360	1090	1090	1	P	HSC	01/11/10 16:01	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.509	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.508	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.584	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521004

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7597

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 94.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7600000	ug/Kg		7110	20900	20900	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-36-0	Antimony	2740	ug/Kg		345	1050	1050	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-38-2	Arsenic	1.64	mg/kg		0.203	1.01	1.01	2	MS	RMJ	01/15/10 06:50	100114-2	936820
7440-39-3	Barium	125000	ug/Kg	N	105	523	523	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-41-7	Beryllium	0.626	mg/kg		0.0203	0.101	0.101	2	MS	RMJ	01/15/10 06:50	100114-2	936820
7440-43-9	Cadmium	523	ug/Kg	U	105	523	523	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-70-2	Calcium	1340000	ug/Kg		8370	26100	26100	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-47-3	Chromium	10400	ug/Kg		157	523	523	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-48-4	Cobalt	6660	ug/Kg		157	523	523	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-50-8	Copper	3860	ug/Kg		314	1050	1050	1	P	HSC	01/11/10 16:12	011110A-1	936817
7439-89-6	Iron	11100000	ug/Kg		8370	26100	26100	1	P	HSC	01/11/10 16:12	011110A-1	936817
7439-92-1	Lead	12700	ug/Kg		261	1050	1050	1	P	HSC	01/11/10 16:12	011110A-1	936817
7439-95-4	Magnesium	1340000	ug/Kg	N	8890	31400	31400	1	P	HSC	01/11/10 16:12	011110A-1	936817
7439-96-5	Manganese	363000	ug/Kg		209	1050	1050	1	P	HSC	01/11/10 16:12	011110A-1	936817
7439-97-6	Mercury	9.76	ug/kg	J	3.84	11.3	11.3	1	AV	JXL1	01/07/10 11:55	010710S2-4	937638
7440-02-0	Nickel	5.03	mg/kg		0.101	0.405	0.405	2	MS	RMJ	01/15/10 06:50	100114-2	936820
7440-09-7	Potassium	1410000	ug/Kg	N	6690	26100	26100	1	P	HSC	01/11/10 16:12	011110A-1	936817
7782-49-2	Selenium	1.01	mg/kg	UN	0.507	1.01	1.01	2	MS	RMJ	01/15/10 06:50	100114-2	936820
7440-22-4	Silver	523	ug/Kg	U	105	523	523	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-23-5	Sodium	78100	ug/Kg		7320	26100	26100	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-28-0	Thallium	0.158	mg/kg	J	0.0608	0.203	0.203	2	MS	RMJ	01/16/10 07:32	100115-3	936820
7440-61-1	Uranium	0.641	mg/kg	*E	0.0134	0.0405	0.0405	2	MS	RMJ	01/16/10 07:32	100115-3	936820
7440-62-2	Vanadium	28000	ug/Kg		105	523	523	1	P	HSC	01/11/10 16:12	011110A-1	936817
7440-66-6	Zinc	21000	ug/Kg		345	1050	1050	1	P	HSC	01/11/10 16:12	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.504	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.52	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.56	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521005

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7608

LEVEL: Low

DATE RECEIVED 24-DEC-09

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	6250000	ug/Kg		7500	22100	22100	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-36-0	Antimony	1360	ug/Kg		364	1100	1100	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-38-2	Arsenic	1.08	mg/kg	J	0.22	1.1	1.1	2	MS	RMJ	01/15/10 07:08	100114-2	936820
7440-39-3	Barium	63600	ug/Kg	N	110	551	551	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-41-7	Beryllium	0.424	mg/kg		0.022	0.11	0.11	2	MS	RMJ	01/15/10 07:08	100114-2	936820
7440-43-9	Cadmium	551	ug/Kg	U	110	551	551	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-70-2	Calcium	1330000	ug/Kg		8820	27600	27600	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-47-3	Chromium	6190	ug/Kg		165	551	551	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-48-4	Cobalt	3130	ug/Kg		165	551	551	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-50-8	Copper	2910	ug/Kg		331	1100	1100	1	P	HSC	01/11/10 16:15	011110A-1	936817
7439-89-6	Iron	11100000	ug/Kg		8820	27600	27600	1	P	HSC	01/11/10 16:15	011110A-1	936817
7439-92-1	Lead	4620	ug/Kg		276	1100	1100	1	P	HSC	01/11/10 16:15	011110A-1	936817
7439-95-4	Magnesium	1210000	ug/Kg	N	9370	33100	33100	1	P	HSC	01/11/10 16:15	011110A-1	936817
7439-96-5	Manganese	243000	ug/Kg		221	1100	1100	1	P	HSC	01/11/10 16:15	011110A-1	936817
7439-97-6	Mercury	16.6	ug/kg		4.53	13.3	13.3	1	AV	JXL1	01/07/10 11:57	010710S2-4	937638
7440-02-0	Nickel	3.94	mg/kg		0.11	0.44	0.44	2	MS	RMJ	01/15/10 07:08	100114-2	936820
7440-09-7	Potassium	939000	ug/Kg	N	7060	27600	27600	1	P	HSC	01/11/10 16:15	011110A-1	936817
7782-49-2	Selenium	1.1	mg/kg	UN	0.55	1.1	1.1	2	MS	RMJ	01/15/10 07:08	100114-2	936820
7440-22-4	Silver	551	ug/Kg	U	110	551	551	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-23-5	Sodium	243000	ug/Kg		7720	27600	27600	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-28-0	Thallium	0.070	mg/kg	J	0.066	0.22	0.22	2	MS	RMJ	01/16/10 07:36	100115-3	936820
7440-61-1	Uranium	0.343	mg/kg	*E	0.0145	0.044	0.044	2	MS	RMJ	01/16/10 07:36	100115-3	936820
7440-62-2	Vanadium	12400	ug/Kg		110	551	551	1	P	HSC	01/11/10 16:15	011110A-1	936817
7440-66-6	Zinc	34400	ug/Kg		364	1100	1100	1	P	HSC	01/11/10 16:15	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.508	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.509	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.505	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521006

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7600

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5470000	ug/Kg		7550	22200	22200	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-36-0	Antimony	2610	ug/Kg		366	1110	1110	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-38-2	Arsenic	0.820	mg/kg	J	0.224	1.12	1.12	2	MS	RMJ	01/15/10 07:13	100114-2	936820
7440-39-3	Barium	94300	ug/Kg	N	111	555	555	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-41-7	Beryllium	0.331	mg/kg		0.0224	0.112	0.112	2	MS	RMJ	01/15/10 07:13	100114-2	936820
7440-43-9	Cadmium	555	ug/Kg	U	111	555	555	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-70-2	Calcium	2860000	ug/Kg		8880	27700	27700	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-47-3	Chromium	104000	ug/Kg		166	555	555	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-48-4	Cobalt	5840	ug/Kg		166	555	555	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-50-8	Copper	11000	ug/Kg		333	1110	1110	1	P	HSC	01/11/10 16:19	011110A-1	936817
7439-89-6	Iron	12200000	ug/Kg		8880	27700	27700	1	P	HSC	01/11/10 16:19	011110A-1	936817
7439-92-1	Lead	7110	ug/Kg		277	1110	1110	1	P	HSC	01/11/10 16:19	011110A-1	936817
7439-95-4	Magnesium	2630000	ug/Kg	N	9430	33300	33300	1	P	HSC	01/11/10 16:19	011110A-1	936817
7439-96-5	Manganese	333000	ug/Kg		222	1110	1110	1	P	HSC	01/11/10 16:19	011110A-1	936817
7439-97-6	Mercury	14.6	ug/kg		4.34	12.8	12.8	1	AV	JXL1	01/07/10 11:59	010710S2-4	937638
7440-02-0	Nickel	6.01	mg/kg		0.112	0.447	0.447	2	MS	RMJ	01/15/10 07:13	100114-2	936820
7440-09-7	Potassium	950000	ug/Kg	N	7100	27700	27700	1	P	HSC	01/11/10 16:19	011110A-1	936817
7782-49-2	Selenium	1.12	mg/kg	UN	0.559	1.12	1.12	2	MS	RMJ	01/15/10 07:13	100114-2	936820
7440-22-4	Silver	555	ug/Kg	U	111	555	555	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-23-5	Sodium	115000	ug/Kg		7770	27700	27700	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-28-0	Thallium	0.101	mg/kg	J	0.0671	0.224	0.224	2	MS	RMJ	01/16/10 07:40	100115-3	936820
7440-61-1	Uranium	1.43	mg/kg	*E	0.0148	0.0447	0.0447	2	MS	RMJ	01/16/10 07:40	100115-3	936820
7440-62-2	Vanadium	31700	ug/Kg		111	555	555	1	P	HSC	01/11/10 16:19	011110A-1	936817
7440-66-6	Zinc	33300	ug/Kg		366	1110	1110	1	P	HSC	01/11/10 16:19	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.524	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.52	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.547	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521007

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7601

LEVEL: Low

DATE RECEIVED 24-DEC-09

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	5200000	ug/Kg		7590	22300	22300	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-36-0	Antimony	1550	ug/Kg		368	1120	1120	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-38-2	Arsenic	1.21	mg/kg		0.221	1.1	1.1	2	MS	RMJ	01/15/10 07:19	100114-2	936820
7440-39-3	Barium	57000	ug/Kg	N	112	558	558	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-41-7	Beryllium	0.477	mg/kg		0.0221	0.11	0.11	2	MS	RMJ	01/15/10 07:19	100114-2	936820
7440-43-9	Cadmium	558	ug/Kg	U	112	558	558	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-70-2	Calcium	1070000	ug/Kg		8930	27900	27900	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-47-3	Chromium	5430	ug/Kg		167	558	558	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-48-4	Cobalt	2690	ug/Kg		167	558	558	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-50-8	Copper	2560	ug/Kg		335	1120	1120	1	P	HSC	01/11/10 16:23	011110A-1	936817
7439-89-6	Iron	10000000	ug/Kg		8930	27900	27900	1	P	HSC	01/11/10 16:23	011110A-1	936817
7439-92-1	Lead	4040	ug/Kg		279	1120	1120	1	P	HSC	01/11/10 16:23	011110A-1	936817
7439-95-4	Magnesium	1010000	ug/Kg	N	9490	33500	33500	1	P	HSC	01/11/10 16:23	011110A-1	936817
7439-96-5	Manganese	221000	ug/Kg		223	1120	1120	1	P	HSC	01/11/10 16:23	011110A-1	936817
7439-97-6	Mercury	12.8	ug/kg		4.28	12.6	12.6	1	AV	JXL1	01/07/10 12:01	010710S2-4	937638
7440-02-0	Nickel	4.5	mg/kg		0.11	0.441	0.441	2	MS	RMJ	01/15/10 07:19	100114-2	936820
7440-09-7	Potassium	817000	ug/Kg	N	7150	27900	27900	1	P	HSC	01/11/10 16:23	011110A-1	936817
7782-49-2	Selenium	1.1	mg/kg	UN	0.552	1.1	1.1	2	MS	RMJ	01/15/10 07:19	100114-2	936820
7440-22-4	Silver	558	ug/Kg	U	112	558	558	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-23-5	Sodium	213000	ug/Kg		7820	27900	27900	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-28-0	Thallium	0.0724	mg/kg	J	0.0662	0.221	0.221	2	MS	RMJ	01/16/10 07:44	100115-3	936820
7440-61-1	Uranium	0.371	mg/kg	*E	0.0146	0.0441	0.0441	2	MS	RMJ	01/16/10 07:44	100115-3	936820
7440-62-2	Vanadium	11100	ug/Kg		112	558	558	1	P	HSC	01/11/10 16:23	011110A-1	936817
7440-66-6	Zinc	34000	ug/Kg		368	1120	1120	1	P	HSC	01/11/10 16:23	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.5	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.506	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.532	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521008

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7602

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 93

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5390000	ug/Kg		7270	21400	21400	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-36-0	Antimony	1900	ug/Kg		353	1070	1070	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-38-2	Arsenic	1.03	mg/kg		0.2	1	1	2	MS	RMJ	01/15/10 07:25	100114-2	936820
7440-39-3	Barium	85800	ug/Kg	N	107	535	535	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-41-7	Beryllium	0.351	mg/kg		0.02	0.1	0.1	2	MS	RMJ	01/15/10 07:25	100114-2	936820
7440-43-9	Cadmium	535	ug/Kg	U	107	535	535	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-70-2	Calcium	1390000	ug/Kg		8550	26700	26700	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-47-3	Chromium	11800	ug/Kg		160	535	535	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-48-4	Cobalt	3320	ug/Kg		160	535	535	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-50-8	Copper	6000	ug/Kg		321	1070	1070	1	P	HSC	01/11/10 16:26	011110A-1	936817
7439-89-6	Iron	10700000	ug/Kg		8550	26700	26700	1	P	HSC	01/11/10 16:26	011110A-1	936817
7439-92-1	Lead	8350	ug/Kg		267	1070	1070	1	P	HSC	01/11/10 16:26	011110A-1	936817
7439-95-4	Magnesium	950000	ug/Kg	N	9090	32100	32100	1	P	HSC	01/11/10 16:26	011110A-1	936817
7439-96-5	Manganese	354000	ug/Kg		214	1070	1070	1	P	HSC	01/11/10 16:26	011110A-1	936817
7439-97-6	Mercury	5.44	ug/kg	J	3.68	10.8	10.8	1	AV	JXL1	01/07/10 12:03	010710S2-4	937638
7440-02-0	Nickel	4.38	mg/kg		0.1	0.4	0.4	2	MS	RMJ	01/15/10 07:25	100114-2	936820
7440-09-7	Potassium	764000	ug/Kg	N	6840	26700	26700	1	P	HSC	01/11/10 16:26	011110A-1	936817
7782-49-2	Selenium	1	mg/kg	UN	0.5	1	1	2	MS	RMJ	01/15/10 07:25	100114-2	936820
7440-22-4	Silver	535	ug/Kg	U	107	535	535	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-23-5	Sodium	79500	ug/Kg		7480	26700	26700	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-28-0	Thallium	0.0806	mg/kg	J	0.06	0.2	0.2	2	MS	RMJ	01/16/10 07:47	100115-3	936820
7440-61-1	Uranium	0.668	mg/kg	*E	0.0132	0.04	0.04	2	MS	RMJ	01/16/10 07:47	100115-3	936820
7440-62-2	Vanadium	19800	ug/Kg		107	535	535	1	P	HSC	01/11/10 16:26	011110A-1	936817
7440-66-6	Zinc	34800	ug/Kg		353	1070	1070	1	P	HSC	01/11/10 16:26	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.503	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.538	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.596	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521009

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7599

LEVEL: Low

DATE RECEIVED 24-DEC-09

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	3900000	ug/Kg		7380	21700	21700	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-36-0	Antimony	1020	ug/Kg	J	358	1090	1090	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-38-2	Arsenic	0.393	mg/kg	J	0.215	1.08	1.08	2	MS	RMJ	01/15/10 07:31	100114-2	936820
7440-39-3	Barium	53700	ug/Kg	N	109	543	543	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-41-7	Beryllium	0.222	mg/kg		0.0215	0.108	0.108	2	MS	RMJ	01/15/10 07:31	100114-2	936820
7440-43-9	Cadmium	543	ug/Kg	U	109	543	543	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-70-2	Calcium	888000	ug/Kg		8680	27100	27100	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-47-3	Chromium	4820	ug/Kg		163	543	543	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-48-4	Cobalt	2760	ug/Kg		163	543	543	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-50-8	Copper	2100	ug/Kg		326	1090	1090	1	P	HSC	01/11/10 16:30	011110A-1	936817
7439-89-6	Iron	8640000	ug/Kg		8680	27100	27100	1	P	HSC	01/11/10 16:30	011110A-1	936817
7439-92-1	Lead	4600	ug/Kg		271	1090	1090	1	P	HSC	01/11/10 16:30	011110A-1	936817
7439-95-4	Magnesium	730000	ug/Kg	N	9230	32600	32600	1	P	HSC	01/11/10 16:30	011110A-1	936817
7439-96-5	Manganese	233000	ug/Kg		217	1090	1090	1	P	HSC	01/11/10 16:30	011110A-1	936817
7439-97-6	Mercury	12.6	ug/kg	U	4.28	12.6	12.6	1	AV	JXL1	01/07/10 12:05	010710S2-4	937638
7440-02-0	Nickel	2.64	mg/kg		0.108	0.431	0.431	2	MS	RMJ	01/15/10 07:31	100114-2	936820
7440-09-7	Potassium	729000	ug/Kg	N	6950	27100	27100	1	P	HSC	01/11/10 16:30	011110A-1	936817
7782-49-2	Selenium	1.08	mg/kg	UN	0.539	1.08	1.08	2	MS	RMJ	01/15/10 07:31	100114-2	936820
7440-22-4	Silver	543	ug/Kg	U	109	543	543	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-23-5	Sodium	217000	ug/Kg		7600	27100	27100	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-28-0	Thallium	0.215	mg/kg	U	0.0646	0.215	0.215	2	MS	RMJ	01/16/10 07:51	100115-3	936820
7440-61-1	Uranium	0.298	mg/kg	*E	0.0142	0.0431	0.0431	2	MS	RMJ	01/16/10 07:51	100115-3	936820
7440-62-2	Vanadium	9670	ug/Kg		109	543	543	1	P	HSC	01/11/10 16:30	011110A-1	936817
7440-66-6	Zinc	29100	ug/Kg		358	1090	1090	1	P	HSC	01/11/10 16:30	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.506	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.51	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.523	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521010

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7598

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4650000	ug/Kg		7380	21700	21700	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-36-0	Antimony	1790	ug/Kg		358	1090	1090	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-38-2	Arsenic	0.497	mg/kg	J	0.21	1.05	1.05	2	MS	RMJ	01/15/10 07:37	100114-2	936820
7440-39-3	Barium	106000	ug/Kg	N	109	543	543	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-41-7	Beryllium	0.261	mg/kg		0.021	0.105	0.105	2	MS	RMJ	01/15/10 07:37	100114-2	936820
7440-43-9	Cadmium	543	ug/Kg	U	109	543	543	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-70-2	Calcium	1950000	ug/Kg		8680	27100	27100	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-47-3	Chromium	40700	ug/Kg		163	543	543	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-48-4	Cobalt	3510	ug/Kg		163	543	543	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-50-8	Copper	6480	ug/Kg		326	1090	1090	1	P	HSC	01/11/10 16:34	011110A-1	936817
7439-89-6	Iron	7930000	ug/Kg		8680	27100	27100	1	P	HSC	01/11/10 16:34	011110A-1	936817
7439-92-1	Lead	6470	ug/Kg		271	1090	1090	1	P	HSC	01/11/10 16:34	011110A-1	936817
7439-95-4	Magnesium	1320000	ug/Kg	N	9230	32600	32600	1	P	HSC	01/11/10 16:34	011110A-1	936817
7439-96-5	Manganese	272000	ug/Kg		217	1090	1090	1	P	HSC	01/11/10 16:34	011110A-1	936817
7439-97-6	Mercury	13.2	ug/kg	U	4.5	13.2	13.2	1	AV	JXLJ	01/07/10 12:07	010710S2-4	937638
7440-02-0	Nickel	4.94	mg/kg		0.105	0.42	0.42	2	MS	RMJ	01/15/10 07:37	100114-2	936820
7440-09-7	Potassium	945000	ug/Kg	N	6950	27100	27100	1	P	HSC	01/11/10 16:34	011110A-1	936817
7782-49-2	Selenium	1.05	mg/kg	UN	0.525	1.05	1.05	2	MS	RMJ	01/15/10 07:37	100114-2	936820
7440-22-4	Silver	543	ug/Kg	U	109	543	543	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-23-5	Sodium	132000	ug/Kg		7600	27100	27100	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-28-0	Thallium	0.079	mg/kg	J	0.063	0.21	0.21	2	MS	RMJ	01/16/10 07:55	100115-3	936820
7440-61-1	Uranium	1.71	mg/kg	*E	0.0139	0.042	0.042	2	MS	RMJ	01/16/10 07:55	100115-3	936820
7440-62-2	Vanadium	22500	ug/Kg		109	543	543	1	P	HSC	01/11/10 16:34	011110A-1	936817
7440-66-6	Zinc	16400	ug/Kg		358	1090	1090	1	P	HSC	01/11/10 16:34	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.51	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.527	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.502	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1075

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 243521011

BASIS: Dry Weight

DATE COLLECTED 21-DEC-09

CLIENT ID: RE12-10-7603

LEVEL: Low

DATE RECEIVED 24-DEC-09

MATRIX: SOIL

%SOLIDS: 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3070000	ug/Kg		6730	19800	19800	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-36-0	Antimony	1350	ug/Kg		326	989	989	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-38-2	Arsenic	0.683	mg/kg	J	0.199	0.997	0.997	2	MS	RMJ	01/15/10 07:43	100114-2	936820
7440-39-3	Barium	36200	ug/Kg	N	98.9	495	495	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-41-7	Beryllium	0.236	mg/kg		0.0199	0.0997	0.0997	2	MS	RMJ	01/15/10 07:43	100114-2	936820
7440-43-9	Cadmium	495	ug/Kg	U	98.9	495	495	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-70-2	Calcium	904000	ug/Kg		7910	24700	24700	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-47-3	Chromium	35200	ug/Kg		148	495	495	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-48-4	Cobalt	1920	ug/Kg		148	495	495	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-50-8	Copper	1910	ug/Kg		297	989	989	1	P	HSC	01/11/10 16:37	011110A-1	936817
7439-89-6	Iron	9760000	ug/Kg		7910	24700	24700	1	P	HSC	01/11/10 16:37	011110A-1	936817
7439-92-1	Lead	3060	ug/Kg		247	989	989	1	P	HSC	01/11/10 16:37	011110A-1	936817
7439-95-4	Magnesium	902000	ug/Kg	N	8410	29700	29700	1	P	HSC	01/11/10 16:37	011110A-1	936817
7439-96-5	Manganese	267000	ug/Kg		198	989	989	1	P	HSC	01/11/10 16:37	011110A-1	936817
7439-97-6	Mercury	11.8	ug/kg	U	4.03	11.8	11.8	1	AV	JXL1	01/07/10 13:07	010710S2-4	937638
7440-02-0	Nickel	4.64	mg/kg		0.0997	0.399	0.399	2	MS	RMJ	01/15/10 07:43	100114-2	936820
7440-09-7	Potassium	695000	ug/Kg	N	6330	24700	24700	1	P	HSC	01/11/10 16:37	011110A-1	936817
7782-49-2	Selenium	0.997	mg/kg	UN	0.498	0.997	0.997	2	MS	RMJ	01/15/10 07:43	100114-2	936820
7440-22-4	Silver	495	ug/Kg	U	98.9	495	495	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-23-5	Sodium	269000	ug/Kg		6920	24700	24700	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-28-0	Thallium	0.199	mg/kg	U	0.0598	0.199	0.199	2	MS	RMJ	01/16/10 07:58	100115-3	936820
7440-61-1	Uranium	0.316	mg/kg	*E	0.0132	0.0399	0.0399	2	MS	RMJ	01/16/10 07:58	100115-3	936820
7440-62-2	Vanadium	10400	ug/Kg		98.9	495	495	1	P	HSC	01/11/10 16:37	011110A-1	936817
7440-66-6	Zinc	33600	ug/Kg		326	989	989	1	P	HSC	01/11/10 16:37	011110A-1	936817

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936817	936816	SW846 3050B	0.525	g	50	mL	12/29/09	BXA1
936820	936819	SW846 3050B	0.521	g	50	mL	01/13/10	BXA1
937638	937637	SW846 7471A Prep	0.526	g	30	mL	01/06/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Mercury	5.05	ug/L	5	ug/L	101	90.0 – 110.0	AV	07-JAN-10 10:28	010710S2-4
	Aluminum	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Antimony	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Barium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Cadmium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Calcium	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Chromium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Cobalt	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Copper	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Iron	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Lead	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Manganese	528	ug/L	500	ug/L	105.5	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Potassium	2500	ug/L	2500	ug/L	100	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Silver	265	ug/L	250	ug/L	106.2	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Sodium	2450	ug/L	2500	ug/L	98	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Vanadium	524	ug/L	500	ug/L	104.8	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Zinc	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	11-JAN-10 12:45	011110A-1
	Arsenic	45.9	ug/L	50	ug/L	91.8	90.0 – 110.0	MS	15-JAN-10 04:58	100114-2
	Beryllium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	15-JAN-10 04:58	100114-2
	Nickel	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	15-JAN-10 04:58	100114-2
	Selenium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	15-JAN-10 04:58	100114-2
	Thallium	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	16-JAN-10 06:18	100115-3
	Uranium	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	16-JAN-10 06:18	100115-3
CCV01										
	Mercury	5.01	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	07-JAN-10 10:33	010710S2-4
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Antimony	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Barium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Cadmium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Chromium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Lead	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Magnesium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Manganese	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Potassium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Silver	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Sodium	9790	ug/L	10000	ug/L	98	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Zinc	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	11-JAN-10 13:18	011110A-1
	Arsenic	45.1	ug/L	50	ug/L	90.3	90.0 – 110.0	MS	15-JAN-10 05:27	100114-2
	Beryllium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	15-JAN-10 05:27	100114-2
	Nickel	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	15-JAN-10 05:27	100114-2
	Selenium	47.6	ug/L	50	ug/L	95.1	90.0 – 110.0	MS	15-JAN-10 05:27	100114-2
	Thallium	47.6	ug/L	50	ug/L	95.2	90.0 – 110.0	MS	16-JAN-10 06:36	100115-3
	Uranium	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	16-JAN-10 06:36	100115-3
CCV02	Mercury	5.28	ug/L	5	ug/L	105.7	80.0 – 120.0	AV	07-JAN-10 10:57	010710S2-4
	Aluminum	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Antimony	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Cadmium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Chromium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Copper	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Iron	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-1075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Magnesium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Manganese	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Potassium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Silver	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Zinc	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11-JAN-10 13:51	011110A-1
	Arsenic	45.8	ug/L	50	ug/L	91.5	90.0 – 110.0	MS	15-JAN-10 05:57	100114-2
	Beryllium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	15-JAN-10 05:57	100114-2
	Nickel	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	15-JAN-10 05:57	100114-2
	Selenium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	15-JAN-10 05:57	100114-2
	Thallium	48.3	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	16-JAN-10 06:51	100115-3
	Uranium	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	16-JAN-10 06:51	100115-3
CCV03										
	Mercury	5.47	ug/L	5	ug/L	109.4	80.0 – 120.0	AV	07-JAN-10 11:21	010710S2-4
	Aluminum	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Barium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Cadmium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Calcium	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Chromium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Copper	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Iron	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Lead	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Magnesium	4870	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Manganese	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Vanadium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Zinc	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11-JAN-10 14:29	011110A-1
	Arsenic	45.9	ug/L	50	ug/L	91.7	90.0 – 110.0	MS	15-JAN-10 06:56	100114-2
	Beryllium	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	15-JAN-10 06:56	100114-2
	Nickel	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	15-JAN-10 06:56	100114-2
	Selenium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	15-JAN-10 06:56	100114-2
	Thallium	46.4	ug/L	50	ug/L	92.8	90.0 – 110.0	MS	16-JAN-10 07:21	100115-3
	Uranium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	16-JAN-10 07:21	100115-3
CCV04										
	Mercury	5.48	ug/L	5	ug/L	109.6	80.0 – 120.0	AV	07-JAN-10 11:45	010710S2-4
	Aluminum	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Barium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Calcium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Chromium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Lead	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Magnesium	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Manganese	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Potassium	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Silver	500	ug/L	500	ug/L	100	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Vanadium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Zinc	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11-JAN-10 14:59	011110A-1
	Arsenic	45.4	ug/L	50	ug/L	90.8	90.0 – 110.0	MS	15-JAN-10 07:49	100114-2
	Beryllium	46.7	ug/L	50	ug/L	93.4	90.0 – 110.0	MS	15-JAN-10 07:49	100114-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Nickel	51.4	ug/L	50	ug/L	102.8	90.0 - 110.0	MS	15-JAN-10 07:49	100114-2
	Selenium	48.6	ug/L	50	ug/L	97.1	90.0 - 110.0	MS	15-JAN-10 07:49	100114-2
	Thallium	48.5	ug/L	50	ug/L	97	90.0 - 110.0	MS	16-JAN-10 08:02	100115-3
	Uranium	53.6	ug/L	50	ug/L	107.3	90.0 - 110.0	MS	16-JAN-10 08:02	100115-3
CCV05										
	Mercury	5.06	ug/L	5	ug/L	101.3	80.0 - 120.0	AV	07-JAN-10 12:09	010710S2-4
	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Antimony	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Barium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Cadmium	502	ug/L	500	ug/L	100.3	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Calcium	4980	ug/L	5000	ug/L	99.6	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Chromium	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Cobalt	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Copper	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Iron	4770	ug/L	5000	ug/L	95.3	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Lead	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Magnesium	4840	ug/L	5000	ug/L	96.9	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Manganese	511	ug/L	500	ug/L	102.3	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Potassium	5150	ug/L	5000	ug/L	102.9	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Silver	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
	Zinc	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	11-JAN-10 15:24	011110A-1
CCV06										
	Mercury	5.08	ug/L	5	ug/L	101.5	80.0 - 120.0	AV	07-JAN-10 12:33	010710S2-4
	Aluminum	5150	ug/L	5000	ug/L	102.9	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Barium	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Cadmium	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Chromium	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Cobalt	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Copper	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Iron	4680	ug/L	5000	ug/L	93.5	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Lead	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Magnesium	4730	ug/L	5000	ug/L	94.7	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Manganese	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Potassium	5220	ug/L	5000	ug/L	104.5	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Silver	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Sodium	9890	ug/L	10000	ug/L	98.9	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Vanadium	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
	Zinc	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	11-JAN-10 16:04	011110A-1
CCV07	Mercury	5.11	ug/L	5	ug/L	102.3	80.0 - 120.0	AV	07-JAN-10 12:50	010710S2-4
	Aluminum	5200	ug/L	5000	ug/L	103.9	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Antimony	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Barium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Cadmium	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Chromium	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Cobalt	510	ug/L	500	ug/L	102	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Copper	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Iron	4720	ug/L	5000	ug/L	94.3	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Lead	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Magnesium	4760	ug/L	5000	ug/L	95.3	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Manganese	520	ug/L	500	ug/L	103.9	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Potassium	5300	ug/L	5000	ug/L	106.1	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Silver	511	ug/L	500	ug/L	102.3	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1
	Vanadium	511	ug/L	500	ug/L	102.1	90.0 - 110.0	P	11-JAN-10 16:41	011110A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1075

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV08	Zinc	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	11-JAN-10 16:41	011110A-1
	Mercury	4.57	ug/L	5	ug/L	91.4	80.0 – 120.0	AV	07-JAN-10 13:03	010710S2-4
CCV09	Mercury	5.08	ug/L	5	ug/L	101.6	80.0 – 120.0	AV	07-JAN-10 13:27	010710S2-4

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1075

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS6,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Mercury	.201	ug/L	.2	ug/L	100.5	70.0 – 130.0	AV	07-JAN-10 10:31	010710S2-4
	Nickel	2.21	ug/L	2	ug/L	110.4	70.0 – 130.0	MS	15-JAN-10 05:10	100114-2
	Arsenic	5.32	ug/L	5	ug/L	106.4	70.0 – 130.0	MS	15-JAN-10 05:10	100114-2
	Beryllium	.524	ug/L	.5	ug/L	104.8	70.0 – 130.0	MS	15-JAN-10 05:10	100114-2
	Selenium	5.51	ug/L	5	ug/L	110.2	70.0 – 130.0	MS	15-JAN-10 05:10	100114-2
	Uranium	.237	ug/L	.2	ug/L	118.5	70.0 – 130.0	MS	16-JAN-10 06:25	100115-3
	Thallium	1.1	ug/L	1	ug/L	109.9	70.0 – 130.0	MS	16-JAN-10 06:25	100115-3
PQL01										
	Manganese	10.4	ug/L	10	ug/L	104.3	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Potassium	170	ug/L	150	ug/L	113.5	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Silver	4.9	ug/L	5	ug/L	98	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Sodium	295	ug/L	300	ug/L	98.3	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Antimony	9.5	ug/L	10	ug/L	95	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Barium	5.02	ug/L	5	ug/L	100.5	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Magnesium	336	ug/L	300	ug/L	111.9	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Lead	10.8	ug/L	10	ug/L	108.3	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Iron	122	ug/L	100	ug/L	121.7	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Aluminum	197	ug/L	200	ug/L	98.7	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Cadmium	4.89	ug/L	5	ug/L	97.9	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Chromium	4.87	ug/L	5	ug/L	97.5	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Cobalt	4.92	ug/L	5	ug/L	98.3	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Copper	9.8	ug/L	10	ug/L	98.1	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Vanadium	5.33	ug/L	5	ug/L	106.7	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Zinc	9.88	ug/L	10	ug/L	98.8	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1
	Calcium	198	ug/L	200	ug/L	99.2	70.0 – 130.0	P	11-JAN-10 12:53	011110A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1075

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01	Mercury	-0.073	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 10:29	010710S2-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-JAN-10 12:49	011110A-1
	Antimony	5.18	+/-10	J	3.3	10.0	SOL	P	11-JAN-10 12:49	011110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 12:49	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 12:49	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 12:49	011110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 12:49	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 12:49	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 12:49	011110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 12:49	011110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-JAN-10 12:49	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 12:49	011110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-JAN-10 12:49	011110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-JAN-10 12:49	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 12:49	011110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 12:49	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 12:49	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 12:49	011110A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	15-JAN-10 05:04	100114-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	15-JAN-10 05:04	100114-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	15-JAN-10 05:04	100114-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	15-JAN-10 05:04	100114-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	16-JAN-10 06:22	100115-3
	Uranium	0.082	+/-2	J	0.066	0.2	SOL	MS	16-JAN-10 06:22	100115-3
CCB01	Mercury	-0.077	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 10:35	010710S2-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-JAN-10 13:21	011110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 13:21	011110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 13:21	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 13:21	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 13:21	011110A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1075

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 13:21	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 13:21	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 13:21	011110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 13:21	011110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-JAN-10 13:21	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 13:21	011110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-JAN-10 13:21	011110A-1
	Potassium	75.9	+/-250	J	64.0	250	SOL	P	11-JAN-10 13:21	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 13:21	011110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 13:21	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 13:21	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 13:21	011110A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	15-JAN-10 05:33	100114-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	15-JAN-10 05:33	100114-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	15-JAN-10 05:33	100114-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	15-JAN-10 05:33	100114-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	16-JAN-10 06:40	100115-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	16-JAN-10 06:40	100115-3
CCB02	Mercury	-0.119	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 10:59	010710S2-4
	Aluminum	295.03	+/-200		68.0	200	SOL	P	11-JAN-10 13:55	011110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 13:55	011110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 13:55	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 13:55	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 13:55	011110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 13:55	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 13:55	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 13:55	011110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 13:55	011110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-JAN-10 13:55	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 13:55	011110A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1075

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	11-JAN-10 13:55	011110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-JAN-10 13:55	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 13:55	011110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 13:55	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 13:55	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 13:55	011110A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	15-JAN-10 06:03	100114-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	15-JAN-10 06:03	100114-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	15-JAN-10 06:03	100114-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	15-JAN-10 06:03	100114-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	16-JAN-10 06:55	100115-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	16-JAN-10 06:55	100115-3
CCB03	Mercury	-0.148	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 11:23	010710S2-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-JAN-10 14:33	011110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 14:33	011110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 14:33	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 14:33	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 14:33	011110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 14:33	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 14:33	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 14:33	011110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 14:33	011110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-JAN-10 14:33	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 14:33	011110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-JAN-10 14:33	011110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-JAN-10 14:33	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 14:33	011110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 14:33	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 14:33	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 14:33	011110A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1075

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>
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	15-JAN-10 07:02	100114-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	15-JAN-10 07:02	100114-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	15-JAN-10 07:02	100114-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	15-JAN-10 07:02	100114-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	16-JAN-10 07:25	100115-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	16-JAN-10 07:25	100115-3
CCB04										
	Mercury	-0.164	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 11:47	010710S2-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-JAN-10 15:03	011110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 15:03	011110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:03	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:03	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 15:03	011110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 15:03	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 15:03	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 15:03	011110A-1
	Iron	80.06	+/-250	J	80.0	250	SOL	P	11-JAN-10 15:03	011110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-JAN-10 15:03	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 15:03	011110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-JAN-10 15:03	011110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-JAN-10 15:03	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:03	011110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 15:03	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:03	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 15:03	011110A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	15-JAN-10 07:55	100114-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	15-JAN-10 07:55	100114-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	15-JAN-10 07:55	100114-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	15-JAN-10 07:55	100114-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	16-JAN-10 08:06	100115-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	16-JAN-10 08:06	100115-3

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1075

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										
	Mercury	-0.181	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 12:11	010710S2-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-JAN-10 15:28	011110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 15:28	011110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:28	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:28	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 15:28	011110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 15:28	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 15:28	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 15:28	011110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 15:28	011110A-1
	Lead	2.52	+/-10	J	2.5	10.0	SOL	P	11-JAN-10 15:28	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 15:28	011110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-JAN-10 15:28	011110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-JAN-10 15:28	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:28	011110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 15:28	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:28	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 15:28	011110A-1
CCB06										
	Mercury	-0.21	+/-2		0.068	0.2	SOL	AV	07-JAN-10 12:35	010710S2-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-JAN-10 16:08	011110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 16:08	011110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:08	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:08	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 16:08	011110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 16:08	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 16:08	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 16:08	011110A-1
	Iron	83.61	+/-250	J	80.0	250	SOL	P	11-JAN-10 16:08	011110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-JAN-10 16:08	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 16:08	011110A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1075

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	11-JAN-10 16:08	011110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-JAN-10 16:08	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:08	011110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 16:08	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:08	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 16:08	011110A-1
CCB07	Mercury	-0.215	+/-2		0.068	0.2	SOL	AV	07-JAN-10 12:52	010710S2-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-JAN-10 16:45	011110A-1
	Antimony	-3.36	+/-10	J	3.3	10.0	SOL	P	11-JAN-10 16:45	011110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:45	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:45	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 16:45	011110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 16:45	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 16:45	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 16:45	011110A-1
	Iron	82.3	+/-250	J	80.0	250	SOL	P	11-JAN-10 16:45	011110A-1
	Lead	2.52	+/-10	J	2.5	10.0	SOL	P	11-JAN-10 16:45	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 16:45	011110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-JAN-10 16:45	011110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-JAN-10 16:45	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:45	011110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 16:45	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:45	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 16:45	011110A-1
CCB08	Mercury	-0.165	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 13:05	010710S2-4
CCB09	Mercury	-0.147	+/-2	J	0.068	0.2	SOL	AV	07-JAN-10 13:29	010710S2-4

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1075
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>
1202004445	Aluminum	6800	ug/Kg	+/-20000	U	P	6800	20000
	Antimony	343	ug/Kg	+/-1000	J	P	330	1000
	Barium	100	ug/Kg	+/-500	U	P	100	500
	Cadmium	100	ug/Kg	+/-500	U	P	100	500
	Calcium	8000	ug/Kg	+/-25000	U	P	8000	25000
	Chromium	150	ug/Kg	+/-500	U	P	150	500
	Cobalt	150	ug/Kg	+/-500	U	P	150	500
	Copper	300	ug/Kg	+/-1000	U	P	300	1000
	Iron	9430	ug/Kg	+/-25000	J	P	8000	25000
	Lead	250	ug/Kg	+/-1000	U	P	250	1000
	Magnesium	8500	ug/Kg	+/-30000	U	P	8500	30000
	Manganese	200	ug/Kg	+/-1000	U	P	200	1000
	Potassium	6400	ug/Kg	+/-25000	U	P	6400	25000
	Silver	100	ug/Kg	+/-500	U	P	100	500
	Sodium	7000	ug/Kg	+/-25000	U	P	7000	25000
	Vanadium	100	ug/Kg	+/-500	U	P	100	500
	Zinc	330	ug/Kg	+/-1000	U	P	330	1000
1202004451	Arsenic	0.195	mg/kg	+/-0.977	U	MS	0.195	0.977
	Beryllium	0.0195	mg/kg	+/-0.0977	U	MS	0.0195	0.0977
	Nickel	0.0977	mg/kg	+/-0.391	U	MS	0.0977	0.391
	Selenium	0.488	mg/kg	+/-0.977	U	MS	0.488	0.977
	Thallium	0.0586	mg/kg	+/-0.195	U	MS	0.0586	0.195
	Uranium	0.0129	mg/kg	+/-0.0391	U	MS	0.0129	0.0391
1202006448	Mercury	4.02	ug/kg	+/-11.8	U	AV	4.02	11.8

METALS
-4-
Interference Check Sample

SDG No: 10-1075

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Aluminum	502000	ug/L	500000	ug/L	100	80.0 – 120.0	11-JAN-10 12:56	011110A-1
	Antimony	11.4	ug/L					11-JAN-10 12:56	011110A-1
	Barium	7.11	ug/L					11-JAN-10 12:56	011110A-1
	Cadmium	-2.37	ug/L					11-JAN-10 12:56	011110A-1
	Calcium	479000	ug/L	500000	ug/L	95.8	80.0 – 120.0	11-JAN-10 12:56	011110A-1
	Chromium	-1.89	ug/L					11-JAN-10 12:56	011110A-1
	Cobalt	0.115	ug/L					11-JAN-10 12:56	011110A-1
	Copper	-9.78	ug/L					11-JAN-10 12:56	011110A-1
	Iron	185000	ug/L	200000	ug/L	92.8	80.0 – 120.0	11-JAN-10 12:56	011110A-1
	Lead	-9.19	ug/L					11-JAN-10 12:56	011110A-1
	Magnesium	480000	ug/L	500000	ug/L	95.9	80.0 – 120.0	11-JAN-10 12:56	011110A-1
	Manganese	14.8	ug/L					11-JAN-10 12:56	011110A-1
	Potassium	-1.98	ug/L					11-JAN-10 12:56	011110A-1
	Silver	-5.76	ug/L					11-JAN-10 12:56	011110A-1
	Sodium	39.4	ug/L					11-JAN-10 12:56	011110A-1
	Vanadium	0.925	ug/L					11-JAN-10 12:56	011110A-1
	Zinc	-16.8	ug/L					11-JAN-10 12:56	011110A-1
ICSAB01									
	Aluminum	504000	ug/L	500000	ug/L	101	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Antimony	542	ug/L	500	ug/L	108	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Barium	507	ug/L	500	ug/L	101	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Cadmium	470	ug/L	500	ug/L	94	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Calcium	477000	ug/L	500000	ug/L	95.5	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Chromium	496	ug/L	500	ug/L	99.3	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Cobalt	452	ug/L	500	ug/L	90.4	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Copper	571	ug/L	500	ug/L	114	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Iron	183000	ug/L	200000	ug/L	91.6	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Lead	496	ug/L	500	ug/L	99.1	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Magnesium	480000	ug/L	500000	ug/L	96	80.0 – 120.0	11-JAN-10 12:59	011110A-1

METALS

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Interference Check Sample

SDG No: 10-1075

Contract: LANL01004

Lab Code: GEL

ICS:

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Manganese	505	ug/L	500	ug/L	101	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Potassium	5150	ug/L	5000	ug/L	103	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Silver	268	ug/L	250	ug/L	107	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Sodium	5140	ug/L	5000	ug/L	103	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	11-JAN-10 12:59	011110A-1
	Zinc	473	ug/L	500	ug/L	94.5	80.0 – 120.0	11-JAN-10 12:59	011110A-1

METALS

-4-

Interference Check Sample

SDG No: 10-1075

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS6

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Arsenic	-0.056	ug/L					15-JAN-10 05:16	100114-2
	Beryllium	0.059	ug/L					15-JAN-10 05:16	100114-2
	Nickel	2.88	ug/L					15-JAN-10 05:16	100114-2
	Selenium	-0.532	ug/L					15-JAN-10 05:16	100114-2
ICSAB01									
	Arsenic	19.5	ug/L	20	ug/L	97.6	80.0 - 120.0	15-JAN-10 05:21	100114-2
	Beryllium	20.6	ug/L	20	ug/L	103	80.0 - 120.0	15-JAN-10 05:21	100114-2
	Nickel	21.0	ug/L	22.7	ug/L	92.6	80.0 - 120.0	15-JAN-10 05:21	100114-2
	Selenium	19.0	ug/L	20	ug/L	95	80.0 - 120.0	15-JAN-10 05:21	100114-2

METALS

-4-

Interference Check Sample

SDG No: 10-1075

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS6

<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	0.029	ug/L					16-JAN-10 06:29	100115-3
	Uranium	-0.004	ug/L					16-JAN-10 06:29	100115-3
ICSAB01	Thallium	17.2	ug/L	20	ug/L	86	80.0 - 120.0	16-JAN-10 06:33	100115-3
	Uranium	20.7	ug/L	20	ug/L	103	80.0 - 120.0	16-JAN-10 06:33	100115-3

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1075

Client ID RE12-10-7606S

Contract: LANL01004

Level: Low

Matrix: SOIL

% Solids: 90

Sample ID: 243521001

Spike ID: 1202004448

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Calcium	ug/Kg	75-125	2470000		1830000		536000	120		P
Chromium	ug/Kg	75-125	70400		14500		53600	104		P
Cobalt	ug/Kg	75-125	59000		5160		53600	101		P
Copper	ug/Kg	75-125	67000		6870		53600	112		P
Iron	ug/Kg		14400000		11800000		536000	483	N/A	P
Lead	ug/Kg	75-125	70300		12100		53600	109		P
Magnesium	ug/Kg	75-125	2520000		1680000		536000	156	N	P
Manganese	ug/Kg		403000		306000		53600	182	N/A	P
Potassium	ug/Kg	75-125	2440000		1510000		536000	174	N	P
Silver	ug/Kg	75-125	56600		111	U	53600	106		P
Sodium	ug/Kg	75-125	617000		54500		536000	105		P
Vanadium	ug/Kg	75-125	86400		27900		53600	109		P
Zinc	ug/Kg	75-125	81500		22700		53600	110		P
Aluminum	ug/Kg		17100000		9050000		536000	1500	N/A	P
Antimony	ug/Kg	75-125	48200		2240		53600	85.8		P
Barium	ug/Kg	75-125	197000		122000		53600	140	N	P
Cadmium	ug/Kg	75-125	54000		111	U	53600	101		P

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1075 Client ID: RE12-10-7606SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 90

Sample ID: 243521001 Spike ID: 1202004450

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		17500000		9050000		558000	1510	N/A	P
Antimony	ug/Kg	75-125	49400		2240		55800	84.4		P
Barium	ug/Kg	75-125	200000		122000		55800	139	N	P
Cadmium	ug/Kg	75-125	56000		111	U	55800	100		P
Calcium	ug/Kg	75-125	2500000		1830000		558000	120		P
Chromium	ug/Kg	75-125	73300		14500		55800	105		P
Cobalt	ug/Kg	75-125	60600		5160		55800	99.4		P
Copper	ug/Kg	75-125	69600		6870		55800	112		P
Iron	ug/Kg		14100000		11800000		558000	423	N/A	P
Lead	ug/Kg	75-125	71600		12100		55800	107		P
Magnesium	ug/Kg	75-125	2540000		1680000		558000	155	N	P
Manganese	ug/Kg		382000		306000		55800	138	N/A	P
Potassium	ug/Kg	75-125	2500000		1510000		558000	178	N	P
Silver	ug/Kg	75-125	58500		111	U	55800	105		P
Sodium	ug/Kg	75-125	641000		54500		558000	105		P
Vanadium	ug/Kg	75-125	87800		27900		55800	107		P
Zinc	ug/Kg	75-125	83800		22700		55800	109		P

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1075

Client ID: RE12-10-7606S

Contract: LANL01004

Level: Low

Matrix: SOIL

% Solids: 90

Sample ID: 243521001

Spike ID: 1202004454

<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	8.7		1.74		8.64	80.5		MS
Beryllium	mg/kg	75-125	5.01		0.698		5.4	79.8		MS
Nickel	mg/kg	75-125	11		5.87		5.4	95.3		MS
Selenium	mg/kg	75-125	1.52		0.54	U	2.16	70.3	N	MS
Thallium	mg/kg	75-125	8.44		0.167	J	10.8	76.7		MS
Uranium	mg/kg	75-125	6.83		2.35		5.4	83		MS

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1075 Client ID: RE12-10-7606SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 90

Sample ID: 243521001 Spike ID: 1202004456

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	9.41		1.74		8.72	87.9		MS
Beryllium	mg/kg	75-125	5.38		0.698		5.45	85.9		MS
Nickel	mg/kg	75-125	12.1		5.87		5.45	114		MS
Selenium	mg/kg	75-125	1.64		0.54	U	2.18	75.1		MS
Thallium	mg/kg	75-125	9.33		0.167	J	10.9	84.1		MS
Uranium	mg/kg	75-125	9.01		2.35		5.45	122		MS

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1075

Client ID RE12-10-7553S

Contract: LANL01004

Level: Low

Matrix: SOIL

% Solids: 79

Sample ID: 243457001

Spike ID: 1202006451

<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	174		14		138	116		AV

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1075 Client ID: RE12-10-7553SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 79

Sample ID: 243457001 Spike ID: 1202006452

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	164		14		126	118		AV

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1075

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7606D

Sample ID: 243521001

Duplicate ID: 1202004447

Percent Solids for Dup: 90

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	9050000		10300000		13.4		P
Antimony	ug/Kg	+/-1110	2240		2630		16.2		P
Barium	ug/Kg	+/-20%	122000		130000		6.82		P
Cadmium	ug/Kg		111 U		111 U				P
Calcium	ug/Kg	+/-20%	1830000		1940000		5.82		P
Chromium	ug/Kg	+/-20%	14500		16100		10.9		P
Cobalt	ug/Kg	+/-20%	5160		5570		7.55		P
Copper	ug/Kg	+/-20%	6870		6990		1.79		P
Iron	ug/Kg	+/-20%	11800000		12500000		6.19		P
Lead	ug/Kg	+/-20%	12100		13000		6.65		P
Magnesium	ug/Kg	+/-20%	1680000		1640000		2.01		P
Manganese	ug/Kg	+/-20%	306000		323000		5.64		P
Potassium	ug/Kg	+/-20%	1510000		1610000		6.63		P
Silver	ug/Kg		111 U		111 U				P
Sodium	ug/Kg	+/-27600	54500		58800		7.57		P
Vanadium	ug/Kg	+/-20%	27900		28300		1.44		P
Zinc	ug/Kg	+/-20%	22700		23800		4.51		P

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1075

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7606SD

Sample ID: 1202004448

Duplicate ID: 1202004450

Percent Solids for Dup: 90

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	17100000		17500000		2.35		P
Antimony	ug/Kg	+/-20	48200		49400		2.39		P
Barium	ug/Kg	+/-20	197000		200000		1.47		P
Cadmium	ug/Kg	+/-20	54000		56000		3.65		P
Calcium	ug/Kg	+/-20	2470000		2500000		1.17		P
Chromium	ug/Kg	+/-20	70400		73300		4.02		P
Cobalt	ug/Kg	+/-20	59000		60600		2.66		P
Copper	ug/Kg	+/-20	67000		69600		3.79		P
Iron	ug/Kg	+/-20	14400000		14100000		1.56		P
Lead	ug/Kg	+/-20	70300		71600		1.81		P
Magnesium	ug/Kg	+/-20	2520000		2540000		1.14		P
Manganese	ug/Kg	+/-20	403000		382000		5.19		P
Potassium	ug/Kg	+/-20	2440000		2500000		2.58		P
Silver	ug/Kg	+/-20	56600		58500		3.39		P
Sodium	ug/Kg	+/-20	617000		641000		3.82		P
Vanadium	ug/Kg	+/-20	86400		87800		1.59		P
Zinc	ug/Kg	+/-20	81500		83800		2.71		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1075

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7606D

Sample ID: 243521001

Duplicate ID: 1202004453

Percent Solids for Dup: 90

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-1.09	1.74		1.92		9.57		MS
Beryllium	mg/kg	+/-20%	0.698		0.71		1.62		MS
Nickel	mg/kg	+/-20%	5.87		6.17		4.97		MS
Selenium	mg/kg		0.54 U		0.545 U				MS
Thallium	mg/kg	+/- .218	0.167 J		0.164 J		1.91		MS
Uranium	mg/kg	+/-20%	2.35		2.11		10.7		MS

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1075

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7606SD

Sample ID: 1202004454

Duplicate ID: 1202004456

Percent Solids for Dup: 90

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	8.7		9.41		7.84		MS
Beryllium	mg/kg	+/-20	5.01		5.38		7.19		MS
Nickel	mg/kg	+/-20	11		12.1		9.13		MS
Selenium	mg/kg	+/-20	1.52		1.64		7.62		MS
Thallium	mg/kg	+/-20	8.44		9.33		10		MS
Uranium	mg/kg	+/-20	6.83		9.01		27.6	*	MS

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1075

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7553D

Sample ID: 243457001

Duplicate ID: 1202006449

Percent Solids for Dup: 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-14.5	14		12.6	J	10.8		AV

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1075

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE12-10-7553SD

Sample ID: 1202006451

Duplicate ID: 1202006452

Percent Solids for Dup: 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	174		164		6.11		AV

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1075

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>
1202004446								
	Aluminum	ug/Kg	10500000	9060000		86.3	56-144	P
	Antimony	ug/Kg	173000	157000		90.9	71-130	P
	Barium	ug/Kg	198000	195000		98.5	80-120	P
	Cadmium	ug/Kg	60700	60100		99.1	81-120	P
	Calcium	ug/Kg	9870000	9800000		99.3	83-117	P
	Chromium	ug/Kg	236000	245000		104	80-120	P
	Cobalt	ug/Kg	91200	94700		104	81-120	P
	Copper	ug/Kg	174000	186000		107	81-118	P
	Iron	ug/Kg	18000000	16300000		90.7	51-149	P
	Lead	ug/Kg	86000	80700		93.8	79-121	P
	Magnesium	ug/Kg	4000000	3530000		88.2	79-122	P
	Manganese	ug/Kg	558000	557000		99.9	81-119	P
	Potassium	ug/Kg	4300000	4050000		94.3	74-127	P
	Silver	ug/Kg	30100	29400		97.5	66-134	P
	Sodium	ug/Kg	1020000	963000		94.4	74-127	P
	Vanadium	ug/Kg	115000	121000		105	79-121	P
	Zinc	ug/Kg	594000	572000		96.4	80-121	P

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1075

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>
1202004452								
	Beryllium	mg/kg	77.6	85.9		111	81.2-126.8	MS
	Nickel	mg/kg	134	153		114	83.3-121.4	MS
	Arsenic	mg/kg	104	108		104	83-120	MS
	Selenium	mg/kg	286	296		103	80.2-125.9	MS
	Thallium	mg/kg	121	114		94.2	78-123.2	MS
	Uranium	mg/kg	2.13	2.13		99.9	61.9-130.7	MS

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1075

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>
1202006453	Mercury	ug/kg	5150	6540		127	71.6-128.3	AV

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1075

Client ID RE12-10-7606L

Contract: LANL01004

Matrix: SOLID

Level: Low

Sample ID: 243521001

Serial Dilution ID: 1202004449

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	81500		84000		3.07		10	P
Antimony	20.2		16.5	U	100			P
Barium	1100		1120		1.82		10	P
Cadmium	1	U	5	U				P
Calcium	16500		16600		.303		10	P
Chromium	130		136		4.62		10	P
Cobalt	46.5		47		1.08			P
Copper	61.9		55.5		10.3			P
Iron	106000		110000		3.77		10	P
Lead	109		116		5.96			P
Magnesium	15100		15400		1.99		10	P
Manganese	2750		2830		2.91		10	P
Potassium	13600		14400		5.51		10	P
Silver	1	U	5	U				P
Sodium	491		350	U	100			P
Vanadium	251		254		.996		10	P
Zinc	205		195		4.88		10	P

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1075 Client ID RE12-10-7606L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 243521001 Serial Dilution ID: 1202004455

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	8.08		8.85	J	9.53			MS
Beryllium	3.23		3.91		21.1			MS
Nickel	27.2		35.9		31.8			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.775	J	2.67	J	245			MS
Uranium	10.9		12.5		14.2	E	10	MS

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1075 Client ID RE12-10-7553L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 243457001 Serial Dilution ID: 1202006450

<u>Analyte</u>	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Mercury	.205		.34	U	100			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1075

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 936816							
1202004445	MB for batch 936816	MB	S	29-DEC-09	.5g	50mL	
1202004446	LCS for batch 936816	LCS	S	29-DEC-09	.5g	50mL	
1202004448	RE12-10-7606S	MS	S	29-DEC-09	.521g	50mL	
1202004450	RE12-10-7606SD	MSD	S	29-DEC-09	.5g	50mL	
1202004447	RE12-10-7606D	DUP	S	29-DEC-09	.505g	50mL	
243521001	RE12-10-7606	SAMPLE	S	29-DEC-09	.503g	50mL	
243521002	RE12-10-7607	SAMPLE	S	29-DEC-09	.5g	50mL	
243521003	RE12-10-7596	SAMPLE	S	29-DEC-09	.509g	50mL	
243521004	RE12-10-7597	SAMPLE	S	29-DEC-09	.504g	50mL	
243521005	RE12-10-7608	SAMPLE	S	29-DEC-09	.508g	50mL	
243521006	RE12-10-7600	SAMPLE	S	29-DEC-09	.524g	50mL	
243521007	RE12-10-7601	SAMPLE	S	29-DEC-09	.5g	50mL	
243521008	RE12-10-7602	SAMPLE	S	29-DEC-09	.503g	50mL	
243521009	RE12-10-7599	SAMPLE	S	29-DEC-09	.506g	50mL	
243521010	RE12-10-7598	SAMPLE	S	29-DEC-09	.51g	50mL	
243521011	RE12-10-7603	SAMPLE	S	29-DEC-09	.525g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1075

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 936819							
1202004451	MB for batch 936819	MB	S	13-JAN-10	.512g	50mL	
1202004452	LCS for batch 936819	LCS	S	13-JAN-10	.516g	50mL	
1202004454	RE12-10-7606S	MS	S	13-JAN-10	.517g	50mL	
1202004456	RE12-10-7606SD	MSD	S	13-JAN-10	.512g	50mL	
1202004453	RE12-10-7606D	DUP	S	13-JAN-10	.512g	50mL	
243521001	RE12-10-7606	SAMPLE	S	13-JAN-10	.517g	50mL	
243521002	RE12-10-7607	SAMPLE	S	13-JAN-10	.516g	50mL	
243521003	RE12-10-7596	SAMPLE	S	13-JAN-10	.508g	50mL	
243521004	RE12-10-7597	SAMPLE	S	13-JAN-10	.52g	50mL	
243521005	RE12-10-7608	SAMPLE	S	13-JAN-10	.509g	50mL	
243521006	RE12-10-7600	SAMPLE	S	13-JAN-10	.52g	50mL	
243521007	RE12-10-7601	SAMPLE	S	13-JAN-10	.506g	50mL	
243521008	RE12-10-7602	SAMPLE	S	13-JAN-10	.538g	50mL	
243521009	RE12-10-7599	SAMPLE	S	13-JAN-10	.51g	50mL	
243521010	RE12-10-7598	SAMPLE	S	13-JAN-10	.527g	50mL	
243521011	RE12-10-7603	SAMPLE	S	13-JAN-10	.521g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1075

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 937637							
1202006448	MB for batch 937637	MB	S	06-JAN-10	.507g	30mL	
1202006453	LCS for batch 937637	LCS	S	06-JAN-10	.201g	30mL	
1202006451	RE12-10-7553S	MS	S	06-JAN-10	.55g	30mL	
1202006452	RE12-10-7553SD	MSD	S	06-JAN-10	.6g	30mL	
1202006449	RE12-10-7553D	DUP	S	06-JAN-10	.523g	30mL	
243521001	RE12-10-7606	SAMPLE	S	06-JAN-10	.527g	30mL	
243521002	RE12-10-7607	SAMPLE	S	06-JAN-10	.516g	30mL	
243521003	RE12-10-7596	SAMPLE	S	06-JAN-10	.584g	30mL	
243521004	RE12-10-7597	SAMPLE	S	06-JAN-10	.56g	30mL	
243521005	RE12-10-7608	SAMPLE	S	06-JAN-10	.505g	30mL	
243521006	RE12-10-7600	SAMPLE	S	06-JAN-10	.547g	30mL	
243521007	RE12-10-7601	SAMPLE	S	06-JAN-10	.532g	30mL	
243521008	RE12-10-7602	SAMPLE	S	06-JAN-10	.596g	30mL	
243521009	RE12-10-7599	SAMPLE	S	06-JAN-10	.523g	30mL	
243521010	RE12-10-7598	SAMPLE	S	06-JAN-10	.502g	30mL	
243521011	RE12-10-7603	SAMPLE	S	06-JAN-10	.526g	30mL	

SW846

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS6

Start Date: 15-JAN-10

End Date: 15-JAN-10

Client Sdg: 10-1075

Method MS

Data File: 100114-2

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	04:40			X		X											X	X							
S10	1	04:46			X		X											X	X							
S100	1	04:52			X		X											X	X							
ICV01	1	04:58			X		X											X	X							
ICB01	1	05:04			X		X											X	X							
CRDL01	1	05:10			X		X											X	X							
ICSA01	1	05:16			X		X											X	X							
ICSAB01	1	05:21			X		X											X	X							
CCV01	1	05:27			X		X											X	X							
CCB01	1	05:33			X		X											X	X							
1202004451	2	05:39			X		X											X	X							
ZZZZZZ	20	05:45																								
1202004452	40	05:51			X		X											X	X							
CCV02	1	05:57			X		X											X	X							
CCB02	1	06:03			X		X											X	X							
243521001	2	06:09			X		X											X	X							
1202004453	2	06:15			X		X											X	X							
1202004454	2	06:20			X		X											X	X							
1202004456	2	06:26			X		X											X	X							
1202004455	10	06:32			X		X											X	X							
243521002	2	06:38			X		X											X	X							
243521003	2	06:44			X		X											X	X							
243521004	2	06:50			X		X											X	X							
CCV03	1	06:56			X		X											X	X							
CCB03	1	07:02			X		X											X	X							
243521005	2	07:08			X		X											X	X							
243521006	2	07:13			X		X											X	X							
243521007	2	07:19			X		X											X	X							
243521008	2	07:25			X		X											X	X							
243521009	2	07:31			X		X											X	X							
243521010	2	07:37			X		X											X	X							
243521011	2	07:43			X		X											X	X							
CCV04	1	07:49			X		X											X	X							
CCB04	1	07:55			X		X											X	X							

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS6

Start Date: 16-JAN-10

End Date: 16-JAN-10

Client Sdg: 10-1075

Method MS

Data File: 100115-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	06:07																					X	X		
S10	1	06:10																					X	X		
S100	1	06:14																					X	X		
ICV01	1	06:18																					X	X		
ICB01	1	06:22																					X	X		
CRDL01	1	06:25																					X	X		
ICSA01	1	06:29																					X	X		
ICSAB01	1	06:33																					X	X		
CCV01	1	06:36																					X	X		
CCB01	1	06:40																					X	X		
1202004451	2	06:44																					X	X		
1202004452	40	06:48																					X	X		
CCV02	1	06:51																					X	X		
CCB02	1	06:55																					X	X		
243521001	2	06:59																					X	X		
1202004453	2	07:03																					X	X		
1202004454	2	07:06																					X	X		
1202004456	2	07:10																					X	X		
1202004455	10	07:14																					X	X		
243521002	2	07:17																					X	X		
CCV03	1	07:21																					X	X		
CCB03	1	07:25																					X	X		
243521003	2	07:29																					X	X		
243521004	2	07:32																					X	X		
243521005	2	07:36																					X	X		
243521006	2	07:40																					X	X		
243521007	2	07:44																					X	X		
243521008	2	07:47																					X	X		
243521009	2	07:51																					X	X		
243521010	2	07:55																					X	X		
243521011	2	07:58																					X	X		
CCV04	1	08:02																					X	X		
CCB04	1	08:06																					X	X		

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: MER536

Start Date: 07-JAN-10

End Date: 07-JAN-10

Client Sdg: 10-1075

Method AV

Data File: 010710S2-4

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	10:16															X									
S0.2	1	10:17															X									
S0.5	1	10:19															X									
S2.0	1	10:21															X									
S5.0	1	10:23															X									
S10	1	10:25															X									
ICV01	1	10:28															X									
ICB01	1	10:29															X									
CRDL01	1	10:31															X									
CCV01	1	10:33															X									
CCB01	1	10:35															X									
ZZZZZZ	1	10:37																								
ZZZZZZ	10	10:39																								
ZZZZZZ	1	10:41																								
ZZZZZZ	1	10:44																								
ZZZZZZ	1	10:46																								
ZZZZZZ	1	10:48																								
ZZZZZZ	5	10:49																								
ZZZZZZ	1	10:51																								
ZZZZZZ	1	10:53																								
ZZZZZZ	1	10:55																								
CCV02	1	10:57															X									
CCB02	1	10:59															X									
ZZZZZZ	1	11:01																								
ZZZZZZ	1	11:03																								
ZZZZZZ	1	11:05																								
ZZZZZZ	1	11:07																								
ZZZZZZ	1	11:09																								
ZZZZZZ	1	11:11																								
ZZZZZZ	1	11:13																								
1202006448	1	11:15															X									
1202006453	10	11:17															X									
ZZZZZZ	1	11:19																								
CCV03	1	11:21															X									
CCB03	1	11:23															X									
1202006449	1	11:25															X									
1202006451	1	11:27															X									
1202006452	1	11:29															X									
1202006450	5	11:31															X									
ZZZZZZ	1	11:33																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time
ZZZZZZ	1	11:35
ZZZZZZ	1	11:37
ZZZZZZ	1	11:39
ZZZZZZ	1	11:41
ZZZZZZ	1	11:43
CCV04	1	11:45
CCB04	1	11:47
243521001	1	11:49
243521002	1	11:51
243521003	1	11:53
243521004	1	11:55
243521005	1	11:57
243521006	1	11:59
243521007	1	12:01
243521008	1	12:03
243521009	1	12:05
243521010	1	12:07
CCV05	1	12:09
CCB05	1	12:11
ZZZZZZ	1	12:13
ZZZZZZ	1	12:15
ZZZZZZ	10	12:17
ZZZZZZ	1	12:19
ZZZZZZ	1	12:21
ZZZZZZ	1	12:23
ZZZZZZ	1	12:25
ZZZZZZ	5	12:27
ZZZZZZ	1	12:29
ZZZZZZ	1	12:31
CCV06	1	12:33
CCB06	1	12:35
ZZZZZZ	1	12:37
ZZZZZZ	1	12:39
ZZZZZZ	1	12:41
ZZZZZZ	1	12:43
ZZZZZZ	1	12:45
ZZZZZZ	1	12:46
ZZZZZZ	1	12:48
CCV07	1	12:50
CCB07	1	12:52

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
CCV08	1	13:03															X									
CCB08	1	13:05															X									
243521011	1	13:07															X									
ZZZZZZ	1	13:09																								
ZZZZZZ	10	13:11																								
ZZZZZZ	1	13:13																								
ZZZZZZ	1	13:15																								
ZZZZZZ	1	13:17																								
ZZZZZZ	1	13:19																								
ZZZZZZ	5	13:21																								
ZZZZZZ	1	13:23																								
ZZZZZZ	1	13:25																								
CCV09	1	13:27															X									
CCB09	1	13:29															X									

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA1

Start Date: 11-JAN-10

End Date: 11-JAN-10

Client Sdg: 10-1075

Method P

Data File: 011110A-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	12:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	12:33		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	12:36	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	12:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	12:43	X						X				X		X							X				
ICV01	1	12:45	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	12:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	12:53	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	12:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	12:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	13:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	13:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	13:08																								
ZZZZZZ	1	13:12																								
CCV01	1	13:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	13:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	13:26																								
ZZZZZZ	1	13:29																								
ZZZZZZ	1	13:33																								
ZZZZZZ	1	13:37																								
ZZZZZZ	1	13:40																								
ZZZZZZ	1	13:44																								
ZZZZZZ	5	13:48																								
CCV02	1	13:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	13:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	13:59																								
ZZZZZZ	1	14:02																								
CCV03	1	14:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	14:33	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	14:37																								
ZZZZZZ	1	14:41																								
ZZZZZZ	1	14:44																								
ZZZZZZ	1	14:48																								
ZZZZZZ	1	14:52																								
ZZZZZZ	1	14:55																								
CCV04	1	14:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	15:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV05	1	15:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB05	1	15:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202004445	1	15:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																									
1202004446	1	15:35	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
243521001	1	15:38	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202004447	1	15:42	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202004448	1	15:46	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202004450	1	15:50	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202004449	5	15:53	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
243521002	1	15:57	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
243521003	1	16:01	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV06	1	16:04	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB06	1	16:08	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
243521004	1	16:12	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
243521005	1	16:15	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
243521006	1	16:19	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
243521007	1	16:23	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
243521008	1	16:26	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
243521009	1	16:30	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
243521010	1	16:34	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
243521011	1	16:37	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV07	1	16:41	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB07	1	16:45	X	X		X			X	X	X	X	X	X	X	X	X			X		X	X			X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1075

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP/MS	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1075

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 15-JUN-09

		<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u> <u>ug/L</u>	<u>RDL</u> <u>ug/L</u>
MERCURY	<u>Analyte</u>			
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1075

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: GEL

GEL Job No:

10-1075

Contract: LANL01004

Instrument: OPTIMA1

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	0.00000	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-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1075**

Contract: LANL01004

Instrument: OPTIMA1

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	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: **10-1075**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-NOV-09**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Iron	Lead	Magnesium	Manganese	Molybdenum
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	38.0301
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: 10-1075

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: GEL

GEL Job No: 10-1075

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: GELGEL Job No: **10-1075**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-NOV-09**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Vanadium	Zinc
Parmname	Wavelength		
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. 10-1075

Contract: LANL01004

Lab Code: GEL

Instrument IDICPMS6

<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. 10-1075

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>
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
Cadmium	20	10000	ug/L	01-NOV-09
Calcium	20	500000	ug/L	01-NOV-09
Chromium	20	25000	ug/L	01-NOV-09

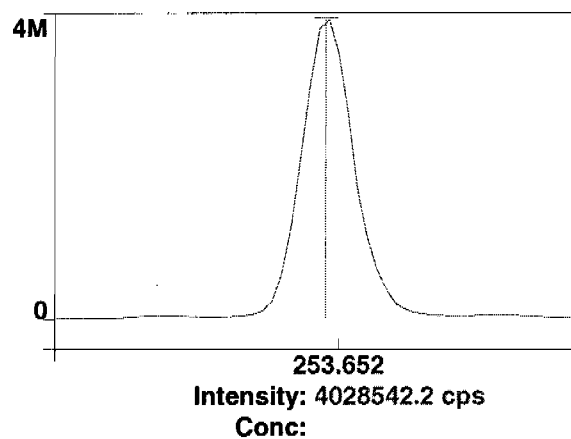
Raw Data

Method: Hg_ReAlign
Result: 011910B

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1



1

=====
Analysis Begun

Start Time: 1/11/2010 12:29:51

Plasma On Time: 1/11/2010 07:03:49

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\011110.sif

Batch ID:

Results Data Set: 011110A

Results Library: c:\pe\optima1\Results\Results.mdb

=====
Method Loaded

Method Name: Gen Eng fast_new Si

Method Last Saved: 1/11/2010 11:38:08

IEC File: 101509.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
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	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 1/11/2010 12:29:54

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	55413.8	55413.8	99.7 %	12:30:27
1	Al 396.153Radial†	35.6	35.8	[0.00] µg/L	12:30:27
1	Ca 317.933Radial†	204.2	204.9	[0.00] µg/L	12:30:48
1	Fe 238.204 Radial†	13.1	13.1	[0.00] µg/L	12:30:48

1	K 766.490 Radial†	522.6	524.3	[0.00]	µg/L	12:30:27
1	Mg 279.077 IEC†	7.5	7.5	[0.00]	µg/L	12:30:48
1	Na 589.592 Radial†	398.3	399.7	[0.00]	µg/L	12:30:27
1	Sr 421.552†	-51.6	-51.8	[0.00]	µg/L	12:30:27
1	Sc 361.383	1865772.7	1865772.7	99.861	%	12:31:49
1	Y 371.029	1151577.3	1151577.3	100.01	%	12:31:49
1	Ag 328.068†	-183.7	-184.0	[0.00]	µg/L	12:31:55
1	As 188.979†	-3.5	-3.5	[0.00]	µg/L	12:32:15
1	B 249.677†	403.0	403.5	[0.00]	µg/L	12:31:55
1	Ba 233.527†	-50.9	-51.0	[0.00]	µg/L	12:32:15
1	Be 313.107†	4222.1	4228.0	[0.00]	µg/L	12:31:49
1	Cd 226.502†	-126.2	-126.4	[0.00]	µg/L	12:32:15
1	Co 228.616†	8.7	8.7	[0.00]	µg/L	12:32:15
1	Cr 267.716†	-132.6	-132.7	[0.00]	µg/L	12:31:55
1	Cu 324.752†	5955.5	5963.8	[0.00]	µg/L	12:31:55
1	Mn 257.610†	-239.7	-240.0	[0.00]	µg/L	12:31:55
1	Mo 202.031†	23.4	23.4	[0.00]	µg/L	12:32:15
1	Ni 231.604†	331.8	332.2	[0.00]	µg/L	12:32:15
1	P 214.914†	272.6	273.0	[0.00]	µg/L	12:32:15
1	Pb 220.353†	75.7	75.8	[0.00]	µg/L	12:32:15
1	S 181.975 Axial†	37.5	37.5	[0.00]	µg/L	12:32:15
1	Sb 206.836†	18.7	18.8	[0.00]	µg/L	12:32:15
1	Se 196.026†	15.6	15.7	[0.00]	µg/L	12:32:15
1	SiO2†	3635.4	3640.4	[0.00]	µg/L	12:31:55
1	Si 251.611†	353.0	353.5	[0.00]	µg/L	12:32:15
1	Sn 189.927†	31.9	31.9	[0.00]	µg/L	12:32:15
1	Ti 334.940†	569.6	570.4	[0.00]	µg/L	12:31:55
1	Tl 190.801†	-28.1	-28.2	[0.00]	µg/L	12:32:15
1	U 409.014†	-57.9	-58.0	[0.00]	µg/L	12:31:55
1	V 292.402†	-258.0	-258.4	[0.00]	µg/L	12:31:55
1	Zn 213.857†	652.0	652.9	[0.00]	µg/L	12:32:15
2	Sc RADIAL	55697.1	55697.1	100	%	12:30:53
2	Al 396.153Radial†	28.3	28.2	[0.00]	µg/L	12:30:53
2	Ca 317.933Radial†	197.7	197.4	[0.00]	µg/L	12:31:13
2	Fe 238.204 Radial†	13.3	13.3	[0.00]	µg/L	12:31:13
2	K 766.490 Radial†	576.6	575.6	[0.00]	µg/L	12:30:53
2	Mg 279.077 IEC†	10.4	10.3	[0.00]	µg/L	12:31:13
2	Na 589.592 Radial†	373.1	372.4	[0.00]	µg/L	12:30:53
2	Sr 421.552†	-42.2	-42.1	[0.00]	µg/L	12:30:53
2	Sc 361.383	1866258.5	1866258.5	99.887	%	12:32:21
2	Y 371.029	1149883.5	1149883.5	99.861	%	12:32:21
2	Ag 328.068†	-216.6	-216.8	[0.00]	µg/L	12:32:27
2	As 188.979†	-3.5	-3.5	[0.00]	µg/L	12:32:47
2	B 249.677†	382.0	382.4	[0.00]	µg/L	12:32:27
2	Ba 233.527†	-46.6	-46.6	[0.00]	µg/L	12:32:47
2	Be 313.107†	4161.1	4165.8	[0.00]	µg/L	12:32:21
2	Cd 226.502†	-134.5	-134.6	[0.00]	µg/L	12:32:47
2	Co 228.616†	11.3	11.3	[0.00]	µg/L	12:32:47
2	Cr 267.716†	-138.9	-139.1	[0.00]	µg/L	12:32:27
2	Cu 324.752†	5936.4	5943.1	[0.00]	µg/L	12:32:27
2	Mn 257.610†	-252.1	-252.4	[0.00]	µg/L	12:32:27
2	Mo 202.031†	14.8	14.8	[0.00]	µg/L	12:32:47
2	Ni 231.604†	325.0	325.4	[0.00]	µg/L	12:32:47
2	P 214.914†	255.4	255.7	[0.00]	µg/L	12:32:47
2	Pb 220.353†	82.1	82.2	[0.00]	µg/L	12:32:47
2	S 181.975 Axial†	28.5	28.6	[0.00]	µg/L	12:32:47
2	Sb 206.836†	29.0	29.0	[0.00]	µg/L	12:32:47
2	Se 196.026†	10.9	10.9	[0.00]	µg/L	12:32:47
2	SiO2†	3597.3	3601.4	[0.00]	µg/L	12:32:27
2	Si 251.611†	351.8	352.2	[0.00]	µg/L	12:32:47
2	Sn 189.927†	32.5	32.5	[0.00]	µg/L	12:32:47
2	Ti 334.940†	580.6	581.3	[0.00]	µg/L	12:32:27
2	Tl 190.801†	-26.0	-26.0	[0.00]	µg/L	12:32:47
2	U 409.014†	48.6	48.7	[0.00]	µg/L	12:32:27
2	V 292.402†	-279.0	-279.4	[0.00]	µg/L	12:32:27
2	Zn 213.857†	659.4	660.2	[0.00]	µg/L	12:32:47
3	Sc RADIAL	55678.8	55678.8	100	%	12:31:19
3	Al 396.153Radial†	16.2	16.1	[0.00]	µg/L	12:31:19
3	Ca 317.933Radial†	203.4	203.1	[0.00]	µg/L	12:31:39
3	Fe 238.204 Radial†	13.3	13.3	[0.00]	µg/L	12:31:39
3	K 766.490 Radial†	468.9	468.2	[0.00]	µg/L	12:31:19

3	Mg 279.077 IEC†	7.9	7.9	[0.00]	µg/L	12:31:39
3	Na 589.592 Radial†	421.5	420.8	[0.00]	µg/L	12:31:19
3	Sr 421.552†	-20.3	-20.2	[0.00]	µg/L	12:31:19
3	Sc 361.383	1873062.1	1873062.1	100.25	%	12:32:53
3	Y 371.029	1152982.1	1152982.1	100.13	%	12:32:53
3	Ag 328.068†	-228.4	-227.8	[0.00]	µg/L	12:32:59
3	As 188.979†	-5.8	-5.8	[0.00]	µg/L	12:33:19
3	B 249.677†	393.6	392.6	[0.00]	µg/L	12:32:59
3	Ba 233.527†	-39.8	-39.7	[0.00]	µg/L	12:33:19
3	Be 313.107†	4053.6	4043.4	[0.00]	µg/L	12:32:53
3	Cd 226.502†	-136.6	-136.3	[0.00]	µg/L	12:33:19
3	Co 228.616†	14.8	14.8	[0.00]	µg/L	12:33:19
3	Cr 267.716†	-152.0	-151.6	[0.00]	µg/L	12:32:59
3	Cu 324.752†	5910.3	5895.5	[0.00]	µg/L	12:32:59
3	Mn 257.610†	-262.4	-261.7	[0.00]	µg/L	12:32:59
3	Mo 202.031†	22.6	22.5	[0.00]	µg/L	12:33:19
3	Ni 231.604†	335.7	334.8	[0.00]	µg/L	12:33:19
3	P 214.914†	264.9	264.3	[0.00]	µg/L	12:33:19
3	Pb 220.353†	85.5	85.3	[0.00]	µg/L	12:33:19
3	S 181.975 Axial†	33.9	33.8	[0.00]	µg/L	12:33:19
3	Sb 206.836†	25.8	25.7	[0.00]	µg/L	12:33:19
3	Se 196.026†	15.3	15.3	[0.00]	µg/L	12:33:19
3	SiO2†	3637.5	3628.3	[0.00]	µg/L	12:32:59
3	Si 251.611†	344.7	343.8	[0.00]	µg/L	12:33:19
3	Sn 189.927†	32.9	32.8	[0.00]	µg/L	12:33:19
3	Ti 334.940†	640.0	638.3	[0.00]	µg/L	12:32:59
3	Tl 190.801†	-26.4	-26.4	[0.00]	µg/L	12:33:19
3	U 409.014†	109.8	109.5	[0.00]	µg/L	12:32:59
3	V 292.402†	-285.2	-284.5	[0.00]	µg/L	12:32:59
3	Zn 213.857†	647.4	645.8	[0.00]	µg/L	12:33:19

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1868364.4	4075.55	0.22%	100.00 %
Sc RADIAL	55596.6	158.54	0.29%	100 %
Y 371.029	1151481.0	1551.56	0.13%	100.00 %
Ag 328.068†	-209.5	22.82	10.89%	[0.00] µg/L
Al 396.153Radial†	26.7	9.89	37.05%	[0.00] µg/L
As 188.979†	-4.3	1.35	31.65%	[0.00] µg/L
B 249.677†	392.8	10.56	2.69%	[0.00] µg/L
Ba 233.527†	-45.8	5.70	12.44%	[0.00] µg/L
Be 313.107†	4145.7	93.87	2.26%	[0.00] µg/L
Ca 317.933Radial†	201.8	3.94	1.95%	[0.00] µg/L
Cd 226.502†	-132.4	5.30	4.00%	[0.00] µg/L
Co 228.616†	11.6	3.06	26.34%	[0.00] µg/L
Cr 267.716†	-141.2	9.62	6.81%	[0.00] µg/L
Cu 324.752†	5934.1	35.04	0.59%	[0.00] µg/L
Fe 238.204 Radial†	13.2	0.10	0.79%	[0.00] µg/L
K 766.490 Radial†	522.7	53.70	10.27%	[0.00] µg/L
Mg 279.077 IEC†	8.6	1.54	17.92%	[0.00] µg/L
Mn 257.610†	-251.4	10.89	4.33%	[0.00] µg/L
Mo 202.031†	20.2	4.75	23.49%	[0.00] µg/L
Na 589.592 Radial†	397.6	24.28	6.11%	[0.00] µg/L
Ni 231.604†	330.8	4.88	1.47%	[0.00] µg/L
P 214.914†	264.3	8.64	3.27%	[0.00] µg/L
Pb 220.353†	81.1	4.81	5.94%	[0.00] µg/L
S 181.975 Axial†	33.3	4.51	13.54%	[0.00] µg/L
Sb 206.836†	24.5	5.25	21.42%	[0.00] µg/L
Se 196.026†	14.0	2.63	18.86%	[0.00] µg/L
SiO2†	3623.4	20.00	0.55%	[0.00] µg/L
Si 251.611†	349.8	5.24	1.50%	[0.00] µg/L
Sn 189.927†	32.4	0.45	1.39%	[0.00] µg/L
Sr 421.552†	-38.0	16.16	42.50%	[0.00] µg/L
Ti 334.940†	596.7	36.50	6.12%	[0.00] µg/L
Tl 190.801†	-26.9	1.15	4.26%	[0.00] µg/L
U 409.014†	33.4	84.77	253.86%	[0.00] µg/L
V 292.402†	-274.1	13.83	5.04%	[0.00] µg/L
Zn 213.857†	652.9	7.18	1.10%	[0.00] µg/L

Sequence No.: 2

Sample ID: S0.1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 1/11/2010 12:33:28

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	56802.7	56802.7	102 %	12:34:03
1	K 766.490 Radial†	2015.9	1450.4	[1000] µg/L	12:34:03
1	Sr 421.552†	7878.7	7749.5	[100] µg/L	12:34:03
1	Sc 361.383	1879211.6	1879211.6	100.58 %	12:34:24
1	Y 371.029	1157887.7	1157887.7	100.56 %	12:34:24
1	Ag 328.068†	10797.0	10944.2	[100] µg/L	12:34:30
1	As 188.979†	60.3	64.2	[100] µg/L	12:34:50
1	B 249.677†	3063.2	2652.6	[100] µg/L	12:34:30
1	Ba 233.527†	3738.8	3763.0	[100] µg/L	12:34:30
1	Be 313.107†	166955.8	161846.3	[100] µg/L	12:34:24
1	Cd 226.502†	3769.6	3880.3	[100] µg/L	12:34:30
1	Co 228.616†	2083.4	2059.7	[100] µg/L	12:34:50
1	Cr 267.716†	4542.4	4657.3	[100] µg/L	12:34:30
1	Cu 324.752†	20208.7	14157.9	[100] µg/L	12:34:30
1	Mn 257.610†	30245.3	30322.1	[100] µg/L	12:34:30
1	Mo 202.031†	887.4	862.0	[100] µg/L	12:34:50
1	Ni 231.604†	2202.9	1859.4	[100] µg/L	12:34:30
1	P 214.914†	586.1	318.4	[500] µg/L	12:34:50
1	Pb 220.353†	473.6	389.8	[100] µg/L	12:34:50
1	S 181.975 Axial†	88.8	54.9	[200] µg/L	12:34:50
1	Sb 206.836†	134.5	109.2	[100] µg/L	12:34:50
1	Se 196.026†	115.7	101.1	[100] µg/L	12:34:50
1	SiO2†	10211.1	6528.8	[1069.5] µg/L	12:34:30
1	Si 251.611†	8105.8	7709.2	[500] µg/L	12:34:30
1	Sn 189.927†	234.7	201.0	[100] µg/L	12:34:50
1	Ti 334.940†	42067.7	41228.2	[100] µg/L	12:34:30
1	Tl 190.801†	37.6	64.3	[100] µg/L	12:34:50
1	U 409.014†	1004.7	965.5	[100] µg/L	12:34:30
1	V 292.402†	8290.9	8517.1	[100] µg/L	12:34:30
1	Zn 213.857†	4829.8	4149.0	[100] µg/L	12:34:30
2	Sc RADIAL	56370.4	56370.4	101 %	12:34:09
2	K 766.490 Radial†	1975.6	1425.7	[1000] µg/L	12:34:09
2	Sr 421.552†	7814.9	7745.7	[100] µg/L	12:34:09
2	Sc 361.383	1887689.9	1887689.9	101.03 %	12:34:56
2	Y 371.029	1162739.1	1162739.1	100.98 %	12:34:56
2	Ag 328.068†	10748.6	10848.1	[100] µg/L	12:35:02
2	As 188.979†	55.4	59.1	[100] µg/L	12:35:22
2	B 249.677†	3091.4	2666.9	[100] µg/L	12:35:02
2	Ba 233.527†	3748.8	3756.2	[100] µg/L	12:35:02
2	Be 313.107†	167933.2	162068.2	[100] µg/L	12:34:56
2	Cd 226.502†	3768.3	3862.2	[100] µg/L	12:35:02
2	Co 228.616†	2085.7	2052.7	[100] µg/L	12:35:22
2	Cr 267.716†	4467.4	4562.9	[100] µg/L	12:35:02
2	Cu 324.752†	20110.4	13970.4	[100] µg/L	12:35:02
2	Mn 257.610†	30121.9	30065.0	[100] µg/L	12:35:02
2	Mo 202.031†	895.0	865.6	[100] µg/L	12:35:22
2	Ni 231.604†	2179.7	1826.5	[100] µg/L	12:35:02
2	P 214.914†	595.6	325.2	[500] µg/L	12:35:22
2	Pb 220.353†	469.8	383.9	[100] µg/L	12:35:22
2	S 181.975 Axial†	91.6	57.3	[200] µg/L	12:35:22
2	Sb 206.836†	142.0	116.0	[100] µg/L	12:35:22
2	Se 196.026†	111.1	96.0	[100] µg/L	12:35:22
2	SiO2†	10163.4	6436.0	[1069.5] µg/L	12:35:02
2	Si 251.611†	8079.9	7647.3	[500] µg/L	12:35:02
2	Sn 189.927†	234.9	200.0	[100] µg/L	12:35:22
2	Ti 334.940†	41985.5	40959.0	[100] µg/L	12:35:02
2	Tl 190.801†	32.2	58.7	[100] µg/L	12:35:22
2	U 409.014†	1066.8	1022.5	[100] µg/L	12:35:02
2	V 292.402†	8259.2	8448.7	[100] µg/L	12:35:02

2	Zn 213.857†	4807.5	4105.4	[100] µg/L	12:35:02
3	Sc RADIAL	56668.8	56668.8	102 %	12:34:14
3	K 766.490 Radial†	1938.7	1379.3	[1000] µg/L	12:34:14
3	Sr 421.552†	7821.0	7711.1	[100] µg/L	12:34:14
3	Sc 361.383	1885561.6	1885561.6	100.92 %	12:35:28
3	Y 371.029	1161443.0	1161443.0	100.87 %	12:35:28
3	Ag 328.068†	10754.2	10865.7	[100] µg/L	12:35:33
3	As 188.979†	60.0	63.7	[100] µg/L	12:35:54
3	B 249.677†	3040.6	2620.1	[100] µg/L	12:35:33
3	Ba 233.527†	3739.2	3750.8	[100] µg/L	12:35:33
3	Be 313.107†	167123.8	161453.8	[100] µg/L	12:35:28
3	Cd 226.502†	3736.8	3835.2	[100] µg/L	12:35:33
3	Co 228.616†	2083.2	2052.6	[100] µg/L	12:35:54
3	Cr 267.716†	4482.4	4582.7	[100] µg/L	12:35:33
3	Cu 324.752†	20112.7	13995.1	[100] µg/L	12:35:33
3	Mn 257.610†	30062.3	30039.5	[100] µg/L	12:35:33
3	Mo 202.031†	890.0	861.6	[100] µg/L	12:35:54
3	Ni 231.604†	2199.8	1849.0	[100] µg/L	12:35:33
3	P 214.914†	585.9	316.2	[500] µg/L	12:35:54
3	Pb 220.353†	470.6	385.2	[100] µg/L	12:35:54
3	S 181.975 Axial†	93.1	59.0	[200] µg/L	12:35:54
3	Sb 206.836†	137.0	111.2	[100] µg/L	12:35:54
3	Se 196.026†	114.9	99.9	[100] µg/L	12:35:54
3	SiO2†	10130.8	6415.0	[1069.5] µg/L	12:35:33
3	Si 251.611†	8092.0	7668.4	[500] µg/L	12:35:33
3	Sn 189.927†	232.4	197.8	[100] µg/L	12:35:54
3	Ti 334.940†	41817.5	40839.4	[100] µg/L	12:35:33
3	Tl 190.801†	32.8	59.4	[100] µg/L	12:35:54
3	U 409.014†	1038.9	996.1	[100] µg/L	12:35:33
3	V 292.402†	8219.0	8418.1	[100] µg/L	12:35:33
3	Zn 213.857†	4797.8	4101.1	[100] µg/L	12:35:33

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1884154.4	4410.84	0.23%	100.85 %
Sc RADIAL	56613.9	221.33	0.39%	102 %
Y 371.029	1160689.9	2511.85	0.22%	100.80 %
Ag 328.068†	10886.0	51.18	0.47%	[100] µg/L
As 188.979†	62.3	2.83	4.54%	[100] µg/L
B 249.677†	2646.5	24.01	0.91%	[100] µg/L
Ba 233.527†	3756.7	6.08	0.16%	[100] µg/L
Be 313.107†	161789.5	311.12	0.19%	[100] µg/L
Cd 226.502†	3859.2	22.71	0.59%	[100] µg/L
Co 228.616†	2055.0	4.07	0.20%	[100] µg/L
Cr 267.716†	4601.0	49.82	1.08%	[100] µg/L
Cu 324.752†	14041.2	101.89	0.73%	[100] µg/L
K 766.490 Radial†	1418.5	36.11	2.55%	[1000] µg/L
Mn 257.610†	30142.2	156.30	0.52%	[100] µg/L
Mo 202.031†	863.1	2.16	0.25%	[100] µg/L
Ni 231.604†	1845.0	16.77	0.91%	[100] µg/L
P 214.914†	320.0	4.68	1.46%	[500] µg/L
Pb 220.353†	386.3	3.09	0.80%	[100] µg/L
S 181.975 Axial†	57.1	2.03	3.56%	[200] µg/L
Sb 206.836†	112.1	3.50	3.12%	[100] µg/L
Se 196.026†	99.0	2.63	2.66%	[100] µg/L
SiO2†	6459.9	60.53	0.94%	[1069.5] µg/L
Si 251.611†	7675.0	31.44	0.41%	[500] µg/L
Sn 189.927†	199.6	1.61	0.81%	[100] µg/L
Sr 421.552†	7735.4	21.17	0.27%	[100] µg/L
Ti 334.940†	41008.9	199.15	0.49%	[100] µg/L
Tl 190.801†	60.8	3.01	4.95%	[100] µg/L
U 409.014†	994.7	28.53	2.87%	[100] µg/L
V 292.402†	8461.3	50.69	0.60%	[100] µg/L
Zn 213.857†	4118.5	26.50	0.64%	[100] µg/L

Sequence No.: 3
 Sample ID: S0.5
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 3
 Date Collected: 1/11/2010 12:36:03
 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	56040.3	56040.3	101 %	12:36:36
1	Al 396.153Radial†	6911.3	6829.8	[5000] µg/L	12:36:36
1	Ca 317.933Radial†	5674.3	5427.5	[5000] µg/L	12:36:56
1	K 766.490 Radial†	7958.7	7373.0	[5000] µg/L	12:36:36
1	Mg 279.077 IEC†	418.5	406.6	[5000] µg/L	12:36:56
1	Sr 421.552†	38534.9	38267.8	[500] µg/L	12:36:36
1	Sc 361.383	1899437.1	1899437.1	101.66 %	12:38:00
1	Y 371.029	1168993.8	1168993.8	101.52 %	12:38:00
1	Ag 328.068†	55180.7	54487.5	[500] µg/L	12:38:06
1	As 188.979†	307.8	307.1	[500] µg/L	12:38:26
1	B 249.677†	13625.1	13009.4	[500] µg/L	12:38:06
1	Ba 233.527†	18517.1	18260.0	[500] µg/L	12:38:06
1	Be 313.107†	808890.7	791512.5	[500] µg/L	12:38:00
1	Cd 226.502†	18666.6	18493.6	[500] µg/L	12:38:06
1	Co 228.616†	10350.9	10169.9	[500] µg/L	12:38:06
1	Cr 267.716†	22592.0	22363.6	[500] µg/L	12:38:06
1	Cu 324.752†	76538.3	69352.1	[500] µg/L	12:38:06
1	Mn 257.610†	150708.4	148494.4	[500] µg/L	12:38:00
1	Mo 202.031†	4366.5	4274.8	[500] µg/L	12:38:26
1	Ni 231.604†	9431.3	8946.2	[500] µg/L	12:38:06
1	P 214.914†	1895.5	1600.2	[2500] µg/L	12:38:26
1	Pb 220.353†	2023.6	1909.4	[500] µg/L	12:38:26
1	S 181.975 Axial†	315.4	277.0	[1000] µg/L	12:38:26
1	Sb 206.836†	598.7	564.4	[500] µg/L	12:38:26
1	Se 196.026†	505.9	483.7	[500] µg/L	12:38:26
1	SiO2†	36432.7	32213.4	[5347.5] µg/L	12:38:06
1	Si 251.611†	39185.2	38194.4	[2500] µg/L	12:38:06
1	Sn 189.927†	1069.1	1019.2	[500] µg/L	12:38:26
1	Ti 334.940†	213107.2	209024.3	[500] µg/L	12:38:00
1	Tl 190.801†	302.8	324.7	[500] µg/L	12:38:26
1	U 409.014†	5116.0	4998.9	[500] µg/L	12:38:06
1	V 292.402†	41685.8	41278.0	[500] µg/L	12:38:06
1	Zn 213.857†	20872.9	19878.5	[500] µg/L	12:38:06
2	Sc RADIAL	56295.4	56295.4	101 %	12:37:02
2	Al 396.153Radial†	6943.9	6831.0	[5000] µg/L	12:37:02
2	Ca 317.933Radial†	5704.8	5432.2	[5000] µg/L	12:37:22
2	K 766.490 Radial†	8091.2	7468.1	[5000] µg/L	12:37:02
2	Mg 279.077 IEC†	420.0	406.2	[5000] µg/L	12:37:22
2	Sr 421.552†	38685.0	38242.8	[500] µg/L	12:37:02
2	Sc 361.383	1895511.6	1895511.6	101.45 %	12:38:33
2	Y 371.029	1166274.6	1166274.6	101.28 %	12:38:33
2	Ag 328.068†	55231.8	54650.3	[500] µg/L	12:38:39
2	As 188.979†	303.5	303.4	[500] µg/L	12:39:00
2	B 249.677†	13577.7	12990.4	[500] µg/L	12:38:39
2	Ba 233.527†	18477.7	18258.8	[500] µg/L	12:38:39
2	Be 313.107†	808028.6	792310.4	[500] µg/L	12:38:33
2	Cd 226.502†	18674.1	18539.1	[500] µg/L	12:38:39
2	Co 228.616†	10341.7	10182.0	[500] µg/L	12:38:39
2	Cr 267.716†	22597.9	22415.5	[500] µg/L	12:38:39
2	Cu 324.752†	76724.4	69691.4	[500] µg/L	12:38:39
2	Mn 257.610†	150625.5	148719.7	[500] µg/L	12:38:33
2	Mo 202.031†	4336.1	4253.7	[500] µg/L	12:39:00
2	Ni 231.604†	9435.2	8969.2	[500] µg/L	12:38:39
2	P 214.914†	1879.5	1588.3	[2500] µg/L	12:39:00
2	Pb 220.353†	2027.2	1917.0	[500] µg/L	12:39:00
2	S 181.975 Axial†	312.4	274.6	[1000] µg/L	12:39:00
2	Sb 206.836†	592.4	559.4	[500] µg/L	12:39:00
2	Se 196.026†	512.9	491.6	[500] µg/L	12:39:00
2	SiO2†	36418.4	32273.5	[5347.5] µg/L	12:38:39

2	Si 251.611†	39188.4	38277.3	[2500]	µg/L	12:38:39
2	Sn 189.927†	1053.9	1006.4	[500]	µg/L	12:39:00
2	Ti 334.940†	212957.6	209311.0	[500]	µg/L	12:38:33
2	Tl 190.801†	292.8	315.5	[500]	µg/L	12:39:00
2	U 409.014†	5035.2	4929.7	[500]	µg/L	12:38:39
2	V 292.402†	41670.2	41347.5	[500]	µg/L	12:38:39
2	Zn 213.857†	20885.1	19933.1	[500]	µg/L	12:38:39
3	Sc RADIAL	56279.6	56279.6	101	%	12:37:28
3	Al 396.153Radial†	6918.7	6808.1	[5000]	µg/L	12:37:28
3	Ca 317.933Radial†	5672.1	5401.4	[5000]	µg/L	12:37:48
3	K 766.490 Radial†	8036.8	7416.5	[5000]	µg/L	12:37:28
3	Mg 279.077 IEC†	412.8	399.2	[5000]	µg/L	12:37:48
3	Sr 421.552†	38624.8	38194.1	[500]	µg/L	12:37:28
3	Sc 361.383	1900143.1	1900143.1	101.70	%	12:39:07
3	Y 371.029	1169227.6	1169227.6	101.54	%	12:39:07
3	Ag 328.068†	52534.9	51865.9	[500]	µg/L	12:39:12
3	As 188.979†	259.8	259.7	[500]	µg/L	12:39:33
3	B 249.677†	12875.8	12267.7	[500]	µg/L	12:39:12
3	Ba 233.527†	17168.5	16927.1	[500]	µg/L	12:39:12
3	Be 313.107†	765661.3	748710.4	[500]	µg/L	12:39:07
3	Cd 226.502†	17253.0	17096.9	[500]	µg/L	12:39:12
3	Co 228.616†	9487.6	9317.4	[500]	µg/L	12:39:12
3	Cr 267.716†	20192.5	19996.0	[500]	µg/L	12:39:12
3	Cu 324.752†	70927.0	63806.7	[500]	µg/L	12:39:12
3	Mn 257.610†	142629.6	140495.6	[500]	µg/L	12:39:07
3	Mo 202.031†	3635.5	3554.4	[500]	µg/L	12:39:33
3	Ni 231.604†	8718.7	8242.0	[500]	µg/L	12:39:12
3	P 214.914†	1653.4	1361.5	[2500]	µg/L	12:39:33
3	Pb 220.353†	1756.4	1645.9	[500]	µg/L	12:39:33
3	S 181.975 Axial†	278.8	240.8	[1000]	µg/L	12:39:33
3	Sb 206.836†	514.5	481.4	[500]	µg/L	12:39:33
3	Se 196.026†	439.6	418.3	[500]	µg/L	12:39:33
3	SiO2†	34342.2	30144.5	[5347.5]	µg/L	12:39:12
3	Si 251.611†	36592.4	35630.6	[2500]	µg/L	12:39:12
3	Sn 189.927†	885.2	838.0	[500]	µg/L	12:39:33
3	Ti 334.940†	200594.1	196642.7	[500]	µg/L	12:39:07
3	Tl 190.801†	269.6	291.9	[500]	µg/L	12:39:33
3	U 409.014†	4582.3	4472.2	[500]	µg/L	12:39:12
3	V 292.402†	37970.7	37609.8	[500]	µg/L	12:39:12
3	Zn 213.857†	19232.0	18257.4	[500]	µg/L	12:39:12

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1898363.9	2495.28	0.13%	101.61	%
Sc RADIAL	56205.1	142.94	0.25%	101	%
Y 371.029	1168165.3	1641.56	0.14%	101.45	%
Ag 328.068†	53667.9	1562.74	2.91%	[500]	µg/L
Al 396.153Radial†	6823.0	12.91	0.19%	[5000]	µg/L
As 188.979†	290.0	26.36	9.09%	[500]	µg/L
B 249.677†	12755.8	422.86	3.32%	[500]	µg/L
Ba 233.527†	17815.3	769.21	4.32%	[500]	µg/L
Be 313.107†	777511.1	24945.31	3.21%	[500]	µg/L
Ca 317.933Radial†	5420.4	16.57	0.31%	[5000]	µg/L
Cd 226.502†	18043.2	819.83	4.54%	[500]	µg/L
Co 228.616†	9889.8	495.76	5.01%	[500]	µg/L
Cr 267.716†	21591.7	1382.16	6.40%	[500]	µg/L
Cu 324.752†	67616.7	3303.95	4.89%	[500]	µg/L
K 766.490 Radial†	7419.2	47.58	0.64%	[5000]	µg/L
Mg 279.077 IEC†	404.0	4.15	1.03%	[5000]	µg/L
Mn 257.610†	145903.2	4684.51	3.21%	[500]	µg/L
Mo 202.031†	4027.7	409.96	10.18%	[500]	µg/L
Ni 231.604†	8719.2	413.36	4.74%	[500]	µg/L
P 214.914†	1516.6	134.50	8.87%	[2500]	µg/L
Pb 220.353†	1824.1	154.37	8.46%	[500]	µg/L
S 181.975 Axial†	264.1	20.21	7.65%	[1000]	µg/L
Sb 206.836†	535.0	46.56	8.70%	[500]	µg/L
Se 196.026†	464.5	40.20	8.65%	[500]	µg/L
SiO2†	31543.8	1212.19	3.84%	[5347.5]	µg/L
Si 251.611†	37367.4	1504.69	4.03%	[2500]	µg/L

Sn 189.927†	954.5	101.14	10.60%	[500]	µg/L
Sr 421.552†	38234.9	37.48	0.10%	[500]	µg/L
Ti 334.940†	204992.7	7232.73	3.53%	[500]	µg/L
Tl 190.801†	310.7	16.91	5.44%	[500]	µg/L
U 409.014†	4800.3	286.19	5.96%	[500]	µg/L
V 292.402†	40078.4	2138.18	5.34%	[500]	µg/L
Zn 213.857†	19356.3	952.11	4.92%	[500]	µg/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 1/11/2010 12:39:42

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	57273.3	57273.3	103 %		12:40:15
1	Al 396.153Radial†	14131.0	13690.6	[10000] µg/L		12:40:15
1	Ca 317.933Radial†	11658.2	11115.1	[10000] µg/L		12:40:15
1	Fe 238.204 Radial†	555.4	525.9	[10000] µg/L		12:40:36
1	K 766.490 Radial†	15753.5	14769.6	[10000] µg/L		12:40:15
1	Mg 279.077 IEC†	836.8	803.7	[10000] µg/L		12:40:36
1	Na 589.592 Radial†	23975.5	22876.0	[10000] µg/L		12:40:15
1	Sr 421.552†	79169.6	76889.8	[1000] µg/L		12:40:15
1	Sc 361.383	1898477.2	1898477.2	101.61 %		12:41:40
1	Y 371.029	1165802.9	1165802.9	101.24 %		12:41:40
1	Ag 328.068†	110850.7	109302.0	[1000] µg/L		12:41:46
1	As 188.979†	626.7	621.0	[1000] µg/L		12:42:06
1	B 249.677†	27127.9	26304.7	[1000] µg/L		12:41:46
1	Ba 233.527†	37360.9	36814.1	[1000] µg/L		12:41:46
1	Be 313.107†	1628692.8	1598713.5	[1000] µg/L		12:41:40
1	Cd 226.502†	37752.1	37285.7	[1000] µg/L		12:41:46
1	Co 228.616†	20853.6	20511.2	[1000] µg/L		12:41:46
1	Cr 267.716†	45863.5	45277.2	[1000] µg/L		12:41:46
1	Cu 324.752†	150039.3	141725.3	[1000] µg/L		12:41:46
1	Mn 257.610†	299865.8	295360.9	[1000] µg/L		12:41:46
1	Mo 202.031†	8733.1	8574.3	[1000] µg/L		12:42:06
1	Ni 231.604†	18533.3	17908.5	[1000] µg/L		12:41:46
1	P 214.914†	3589.2	3268.0	[5000] µg/L		12:42:06
1	Pb 220.353†	4053.8	3908.4	[1000] µg/L		12:42:06
1	S 181.975 Axial†	603.6	560.8	[2000] µg/L		12:42:06
1	Sb 206.836†	1172.1	1129.0	[1000] µg/L		12:42:06
1	Se 196.026†	1018.9	988.8	[1000] µg/L		12:42:06
1	SiO2†	68108.0	63404.3	[10695] µg/L		12:41:46
1	Si 251.611†	76535.1	74971.3	[5000] µg/L		12:41:46
1	Sn 189.927†	2136.1	2069.8	[1000] µg/L		12:42:06
1	Ti 334.940†	424935.5	417598.7	[1000] µg/L		12:41:40
1	Tl 190.801†	635.6	652.4	[1000] µg/L		12:42:06
1	U 409.014†	9809.9	9620.9	[1000] µg/L		12:41:46
1	V 292.402†	84601.4	83533.5	[1000] µg/L		12:41:46
1	Zn 213.857†	41238.2	39931.2	[1000] µg/L		12:41:46
2	Sc RADIAL	56980.9	56980.9	102 %		12:40:41
2	Al 396.153Radial†	14092.9	13723.9	[10000] µg/L		12:40:41
2	Ca 317.933Radial†	11619.0	11134.9	[10000] µg/L		12:40:41
2	Fe 238.204 Radial†	561.3	534.4	[10000] µg/L		12:41:02
2	K 766.490 Radial†	15700.0	14795.9	[10000] µg/L		12:40:41
2	Mg 279.077 IEC†	839.0	810.0	[10000] µg/L		12:41:02
2	Na 589.592 Radial†	23997.5	23016.9	[10000] µg/L		12:40:41
2	Sr 421.552†	78851.4	76973.7	[1000] µg/L		12:40:41
2	Sc 361.383	1892551.0	1892551.0	101.29 %		12:42:13
2	Y 371.029	1163821.5	1163821.5	101.07 %		12:42:13
2	Ag 328.068†	111650.6	110433.2	[1000] µg/L		12:42:19
2	As 188.979†	616.9	613.3	[1000] µg/L		12:42:40
2	B 249.677†	27424.7	26681.4	[1000] µg/L		12:42:19
2	Ba 233.527†	37772.6	37335.6	[1000] µg/L		12:42:19
2	Be 313.107†	1628287.6	1603332.5	[1000] µg/L		12:42:13
2	Cd 226.502†	38160.8	37805.6	[1000] µg/L		12:42:19
2	Co 228.616†	21090.7	20809.6	[1000] µg/L		12:42:19
2	Cr 267.716†	46193.7	45744.5	[1000] µg/L		12:42:19
2	Cu 324.752†	151403.6	143534.5	[1000] µg/L		12:42:19
2	Mn 257.610†	302590.2	298974.5	[1000] µg/L		12:42:19
2	Mo 202.031†	8600.9	8470.8	[1000] µg/L		12:42:40
2	Ni 231.604†	18760.9	18190.3	[1000] µg/L		12:42:19
2	P 214.914†	3553.9	3244.2	[5000] µg/L		12:42:40
2	Pb 220.353†	4005.9	3873.6	[1000] µg/L		12:42:40

2	S 181.975 Axial†	594.7	553.9	[2000]	µg/L	12:42:40
2	Sb 206.836†	1164.1	1124.7	[1000]	µg/L	12:42:40
2	Se 196.026†	1018.4	991.4	[1000]	µg/L	12:42:40
2	SiO2†	68694.4	64193.2	[10695]	µg/L	12:42:19
2	Si 251.611†	77283.7	75946.2	[5000]	µg/L	12:42:19
2	Sn 189.927†	2089.4	2030.3	[1000]	µg/L	12:42:40
2	Ti 334.940†	425048.2	419019.5	[1000]	µg/L	12:42:13
2	Tl 190.801†	634.8	653.6	[1000]	µg/L	12:42:40
2	U 409.014†	9986.7	9825.7	[1000]	µg/L	12:42:19
2	V 292.402†	85467.4	84649.2	[1000]	µg/L	12:42:19
2	Zn 213.857†	41677.6	40492.0	[1000]	µg/L	12:42:19
3	Sc RADIAL	57335.8	57335.8	103	%	12:41:08
3	Al 396.153Radial†	14178.0	13721.3	[10000]	µg/L	12:41:08
3	Ca 317.933Radial†	11727.8	11170.3	[10000]	µg/L	12:41:08
3	Fe 238.204 Radial†	556.9	526.8	[10000]	µg/L	12:41:28
3	K 766.490 Radial†	15792.2	14790.4	[10000]	µg/L	12:41:08
3	Mg 279.077 IEC†	841.1	807.0	[10000]	µg/L	12:41:28
3	Na 589.592 Radial†	24149.5	23019.3	[10000]	µg/L	12:41:08
3	Sr 421.552†	79444.8	77073.0	[1000]	µg/L	12:41:08
3	Sc 361.383	1887880.0	1887880.0	101.04	%	12:42:46
3	Y 371.029	1160959.4	1160959.4	100.82	%	12:42:46
3	Ag 328.068†	103695.5	102833.1	[1000]	µg/L	12:42:52
3	As 188.979†	520.2	519.0	[1000]	µg/L	12:43:13
3	B 249.677†	25222.6	24569.0	[1000]	µg/L	12:42:52
3	Ba 233.527†	33784.6	33481.1	[1000]	µg/L	12:42:52
3	Be 313.107†	1499750.1	1480101.0	[1000]	µg/L	12:42:46
3	Cd 226.502†	33941.8	33723.3	[1000]	µg/L	12:42:52
3	Co 228.616†	18571.7	18368.1	[1000]	µg/L	12:42:52
3	Cr 267.716†	39642.4	39373.8	[1000]	µg/L	12:42:52
3	Cu 324.752†	134657.1	127331.0	[1000]	µg/L	12:42:52
3	Mn 257.610†	266978.0	264469.6	[1000]	µg/L	12:42:52
3	Mo 202.031†	7147.4	7053.2	[1000]	µg/L	12:43:13
3	Ni 231.604†	16596.3	16093.9	[1000]	µg/L	12:42:52
3	P 214.914†	3044.2	2748.4	[5000]	µg/L	12:43:13
3	Pb 220.353†	3435.3	3318.7	[1000]	µg/L	12:43:13
3	S 181.975 Axial†	521.0	482.3	[2000]	µg/L	12:43:13
3	Sb 206.836†	991.7	956.9	[1000]	µg/L	12:43:13
3	Se 196.026†	876.2	853.2	[1000]	µg/L	12:43:13
3	SiO2†	62573.0	58302.8	[10695]	µg/L	12:42:52
3	Si 251.611†	70027.7	68954.0	[5000]	µg/L	12:42:52
3	Sn 189.927†	1710.7	1660.6	[1000]	µg/L	12:43:13
3	Ti 334.940†	388499.0	383886.3	[1000]	µg/L	12:42:46
3	Tl 190.801†	555.0	576.1	[1000]	µg/L	12:43:13
3	U 409.014†	8544.3	8422.6	[1000]	µg/L	12:42:52
3	V 292.402†	74988.5	74487.4	[1000]	µg/L	12:42:52
3	Zn 213.857†	36866.9	35832.9	[1000]	µg/L	12:42:52

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1892969.4	5310.98	0.28%	101.32 %
Sc RADIAL	57196.7	189.47	0.33%	103 %
Y 371.029	1163527.9	2435.02	0.21%	101.05 %
Ag 328.068†	107522.8	4100.55	3.81%	[1000] µg/L
Al 396.153Radial†	13711.9	18.52	0.14%	[10000] µg/L
As 188.979†	584.4	56.78	9.72%	[1000] µg/L
B 249.677†	25851.7	1126.72	4.36%	[1000] µg/L
Ba 233.527†	35876.9	2091.18	5.83%	[1000] µg/L
Be 313.107†	1560715.7	69852.53	4.48%	[1000] µg/L
Ca 317.933Radial†	11140.1	27.94	0.25%	[10000] µg/L
Cd 226.502†	36271.5	2222.07	6.13%	[1000] µg/L
Co 228.616†	19896.3	1331.83	6.69%	[1000] µg/L
Cr 267.716†	43465.2	3550.91	8.17%	[1000] µg/L
Cu 324.752†	137530.3	8879.03	6.46%	[1000] µg/L
Fe 238.204 Radial†	529.0	4.66	0.88%	[10000] µg/L
K 766.490 Radial†	14785.3	13.86	0.09%	[10000] µg/L
Mg 279.077 IEC†	806.9	3.16	0.39%	[10000] µg/L
Mn 257.610†	286268.3	18964.56	6.62%	[1000] µg/L
Mo 202.031†	8032.8	849.89	10.58%	[1000] µg/L
Na 589.592 Radial†	22970.7	82.07	0.36%	[10000] µg/L

Ni 231.604†	17397.6	1137.78	6.54%	[1000]	µg/L
P 214.914†	3086.9	293.33	9.50%	[5000]	µg/L
Pb 220.353†	3700.2	330.87	8.94%	[1000]	µg/L
S 181.975 Axial†	532.3	43.44	8.16%	[2000]	µg/L
Sb 206.836†	1070.2	98.13	9.17%	[1000]	µg/L
Se 196.026†	944.5	79.04	8.37%	[1000]	µg/L
SiO2†	61966.7	3197.50	5.16%	[10695]	µg/L
Si 251.611†	73290.5	3787.02	5.17%	[5000]	µg/L
Sn 189.927†	1920.2	225.72	11.76%	[1000]	µg/L
Sr 421.552†	76978.9	91.68	0.12%	[1000]	µg/L
Ti 334.940†	406834.8	19886.67	4.89%	[1000]	µg/L
Tl 190.801†	627.4	44.39	7.08%	[1000]	µg/L
U 409.014†	9289.7	757.90	8.16%	[1000]	µg/L
V 292.402†	80890.0	5572.84	6.89%	[1000]	µg/L
Zn 213.857†	38752.0	2543.53	6.56%	[1000]	µg/L

Sequence No.: 5

Sample ID: S10

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 1/11/2010 12:43:22

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	55973.6	55973.6	101 %	12:43:55
1	Al 396.153Radial†	68447.1	67959.3	[50000] µg/L	12:43:55
1	Ca 317.933Radial†	55367.4	54792.6	[50000] µg/L	12:43:55
1	Fe 238.204 Radial†	1096.5	1075.9	[20000] µg/L	12:44:15
1	Mg 279.077 IEC†	4066.4	4030.4	[50000] µg/L	12:44:15
1	Na 589.592 Radial†	46993.8	46279.6	[20000] µg/L	12:43:55
1	Sc 361.383	1883698.1	1883698.1	100.82 %	12:45:19
1	Y 371.029	1150893.4	1150893.4	99.949 %	12:45:19
2	Sc RADIAL	56186.8	56186.8	101 %	12:44:21
2	Al 396.153Radial†	68965.9	68214.7	[50000] µg/L	12:44:21
2	Ca 317.933Radial†	55914.0	55124.8	[50000] µg/L	12:44:21
2	Fe 238.204 Radial†	1096.4	1071.7	[20000] µg/L	12:44:41
2	Mg 279.077 IEC†	4069.3	4018.0	[50000] µg/L	12:44:41
2	Na 589.592 Radial†	47412.0	46516.3	[20000] µg/L	12:44:21
2	Sc 361.383	1884626.9	1884626.9	100.87 %	12:45:27
2	Y 371.029	1151761.5	1151761.5	100.02 %	12:45:27
3	Sc RADIAL	56187.5	56187.5	101 %	12:44:46
3	Al 396.153Radial†	68673.2	67924.3	[50000] µg/L	12:44:46
3	Ca 317.933Radial†	55591.5	54805.0	[50000] µg/L	12:44:46
3	Fe 238.204 Radial†	1096.3	1071.5	[20000] µg/L	12:45:07
3	Mg 279.077 IEC†	4074.7	4023.3	[50000] µg/L	12:45:07
3	Na 589.592 Radial†	47192.9	46299.0	[20000] µg/L	12:44:46
3	Sc 361.383	1895196.0	1895196.0	101.44 %	12:45:34
3	Y 371.029	1157968.0	1157968.0	100.56 %	12:45:34

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1887840.3	6387.09	0.34%	101.04 %
Sc RADIAL	56116.0	123.26	0.22%	101 %
Y 371.029	1153541.0	3858.45	0.33%	100.18 %
Al 396.153Radial†	68032.8	158.53	0.23%	[50000] µg/L
Ca 317.933Radial†	54907.5	188.30	0.34%	[50000] µg/L
Fe 238.204 Radial†	1073.0	2.47	0.23%	[20000] µg/L
Mg 279.077 IEC†	4023.9	6.22	0.15%	[50000] µg/L
Na 589.592 Radial†	46365.0	131.44	0.28%	[20000] µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	107.5	0.00000	0.999999	
Al 396.153Radial	3	Lin Thru 0	0.0	1.361	0.00000	0.999999	
As 188.979	3	Lin Thru 0	0.0	0.5839	0.00000	0.999977	
B 249.677	3	Lin Thru 0	0.0	25.79	0.00000	0.999983	
Ba 233.527	3	Lin Thru 0	0.0	35.84	0.00000	0.999987	
Be 313.107	3	Lin Thru 0	0.0	1560	0.00000	0.999993	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.099	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	36.25	0.00000	0.999981	
Co 228.616	3	Lin Thru 0	0.0	19.88	0.00000	0.999993	
Cr 267.716	3	Lin Thru 0	0.0	43.43	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	137.1	0.00000	0.999975	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0535	0.00000	0.999984	
K 766.490 Radial	3	Lin Thru 0	0.0	1.479	0.00000	0.999992	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0805	0.00000	1.000000	
Mn 257.610	3	Lin Thru 0	0.0	287.5	0.00000	0.999961	
Mo 202.031	3	Lin Thru 0	0.0	8.042	0.00000	0.999978	
Na 589.592 Radia	2	Lin Thru 0	0.0	2.314	0.00000	0.999993	

Ni 231.604	3	Lin Thru 0	0.0	17.41	0.00000	0.999985
P 214.914	3	Lin Thru 0	0.0	0.6154	0.00000	0.999970
Pb 220.353	3	Lin Thru 0	0.0	3.691	0.00000	0.999976
S 181.975 Axial	3	Lin Thru 0	0.0	0.2659	0.00000	0.999974
Sb 206.836	3	Lin Thru 0	0.0	1.071	0.00000	0.999991
Se 196.026	3	Lin Thru 0	0.0	0.9418	0.00000	0.999968
SiO2	3	Lin Thru 0	0.0	5.817	0.00000	0.999968
Si 251.611	3	Lin Thru 0	0.0	14.72	0.00000	0.999962
Sn 189.927	3	Lin Thru 0	0.0	1.919	0.00000	0.999991
Sr 421.552	3	Lin Thru 0	0.0	76.88	0.00000	0.999996
Ti 334.940	3	Lin Thru 0	0.0	407.5	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	0.6260	0.00000	0.999990
U 409.014	3	Lin Thru 0	0.0	9.357	0.00000	0.999897
V 292.402	3	Lin Thru 0	0.0	80.77	0.00000	0.999984
Zn 213.857	3	Lin Thru 0	0.0	38.76	0.00000	0.999984

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 1/11/2010 12:45:43

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	56216.6	56216.6	101 %		12:46:17
1	Al 396.153Radial†	6942.0	6838.7	5002.3 µg/L	5002.3 ppb	12:46:17
1	Ca 317.933Radial†	5621.4	5357.6	4876.7 µg/L	4876.7 ppb	12:46:37
1	Fe 238.204 Radial†	289.3	272.8	5117.1 µg/L	5117.1 ppb	12:46:37
1	K 766.490 Radial†	4288.2	3718.2	2513.8 µg/L	2513.8 ppb	12:46:17
1	Mg 279.077 IEC†	423.3	410.1	5101.8 µg/L	5101.8 ppb	12:46:37
1	Na 589.592 Radial†	6164.6	5698.9	2462.8 µg/L	2462.8 ppb	12:46:17
1	Sr 421.552†	40359.0	39952.0	519.66 µg/L	519.66 ppb	12:46:17
1	Sc 361.383	1867501.5	1867501.5	99.954 %		12:47:40
1	Y 371.029	1147640.0	1147640.0	99.666 %		12:47:40
1	Ag 328.068†	28288.5	28511.1	269.28 µg/L	269.28 ppb	12:47:45
1	As 188.979†	292.3	296.7	509.25 µg/L	509.25 ppb	12:48:06
1	B 249.677†	14232.9	13846.7	535.32 µg/L	535.32 ppb	12:47:45
1	Ba 233.527†	18851.0	18905.5	528.59 µg/L	528.59 ppb	12:47:45
1	Be 313.107†	426047.3	422098.4	270.38 µg/L	270.38 ppb	12:47:40
1	Cd 226.502†	18754.2	18895.3	521.44 µg/L	521.44 ppb	12:47:45
1	Co 228.616†	10535.9	10529.1	529.95 µg/L	529.95 ppb	12:47:45
1	Cr 267.716†	22203.0	22354.4	515.98 µg/L	515.98 ppb	12:47:45
1	Cu 324.752†	77463.9	71565.5	522.47 µg/L	522.47 ppb	12:47:45
1	Mn 257.610†	154195.5	154518.2	538.12 µg/L	538.12 ppb	12:47:40
1	Mo 202.031†	4693.0	4674.9	581.51 µg/L	581.51 ppb	12:48:06
1	Ni 231.604†	9468.9	9142.4	524.98 µg/L	524.98 ppb	12:47:45
1	P 214.914†	1916.7	1653.3	2630.8 µg/L	2630.8 ppb	12:48:06
1	Pb 220.353†	2010.9	1930.7	523.72 µg/L	523.72 ppb	12:48:06
1	S 181.975 Axial†	736.4	703.4	2643.8 µg/L	2643.8 ppb	12:48:06
1	Sb 206.836†	596.9	572.7	533.59 µg/L	533.59 ppb	12:48:06
1	Se 196.026†	2486.2	2473.4	2629.7 µg/L	2629.7 ppb	12:48:06
1	SiO2†	65776.9	62183.9	10691 µg/L	10691 ppb	12:47:45
1	Si 251.611†	73713.0	73397.2	4933.9 µg/L	4933.9 ppb	12:47:45
1	Sn 189.927†	1152.9	1121.0	585.61 µg/L	585.61 ppb	12:48:06
1	Ti 334.940†	211037.0	210537.8	516.39 µg/L	516.39 ppb	12:47:40
1	Tl 190.801†	308.2	335.2	538.11 µg/L	538.11 ppb	12:48:06
1	U 409.014†	4924.6	4893.5	521.75 µg/L	521.75 ppb	12:47:45
1	V 292.402†	42772.0	43065.8	538.21 µg/L	538.21 ppb	12:47:45
1	Zn 213.857†	21389.8	20746.8	530.34 µg/L	530.34 ppb	12:47:45
2	Sc RADIAL	55962.4	55962.4	101 %		12:46:43
2	Al 396.153Radial†	6909.3	6837.4	5001.4 µg/L	5001.4 ppb	12:46:43
2	Ca 317.933Radial†	5634.6	5395.9	4911.6 µg/L	4911.6 ppb	12:47:03
2	Fe 238.204 Radial†	286.4	271.3	5087.9 µg/L	5087.9 ppb	12:47:03
2	K 766.490 Radial†	4249.5	3699.0	2500.9 µg/L	2500.9 ppb	12:46:43
2	Mg 279.077 IEC†	425.0	413.6	5145.8 µg/L	5145.8 ppb	12:47:03
2	Na 589.592 Radial†	6109.8	5672.3	2451.3 µg/L	2451.3 ppb	12:46:43
2	Sr 421.552†	40056.2	39832.4	518.11 µg/L	518.11 ppb	12:46:43
2	Sc 361.383	1858674.8	1858674.8	99.481 %		12:48:12
2	Y 371.029	1142776.4	1142776.4	99.244 %		12:48:12
2	Ag 328.068†	28398.9	28756.5	271.61 µg/L	271.61 ppb	12:48:17
2	As 188.979†	291.9	297.7	510.93 µg/L	510.93 ppb	12:48:38
2	B 249.677†	14321.9	14003.7	541.41 µg/L	541.41 ppb	12:48:17
2	Ba 233.527†	18967.6	19112.3	534.38 µg/L	534.38 ppb	12:48:17
2	Be 313.107†	424601.4	422669.2	270.74 µg/L	270.74 ppb	12:48:12
2	Cd 226.502†	18898.3	19129.2	527.91 µg/L	527.91 ppb	12:48:17
2	Co 228.616†	10578.0	10621.5	534.60 µg/L	534.60 ppb	12:48:17
2	Cr 267.716†	22382.9	22640.7	522.59 µg/L	522.59 ppb	12:48:17
2	Cu 324.752†	77858.2	72329.9	528.04 µg/L	528.04 ppb	12:48:17
2	Mn 257.610†	153260.1	154310.4	537.39 µg/L	537.39 ppb	12:48:12
2	Mo 202.031†	4656.2	4660.3	579.69 µg/L	579.69 ppb	12:48:38
2	Ni 231.604†	9511.6	9230.4	530.03 µg/L	530.03 ppb	12:48:17
2	P 214.914†	1913.4	1659.1	2639.7 µg/L	2639.7 ppb	12:48:38
2	Pb 220.353†	2019.5	1948.9	528.62 µg/L	528.62 ppb	12:48:38

2	S 181.975 Axial†	736.8	707.4	2658.7 µg/L	2658.7 ppb	12:48:38
2	Sb 206.836†	599.8	578.4	538.92 µg/L	538.92 ppb	12:48:38
2	Se 196.026†	2484.3	2483.3	2640.2 µg/L	2640.2 ppb	12:48:38
2	SiO2†	66120.7	62842.0	10804 µg/L	10804 ppb	12:48:17
2	Si 251.611†	74116.0	74152.6	4985.2 µg/L	4985.2 ppb	12:48:17
2	Sn 189.927†	1146.3	1119.9	585.03 µg/L	585.03 ppb	12:48:38
2	Ti 334.940†	210239.6	210738.9	516.88 µg/L	516.88 ppb	12:48:12
2	Tl 190.801†	306.7	335.2	537.97 µg/L	537.97 ppb	12:48:38
2	U 409.014†	5040.3	5033.1	536.68 µg/L	536.68 ppb	12:48:17
2	V 292.402†	43143.3	43642.3	545.36 µg/L	545.36 ppb	12:48:17
2	Zn 213.857†	21523.4	20982.7	536.40 µg/L	536.40 ppb	12:48:17
3	Sc RADIAL	56552.0	56552.0	102 %		12:47:08
3	Al 396.153Radial†	7023.9	6878.6	5035.2 µg/L	5035.2 ppb	12:47:08
3	Ca 317.933Radial†	5637.0	5340.0	4860.6 µg/L	4860.6 ppb	12:47:29
3	Fe 238.204 Radial†	279.5	261.5	4903.8 µg/L	4903.8 ppb	12:47:29
3	K 766.490 Radial†	4267.2	3672.4	2482.9 µg/L	2482.9 ppb	12:47:08
3	Mg 279.077 IEC†	424.8	409.1	5087.3 µg/L	5087.3 ppb	12:47:29
3	Na 589.592 Radial†	6139.5	5638.1	2436.5 µg/L	2436.5 ppb	12:47:08
3	Sr 421.552†	40626.6	39978.3	520.00 µg/L	520.00 ppb	12:47:08
3	Sc 361.383	1875137.6	1875137.6	100.36 %		12:48:44
3	Y 371.029	1152619.1	1152619.1	100.10 %		12:48:44
3	Ag 328.068†	26937.6	27049.8	255.33 µg/L	255.33 ppb	12:48:50
3	As 188.979†	246.4	249.7	428.85 µg/L	428.85 ppb	12:49:10
3	B 249.677†	13541.8	13100.0	506.43 µg/L	506.43 ppb	12:48:50
3	Ba 233.527†	17483.3	17466.0	488.33 µg/L	488.33 ppb	12:48:50
3	Be 313.107†	403148.9	397546.9	254.65 µg/L	254.65 ppb	12:48:44
3	Cd 226.502†	17279.4	17349.4	478.73 µg/L	478.73 ppb	12:48:50
3	Co 228.616†	9676.7	9630.2	484.58 µg/L	484.58 ppb	12:48:50
3	Cr 267.716†	19862.3	19931.7	460.08 µg/L	460.08 ppb	12:48:50
3	Cu 324.752†	71465.0	65272.8	476.55 µg/L	476.55 ppb	12:48:50
3	Mn 257.610†	145967.2	145691.3	507.39 µg/L	507.39 ppb	12:48:44
3	Mo 202.031†	3949.9	3915.4	487.07 µg/L	487.07 ppb	12:49:10
3	Ni 231.604†	8717.6	8355.3	479.78 µg/L	479.78 ppb	12:48:50
3	P 214.914†	1679.8	1409.4	2238.2 µg/L	2238.2 ppb	12:49:10
3	Pb 220.353†	1763.3	1675.8	454.50 µg/L	454.50 ppb	12:49:10
3	S 181.975 Axial†	671.9	636.2	2391.2 µg/L	2391.2 ppb	12:49:10
3	Sb 206.836†	518.4	492.0	458.49 µg/L	458.49 ppb	12:49:10
3	Se 196.026†	2204.7	2182.8	2321.1 µg/L	2321.1 ppb	12:49:10
3	SiO2†	61924.2	58077.1	9984.5 µg/L	9984.5 ppb	12:48:50
3	Si 251.611†	69043.8	68444.6	4604.3 µg/L	4604.3 ppb	12:48:50
3	Sn 189.927†	957.9	922.0	481.90 µg/L	481.90 ppb	12:49:10
3	Ti 334.940†	198337.3	197024.2	483.23 µg/L	483.23 ppb	12:48:44
3	Tl 190.801†	286.2	312.0	501.01 µg/L	501.01 ppb	12:49:10
3	U 409.014†	4350.5	4301.4	458.51 µg/L	458.51 ppb	12:48:50
3	V 292.402†	38940.3	39073.8	488.02 µg/L	488.02 ppb	12:48:50
3	Zn 213.857†	19723.5	18999.3	485.62 µg/L	485.62 ppb	12:48:50

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1867104.6	99.933 %	0.4410			0.44%
Sc RADIAL	56243.7	101 %	0.5			0.53%
Y 371.029	1147678.5	99.670 %	0.4274			0.43%
Ag 328.068†	28105.8	265.41 µg/L	8.804	265.41 ppb	8.804	3.32%
QC value within limits for Ag 328.068 Recovery = 106.16%						
Al 396.153Radial†	6851.6	5013.0 µg/L	19.24	5013.0 ppb	19.24	0.38%
QC value within limits for Al 396.153Radial Recovery = 100.26%						
As 188.979†	281.4	483.01 µg/L	46.913	483.01 ppb	46.913	9.71%
QC value within limits for As 188.979 Recovery = 96.60%						
B 249.677†	13650.1	527.72 µg/L	18.687	527.72 ppb	18.687	3.54%
QC value within limits for B 249.677 Recovery = 105.54%						
Ba 233.527†	18494.6	517.10 µg/L	25.086	517.10 ppb	25.086	4.85%
QC value within limits for Ba 233.527 Recovery = 103.42%						
Be 313.107†	414104.9	265.26 µg/L	9.186	265.26 ppb	9.186	3.46%
QC value within limits for Be 313.107 Recovery = 106.10%						
Ca 317.933Radial†	5364.5	4883.0 µg/L	26.04	4883.0 ppb	26.04	0.53%
QC value within limits for Ca 317.933Radial Recovery = 97.66%						
Cd 226.502†	18458.0	509.36 µg/L	26.721	509.36 ppb	26.721	5.25%
QC value within limits for Cd 226.502 Recovery = 101.87%						
Co 228.616†	10260.3	516.38 µg/L	27.634	516.38 ppb	27.634	5.35%

QC value within limits for Co 228.616 Recovery = 103.28%							
Cr 267.716†	21642.3	499.55 µg/L	34.341	499.55 ppb	34.341	6.87%	
QC value within limits for Cr 267.716 Recovery = 99.91%							
Cu 324.752†	69722.7	509.02 µg/L	28.258	509.02 ppb	28.258	5.55%	
QC value within limits for Cu 324.752 Recovery = 101.80%							
Fe 238.204 Radial†	268.5	5036.2 µg/L	115.65	5036.2 ppb	115.65	2.30%	
QC value within limits for Fe 238.204 Radial Recovery = 100.72%							
K 766.490 Radial†	3696.6	2499.2 µg/L	15.54	2499.2 ppb	15.54	0.62%	
QC value within limits for K 766.490 Radial Recovery = 99.97%							
Mg 279.077 IEC†	410.9	5111.6 µg/L	30.45	5111.6 ppb	30.45	0.60%	
QC value within limits for Mg 279.077 IEC Recovery = 102.23%							
Mn 257.610†	151506.6	527.63 µg/L	17.536	527.63 ppb	17.536	3.32%	
QC value within limits for Mn 257.610 Recovery = 105.53%							
Mo 202.031†	4416.9	549.42 µg/L	54.010	549.42 ppb	54.010	9.83%	
QC value within limits for Mo 202.031 Recovery = 109.88%							
Na 589.592 Radial†	5669.8	2450.2 µg/L	13.17	2450.2 ppb	13.17	0.54%	
QC value within limits for Na 589.592 Radial Recovery = 98.01%							
Ni 231.604†	8909.4	511.60 µg/L	27.670	511.60 ppb	27.670	5.41%	
QC value within limits for Ni 231.604 Recovery = 102.32%							
P 214.914†	1573.9	2502.9 µg/L	229.24	2502.9 ppb	229.24	9.16%	
QC value within limits for P 214.914 Recovery = 100.12%							
Pb 220.353†	1851.8	502.28 µg/L	41.448	502.28 ppb	41.448	8.25%	
QC value within limits for Pb 220.353 Recovery = 100.46%							
S 181.975 Axial†	682.3	2564.6 µg/L	150.32	2564.6 ppb	150.32	5.86%	
QC value within limits for S 181.975 Axial Recovery = 102.58%							
Sb 206.836†	547.7	510.33 µg/L	44.980	510.33 ppb	44.980	8.81%	
QC value within limits for Sb 206.836 Recovery = 102.07%							
Se 196.026†	2379.8	2530.4 µg/L	181.30	2530.4 ppb	181.30	7.16%	
QC value within limits for Se 196.026 Recovery = 101.21%							
SiO2†	61034.3	10493 µg/L	443.9	10493 ppb	443.9	4.23%	
QC value within limits for SiO2 Recovery = 98.11%							
Si 251.611†	71998.1	4841.1 µg/L	206.73	4841.1 ppb	206.73	4.27%	
QC value within limits for Si 251.611 Recovery = 96.82%							
Sn 189.927†	1054.3	550.85 µg/L	59.708	550.85 ppb	59.708	10.84%	
QC value greater than the upper limit for Sn 189.927 Recovery = 110.17%							
Sr 421.552†	39920.9	519.26 µg/L	1.011	519.26 ppb	1.011	0.19%	
QC value within limits for Sr 421.552 Recovery = 103.85%							
Ti 334.940†	206100.3	505.50 µg/L	19.290	505.50 ppb	19.290	3.82%	
QC value within limits for Ti 334.940 Recovery = 101.10%							
Tl 190.801†	327.5	525.69 µg/L	21.380	525.69 ppb	21.380	4.07%	
QC value within limits for Tl 190.801 Recovery = 105.14%							
U 409.014†	4742.7	505.65 µg/L	41.497	505.65 ppb	41.497	8.21%	
QC value within limits for U 409.014 Recovery = 101.13%							
V 292.402†	41927.3	523.86 µg/L	31.245	523.86 ppb	31.245	5.96%	
QC value within limits for V 292.402 Recovery = 104.77%							
Zn 213.857†	20242.9	517.45 µg/L	27.735	517.45 ppb	27.735	5.36%	
QC value within limits for Zn 213.857 Recovery = 103.49%							
QC Failed. Continue with analysis.							

Sequence No.: 7
 Sample ID: ICB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 10
 Date Collected: 1/11/2010 12:49:36
 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	55291.3	55291.3	99.5 %		12:50:09
1	Al 396.153Radial†	21.7	-4.9	-3.6103 µg/L	-3.6103 ppb	12:50:09
1	Ca 317.933Radial†	203.9	3.3	2.9779 µg/L	2.9779 ppb	12:50:29
1	Fe 238.204 Radial†	15.3	2.2	40.985 µg/L	40.985 ppb	12:50:29
1	K 766.490 Radial†	483.8	-36.2	-24.480 µg/L	-24.480 ppb	12:50:09
1	Mg 279.077 IEC†	11.2	2.7	33.801 µg/L	33.801 ppb	12:50:29
1	Na 589.592 Radial†	431.1	35.8	15.489 µg/L	15.489 ppb	12:50:09
1	Sr 421.552†	-5.1	32.9	0.4278 µg/L	0.4278 ppb	12:50:09
1	Sc 361.383	1865086.0	1865086.0	99.825 %		12:51:31
1	Y 371.029	1148556.9	1148556.9	99.746 %		12:51:31
1	Ag 328.068†	-220.0	-10.8	-0.0996 µg/L	-0.0996 ppb	12:51:37
1	As 188.979†	-6.8	-2.6	-4.3760 µg/L	-4.3760 ppb	12:51:57
1	B 249.677†	424.5	32.4	1.2432 µg/L	1.2432 ppb	12:51:37
1	Ba 233.527†	-42.7	3.0	0.0832 µg/L	0.0832 ppb	12:51:57
1	Be 313.107†	4190.7	52.4	0.0336 µg/L	0.0336 ppb	12:51:31
1	Cd 226.502†	-128.0	4.2	0.1068 µg/L	0.1068 ppb	12:51:57
1	Co 228.616†	12.7	1.2	0.0589 µg/L	0.0589 ppb	12:51:57
1	Cr 267.716†	-160.2	-19.4	-0.4466 µg/L	-0.4466 ppb	12:51:37
1	Cu 324.752†	5996.1	72.6	0.5330 µg/L	0.5330 ppb	12:51:37
1	Mn 257.610†	-240.6	10.4	0.0412 µg/L	0.0412 ppb	12:51:37
1	Mo 202.031†	22.9	2.7	0.3357 µg/L	0.3357 ppb	12:51:57
1	Ni 231.604†	324.8	-5.4	-0.3103 µg/L	-0.3103 ppb	12:51:57
1	P 214.914†	266.4	2.6	4.1316 µg/L	4.1316 ppb	12:51:57
1	Pb 220.353†	77.2	-3.8	-1.0258 µg/L	-1.0258 ppb	12:51:57
1	S 181.975 Axial†	39.7	6.4	24.154 µg/L	24.154 ppb	12:51:57
1	Sb 206.836†	29.3	4.8	4.5266 µg/L	4.5266 ppb	12:51:57
1	Se 196.026†	8.6	-5.3	-5.6671 µg/L	-5.6671 ppb	12:51:57
1	SiO2†	3633.1	16.1	2.7680 µg/L	2.7680 ppb	12:51:37
1	Si 251.611†	370.7	21.6	1.4961 µg/L	1.4961 ppb	12:51:57
1	Sn 189.927†	31.1	-1.3	-0.6678 µg/L	-0.6678 ppb	12:51:57
1	Ti 334.940†	588.4	-7.3	-0.0180 µg/L	-0.0180 ppb	12:51:37
1	Tl 190.801†	-27.4	-0.6	-0.9224 µg/L	-0.9224 ppb	12:51:57
1	U 409.014†	8.7	-24.6	-2.6404 µg/L	-2.6404 ppb	12:51:37
1	V 292.402†	-299.0	-25.5	-0.3165 µg/L	-0.3165 ppb	12:51:37
1	Zn 213.857†	646.4	-5.4	-0.1496 µg/L	-0.1496 ppb	12:51:57
2	Sc RADIAL	54797.2	54797.2	98.6 %		12:50:35
2	Al 396.153Radial†	27.3	1.0	0.7338 µg/L	0.7338 ppb	12:50:35
2	Ca 317.933Radial†	205.5	6.7	6.0659 µg/L	6.0659 ppb	12:50:55
2	Fe 238.204 Radial†	15.3	2.3	42.296 µg/L	42.296 ppb	12:50:55
2	K 766.490 Radial†	531.5	16.6	11.208 µg/L	11.208 ppb	12:50:35
2	Mg 279.077 IEC†	8.3	-0.2	-1.9552 µg/L	-1.9552 ppb	12:50:55
2	Na 589.592 Radial†	399.2	7.3	3.1702 µg/L	3.1702 ppb	12:50:35
2	Sr 421.552†	-19.1	18.7	0.2428 µg/L	0.2428 ppb	12:50:35
2	Sc 361.383	1859392.6	1859392.6	99.520 %		12:52:03
2	Y 371.029	1146261.6	1146261.6	99.547 %		12:52:03
2	Ag 328.068†	-233.1	-24.7	-0.2266 µg/L	-0.2266 ppb	12:52:09
2	As 188.979†	-3.1	1.1	1.9397 µg/L	1.9397 ppb	12:52:29
2	B 249.677†	436.4	45.7	1.7585 µg/L	1.7585 ppb	12:52:09
2	Ba 233.527†	-44.8	0.8	0.0228 µg/L	0.0228 ppb	12:52:29
2	Be 313.107†	4238.3	113.0	0.0724 µg/L	0.0724 ppb	12:52:03
2	Cd 226.502†	-125.6	6.2	0.1621 µg/L	0.1621 ppb	12:52:29
2	Co 228.616†	19.4	7.9	0.3959 µg/L	0.3959 ppb	12:52:29
2	Cr 267.716†	-140.6	-0.1	-0.0030 µg/L	-0.0030 ppb	12:52:09
2	Cu 324.752†	5972.0	66.7	0.4903 µg/L	0.4903 ppb	12:52:09
2	Mn 257.610†	-214.0	36.4	0.1318 µg/L	0.1318 ppb	12:52:09
2	Mo 202.031†	14.0	-6.2	-0.7631 µg/L	-0.7631 ppb	12:52:29
2	Ni 231.604†	335.2	6.0	0.3460 µg/L	0.3460 ppb	12:52:29
2	P 214.914†	269.1	6.1	9.8306 µg/L	9.8306 ppb	12:52:29
2	Pb 220.353†	77.1	-3.6	-0.9830 µg/L	-0.9830 ppb	12:52:29

2	S 181.975 Axial†	35.6	2.5	9.2844 µg/L	9.2844 ppb	12:52:29
2	Sb 206.836†	30.5	6.1	5.7318 µg/L	5.7318 ppb	12:52:29
2	Se 196.026†	14.6	0.7	0.7499 µg/L	0.7499 ppb	12:52:29
2	SiO2†	3654.2	48.5	8.3305 µg/L	8.3305 ppb	12:52:09
2	Si 251.611†	372.4	24.4	1.6626 µg/L	1.6626 ppb	12:52:29
2	Sn 189.927†	32.3	0.0	0.0094 µg/L	0.0094 ppb	12:52:29
2	Ti 334.940†	596.9	3.2	0.0074 µg/L	0.0074 ppb	12:52:09
2	Tl 190.801†	-26.9	-0.1	-0.2045 µg/L	-0.2045 ppb	12:52:29
2	U 409.014†	-10.9	-44.4	-4.7497 µg/L	-4.7497 ppb	12:52:09
2	V 292.402†	-275.5	-2.8	-0.0466 µg/L	-0.0466 ppb	12:52:09
2	Zn 213.857†	646.9	-2.9	-0.0881 µg/L	-0.0881 ppb	12:52:29
3	Sc RADIAL	55645.5	55645.5	100 %		12:51:01
3	Al 396.153Radial†	-3.7	-30.4	-22.369 µg/L	-22.369 ppb	12:51:01
3	Ca 317.933Radial†	196.3	-5.6	-5.1168 µg/L	-5.1168 ppb	12:51:21
3	Fe 238.204 Radial†	14.9	1.7	30.870 µg/L	30.870 ppb	12:51:21
3	K 766.490 Radial†	554.9	31.7	21.455 µg/L	21.455 ppb	12:51:01
3	Mg 279.077 IEC†	9.8	1.3	15.517 µg/L	15.517 ppb	12:51:21
3	Na 589.592 Radial†	435.2	37.2	16.066 µg/L	16.066 ppb	12:51:01
3	Sr 421.552†	12.7	50.7	0.6595 µg/L	0.6595 ppb	12:51:01
3	Sc 361.383	1870117.7	1870117.7	100.09 %		12:52:35
3	Y 371.029	1152035.4	1152035.4	100.05 %		12:52:35
3	Ag 328.068†	-188.8	20.9	0.2003 µg/L	0.2003 ppb	12:52:41
3	As 188.979†	-2.5	1.8	3.0435 µg/L	3.0435 ppb	12:53:01
3	B 249.677†	415.2	22.0	0.8416 µg/L	0.8416 ppb	12:52:41
3	Ba 233.527†	-36.1	9.7	0.2723 µg/L	0.2723 ppb	12:53:01
3	Be 313.107†	4171.7	22.1	0.0142 µg/L	0.0142 ppb	12:52:35
3	Cd 226.502†	-127.2	5.4	0.1455 µg/L	0.1455 ppb	12:53:01
3	Co 228.616†	5.8	-5.8	-0.2898 µg/L	-0.2898 ppb	12:53:01
3	Cr 267.716†	-152.0	-10.7	-0.2463 µg/L	-0.2463 ppb	12:52:41
3	Cu 324.752†	6010.4	70.6	0.5178 µg/L	0.5178 ppb	12:52:41
3	Mn 257.610†	-258.2	-6.5	-0.0188 µg/L	-0.0188 ppb	12:52:41
3	Mo 202.031†	26.6	6.3	0.7839 µg/L	0.7839 ppb	12:53:01
3	Ni 231.604†	338.3	7.2	0.4108 µg/L	0.4108 ppb	12:53:01
3	P 214.914†	259.3	-5.2	-8.6158 µg/L	-8.6158 ppb	12:53:01
3	Pb 220.353†	94.4	13.2	3.5779 µg/L	3.5779 ppb	12:53:01
3	S 181.975 Axial†	38.1	4.8	18.067 µg/L	18.067 ppb	12:53:01
3	Sb 206.836†	30.2	5.7	5.2953 µg/L	5.2953 ppb	12:53:01
3	Se 196.026†	9.7	-4.2	-4.4747 µg/L	-4.4747 ppb	12:53:01
3	SiO2†	3644.1	17.3	2.9743 µg/L	2.9743 ppb	12:52:41
3	Si 251.611†	361.8	11.7	0.8273 µg/L	0.8273 ppb	12:53:01
3	Sn 189.927†	30.0	-2.4	-1.2775 µg/L	-1.2775 ppb	12:53:01
3	Ti 334.940†	540.8	-56.4	-0.1381 µg/L	-0.1381 ppb	12:52:41
3	Tl 190.801†	-24.4	2.5	3.9688 µg/L	3.9688 ppb	12:53:01
3	U 409.014†	46.3	12.9	1.3705 µg/L	1.3705 ppb	12:52:41
3	V 292.402†	-236.4	37.9	0.4782 µg/L	0.4782 ppb	12:52:41
3	Zn 213.857†	646.1	-7.4	-0.2030 µg/L	-0.2030 ppb	12:53:01

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1864865.4	99.813 %	0.2872			0.29%
Sc RADIAL	55244.7	99.4 %	0.77			0.77%
Y 371.029	1148951.3	99.780 %	0.2525			0.25%
Ag 328.068†	-4.9	-0.0420 µg/L	0.21920	-0.0420 ppb	0.21920	521.83%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-11.4	-8.4153 µg/L	12.27818	-8.4153 ppb	12.27818	145.90%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.1	0.2024 µg/L	4.00322	0.2024 ppb	4.00322	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	33.3	1.2811 µg/L	0.45960	1.2811 ppb	0.45960	35.87%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.5	0.1261 µg/L	0.13020	0.1261 ppb	0.13020	103.25%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	62.5	0.0401 µg/L	0.02964	0.0401 ppb	0.02964	73.97%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	1.4	1.3090 µg/L	5.77515	1.3090 ppb	5.77515	441.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	5.2	0.1381 µg/L	0.02838	0.1381 ppb	0.02838	20.54%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	1.1	0.0550 µg/L	0.34290	0.0550 ppb	0.34290	623.53%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-10.1	-0.2320 µg/L	0.22213	-0.2320 ppb	0.22213	95.76%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	70.0	0.5137 µg/L	0.02161	0.5137 ppb	0.02161	4.21%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	2.0	38.050 µg/L	6.2531	38.050 ppb	6.2531	16.43%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	4.0	2.7280 µg/L	24.11299	2.7280 ppb	24.11299	883.92%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.3	15.788 µg/L	17.8796	15.788 ppb	17.8796	113.25%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	13.4	0.0514 µg/L	0.07581	0.0514 ppb	0.07581	147.46%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	0.9	0.1188 µg/L	0.79599	0.1188 ppb	0.79599	669.95%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	26.8	11.575 µg/L	7.2847	11.575 ppb	7.2847	62.93%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	2.6	0.1488 µg/L	0.39897	0.1488 ppb	0.39897	268.06%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	1.2	1.7822 µg/L	9.44496	1.7822 ppb	9.44496	529.97%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	1.9	0.5230 µg/L	2.64571	0.5230 ppb	2.64571	505.84%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	4.6	17.169 µg/L	7.4754	17.169 ppb	7.4754	43.54%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	5.6	5.1846 µg/L	0.61020	5.1846 ppb	0.61020	11.77%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-2.9	-3.1307 µg/L	3.41309	-3.1307 ppb	3.41309	109.02%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	27.3	4.6910 µg/L	3.15363	4.6910 ppb	3.15363	67.23%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	19.2	1.3287 µg/L	0.44209	1.3287 ppb	0.44209	33.27%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-1.2	-0.6453 µg/L	0.64375	-0.6453 ppb	0.64375	99.76%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	34.1	0.4434 µg/L	0.20876	0.4434 ppb	0.20876	47.09%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-20.2	-0.0496 µg/L	0.07770	-0.0496 ppb	0.07770	156.80%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	0.6	0.9473 µg/L	2.64122	0.9473 ppb	2.64122	278.82%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-18.7	-2.0065 µg/L	3.10892	-2.0065 ppb	3.10892	154.94%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	3.2	0.0384 µg/L	0.40411	0.0384 ppb	0.40411	>999.9%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-5.2	-0.1469 µg/L	0.05748	-0.1469 ppb	0.05748	39.14%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 1/11/2010 12:53:11

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	55694.6	55694.6	100 %		12:53:43
1	Al 396.153Radial†	312.1	284.8	208.83 µg/L	208.83 ppb	12:53:43
1	Ca 317.933Radial†	425.2	222.6	202.63 µg/L	202.63 ppb	12:54:03
1	Fe 238.204 Radial†	20.4	7.1	133.64 µg/L	133.64 ppb	12:54:03
1	K 766.490 Radial†	748.7	224.7	151.88 µg/L	151.88 ppb	12:53:43
1	Mg 279.077 IEC†	36.8	28.1	349.43 µg/L	349.43 ppb	12:54:03
1	Na 589.592 Radial†	1077.1	677.5	292.79 µg/L	292.79 ppb	12:53:43
1	Sr 421.552†	376.6	414.0	5.3848 µg/L	5.3848 ppb	12:53:43
1	Sc 361.383	1878996.7	1878996.7	100.57 %		12:55:05
1	Y 371.029	1157403.9	1157403.9	100.51 %		12:55:05
1	Ag 328.068†	354.9	562.4	5.2786 µg/L	5.2786 ppb	12:55:10
1	As 188.979†	9.9	14.1	24.159 µg/L	24.159 ppb	12:55:31
1	B 249.677†	1740.7	1338.0	51.842 µg/L	51.842 ppb	12:55:10
1	Ba 233.527†	148.8	193.8	5.4179 µg/L	5.4179 ppb	12:55:31
1	Be 313.107†	12171.0	7956.4	5.0982 µg/L	5.0982 ppb	12:55:05
1	Cd 226.502†	55.5	187.6	5.1974 µg/L	5.1974 ppb	12:55:31
1	Co 228.616†	116.3	104.0	5.2469 µg/L	5.2469 ppb	12:55:31
1	Cr 267.716†	86.7	227.3	5.2471 µg/L	5.2471 ppb	12:55:10
1	Cu 324.752†	7368.5	1392.7	10.170 µg/L	10.170 ppb	12:55:10
1	Mn 257.610†	2850.9	3086.2	10.752 µg/L	10.752 ppb	12:55:10
1	Mo 202.031†	111.7	90.8	11.301 µg/L	11.301 ppb	12:55:31
1	Ni 231.604†	405.5	72.4	4.1586 µg/L	4.1586 ppb	12:55:31
1	P 214.914†	365.0	98.7	159.12 µg/L	159.12 ppb	12:55:31
1	Pb 220.353†	131.9	50.0	13.530 µg/L	13.530 ppb	12:55:31
1	S 181.975 Axial†	59.8	26.2	98.311 µg/L	98.311 ppb	12:55:31
1	Sb 206.836†	36.6	11.9	11.129 µg/L	11.129 ppb	12:55:31
1	Se 196.026†	41.9	27.7	29.575 µg/L	29.575 ppb	12:55:31
1	SiO2†	4954.8	1303.4	224.08 µg/L	224.08 ppb	12:55:10
1	Si 251.611†	1917.1	1556.5	105.06 µg/L	105.06 ppb	12:55:10
1	Sn 189.927†	44.6	11.9	6.3214 µg/L	6.3214 ppb	12:55:31
1	Ti 334.940†	2686.2	2074.4	5.0787 µg/L	5.0787 ppb	12:55:10
1	Tl 190.801†	-16.8	10.1	16.226 µg/L	16.226 ppb	12:55:31
1	U 409.014†	525.5	489.2	52.243 µg/L	52.243 ppb	12:55:10
1	V 292.402†	154.5	427.7	5.4619 µg/L	5.4619 ppb	12:55:10
1	Zn 213.857†	1065.5	406.5	10.413 µg/L	10.413 ppb	12:55:31
2	Sc RADIAL	56335.1	56335.1	101 %		12:54:09
2	Al 396.153Radial†	312.9	282.1	206.84 µg/L	206.84 ppb	12:54:09
2	Ca 317.933Radial†	425.9	218.5	198.92 µg/L	198.92 ppb	12:54:29
2	Fe 238.204 Radial†	21.2	7.7	144.78 µg/L	144.78 ppb	12:54:29
2	K 766.490 Radial†	797.2	264.0	178.50 µg/L	178.50 ppb	12:54:09
2	Mg 279.077 IEC†	34.1	25.1	311.32 µg/L	311.32 ppb	12:54:29
2	Na 589.592 Radial†	1087.5	675.6	291.94 µg/L	291.94 ppb	12:54:09
2	Sr 421.552†	376.3	409.4	5.3246 µg/L	5.3246 ppb	12:54:09
2	Sc 361.383	1881187.6	1881187.6	100.69 %		12:55:37
2	Y 371.029	1160682.0	1160682.0	100.80 %		12:55:37
2	Ag 328.068†	300.4	507.9	4.7703 µg/L	4.7703 ppb	12:55:42
2	As 188.979†	15.1	19.3	33.035 µg/L	33.035 ppb	12:56:03
2	B 249.677†	1748.3	1343.5	52.051 µg/L	52.051 ppb	12:55:42
2	Ba 233.527†	133.9	178.8	4.9985 µg/L	4.9985 ppb	12:56:03
2	Be 313.107†	12128.0	7899.6	5.0618 µg/L	5.0618 ppb	12:55:37
2	Cd 226.502†	44.3	176.4	4.8877 µg/L	4.8877 ppb	12:56:03
2	Co 228.616†	118.6	106.2	5.3569 µg/L	5.3569 ppb	12:56:03
2	Cr 267.716†	76.5	217.1	5.0118 µg/L	5.0118 ppb	12:55:42
2	Cu 324.752†	7322.7	1338.7	9.7774 µg/L	9.7774 ppb	12:55:42
2	Mn 257.610†	2817.2	3049.4	10.625 µg/L	10.625 ppb	12:55:42
2	Mo 202.031†	102.7	81.8	10.176 µg/L	10.176 ppb	12:56:03
2	Ni 231.604†	415.0	81.4	4.6736 µg/L	4.6736 ppb	12:56:03
2	P 214.914†	349.9	83.2	134.09 µg/L	134.09 ppb	12:56:03
2	Pb 220.353†	125.1	43.2	11.675 µg/L	11.675 ppb	12:56:03

2	S 181.975 Axial†	61.1	27.4	102.93 µg/L	102.93 ppb	12:56:03
2	Sb 206.836†	36.6	11.9	11.073 µg/L	11.073 ppb	12:56:03
2	Se 196.026†	49.1	34.8	37.108 µg/L	37.108 ppb	12:56:03
2	SiO2†	4966.8	1309.6	225.14 µg/L	225.14 ppb	12:55:42
2	Si 251.611†	1918.1	1555.2	104.96 µg/L	104.96 ppb	12:55:42
2	Sn 189.927†	45.6	12.8	6.7826 µg/L	6.7826 ppb	12:56:03
2	Ti 334.940†	2708.8	2093.7	5.1263 µg/L	5.1263 ppb	12:55:42
2	Tl 190.801†	-14.3	12.7	20.274 µg/L	20.274 ppb	12:56:03
2	U 409.014†	506.9	470.0	50.194 µg/L	50.194 ppb	12:55:42
2	V 292.402†	132.9	406.0	5.1830 µg/L	5.1830 ppb	12:55:42
2	Zn 213.857†	1063.4	403.2	10.323 µg/L	10.323 ppb	12:56:03
3	Sc RADIAL	55947.6	55947.6	101 %		12:54:35
3	Al 396.153Radial†	269.5	241.1	176.75 µg/L	176.75 ppb	12:54:35
3	Ca 317.933Radial†	416.9	212.4	193.37 µg/L	193.37 ppb	12:54:55
3	Fe 238.204 Radial†	18.0	4.6	86.787 µg/L	86.787 ppb	12:54:55
3	K 766.490 Radial†	794.5	266.8	180.41 µg/L	180.41 ppb	12:54:35
3	Mg 279.077 IEC†	36.7	27.9	346.37 µg/L	346.37 ppb	12:54:55
3	Na 589.592 Radial†	1099.5	695.0	300.33 µg/L	300.33 ppb	12:54:35
3	Sr 421.552†	379.8	415.4	5.4033 µg/L	5.4033 ppb	12:54:35
3	Sc 361.383	1902536.1	1902536.1	101.83 %		12:56:09
3	Y 371.029	1173251.4	1173251.4	101.89 %		12:56:09
3	Ag 328.068†	290.8	495.2	4.6488 µg/L	4.6488 ppb	12:56:14
3	As 188.979†	11.5	15.5	26.618 µg/L	26.618 ppb	12:56:35
3	B 249.677†	1654.4	1231.8	47.738 µg/L	47.738 ppb	12:56:14
3	Ba 233.527†	122.9	166.5	4.6557 µg/L	4.6557 ppb	12:56:35
3	Be 313.107†	11982.2	7621.3	4.8835 µg/L	4.8835 ppb	12:56:09
3	Cd 226.502†	33.7	165.5	4.5956 µg/L	4.5956 ppb	12:56:35
3	Co 228.616†	95.4	82.1	4.1414 µg/L	4.1414 ppb	12:56:35
3	Cr 267.716†	48.6	188.9	4.3622 µg/L	4.3622 ppb	12:56:14
3	Cu 324.752†	7363.1	1296.7	9.4664 µg/L	9.4664 ppb	12:56:14
3	Mn 257.610†	2640.7	2844.6	9.9056 µg/L	9.9056 ppb	12:56:14
3	Mo 202.031†	99.7	77.6	9.6553 µg/L	9.6553 ppb	12:56:35
3	Ni 231.604†	418.3	80.0	4.5940 µg/L	4.5940 ppb	12:56:35
3	P 214.914†	351.7	81.1	130.71 µg/L	130.71 ppb	12:56:35
3	Pb 220.353†	110.0	26.9	7.2722 µg/L	7.2722 ppb	12:56:35
3	S 181.975 Axial†	57.5	23.2	87.067 µg/L	87.067 ppb	12:56:35
3	Sb 206.836†	31.8	6.8	6.3109 µg/L	6.3109 ppb	12:56:35
3	Se 196.026†	42.6	27.9	29.810 µg/L	29.810 ppb	12:56:35
3	SiO2†	4896.6	1185.3	203.78 µg/L	203.78 ppb	12:56:14
3	Si 251.611†	1826.3	1443.7	97.447 µg/L	97.447 ppb	12:56:14
3	Sn 189.927†	44.3	11.1	5.8887 µg/L	5.8887 ppb	12:56:35
3	Ti 334.940†	2582.7	1939.6	4.7486 µg/L	4.7486 ppb	12:56:14
3	Tl 190.801†	-15.1	12.1	19.291 µg/L	19.291 ppb	12:56:35
3	U 409.014†	527.5	484.7	51.772 µg/L	51.772 ppb	12:56:14
3	V 292.402†	148.7	420.1	5.3550 µg/L	5.3550 ppb	12:56:14
3	Zn 213.857†	1019.1	347.9	8.9124 µg/L	8.9124 ppb	12:56:35

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1887573.5	101.03 %	0.696			0.69%
Sc RADIAL	55992.5	101 %	0.6			0.58%
Y 371.029	1163779.1	101.07 %	0.726			0.72%
Ag 328.068†	521.8	4.8992 µg/L	0.33415	4.8992 ppb	0.33415	6.82%
QC value within limits for Ag 328.068 Recovery = 97.98%						
Al 396.153Radial†	269.3	197.47 µg/L	17.976	197.47 ppb	17.976	9.10%
QC value within limits for Al 396.153Radial Recovery = 98.74%						
As 188.979†	16.3	27.937 µg/L	4.5825	27.937 ppb	4.5825	16.40%
QC value within limits for As 188.979 Recovery = 93.12%						
B 249.677†	1304.5	50.544 µg/L	2.4318	50.544 ppb	2.4318	4.81%
QC value within limits for B 249.677 Recovery = 101.09%						
Ba 233.527†	179.7	5.0240 µg/L	0.38174	5.0240 ppb	0.38174	7.60%
QC value within limits for Ba 233.527 Recovery = 100.48%						
Be 313.107†	7825.7	5.0145 µg/L	0.11489	5.0145 ppb	0.11489	2.29%
QC value within limits for Be 313.107 Recovery = 100.29%						
Ca 317.933Radial†	217.9	198.31 µg/L	4.656	198.31 ppb	4.656	2.35%
QC value within limits for Ca 317.933Radial Recovery = 99.15%						
Cd 226.502†	176.5	4.8936 µg/L	0.30094	4.8936 ppb	0.30094	6.15%
QC value within limits for Cd 226.502 Recovery = 97.87%						
Co 228.616†	97.4	4.9150 µg/L	0.67229	4.9150 ppb	0.67229	13.68%

QC value within limits for Co 228.616	Recovery = 98.30%				
Cr 267.716†	211.1	4.8737 µg/L	0.45832	4.8737 ppb	0.45832 9.40%
QC value within limits for Cr 267.716	Recovery = 97.47%				
Cu 324.752†	1342.7	9.8047 µg/L	0.35276	9.8047 ppb	0.35276 3.60%
QC value within limits for Cu 324.752	Recovery = 98.05%				
Fe 238.204 Radial†	6.5	121.73 µg/L	30.774	121.73 ppb	30.774 25.28%
QC value within limits for Fe 238.204 Radial	Recovery = 121.73%				
K 766.490 Radial†	251.8	170.26 µg/L	15.946	170.26 ppb	15.946 9.37%
QC value within limits for K 766.490 Radial	Recovery = 113.51%				
Mg 279.077 IEC†	27.0	335.71 µg/L	21.176	335.71 ppb	21.176 6.31%
QC value within limits for Mg 279.077 IEC	Recovery = 111.90%				
Mn 257.610†	2993.4	10.428 µg/L	0.4564	10.428 ppb	0.4564 4.38%
QC value within limits for Mn 257.610	Recovery = 104.28%				
Mo 202.031†	83.4	10.377 µg/L	0.8410	10.377 ppb	0.8410 8.10%
QC value within limits for Mo 202.031	Recovery = 103.77%				
Na 589.592 Radial†	682.7	295.02 µg/L	4.620	295.02 ppb	4.620 1.57%
QC value within limits for Na 589.592 Radial	Recovery = 98.34%				
Ni 231.604†	77.9	4.4754 µg/L	0.27721	4.4754 ppb	0.27721 6.19%
QC value within limits for Ni 231.604	Recovery = 89.51%				
P 214.914†	87.7	141.31 µg/L	15.521	141.31 ppb	15.521 10.98%
QC value within limits for P 214.914	Recovery = 94.20%				
Pb 220.353†	40.0	10.826 µg/L	3.2142	10.826 ppb	3.2142 29.69%
QC value within limits for Pb 220.353	Recovery = 108.26%				
S 181.975 Axial†	25.6	96.102 µg/L	8.1586	96.102 ppb	8.1586 8.49%
QC value within limits for S 181.975 Axial	Recovery = 96.10%				
Sb 206.836†	10.2	9.5042 µg/L	2.76563	9.5042 ppb	2.76563 29.10%
QC value within limits for Sb 206.836	Recovery = 95.04%				
Se 196.026†	30.1	32.165 µg/L	4.2830	32.165 ppb	4.2830 13.32%
QC value within limits for Se 196.026	Recovery = 107.22%				
SiO2†	1266.1	217.67 µg/L	12.041	217.67 ppb	12.041 5.53%
QC value within limits for SiO2	Recovery = 102.19%				
Si 251.611†	1518.5	102.49 µg/L	4.368	102.49 ppb	4.368 4.26%
QC value within limits for Si 251.611	Recovery = 102.49%				
Sn 189.927†	12.0	6.3309 µg/L	0.44702	6.3309 ppb	0.44702 7.06%
QC value less than the lower limit for Sn 189.927	Recovery = 63.31%				
Sr 421.552†	412.9	5.3709 µg/L	0.04118	5.3709 ppb	0.04118 0.77%
QC value within limits for Sr 421.552	Recovery = 107.42%				
Ti 334.940†	2035.9	4.9846 µg/L	0.20571	4.9846 ppb	0.20571 4.13%
QC value within limits for Ti 334.940	Recovery = 99.69%				
Tl 190.801†	11.6	18.597 µg/L	2.1112	18.597 ppb	2.1112 11.35%
QC value within limits for Tl 190.801	Recovery = 92.99%				
U 409.014†	481.3	51.403 µg/L	1.0732	51.403 ppb	1.0732 2.09%
QC value within limits for U 409.014	Recovery = 102.81%				
V 292.402†	417.9	5.3333 µg/L	0.14072	5.3333 ppb	0.14072 2.64%
QC value within limits for V 292.402	Recovery = 106.67%				
Zn 213.857†	385.8	9.8828 µg/L	0.84160	9.8828 ppb	0.84160 8.52%
QC value within limits for Zn 213.857	Recovery = 98.83%				

QC Failed. Continue with analysis.

Sequence No.: 9
 Sample ID: ICSA
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 103
 Date Collected: 1/11/2010 12:56:43
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54946.4	54946.4	98.8 %		12:57:24
1	Al 396.153Radial†	671701.9	679623.1	499320 µg/L	499320 ppb	12:57:19
1	Ca 317.933Radial†	516610.8	522521.9	475620 µg/L	475620 ppb	12:57:19
1	Fe 238.204 Radial†	9837.3	9940.5	185800 µg/L	185800 ppb	12:57:24
1	K 766.490 Radial†	553.9	37.8	25.539 µg/L	25.539 ppb	12:57:24
1	Mg 279.077 IEC†	38273.3	38717.6	480750 µg/L	480750 ppb	12:57:24
1	Na 589.592 Radial†	479.6	87.6	37.851 µg/L	37.851 ppb	12:57:24
1	Sr 421.552†	224.5	265.2	3.4489 µg/L	3.4489 ppb	12:57:24
1	Sc 361.383	1806841.8	1806841.8	96.707 %		12:57:58
1	Y 371.029	1102693.0	1102693.0	95.763 %		12:57:58
1	Ag 328.068†	-2326.4	-2196.1	-5.7993 µg/L	-5.7993 ppb	12:57:58
1	As 188.979†	18.2	23.1	12.760 µg/L	12.760 ppb	12:58:18
1	B 249.677†	805.4	440.0	-41.365 µg/L	-41.365 ppb	12:57:58
1	Ba 233.527†	208.1	260.9	7.2713 µg/L	7.2713 ppb	12:58:18
1	Be 313.107†	3625.5	-396.8	-0.2639 µg/L	-0.2639 ppb	12:57:58
1	Cd 226.502†	691.7	847.7	-2.6022 µg/L	-2.6022 ppb	12:58:18
1	Co 228.616†	16.4	5.3	0.1766 µg/L	0.1766 ppb	12:58:18
1	Cr 267.716†	-239.9	-106.9	-2.4723 µg/L	-2.4723 ppb	12:58:18
1	Cu 324.752†	2195.6	-3663.7	-9.8544 µg/L	-9.8544 ppb	12:57:58
1	Mn 257.610†	-2592.7	-2429.6	14.904 µg/L	14.904 ppb	12:57:58
1	Mo 202.031†	-105.6	-129.5	-8.7964 µg/L	-8.7964 ppb	12:58:18
1	Ni 231.604†	319.6	-0.3	-0.0183 µg/L	-0.0183 ppb	12:58:18
1	P 214.914†	263.3	7.9	-22.165 µg/L	-22.165 ppb	12:58:18
1	Pb 220.353†	-4.5	-85.8	-10.612 µg/L	-10.612 ppb	12:58:18
1	S 181.975 Axial†	58.4	27.1	5.6963 µg/L	5.6963 ppb	12:58:18
1	Sb 206.836†	50.5	27.8	2.1890 µg/L	2.1890 ppb	12:58:18
1	Se 196.026†	-59.5	-75.5	-12.465 µg/L	-12.465 ppb	12:58:18
1	SiO2†	3394.1	-113.7	-19.555 µg/L	-19.555 ppb	12:58:18
1	Si 251.611†	554.0	223.1	21.693 µg/L	21.693 ppb	12:58:18
1	Sn 189.927†	-315.3	-358.4	-0.5231 µg/L	-0.5231 ppb	12:58:18
1	Ti 334.940†	10783.1	10553.6	-2.1703 µg/L	-2.1703 ppb	12:57:58
1	Tl 190.801†	9.9	37.1	10.564 µg/L	10.564 ppb	12:58:18
1	U 409.014†	443.6	425.3	-17.698 µg/L	-17.698 ppb	12:57:58
1	V 292.402†	-599.1	-345.5	1.0315 µg/L	1.0315 ppb	12:57:58
1	Zn 213.857†	1920.9	1333.4	-16.692 µg/L	-16.692 ppb	12:58:18
2	Sc RADIAL	54802.1	54802.1	98.6 %		12:57:36
2	Al 396.153Radial†	676254.4	686031.0	504030 µg/L	504030 ppb	12:57:30
2	Ca 317.933Radial†	520101.5	527439.4	480090 µg/L	480090 ppb	12:57:30
2	Fe 238.204 Radial†	9785.5	9914.1	185310 µg/L	185310 ppb	12:57:36
2	K 766.490 Radial†	475.9	-39.9	-26.970 µg/L	-26.970 ppb	12:57:36
2	Mg 279.077 IEC†	38042.1	38585.0	479110 µg/L	479110 ppb	12:57:36
2	Na 589.592 Radial†	472.4	81.6	35.263 µg/L	35.263 ppb	12:57:36
2	Sr 421.552†	249.1	290.8	3.7820 µg/L	3.7820 ppb	12:57:36
2	Sc 361.383	1815806.8	1815806.8	97.187 %		12:58:25
2	Y 371.029	1109052.4	1109052.4	96.315 %		12:58:25
2	Ag 328.068†	-2317.5	-2175.1	-5.6472 µg/L	-5.6472 ppb	12:58:25
2	As 188.979†	11.9	16.5	0.5113 µg/L	0.5113 ppb	12:58:46
2	B 249.677†	814.0	444.7	-41.027 µg/L	-41.027 ppb	12:58:25
2	Ba 233.527†	208.1	259.9	7.2422 µg/L	7.2422 ppb	12:58:46
2	Be 313.107†	3596.3	-445.3	-0.2951 µg/L	-0.2951 ppb	12:58:25
2	Cd 226.502†	698.0	850.6	-2.4518 µg/L	-2.4518 ppb	12:58:46
2	Co 228.616†	18.4	7.3	0.2780 µg/L	0.2780 ppb	12:58:46
2	Cr 267.716†	-189.0	-53.3	-1.2386 µg/L	-1.2386 ppb	12:58:46
2	Cu 324.752†	2258.4	-3610.4	-9.5102 µg/L	-9.5102 ppb	12:58:25
2	Mn 257.610†	-2647.6	-2472.9	14.691 µg/L	14.691 ppb	12:58:25
2	Mo 202.031†	-91.9	-114.8	-6.9883 µg/L	-6.9883 ppb	12:58:46
2	Ni 231.604†	312.3	-9.5	-0.5445 µg/L	-0.5445 ppb	12:58:46
2	P 214.914†	270.9	14.4	-9.1266 µg/L	-9.1266 ppb	12:58:46
2	Pb 220.353†	5.2	-75.8	-7.7600 µg/L	-7.7600 ppb	12:58:46

2	S 181.975 Axial†	70.8	39.6	52.989 µg/L	52.989 ppb	12:58:46
2	Sb 206.836†	63.2	40.5	13.890 µg/L	13.890 ppb	12:58:46
2	Se 196.026†	-58.0	-73.6	-8.3381 µg/L	-8.3381 ppb	12:58:46
2	SiO2†	3398.6	-126.4	-21.732 µg/L	-21.732 ppb	12:58:46
2	Si 251.611†	540.5	206.3	20.137 µg/L	20.137 ppb	12:58:46
2	Sn 189.927†	-297.6	-338.6	10.485 µg/L	10.485 ppb	12:58:46
2	Ti 334.940†	10922.9	10642.4	-2.2167 µg/L	-2.2167 ppb	12:58:25
2	Tl 190.801†	21.3	48.8	28.771 µg/L	28.771 ppb	12:58:46
2	U 409.014†	475.8	456.2	-14.573 µg/L	-14.573 ppb	12:58:25
2	V 292.402†	-654.3	-399.2	0.3705 µg/L	0.3705 ppb	12:58:25
2	Zn 213.857†	1904.4	1306.6	-17.245 µg/L	-17.245 ppb	12:58:46
3	Sc RADIAL	54919.9	54919.9	98.8 %		12:57:47
3	Al 396.153Radial†	677554.1	685875.3	503920 µg/L	503920 ppb	12:57:41
3	Ca 317.933Radial†	522161.0	528392.5	480960 µg/L	480960 ppb	12:57:41
3	Fe 238.204 Radial†	9809.5	9917.1	185360 µg/L	185360 ppb	12:57:47
3	K 766.490 Radial†	509.8	-6.7	-4.5107 µg/L	-4.5107 ppb	12:57:47
3	Mg 279.077 IEC†	38139.5	38600.8	479300 µg/L	479300 ppb	12:57:47
3	Na 589.592 Radial†	495.9	104.3	45.091 µg/L	45.091 ppb	12:57:47
3	Sr 421.552†	243.6	284.7	3.7025 µg/L	3.7025 ppb	12:57:47
3	Sc 361.383	1813008.3	1813008.3	97.037 %		12:58:52
3	Y 371.029	1106587.4	1106587.4	96.101 %		12:58:52
3	Ag 328.068†	-2334.7	-2196.5	-5.8350 µg/L	-5.8350 ppb	12:58:52
3	As 188.979†	23.8	28.8	21.394 µg/L	21.394 ppb	12:59:13
3	B 249.677†	808.1	440.0	-41.229 µg/L	-41.229 ppb	12:58:52
3	Ba 233.527†	193.0	244.7	6.8177 µg/L	6.8177 ppb	12:59:13
3	Be 313.107†	3580.8	-455.6	-0.3016 µg/L	-0.3016 ppb	12:58:52
3	Cd 226.502†	711.2	865.4	-2.0507 µg/L	-2.0507 ppb	12:59:13
3	Co 228.616†	10.9	-0.4	-0.1108 µg/L	-0.1108 ppb	12:59:13
3	Cr 267.716†	-219.7	-85.2	-1.9713 µg/L	-1.9713 ppb	12:59:13
3	Cu 324.752†	2192.7	-3674.4	-9.9722 µg/L	-9.9722 ppb	12:58:52
3	Mn 257.610†	-2645.2	-2474.5	14.692 µg/L	14.692 ppb	12:58:52
3	Mo 202.031†	-98.3	-121.6	-7.8305 µg/L	-7.8305 ppb	12:59:13
3	Ni 231.604†	307.0	-14.4	-0.8282 µg/L	-0.8282 ppb	12:59:13
3	P 214.914†	279.9	24.2	6.5131 µg/L	6.5131 ppb	12:59:13
3	Pb 220.353†	-0.0	-81.1	-9.2096 µg/L	-9.2096 ppb	12:59:13
3	S 181.975 Axial†	68.2	37.0	43.164 µg/L	43.164 ppb	12:59:13
3	Sb 206.836†	67.6	45.1	18.127 µg/L	18.127 ppb	12:59:13
3	Se 196.026†	-35.6	-50.6	16.412 µg/L	16.412 ppb	12:59:13
3	SiO2†	3373.9	-146.4	-25.172 µg/L	-25.172 ppb	12:59:13
3	Si 251.611†	545.4	212.3	20.824 µg/L	20.824 ppb	12:59:13
3	Sn 189.927†	-310.2	-352.1	3.6850 µg/L	3.6850 ppb	12:59:13
3	Ti 334.940†	10853.4	10588.1	-2.4012 µg/L	-2.4012 ppb	12:58:52
3	Tl 190.801†	8.4	35.5	7.4039 µg/L	7.4039 ppb	12:59:13
3	U 409.014†	487.2	468.6	-13.305 µg/L	-13.305 ppb	12:58:52
3	V 292.402†	-574.6	-318.1	1.3726 µg/L	1.3726 ppb	12:58:52
3	Zn 213.857†	1927.2	1333.1	-16.573 µg/L	-16.573 ppb	12:59:13

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1811885.6	96.977 %	0.2455			0.25%
Sc RADIAL	54889.5	98.7 %	0.14			0.14%
Y 371.029	1106110.9	96.060 %	0.2785			0.29%
Ag 328.068†	-2189.2	-5.7605 µg/L	0.09973	-5.7605 ppb	0.09973	1.73%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	683843.1	502420 µg/L	2685.6	502420 ppb	2685.6	0.53%
QC value within limits for Al 396.153Radial Recovery = 100.48%						
As 188.979†	22.8	11.555 µg/L	10.4931	11.555 ppb	10.4931	90.81%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	441.5	-41.207 µg/L	0.1699	-41.207 ppb	0.1699	0.41%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	255.2	7.1104 µg/L	0.25389	7.1104 ppb	0.25389	3.57%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-432.5	-0.2869 µg/L	0.02016	-0.2869 ppb	0.02016	7.03%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	526117.9	478890 µg/L	2867.7	478890 ppb	2867.7	0.60%
QC value within limits for Ca 317.933Radial Recovery = 95.78%						
Cd 226.502†	854.6	-2.3682 µg/L	0.28510	-2.3682 ppb	0.28510	12.04%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	4.1	0.1146 µg/L	0.20165	0.1146 ppb	0.20165	175.97%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-81.8	-1.8940 µg/L	0.62047	-1.8940 ppb	0.62047	32.76%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-3649.5	-9.7789 µg/L	0.24009	-9.7789 ppb	0.24009	2.46%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	9923.9	185490 µg/L	270.2	185490 ppb	270.2	0.15%	
QC value within limits for Fe 238.204 Radial Recovery = 92.74%							
K 766.490 Radial†	-2.9	-1.9806 µg/L	26.34547	-1.9806 ppb	26.34547	>999.9%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	38634.5	479720 µg/L	899.5	479720 ppb	899.5	0.19%	
QC value within limits for Mg 279.077 IEC Recovery = 95.94%							
Mn 257.610†	-2459.0	14.762 µg/L	0.1223	14.762 ppb	0.1223	0.83%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-121.9	-7.8717 µg/L	0.90475	-7.8717 ppb	0.90475	11.49%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	91.2	39.402 µg/L	5.0943	39.402 ppb	5.0943	12.93%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-8.1	-0.4637 µg/L	0.41096	-0.4637 ppb	0.41096	88.63%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	15.5	-8.2595 µg/L	14.35872	-8.2595 ppb	14.35872	173.85%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-80.9	-9.1937 µg/L	1.42581	-9.1937 ppb	1.42581	15.51%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	34.5	33.950 µg/L	24.9565	33.950 ppb	24.9565	73.51%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	37.8	11.402 µg/L	8.2551	11.402 ppb	8.2551	72.40%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-66.6	-1.4640 µg/L	15.61775	-1.4640 ppb	15.61775	>999.9%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-128.9	-22.153 µg/L	2.8324	-22.153 ppb	2.8324	12.79%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	213.9	20.884 µg/L	0.7798	20.884 ppb	0.7798	3.73%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-349.7	4.5490 µg/L	5.55474	4.5490 ppb	5.55474	122.11%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	280.2	3.6445 µg/L	0.17396	3.6445 ppb	0.17396	4.77%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	10594.7	-2.2627 µg/L	0.12212	-2.2627 ppb	0.12212	5.40%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	40.5	15.579 µg/L	11.5328	15.579 ppb	11.5328	74.03%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	450.1	-15.192 µg/L	2.2607	-15.192 ppb	2.2607	14.88%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-354.2	0.9249 µg/L	0.50950	0.9249 ppb	0.50950	55.09%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	1324.3	-16.836 µg/L	0.3584	-16.836 ppb	0.3584	2.13%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: ICSAB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 104

Date Collected: 1/11/2010 12:59:23

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	54897.4	54897.4	98.7 %		13:00:02
1	Al 396.153Radial†	671922.3	680453.4	499910 µg/L	499910 ppb	12:59:57
1	Ca 317.933Radial†	514150.5	520497.1	473770 µg/L	473770 ppb	12:59:57
1	Fe 238.204 Radial†	9648.5	9758.2	182410 µg/L	182410 ppb	13:00:02
1	K 766.490 Radial†	8001.0	7580.2	5124.9 µg/L	5124.9 ppb	13:00:02
1	Mg 279.077 IEC†	38122.9	38599.9	479310 µg/L	479310 ppb	13:00:02
1	Na 589.592 Radial†	12119.3	11876.0	5132.2 µg/L	5132.2 ppb	13:00:02
1	Sr 421.552†	37406.4	37920.9	493.24 µg/L	493.24 ppb	13:00:02
1	Sc 361.383	1801490.0	1801490.0	96.421 %		13:00:37
1	Y 371.029	1099552.9	1099552.9	95.490 %		13:00:37
1	Ag 328.068†	25761.5	26927.3	268.39 µg/L	268.39 ppb	13:00:37
1	As 188.979†	300.1	315.5	513.20 µg/L	513.20 ppb	13:00:57
1	B 249.677†	13914.4	14038.1	486.99 µg/L	486.99 ppb	13:00:37
1	Ba 233.527†	17434.5	18127.4	506.84 µg/L	506.84 ppb	13:00:37
1	Be 313.107†	366769.9	376239.3	240.97 µg/L	240.97 ppb	13:00:37
1	Cd 226.502†	17154.1	17923.3	469.74 µg/L	469.74 ppb	13:00:37
1	Co 228.616†	8647.4	8956.8	450.63 µg/L	450.63 ppb	13:00:57
1	Cr 267.716†	20579.8	21484.9	495.91 µg/L	495.91 ppb	13:00:37
1	Cu 324.752†	78930.5	75926.4	570.37 µg/L	570.37 ppb	13:00:37
1	Mn 257.610†	133333.7	138534.7	504.81 µg/L	504.81 ppb	13:00:37
1	Mo 202.031†	3895.8	4020.1	507.06 µg/L	507.06 ppb	13:00:57
1	Ni 231.604†	7976.3	7941.5	456.02 µg/L	456.02 ppb	13:00:57
1	P 214.914†	1811.6	1614.6	2533.1 µg/L	2533.1 ppb	13:00:57
1	Pb 220.353†	1788.6	1773.9	493.57 µg/L	493.57 ppb	13:00:57
1	S 181.975 Axial†	748.9	743.4	2700.3 µg/L	2700.3 ppb	13:00:57
1	Sb 206.836†	606.9	604.9	540.45 µg/L	540.45 ppb	13:00:57
1	Se 196.026†	2140.8	2206.3	2415.6 µg/L	2415.6 ppb	13:00:57
1	SiO2†	66415.1	65257.1	11219 µg/L	11219 ppb	13:00:37
1	Si 251.611†	75012.6	77447.4	5217.5 µg/L	5217.5 ppb	13:00:37
1	Sn 189.927†	687.9	681.0	541.14 µg/L	541.14 ppb	13:00:57
1	Ti 334.940†	211699.2	218961.2	509.39 µg/L	509.39 ppb	13:00:37
1	Tl 190.801†	324.3	363.2	535.24 µg/L	535.24 ppb	13:00:57
1	U 409.014†	5016.8	5169.6	490.10 µg/L	490.10 ppb	13:00:37
1	V 292.402†	39524.6	41265.9	520.51 µg/L	520.51 ppb	13:00:37
1	Zn 213.857†	20280.0	20379.9	472.38 µg/L	472.38 ppb	13:00:37
2	Sc RADIAL	54562.3	54562.3	98.1 %		13:00:14
2	Al 396.153Radial†	673945.8	686694.5	504500 µg/L	504500 ppb	13:00:08
2	Ca 317.933Radial†	516939.1	526536.5	479270 µg/L	479270 ppb	13:00:08
2	Fe 238.204 Radial†	9651.4	9821.1	183580 µg/L	183580 ppb	13:00:14
2	K 766.490 Radial†	7994.8	7623.7	5154.2 µg/L	5154.2 ppb	13:00:14
2	Mg 279.077 IEC†	37971.2	38682.4	480330 µg/L	480330 ppb	13:00:14
2	Na 589.592 Radial†	12078.2	11909.5	5146.7 µg/L	5146.7 ppb	13:00:14
2	Sr 421.552†	37288.4	38033.3	494.70 µg/L	494.70 ppb	13:00:14
2	Sc 361.383	1799690.1	1799690.1	96.324 %		13:01:05
2	Y 371.029	1097503.7	1097503.7	95.312 %		13:01:05
2	Ag 328.068†	25786.9	26980.4	268.98 µg/L	268.98 ppb	13:01:05
2	As 188.979†	302.9	318.7	518.01 µg/L	518.01 ppb	13:01:25
2	B 249.677†	13998.9	14140.2	490.58 µg/L	490.58 ppb	13:01:05
2	Ba 233.527†	17477.7	18190.5	508.60 µg/L	508.60 ppb	13:01:05
2	Be 313.107†	366288.2	376119.7	240.90 µg/L	240.90 ppb	13:01:05
2	Cd 226.502†	17206.0	17994.9	471.56 µg/L	471.56 ppb	13:01:05
2	Co 228.616†	8647.0	8965.4	451.06 µg/L	451.06 ppb	13:01:25
2	Cr 267.716†	20595.9	21523.0	496.78 µg/L	496.78 ppb	13:01:05
2	Cu 324.752†	79025.2	76106.6	571.79 µg/L	571.79 ppb	13:01:05
2	Mn 257.610†	133577.4	138926.0	506.32 µg/L	506.32 ppb	13:01:05
2	Mo 202.031†	3912.9	4042.0	509.83 µg/L	509.83 ppb	13:01:25
2	Ni 231.604†	7995.0	7969.3	457.62 µg/L	457.62 ppb	13:01:25
2	P 214.914†	1806.8	1611.4	2528.4 µg/L	2528.4 ppb	13:01:25
2	Pb 220.353†	1798.0	1785.5	496.85 µg/L	496.85 ppb	13:01:25

2	S 181.975 Axial†	756.7	752.3	2733.3 µg/L	2733.3 ppb	13:01:25
2	Sb 206.836†	598.6	596.9	532.73 µg/L	532.73 ppb	13:01:25
2	Se 196.026†	2145.3	2213.2	2424.9 µg/L	2424.9 ppb	13:01:25
2	SiO2†	66453.0	65365.4	11237 µg/L	11237 ppb	13:01:05
2	Si 251.611†	75109.3	77625.6	5229.1 µg/L	5229.1 ppb	13:01:05
2	Sn 189.927†	707.5	702.1	553.40 µg/L	553.40 ppb	13:01:25
2	Ti 334.940†	211713.3	219195.4	509.64 µg/L	509.64 ppb	13:01:05
2	Tl 190.801†	321.3	360.5	530.25 µg/L	530.25 ppb	13:01:25
2	U 409.014†	5008.0	5165.7	489.13 µg/L	489.13 ppb	13:01:05
2	V 292.402†	39504.0	41285.5	520.80 µg/L	520.80 ppb	13:01:05
2	Zn 213.857†	20335.5	20458.5	474.08 µg/L	474.08 ppb	13:01:05
3	Sc RADIAL	54377.4	54377.4	97.8 %		13:00:25
3	Al 396.153Radial†	674527.0	689623.3	506650 µg/L	506650 ppb	13:00:19
3	Ca 317.933Radial†	515104.1	526451.0	479190 µg/L	479190 ppb	13:00:19
3	Fe 238.204 Radial†	9608.2	9810.4	183380 µg/L	183380 ppb	13:00:25
3	K 766.490 Radial†	7970.5	7626.5	5156.1 µg/L	5156.1 ppb	13:00:25
3	Mg 279.077 IEC†	37854.0	38694.1	480480 µg/L	480480 ppb	13:00:25
3	Na 589.592 Radial†	12043.5	11915.9	5149.5 µg/L	5149.5 ppb	13:00:25
3	Sr 421.552†	37203.4	38075.6	495.25 µg/L	495.25 ppb	13:00:25
3	Sc 361.383	1794453.4	1794453.4	96.044 %		13:01:33
3	Y 371.029	1094155.8	1094155.8	95.022 %		13:01:33
3	Ag 328.068†	25569.6	26832.3	267.57 µg/L	267.57 ppb	13:01:33
3	As 188.979†	300.8	317.4	515.81 µg/L	515.81 ppb	13:01:53
3	B 249.677†	13879.5	14058.3	487.46 µg/L	487.46 ppb	13:01:33
3	Ba 233.527†	17304.8	18063.4	505.05 µg/L	505.05 ppb	13:01:33
3	Be 313.107†	364731.8	375608.9	240.57 µg/L	240.57 ppb	13:01:33
3	Cd 226.502†	17069.7	17905.2	469.12 µg/L	469.12 ppb	13:01:33
3	Co 228.616†	8693.6	9040.0	454.82 µg/L	454.82 ppb	13:01:53
3	Cr 267.716†	20514.5	21500.6	496.27 µg/L	496.27 ppb	13:01:33
3	Cu 324.752†	78523.8	75823.9	569.71 µg/L	569.71 ppb	13:01:33
3	Mn 257.610†	132868.9	138592.9	505.13 µg/L	505.13 ppb	13:01:33
3	Mo 202.031†	3915.2	4056.2	511.58 µg/L	511.58 ppb	13:01:53
3	Ni 231.604†	8013.3	8012.6	460.10 µg/L	460.10 ppb	13:01:53
3	P 214.914†	1816.8	1627.4	2555.4 µg/L	2555.4 ppb	13:01:53
3	Pb 220.353†	1791.2	1783.9	496.46 µg/L	496.46 ppb	13:01:53
3	S 181.975 Axial†	755.1	752.9	2735.6 µg/L	2735.6 ppb	13:01:53
3	Sb 206.836†	617.0	617.9	552.32 µg/L	552.32 ppb	13:01:53
3	Se 196.026†	2159.5	2234.5	2447.4 µg/L	2447.4 ppb	13:01:53
3	SiO2†	66175.8	65278.2	11222 µg/L	11222 ppb	13:01:33
3	Si 251.611†	74679.7	77405.9	5214.5 µg/L	5214.5 ppb	13:01:33
3	Sn 189.927†	691.6	687.6	545.89 µg/L	545.89 ppb	13:01:53
3	Ti 334.940†	210591.2	218668.5	508.35 µg/L	508.35 ppb	13:01:33
3	Tl 190.801†	317.7	357.6	525.91 µg/L	525.91 ppb	13:01:53
3	U 409.014†	5131.8	5309.8	504.58 µg/L	504.58 ppb	13:01:33
3	V 292.402†	39250.6	41141.4	519.05 µg/L	519.05 ppb	13:01:33
3	Zn 213.857†	20184.6	20363.0	471.66 µg/L	471.66 ppb	13:01:33

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1798544.5	96.263 %	0.1957			0.20%
Sc RADIAL	54612.4	98.2 %	0.47			0.48%
Y 371.029	1097070.8	95.275 %	0.2366			0.25%
Ag 328.068†	26913.4	268.31 µg/L	0.706	268.31 ppb	0.706	0.26%
QC value within limits for Ag 328.068 Recovery = 107.32%						
Al 396.153Radial†	685590.4	503690 µg/L	3441.0	503690 ppb	3441.0	0.68%
QC value within limits for Al 396.153Radial Recovery = 100.74%						
As 188.979†	317.2	515.67 µg/L	2.410	515.67 ppb	2.410	0.47%
QC value within limits for As 188.979 Recovery = 103.13%						
B 249.677†	14078.9	488.34 µg/L	1.950	488.34 ppb	1.950	0.40%
QC value within limits for B 249.677 Recovery = 97.67%						
Ba 233.527†	18127.1	506.83 µg/L	1.775	506.83 ppb	1.775	0.35%
QC value within limits for Ba 233.527 Recovery = 101.37%						
Be 313.107†	375989.3	240.81 µg/L	0.214	240.81 ppb	0.214	0.09%
QC value within limits for Be 313.107 Recovery = 96.33%						
Ca 317.933Radial†	524494.9	477410 µg/L	3151.6	477410 ppb	3151.6	0.66%
QC value within limits for Ca 317.933Radial Recovery = 95.48%						
Cd 226.502†	17941.2	470.14 µg/L	1.264	470.14 ppb	1.264	0.27%
QC value within limits for Cd 226.502 Recovery = 94.03%						
Co 228.616†	8987.4	452.17 µg/L	2.308	452.17 ppb	2.308	0.51%

QC value within limits for Co 228.616 Recovery = 90.43%							
Cr 267.716†	21502.8	496.32 µg/L	0.441	496.32 ppb	0.441	0.09%	
QC value within limits for Cr 267.716 Recovery = 99.26%							
Cu 324.752†	75952.3	570.63 µg/L	1.063	570.63 ppb	1.063	0.19%	
QC value within limits for Cu 324.752 Recovery = 114.13%							
Fe 238.204 Radial†	9796.6	183120 µg/L	629.6	183120 ppb	629.6	0.34%	
QC value within limits for Fe 238.204 Radial Recovery = 91.56%							
K 766.490 Radial†	7610.1	5145.1 µg/L	17.53	5145.1 ppb	17.53	0.34%	
QC value within limits for K 766.490 Radial Recovery = 102.90%							
Mg 279.077 IEC†	38658.8	480040 µg/L	637.5	480040 ppb	637.5	0.13%	
QC value within limits for Mg 279.077 IEC Recovery = 96.01%							
Mn 257.610†	138684.5	505.42 µg/L	0.794	505.42 ppb	0.794	0.16%	
QC value within limits for Mn 257.610 Recovery = 101.08%							
Mo 202.031†	4039.4	509.49 µg/L	2.280	509.49 ppb	2.280	0.45%	
QC value within limits for Mo 202.031 Recovery = 101.90%							
Na 589.592 Radial†	11900.5	5142.8 µg/L	9.26	5142.8 ppb	9.26	0.18%	
QC value within limits for Na 589.592 Radial Recovery = 102.86%							
Ni 231.604†	7974.5	457.92 µg/L	2.056	457.92 ppb	2.056	0.45%	
QC value within limits for Ni 231.604 Recovery = 91.58%							
P 214.914†	1617.8	2539.0 µg/L	14.45	2539.0 ppb	14.45	0.57%	
QC value within limits for P 214.914 Recovery = 101.56%							
Pb 220.353†	1781.1	495.63 µg/L	1.793	495.63 ppb	1.793	0.36%	
QC value within limits for Pb 220.353 Recovery = 99.13%							
S 181.975 Axial†	749.5	2723.1 µg/L	19.77	2723.1 ppb	19.77	0.73%	
QC value within limits for S 181.975 Axial Recovery = 108.92%							
Sb 206.836†	606.6	541.83 µg/L	9.871	541.83 ppb	9.871	1.82%	
QC value within limits for Sb 206.836 Recovery = 108.37%							
Se 196.026†	2218.0	2429.3 µg/L	16.36	2429.3 ppb	16.36	0.67%	
QC value within limits for Se 196.026 Recovery = 97.17%							
SiO2†	65300.2	11226 µg/L	9.9	11226 ppb	9.9	0.09%	
QC value within limits for SiO2 Recovery = 104.97%							
Si 251.611†	77493.0	5220.4 µg/L	7.72	5220.4 ppb	7.72	0.15%	
QC value within limits for Si 251.611 Recovery = 104.41%							
Sn 189.927†	690.2	546.81 µg/L	6.183	546.81 ppb	6.183	1.13%	
QC value within limits for Sn 189.927 Recovery = 109.36%							
Sr 421.552†	38009.9	494.40 µg/L	1.040	494.40 ppb	1.040	0.21%	
QC value within limits for Sr 421.552 Recovery = 98.88%							
Ti 334.940†	218941.7	509.12 µg/L	0.683	509.12 ppb	0.683	0.13%	
QC value within limits for Ti 334.940 Recovery = 101.82%							
Tl 190.801†	360.4	530.47 µg/L	4.667	530.47 ppb	4.667	0.88%	
QC value within limits for Tl 190.801 Recovery = 106.09%							
U 409.014†	5215.0	494.60 µg/L	8.653	494.60 ppb	8.653	1.75%	
QC value within limits for U 409.014 Recovery = 98.92%							
V 292.402†	41230.9	520.12 µg/L	0.939	520.12 ppb	0.939	0.18%	
QC value within limits for V 292.402 Recovery = 104.02%							
Zn 213.857†	20400.5	472.70 µg/L	1.242	472.70 ppb	1.242	0.26%	
QC value within limits for Zn 213.857 Recovery = 94.54%							
All analyte(s) passed QC.							

Sequence No.: 11
 Sample ID: LR1
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 105
 Date Collected: 1/11/2010 13:02:03
 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	53894.5	53894.5	96.9 %		13:02:43
1	Al 396.153Radial†	673506.9	694750.7	510440 µg/L	510440 ppb	13:02:37
1	Ca 317.933Radial†	515279.3	531350.9	483650 µg/L	483650 ppb	13:02:37
1	Fe 238.204 Radial†	23346.2	24070.3	449900 µg/L	449900 ppb	13:02:43
1	K 766.490 Radial†	715.3	215.2	145.50 µg/L	145.50 ppb	13:02:43
1	Mg 279.077 IEC†	37453.8	38628.1	479250 µg/L	479250 ppb	13:02:43
1	Na 589.592 Radial†	1131323.8	1166655.3	504170 µg/L	504170 ppb	13:02:37
1	Sr 421.552†	362.2	411.6	5.3543 µg/L	5.3543 ppb	13:02:43
1	Sc 361.383	1807213.4	1807213.4	96.727 %		13:03:18
1	Y 371.029	1100091.6	1100091.6	95.537 %		13:03:18
1	Ag 328.068†	-4748.7	-4699.8	-8.4122 µg/L	-8.4122 ppb	13:03:18
1	As 188.979†	-0.6	3.6	63.916 µg/L	63.916 ppb	13:03:38
1	B 249.677†	1379.9	1033.7	-101.39 µg/L	-101.39 ppb	13:03:18
1	Ba 233.527†	474.6	536.5	14.911 µg/L	14.911 ppb	13:03:38
1	Be 313.107†	-668.2	-4836.6	-3.1111 µg/L	-3.1111 ppb	13:03:18
1	Cd 226.502†	1894.6	2091.1	5.4889 µg/L	5.4889 ppb	13:03:18
1	Co 228.616†	125.6	118.2	5.8109 µg/L	5.8109 ppb	13:03:38
1	Cr 267.716†	-270.4	-138.4	-3.2507 µg/L	-3.2507 ppb	13:03:38
1	Cu 324.752†	-4182.7	-10258.4	-33.978 µg/L	-33.978 ppb	13:03:18
1	Mn 257.610†	-14475.5	-14713.9	5.3713 µg/L	5.3713 ppb	13:03:18
1	Mo 202.031†	-231.6	-259.7	-14.611 µg/L	-14.611 ppb	13:03:38
1	Ni 231.604†	288.7	-32.4	-1.8584 µg/L	-1.8584 ppb	13:03:38
1	P 214.914†	454.9	206.0	-1.7626 µg/L	-1.7626 ppb	13:03:38
1	Pb 220.353†	110.2	32.8	5.8456 µg/L	5.8456 ppb	13:03:38
1	S 181.975 Axial†	71.2	40.3	16.382 µg/L	16.382 ppb	13:03:38
1	Sb 206.836†	44.7	21.7	4.6525 µg/L	4.6525 ppb	13:03:38
1	Se 196.026†	-311.9	-336.4	-285.89 µg/L	-285.89 ppb	13:03:38
1	SiO2†	3235.8	-278.1	-47.805 µg/L	-47.805 ppb	13:03:38
1	Si 251.611†	-169.3	-524.9	-28.305 µg/L	-28.305 ppb	13:03:38
1	Sn 189.927†	-348.8	-393.0	-68.952 µg/L	-68.952 ppb	13:03:38
1	Ti 334.940†	12068.7	11880.4	0.6114 µg/L	0.6114 ppb	13:03:18
1	Tl 190.801†	-13.8	12.6	-29.223 µg/L	-29.223 ppb	13:03:38
1	U 409.014†	137267.2	141878.6	15050 µg/L	15050 ppb	13:03:18
1	V 292.402†	-2414.1	-2221.7	9.7474 µg/L	9.7474 ppb	13:03:18
1	Zn 213.857†	3447.4	2911.1	-47.864 µg/L	-47.864 ppb	13:03:38
2	Sc RADIAL	54000.4	54000.4	97.1 %		13:02:55
2	Al 396.153Radial†	680228.0	700307.8	514520 µg/L	514520 ppb	13:02:49
2	Ca 317.933Radial†	522406.7	537646.5	489380 µg/L	489380 ppb	13:02:49
2	Fe 238.204 Radial†	23530.8	24213.1	452570 µg/L	452570 ppb	13:02:55
2	K 766.490 Radial†	755.2	254.8	172.25 µg/L	172.25 ppb	13:02:55
2	Mg 279.077 IEC†	37733.7	38840.4	481890 µg/L	481890 ppb	13:02:55
2	Na 589.592 Radial†	1141358.3	1174697.5	507640 µg/L	507640 ppb	13:02:49
2	Sr 421.552†	359.4	408.1	5.3083 µg/L	5.3083 ppb	13:02:55
2	Sc 361.383	1797703.8	1797703.8	96.218 %		13:03:45
2	Y 371.029	1092271.9	1092271.9	94.858 %		13:03:45
2	Ag 328.068†	-4758.7	-4736.2	-8.5421 µg/L	-8.5421 ppb	13:03:45
2	As 188.979†	-1.0	3.2	63.027 µg/L	63.027 ppb	13:04:06
2	B 249.677†	1440.1	1103.9	-99.511 µg/L	-99.511 ppb	13:03:45
2	Ba 233.527†	465.5	529.6	14.717 µg/L	14.717 ppb	13:04:06
2	Be 313.107†	-857.0	-5036.4	-3.2391 µg/L	-3.2391 ppb	13:03:45
2	Cd 226.502†	1855.9	2061.2	4.3308 µg/L	4.3308 ppb	13:03:45
2	Co 228.616†	117.4	110.4	5.4112 µg/L	5.4112 ppb	13:04:06
2	Cr 267.716†	-269.4	-138.8	-3.2613 µg/L	-3.2613 ppb	13:04:06
2	Cu 324.752†	-4171.4	-10269.5	-33.816 µg/L	-33.816 ppb	13:03:45
2	Mn 257.610†	-14416.5	-14731.8	5.6447 µg/L	5.6447 ppb	13:03:45
2	Mo 202.031†	-247.1	-277.1	-16.670 µg/L	-16.670 ppb	13:04:06
2	Ni 231.604†	281.6	-38.2	-2.1912 µg/L	-2.1912 ppb	13:04:06
2	P 214.914†	460.3	214.1	9.4437 µg/L	9.4437 ppb	13:04:06
2	Pb 220.353†	98.2	20.9	2.6661 µg/L	2.6661 ppb	13:04:06

2	S 181.975 Axial†	75.6	45.2	34.158 µg/L	34.158 ppb	13:04:06
2	Sb 206.836†	48.4	25.8	8.2080 µg/L	8.2080 ppb	13:04:06
2	Se 196.026†	-303.5	-329.4	-276.73 µg/L	-276.73 ppb	13:04:06
2	SiO2†	3267.9	-227.0	-39.024 µg/L	-39.024 ppb	13:04:06
2	Si 251.611†	-185.6	-542.7	-28.926 µg/L	-28.926 ppb	13:04:06
2	Sn 189.927†	-373.6	-420.7	-82.023 µg/L	-82.023 ppb	13:04:06
2	Ti 334.940†	11914.5	11786.2	0.0420 µg/L	0.0420 ppb	13:03:45
2	Tl 190.801†	13.7	41.1	15.510 µg/L	15.510 ppb	13:04:06
2	U 409.014†	137046.9	142400.2	15105 µg/L	15105 ppb	13:03:45
2	V 292.402†	-2424.2	-2245.4	9.6065 µg/L	9.6065 ppb	13:03:45
2	Zn 213.857†	3428.0	2909.8	-48.625 µg/L	-48.625 ppb	13:04:06
3	Sc RADIAL	54064.9	54064.9	97.2 %		13:03:06
3	Al 396.153Radial†	673487.5	692541.0	508810 µg/L	508810 ppb	13:03:01
3	Ca 317.933Radial†	516805.9	531245.4	483560 µg/L	483560 ppb	13:03:01
3	Fe 238.204 Radial†	23419.2	24069.4	449880 µg/L	449880 ppb	13:03:06
3	K 766.490 Radial†	852.9	354.4	239.60 µg/L	239.60 ppb	13:03:06
3	Mg 279.077 IEC†	37714.9	38774.8	481070 µg/L	481070 ppb	13:03:06
3	Na 589.592 Radial†	1131042.5	1162687.9	502460 µg/L	502460 ppb	13:03:01
3	Sr 421.552†	373.7	422.3	5.4929 µg/L	5.4929 ppb	13:03:06
3	Sc 361.383	1801925.3	1801925.3	96.444 %		13:04:12
3	Y 371.029	1094870.5	1094870.5	95.084 %		13:04:12
3	Ag 328.068†	-4746.3	-4711.8	-8.5390 µg/L	-8.5390 ppb	13:04:12
3	As 188.979†	2.7	7.1	69.844 µg/L	69.844 ppb	13:04:33
3	B 249.677†	1358.5	1015.7	-102.09 µg/L	-102.09 ppb	13:04:12
3	Ba 233.527†	466.0	529.0	14.697 µg/L	14.697 ppb	13:04:33
3	Be 313.107†	-758.1	-4931.8	-3.1722 µg/L	-3.1722 ppb	13:04:12
3	Cd 226.502†	1909.9	2112.8	6.1117 µg/L	6.1117 ppb	13:04:12
3	Co 228.616†	136.1	129.5	6.3771 µg/L	6.3771 ppb	13:04:33
3	Cr 267.716†	-259.2	-127.6	-3.0066 µg/L	-3.0066 ppb	13:04:33
3	Cu 324.752†	-4162.9	-10250.5	-33.922 µg/L	-33.922 ppb	13:04:12
3	Mn 257.610†	-14411.4	-14691.3	5.4478 µg/L	5.4478 ppb	13:04:12
3	Mo 202.031†	-238.2	-267.3	-15.552 µg/L	-15.552 ppb	13:04:33
3	Ni 231.604†	275.8	-44.8	-2.5739 µg/L	-2.5739 ppb	13:04:33
3	P 214.914†	462.7	215.5	12.825 µg/L	12.825 ppb	13:04:33
3	Pb 220.353†	106.2	29.0	4.7454 µg/L	4.7454 ppb	13:04:33
3	S 181.975 Axial†	83.8	53.6	66.204 µg/L	66.204 ppb	13:04:33
3	Sb 206.836†	59.1	36.7	18.663 µg/L	18.663 ppb	13:04:33
3	Se 196.026†	-318.9	-344.6	-295.01 µg/L	-295.01 ppb	13:04:33
3	SiO2†	3267.4	-235.5	-40.493 µg/L	-40.493 ppb	13:04:33
3	Si 251.611†	-140.7	-495.7	-26.115 µg/L	-26.115 ppb	13:04:33
3	Sn 189.927†	-358.8	-404.5	-74.513 µg/L	-74.513 ppb	13:04:33
3	Ti 334.940†	12079.8	11928.5	0.7350 µg/L	0.7350 ppb	13:04:12
3	Tl 190.801†	6.8	33.9	4.6098 µg/L	4.6098 ppb	13:04:33
3	U 409.014†	137157.8	142181.5	15083 µg/L	15083 ppb	13:04:12
3	V 292.402†	-2569.0	-2389.7	7.7132 µg/L	7.7132 ppb	13:04:12
3	Zn 213.857†	3446.5	2920.6	-47.613 µg/L	-47.613 ppb	13:04:33

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1802280.8	96.463 %		0.2550				0.26%
Sc RADIAL	53986.6	97.1 %		0.15				0.16%
Y 371.029	1095744.6	95.160 %		0.3459				0.36%
Ag 328.068†	-4715.9	-8.4978 µg/L		0.07412	-8.4978 ppb		0.07412	0.87%
Al 396.153Radial†	695866.5	511260 µg/L		2940.2	511260 ppb		2940.2	0.58%
QC value within limits for Al 396.153Radial Recovery = 102.25%								
As 188.979†	4.6	65.596 µg/L		3.7057	65.596 ppb		3.7057	5.65%
B 249.677†	1051.1	-101.00 µg/L		1.332	-101.00 ppb		1.332	1.32%
Ba 233.527†	531.7	14.775 µg/L		0.1182	14.775 ppb		0.1182	0.80%
Be 313.107†	-4934.9	-3.1741 µg/L		0.06404	-3.1741 ppb		0.06404	2.02%
Ca 317.933Radial†	533414.3	485530 µg/L		3336.5	485530 ppb		3336.5	0.69%
QC value within limits for Ca 317.933Radial Recovery = 97.11%								
Cd 226.502†	2088.4	5.3105 µg/L		0.90378	5.3105 ppb		0.90378	17.02%
Co 228.616†	119.4	5.8664 µg/L		0.48536	5.8664 ppb		0.48536	8.27%
Cr 267.716†	-134.9	-3.1729 µg/L		0.14408	-3.1729 ppb		0.14408	4.54%
Cu 324.752†	-10259.4	-33.905 µg/L		0.0820	-33.905 ppb		0.0820	0.24%
Fe 238.204 Radial†	24117.6	450780 µg/L		1545.9	450780 ppb		1545.9	0.34%
QC value within limits for Fe 238.204 Radial Recovery = 90.16%								
K 766.490 Radial†	274.8	185.78 µg/L		48.486	185.78 ppb		48.486	26.10%
Mg 279.077 IEC†	38747.8	480740 µg/L		1349.3	480740 ppb		1349.3	0.28%

QC value within limits for Mg 279.077 IEC Recovery = 96.15%							
Mn 257.610†	-14712.4	5.4879 µg/L	0.14106	5.4879 ppb	0.14106	2.57%	
Mo 202.031†	-268.0	-15.611 µg/L	1.0308	-15.611 ppb	1.0308	6.60%	
Na 589.592 Radial†	1168013.6	504760 µg/L	2644.3	504760 ppb	2644.3	0.52%	
QC value within limits for Na 589.592 Radial Recovery = 100.95%							
Ni 231.604†	-38.4	-2.2078 µg/L	0.35805	-2.2078 ppb	0.35805	16.22%	
P 214.914†	211.9	6.8355 µg/L	7.63574	6.8355 ppb	7.63574	111.71%	
Pb 220.353†	27.6	4.4190 µg/L	1.61467	4.4190 ppb	1.61467	36.54%	
S 181.975 Axial†	46.4	38.915 µg/L	25.2496	38.915 ppb	25.2496	64.88%	
Sb 206.836†	28.1	10.508 µg/L	7.2827	10.508 ppb	7.2827	69.31%	
Se 196.026†	-336.8	-285.88 µg/L	9.143	-285.88 ppb	9.143	3.20%	
SiO2†	-246.9	-42.440 µg/L	4.7034	-42.440 ppb	4.7034	11.08%	
Si 251.611†	-521.1	-27.782 µg/L	1.4767	-27.782 ppb	1.4767	5.32%	
Sn 189.927†	-406.1	-75.163 µg/L	6.5596	-75.163 ppb	6.5596	8.73%	
Sr 421.552†	414.0	5.3852 µg/L	0.09611	5.3852 ppb	0.09611	1.78%	
Ti 334.940†	11865.0	0.4628 µg/L	0.36967	0.4628 ppb	0.36967	79.87%	
Tl 190.801†	29.2	-3.0343 µg/L	23.32568	-3.0343 ppb	23.32568	768.74%	
U 409.014†	142153.5	15080 µg/L	27.6	15080 ppb	27.6	0.18%	
QC value within limits for U 409.014 Recovery = 100.53%							
V 292.402†	-2285.6	9.0224 µg/L	1.13594	9.0224 ppb	1.13594	12.59%	
Zn 213.857†	2913.8	-48.034 µg/L	0.5271	-48.034 ppb	0.5271	1.10%	
All analyte(s) passed QC.							

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 1/11/2010 13:04:42

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	55275.1	55275.1	99.4 %		13:05:24
1	Al 396.153Radial†	629.3	606.3	47.803 µg/L	47.803 ppb	13:05:24
1	Ca 317.933Radial†	429.3	230.0	209.33 µg/L	209.33 ppb	13:05:45
1	Fe 238.204 Radial†	7.2	-6.0	218.85 µg/L	218.85 ppb	13:05:45
1	K 766.490 Radial†	453425.0	455539.8	307980 µg/L	307980 ppb	13:05:19
1	Mg 279.077 IEC†	-5.9	-14.5	80.893 µg/L	80.893 ppb	13:05:45
1	Na 589.592 Radial†	2564.5	2181.8	942.87 µg/L	942.87 ppb	13:05:24
1	Sr 421.552†	755639.9	760073.3	9886.4 µg/L	9886.4 ppb	13:05:19
1	Sc 361.383	1906597.7	1906597.7	102.05 %		13:07:15
1	Y 371.029	1170299.8	1170299.8	101.63 %		13:07:15
1	Ag 328.068†	-7644.7	-7281.9	2.8483 µg/L	2.8483 ppb	13:07:15
1	As 188.979†	5959.4	5844.1	10017 µg/L	10017 ppb	13:07:21
1	B 249.677†	135689.0	132575.2	5140.8 µg/L	5140.8 ppb	13:07:15
1	Ba 233.527†	528592.6	518038.5	14475 µg/L	14475 ppb	13:07:15
1	Be 313.107†	4700221.3	4601821.5	2946.1 µg/L	2946.1 ppb	13:07:05
1	Cd 226.502†	370332.2	363038.3	10025 µg/L	10025 ppb	13:07:15
1	Co 228.616†	203075.8	198991.9	10014 µg/L	10014 ppb	13:07:15
1	Cr 267.716†	1127690.3	1105217.8	25473 µg/L	25473 ppb	13:07:15
1	Cu 324.752†	2981441.3	2915720.0	21267 µg/L	21267 ppb	13:07:15
1	Mn 257.610†	2925828.9	2867408.3	9974.0 µg/L	9974.0 ppb	13:07:15
1	Mo 202.031†	85827.4	84086.0	10456 µg/L	10456 ppb	13:07:15
1	Ni 231.604†	182038.7	178057.5	10225 µg/L	10225 ppb	13:07:15
1	P 214.914†	12001.4	11496.4	16317 µg/L	16317 ppb	13:07:21
1	Pb 220.353†	99730.3	97649.3	26457 µg/L	26457 ppb	13:07:15
1	S 181.975 Axial†	14283.7	13964.0	52515 µg/L	52515 ppb	13:07:21
1	Sb 206.836†	11728.6	11468.9	10614 µg/L	10614 ppb	13:07:21
1	Se 196.026†	9779.3	9569.3	10498 µg/L	10498 ppb	13:07:21
1	SiO2†	607293.0	591491.6	101690 µg/L	101690 ppb	13:07:15
1	Si 251.611†	710922.9	696316.8	46203 µg/L	46203 ppb	13:07:15
1	Sn 189.927†	22526.5	22042.3	11489 µg/L	11489 ppb	13:07:21
1	Ti 334.940†	4171936.3	4087679.3	10031 µg/L	10031 ppb	13:07:05
1	Tl 190.801†	6603.1	6497.5	10440 µg/L	10440 ppb	13:07:21
1	U 409.014†	889.5	838.3	89.600 µg/L	89.600 ppb	13:07:15
1	V 292.402†	848989.1	832238.3	10376 µg/L	10376 ppb	13:07:15
1	Zn 213.857†	596714.1	584095.2	14984 µg/L	14984 ppb	13:07:15
2	Sc RADIAL	55279.2	55279.2	99.4 %		13:05:56
2	Al 396.153Radial†	469.3	445.3	-66.051 µg/L	-66.051 ppb	13:05:56
2	Ca 317.933Radial†	457.8	258.6	235.39 µg/L	235.39 ppb	13:06:16
2	Fe 238.204 Radial†	8.5	-4.7	239.91 µg/L	239.91 ppb	13:06:16
2	K 766.490 Radial†	451224.3	453291.9	306460 µg/L	306460 ppb	13:05:50
2	Mg 279.077 IEC†	3.9	-4.6	200.83 µg/L	200.83 ppb	13:06:16
2	Na 589.592 Radial†	1894.5	1507.8	651.58 µg/L	651.58 ppb	13:05:56
2	Sr 421.552†	751153.9	755504.2	9827.0 µg/L	9827.0 ppb	13:05:50
2	Sc 361.383	1909337.3	1909337.3	102.19 %		13:07:40
2	Y 371.029	1170129.1	1170129.1	101.62 %		13:07:40
2	Ag 328.068†	-7575.6	-7203.5	2.8315 µg/L	2.8315 ppb	13:07:40
2	As 188.979†	5835.9	5714.9	9795.8 µg/L	9795.8 ppb	13:07:46
2	B 249.677†	135157.4	131864.1	5113.2 µg/L	5113.2 ppb	13:07:40
2	Ba 233.527†	524541.2	513330.7	14344 µg/L	14344 ppb	13:07:40
2	Be 313.107†	4711379.8	4606131.7	2948.9 µg/L	2948.9 ppb	13:07:30
2	Cd 226.502†	367243.4	359495.1	9927.4 µg/L	9927.4 ppb	13:07:40
2	Co 228.616†	201186.0	196857.1	9906.2 µg/L	9906.2 ppb	13:07:40
2	Cr 267.716†	1113243.4	1089495.3	25110 µg/L	25110 ppb	13:07:40
2	Cu 324.752†	2955911.5	2886545.9	21055 µg/L	21055 ppb	13:07:40
2	Mn 257.610†	2901064.2	2839061.1	9875.4 µg/L	9875.4 ppb	13:07:40
2	Mo 202.031†	84998.0	83153.8	10340 µg/L	10340 ppb	13:07:40
2	Ni 231.604†	180436.9	176234.1	10120 µg/L	10120 ppb	13:07:40
2	P 214.914†	11667.9	11153.2	15776 µg/L	15776 ppb	13:07:46
2	Pb 220.353†	99122.6	96914.4	26257 µg/L	26257 ppb	13:07:40

2	S 181.975 Axial†	13958.4	13625.6	51242 µg/L	51242 ppb	13:07:46
2	Sb 206.836†	11410.5	11141.1	10310 µg/L	10310 ppb	13:07:46
2	Se 196.026†	9545.0	9326.2	10239 µg/L	10239 ppb	13:07:46
2	SiO2†	604124.3	587536.9	101010 µg/L	101010 ppb	13:07:40
2	Si 251.611†	707622.0	692087.2	45932 µg/L	45932 ppb	13:07:40
2	Sn 189.927†	21782.7	21282.8	11093 µg/L	11093 ppb	13:07:46
2	Ti 334.940†	4186248.4	4095818.2	10051 µg/L	10051 ppb	13:07:30
2	Tl 190.801†	6519.5	6406.5	10295 µg/L	10295 ppb	13:07:46
2	U 409.014†	886.1	833.7	89.102 µg/L	89.102 ppb	13:07:40
2	V 292.402†	841198.4	823421.0	10266 µg/L	10266 ppb	13:07:40
2	Zn 213.857†	591173.8	577834.7	14824 µg/L	14824 ppb	13:07:40
3	Sc RADIAL	54892.2	54892.2	98.7 %		13:06:27
3	Al 396.153Radial†	667.9	649.8	120.85 µg/L	120.85 ppb	13:06:27
3	Ca 317.933Radial†	441.4	245.3	223.24 µg/L	223.24 ppb	13:06:48
3	Fe 238.204 Radial†	4.1	-9.1	126.12 µg/L	126.12 ppb	13:06:48
3	K 766.490 Radial†	451285.8	456554.1	308670 µg/L	308670 ppb	13:06:22
3	Mg 279.077 IEC†	-4.7	-13.4	68.327 µg/L	68.327 ppb	13:06:48
3	Na 589.592 Radial†	1782.3	1407.5	608.24 µg/L	608.24 ppb	13:06:27
3	Sr 421.552†	751390.0	761070.2	9899.3 µg/L	9899.3 ppb	13:06:22
3	Sc 361.383	1907194.8	1907194.8	102.08 %		13:08:05
3	Y 371.029	1169636.1	1169636.1	101.58 %		13:08:05
3	Ag 328.068†	-6740.5	-6393.7	3.5443 µg/L	3.5443 ppb	13:08:05
3	As 188.979†	5300.9	5197.3	8909.4 µg/L	8909.4 ppb	13:08:11
3	B 249.677†	126319.3	123354.6	4783.3 µg/L	4783.3 ppb	13:08:05
3	Ba 233.527†	478547.7	468850.3	13101 µg/L	13101 ppb	13:08:05
3	Be 313.107†	4440222.1	4345673.8	2782.1 µg/L	2782.1 ppb	13:07:55
3	Cd 226.502†	334921.5	328234.9	9064.0 µg/L	9064.0 ppb	13:08:05
3	Co 228.616†	181555.2	177847.1	8948.8 µg/L	8948.8 ppb	13:08:05
3	Cr 267.716†	984135.3	964239.5	22224 µg/L	22224 ppb	13:08:05
3	Cu 324.752†	2669609.6	2609322.4	19033 µg/L	19033 ppb	13:08:05
3	Mn 257.610†	2618475.9	2565415.3	8923.6 µg/L	8923.6 ppb	13:08:05
3	Mo 202.031†	76982.4	75394.8	9375.1 µg/L	9375.1 ppb	13:08:05
3	Ni 231.604†	162886.4	159239.2	9144.0 µg/L	9144.0 ppb	13:08:05
3	P 214.914†	10422.6	9946.1	14035 µg/L	14035 ppb	13:08:11
3	Pb 220.353†	91407.1	89464.9	24239 µg/L	24239 ppb	13:08:05
3	S 181.975 Axial†	12837.8	12543.1	47172 µg/L	47172 ppb	13:08:11
3	Sb 206.836†	10301.5	10067.3	9319.7 µg/L	9319.7 ppb	13:08:11
3	Se 196.026†	8666.5	8476.0	9338.3 µg/L	9338.3 ppb	13:08:11
3	SiO2†	558818.5	543817.6	93492 µg/L	93492 ppb	13:08:05
3	Si 251.611†	653955.3	640291.0	42501 µg/L	42501 ppb	13:08:05
3	Sn 189.927†	19168.8	18746.1	9770.7 µg/L	9770.7 ppb	13:08:11
3	Ti 334.940†	3942457.1	3861592.3	9476.6 µg/L	9476.6 ppb	13:07:55
3	Tl 190.801†	6063.2	5966.6	9589.3 µg/L	9589.3 ppb	13:08:11
3	U 409.014†	896.9	845.2	90.350 µg/L	90.350 ppb	13:08:05
3	V 292.402†	758263.3	743099.2	9265.2 µg/L	9265.2 ppb	13:08:05
3	Zn 213.857†	537076.3	525488.6	13481 µg/L	13481 ppb	13:08:05

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1907709.9	102.11 %	0.077			0.08%
Sc RADIAL	55148.8	99.2 %	0.40			0.40%
Y 371.029	1170021.7	101.61 %	0.030			0.03%
Ag 328.068†	-6959.7	3.0747 µg/L	0.40680	3.0747 ppb	0.40680	13.23%
Al 396.153Radial†	567.1	34.201 µg/L	94.1899	34.201 ppb	94.1899	275.40%
As 188.979†	5585.4	9574.0 µg/L	586.03	9574.0 ppb	586.03	6.12%
QC value within limits for As 188.979 Recovery = 95.74%						
B 249.677†	129264.6	5012.4 µg/L	198.93	5012.4 ppb	198.93	3.97%
QC value within limits for B 249.677 Recovery = 100.25%						
Ba 233.527†	500073.2	13973 µg/L	758.6	13973 ppb	758.6	5.43%
QC value within limits for Ba 233.527 Recovery = 93.15%						
Be 313.107†	4517875.7	2892.4 µg/L	95.48	2892.4 ppb	95.48	3.30%
QC value within limits for Be 313.107 Recovery = 96.41%						
Ca 317.933Radial†	244.6	222.65 µg/L	13.037	222.65 ppb	13.037	5.86%
Cd 226.502†	350256.1	9672.2 µg/L	528.96	9672.2 ppb	528.96	5.47%
QC value within limits for Cd 226.502 Recovery = 96.72%						
Co 228.616†	191232.0	9623.0 µg/L	586.30	9623.0 ppb	586.30	6.09%
QC value within limits for Co 228.616 Recovery = 96.23%						
Cr 267.716†	1052984.2	24269 µg/L	1780.3	24269 ppb	1780.3	7.34%
QC value within limits for Cr 267.716 Recovery = 97.08%						

Cu 324.752†	2803862.8	20452 µg/L	1233.5	20452 ppb	1233.5	6.03%
QC value within limits for Cu 324.752 Recovery = 102.26%						
Fe 238.204 Radial†	-6.6	194.96 µg/L	60.538	194.96 ppb	60.538	31.05%
K 766.490 Radial†	455128.6	307710 µg/L	1128.7	307710 ppb	1128.7	0.37%
QC value within limits for K 766.490 Radial Recovery = 102.57%						
Mg 279.077 IEC†	-10.8	116.68 µg/L	73.144	116.68 ppb	73.144	62.69%
Mn 257.610†	2757294.9	9591.0 µg/L	580.12	9591.0 ppb	580.12	6.05%
QC value within limits for Mn 257.610 Recovery = 95.91%						
Mo 202.031†	80878.2	10057 µg/L	593.3	10057 ppb	593.3	5.90%
QC value within limits for Mo 202.031 Recovery = 100.57%						
Na 589.592 Radial†	1699.0	734.23 µg/L	181.980	734.23 ppb	181.980	24.79%
Ni 231.604†	171176.9	9829.5 µg/L	595.96	9829.5 ppb	595.96	6.06%
QC value within limits for Ni 231.604 Recovery = 98.29%						
P 214.914†	10865.3	15376 µg/L	1192.4	15376 ppb	1192.4	7.75%
QC value within limits for P 214.914 Recovery = 102.51%						
Pb 220.353†	94676.2	25651 µg/L	1226.8	25651 ppb	1226.8	4.78%
QC value within limits for Pb 220.353 Recovery = 102.60%						
S 181.975 Axial†	13377.6	50310 µg/L	2791.2	50310 ppb	2791.2	5.55%
QC value within limits for S 181.975 Axial Recovery = 100.62%						
Sb 206.836†	10892.4	10081 µg/L	676.8	10081 ppb	676.8	6.71%
QC value within limits for Sb 206.836 Recovery = 100.81%						
Se 196.026†	9123.8	10025 µg/L	608.8	10025 ppb	608.8	6.07%
QC value within limits for Se 196.026 Recovery = 100.25%						
SiO2†	574282.0	98729 µg/L	4548.4	98729 ppb	4548.4	4.61%
QC value within limits for SiO2 Recovery = 92.27%						
Si 251.611†	676231.7	44879 µg/L	2063.4	44879 ppb	2063.4	4.60%
QC value less than the lower limit for Si 251.611 Recovery = 89.76%						
Sn 189.927†	20690.4	10784 µg/L	899.7	10784 ppb	899.7	8.34%
QC value within limits for Sn 189.927 Recovery = 107.84%						
Sr 421.552†	758882.6	9870.9 µg/L	38.60	9870.9 ppb	38.60	0.39%
QC value within limits for Sr 421.552 Recovery = 98.71%						
Ti 334.940†	4015029.9	9853.2 µg/L	326.25	9853.2 ppb	326.25	3.31%
QC value within limits for Ti 334.940 Recovery = 98.53%						
Tl 190.801†	6290.2	10108 µg/L	455.1	10108 ppb	455.1	4.50%
QC value within limits for Tl 190.801 Recovery = 101.08%						
U 409.014†	839.0	89.684 µg/L	0.6283	89.684 ppb	0.6283	0.70%
V 292.402†	799586.2	9969.3 µg/L	612.22	9969.3 ppb	612.22	6.14%
QC value within limits for V 292.402 Recovery = 99.69%						
Zn 213.857†	562472.8	14430 µg/L	825.3	14430 ppb	825.3	5.72%
QC value within limits for Zn 213.857 Recovery = 96.20%						
QC Failed. Continue with analysis.						

=====
Analysis Begun

Start Time: 1/11/2010 13:18:13

Plasma On Time: 1/11/2010 07:03:49

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\011110.sif

Batch ID:

Results Data Set: 011110A

Results Library: c:\pe\optimal\Results\Results.mdb

=====
Method Loaded

Method Name: Gen Eng fast_new Si

Method Last Saved: 1/11/2010 12:33:21

IEC File: 101509.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
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	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/11/2010 13:18:15

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55807.1	55807.1	100 %		13:18:50
1	Al 396.153Radial†	6810.4	6758.0	4945.2 µg/L	4945.2 ppb	13:18:50
1	Ca 317.933Radial†	5638.2	5415.2	4929.1 µg/L	4929.1 ppb	13:18:50
1	Fe 238.204 Radial†	275.1	260.8	4891.0 µg/L	4891.0 ppb	13:19:10

1	K 766.490 Radial†	8061.7	7508.6	5076.4 µg/L	5076.4 ppb	13:18:50
1	Mg 279.077 IEC†	401.5	391.3	4868.0 µg/L	4868.0 ppb	13:19:10
1	Na 589.592 Radial†	23162.4	22677.4	9800.0 µg/L	9800.0 ppb	13:18:50
1	Sr 421.552†	37196.4	37094.1	482.49 µg/L	482.49 ppb	13:18:50
1	Sc 361.383	1923187.8	1923187.8	102.93 %		13:20:14
1	Y 371.029	1183855.2	1183855.2	102.81 %		13:20:14
1	Ag 328.068†	54872.9	53518.2	501.69 µg/L	501.69 ppb	13:20:19
1	As 188.979†	303.3	298.9	512.97 µg/L	512.97 ppb	13:20:40
1	B 249.677†	13516.4	12738.2	492.41 µg/L	492.41 ppb	13:20:19
1	Ba 233.527†	18432.2	17952.5	501.94 µg/L	501.94 ppb	13:20:19
1	Be 313.107†	805724.4	778610.3	498.91 µg/L	498.91 ppb	13:20:14
1	Cd 226.502†	18643.2	18244.1	503.48 µg/L	503.48 ppb	13:20:19
1	Co 228.616†	10361.8	10054.8	505.98 µg/L	505.98 ppb	13:20:19
1	Cr 267.716†	22618.0	22114.4	510.38 µg/L	510.38 ppb	13:20:19
1	Cu 324.752†	76527.3	68411.6	499.44 µg/L	499.44 ppb	13:20:19
1	Mn 257.610†	150638.4	146595.6	510.53 µg/L	510.53 ppb	13:20:14
1	Mo 202.031†	4356.1	4211.7	523.90 µg/L	523.90 ppb	13:20:40
1	Ni 231.604†	9398.7	8800.0	505.32 µg/L	505.32 ppb	13:20:19
1	P 214.914†	1892.0	1573.8	2503.4 µg/L	2503.4 ppb	13:20:40
1	Pb 220.353†	2038.3	1899.1	515.03 µg/L	515.03 ppb	13:20:40
1	S 181.975 Axial†	315.5	273.2	1026.2 µg/L	1026.2 ppb	13:20:40
1	Sb 206.836†	593.3	551.9	514.25 µg/L	514.25 ppb	13:20:40
1	Se 196.026†	500.7	472.5	508.02 µg/L	508.02 ppb	13:20:40
1	SiO2†	36221.1	31565.2	5426.6 µg/L	5426.6 ppb	13:20:19
1	Si 251.611†	38878.3	37420.2	2492.7 µg/L	2492.7 ppb	13:20:19
1	Sn 189.927†	1068.5	1005.6	525.48 µg/L	525.48 ppb	13:20:40
1	Ti 334.940†	212536.6	205881.3	504.96 µg/L	504.96 ppb	13:20:14
1	Tl 190.801†	296.1	314.5	505.01 µg/L	505.01 ppb	13:20:40
1	U 409.014†	4950.0	4775.5	509.18 µg/L	509.18 ppb	13:20:19
1	V 292.402†	41468.6	40560.6	506.76 µg/L	506.76 ppb	13:20:19
1	Zn 213.857†	20751.4	19506.9	498.55 µg/L	498.55 ppb	13:20:19
2	Sc RADIAL	55788.1	55788.1	100 %		13:19:15
2	Al 396.153Radial†	6830.2	6780.0	4961.4 µg/L	4961.4 ppb	13:19:15
2	Ca 317.933Radial†	5659.5	5438.3	4950.1 µg/L	4950.1 ppb	13:19:15
2	Fe 238.204 Radial†	271.0	256.9	4818.0 µg/L	4818.0 ppb	13:19:36
2	K 766.490 Radial†	8062.9	7512.5	5079.1 µg/L	5079.1 ppb	13:19:15
2	Mg 279.077 IEC†	406.0	396.0	4925.6 µg/L	4925.6 ppb	13:19:36
2	Na 589.592 Radial†	23181.9	22704.7	9811.8 µg/L	9811.8 ppb	13:19:15
2	Sr 421.552†	37392.2	37301.8	485.19 µg/L	485.19 ppb	13:19:15
2	Sc 361.383	1919443.7	1919443.7	102.73 %		13:20:47
2	Y 371.029	1180888.8	1180888.8	102.55 %		13:20:47
2	Ag 328.068†	55277.8	54016.3	506.34 µg/L	506.34 ppb	13:20:52
2	As 188.979†	306.3	302.4	519.02 µg/L	519.02 ppb	13:21:13
2	B 249.677†	13687.3	12930.2	499.87 µg/L	499.87 ppb	13:20:52
2	Ba 233.527†	18600.0	18150.8	507.48 µg/L	507.48 ppb	13:20:52
2	Be 313.107†	801545.9	776069.8	497.28 µg/L	497.28 ppb	13:20:47
2	Cd 226.502†	18796.2	18428.4	508.58 µg/L	508.58 ppb	13:20:52
2	Co 228.616†	10415.6	10126.8	509.61 µg/L	509.61 ppb	13:20:52
2	Cr 267.716†	22727.2	22263.6	513.83 µg/L	513.83 ppb	13:20:52
2	Cu 324.752†	77133.9	69147.1	504.80 µg/L	504.80 ppb	13:20:52
2	Mn 257.610†	150109.5	146366.2	509.73 µg/L	509.73 ppb	13:20:47
2	Mo 202.031†	4335.9	4200.2	522.48 µg/L	522.48 ppb	13:21:13
2	Ni 231.604†	9434.4	8852.5	508.34 µg/L	508.34 ppb	13:20:52
2	P 214.914†	1880.3	1565.9	2490.1 µg/L	2490.1 ppb	13:21:13
2	Pb 220.353†	2030.6	1895.5	514.02 µg/L	514.02 ppb	13:21:13
2	S 181.975 Axial†	318.1	276.3	1037.7 µg/L	1037.7 ppb	13:21:13
2	Sb 206.836†	590.7	550.4	512.87 µg/L	512.87 ppb	13:21:13
2	Se 196.026†	502.0	474.7	510.30 µg/L	510.30 ppb	13:21:13
2	SiO2†	36427.0	31834.2	5472.9 µg/L	5472.9 ppb	13:20:52
2	Si 251.611†	39205.9	37812.8	2519.4 µg/L	2519.4 ppb	13:20:52
2	Sn 189.927†	1065.7	1004.9	525.12 µg/L	525.12 ppb	13:21:13
2	Ti 334.940†	211592.4	205364.9	503.69 µg/L	503.69 ppb	13:20:47
2	Tl 190.801†	298.0	317.0	508.85 µg/L	508.85 ppb	13:21:13
2	U 409.014†	5008.4	4841.7	516.27 µg/L	516.27 ppb	13:20:52
2	V 292.402†	41729.3	40892.9	510.88 µg/L	510.88 ppb	13:20:52
2	Zn 213.857†	20950.5	19740.1	504.56 µg/L	504.56 ppb	13:20:52
3	Sc RADIAL	56175.5	56175.5	101 %		13:19:41
3	Al 396.153Radial†	6862.8	6765.3	4953.6 µg/L	4953.6 ppb	13:19:41
3	Ca 317.933Radial†	5718.7	5458.0	4968.1 µg/L	4968.1 ppb	13:19:41
3	Fe 238.204 Radial†	269.3	253.3	4749.2 µg/L	4749.2 ppb	13:20:02
3	K 766.490 Radial†	8120.8	7514.4	5080.4 µg/L	5080.4 ppb	13:19:41

3	Mg 279.077 IEC†	405.6	392.9	4885.2 µg/L	4885.2 ppb	13:20:02
3	Na 589.592 Radial†	23250.9	22613.7	9772.5 µg/L	9772.5 ppb	13:19:41
3	Sr 421.552†	37503.2	37154.8	483.28 µg/L	483.28 ppb	13:19:41
3	Sc 361.383	1902460.1	1902460.1	101.82 %		13:21:20
3	Y 371.029	1170031.5	1170031.5	101.61 %		13:21:20
3	Ag 328.068†	52071.5	51347.9	481.21 µg/L	481.21 ppb	13:21:26
3	As 188.979†	259.4	259.0	444.75 µg/L	444.75 ppb	13:21:46
3	B 249.677†	12854.9	12231.7	472.81 µg/L	472.81 ppb	13:21:26
3	Ba 233.527†	17083.1	16822.7	470.33 µg/L	470.33 ppb	13:21:26
3	Be 313.107†	756955.7	739243.9	473.69 µg/L	473.69 ppb	13:21:20
3	Cd 226.502†	17131.9	16957.3	467.92 µg/L	467.92 ppb	13:21:26
3	Co 228.616†	9444.1	9263.2	466.03 µg/L	466.03 ppb	13:21:26
3	Cr 267.716†	20117.6	19898.2	459.26 µg/L	459.26 ppb	13:21:26
3	Cu 324.752†	70922.3	63717.1	465.19 µg/L	465.19 ppb	13:21:26
3	Mn 257.610†	142020.2	139726.3	486.62 µg/L	486.62 ppb	13:21:20
3	Mo 202.031†	3668.8	3582.9	445.70 µg/L	445.70 ppb	13:21:46
3	Ni 231.604†	8625.5	8140.1	467.43 µg/L	467.43 ppb	13:21:26
3	P 214.914†	1643.0	1349.2	2141.0 µg/L	2141.0 ppb	13:21:46
3	Pb 220.353†	1761.7	1649.0	447.13 µg/L	447.13 ppb	13:21:46
3	S 181.975 Axial†	284.8	246.4	925.40 µg/L	925.40 ppb	13:21:46
3	Sb 206.836†	518.0	484.2	451.26 µg/L	451.26 ppb	13:21:46
3	Se 196.026†	455.8	433.7	466.78 µg/L	466.78 ppb	13:21:46
3	SiO2†	34091.2	29856.8	5132.9 µg/L	5132.9 ppb	13:21:26
3	Si 251.611†	36390.9	35388.9	2360.3 µg/L	2360.3 ppb	13:21:26
3	Sn 189.927†	890.0	841.6	440.02 µg/L	440.02 ppb	13:21:46
3	Ti 334.940†	199081.3	194916.7	478.05 µg/L	478.05 ppb	13:21:20
3	Tl 190.801†	270.6	292.6	469.95 µg/L	469.95 ppb	13:21:46
3	U 409.014†	4453.4	4340.2	462.69 µg/L	462.69 ppb	13:21:26
3	V 292.402†	37696.7	37295.2	465.71 µg/L	465.71 ppb	13:21:26
3	Zn 213.857†	19112.3	18116.8	462.97 µg/L	462.97 ppb	13:21:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1915030.6	102.50 %	0.591			0.58%
Sc RADIAL	55923.6	101 %	0.4			0.39%
Y 371.029	1178258.5	102.33 %	0.632			0.62%
Ag 328.068†	52960.8	496.41 µg/L	13.371	496.41 ppb	13.371	2.69%
QC value within limits for Ag 328.068 Recovery = 99.28%						
Al 396.153Radial†	6767.8	4953.4 µg/L	8.10	4953.4 ppb	8.10	0.16%
QC value within limits for Al 396.153Radial Recovery = 99.07%						
As 188.979†	286.8	492.25 µg/L	41.249	492.25 ppb	41.249	8.38%
QC value within limits for As 188.979 Recovery = 98.45%						
B 249.677†	12633.4	488.36 µg/L	13.978	488.36 ppb	13.978	2.86%
QC value within limits for B 249.677 Recovery = 97.67%						
Ba 233.527†	17642.0	493.25 µg/L	20.040	493.25 ppb	20.040	4.06%
QC value within limits for Ba 233.527 Recovery = 98.65%						
Be 313.107†	764641.3	489.96 µg/L	14.117	489.96 ppb	14.117	2.88%
QC value within limits for Be 313.107 Recovery = 97.99%						
Ca 317.933Radial†	5437.1	4949.1 µg/L	19.52	4949.1 ppb	19.52	0.39%
QC value within limits for Ca 317.933Radial Recovery = 98.98%						
Cd 226.502†	17876.6	493.33 µg/L	22.146	493.33 ppb	22.146	4.49%
QC value within limits for Cd 226.502 Recovery = 98.67%						
Co 228.616†	9814.9	493.87 µg/L	24.178	493.87 ppb	24.178	4.90%
QC value within limits for Co 228.616 Recovery = 98.77%						
Cr 267.716†	21425.4	494.49 µg/L	30.560	494.49 ppb	30.560	6.18%
QC value within limits for Cr 267.716 Recovery = 98.90%						
Cu 324.752†	67091.9	489.81 µg/L	21.491	489.81 ppb	21.491	4.39%
QC value within limits for Cu 324.752 Recovery = 97.96%						
Fe 238.204 Radial†	257.0	4819.4 µg/L	70.94	4819.4 ppb	70.94	1.47%
QC value within limits for Fe 238.204 Radial Recovery = 96.39%						
K 766.490 Radial†	7511.8	5078.6 µg/L	2.01	5078.6 ppb	2.01	0.04%
QC value within limits for K 766.490 Radial Recovery = 101.57%						
Mg 279.077 IEC†	393.4	4893.0 µg/L	29.55	4893.0 ppb	29.55	0.60%
QC value within limits for Mg 279.077 IEC Recovery = 97.86%						
Mn 257.610†	144229.4	502.29 µg/L	13.579	502.29 ppb	13.579	2.70%
QC value within limits for Mn 257.610 Recovery = 100.46%						
Mo 202.031†	3998.3	497.36 µg/L	44.741	497.36 ppb	44.741	9.00%
QC value within limits for Mo 202.031 Recovery = 99.47%						
Na 589.592 Radial†	22665.3	9794.8 µg/L	20.18	9794.8 ppb	20.18	0.21%

QC value within limits for Na 589.592 Radial Recovery = 97.95%							
Ni 231.604†	8597.6	493.70 µg/L	22.798	493.70 ppb	22.798	4.62%	
QC value within limits for Ni 231.604 Recovery = 98.74%							
P 214.914†	1496.3	2378.2 µg/L	205.48	2378.2 ppb	205.48	8.64%	
QC value within limits for P 214.914 Recovery = 95.13%							
Pb 220.353†	1814.5	492.06 µg/L	38.914	492.06 ppb	38.914	7.91%	
QC value within limits for Pb 220.353 Recovery = 98.41%							
S 181.975 Axial†	265.3	996.43 µg/L	61.786	996.43 ppb	61.786	6.20%	
QC value within limits for S 181.975 Axial Recovery = 99.64%							
Sb 206.836†	528.9	492.80 µg/L	35.975	492.80 ppb	35.975	7.30%	
QC value within limits for Sb 206.836 Recovery = 98.56%							
Se 196.026†	460.3	495.03 µg/L	24.492	495.03 ppb	24.492	4.95%	
QC value within limits for Se 196.026 Recovery = 99.01%							
SiO2†	31085.4	5344.1 µg/L	184.37	5344.1 ppb	184.37	3.45%	
QC value within limits for SiO2 Recovery = 99.94%							
Si 251.611†	36874.0	2457.5 µg/L	85.21	2457.5 ppb	85.21	3.47%	
QC value within limits for Si 251.611 Recovery = 98.30%							
Sn 189.927†	950.7	496.87 µg/L	49.238	496.87 ppb	49.238	9.91%	
QC value within limits for Sn 189.927 Recovery = 99.37%							
Sr 421.552†	37183.6	483.65 µg/L	1.389	483.65 ppb	1.389	0.29%	
QC value within limits for Sr 421.552 Recovery = 96.73%							
Ti 334.940†	202054.3	495.56 µg/L	15.184	495.56 ppb	15.184	3.06%	
QC value within limits for Ti 334.940 Recovery = 99.11%							
Tl 190.801†	308.0	494.61 µg/L	21.435	494.61 ppb	21.435	4.33%	
QC value within limits for Tl 190.801 Recovery = 98.92%							
U 409.014†	4652.5	496.04 µg/L	29.107	496.04 ppb	29.107	5.87%	
QC value within limits for U 409.014 Recovery = 99.21%							
V 292.402†	39582.9	494.45 µg/L	24.973	494.45 ppb	24.973	5.05%	
QC value within limits for V 292.402 Recovery = 98.89%							
Zn 213.857†	19121.3	488.69 µg/L	22.477	488.69 ppb	22.477	4.60%	
QC value within limits for Zn 213.857 Recovery = 97.74%							

All analyte(s) passed QC.

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/11/2010 13:21:55

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	55684.8	55684.8	100 %		13:22:28
1	Al 396.153Radial†	13.9	-12.9	-9.4842 µg/L	-9.4842 ppb	13:22:28
1	Ca 317.933Radial†	197.7	-4.5	-4.0545 µg/L	-4.0545 ppb	13:22:48
1	Fe 238.204 Radial†	15.6	2.3	42.943 µg/L	42.943 ppb	13:22:48
1	K 766.490 Radial†	643.2	119.5	80.772 µg/L	80.772 ppb	13:22:28
1	Mg 279.077 IEC†	10.1	1.5	18.469 µg/L	18.469 ppb	13:22:48
1	Na 589.592 Radial†	531.6	133.1	57.536 µg/L	57.536 ppb	13:22:28
1	Sr 421.552†	3.1	41.2	0.5356 µg/L	0.5356 ppb	13:22:28
1	Sc 361.383	1885845.4	1885845.4	100.94 %		13:23:50
1	Y 371.029	1161504.0	1161504.0	100.87 %		13:23:50
1	Ag 328.068†	-169.8	41.3	0.3917 µg/L	0.3917 ppb	13:23:55
1	As 188.979†	-3.5	0.8	1.3940 µg/L	1.3940 ppb	13:24:16
1	B 249.677†	453.1	56.0	2.1585 µg/L	2.1585 ppb	13:23:55
1	Ba 233.527†	-30.4	15.6	0.4373 µg/L	0.4373 ppb	13:24:16
1	Be 313.107†	4336.4	150.5	0.0964 µg/L	0.0964 ppb	13:23:50
1	Cd 226.502†	-130.3	3.4	0.0853 µg/L	0.0853 ppb	13:24:16
1	Co 228.616†	23.6	11.7	0.5921 µg/L	0.5921 ppb	13:24:16
1	Cr 267.716†	-126.5	15.8	0.3657 µg/L	0.3657 ppb	13:23:55
1	Cu 324.752†	6266.0	273.8	2.0011 µg/L	2.0011 ppb	13:23:55
1	Mn 257.610†	-179.4	73.7	0.2617 µg/L	0.2617 ppb	13:23:55
1	Mo 202.031†	29.3	8.8	1.0975 µg/L	1.0975 ppb	13:24:16
1	Ni 231.604†	335.6	1.7	0.0981 µg/L	0.0981 ppb	13:24:16
1	P 214.914†	258.5	-8.2	-13.658 µg/L	-13.658 ppb	13:24:16
1	Pb 220.353†	91.1	9.1	2.4773 µg/L	2.4773 ppb	13:24:16
1	S 181.975 Axial†	37.5	3.9	14.667 µg/L	14.667 ppb	13:24:16
1	Sb 206.836†	33.3	8.5	7.9298 µg/L	7.9298 ppb	13:24:16
1	Se 196.026†	17.5	3.4	3.6488 µg/L	3.6488 ppb	13:24:16
1	SiO2†	3658.7	1.4	0.2466 µg/L	0.2466 ppb	13:23:55
1	Si 251.611†	397.0	43.5	3.0283 µg/L	3.0283 ppb	13:24:16
1	Sn 189.927†	26.4	-6.3	-3.2663 µg/L	-3.2663 ppb	13:24:16
1	Ti 334.940†	645.2	42.6	0.1047 µg/L	0.1047 ppb	13:23:55
1	Tl 190.801†	-31.8	-4.7	-7.4752 µg/L	-7.4752 ppb	13:24:16
1	V 409.014†	11.8	-21.7	-2.3233 µg/L	-2.3233 ppb	13:23:55
1	U 292.402†	-227.7	48.4	0.6048 µg/L	0.6048 ppb	13:23:55
1	Zn 213.857†	654.5	-4.5	-0.1304 µg/L	-0.1304 ppb	13:24:16
2	Sc RADIAL	54833.2	54833.2	98.6 %		13:22:54
2	Al 396.153Radial†	23.5	-2.8	-2.1449 µg/L	-2.1449 ppb	13:22:54
2	Ca 317.933Radial†	206.2	7.3	6.6280 µg/L	6.6280 ppb	13:23:14
2	Fe 238.204 Radial†	14.7	1.6	30.494 µg/L	30.494 ppb	13:23:14
2	K 766.490 Radial†	613.2	99.0	66.934 µg/L	66.934 ppb	13:22:54
2	Mg 279.077 IEC†	9.4	0.9	11.110 µg/L	11.110 ppb	13:23:14
2	Na 589.592 Radial†	517.2	126.7	54.761 µg/L	54.761 ppb	13:22:54
2	Sr 421.552†	-8.7	29.2	0.3800 µg/L	0.3800 ppb	13:22:54
2	Sc 361.383	1905863.0	1905863.0	102.01 %		13:24:22
2	Y 371.029	1174369.7	1174369.7	101.99 %		13:24:22
2	Ag 328.068†	-144.1	68.3	0.6405 µg/L	0.6405 ppb	13:24:27
2	As 188.979†	-0.7	3.5	6.0327 µg/L	6.0327 ppb	13:24:48
2	B 249.677†	468.6	66.5	2.5695 µg/L	2.5695 ppb	13:24:27
2	Ba 233.527†	-33.2	13.3	0.3710 µg/L	0.3710 ppb	13:24:48
2	Be 313.107†	4236.8	7.7	0.0049 µg/L	0.0049 ppb	13:24:22
2	Cd 226.502†	-117.2	17.5	0.4849 µg/L	0.4849 ppb	13:24:48
2	Co 228.616†	15.5	3.5	0.1808 µg/L	0.1808 ppb	13:24:48
2	Cr 267.716†	-107.4	35.9	0.8281 µg/L	0.8281 ppb	13:24:27
2	Cu 324.752†	6279.1	221.4	1.6178 µg/L	1.6178 ppb	13:24:27
2	Mn 257.610†	-224.8	31.0	0.1116 µg/L	0.1116 ppb	13:24:27
2	Mo 202.031†	32.2	11.3	1.4121 µg/L	1.4121 ppb	13:24:48
2	Ni 231.604†	319.3	-17.8	-1.0221 µg/L	-1.0221 ppb	13:24:48
2	P 214.914†	259.5	-9.9	-16.347 µg/L	-16.347 ppb	13:24:48
2	Pb 220.353†	79.9	-2.8	-0.7586 µg/L	-0.7586 ppb	13:24:48

2	S 181.975 Axial†	38.3	4.2	15.922 µg/L	15.922 ppb	13:24:48
2	Sb 206.836†	25.0	0.0	0.0255 µg/L	0.0255 ppb	13:24:48
2	Se 196.026†	10.8	-3.4	-3.4902 µg/L	-3.4902 ppb	13:24:48
2	SiO2†	3698.2	2.0	0.3493 µg/L	0.3493 ppb	13:24:27
2	Si 251.611†	393.4	35.8	2.5151 µg/L	2.5151 ppb	13:24:48
2	Sn 189.927†	26.1	-6.8	-3.5547 µg/L	-3.5547 ppb	13:24:48
2	Ti 334.940†	693.8	83.5	0.2044 µg/L	0.2044 ppb	13:24:27
2	Tl 190.801†	-28.3	-0.8	-1.3320 µg/L	-1.3320 ppb	13:24:48
2	U 409.014†	128.8	92.9	9.9210 µg/L	9.9210 ppb	13:24:27
2	V 292.402†	-243.9	35.0	0.4602 µg/L	0.4602 ppb	13:24:27
2	Zn 213.857†	646.8	-18.9	-0.4916 µg/L	-0.4916 ppb	13:24:48
3	Sc RADIAL	54883.3	54883.3	98.7 %		13:23:20
3	Al 396.153Radial†	14.6	-11.9	-8.7794 µg/L	-8.7794 ppb	13:23:20
3	Ca 317.933Radial†	198.6	-0.7	-0.6052 µg/L	-0.6052 ppb	13:23:40
3	Fe 238.204 Radial†	14.4	1.4	26.121 µg/L	26.121 ppb	13:23:40
3	K 766.490 Radial†	632.8	118.3	80.003 µg/L	80.003 ppb	13:23:20
3	Mg 279.077 IEC†	8.5	-0.0	-0.3183 µg/L	-0.3183 ppb	13:23:40
3	Na 589.592 Radial†	538.7	148.1	64.001 µg/L	64.001 ppb	13:23:20
3	Sr 421.552†	7.4	45.6	0.5928 µg/L	0.5928 ppb	13:23:20
3	Sc 361.383	1903760.4	1903760.4	101.89 %		13:24:54
3	Y 371.029	1173578.4	1173578.4	101.92 %		13:24:54
3	Ag 328.068†	-226.7	-13.0	-0.1159 µg/L	-0.1159 ppb	13:24:59
3	As 188.979†	-5.9	-1.5	-2.5765 µg/L	-2.5765 ppb	13:25:20
3	B 249.677†	415.0	14.4	0.5505 µg/L	0.5505 ppb	13:24:59
3	Ba 233.527†	-27.5	18.8	0.5258 µg/L	0.5258 ppb	13:25:20
3	Be 313.107†	4414.6	186.8	0.1197 µg/L	0.1197 ppb	13:24:54
3	Cd 226.502†	-114.2	20.4	0.5552 µg/L	0.5552 ppb	13:25:20
3	Co 228.616†	19.1	7.2	0.3622 µg/L	0.3622 ppb	13:25:20
3	Cr 267.716†	-100.0	43.0	0.9914 µg/L	0.9914 ppb	13:24:59
3	Cu 324.752†	6314.8	263.3	1.9225 µg/L	1.9225 ppb	13:24:59
3	Mn 257.610†	-166.9	87.6	0.3081 µg/L	0.3081 ppb	13:24:59
3	Mo 202.031†	24.9	4.2	0.5201 µg/L	0.5201 ppb	13:25:20
3	Ni 231.604†	327.4	-9.5	-0.5447 µg/L	-0.5447 ppb	13:25:20
3	P 214.914†	263.7	-5.5	-9.1901 µg/L	-9.1901 ppb	13:25:20
3	Pb 220.353†	88.4	5.7	1.5325 µg/L	1.5325 ppb	13:25:20
3	S 181.975 Axial†	28.8	-5.0	-18.788 µg/L	-18.788 ppb	13:25:20
3	Sb 206.836†	24.5	-0.5	-0.4791 µg/L	-0.4791 ppb	13:25:20
3	Se 196.026†	4.9	-9.2	-9.6471 µg/L	-9.6471 ppb	13:25:20
3	SiO2†	3620.9	-69.8	-11.998 µg/L	-11.998 ppb	13:24:59
3	Si 251.611†	386.9	29.9	2.0756 µg/L	2.0756 ppb	13:25:20
3	Sn 189.927†	28.7	-4.2	-2.2138 µg/L	-2.2138 ppb	13:25:20
3	Ti 334.940†	665.2	56.2	0.1380 µg/L	0.1380 ppb	13:24:59
3	Tl 190.801†	-35.4	-7.9	-12.635 µg/L	-12.635 ppb	13:25:20
3	U 409.014†	6.7	-26.8	-2.8705 µg/L	-2.8705 ppb	13:24:59
3	V 292.402†	-247.4	31.3	0.3870 µg/L	0.3870 ppb	13:24:59
3	Zn 213.857†	652.9	-12.2	-0.3221 µg/L	-0.3221 ppb	13:25:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1898489.6	101.61 %		0.589			0.58%
Sc RADIAL	55133.8	99.2 %		0.86			0.87%
Y 371.029	1169817.4	101.59 %		0.626			0.62%
Ag 328.068†	32.2	0.3054 µg/L		0.38551	0.3054 ppb	0.38551	126.22%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-9.2	-6.8028 µg/L		4.04922	-6.8028 ppb	4.04922	59.52%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	0.9	1.6167 µg/L		4.30891	1.6167 ppb	4.30891	266.52%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	45.6	1.7595 µg/L		1.06700	1.7595 ppb	1.06700	60.64%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	15.9	0.4447 µg/L		0.07763	0.4447 ppb	0.07763	17.46%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	115.0	0.0736 µg/L		0.06068	0.0736 ppb	0.06068	82.40%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	0.7	0.6561 µg/L		5.45179	0.6561 ppb	5.45179	830.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	13.7	0.3751 µg/L		0.25343	0.3751 ppb	0.25343	67.56%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	7.5	0.3783 µg/L		0.20615	0.3783 ppb	0.20615	54.49%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	31.6	0.7284 µg/L	0.32452	0.7284 ppb	0.32452	44.55%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	252.8	1.8471 µg/L	0.20248	1.8471 ppb	0.20248	10.96%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	1.8	33.186 µg/L	8.7284	33.186 ppb	8.7284	26.30%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	112.3	75.903 µg/L	7.7771	75.903 ppb	7.7771	10.25%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.8	9.7535 µg/L	9.46672	9.7535 ppb	9.46672	97.06%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	64.1	0.2271 µg/L	0.10273	0.2271 ppb	0.10273	45.23%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	8.1	1.0099 µg/L	0.45239	1.0099 ppb	0.45239	44.80%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	136.0	58.766 µg/L	4.7414	58.766 ppb	4.7414	8.07%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-8.5	-0.4896 µg/L	0.56212	-0.4896 ppb	0.56212	114.82%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-7.8	-13.065 µg/L	3.6150	-13.065 ppb	3.6150	27.67%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	4.0	1.0838 µg/L	1.66397	1.0838 ppb	1.66397	153.54%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	1.0	3.9337 µg/L	19.68745	3.9337 ppb	19.68745	500.48%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	2.7	2.4921 µg/L	4.71597	2.4921 ppb	4.71597	189.24%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-3.1	-3.1628 µg/L	6.65395	-3.1628 ppb	6.65395	210.38%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-22.1	-3.8007 µg/L	7.09935	-3.8007 ppb	7.09935	186.79%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	36.4	2.5397 µg/L	0.47681	2.5397 ppb	0.47681	18.77%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-5.8	-3.0116 µg/L	0.70581	-3.0116 ppb	0.70581	23.44%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	38.7	0.5028 µg/L	0.11013	0.5028 ppb	0.11013	21.91%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	60.7	0.1490 µg/L	0.05079	0.1490 ppb	0.05079	34.08%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-4.5	-7.1476 µg/L	5.65887	-7.1476 ppb	5.65887	79.17%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	14.8	1.5757 µg/L	7.23235	1.5757 ppb	7.23235	458.98%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	38.2	0.4840 µg/L	0.11088	0.4840 ppb	0.11088	22.91%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-11.8	-0.3147 µg/L	0.18072	-0.3147 ppb	0.18072	57.42%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/11/2010 13:51:54

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	56450.8	56450.8	102 %		13:52:32
1	Al 396.153Radial†	6948.3	6816.4	4987.8 µg/L	4987.8 ppb	13:52:32
1	Ca 317.933Radial†	5620.0	5333.1	4854.4 µg/L	4854.4 ppb	13:52:52
1	Fe 238.204 Radial†	272.0	254.6	4775.8 µg/L	4775.8 ppb	13:52:52
1	K 766.490 Radial†	8058.7	7414.1	5012.5 µg/L	5012.5 ppb	13:52:32
1	Mg 279.077 IEC†	401.3	386.6	4809.3 µg/L	4809.3 ppb	13:52:52
1	Na 589.592 Radial†	23177.6	22429.2	9692.8 µg/L	9692.8 ppb	13:52:32
1	Sr 421.552†	37555.0	37024.7	481.59 µg/L	481.59 ppb	13:52:32
1	Sc 361.383	1900523.8	1900523.8	101.72 %		13:53:55
1	Y 371.029	1169165.9	1169165.9	101.54 %		13:53:55
1	Ag 328.068†	55283.0	54557.0	511.39 µg/L	511.39 ppb	13:54:01
1	As 188.979†	305.3	304.4	522.38 µg/L	522.38 ppb	13:54:22
1	B 249.677†	13653.9	13030.0	503.75 µg/L	503.75 ppb	13:54:01
1	Ba 233.527†	18534.4	18266.5	510.72 µg/L	510.72 ppb	13:54:01
1	Be 313.107†	798001.3	780352.3	500.03 µg/L	500.03 ppb	13:53:55
1	Cd 226.502†	18659.1	18475.8	509.90 µg/L	509.90 ppb	13:54:01
1	Co 228.616†	10356.7	10169.8	511.78 µg/L	511.78 ppb	13:54:01
1	Cr 267.716†	22613.7	22372.2	516.34 µg/L	516.34 ppb	13:54:01
1	Cu 324.752†	76672.3	69440.8	506.94 µg/L	506.94 ppb	13:54:01
1	Mn 257.610†	149522.1	147243.3	512.77 µg/L	512.77 ppb	13:53:55
1	Mo 202.031†	4374.8	4280.6	532.46 µg/L	532.46 ppb	13:54:22
1	Ni 231.604†	9436.1	8945.6	513.68 µg/L	513.68 ppb	13:54:01
1	P 214.914†	1907.3	1610.7	2562.8 µg/L	2562.8 ppb	13:54:22
1	Pb 220.353†	2035.3	1919.7	520.61 µg/L	520.61 ppb	13:54:22
1	S 181.975 Axial†	317.8	279.1	1048.2 µg/L	1048.2 ppb	13:54:22
1	Sb 206.836†	599.2	564.6	526.05 µg/L	526.05 ppb	13:54:22
1	Se 196.026†	502.2	479.7	515.58 µg/L	515.58 ppb	13:54:22
1	SiO2†	36606.1	32363.3	5563.8 µg/L	5563.8 ppb	13:54:01
1	Si 251.611†	39374.5	38358.4	2555.8 µg/L	2555.8 ppb	13:54:01
1	Sn 189.927†	1075.5	1024.9	535.48 µg/L	535.48 ppb	13:54:22
1	Ti 334.940†	211034.7	206867.0	507.38 µg/L	507.38 ppb	13:53:55
1	Tl 190.801†	292.9	314.8	505.42 µg/L	505.42 ppb	13:54:22
1	U 409.014†	5014.6	4896.3	522.12 µg/L	522.12 ppb	13:54:01
1	V 292.402†	41598.1	41168.2	514.37 µg/L	514.37 ppb	13:54:01
1	Zn 213.857†	20878.9	19872.7	507.96 µg/L	507.96 ppb	13:54:01
2	Sc RADIAL	56161.0	56161.0	101 %		13:52:57
2	Al 396.153Radial†	6976.6	6879.8	5034.8 µg/L	5034.8 ppb	13:52:57
2	Ca 317.933Radial†	5584.4	5326.5	4848.3 µg/L	4848.3 ppb	13:53:18
2	Fe 238.204 Radial†	273.2	257.2	4824.3 µg/L	4824.3 ppb	13:53:18
2	K 766.490 Radial†	8132.0	7527.5	5089.2 µg/L	5089.2 ppb	13:52:57
2	Mg 279.077 IEC†	397.2	384.6	4784.5 µg/L	4784.5 ppb	13:53:18
2	Na 589.592 Radial†	23319.1	22687.1	9804.2 µg/L	9804.2 ppb	13:52:57
2	Sr 421.552†	37763.6	37422.1	486.75 µg/L	486.75 ppb	13:52:57
2	Sc 361.383	1905562.2	1905562.2	101.99 %		13:54:29
2	Y 371.029	1173016.2	1173016.2	101.87 %		13:54:29
2	Ag 328.068†	55268.5	54399.2	509.92 µg/L	509.92 ppb	13:54:34
2	As 188.979†	301.8	300.2	515.23 µg/L	515.23 ppb	13:54:55
2	B 249.677†	13645.0	12985.7	502.02 µg/L	502.02 ppb	13:54:34
2	Ba 233.527†	18561.9	18245.4	510.13 µg/L	510.13 ppb	13:54:34
2	Be 313.107†	800767.6	780990.4	500.43 µg/L	500.43 ppb	13:54:29
2	Cd 226.502†	18642.9	18411.4	508.11 µg/L	508.11 ppb	13:54:34
2	Co 228.616†	10385.4	10171.0	511.82 µg/L	511.82 ppb	13:54:34
2	Cr 267.716†	22535.7	22237.0	513.22 µg/L	513.22 ppb	13:54:34
2	Cu 324.752†	76753.8	69321.4	506.07 µg/L	506.07 ppb	13:54:34
2	Mn 257.610†	150197.2	147516.6	513.73 µg/L	513.73 ppb	13:54:29
2	Mo 202.031†	4291.6	4187.6	520.91 µg/L	520.91 ppb	13:54:55
2	Ni 231.604†	9439.8	8924.7	512.48 µg/L	512.48 ppb	13:54:34
2	P 214.914†	1882.5	1581.5	2515.1 µg/L	2515.1 ppb	13:54:55
2	Pb 220.353†	1997.2	1877.1	509.05 µg/L	509.05 ppb	13:54:55

2	S 181.975 Axial†	312.6	273.2	1026.2 µg/L	1026.2 ppb	13:54:55
2	Sb 206.836†	591.3	555.2	517.38 µg/L	517.38 ppb	13:54:55
2	Se 196.026†	496.2	472.6	508.11 µg/L	508.11 ppb	13:54:55
2	SiO2†	36634.9	32296.4	5552.3 µg/L	5552.3 ppb	13:54:34
2	Si 251.611†	39313.9	38196.7	2545.6 µg/L	2545.6 ppb	13:54:34
2	Sn 189.927†	1049.2	996.3	520.57 µg/L	520.57 ppb	13:54:55
2	Ti 334.940†	211678.4	206949.6	507.58 µg/L	507.58 ppb	13:54:29
2	Tl 190.801†	295.2	316.3	507.80 µg/L	507.80 ppb	13:54:55
2	U 409.014†	4977.7	4847.2	516.86 µg/L	516.86 ppb	13:54:34
2	V 292.402†	41638.2	41099.5	513.43 µg/L	513.43 ppb	13:54:34
2	Zn 213.857†	20915.2	19854.0	507.47 µg/L	507.47 ppb	13:54:34
3	Sc RADIAL	55828.2	55828.2	100 %		13:53:23
3	Al 396.153Radial†	6864.3	6809.2	4985.8 µg/L	4985.8 ppb	13:53:23
3	Ca 317.933Radial†	5546.1	5321.3	4843.7 µg/L	4843.7 ppb	13:53:44
3	Fe 238.204 Radial†	272.0	257.6	4830.5 µg/L	4830.5 ppb	13:53:44
3	K 766.490 Radial†	8044.9	7488.8	5063.1 µg/L	5063.1 ppb	13:53:23
3	Mg 279.077 IEC†	398.8	388.5	4831.3 µg/L	4831.3 ppb	13:53:44
3	Na 589.592 Radial†	22985.1	22492.1	9719.9 µg/L	9719.9 ppb	13:53:23
3	Sr 421.552†	37044.9	36929.3	480.34 µg/L	480.34 ppb	13:53:23
3	Sc 361.383	1916290.4	1916290.4	102.57 %		13:55:02
3	Y 371.029	1178993.6	1178993.6	102.39 %		13:55:02
3	Ag 328.068†	52730.7	51621.5	483.78 µg/L	483.78 ppb	13:55:08
3	As 188.979†	266.2	263.8	452.92 µg/L	452.92 ppb	13:55:28
3	B 249.677†	12995.3	12277.5	474.56 µg/L	474.56 ppb	13:55:08
3	Ba 233.527†	17284.9	16898.4	472.45 µg/L	472.45 ppb	13:55:08
3	Be 313.107†	766485.6	743170.3	476.20 µg/L	476.20 ppb	13:55:02
3	Cd 226.502†	17327.4	17026.5	469.83 µg/L	469.83 ppb	13:55:08
3	Co 228.616†	9601.0	9349.3	470.36 µg/L	470.36 ppb	13:55:08
3	Cr 267.716†	20262.5	19896.9	459.23 µg/L	459.23 ppb	13:55:08
3	Cu 324.752†	71374.5	63655.3	464.74 µg/L	464.74 ppb	13:55:08
3	Mn 257.610†	143956.3	140607.4	489.70 µg/L	489.70 ppb	13:55:02
3	Mo 202.031†	3695.4	3582.7	445.69 µg/L	445.69 ppb	13:55:28
3	Ni 231.604†	8785.1	8234.6	472.85 µg/L	472.85 ppb	13:55:08
3	P 214.914†	1681.7	1375.4	2183.4 µg/L	2183.4 ppb	13:55:28
3	Pb 220.353†	1784.0	1658.3	449.63 µg/L	449.63 ppb	13:55:28
3	S 181.975 Axial†	288.8	248.2	932.20 µg/L	932.20 ppb	13:55:28
3	Sb 206.836†	514.1	476.8	444.32 µg/L	444.32 ppb	13:55:28
3	Se 196.026†	447.9	422.7	455.11 µg/L	455.11 ppb	13:55:28
3	SiO2†	34637.8	30148.2	5183.0 µg/L	5183.0 ppb	13:55:08
3	Si 251.611†	36999.2	35724.1	2383.1 µg/L	2383.1 ppb	13:55:08
3	Sn 189.927†	893.6	838.8	438.52 µg/L	438.52 ppb	13:55:28
3	Ti 334.940†	201417.5	195783.4	480.18 µg/L	480.18 ppb	13:55:02
3	Tl 190.801†	263.7	284.0	456.21 µg/L	456.21 ppb	13:55:28
3	U 409.014†	4531.7	4384.9	467.46 µg/L	467.46 ppb	13:55:08
3	V 292.402†	38211.8	37530.2	468.63 µg/L	468.63 ppb	13:55:08
3	Zn 213.857†	19320.7	18184.5	464.67 µg/L	464.67 ppb	13:55:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1907458.8	102.09 %	0.431			0.42%
Sc RADIAL	56146.7	101 %	0.6			0.55%
Y 371.029	1173725.2	101.93 %	0.430			0.42%
Ag 328.068†	53525.9	501.70 µg/L	15.535	501.70 ppb	15.535	3.10%
QC value within limits for Ag 328.068 Recovery = 100.34%						
Al 396.153Radial†	6835.1	5002.8 µg/L	27.73	5002.8 ppb	27.73	0.55%
QC value within limits for Al 396.153Radial Recovery = 100.06%						
As 188.979†	289.5	496.84 µg/L	38.207	496.84 ppb	38.207	7.69%
QC value within limits for As 188.979 Recovery = 99.37%						
B 249.677†	12764.4	493.45 µg/L	16.380	493.45 ppb	16.380	3.32%
QC value within limits for B 249.677 Recovery = 98.69%						
Ba 233.527†	17803.4	497.77 µg/L	21.924	497.77 ppb	21.924	4.40%
QC value within limits for Ba 233.527 Recovery = 99.55%						
Be 313.107†	768171.0	492.22 µg/L	13.874	492.22 ppb	13.874	2.82%
QC value within limits for Be 313.107 Recovery = 98.44%						
Ca 317.933Radial†	5327.0	4848.8 µg/L	5.38	4848.8 ppb	5.38	0.11%
QC value within limits for Ca 317.933Radial Recovery = 96.98%						
Cd 226.502†	17971.2	495.95 µg/L	22.635	495.95 ppb	22.635	4.56%
QC value within limits for Cd 226.502 Recovery = 99.19%						
Co 228.616†	9896.7	497.99 µg/L	23.925	497.99 ppb	23.925	4.80%

QC value within limits for Co 228.616 Recovery = 99.60%							
Cr 267.716†	21502.0	496.26 µg/L	32.106	496.26 ppb	32.106	6.47%	
QC value within limits for Cr 267.716 Recovery = 99.25%							
Cu 324.752†	67472.5	492.59 µg/L	24.115	492.59 ppb	24.115	4.90%	
QC value within limits for Cu 324.752 Recovery = 98.52%							
Fe 238.204 Radial†	256.5	4810.2 µg/L	29.94	4810.2 ppb	29.94	0.62%	
QC value within limits for Fe 238.204 Radial Recovery = 96.20%							
K 766.490 Radial†	7476.8	5054.9 µg/L	38.99	5054.9 ppb	38.99	0.77%	
QC value within limits for K 766.490 Radial Recovery = 101.10%							
Mg 279.077 IEC†	386.6	4808.4 µg/L	23.42	4808.4 ppb	23.42	0.49%	
QC value within limits for Mg 279.077 IEC Recovery = 96.17%							
Mn 257.610†	145122.4	505.40 µg/L	13.607	505.40 ppb	13.607	2.69%	
QC value within limits for Mn 257.610 Recovery = 101.08%							
Mo 202.031†	4017.0	499.69 µg/L	47.119	499.69 ppb	47.119	9.43%	
QC value within limits for Mo 202.031 Recovery = 99.94%							
Na 589.592 Radial†	22536.1	9739.0 µg/L	58.12	9739.0 ppb	58.12	0.60%	
QC value within limits for Na 589.592 Radial Recovery = 97.39%							
Ni 231.604†	8701.6	499.67 µg/L	23.234	499.67 ppb	23.234	4.65%	
QC value within limits for Ni 231.604 Recovery = 99.93%							
P 214.914†	1522.5	2420.5 µg/L	206.66	2420.5 ppb	206.66	8.54%	
QC value within limits for P 214.914 Recovery = 96.82%							
Pb 220.353†	1818.4	493.10 µg/L	38.083	493.10 ppb	38.083	7.72%	
QC value within limits for Pb 220.353 Recovery = 98.62%							
S 181.975 Axial†	266.9	1002.2 µg/L	61.62	1002.2 ppb	61.62	6.15%	
QC value within limits for S 181.975 Axial Recovery = 100.22%							
Sb 206.836†	532.2	495.91 µg/L	44.894	495.91 ppb	44.894	9.05%	
QC value within limits for Sb 206.836 Recovery = 99.18%							
Se 196.026†	458.3	492.93 µg/L	32.973	492.93 ppb	32.973	6.69%	
QC value within limits for Se 196.026 Recovery = 98.59%							
SiO2†	31602.6	5433.0 µg/L	216.63	5433.0 ppb	216.63	3.99%	
QC value within limits for SiO2 Recovery = 101.60%							
Si 251.611†	37426.4	2494.8 µg/L	96.92	2494.8 ppb	96.92	3.89%	
QC value within limits for Si 251.611 Recovery = 99.79%							
Sn 189.927†	953.3	498.19 µg/L	52.210	498.19 ppb	52.210	10.48%	
QC value within limits for Sn 189.927 Recovery = 99.64%							
Sr 421.552†	37125.4	482.90 µg/L	3.399	482.90 ppb	3.399	0.70%	
QC value within limits for Sr 421.552 Recovery = 96.58%							
Ti 334.940†	203200.0	498.38 µg/L	15.763	498.38 ppb	15.763	3.16%	
QC value within limits for Ti 334.940 Recovery = 99.68%							
Tl 190.801†	305.0	489.81 µg/L	29.124	489.81 ppb	29.124	5.95%	
QC value within limits for Tl 190.801 Recovery = 97.96%							
U 409.014†	4709.5	502.14 µg/L	30.156	502.14 ppb	30.156	6.01%	
QC value within limits for U 409.014 Recovery = 100.43%							
V 292.402†	39932.6	498.81 µg/L	26.136	498.81 ppb	26.136	5.24%	
QC value within limits for V 292.402 Recovery = 99.76%							
Zn 213.857†	19303.7	493.37 µg/L	24.855	493.37 ppb	24.855	5.04%	
QC value within limits for Zn 213.857 Recovery = 98.67%							
All analyte(s) passed QC.							

Sequence No.: 9

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/11/2010 13:55:38

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	54558.9	54558.9	98.1 %		13:56:11
1	Al 396.153Radial†	46.4	20.5	15.061 µg/L	15.061 ppb	13:56:11
1	Ca 317.933Radial†	194.0	-4.1	-3.7208 µg/L	-3.7208 ppb	13:56:31
1	Fe 238.204 Radial†	17.6	4.7	87.761 µg/L	87.761 ppb	13:56:31
1	K 766.490 Radial†	599.1	87.8	59.330 µg/L	59.330 ppb	13:56:11
1	Mg 279.077 IEC†	6.5	-2.0	-25.050 µg/L	-25.050 ppb	13:56:31
1	Na 589.592 Radial†	397.0	6.9	2.9683 µg/L	2.9683 ppb	13:56:11
1	Sr 421.552†	8.4	46.6	0.6062 µg/L	0.6062 ppb	13:56:11
1	Sc 361.383	1881850.5	1881850.5	100.72 %		13:57:33
1	Y 371.029	1159285.5	1159285.5	100.68 %		13:57:33
1	Ag 328.068†	-226.4	-15.3	-0.1331 µg/L	-0.1331 ppb	13:57:38
1	As 188.979†	-3.0	1.3	2.2033 µg/L	2.2033 ppb	13:57:59
1	B 249.677†	446.3	50.2	1.9194 µg/L	1.9194 ppb	13:57:38
1	Ba 233.527†	-41.8	4.3	0.1205 µg/L	0.1205 ppb	13:57:59
1	Be 313.107†	4189.0	13.2	0.0085 µg/L	0.0085 ppb	13:57:33
1	Cd 226.502†	-124.7	8.6	0.2217 µg/L	0.2217 ppb	13:57:59
1	Co 228.616†	7.7	-4.0	-0.1974 µg/L	-0.1974 ppb	13:57:59
1	Cr 267.716†	-135.1	7.0	0.1618 µg/L	0.1618 ppb	13:57:38
1	Cu 324.752†	6096.5	118.7	0.8738 µg/L	0.8738 ppb	13:57:38
1	Mn 257.610†	-164.0	88.5	0.3190 µg/L	0.3190 ppb	13:57:38
1	Mo 202.031†	25.6	5.2	0.6486 µg/L	0.6486 ppb	13:57:59
1	Ni 231.604†	328.5	-4.7	-0.2690 µg/L	-0.2690 ppb	13:57:59
1	P 214.914†	266.3	0.1	-0.1345 µg/L	-0.1345 ppb	13:57:59
1	Pb 220.353†	72.0	-9.6	-2.6036 µg/L	-2.6036 ppb	13:57:59
1	S 181.975 Axial†	31.9	-1.6	-6.0887 µg/L	-6.0887 ppb	13:57:59
1	Sb 206.836†	25.2	0.5	0.4842 µg/L	0.4842 ppb	13:57:59
1	Se 196.026†	15.0	1.0	1.1077 µg/L	1.1077 ppb	13:57:59
1	SiO2†	3747.8	97.6	16.771 µg/L	16.771 ppb	13:57:38
1	Si 251.611†	426.2	73.3	5.0470 µg/L	5.0470 ppb	13:57:59
1	Sn 189.927†	27.4	-5.2	-2.7414 µg/L	-2.7414 ppb	13:57:59
1	Ti 334.940†	639.5	38.3	0.0941 µg/L	0.0941 ppb	13:57:38
1	Tl 190.801†	-21.8	5.2	8.2723 µg/L	8.2723 ppb	13:57:59
1	U 409.014†	-21.4	-54.6	-5.8544 µg/L	-5.8544 ppb	13:57:38
1	V 292.402†	-251.6	24.3	0.2982 µg/L	0.2982 ppb	13:57:38
1	Zn 213.857†	627.6	-29.8	-0.7930 µg/L	-0.7930 ppb	13:57:59
2	Sc RADIAL	55222.4	55222.4	99.3 %		13:56:37
2	Al 396.153Radial†	17.2	-9.4	-6.9220 µg/L	-6.9220 ppb	13:56:37
2	Ca 317.933Radial†	196.6	-3.9	-3.5130 µg/L	-3.5130 ppb	13:56:57
2	Fe 238.204 Radial†	16.0	2.9	53.350 µg/L	53.350 ppb	13:56:57
2	K 766.490 Radial†	596.8	78.1	52.806 µg/L	52.806 ppb	13:56:37
2	Mg 279.077 IEC†	14.1	5.6	69.122 µg/L	69.122 ppb	13:56:57
2	Na 589.592 Radial†	378.1	-16.9	-7.3180 µg/L	-7.3180 ppb	13:56:37
2	Sr 421.552†	29.6	67.9	0.8826 µg/L	0.8826 ppb	13:56:37
2	Sc 361.383	1884006.6	1884006.6	100.84 %		13:58:05
2	Y 371.029	1160384.0	1160384.0	100.77 %		13:58:05
2	Ag 328.068†	-222.3	-10.9	-0.0959 µg/L	-0.0959 ppb	13:58:11
2	As 188.979†	-4.2	0.1	0.2297 µg/L	0.2297 ppb	13:58:31
2	B 249.677†	422.1	25.8	0.9820 µg/L	0.9820 ppb	13:58:11
2	Ba 233.527†	-34.0	12.0	0.3361 µg/L	0.3361 ppb	13:58:31
2	Be 313.107†	4142.1	-38.0	-0.0244 µg/L	-0.0244 ppb	13:58:05
2	Cd 226.502†	-122.9	10.5	0.2840 µg/L	0.2840 ppb	13:58:31
2	Co 228.616†	10.6	-1.1	-0.0533 µg/L	-0.0533 ppb	13:58:31
2	Cr 267.716†	-161.7	-19.2	-0.4411 µg/L	-0.4411 ppb	13:58:11
2	Cu 324.752†	5992.7	8.8	0.0694 µg/L	0.0694 ppb	13:58:11
2	Mn 257.610†	-189.6	63.3	0.2270 µg/L	0.2270 ppb	13:58:11
2	Mo 202.031†	20.8	0.4	0.0546 µg/L	0.0546 ppb	13:58:31
2	Ni 231.604†	335.2	1.7	0.0948 µg/L	0.0948 ppb	13:58:31
2	P 214.914†	276.4	9.8	15.746 µg/L	15.746 ppb	13:58:31
2	Pb 220.353†	84.4	2.6	0.7109 µg/L	0.7109 ppb	13:58:31

2	S 181.975 Axial†	36.2	2.6	9.9227 µg/L	9.9227 ppb	13:58:31
2	Sb 206.836†	27.3	2.6	2.4015 µg/L	2.4015 ppb	13:58:31
2	Se 196.026†	15.2	1.2	1.2644 µg/L	1.2644 ppb	13:58:31
2	SiO2†	3690.5	36.5	6.2764 µg/L	6.2764 ppb	13:58:11
2	Si 251.611†	429.2	75.8	5.2966 µg/L	5.2966 ppb	13:58:31
2	Sn 189.927†	24.1	-8.5	-4.4373 µg/L	-4.4373 ppb	13:58:31
2	Ti 334.940†	655.2	53.1	0.1304 µg/L	0.1304 ppb	13:58:11
2	Tl 190.801†	-25.7	1.4	2.1886 µg/L	2.1886 ppb	13:58:31
2	U 409.014†	47.7	13.9	1.4742 µg/L	1.4742 ppb	13:58:11
2	V 292.402†	-258.6	17.6	0.2220 µg/L	0.2220 ppb	13:58:11
2	Zn 213.857†	630.1	-28.1	-0.7402 µg/L	-0.7402 ppb	13:58:31
3	Sc RADIAL	54821.5	54821.5	98.6 %		13:57:03
3	Al 396.153Radial†	1203.4	1193.7	876.95 µg/L	876.95 ppb	13:57:03
3	Ca 317.933Radial†	198.7	-0.3	-0.2472 µg/L	-0.2472 ppb	13:57:23
3	Fe 238.204 Radial†	16.8	3.8	71.745 µg/L	71.745 ppb	13:57:23
3	K 766.490 Radial†	530.1	14.9	10.064 µg/L	10.064 ppb	13:57:03
3	Mg 279.077 IEC†	11.1	2.6	32.627 µg/L	32.627 ppb	13:57:23
3	Na 589.592 Radial†	407.1	15.2	6.5836 µg/L	6.5836 ppb	13:57:03
3	Sr 421.552†	10.4	48.6	0.6318 µg/L	0.6318 ppb	13:57:03
3	Sc 361.383	1891314.5	1891314.5	101.23 %		13:58:37
3	Y 371.029	1165495.4	1165495.4	101.22 %		13:58:37
3	Ag 328.068†	-176.6	35.0	0.3383 µg/L	0.3383 ppb	13:58:42
3	As 188.979†	-6.6	-2.3	-3.8604 µg/L	-3.8604 ppb	13:59:03
3	B 249.677†	391.0	-6.6	-0.2785 µg/L	-0.2785 ppb	13:58:42
3	Ba 233.527†	-35.1	11.1	0.3113 µg/L	0.3113 ppb	13:59:03
3	Be 313.107†	4245.5	48.3	0.0310 µg/L	0.0310 ppb	13:58:37
3	Cd 226.502†	-126.6	7.4	0.1943 µg/L	0.1943 ppb	13:59:03
3	Co 228.616†	10.0	-1.7	-0.0822 µg/L	-0.0822 ppb	13:59:03
3	Cr 267.716†	-128.4	14.3	0.3310 µg/L	0.3310 ppb	13:58:42
3	Cu 324.752†	6011.4	4.4	0.0383 µg/L	0.0383 ppb	13:58:42
3	Mn 257.610†	-190.0	63.7	0.2306 µg/L	0.2306 ppb	13:58:42
3	Mo 202.031†	30.8	10.2	1.2743 µg/L	1.2743 ppb	13:59:03
3	Ni 231.604†	326.4	-8.3	-0.4784 µg/L	-0.4784 ppb	13:59:03
3	P 214.914†	275.7	8.1	13.324 µg/L	13.324 ppb	13:59:03
3	Pb 220.353†	77.3	-4.7	-1.2586 µg/L	-1.2586 ppb	13:59:03
3	S 181.975 Axial†	32.0	-1.7	-6.5329 µg/L	-6.5329 ppb	13:59:03
3	Sb 206.836†	18.7	-6.0	-5.6183 µg/L	-5.6183 ppb	13:59:03
3	Se 196.026†	20.6	6.4	6.8123 µg/L	6.8123 ppb	13:59:03
3	SiO2†	3739.2	70.4	12.109 µg/L	12.109 ppb	13:58:42
3	Si 251.611†	428.3	73.3	5.0620 µg/L	5.0620 ppb	13:59:03
3	Sn 189.927†	27.2	-5.5	-2.8857 µg/L	-2.8857 ppb	13:59:03
3	Ti 334.940†	614.4	10.3	0.0252 µg/L	0.0252 ppb	13:58:42
3	Tl 190.801†	-34.2	-6.9	-10.959 µg/L	-10.959 ppb	13:59:03
3	U 409.014†	48.1	14.1	1.4946 µg/L	1.4946 ppb	13:58:42
3	V 292.402†	-197.8	78.7	0.9874 µg/L	0.9874 ppb	13:58:42
3	Zn 213.857†	643.3	-17.4	-0.4661 µg/L	-0.4661 ppb	13:59:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1885723.9	100.93 %	0.265			0.26%
Sc RADIAL	54867.6	98.7 %	0.60			0.61%
Y 371.029	1161721.6	100.89 %	0.288			0.29%
Ag 328.068†	3.0	0.0365 µg/L	0.26208	0.0365 ppb	0.26208	718.87%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	401.6	295.03 µg/L	504.079	295.03 ppb	504.079	170.86%
QC value greater than the upper limit for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.3	-0.4758 µg/L	3.09280	-0.4758 ppb	3.09280	650.07%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	23.1	0.8743 µg/L	1.10294	0.8743 ppb	1.10294	126.15%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.1	0.2560 µg/L	0.11794	0.2560 ppb	0.11794	46.07%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	7.8	0.0050 µg/L	0.02785	0.0050 ppb	0.02785	557.48%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-2.7	-2.4937 µg/L	1.94827	-2.4937 ppb	1.94827	78.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	8.9	0.2333 µg/L	0.04600	0.2333 ppb	0.04600	19.72%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-2.2	-0.1110 µg/L	0.07623	-0.1110 ppb	0.07623	68.70%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	0.7	0.0172 µg/L	0.40582	0.0172 ppb	0.40582	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	44.0	0.3271 µg/L	0.47364	0.3271 ppb	0.47364	144.78%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	3.8	70.952 µg/L	17.2195	70.952 ppb	17.2195	24.27%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	60.2	40.733 µg/L	26.7598	40.733 ppb	26.7598	65.69%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	2.1	25.566 µg/L	47.4817	25.566 ppb	47.4817	185.72%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	71.9	0.2589 µg/L	0.05213	0.2589 ppb	0.05213	20.13%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	5.3	0.6592 µg/L	0.60989	0.6592 ppb	0.60989	92.53%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	1.7	0.7446 µg/L	7.21263	0.7446 ppb	7.21263	968.63%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-3.8	-0.2175 µg/L	0.29003	-0.2175 ppb	0.29003	133.33%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	6.0	9.6452 µg/L	8.55567	9.6452 ppb	8.55567	88.70%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-3.9	-1.0505 µg/L	1.66706	-1.0505 ppb	1.66706	158.70%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-0.2	-0.8996 µg/L	9.37504	-0.8996 ppb	9.37504	>999.9%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-1.0	-0.9109 µg/L	4.18796	-0.9109 ppb	4.18796	459.76%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	2.8	3.0614 µg/L	3.24926	3.0614 ppb	3.24926	106.13%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	68.2	11.719 µg/L	5.2580	11.719 ppb	5.2580	44.87%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	74.1	5.1352 µg/L	0.13997	5.1352 ppb	0.13997	2.73%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-6.4	-3.3548 µg/L	0.94022	-3.3548 ppb	0.94022	28.03%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	54.3	0.7069 µg/L	0.15272	0.7069 ppb	0.15272	21.61%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	33.9	0.0832 µg/L	0.05345	0.0832 ppb	0.05345	64.22%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-0.1	-0.1662 µg/L	9.82968	-0.1662 ppb	9.82968	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-8.9	-0.9619 µg/L	4.23706	-0.9619 ppb	4.23706	440.51%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	40.2	0.5025 µg/L	0.42167	0.5025 ppb	0.42167	83.91%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-25.1	-0.6664 µg/L	0.17546	-0.6664 ppb	0.17546	26.33%
QC value within limits for Zn 213.857 Recovery = Not calculated						
QC Failed. Continue with analysis.						

=====
Analysis Begun

Start Time: 1/11/2010 14:29:41

Plasma On Time: 1/11/2010 07:03:49

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\011110.sif

Batch ID:

Results Data Set: 011110A

Results Library: c:\pe\optimal\Results\Results.mdb
=====

Method Loaded

Method Name: Gen Eng fast_new Si

Method Last Saved: 1/6/2010 21:39:31

IEC File: 101509.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
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	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/11/2010 14:29:57

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:
=====

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55057.2	55057.2	99.0 %		14:30:43
1	Al 396.153Radial†	6791.5	6831.4	4998.9 µg/L	4998.9 ppb	14:30:43
1	Ca 317.933Radial†	5509.4	5361.6	4880.3 µg/L	4880.3 ppb	14:31:03
1	Fe 238.204 Radial†	268.0	257.4	4828.0 µg/L	4828.0 ppb	14:31:03

1	K 766.490 Radial†	7950.3	7505.5	5074.4 µg/L	5074.4 ppb	14:30:43
1	Mg 279.077 IEC†	394.1	389.4	4843.6 µg/L	4843.6 ppb	14:31:03
1	Na 589.592 Radial†	22733.5	22558.6	9748.7 µg/L	9748.7 ppb	14:30:43
1	Sr 421.552†	36756.1	37154.2	483.27 µg/L	483.27 ppb	14:30:43
1	Sc 361.383	1896505.0	1896505.0	101.51 %		14:32:07
1	Y 371.029	1168184.8	1168184.8	100.21 %		14:32:07
1	Ag 328.068†	55368.7	54756.7	513.28 µg/L	513.28 ppb	14:32:13
1	As 188.979†	300.3	300.1	514.98 µg/L	514.98 ppb	14:32:33
1	B 249.677†	13596.1	13001.6	502.64 µg/L	502.64 ppb	14:32:13
1	Ba 233.527†	18623.5	18392.9	514.25 µg/L	514.25 ppb	14:32:13
1	Be 313.107†	799915.9	783900.9	502.30 µg/L	502.30 ppb	14:32:07
1	Cd 226.502†	18734.5	18588.9	513.02 µg/L	513.02 ppb	14:32:13
1	Co 228.616†	10464.3	10297.5	518.19 µg/L	518.19 ppb	14:32:13
1	Cr 267.716†	22738.8	22542.5	520.27 µg/L	520.27 ppb	14:32:13
1	Cu 324.752†	76750.3	69677.3	508.67 µg/L	508.67 ppb	14:32:13
1	Mn 257.610†	150194.6	148217.4	516.17 µg/L	516.17 ppb	14:32:07
1	Mo 202.031†	4349.2	4264.4	530.45 µg/L	530.45 ppb	14:32:33
1	Ni 231.604†	9484.0	9012.5	517.52 µg/L	517.52 ppb	14:32:13
1	P 214.914†	1896.7	1604.3	2552.0 µg/L	2552.0 ppb	14:32:33
1	Pb 220.353†	2023.1	1912.0	518.50 µg/L	518.50 ppb	14:32:33
1	S 181.975 Axial†	317.6	279.6	1050.1 µg/L	1050.1 ppb	14:32:33
1	Sb 206.836†	601.9	568.5	529.72 µg/L	529.72 ppb	14:32:33
1	Se 196.026†	502.9	481.4	517.49 µg/L	517.49 ppb	14:32:33
1	SiO2†	36643.4	32476.3	5583.2 µg/L	5583.2 ppb	14:32:13
1	Si 251.611†	39372.9	38438.8	2561.3 µg/L	2561.3 ppb	14:32:13
1	Sn 189.927†	1067.1	1018.9	532.36 µg/L	532.36 ppb	14:32:33
1	Ti 334.940†	211666.9	207929.5	509.99 µg/L	509.99 ppb	14:32:07
1	Tl 190.801†	286.2	308.8	495.89 µg/L	495.89 ppb	14:32:33
1	U 409.014†	5082.4	4973.6	530.37 µg/L	530.37 ppb	14:32:13
1	V 292.402†	41819.4	41473.0	518.14 µg/L	518.14 ppb	14:32:13
1	Zn 213.857†	20995.9	20031.4	512.02 µg/L	512.02 ppb	14:32:13
2	Sc RADIAL	55286.9	55286.9	99.4 %		14:31:09
2	Al 396.153Radial†	6845.6	6857.3	5017.9 µg/L	5017.9 ppb	14:31:09
2	Ca 317.933Radial†	5521.1	5350.2	4869.9 µg/L	4869.9 ppb	14:31:29
2	Fe 238.204 Radial†	266.0	254.3	4770.0 µg/L	4770.0 ppb	14:31:29
2	K 766.490 Radial†	8009.9	7532.0	5092.3 µg/L	5092.3 ppb	14:31:09
2	Mg 279.077 IEC†	397.0	390.6	4859.4 µg/L	4859.4 ppb	14:31:29
2	Na 589.592 Radial†	22841.0	22571.3	9754.2 µg/L	9754.2 ppb	14:31:09
2	Sr 421.552†	36906.0	37150.8	483.23 µg/L	483.23 ppb	14:31:09
2	Sc 361.383	1884324.7	1884324.7	100.85 %		14:32:40
2	Y 371.029	1159949.4	1159949.4	99.502 %		14:32:40
2	Ag 328.068†	55019.8	54763.3	513.33 µg/L	513.33 ppb	14:32:46
2	As 188.979†	301.8	303.5	520.88 µg/L	520.88 ppb	14:33:06
2	B 249.677†	13620.4	13112.2	506.94 µg/L	506.94 ppb	14:32:46
2	Ba 233.527†	18378.0	18268.1	510.77 µg/L	510.77 ppb	14:32:46
2	Be 313.107†	797264.6	786366.0	503.88 µg/L	503.88 ppb	14:32:40
2	Cd 226.502†	18578.1	18553.2	512.03 µg/L	512.03 ppb	14:32:46
2	Co 228.616†	10332.2	10233.0	514.95 µg/L	514.95 ppb	14:32:46
2	Cr 267.716†	22542.0	22492.3	519.11 µg/L	519.11 ppb	14:32:46
2	Cu 324.752†	76274.3	69694.1	508.79 µg/L	508.79 ppb	14:32:46
2	Mn 257.610†	149642.1	148626.0	517.58 µg/L	517.58 ppb	14:32:40
2	Mo 202.031†	4311.7	4255.0	529.28 µg/L	529.28 ppb	14:33:06
2	Ni 231.604†	9396.9	8986.5	516.03 µg/L	516.03 ppb	14:32:46
2	P 214.914†	1884.1	1603.9	2551.5 µg/L	2551.5 ppb	14:33:06
2	Pb 220.353†	2002.1	1904.1	516.37 µg/L	516.37 ppb	14:33:06
2	S 181.975 Axial†	317.3	281.4	1056.7 µg/L	1056.7 ppb	14:33:06
2	Sb 206.836†	590.5	560.9	522.69 µg/L	522.69 ppb	14:33:06
2	Se 196.026†	504.5	486.3	522.64 µg/L	522.64 ppb	14:33:06
2	SiO2†	36315.9	32384.9	5567.5 µg/L	5567.5 ppb	14:32:46
2	Si 251.611†	39070.0	38389.2	2558.0 µg/L	2558.0 ppb	14:32:46
2	Sn 189.927†	1058.0	1016.6	531.21 µg/L	531.21 ppb	14:33:06
2	Ti 334.940†	210957.4	208573.9	511.57 µg/L	511.57 ppb	14:32:40
2	Tl 190.801†	286.3	310.7	498.95 µg/L	498.95 ppb	14:33:06
2	U 409.014†	4916.9	4841.8	516.30 µg/L	516.30 ppb	14:32:46
2	V 292.402†	41490.6	41413.3	517.37 µg/L	517.37 ppb	14:32:46
2	Zn 213.857†	20717.5	19889.0	508.37 µg/L	508.37 ppb	14:32:46
3	Sc RADIAL	55009.4	55009.4	98.9 %		14:31:35
3	Al 396.153Radial†	6850.5	6896.9	5050.1 µg/L	5050.1 ppb	14:31:35
3	Ca 317.933Radial†	5532.9	5390.2	4906.3 µg/L	4906.3 ppb	14:31:55
3	Fe 238.204 Radial†	268.2	257.8	4834.2 µg/L	4834.2 ppb	14:31:55
3	K 766.490 Radial†	7994.5	7557.1	5109.2 µg/L	5109.2 ppb	14:31:35

3	Mg 279.077 IEC†	398.2	393.9	4897.6 µg/L	4897.6 ppb	14:31:55
3	Na 589.592 Radial†	22903.9	22750.7	9831.7 µg/L	9831.7 ppb	14:31:35
3	Sr 421.552†	36872.1	37303.7	485.21 µg/L	485.21 ppb	14:31:35
3	Sc 361.383	1896672.4	1896672.4	101.52 %		14:33:13
3	Y 371.029	1169142.0	1169142.0	100.29 %		14:33:13
3	Ag 328.068†	52052.3	51484.9	482.51 µg/L	482.51 ppb	14:33:19
3	As 188.979†	265.5	265.8	456.38 µg/L	456.38 ppb	14:33:40
3	B 249.677†	12788.6	12204.8	471.74 µg/L	471.74 ppb	14:33:19
3	Ba 233.527†	17112.4	16902.7	472.57 µg/L	472.57 ppb	14:33:19
3	Be 313.107†	761275.7	745767.9	477.87 µg/L	477.87 ppb	14:33:13
3	Cd 226.502†	17084.1	16961.5	468.04 µg/L	468.04 ppb	14:33:19
3	Co 228.616†	9492.1	9338.8	469.84 µg/L	469.84 ppb	14:33:19
3	Cr 267.716†	20067.6	19909.2	459.52 µg/L	459.52 ppb	14:33:19
3	Cu 324.752†	70414.4	63429.4	463.10 µg/L	463.10 ppb	14:33:19
3	Mn 257.610†	143218.5	141332.4	492.22 µg/L	492.22 ppb	14:33:13
3	Mo 202.031†	3678.9	3603.7	448.30 µg/L	448.30 ppb	14:33:40
3	Ni 231.604†	8627.1	8167.5	469.00 µg/L	469.00 ppb	14:33:19
3	P 214.914†	1667.3	1378.2	2188.3 µg/L	2188.3 ppb	14:33:40
3	Pb 220.353†	1766.0	1658.6	449.72 µg/L	449.72 ppb	14:33:40
3	S 181.975 Axial†	289.2	251.6	944.65 µg/L	944.65 ppb	14:33:40
3	Sb 206.836†	518.2	485.9	452.85 µg/L	452.85 ppb	14:33:40
3	Se 196.026†	437.4	416.9	448.95 µg/L	448.95 ppb	14:33:40
3	SiO2†	34199.8	30066.0	5168.9 µg/L	5168.9 ppb	14:33:19
3	Si 251.611†	36417.2	35523.9	2369.1 µg/L	2369.1 ppb	14:33:19
3	Sn 189.927†	894.7	849.0	443.82 µg/L	443.82 ppb	14:33:40
3	Ti 334.940†	200042.5	196460.2	481.84 µg/L	481.84 ppb	14:33:13
3	Tl 190.801†	266.2	289.0	464.29 µg/L	464.29 ppb	14:33:40
3	U 409.014†	4520.2	4419.3	471.12 µg/L	471.12 ppb	14:33:19
3	V 292.402†	37822.6	37532.1	468.68 µg/L	468.68 ppb	14:33:19
3	Zn 213.857†	19113.7	18175.5	464.46 µg/L	464.46 ppb	14:33:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1892500.7	101.29 %	0.379			0.37%
Sc RADIAL	55117.8	99.1 %	0.27			0.27%
Y 371.029	1165758.7	100.000 %	0.4335			0.43%
Ag 328.068†	53668.3	503.04 µg/L	17.780	503.04 ppb	17.780	3.53%
QC value within limits for Ag 328.068 Recovery = 100.61%						
Al 396.153Radial†	6861.8	5022.3 µg/L	25.91	5022.3 ppb	25.91	0.52%
QC value within limits for Al 396.153Radial Recovery = 100.45%						
As 188.979†	289.8	497.41 µg/L	35.658	497.41 ppb	35.658	7.17%
QC value within limits for As 188.979 Recovery = 99.48%						
B 249.677†	12772.8	493.77 µg/L	19.202	493.77 ppb	19.202	3.89%
QC value within limits for B 249.677 Recovery = 98.75%						
Ba 233.527†	17854.6	499.20 µg/L	23.124	499.20 ppb	23.124	4.63%
QC value within limits for Ba 233.527 Recovery = 99.84%						
Be 313.107†	772011.6	494.68 µg/L	14.584	494.68 ppb	14.584	2.95%
QC value within limits for Be 313.107 Recovery = 98.94%						
Ca 317.933Radial†	5367.4	4885.5 µg/L	18.75	4885.5 ppb	18.75	0.38%
QC value within limits for Ca 317.933Radial Recovery = 97.71%						
Cd 226.502†	18034.5	497.70 µg/L	25.692	497.70 ppb	25.692	5.16%
QC value within limits for Cd 226.502 Recovery = 99.54%						
Co 228.616†	9956.4	500.99 µg/L	27.032	500.99 ppb	27.032	5.40%
QC value within limits for Co 228.616 Recovery = 100.20%						
Cr 267.716†	21648.0	499.63 µg/L	34.743	499.63 ppb	34.743	6.95%
QC value within limits for Cr 267.716 Recovery = 99.93%						
Cu 324.752†	67600.2	493.52 µg/L	26.345	493.52 ppb	26.345	5.34%
QC value within limits for Cu 324.752 Recovery = 98.70%						
Fe 238.204 Radial†	256.5	4810.7 µg/L	35.42	4810.7 ppb	35.42	0.74%
QC value within limits for Fe 238.204 Radial Recovery = 96.21%						
K 766.490 Radial†	7531.6	5092.0 µg/L	17.44	5092.0 ppb	17.44	0.34%
QC value within limits for K 766.490 Radial Recovery = 101.84%						
Mg 279.077 IEC†	391.3	4866.9 µg/L	27.76	4866.9 ppb	27.76	0.57%
QC value within limits for Mg 279.077 IEC Recovery = 97.34%						
Mn 257.610†	146058.6	508.65 µg/L	14.252	508.65 ppb	14.252	2.80%
QC value within limits for Mn 257.610 Recovery = 101.73%						
Mo 202.031†	4041.0	502.68 µg/L	47.096	502.68 ppb	47.096	9.37%
QC value within limits for Mo 202.031 Recovery = 100.54%						
Na 589.592 Radial†	22626.9	9778.2 µg/L	46.42	9778.2 ppb	46.42	0.47%

QC value within limits for Na 589.592 Radial Recovery = 97.78%							
Ni 231.604†	8722.2	500.85 µg/L	27.592	500.85 ppb	27.592	5.51%	
QC value within limits for Ni 231.604 Recovery = 100.17%							
P 214.914†	1528.8	2430.6 µg/L	209.83	2430.6 ppb	209.83	8.63%	
QC value within limits for P 214.914 Recovery = 97.22%							
Pb 220.353†	1824.9	494.86 µg/L	39.108	494.86 ppb	39.108	7.90%	
QC value within limits for Pb 220.353 Recovery = 98.97%							
S 181.975 Axial†	270.8	1017.2 µg/L	62.88	1017.2 ppb	62.88	6.18%	
QC value within limits for S 181.975 Axial Recovery = 101.72%							
Sb 206.836†	538.4	501.75 µg/L	42.497	501.75 ppb	42.497	8.47%	
QC value within limits for Sb 206.836 Recovery = 100.35%							
Se 196.026†	461.5	496.36 µg/L	41.138	496.36 ppb	41.138	8.29%	
QC value within limits for Se 196.026 Recovery = 99.27%							
SiO2†	31642.4	5439.9 µg/L	234.84	5439.9 ppb	234.84	4.32%	
QC value within limits for SiO2 Recovery = 101.73%							
Si 251.611†	37450.6	2496.1 µg/L	110.00	2496.1 ppb	110.00	4.41%	
QC value within limits for Si 251.611 Recovery = 99.85%							
Sn 189.927†	961.5	502.46 µg/L	50.792	502.46 ppb	50.792	10.11%	
QC value within limits for Sn 189.927 Recovery = 100.49%							
Sr 421.552†	37202.9	483.90 µg/L	1.136	483.90 ppb	1.136	0.23%	
QC value within limits for Sr 421.552 Recovery = 96.78%							
Ti 334.940†	204321.2	501.13 µg/L	16.727	501.13 ppb	16.727	3.34%	
QC value within limits for Ti 334.940 Recovery = 100.23%							
Tl 190.801†	302.9	486.38 µg/L	19.192	486.38 ppb	19.192	3.95%	
QC value within limits for Tl 190.801 Recovery = 97.28%							
U 409.014†	4744.9	505.93 µg/L	30.953	505.93 ppb	30.953	6.12%	
QC value within limits for U 409.014 Recovery = 101.19%							
V 292.402†	40139.5	501.40 µg/L	28.334	501.40 ppb	28.334	5.65%	
QC value within limits for V 292.402 Recovery = 100.28%							
Zn 213.857†	19365.3	494.95 µg/L	26.469	494.95 ppb	26.469	5.35%	
QC value within limits for Zn 213.857 Recovery = 98.99%							
All analyte(s) passed QC.							

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/11/2010 14:33:49

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	54285.9	54285.9	97.6 %		14:34:21
1	Al 396.153Radial†	38.7	13.0	9.5282 µg/L	9.5282 ppb	14:34:21
1	Ca 317.933Radial†	197.5	0.4	0.3956 µg/L	0.3956 ppb	14:34:42
1	Fe 238.204 Radial†	13.4	0.5	9.1483 µg/L	9.1483 ppb	14:34:42
1	K 766.490 Radial†	574.6	65.8	44.461 µg/L	44.461 ppb	14:34:21
1	Mg 279.077 IEC†	10.1	1.7	21.221 µg/L	21.221 ppb	14:34:42
1	Na 589.592 Radial†	359.0	-29.9	-12.940 µg/L	-12.940 ppb	14:34:21
1	Sr 421.552†	-5.7	32.2	0.4189 µg/L	0.4189 ppb	14:34:21
1	Sc 361.383	1905310.5	1905310.5	101.98 %		14:35:44
1	Y 371.029	1177140.1	1177140.1	100.98 %		14:35:44
1	Ag 328.068†	-234.1	-20.0	-0.1839 µg/L	-0.1839 ppb	14:35:49
1	As 188.979†	-8.7	-4.3	-7.3673 µg/L	-7.3673 ppb	14:36:10
1	B 249.677†	433.2	32.0	1.2372 µg/L	1.2372 ppb	14:35:49
1	Ba 233.527†	-33.0	13.4	0.3737 µg/L	0.3737 ppb	14:36:10
1	Be 313.107†	4128.1	-97.6	-0.0625 µg/L	-0.0625 ppb	14:35:49
1	Cd 226.502†	-129.7	5.3	0.1387 µg/L	0.1387 ppb	14:36:10
1	Co 228.616†	9.0	-2.8	-0.1409 µg/L	-0.1409 ppb	14:36:10
1	Cr 267.716†	-137.2	6.7	0.1537 µg/L	0.1537 ppb	14:35:49
1	Cu 324.752†	5951.9	-97.7	-0.7115 µg/L	-0.7115 ppb	14:35:49
1	Mn 257.610†	-214.4	41.1	0.1442 µg/L	0.1442 ppb	14:35:49
1	Mo 202.031†	20.5	-0.2	-0.0201 µg/L	-0.0201 ppb	14:36:10
1	Ni 231.604†	326.2	-10.9	-0.6274 µg/L	-0.6274 ppb	14:36:10
1	P 214.914†	270.5	1.0	1.6698 µg/L	1.6698 ppb	14:36:10
1	Pb 220.353†	77.7	-4.9	-1.3319 µg/L	-1.3319 ppb	14:36:10
1	S 181.975 Axial†	36.2	2.2	8.2671 µg/L	8.2671 ppb	14:36:10
1	Sb 206.836†	28.5	3.5	3.2221 µg/L	3.2221 ppb	14:36:10
1	Se 196.026†	13.0	-1.2	-1.2401 µg/L	-1.2401 ppb	14:36:10
1	SiO2†	3704.0	8.8	1.5146 µg/L	1.5146 ppb	14:35:49
1	Si 251.611†	368.7	11.7	0.8520 µg/L	0.8520 ppb	14:36:10
1	Sn 189.927†	29.6	-3.4	-1.7624 µg/L	-1.7624 ppb	14:36:10
1	Ti 334.940†	553.9	-53.6	-0.1315 µg/L	-0.1315 ppb	14:35:49
1	Tl 190.801†	-25.6	1.7	2.7795 µg/L	2.7795 ppb	14:36:10
1	U 409.014†	-34.4	-67.1	-7.1781 µg/L	-7.1781 ppb	14:35:49
1	V 292.402†	-262.6	16.6	0.1936 µg/L	0.1936 ppb	14:35:49
1	Zn 213.857†	635.1	-30.2	-0.7765 µg/L	-0.7765 ppb	14:36:10
2	Sc RADIAL	54110.8	54110.8	97.3 %		14:34:47
2	Al 396.153Radial†	14.2	-12.1	-8.8842 µg/L	-8.8842 ppb	14:34:47
2	Ca 317.933Radial†	191.9	-4.6	-4.2228 µg/L	-4.2228 ppb	14:35:08
2	Fe 238.204 Radial†	15.5	2.7	49.618 µg/L	49.618 ppb	14:35:08
2	K 766.490 Radial†	548.1	40.4	27.335 µg/L	27.335 ppb	14:34:47
2	Mg 279.077 IEC†	6.1	-2.3	-28.724 µg/L	-28.724 ppb	14:35:08
2	Na 589.592 Radial†	339.4	-48.9	-21.134 µg/L	-21.134 ppb	14:34:47
2	Sr 421.552†	9.5	47.7	0.6210 µg/L	0.6210 ppb	14:34:47
2	Sc 361.383	1906314.7	1906314.7	102.03 %		14:36:16
2	Y 371.029	1177124.3	1177124.3	100.97 %		14:36:16
2	Ag 328.068†	-317.1	-101.3	-0.9374 µg/L	-0.9374 ppb	14:36:21
2	As 188.979†	-2.8	1.5	2.5789 µg/L	2.5789 ppb	14:36:42
2	B 249.677†	386.3	-14.2	-0.5667 µg/L	-0.5667 ppb	14:36:21
2	Ba 233.527†	-50.3	-3.5	-0.0986 µg/L	-0.0986 ppb	14:36:42
2	Be 313.107†	4192.2	-37.0	-0.0238 µg/L	-0.0238 ppb	14:36:21
2	Cd 226.502†	-122.3	12.6	0.3307 µg/L	0.3307 ppb	14:36:42
2	Co 228.616†	5.3	-6.4	-0.3250 µg/L	-0.3250 ppb	14:36:42
2	Cr 267.716†	-120.5	23.1	0.5322 µg/L	0.5322 ppb	14:36:21
2	Cu 324.752†	5952.0	-100.6	-0.7296 µg/L	-0.7296 ppb	14:36:21
2	Mn 257.610†	-210.2	45.3	0.1639 µg/L	0.1639 ppb	14:36:21
2	Mo 202.031†	19.5	-1.1	-0.1379 µg/L	-0.1379 ppb	14:36:42
2	Ni 231.604†	319.0	-18.1	-1.0406 µg/L	-1.0406 ppb	14:36:42
2	P 214.914†	280.8	10.9	17.762 µg/L	17.762 ppb	14:36:42
2	Pb 220.353†	91.9	9.0	2.4343 µg/L	2.4343 ppb	14:36:42

2	S 181.975 Axial†	30.0	-3.9	-14.753 µg/L	-14.753 ppb	14:36:42
2	Sb 206.836†	27.2	2.1	1.9626 µg/L	1.9626 ppb	14:36:42
2	Se 196.026†	18.7	4.4	4.6704 µg/L	4.6704 ppb	14:36:42
2	SiO2†	3643.4	-52.5	-9.0319 µg/L	-9.0319 ppb	14:36:21
2	Si 251.611†	388.1	30.6	2.1139 µg/L	2.1139 ppb	14:36:42
2	Sn 189.927†	30.3	-2.8	-1.4560 µg/L	-1.4560 ppb	14:36:42
2	Ti 334.940†	713.6	102.7	0.2522 µg/L	0.2522 ppb	14:36:21
2	Tl 190.801†	-31.5	-4.0	-6.3654 µg/L	-6.3654 ppb	14:36:42
2	U 409.014†	-70.0	-102.0	-10.909 µg/L	-10.909 ppb	14:36:21
2	V 292.402†	-268.0	11.4	0.1242 µg/L	0.1242 ppb	14:36:21
2	Zn 213.857†	645.3	-20.5	-0.5347 µg/L	-0.5347 ppb	14:36:42
3	Sc RADIAL	54226.7	54226.7	97.5 %		14:35:13
3	Al 396.153Radial†	12.6	-13.8	-10.123 µg/L	-10.123 ppb	14:35:13
3	Ca 317.933Radial†	195.2	-1.7	-1.5340 µg/L	-1.5340 ppb	14:35:33
3	Fe 238.204 Radial†	15.7	2.8	52.786 µg/L	52.786 ppb	14:35:33
3	K 766.490 Radial†	590.7	82.9	56.028 µg/L	56.028 ppb	14:35:13
3	Mg 279.077 IEC†	11.2	2.8	35.313 µg/L	35.313 ppb	14:35:33
3	Na 589.592 Radial†	325.5	-63.9	-27.635 µg/L	-27.635 ppb	14:35:13
3	Sr 421.552†	10.7	49.0	0.6375 µg/L	0.6375 ppb	14:35:13
3	Sc 361.383	1880646.7	1880646.7	100.66 %		14:36:48
3	Y 371.029	1161103.9	1161103.9	99.601 %		14:36:48
3	Ag 328.068†	-339.5	-127.7	-1.1812 µg/L	-1.1812 ppb	14:36:54
3	As 188.979†	-4.1	0.2	0.3062 µg/L	0.3062 ppb	14:37:14
3	B 249.677†	421.4	25.8	0.9823 µg/L	0.9823 ppb	14:36:54
3	Ba 233.527†	-39.9	6.1	0.1712 µg/L	0.1712 ppb	14:37:14
3	Be 313.107†	4173.2	0.2	0.0001 µg/L	0.0001 ppb	14:36:54
3	Cd 226.502†	-115.7	17.5	0.4649 µg/L	0.4649 ppb	14:37:14
3	Co 228.616†	5.8	-5.8	-0.2926 µg/L	-0.2926 ppb	14:37:14
3	Cr 267.716†	-143.8	-1.7	-0.0388 µg/L	-0.0388 ppb	14:36:54
3	Cu 324.752†	5963.1	-10.0	-0.0681 µg/L	-0.0681 ppb	14:36:54
3	Mn 257.610†	-167.9	84.6	0.3009 µg/L	0.3009 ppb	14:36:54
3	Mo 202.031†	20.7	0.3	0.0402 µg/L	0.0402 ppb	14:37:14
3	Ni 231.604†	325.9	-7.0	-0.4022 µg/L	-0.4022 ppb	14:37:14
3	P 214.914†	262.7	-3.3	-5.4033 µg/L	-5.4033 ppb	14:37:14
3	Pb 220.353†	87.0	5.3	1.4439 µg/L	1.4439 ppb	14:37:14
3	S 181.975 Axial†	29.1	-4.4	-16.540 µg/L	-16.540 ppb	14:37:14
3	Sb 206.836†	19.5	-5.1	-4.7979 µg/L	-4.7979 ppb	14:37:14
3	Se 196.026†	21.1	7.0	7.4533 µg/L	7.4533 ppb	14:37:14
3	SiO2†	3648.0	0.9	0.1466 µg/L	0.1466 ppb	14:36:54
3	Si 251.611†	370.6	18.3	1.2972 µg/L	1.2972 ppb	14:37:14
3	Sn 189.927†	29.0	-3.7	-1.9046 µg/L	-1.9046 ppb	14:37:14
3	Ti 334.940†	610.7	10.0	0.0246 µg/L	0.0246 ppb	14:36:54
3	Tl 190.801†	-29.9	-2.8	-4.5350 µg/L	-4.5350 ppb	14:37:14
3	U 409.014†	-92.1	-124.8	-13.353 µg/L	-13.353 ppb	14:36:54
3	V 292.402†	-244.0	31.7	0.3725 µg/L	0.3725 ppb	14:36:54
3	Zn 213.857†	628.2	-28.8	-0.7563 µg/L	-0.7563 ppb	14:37:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1897424.0	101.56 %		0.778			0.77%
Sc RADIAL	54207.8	97.5 %		0.16			0.16%
Y 371.029	1171789.4	100.52 %		0.794			0.79%
Ag 328.068†	-83.0	-0.7675 µg/L		0.51990	-0.7675 ppb	0.51990	67.74%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-4.3	-3.1597 µg/L		11.00546	-3.1597 ppb	11.00546	348.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-0.9	-1.4941 µg/L		5.21174	-1.4941 ppb	5.21174	348.83%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	14.5	0.5509 µg/L		0.97627	0.5509 ppb	0.97627	177.21%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	5.3	0.1488 µg/L		0.23695	0.1488 ppb	0.23695	159.25%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-44.8	-0.0287 µg/L		0.03162	-0.0287 ppb	0.03162	110.04%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-2.0	-1.7871 µg/L		2.31959	-1.7871 ppb	2.31959	129.80%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	11.8	0.3114 µg/L		0.16399	0.3114 ppb	0.16399	52.66%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-5.0	-0.2528 µg/L		0.09831	-0.2528 ppb	0.09831	38.88%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	9.3	0.2157 µg/L	0.29050	0.2157 ppb	0.29050	134.66%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-69.4	-0.5031 µg/L	0.37680	-0.5031 ppb	0.37680	74.90%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	2.0	37.184 µg/L	24.3314	37.184 ppb	24.3314	65.43%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	63.0	42.608 µg/L	14.4357	42.608 ppb	14.4357	33.88%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	0.8	9.2701 µg/L	33.64972	9.2701 ppb	33.64972	362.99%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	57.0	0.2030 µg/L	0.08534	0.2030 ppb	0.08534	42.04%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-0.3	-0.0393 µg/L	0.09057	-0.0393 ppb	0.09057	230.65%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-47.6	-20.570 µg/L	7.3635	-20.570 ppb	7.3635	35.80%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-12.0	-0.6901 µg/L	0.32377	-0.6901 ppb	0.32377	46.92%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	2.9	4.6762 µg/L	11.87172	4.6762 ppb	11.87172	253.87%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	3.1	0.8488 µg/L	1.95236	0.8488 ppb	1.95236	230.02%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-2.0	-7.6756 µg/L	13.83565	-7.6756 ppb	13.83565	180.26%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	0.1	0.1289 µg/L	4.31297	0.1289 ppb	4.31297	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	3.4	3.6279 µg/L	4.43944	3.6279 ppb	4.43944	122.37%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-14.3	-2.4569 µg/L	5.73504	-2.4569 ppb	5.73504	233.43%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	20.2	1.4210 µg/L	0.63998	1.4210 ppb	0.63998	45.04%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-3.3	-1.7077 µg/L	0.22928	-1.7077 ppb	0.22928	13.43%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	43.0	0.5591 µg/L	0.12175	0.5591 ppb	0.12175	21.78%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	19.7	0.0485 µg/L	0.19296	0.0485 ppb	0.19296	398.11%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-1.7	-2.7070 µg/L	4.83876	-2.7070 ppb	4.83876	178.75%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-98.0	-10.480 µg/L	3.1095	-10.480 ppb	3.1095	29.67%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	19.9	0.2301 µg/L	0.12810	0.2301 ppb	0.12810	55.68%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-26.5	-0.6892 µg/L	0.13414	-0.6892 ppb	0.13414	19.46%
QC value within limits for Zn 213.857 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 9

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/11/2010 14:59:28

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	55062.3	55062.3	99.0 %		15:00:05
1	Al 396.153Radial†	6966.2	7007.0	5128.0 µg/L	5128.0 ppb	15:00:05
1	Ca 317.933Radial†	5544.5	5396.6	4912.1 µg/L	4912.1 ppb	15:00:26
1	Fe 238.204 Radial†	269.6	258.9	4856.5 µg/L	4856.5 ppb	15:00:26
1	K 766.490 Radial†	8082.5	7638.2	5164.1 µg/L	5164.1 ppb	15:00:05
1	Mg 279.077 IEC†	390.5	385.7	4797.9 µg/L	4797.9 ppb	15:00:26
1	Na 589.592 Radial†	22964.9	22790.1	9848.8 µg/L	9848.8 ppb	15:00:05
1	Sr 421.552†	36855.8	37251.5	484.54 µg/L	484.54 ppb	15:00:05
1	Sc 361.383	1902590.3	1902590.3	101.83 %		15:01:29
1	Y 371.029	1171360.8	1171360.8	100.48 %		15:01:29
1	Ag 328.068†	54726.6	53951.6	505.73 µg/L	505.73 ppb	15:01:35
1	As 188.979†	304.3	303.1	520.15 µg/L	520.15 ppb	15:01:55
1	B 249.677†	13418.0	12783.8	494.18 µg/L	494.18 ppb	15:01:35
1	Ba 233.527†	18263.0	17980.3	502.72 µg/L	502.72 ppb	15:01:35
1	Be 313.107†	799186.7	780664.3	500.22 µg/L	500.22 ppb	15:01:29
1	Cd 226.502†	18367.7	18169.7	501.43 µg/L	501.43 ppb	15:01:35
1	Co 228.616†	10218.4	10023.0	504.38 µg/L	504.38 ppb	15:01:35
1	Cr 267.716†	22320.6	22060.2	509.14 µg/L	509.14 ppb	15:01:35
1	Cu 324.752†	75891.8	68592.4	500.76 µg/L	500.76 ppb	15:01:35
1	Mn 257.610†	150454.6	147999.5	515.41 µg/L	515.41 ppb	15:01:29
1	Mo 202.031†	4345.5	4247.1	528.30 µg/L	528.30 ppb	15:01:55
1	Ni 231.604†	9274.5	8776.9	503.99 µg/L	503.99 ppb	15:01:35
1	P 214.914†	1885.7	1587.4	2525.6 µg/L	2525.6 ppb	15:01:55
1	Pb 220.353†	2015.1	1897.8	514.67 µg/L	514.67 ppb	15:01:55
1	S 181.975 Axial†	314.0	275.1	1033.2 µg/L	1033.2 ppb	15:01:55
1	Sb 206.836†	594.2	559.0	520.89 µg/L	520.89 ppb	15:01:55
1	Se 196.026†	490.6	467.8	503.12 µg/L	503.12 ppb	15:01:55
1	SiO2†	36116.8	31843.7	5474.5 µg/L	5474.5 ppb	15:01:35
1	Si 251.611†	38834.1	37785.7	2517.2 µg/L	2517.2 ppb	15:01:35
1	Sn 189.927†	1061.2	1009.7	527.59 µg/L	527.59 ppb	15:01:55
1	Ti 334.940†	212009.4	207598.9	509.17 µg/L	509.17 ppb	15:01:29
1	Tl 190.801†	287.4	309.1	496.39 µg/L	496.39 ppb	15:01:55
1	U 409.014†	4997.5	4874.2	519.74 µg/L	519.74 ppb	15:01:35
1	V 292.402†	41213.9	40746.6	509.11 µg/L	509.11 ppb	15:01:35
1	Zn 213.857†	20650.8	19626.3	501.64 µg/L	501.64 ppb	15:01:35
2	Sc RADIAL	54721.2	54721.2	98.4 %		15:00:31
2	Al 396.153Radial†	6887.1	6970.6	5101.4 µg/L	5101.4 ppb	15:00:31
2	Ca 317.933Radial†	5516.2	5402.7	4917.7 µg/L	4917.7 ppb	15:00:52
2	Fe 238.204 Radial†	266.1	257.1	4823.0 µg/L	4823.0 ppb	15:00:52
2	K 766.490 Radial†	8017.2	7622.7	5153.6 µg/L	5153.6 ppb	15:00:31
2	Mg 279.077 IEC†	390.0	387.6	4821.7 µg/L	4821.7 ppb	15:00:52
2	Na 589.592 Radial†	22827.3	22794.9	9850.8 µg/L	9850.8 ppb	15:00:31
2	Sr 421.552†	36577.3	37200.5	483.87 µg/L	483.87 ppb	15:00:31
2	Sc 361.383	1905809.7	1905809.7	102.00 %		15:02:02
2	Y 371.029	1174209.6	1174209.6	100.72 %		15:02:02
2	Ag 328.068†	55161.8	54287.5	508.87 µg/L	508.87 ppb	15:02:08
2	As 188.979†	305.5	303.8	521.30 µg/L	521.30 ppb	15:02:28
2	B 249.677†	13563.3	12903.9	498.85 µg/L	498.85 ppb	15:02:08
2	Ba 233.527†	18466.3	18149.2	507.44 µg/L	507.44 ppb	15:02:08
2	Be 313.107†	801736.7	781838.5	500.98 µg/L	500.98 ppb	15:02:02
2	Cd 226.502†	18531.0	18299.3	505.01 µg/L	505.01 ppb	15:02:08
2	Co 228.616†	10352.8	10137.8	510.15 µg/L	510.15 ppb	15:02:08
2	Cr 267.716†	22546.5	22244.6	513.39 µg/L	513.39 ppb	15:02:08
2	Cu 324.752†	76453.3	69017.0	503.85 µg/L	503.85 ppb	15:02:08
2	Mn 257.610†	150810.3	148098.6	515.75 µg/L	515.75 ppb	15:02:02
2	Mo 202.031†	4324.7	4219.5	524.87 µg/L	524.87 ppb	15:02:28
2	Ni 231.604†	9326.5	8812.5	506.03 µg/L	506.03 ppb	15:02:08
2	P 214.914†	1882.8	1581.5	2515.6 µg/L	2515.6 ppb	15:02:28
2	Pb 220.353†	2010.5	1889.9	512.54 µg/L	512.54 ppb	15:02:28

2	S 181.975 Axial†	314.4	274.9	1032.4 µg/L	1032.4 ppb	15:02:28
2	Sb 206.836†	594.4	558.2	520.13 µg/L	520.13 ppb	15:02:28
2	Se 196.026†	498.3	474.5	510.23 µg/L	510.23 ppb	15:02:28
2	SiO2†	36420.1	32081.1	5515.3 µg/L	5515.3 ppb	15:02:08
2	Si 251.611†	39181.1	38061.4	2536.1 µg/L	2536.1 ppb	15:02:08
2	Sn 189.927†	1057.6	1004.4	524.82 µg/L	524.82 ppb	15:02:28
2	Ti 334.940†	212502.3	207730.4	509.50 µg/L	509.50 ppb	15:02:02
2	Tl 190.801†	290.1	311.3	499.82 µg/L	499.82 ppb	15:02:28
2	U 409.014†	4943.8	4813.2	513.23 µg/L	513.23 ppb	15:02:08
2	V 292.402†	41486.3	40945.2	511.54 µg/L	511.54 ppb	15:02:08
2	Zn 213.857†	20803.6	19742.0	504.62 µg/L	504.62 ppb	15:02:08
3	Sc RADIAL	54839.2	54839.2	98.6 %		15:00:57
3	Al 396.153Radial†	6938.7	7007.8	5131.7 µg/L	5131.7 ppb	15:00:57
3	Ca 317.933Radial†	5474.7	5348.5	4868.4 µg/L	4868.4 ppb	15:01:17
3	Fe 238.204 Radial†	264.5	254.9	4780.2 µg/L	4780.2 ppb	15:01:17
3	K 766.490 Radial†	8015.1	7603.1	5140.3 µg/L	5140.3 ppb	15:00:57
3	Mg 279.077 IEC†	388.5	385.3	4791.2 µg/L	4791.2 ppb	15:01:17
3	Na 589.592 Radial†	22931.5	22850.6	9874.9 µg/L	9874.9 ppb	15:00:57
3	Sr 421.552†	36929.7	37477.8	487.48 µg/L	487.48 ppb	15:00:57
3	Sc 361.383	1904474.2	1904474.2	101.93 %		15:02:36
3	Y 371.029	1173631.8	1173631.8	100.68 %		15:02:36
3	Ag 328.068†	52495.3	51709.5	484.60 µg/L	484.60 ppb	15:02:41
3	As 188.979†	265.8	265.0	454.96 µg/L	454.96 ppb	15:03:02
3	B 249.677†	12900.5	12263.1	474.02 µg/L	474.02 ppb	15:02:41
3	Ba 233.527†	17244.0	16962.9	474.25 µg/L	474.25 ppb	15:02:41
3	Be 313.107†	767243.0	748550.0	479.65 µg/L	479.65 ppb	15:02:36
3	Cd 226.502†	17215.0	17021.0	469.69 µg/L	469.69 ppb	15:02:41
3	Co 228.616†	9545.1	9352.5	470.51 µg/L	470.51 ppb	15:02:41
3	Cr 267.716†	20276.1	20032.8	462.37 µg/L	462.37 ppb	15:02:41
3	Cu 324.752†	71008.1	63727.6	465.27 µg/L	465.27 ppb	15:02:41
3	Mn 257.610†	144434.9	141947.7	494.35 µg/L	494.35 ppb	15:02:36
3	Mo 202.031†	3676.4	3586.4	446.15 µg/L	446.15 ppb	15:03:02
3	Ni 231.604†	8682.7	8187.2	470.13 µg/L	470.13 ppb	15:02:41
3	P 214.914†	1666.0	1370.1	2175.0 µg/L	2175.0 ppb	15:03:02
3	Pb 220.353†	1766.7	1652.1	447.95 µg/L	447.95 ppb	15:03:02
3	S 181.975 Axial†	282.9	244.3	917.30 µg/L	917.30 ppb	15:03:02
3	Sb 206.836†	520.9	486.5	453.38 µg/L	453.38 ppb	15:03:02
3	Se 196.026†	444.2	421.8	454.26 µg/L	454.26 ppb	15:03:02
3	SiO2†	34453.9	30177.3	5188.0 µg/L	5188.0 ppb	15:02:41
3	Si 251.611†	36795.5	35748.1	2384.4 µg/L	2384.4 ppb	15:02:41
3	Sn 189.927†	894.3	845.0	441.71 µg/L	441.71 ppb	15:03:02
3	Ti 334.940†	202000.8	197574.1	484.57 µg/L	484.57 ppb	15:02:36
3	Tl 190.801†	264.6	286.5	460.23 µg/L	460.23 ppb	15:03:02
3	U 409.014†	4514.3	4395.3	468.57 µg/L	468.57 ppb	15:02:41
3	V 292.402†	38089.9	37641.8	470.02 µg/L	470.02 ppb	15:02:41
3	Zn 213.857†	19237.3	18219.6	465.60 µg/L	465.60 ppb	15:02:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1904291.4	101.92 %	0.087			0.08%
Sc RADIAL	54874.2	98.7 %	0.31			0.32%
Y 371.029	1173067.4	100.63 %	0.129			0.13%
Ag 328.068†	53316.2	499.74 µg/L	13.197	499.74 ppb	13.197	2.64%
QC value within limits for Ag 328.068 Recovery = 99.95%						
Al 396.153Radial†	6995.2	5120.4 µg/L	16.56	5120.4 ppb	16.56	0.32%
QC value within limits for Al 396.153Radial Recovery = 102.41%						
As 188.979†	290.6	498.80 µg/L	37.972	498.80 ppb	37.972	7.61%
QC value within limits for As 188.979 Recovery = 99.76%						
B 249.677†	12650.3	489.02 µg/L	13.200	489.02 ppb	13.200	2.70%
QC value within limits for B 249.677 Recovery = 97.80%						
Ba 233.527†	17697.5	494.80 µg/L	17.954	494.80 ppb	17.954	3.63%
QC value within limits for Ba 233.527 Recovery = 98.96%						
Be 313.107†	770350.9	493.62 µg/L	12.103	493.62 ppb	12.103	2.45%
QC value within limits for Be 313.107 Recovery = 98.72%						
Ca 317.933Radial†	5382.6	4899.4 µg/L	26.99	4899.4 ppb	26.99	0.55%
QC value within limits for Ca 317.933Radial Recovery = 97.99%						
Cd 226.502†	17830.0	492.04 µg/L	19.445	492.04 ppb	19.445	3.95%
QC value within limits for Cd 226.502 Recovery = 98.41%						
Co 228.616†	9837.8	495.02 µg/L	21.414	495.02 ppb	21.414	4.33%

QC value within limits for Co 228.616 Recovery = 99.00%							
Cr 267.716†	21445.9	494.97 µg/L	28.312	494.97 ppb	28.312	5.72%	
QC value within limits for Cr 267.716 Recovery = 98.99%							
Cu 324.752†	67112.4	489.96 µg/L	21.440	489.96 ppb	21.440	4.38%	
QC value within limits for Cu 324.752 Recovery = 97.99%							
Fe 238.204 Radial†	257.0	4819.9 µg/L	38.24	4819.9 ppb	38.24	0.79%	
QC value within limits for Fe 238.204 Radial Recovery = 96.40%							
K 766.490 Radial†	7621.3	5152.7 µg/L	11.91	5152.7 ppb	11.91	0.23%	
QC value within limits for K 766.490 Radial Recovery = 103.05%							
Mg 279.077 IEC†	386.2	4803.6 µg/L	16.01	4803.6 ppb	16.01	0.33%	
QC value within limits for Mg 279.077 IEC Recovery = 96.07%							
Mn 257.610†	146015.3	508.51 µg/L	12.259	508.51 ppb	12.259	2.41%	
QC value within limits for Mn 257.610 Recovery = 101.70%							
Mo 202.031†	4017.7	499.77 µg/L	46.469	499.77 ppb	46.469	9.30%	
QC value within limits for Mo 202.031 Recovery = 99.95%							
Na 589.592 Radial†	22811.9	9858.1 µg/L	14.52	9858.1 ppb	14.52	0.15%	
QC value within limits for Na 589.592 Radial Recovery = 98.58%							
Ni 231.604†	8592.2	493.39 µg/L	20.164	493.39 ppb	20.164	4.09%	
QC value within limits for Ni 231.604 Recovery = 98.68%							
P 214.914†	1513.0	2405.4 µg/L	199.57	2405.4 ppb	199.57	8.30%	
QC value within limits for P 214.914 Recovery = 96.22%							
Pb 220.353†	1813.3	491.72 µg/L	37.919	491.72 ppb	37.919	7.71%	
QC value within limits for Pb 220.353 Recovery = 98.34%							
S 181.975 Axial†	264.8	994.28 µg/L	66.661	994.28 ppb	66.661	6.70%	
QC value within limits for S 181.975 Axial Recovery = 99.43%							
Sb 206.836†	534.5	498.13 µg/L	38.759	498.13 ppb	38.759	7.78%	
QC value within limits for Sb 206.836 Recovery = 99.63%							
Se 196.026†	454.7	489.20 µg/L	30.468	489.20 ppb	30.468	6.23%	
QC value within limits for Se 196.026 Recovery = 97.84%							
SiO2†	31367.4	5392.6 µg/L	178.35	5392.6 ppb	178.35	3.31%	
QC value within limits for SiO2 Recovery = 100.84%							
Si 251.611†	37198.4	2479.2 µg/L	82.67	2479.2 ppb	82.67	3.33%	
QC value within limits for Si 251.611 Recovery = 99.17%							
Sn 189.927†	953.0	498.04 µg/L	48.803	498.04 ppb	48.803	9.80%	
QC value within limits for Sn 189.927 Recovery = 99.61%							
Sr 421.552†	37309.9	485.30 µg/L	1.920	485.30 ppb	1.920	0.40%	
QC value within limits for Sr 421.552 Recovery = 97.06%							
Ti 334.940†	204301.1	501.08 µg/L	14.296	501.08 ppb	14.296	2.85%	
QC value within limits for Ti 334.940 Recovery = 100.22%							
Tl 190.801†	302.3	485.48 µg/L	21.933	485.48 ppb	21.933	4.52%	
QC value within limits for Tl 190.801 Recovery = 97.10%							
U 409.014†	4694.2	500.51 µg/L	27.852	500.51 ppb	27.852	5.56%	
QC value within limits for U 409.014 Recovery = 100.10%							
V 292.402†	39777.8	496.89 µg/L	23.303	496.89 ppb	23.303	4.69%	
QC value within limits for V 292.402 Recovery = 99.38%							
Zn 213.857†	19196.0	490.62 µg/L	21.720	490.62 ppb	21.720	4.43%	
QC value within limits for Zn 213.857 Recovery = 98.12%							

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/11/2010 15:03:12

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	53815.5	53815.5	96.8 %		15:03:44
1	Al 396.153Radial†	11.5	-14.8	-10.901 µg/L	-10.901 ppb	15:03:44
1	Ca 317.933Radial†	197.3	2.0	1.8641 µg/L	1.8641 ppb	15:04:05
1	Fe 238.204 Radial†	17.2	4.6	85.093 µg/L	85.093 ppb	15:04:05
1	K 766.490 Radial†	549.2	44.7	30.205 µg/L	30.205 ppb	15:03:44
1	Mg 279.077 IEC†	9.6	1.3	16.081 µg/L	16.081 ppb	15:04:05
1	Na 589.592 Radial†	303.5	-84.0	-36.320 µg/L	-36.320 ppb	15:03:44
1	Sr 421.552†	-18.1	19.4	0.2519 µg/L	0.2519 ppb	15:03:44
1	Sc 361.383	1874415.9	1874415.9	100.32 %		15:05:06
1	Y 371.029	1153844.2	1153844.2	98.978 %		15:05:06
1	Ag 328.068†	-262.6	-52.2	-0.4775 µg/L	-0.4775 ppb	15:05:12
1	As 188.979†	-9.8	-5.5	-9.4593 µg/L	-9.4593 ppb	15:05:33
1	B 249.677†	376.8	-17.2	-0.6945 µg/L	-0.6945 ppb	15:05:12
1	Ba 233.527†	-49.8	-3.8	-0.1057 µg/L	-0.1057 ppb	15:05:33
1	Be 313.107†	4199.0	39.8	0.0255 µg/L	0.0255 ppb	15:05:06
1	Cd 226.502†	-126.4	6.4	0.1676 µg/L	0.1676 ppb	15:05:33
1	Co 228.616†	5.4	-6.2	-0.3115 µg/L	-0.3115 ppb	15:05:33
1	Cr 267.716†	-113.6	27.9	0.6436 µg/L	0.6436 ppb	15:05:12
1	Cu 324.752†	5914.7	-38.6	-0.2736 µg/L	-0.2736 ppb	15:05:12
1	Mn 257.610†	-219.6	32.5	0.1239 µg/L	0.1239 ppb	15:05:12
1	Mo 202.031†	27.2	6.9	0.8633 µg/L	0.8633 ppb	15:05:33
1	Ni 231.604†	331.1	-0.8	-0.0462 µg/L	-0.0462 ppb	15:05:33
1	P 214.914†	275.1	9.9	15.909 µg/L	15.909 ppb	15:05:33
1	Pb 220.353†	88.3	6.9	1.8658 µg/L	1.8658 ppb	15:05:33
1	S 181.975 Axial†	34.7	1.2	4.6708 µg/L	4.6708 ppb	15:05:33
1	Sb 206.836†	24.9	0.3	0.2682 µg/L	0.2682 ppb	15:05:33
1	Se 196.026†	11.0	-3.0	-3.1584 µg/L	-3.1584 ppb	15:05:33
1	SiO2†	3659.2	24.0	4.1289 µg/L	4.1289 ppb	15:05:12
1	Si 251.611†	368.2	17.2	1.2398 µg/L	1.2398 ppb	15:05:33
1	Sn 189.927†	27.8	-4.7	-2.4879 µg/L	-2.4879 ppb	15:05:33
1	Ti 334.940†	559.9	-38.6	-0.0948 µg/L	-0.0948 ppb	15:05:12
1	Tl 190.801†	-28.7	-1.8	-2.8123 µg/L	-2.8123 ppb	15:05:33
1	U 409.014†	62.6	29.0	3.0810 µg/L	3.0810 ppb	15:05:12
1	V 292.402†	-253.2	21.6	0.2814 µg/L	0.2814 ppb	15:05:12
1	Zn 213.857†	629.5	-25.5	-0.6800 µg/L	-0.6800 ppb	15:05:33
2	Sc RADIAL	53692.7	53692.7	96.6 %		15:04:10
2	Al 396.153Radial†	24.2	-1.6	-1.1613 µg/L	-1.1613 ppb	15:04:10
2	Ca 317.933Radial†	196.6	1.8	1.6047 µg/L	1.6047 ppb	15:04:31
2	Fe 238.204 Radial†	16.2	3.6	66.703 µg/L	66.703 ppb	15:04:31
2	K 766.490 Radial†	578.1	75.9	51.291 µg/L	51.291 ppb	15:04:10
2	Mg 279.077 IEC†	13.2	5.1	63.176 µg/L	63.176 ppb	15:04:31
2	Na 589.592 Radial†	266.2	-122.0	-52.708 µg/L	-52.708 ppb	15:04:10
2	Sr 421.552†	-15.7	21.8	0.2838 µg/L	0.2838 ppb	15:04:10
2	Sc 361.383	1863051.7	1863051.7	99.716 %		15:05:38
2	Y 371.029	1146543.6	1146543.6	98.352 %		15:05:38
2	Ag 328.068†	-249.4	-40.6	-0.3680 µg/L	-0.3680 ppb	15:05:44
2	As 188.979†	-8.6	-4.4	-7.4709 µg/L	-7.4709 ppb	15:06:04
2	B 249.677†	407.4	15.7	0.5871 µg/L	0.5871 ppb	15:05:44
2	Ba 233.527†	-30.8	14.9	0.4164 µg/L	0.4164 ppb	15:06:04
2	Be 313.107†	4281.7	148.2	0.0950 µg/L	0.0950 ppb	15:05:38
2	Cd 226.502†	-117.6	14.5	0.3907 µg/L	0.3907 ppb	15:06:04
2	Co 228.616†	17.8	6.3	0.3133 µg/L	0.3133 ppb	15:06:04
2	Cr 267.716†	-151.9	-11.2	-0.2565 µg/L	-0.2565 ppb	15:05:44
2	Cu 324.752†	5922.8	5.6	0.0466 µg/L	0.0466 ppb	15:05:44
2	Mn 257.610†	-215.6	35.2	0.1309 µg/L	0.1309 ppb	15:05:44
2	Mo 202.031†	13.7	-6.5	-0.8083 µg/L	-0.8083 ppb	15:06:04
2	Ni 231.604†	329.7	-0.2	-0.0100 µg/L	-0.0100 ppb	15:06:04
2	P 214.914†	269.7	6.1	9.8692 µg/L	9.8692 ppb	15:06:04
2	Pb 220.353†	95.2	14.3	3.8831 µg/L	3.8831 ppb	15:06:04

2	S 181.975 Axial†	37.0	3.8	14.439 µg/L	14.439 ppb	15:06:04
2	Sb 206.836†	25.0	0.6	0.5471 µg/L	0.5471 ppb	15:06:04
2	Se 196.026†	18.1	4.2	4.5120 µg/L	4.5120 ppb	15:06:04
2	SiO2†	3675.6	62.7	10.782 µg/L	10.782 ppb	15:05:44
2	Si 251.611†	375.3	26.6	1.8537 µg/L	1.8537 ppb	15:06:04
2	Sn 189.927†	29.5	-2.9	-1.4928 µg/L	-1.4928 ppb	15:06:04
2	Ti 334.940†	642.0	47.2	0.1157 µg/L	0.1157 ppb	15:05:44
2	Tl 190.801†	-26.0	0.8	1.2489 µg/L	1.2489 ppb	15:06:04
2	U 409.014†	33.0	-0.3	-0.0443 µg/L	-0.0443 ppb	15:05:44
2	V 292.402†	-226.5	46.9	0.5767 µg/L	0.5767 ppb	15:05:44
2	Zn 213.857†	632.4	-18.7	-0.5018 µg/L	-0.5018 ppb	15:06:04
3	Sc RADIAL	53676.7	53676.7	96.5 %		15:04:36
3	Al 396.153Radial†	18.3	-7.8	-5.7625 µg/L	-5.7625 ppb	15:04:36
3	Ca 317.933Radial†	200.0	5.4	4.9132 µg/L	4.9132 ppb	15:04:56
3	Fe 238.204 Radial†	17.3	4.7	88.396 µg/L	88.396 ppb	15:04:56
3	K 766.490 Radial†	542.4	39.1	26.456 µg/L	26.456 ppb	15:04:36
3	Mg 279.077 IEC†	9.1	0.8	9.9894 µg/L	9.9894 ppb	15:04:56
3	Na 589.592 Radial†	293.4	-93.7	-40.511 µg/L	-40.511 ppb	15:04:36
3	Sr 421.552†	-35.5	1.2	0.0160 µg/L	0.0160 ppb	15:04:36
3	Sc 361.383	1884510.0	1884510.0	100.86 %		15:06:10
3	Y 371.029	1161461.7	1161461.7	99.631 %		15:06:10
3	Ag 328.068†	-227.9	-16.4	-0.1460 µg/L	-0.1460 ppb	15:06:16
3	As 188.979†	-8.2	-3.9	-6.6241 µg/L	-6.6241 ppb	15:06:36
3	B 249.677†	420.8	24.4	0.9167 µg/L	0.9167 ppb	15:06:16
3	Ba 233.527†	-47.8	-1.6	-0.0436 µg/L	-0.0436 ppb	15:06:36
3	Be 313.107†	4332.1	149.3	0.0956 µg/L	0.0956 ppb	15:06:10
3	Cd 226.502†	-131.5	2.1	0.0428 µg/L	0.0428 ppb	15:06:36
3	Co 228.616†	16.8	5.0	0.2553 µg/L	0.2553 ppb	15:06:36
3	Cr 267.716†	-162.8	-20.3	-0.4668 µg/L	-0.4668 ppb	15:06:16
3	Cu 324.752†	5920.2	-64.7	-0.4639 µg/L	-0.4639 ppb	15:06:16
3	Mn 257.610†	-215.8	37.4	0.1412 µg/L	0.1412 ppb	15:06:16
3	Mo 202.031†	27.2	6.8	0.8444 µg/L	0.8444 ppb	15:06:36
3	Ni 231.604†	327.7	-5.9	-0.3379 µg/L	-0.3379 ppb	15:06:36
3	P 214.914†	261.5	-5.0	-8.2480 µg/L	-8.2480 ppb	15:06:36
3	Pb 220.353†	80.4	-1.4	-0.3687 µg/L	-0.3687 ppb	15:06:36
3	S 181.975 Axial†	31.4	-2.1	-8.0121 µg/L	-8.0121 ppb	15:06:36
3	Sb 206.836†	18.8	-5.8	-5.4618 µg/L	-5.4618 ppb	15:06:36
3	Se 196.026†	11.5	-2.5	-2.6701 µg/L	-2.6701 ppb	15:06:36
3	SiO2†	3625.8	-28.7	-4.9277 µg/L	-4.9277 ppb	15:06:16
3	Si 251.611†	368.3	15.3	1.0842 µg/L	1.0842 ppb	15:06:36
3	Sn 189.927†	29.0	-3.7	-1.9424 µg/L	-1.9424 ppb	15:06:36
3	Ti 334.940†	686.0	83.5	0.2046 µg/L	0.2046 ppb	15:06:16
3	Tl 190.801†	-25.1	2.0	3.1616 µg/L	3.1616 ppb	15:06:36
3	U 409.014†	14.4	-19.2	-2.0650 µg/L	-2.0650 ppb	15:06:16
3	V 292.402†	-276.6	-0.2	0.0032 µg/L	0.0032 ppb	15:06:16
3	Zn 213.857†	619.3	-39.0	-1.0271 µg/L	-1.0271 ppb	15:06:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1873992.6	100.30 %	0.575			0.57%
Sc RADIAL	53728.3	96.6 %	0.14			0.14%
Y 371.029	1153949.8	98.987 %	0.6399			0.65%
Ag 328.068†	-36.4	-0.3305 µg/L	0.16892	-0.3305 ppb	0.16892	51.11%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-8.1	-5.9417 µg/L	4.87246	-5.9417 ppb	4.87246	82.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-4.6	-7.8514 µg/L	1.45539	-7.8514 ppb	1.45539	18.54%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	7.6	0.2698 µg/L	0.85118	0.2698 ppb	0.85118	315.50%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	3.2	0.0890 µg/L	0.28523	0.0890 ppb	0.28523	320.40%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	112.4	0.0720 µg/L	0.04028	0.0720 ppb	0.04028	55.92%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	3.1	2.7940 µg/L	1.83988	2.7940 ppb	1.83988	65.85%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	7.7	0.2004 µg/L	0.17627	0.2004 ppb	0.17627	87.97%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	1.7	0.0857 µg/L	0.34519	0.0857 ppb	0.34519	402.84%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716† -1.2 -0.0266 µg/L 0.58983 -0.0266 ppb 0.58983 >999.9%

QC value within limits for Cr 267.716 Recovery = Not calculated

Cu 324.752† -32.6 -0.2303 µg/L 0.25797 -0.2303 ppb 0.25797 112.01%

QC value within limits for Cu 324.752 Recovery = Not calculated

Fe 238.204 Radial† 4.3 80.064 µg/L 11.6881 80.064 ppb 11.6881 14.60%

QC value within limits for Fe 238.204 Radial Recovery = Not calculated

K 766.490 Radial† 53.2 35.984 µg/L 13.3882 35.984 ppb 13.3882 37.21%

QC value within limits for K 766.490 Radial Recovery = Not calculated

Mg 279.077 IEC† 2.4 29.749 µg/L 29.1083 29.749 ppb 29.1083 97.85%

QC value within limits for Mg 279.077 IEC Recovery = Not calculated

Mn 257.610† 35.1 0.1320 µg/L 0.00873 0.1320 ppb 0.00873 6.61%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031† 2.4 0.2998 µg/L 0.95968 0.2998 ppb 0.95968 320.12%

QC value within limits for Mo 202.031 Recovery = Not calculated

Na 589.592 Radial† -99.9 -43.180 µg/L 8.5139 -43.180 ppb 8.5139 19.72%

QC value within limits for Na 589.592 Radial Recovery = Not calculated

Ni 231.604† -2.3 -0.1314 µg/L 0.17980 -0.1314 ppb 0.17980 136.87%

QC value within limits for Ni 231.604 Recovery = Not calculated

P 214.914† 3.7 5.8436 µg/L 12.57179 5.8436 ppb 12.57179 215.14%

QC value within limits for P 214.914 Recovery = Not calculated

Pb 220.353† 6.6 1.7934 µg/L 2.12681 1.7934 ppb 2.12681 118.59%

QC value within limits for Pb 220.353 Recovery = Not calculated

S 181.975 Axial† 1.0 3.6993 µg/L 11.25716 3.6993 ppb 11.25716 304.30%

QC value within limits for S 181.975 Axial Recovery = Not calculated

Sb 206.836† -1.7 -1.5489 µg/L 3.39159 -1.5489 ppb 3.39159 218.97%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026† -0.4 -0.4389 µg/L 4.29451 -0.4389 ppb 4.29451 978.56%

QC value within limits for Se 196.026 Recovery = Not calculated

SiO2† 19.4 3.3278 µg/L 7.88549 3.3278 ppb 7.88549 236.96%

QC value within limits for SiO2 Recovery = Not calculated

Si 251.611† 19.7 1.3926 µg/L 0.40683 1.3926 ppb 0.40683 29.21%

QC value within limits for Si 251.611 Recovery = Not calculated

Sn 189.927† -3.8 -1.9744 µg/L 0.49831 -1.9744 ppb 0.49831 25.24%

QC value within limits for Sn 189.927 Recovery = Not calculated

Sr 421.552† 14.1 0.1839 µg/L 0.14630 0.1839 ppb 0.14630 79.56%

QC value within limits for Sr 421.552 Recovery = Not calculated

Ti 334.940† 30.7 0.0751 µg/L 0.15377 0.0751 ppb 0.15377 204.63%

QC value within limits for Ti 334.940 Recovery = Not calculated

Tl 190.801† 0.3 0.5328 µg/L 3.05065 0.5328 ppb 3.05065 572.61%

QC value within limits for Tl 190.801 Recovery = Not calculated

U 409.014† 3.2 0.3239 µg/L 2.59265 0.3239 ppb 2.59265 800.45%

QC value within limits for U 409.014 Recovery = Not calculated

V 292.402† 22.8 0.2871 µg/L 0.28681 0.2871 ppb 0.28681 99.89%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 213.857† -27.7 -0.7363 µg/L 0.26713 -0.7363 ppb 0.26713 36.28%

QC value within limits for Zn 213.857 Recovery = Not calculated

All analyte(s) passed QC.

===== Analysis Begun

Start Time: 1/11/2010 15:24:19

Plasma On Time: 1/11/2010 07:03:49

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\011110A.sif

Batch ID:

Results Data Set: 011110A

Results Library: c:\pe\optimal\Results\Results.mdb

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 1/11/2010 15:24:21

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

----- Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54415.5	54415.5	97.9 %		15:24:55
1	Al 396.153Radial†	6790.0	6910.7	5056.8 µg/L	5056.8 ppb	15:24:55
1	Ca 317.933Radial†	5515.5	5433.5	4945.7 µg/L	4945.7 ppb	15:24:55
1	Fe 238.204 Radial†	260.9	253.3	4751.7 µg/L	4751.7 ppb	15:25:15
1	K 766.490 Radial†	7998.7	7649.6	5171.8 µg/L	5171.8 ppb	15:24:55
1	Mg 279.077 IEC†	388.9	388.7	4835.9 µg/L	4835.9 ppb	15:25:15
1	Na 589.592 Radial†	22565.8	22658.0	9791.6 µg/L	9791.6 ppb	15:24:55
1	Sr 421.552†	36259.1	37084.1	482.36 µg/L	482.36 ppb	15:24:55
1	Sc 361.383	1885498.5	1885498.5	100.92 %		15:26:19
1	Y 371.029	1160572.5	1160572.5	99.555 %		15:26:19
1	Ag 328.068†	54972.9	54682.8	512.58 µg/L	512.58 ppb	15:26:24
1	As 188.979†	304.3	305.8	524.78 µg/L	524.78 ppb	15:26:45
1	B 249.677†	13539.2	13023.4	503.51 µg/L	503.51 ppb	15:26:24
1	Ba 233.527†	18454.1	18332.2	512.56 µg/L	512.56 ppb	15:26:24
1	Be 313.107†	801384.5	789956.4	506.18 µg/L	506.18 ppb	15:26:19
1	Cd 226.502†	18610.6	18573.9	512.62 µg/L	512.62 ppb	15:26:24
1	Co 228.616†	10356.8	10251.1	515.88 µg/L	515.88 ppb	15:26:24
1	Cr 267.716†	22523.3	22459.7	518.36 µg/L	518.36 ppb	15:26:24
1	Cu 324.752†	76083.5	69458.0	507.06 µg/L	507.06 ppb	15:26:24
1	Mn 257.610†	150204.1	149090.5	519.19 µg/L	519.19 ppb	15:26:19
1	Mo 202.031†	4392.3	4332.2	538.88 µg/L	538.88 ppb	15:26:45
1	Ni 231.604†	9388.2	8972.1	515.20 µg/L	515.20 ppb	15:26:24
1	P 214.914†	1909.8	1628.1	2591.3 µg/L	2591.3 ppb	15:26:45
1	Pb 220.353†	2028.5	1929.0	523.14 µg/L	523.14 ppb	15:26:45
1	S 181.975 Axial†	320.9	284.7	1069.4 µg/L	1069.4 ppb	15:26:45
1	Sb 206.836†	596.4	566.5	527.85 µg/L	527.85 ppb	15:26:45
1	Se 196.026†	511.2	492.6	529.43 µg/L	529.43 ppb	15:26:45
1	SiO2†	36266.8	32313.9	5555.3 µg/L	5555.3 ppb	15:26:24
1	Si 251.611†	38927.1	38223.6	2546.2 µg/L	2546.2 ppb	15:26:24
1	Sn 189.927†	1072.3	1030.2	538.28 µg/L	538.28 ppb	15:26:45
1	Ti 334.940†	211311.1	208794.2	512.10 µg/L	512.10 ppb	15:26:19
1	Tl 190.801†	294.0	318.2	510.90 µg/L	510.90 ppb	15:26:45
1	U 409.014†	5052.3	4973.0	530.32 µg/L	530.32 ppb	15:26:24
1	V 292.402†	41463.8	41361.1	516.81 µg/L	516.81 ppb	15:26:24
1	Zn 213.857†	20789.9	19948.0	509.90 µg/L	509.90 ppb	15:26:24
2	Sc RADIAL	54657.5	54657.5	98.3 %		15:25:21
2	Al 396.153Radial†	6804.4	6894.6	5045.2 µg/L	5045.2 ppb	15:25:21
2	Ca 317.933Radial†	5603.6	5498.1	5004.6 µg/L	5004.6 ppb	15:25:21
2	Fe 238.204 Radial†	261.4	252.7	4740.5 µg/L	4740.5 ppb	15:25:41
2	K 766.490 Radial†	7973.8	7588.0	5130.2 µg/L	5130.2 ppb	15:25:21
2	Mg 279.077 IEC†	389.1	387.2	4817.0 µg/L	4817.0 ppb	15:25:41
2	Na 589.592 Radial†	22714.1	22706.7	9812.7 µg/L	9812.7 ppb	15:25:21
2	Sr 421.552†	36545.6	37211.5	484.02 µg/L	484.02 ppb	15:25:21
2	Sc 361.383	1877417.9	1877417.9	100.48 %		15:26:52
2	Y 371.029	1154989.2	1154989.2	99.076 %		15:26:52
2	Ag 328.068†	54850.7	54795.7	513.64 µg/L	513.64 ppb	15:26:58
2	As 188.979†	301.2	304.0	521.61 µg/L	521.61 ppb	15:27:18

2	B 249.677†	13450.8	12993.1	502.33 µg/L	502.33 ppb	15:26:58
2	Ba 233.527†	18382.5	18339.6	512.77 µg/L	512.77 ppb	15:26:58
2	Be 313.107†	797368.9	789378.0	505.81 µg/L	505.81 ppb	15:26:52
2	Cd 226.502†	18524.2	18567.3	512.43 µg/L	512.43 ppb	15:26:58
2	Co 228.616†	10330.4	10269.0	516.77 µg/L	516.77 ppb	15:26:58
2	Cr 267.716†	22444.3	22477.2	518.76 µg/L	518.76 ppb	15:26:58
2	Cu 324.752†	75934.1	69633.8	508.34 µg/L	508.34 ppb	15:26:58
2	Mn 257.610†	149522.4	149052.7	519.06 µg/L	519.06 ppb	15:26:52
2	Mo 202.031†	4332.1	4291.0	533.75 µg/L	533.75 ppb	15:27:18
2	Ni 231.604†	9323.5	8947.7	513.80 µg/L	513.80 ppb	15:26:58
2	P 214.914†	1879.4	1606.0	2555.0 µg/L	2555.0 ppb	15:27:18
2	Pb 220.353†	2007.0	1916.2	519.67 µg/L	519.67 ppb	15:27:18
2	S 181.975 Axial†	315.3	280.5	1053.5 µg/L	1053.5 ppb	15:27:18
2	Sb 206.836†	592.3	565.0	526.42 µg/L	526.42 ppb	15:27:18
2	Se 196.026†	504.4	488.0	524.53 µg/L	524.53 ppb	15:27:18
2	SiO2†	36127.3	32329.7	5558.0 µg/L	5558.0 ppb	15:26:58
2	Si 251.611†	38844.2	38307.1	2552.3 µg/L	2552.3 ppb	15:26:58
2	Sn 189.927†	1054.5	1017.0	531.45 µg/L	531.45 ppb	15:27:18
2	Ti 334.940†	210363.5	208752.4	512.00 µg/L	512.00 ppb	15:26:52
2	Tl 190.801†	295.6	321.0	515.44 µg/L	515.44 ppb	15:27:18
2	U 409.014†	4922.4	4865.3	518.80 µg/L	518.80 ppb	15:26:58
2	V 292.402†	41397.5	41471.9	518.13 µg/L	518.13 ppb	15:26:58
2	Zn 213.857†	20719.4	19966.6	510.39 µg/L	510.39 ppb	15:26:58
3	Sc RADIAL	54293.5	54293.5	97.7 %		15:25:47
3	Al 396.153Radial†	6739.8	6874.8	5033.7 µg/L	5033.7 ppb	15:25:47
3	Ca 317.933Radial†	5553.8	5485.3	4992.9 µg/L	4992.9 ppb	15:25:47
3	Fe 238.204 Radial†	263.1	256.2	4803.6 µg/L	4803.6 ppb	15:26:07
3	K 766.490 Radial†	7929.3	7596.9	5136.2 µg/L	5136.2 ppb	15:25:47
3	Mg 279.077 IEC†	391.7	392.5	4880.5 µg/L	4880.5 ppb	15:26:07
3	Na 589.592 Radial†	22598.5	22743.3	9828.5 µg/L	9828.5 ppb	15:25:47
3	Sr 421.552†	36342.9	37253.2	484.56 µg/L	484.56 ppb	15:25:47
3	Sc 361.383	1887520.5	1887520.5	101.03 %		15:27:25
3	Y 371.029	1160637.9	1160637.9	99.561 %		15:27:25
3	Ag 328.068†	52734.3	52408.7	491.17 µg/L	491.17 ppb	15:27:31
3	As 188.979†	260.3	261.9	449.71 µg/L	449.71 ppb	15:27:52
3	B 249.677†	12945.2	12421.0	480.13 µg/L	480.13 ppb	15:27:31
3	Ba 233.527†	17311.1	17181.2	480.36 µg/L	480.36 ppb	15:27:31
3	Be 313.107†	765067.6	753157.3	482.60 µg/L	482.60 ppb	15:27:25
3	Cd 226.502†	17418.8	17374.5	479.44 µg/L	479.44 ppb	15:27:31
3	Co 228.616†	9627.4	9518.1	478.86 µg/L	478.86 ppb	15:27:31
3	Cr 267.716†	20465.7	20399.1	470.82 µg/L	470.82 ppb	15:27:31
3	Cu 324.752†	71487.4	64827.7	473.29 µg/L	473.29 ppb	15:27:31
3	Mn 257.610†	143690.9	142484.0	496.22 µg/L	496.22 ppb	15:27:25
3	Mo 202.031†	3713.5	3655.5	454.74 µg/L	454.74 ppb	15:27:52
3	Ni 231.604†	8734.8	8315.3	477.49 µg/L	477.49 ppb	15:27:31
3	P 214.914†	1681.8	1400.4	2223.3 µg/L	2223.3 ppb	15:27:52
3	Pb 220.353†	1779.4	1680.2	455.58 µg/L	455.58 ppb	15:27:52
3	S 181.975 Axial†	291.3	255.0	957.61 µg/L	957.61 ppb	15:27:52
3	Sb 206.836†	525.0	495.2	461.44 µg/L	461.44 ppb	15:27:52
3	Se 196.026†	451.6	433.1	466.24 µg/L	466.24 ppb	15:27:52
3	SiO2†	34574.4	30600.1	5260.7 µg/L	5260.7 ppb	15:27:31
3	Si 251.611†	36949.7	36224.9	2416.4 µg/L	2416.4 ppb	15:27:31
3	Sn 189.927†	892.3	850.8	444.81 µg/L	444.81 ppb	15:27:52
3	Ti 334.940†	200944.2	198308.2	486.37 µg/L	486.37 ppb	15:27:25
3	Tl 190.801†	266.6	290.8	467.04 µg/L	467.04 ppb	15:27:52
3	U 409.014†	4517.1	4437.9	473.11 µg/L	473.11 ppb	15:27:31
3	V 292.402†	38432.7	38316.7	478.44 µg/L	478.44 ppb	15:27:31
3	Zn 213.857†	19400.4	18550.6	474.08 µg/L	474.08 ppb	15:27:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1883478.9	100.81 %	0.286			0.28%
Sc RADIAL	54455.5	97.9 %	0.33			0.34%
Y 371.029	1158733.2	99.397 %	0.2782			0.28%
Ag 328.068†	53962.4	505.79 µg/L	12.678	505.79 ppb	12.678	2.51%
QC value within limits for Ag 328.068 Recovery = 101.16%						
Al 396.153Radial†	6893.4	5045.2 µg/L	11.57	5045.2 ppb	11.57	0.23%
QC value within limits for Al 396.153Radial Recovery = 100.90%						
As 188.979†	290.6	498.70 µg/L	42.458	498.70 ppb	42.458	8.51%

QC value within limits for As 188.979 Recovery = 99.74%							
B 249.677†	12812.5	495.32 µg/L	13.170	495.32 ppb	13.170	2.66%	
QC value within limits for B 249.677 Recovery = 99.06%							
Ba 233.527†	17951.0	501.89 µg/L	18.647	501.89 ppb	18.647	3.72%	
QC value within limits for Ba 233.527 Recovery = 100.38%							
Be 313.107†	777497.3	498.20 µg/L	13.508	498.20 ppb	13.508	2.71%	
QC value within limits for Be 313.107 Recovery = 99.64%							
Ca 317.933Radial†	5472.3	4981.1 µg/L	31.15	4981.1 ppb	31.15	0.63%	
QC value within limits for Ca 317.933Radial Recovery = 99.62%							
Cd 226.502†	18171.9	501.50 µg/L	19.099	501.50 ppb	19.099	3.81%	
QC value within limits for Cd 226.502 Recovery = 100.30%							
Co 228.616†	10012.7	503.84 µg/L	21.632	503.84 ppb	21.632	4.29%	
QC value within limits for Co 228.616 Recovery = 100.77%							
Cr 267.716†	21778.7	502.65 µg/L	27.563	502.65 ppb	27.563	5.48%	
QC value within limits for Cr 267.716 Recovery = 100.53%							
Cu 324.752†	67973.2	496.23 µg/L	19.877	496.23 ppb	19.877	4.01%	
QC value within limits for Cu 324.752 Recovery = 99.25%							
Fe 238.204 Radial†	254.1	4765.3 µg/L	33.70	4765.3 ppb	33.70	0.71%	
QC value within limits for Fe 238.204 Radial Recovery = 95.31%							
K 766.490 Radial†	7611.5	5146.0 µg/L	22.49	5146.0 ppb	22.49	0.44%	
QC value within limits for K 766.490 Radial Recovery = 102.92%							
Mg 279.077 IEC†	389.5	4844.5 µg/L	32.59	4844.5 ppb	32.59	0.67%	
QC value within limits for Mg 279.077 IEC Recovery = 96.89%							
Mn 257.610†	146875.8	511.49 µg/L	13.226	511.49 ppb	13.226	2.59%	
QC value within limits for Mn 257.610 Recovery = 102.30%							
Mo 202.031†	4092.9	509.13 µg/L	47.165	509.13 ppb	47.165	9.26%	
QC value within limits for Mo 202.031 Recovery = 101.83%							
Na 589.592 Radial†	22702.7	9810.9 µg/L	18.49	9810.9 ppb	18.49	0.19%	
QC value within limits for Na 589.592 Radial Recovery = 98.11%							
Ni 231.604†	8745.0	502.16 µg/L	21.380	502.16 ppb	21.380	4.26%	
QC value within limits for Ni 231.604 Recovery = 100.43%							
P 214.914†	1544.8	2456.5 µg/L	202.80	2456.5 ppb	202.80	8.26%	
QC value within limits for P 214.914 Recovery = 98.26%							
Pb 220.353†	1841.8	499.46 µg/L	38.040	499.46 ppb	38.040	7.62%	
QC value within limits for Pb 220.353 Recovery = 99.89%							
S 181.975 Axial†	273.4	1026.8 µg/L	60.48	1026.8 ppb	60.48	5.89%	
QC value within limits for S 181.975 Axial Recovery = 102.68%							
Sb 206.836†	542.2	505.24 µg/L	37.934	505.24 ppb	37.934	7.51%	
QC value within limits for Sb 206.836 Recovery = 101.05%							
Se 196.026†	471.2	506.73 µg/L	35.152	506.73 ppb	35.152	6.94%	
QC value within limits for Se 196.026 Recovery = 101.35%							
SiO2†	31747.9	5458.0 µg/L	170.89	5458.0 ppb	170.89	3.13%	
QC value within limits for SiO2 Recovery = 102.07%							
Si 251.611†	37585.2	2505.0 µg/L	76.74	2505.0 ppb	76.74	3.06%	
QC value within limits for Si 251.611 Recovery = 100.20%							
Sn 189.927†	966.0	504.84 µg/L	52.106	504.84 ppb	52.106	10.32%	
QC value within limits for Sn 189.927 Recovery = 100.97%							
Sr 421.552†	37183.0	483.64 µg/L	1.146	483.64 ppb	1.146	0.24%	
QC value within limits for Sr 421.552 Recovery = 96.73%							
Ti 334.940†	205284.9	503.49 µg/L	14.828	503.49 ppb	14.828	2.95%	
QC value within limits for Ti 334.940 Recovery = 100.70%							
Tl 190.801†	310.0	497.79 µg/L	26.730	497.79 ppb	26.730	5.37%	
QC value within limits for Tl 190.801 Recovery = 99.56%							
U 409.014†	4758.7	507.41 µg/L	30.257	507.41 ppb	30.257	5.96%	
QC value within limits for U 409.014 Recovery = 101.48%							
V 292.402†	40383.2	504.46 µg/L	22.541	504.46 ppb	22.541	4.47%	
QC value within limits for V 292.402 Recovery = 100.89%							
Zn 213.857†	19488.4	498.13 µg/L	20.823	498.13 ppb	20.823	4.18%	
QC value within limits for Zn 213.857 Recovery = 99.63%							
All analyte(s) passed QC.							

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/11/2010 15:28:00

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	53962.7	53962.7	97.1 %		15:28:33
1	Al 396.153Radial†	19.6	-6.5	-4.7583 µg/L	-4.7583 ppb	15:28:33
1	Ca 317.933Radial†	191.8	-4.2	-3.8075 µg/L	-3.8075 ppb	15:28:53
1	Fe 238.204 Radial†	12.7	-0.1	-2.1794 µg/L	-2.1794 ppb	15:28:53
1	K 766.490 Radial†	551.0	44.9	30.379 µg/L	30.379 ppb	15:28:33
1	Mg 279.077 IEC†	9.8	1.5	18.711 µg/L	18.711 ppb	15:28:53
1	Na 589.592 Radial†	313.1	-75.1	-32.441 µg/L	-32.441 ppb	15:28:33
1	Sr 421.552†	6.8	45.0	0.5859 µg/L	0.5859 ppb	15:28:33
1	Sc 361.383	1890411.3	1890411.3	101.18 %		15:29:55
1	Y 371.029	1167431.8	1167431.8	100.14 %		15:29:55
1	Ag 328.068†	-264.5	-51.9	-0.4772 µg/L	-0.4772 ppb	15:30:01
1	As 188.979†	-8.0	-3.7	-6.2985 µg/L	-6.2985 ppb	15:30:21
1	B 249.677†	391.0	-6.4	-0.2469 µg/L	-0.2469 ppb	15:30:01
1	Ba 233.527†	-45.4	0.9	0.0264 µg/L	0.0264 ppb	15:30:21
1	Be 313.107†	4176.8	-17.7	-0.0114 µg/L	-0.0114 ppb	15:29:55
1	Cd 226.502†	-120.1	13.7	0.3768 µg/L	0.3768 ppb	15:30:21
1	Co 228.616†	11.0	-0.7	-0.0379 µg/L	-0.0379 ppb	15:30:21
1	Cr 267.716†	-140.5	2.3	0.0549 µg/L	0.0549 ppb	15:30:01
1	Cu 324.752†	5912.9	-90.2	-0.6583 µg/L	-0.6583 ppb	15:30:01
1	Mn 257.610†	-245.8	8.4	0.0290 µg/L	0.0290 ppb	15:30:01
1	Mo 202.031†	18.6	-1.8	-0.2281 µg/L	-0.2281 ppb	15:30:21
1	Ni 231.604†	317.6	-16.9	-0.9724 µg/L	-0.9724 ppb	15:30:21
1	P 214.914†	263.9	-3.5	-5.7040 µg/L	-5.7040 ppb	15:30:21
1	Pb 220.353†	89.4	7.3	1.9748 µg/L	1.9748 ppb	15:30:21
1	S 181.975 Axial†	33.4	-0.3	-1.1725 µg/L	-1.1725 ppb	15:30:21
1	Sb 206.836†	16.8	-7.9	-7.4084 µg/L	-7.4084 ppb	15:30:21
1	Se 196.026†	12.7	-1.4	-1.4207 µg/L	-1.4207 ppb	15:30:21
1	SiO2†	3622.7	-42.9	-7.3798 µg/L	-7.3798 ppb	15:30:01
1	Si 251.611†	356.4	2.4	0.2773 µg/L	0.2773 ppb	15:30:21
1	Sn 189.927†	26.4	-6.3	-3.2783 µg/L	-3.2783 ppb	15:30:21
1	Ti 334.940†	670.0	65.5	0.1611 µg/L	0.1611 ppb	15:30:01
1	Tl 190.801†	-26.9	0.3	0.4066 µg/L	0.4066 ppb	15:30:21
1	U 409.014†	32.4	-1.4	-0.1452 µg/L	-0.1452 ppb	15:30:01
1	V 292.402†	-206.1	70.4	0.8695 µg/L	0.8695 ppb	15:30:01
1	Zn 213.857†	633.3	-27.0	-0.6898 µg/L	-0.6898 ppb	15:30:21
2	Sc RADIAL	53133.9	53133.9	95.6 %		15:28:59
2	Al 396.153Radial†	4.5	-22.0	-16.137 µg/L	-16.137 ppb	15:28:59
2	Ca 317.933Radial†	193.4	0.6	0.5224 µg/L	0.5224 ppb	15:29:19
2	Fe 238.204 Radial†	15.3	2.7	51.069 µg/L	51.069 ppb	15:29:19
2	K 766.490 Radial†	491.4	-8.5	-5.7746 µg/L	-5.7746 ppb	15:28:59
2	Mg 279.077 IEC†	13.8	5.9	73.101 µg/L	73.101 ppb	15:29:19
2	Na 589.592 Radial†	295.6	-88.3	-38.161 µg/L	-38.161 ppb	15:28:59
2	Sr 421.552†	-2.7	35.2	0.4581 µg/L	0.4581 ppb	15:28:59
2	Sc 361.383	1873914.3	1873914.3	100.30 %		15:30:27
2	Y 371.029	1155840.7	1155840.7	99.149 %		15:30:27
2	Ag 328.068†	-259.5	-49.2	-0.4525 µg/L	-0.4525 ppb	15:30:32
2	As 188.979†	-4.4	-0.2	-0.2596 µg/L	-0.2596 ppb	15:30:53
2	B 249.677†	370.6	-23.3	-0.9197 µg/L	-0.9197 ppb	15:30:32
2	Ba 233.527†	-44.5	1.5	0.0413 µg/L	0.0413 ppb	15:30:53
2	Be 313.107†	4161.2	3.2	0.0021 µg/L	0.0021 ppb	15:30:27
2	Cd 226.502†	-122.6	10.2	0.2725 µg/L	0.2725 ppb	15:30:53
2	Co 228.616†	16.5	4.8	0.2430 µg/L	0.2430 ppb	15:30:53
2	Cr 267.716†	-130.2	11.3	0.2607 µg/L	0.2607 ppb	15:30:32
2	Cu 324.752†	5855.8	-95.7	-0.6935 µg/L	-0.6935 ppb	15:30:32
2	Mn 257.610†	-187.8	64.2	0.2296 µg/L	0.2296 ppb	15:30:32
2	Mo 202.031†	20.4	0.1	0.0150 µg/L	0.0150 ppb	15:30:53
2	Ni 231.604†	329.3	-2.5	-0.1455 µg/L	-0.1455 ppb	15:30:53
2	P 214.914†	268.5	3.4	5.4394 µg/L	5.4394 ppb	15:30:53
2	Pb 220.353†	93.3	11.9	3.2228 µg/L	3.2228 ppb	15:30:53

2	S 181.975 Axial†	29.0	-4.4	-16.614 µg/L	-16.614 ppb	15:30:53
2	Sb 206.836†	22.4	-2.2	-2.0723 µg/L	-2.0723 ppb	15:30:53
2	Se 196.026†	10.0	-4.0	-4.2734 µg/L	-4.2734 ppb	15:30:53
2	SiO2†	3646.1	11.9	2.0530 µg/L	2.0530 ppb	15:30:32
2	Si 251.611†	354.7	3.8	0.4157 µg/L	0.4157 ppb	15:30:53
2	Sn 189.927†	24.8	-7.6	-3.9766 µg/L	-3.9766 ppb	15:30:53
2	Ti 334.940†	579.1	-19.3	-0.0474 µg/L	-0.0474 ppb	15:30:32
2	Tl 190.801†	-25.7	1.2	1.9386 µg/L	1.9386 ppb	15:30:53
2	U 409.014†	21.6	-11.9	-1.2814 µg/L	-1.2814 ppb	15:30:32
2	V 292.402†	-259.4	15.4	0.1904 µg/L	0.1904 ppb	15:30:32
2	Zn 213.857†	643.7	-11.2	-0.3009 µg/L	-0.3009 ppb	15:30:53
3	Sc RADIAL	54049.7	54049.7	97.2 %		15:29:25
3	Al 396.153Radial†	25.4	-0.5	-0.4057 µg/L	-0.4057 ppb	15:29:25
3	Ca 317.933Radial†	195.3	-0.9	-0.8304 µg/L	-0.8304 ppb	15:29:45
3	Fe 238.204 Radial†	14.9	2.1	39.781 µg/L	39.781 ppb	15:29:45
3	K 766.490 Radial†	535.3	27.9	18.846 µg/L	18.846 ppb	15:29:25
3	Mg 279.077 IEC†	8.1	-0.3	-3.5851 µg/L	-3.5851 ppb	15:29:45
3	Na 589.592 Radial†	286.2	-103.2	-44.615 µg/L	-44.615 ppb	15:29:25
3	Sr 421.552†	19.4	58.0	0.7543 µg/L	0.7543 ppb	15:29:25
3	Sc 361.383	1901501.5	1901501.5	101.77 %		15:30:59
3	Y 371.029	1171359.6	1171359.6	100.48 %		15:30:59
3	Ag 328.068†	-251.0	-37.1	-0.3359 µg/L	-0.3359 ppb	15:31:04
3	As 188.979†	-5.2	-0.8	-1.3771 µg/L	-1.3771 ppb	15:31:25
3	B 249.677†	367.6	-31.7	-1.2409 µg/L	-1.2409 ppb	15:31:04
3	Ba 233.527†	-43.7	2.8	0.0800 µg/L	0.0800 ppb	15:31:25
3	Be 313.107†	4184.7	-33.9	-0.0217 µg/L	-0.0217 ppb	15:30:59
3	Cd 226.502†	-126.3	8.4	0.2266 µg/L	0.2266 ppb	15:31:25
3	Co 228.616†	12.9	1.1	0.0536 µg/L	0.0536 ppb	15:31:25
3	Cr 267.716†	-132.2	11.3	0.2614 µg/L	0.2614 ppb	15:31:04
3	Cu 324.752†	5880.3	-156.3	-1.1368 µg/L	-1.1368 ppb	15:31:04
3	Mn 257.610†	-208.6	46.4	0.1665 µg/L	0.1665 ppb	15:31:04
3	Mo 202.031†	22.6	1.9	0.2431 µg/L	0.2431 ppb	15:31:25
3	Ni 231.604†	331.5	-5.1	-0.2936 µg/L	-0.2936 ppb	15:31:25
3	P 214.914†	267.7	-1.3	-2.0524 µg/L	-2.0524 ppb	15:31:25
3	Pb 220.353†	91.4	8.7	2.3606 µg/L	2.3606 ppb	15:31:25
3	S 181.975 Axial†	34.7	0.8	2.9104 µg/L	2.9104 ppb	15:31:25
3	Sb 206.836†	25.1	0.1	0.1208 µg/L	0.1208 ppb	15:31:25
3	Se 196.026†	11.8	-2.4	-2.5430 µg/L	-2.5430 ppb	15:31:25
3	SiO2†	3654.1	-32.9	-5.6582 µg/L	-5.6582 ppb	15:31:04
3	Si 251.611†	368.5	12.3	0.9220 µg/L	0.9220 ppb	15:31:25
3	Sn 189.927†	28.0	-4.9	-2.5448 µg/L	-2.5448 ppb	15:31:25
3	Ti 334.940†	595.2	-11.8	-0.0289 µg/L	-0.0289 ppb	15:31:04
3	Tl 190.801†	-22.8	4.5	7.1602 µg/L	7.1602 ppb	15:31:25
3	U 409.014†	58.5	24.1	2.5692 µg/L	2.5692 ppb	15:31:04
3	V 292.402†	-207.1	70.6	0.8811 µg/L	0.8811 ppb	15:31:04
3	Zn 213.857†	640.8	-23.3	-0.6080 µg/L	-0.6080 ppb	15:31:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1888609.0	101.08 %	0.743			0.74%
Sc RADIAL	53715.4	96.6 %	0.91			0.94%
Y 371.029	1164877.4	99.924 %	0.6921			0.69%
Ag 328.068†	-46.1	-0.4219 µg/L	0.07549	-0.4219 ppb	0.07549	17.89%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-9.7	-7.1004 µg/L	8.12307	-7.1004 ppb	8.12307	114.40%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.6	-2.6451 µg/L	3.21291	-2.6451 ppb	3.21291	121.47%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-20.5	-0.8025 µg/L	0.50726	-0.8025 ppb	0.50726	63.21%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1.7	0.0492 µg/L	0.02770	0.0492 ppb	0.02770	56.27%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-16.1	-0.0104 µg/L	0.01194	-0.0104 ppb	0.01194	115.25%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-1.5	-1.3718 µg/L	2.21517	-1.3718 ppb	2.21517	161.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	10.7	0.2920 µg/L	0.07700	0.2920 ppb	0.07700	26.37%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	1.7	0.0863 µg/L	0.14326	0.0863 ppb	0.14326	166.08%

QC value within limits for Co 228.616	Recovery = Not calculated			
Cr 267.716†	8.3	0.1923 µg/L	0.11900	0.1923 ppb
QC value within limits for Cr 267.716	Recovery = Not calculated			
Cu 324.752†	-114.1	-0.8295 µg/L	0.26668	-0.8295 ppb
QC value within limits for Cu 324.752	Recovery = Not calculated			
Fe 238.204 Radial†	1.6	29.557 µg/L	28.0581	29.557 ppb
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
K 766.490 Radial†	21.4	14.484 µg/L	18.4675	14.484 ppb
QC value within limits for K 766.490 Radial	Recovery = Not calculated			
Mg 279.077 IEC†	2.4	29.409 µg/L	39.4466	29.409 ppb
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
Mn 257.610†	39.7	0.1417 µg/L	0.10259	0.1417 ppb
QC value within limits for Mn 257.610	Recovery = Not calculated			
Mo 202.031†	0.1	0.0100 µg/L	0.23565	0.0100 ppb
QC value within limits for Mo 202.031	Recovery = Not calculated			
Na 589.592 Radial†	-88.9	-38.406 µg/L	6.0908	-38.406 ppb
QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
Ni 231.604†	-8.2	-0.4705 µg/L	0.44094	-0.4705 ppb
QC value within limits for Ni 231.604	Recovery = Not calculated			
P 214.914†	-0.5	-0.7723 µg/L	5.68093	-0.7723 ppb
QC value within limits for P 214.914	Recovery = Not calculated			
Pb 220.353†	9.3	2.5194 µg/L	0.63900	2.5194 ppb
QC value within limits for Pb 220.353	Recovery = Not calculated			
S 181.975 Axial†	-1.3	-4.9587 µg/L	10.29819	-4.9587 ppb
QC value within limits for S 181.975 Axial	Recovery = Not calculated			
Sb 206.836†	-3.3	-3.1199 µg/L	3.87243	-3.1199 ppb
QC value within limits for Sb 206.836	Recovery = Not calculated			
Se 196.026†	-2.6	-2.7457 µg/L	1.43715	-2.7457 ppb
QC value within limits for Se 196.026	Recovery = Not calculated			
SiO2†	-21.3	-3.6617 µg/L	5.02337	-3.6617 ppb
QC value within limits for SiO2	Recovery = Not calculated			
Si 251.611†	6.2	0.5383 µg/L	0.33938	0.5383 ppb
QC value within limits for Si 251.611	Recovery = Not calculated			
Sn 189.927†	-6.3	-3.2666 µg/L	0.71599	-3.2666 ppb
QC value within limits for Sn 189.927	Recovery = Not calculated			
Sr 421.552†	46.1	0.5994 µg/L	0.14853	0.5994 ppb
QC value within limits for Sr 421.552	Recovery = Not calculated			
Ti 334.940†	11.5	0.0282 µg/L	0.11541	0.0282 ppb
QC value within limits for Ti 334.940	Recovery = Not calculated			
Tl 190.801†	2.0	3.1685 µg/L	3.54080	3.1685 ppb
QC value within limits for Tl 190.801	Recovery = Not calculated			
U 409.014†	3.6	0.3809 µg/L	1.97850	0.3809 ppb
QC value within limits for U 409.014	Recovery = Not calculated			
V 292.402†	52.1	0.6470 µg/L	0.39548	0.6470 ppb
QC value within limits for V 292.402	Recovery = Not calculated			
Zn 213.857†	-20.5	-0.5329 µg/L	0.20506	-0.5329 ppb
QC value within limits for Zn 213.857	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 3
 Sample ID: 1202004445|936817|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 301
 Date Collected: 1/11/2010 15:31:33
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202004445|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52597.4	52597.4	94.6 %		15:32:09
1	Al 396.153Radial†	51.8	28.0	20.580 µg/L	20.580 ppb	15:32:09
1	Ca 317.933Radial†	239.4	51.2	46.622 µg/L	46.622 ppb	15:32:30
1	Fe 238.204 Radial†	17.3	5.1	94.408 µg/L	94.408 ppb	15:32:30
1	K 766.490 Radial†	556.2	65.2	44.110 µg/L	44.110 ppb	15:32:09
1	Mg 279.077 IEC†	8.2	0.1	0.6754 µg/L	0.6754 ppb	15:32:30
1	Na 589.592 Radial†	330.7	-48.1	-20.791 µg/L	-20.791 ppb	15:32:09
1	Sr 421.552†	14.5	53.4	0.6943 µg/L	0.6943 ppb	15:32:09
1	Sc 361.383	1839577.6	1839577.6	98.459 %		15:33:31
1	Y 371.029	1133194.4	1133194.4	97.207 %		15:33:31
1	Ag 328.068†	-186.9	19.7	0.1916 µg/L	0.1916 ppb	15:33:37
1	As 188.979†	-3.9	0.3	0.5353 µg/L	0.5353 ppb	15:33:58
1	B 249.677†	415.7	29.3	1.1082 µg/L	1.1082 ppb	15:33:37
1	Ba 233.527†	-41.8	3.3	0.0923 µg/L	0.0923 ppb	15:33:58
1	Be 313.107†	4077.8	-4.2	-0.0028 µg/L	-0.0028 ppb	15:33:31
1	Cd 226.502†	-132.7	-2.3	-0.0766 µg/L	-0.0766 ppb	15:33:58
1	Co 228.616†	9.9	-1.5	-0.0757 µg/L	-0.0757 ppb	15:33:58
1	Cr 267.716†	-109.3	30.1	0.6940 µg/L	0.6940 ppb	15:33:37
1	Cu 324.752†	5914.2	72.6	0.5381 µg/L	0.5381 ppb	15:33:37
1	Mn 257.610†	1.4	252.8	0.8912 µg/L	0.8912 ppb	15:33:37
1	Mo 202.031†	23.3	3.5	0.4351 µg/L	0.4351 ppb	15:33:58
1	Ni 231.604†	335.1	9.6	0.5495 µg/L	0.5495 ppb	15:33:58
1	P 214.914†	280.9	21.0	33.958 µg/L	33.958 ppb	15:33:58
1	Pb 220.353†	81.5	1.7	0.4570 µg/L	0.4570 ppb	15:33:58
1	S 181.975 Axial†	36.1	3.3	12.574 µg/L	12.574 ppb	15:33:58
1	Sb 206.836†	32.2	8.2	7.6314 µg/L	7.6314 ppb	15:33:58
1	Se 196.026†	18.4	4.7	5.0662 µg/L	5.0662 ppb	15:33:58
1	SiO2†	3786.3	222.2	38.204 µg/L	38.204 ppb	15:33:37
1	Si 251.611†	562.4	221.4	15.069 µg/L	15.069 ppb	15:33:58
1	Sn 189.927†	28.8	-3.2	-1.6617 µg/L	-1.6617 ppb	15:33:58
1	Ti 334.940†	709.6	124.1	0.3017 µg/L	0.3017 ppb	15:33:37
1	Tl 190.801†	-31.7	-5.4	-8.5799 µg/L	-8.5799 ppb	15:33:58
1	U 409.014†	36.4	3.5	0.3586 µg/L	0.3586 ppb	15:33:37
1	V 292.402†	-262.8	7.2	0.0953 µg/L	0.0953 ppb	15:33:37
1	Zn 213.857†	684.6	42.3	1.0627 µg/L	1.0627 ppb	15:33:58
2	Sc RADIAL	53440.2	53440.2	96.1 %		15:32:35
2	Al 396.153Radial†	55.0	30.5	22.389 µg/L	22.389 ppb	15:32:35
2	Ca 317.933Radial†	244.9	53.0	48.240 µg/L	48.240 ppb	15:32:56
2	Fe 238.204 Radial†	17.9	5.4	100.08 µg/L	100.08 ppb	15:32:56
2	K 766.490 Radial†	525.8	24.3	16.431 µg/L	16.431 ppb	15:32:35
2	Mg 279.077 IEC†	12.2	4.1	51.051 µg/L	51.051 ppb	15:32:56
2	Na 589.592 Radial†	349.9	-33.6	-14.533 µg/L	-14.533 ppb	15:32:35
2	Sr 421.552†	29.7	68.9	0.8962 µg/L	0.8962 ppb	15:32:35
2	Sc 361.383	1822729.6	1822729.6	97.557 %		15:34:03
2	Y 371.029	1123054.0	1123054.0	96.337 %		15:34:03
2	Ag 328.068†	-199.9	4.6	0.0500 µg/L	0.0500 ppb	15:34:09
2	As 188.979†	-5.3	-1.1	-1.9347 µg/L	-1.9347 ppb	15:34:30
2	B 249.677†	433.8	51.8	1.9773 µg/L	1.9773 ppb	15:34:09
2	Ba 233.527†	-42.2	2.6	0.0712 µg/L	0.0712 ppb	15:34:30
2	Be 313.107†	4078.5	34.9	0.0223 µg/L	0.0223 ppb	15:34:03
2	Cd 226.502†	-137.2	-8.2	-0.2368 µg/L	-0.2368 ppb	15:34:30
2	Co 228.616†	8.3	-3.1	-0.1548 µg/L	-0.1548 ppb	15:34:30
2	Cr 267.716†	-119.5	18.7	0.4306 µg/L	0.4306 ppb	15:34:09
2	Cu 324.752†	5888.8	102.1	0.7539 µg/L	0.7539 ppb	15:34:09
2	Mn 257.610†	-21.9	229.0	0.8091 µg/L	0.8091 ppb	15:34:09
2	Mo 202.031†	18.8	-0.9	-0.1136 µg/L	-0.1136 ppb	15:34:30
2	Ni 231.604†	347.4	25.3	1.4503 µg/L	1.4503 ppb	15:34:30
2	P 214.914†	288.3	31.2	50.561 µg/L	50.561 ppb	15:34:30
2	Pb 220.353†	83.6	4.6	1.2371 µg/L	1.2371 ppb	15:34:30

2	S 181.975 Axial†	35.8	3.4	12.687 µg/L	12.687 ppb	15:34:30
2	Sb 206.836†	22.8	-1.2	-1.0920 µg/L	-1.0920 ppb	15:34:30
2	Se 196.026†	16.3	2.8	2.9750 µg/L	2.9750 ppb	15:34:30
2	SiO2†	3736.6	206.8	35.548 µg/L	35.548 ppb	15:34:09
2	Si 251.611†	565.8	230.2	15.606 µg/L	15.606 ppb	15:34:30
2	Sn 189.927†	32.8	1.2	0.6224 µg/L	0.6224 ppb	15:34:30
2	Ti 334.940†	620.0	38.9	0.0925 µg/L	0.0925 ppb	15:34:09
2	Tl 190.801†	-32.7	-6.6	-10.625 µg/L	-10.625 ppb	15:34:30
2	U 409.014†	51.3	19.2	2.0323 µg/L	2.0323 ppb	15:34:09
2	V 292.402†	-276.4	-9.3	-0.1096 µg/L	-0.1096 ppb	15:34:09
2	Zn 213.857†	693.7	58.1	1.4635 µg/L	1.4635 ppb	15:34:30
3	Sc RADIAL	53030.6	53030.6	95.4 %		15:33:01
3	Al 396.153Radial†	10.1	-16.2	-11.906 µg/L	-11.906 ppb	15:33:01
3	Ca 317.933Radial†	246.5	56.6	51.545 µg/L	51.545 ppb	15:33:21
3	Fe 238.204 Radial†	17.1	4.7	88.520 µg/L	88.520 ppb	15:33:21
3	K 766.490 Radial†	556.1	60.3	40.746 µg/L	40.746 ppb	15:33:01
3	Mg 279.077 IEC†	8.8	0.7	8.2962 µg/L	8.2962 ppb	15:33:21
3	Na 589.592 Radial†	353.7	-26.8	-11.602 µg/L	-11.602 ppb	15:33:01
3	Sr 421.552†	37.1	76.9	1.0005 µg/L	1.0005 ppb	15:33:01
3	Sc 361.383	1840573.6	1840573.6	98.513 %		15:34:35
3	Y 371.029	1134499.0	1134499.0	97.319 %		15:34:35
3	Ag 328.068†	-270.5	-65.1	-0.5974 µg/L	-0.5974 ppb	15:34:41
3	As 188.979†	-6.5	-2.4	-4.0515 µg/L	-4.0515 ppb	15:35:01
3	B 249.677†	401.5	14.8	0.5446 µg/L	0.5446 ppb	15:34:41
3	Ba 233.527†	-43.6	1.5	0.0436 µg/L	0.0436 ppb	15:35:01
3	Be 313.107†	4194.0	111.6	0.0715 µg/L	0.0715 ppb	15:34:35
3	Cd 226.502†	-128.7	1.8	0.0463 µg/L	0.0463 ppb	15:35:01
3	Co 228.616†	12.9	1.5	0.0777 µg/L	0.0777 ppb	15:35:01
3	Cr 267.716†	-101.5	38.2	0.8791 µg/L	0.8791 ppb	15:34:41
3	Cu 324.752†	5868.7	23.2	0.1771 µg/L	0.1771 ppb	15:34:41
3	Mn 257.610†	-24.7	226.3	0.7984 µg/L	0.7984 ppb	15:34:41
3	Mo 202.031†	26.6	6.8	0.8493 µg/L	0.8493 ppb	15:35:01
3	Ni 231.604†	363.3	38.0	2.1813 µg/L	2.1813 ppb	15:35:01
3	P 214.914†	284.6	24.6	39.701 µg/L	39.701 ppb	15:35:01
3	Pb 220.353†	97.9	18.2	4.9361 µg/L	4.9361 ppb	15:35:01
3	S 181.975 Axial†	35.8	3.0	11.311 µg/L	11.311 ppb	15:35:01
3	Sb 206.836†	28.1	4.0	3.7423 µg/L	3.7423 ppb	15:35:01
3	Se 196.026†	10.1	-3.7	-3.8530 µg/L	-3.8530 ppb	15:35:01
3	SiO2†	3697.9	130.3	22.404 µg/L	22.404 ppb	15:34:41
3	Si 251.611†	552.9	211.4	14.451 µg/L	14.451 ppb	15:35:01
3	Sn 189.927†	25.8	-6.2	-3.2419 µg/L	-3.2419 ppb	15:35:01
3	Ti 334.940†	668.9	82.3	0.1990 µg/L	0.1990 ppb	15:34:41
3	Tl 190.801†	-30.6	-4.2	-6.7774 µg/L	-6.7774 ppb	15:35:01
3	U 409.014†	116.7	85.0	9.0668 µg/L	9.0668 ppb	15:34:41
3	V 292.402†	-255.8	14.4	0.2014 µg/L	0.2014 ppb	15:34:41
3	Zn 213.857†	696.9	54.4	1.3688 µg/L	1.3688 ppb	15:35:01

Mean Data: 1202004445|936817|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1834293.6	98.176 %	%	0.5367			0.55%
Sc RADIAL	53022.7	95.4 %	%	0.76			0.79%
Y 371.029	1130249.1	96.954 %	%	0.5374			0.55%
Ag 328.068†	-13.6	-0.1186 µg/L	µg/L	0.42065	-0.1186 ppb	0.42065	354.77%
Al 396.153Radial†	14.1	10.354 µg/L	µg/L	19.2992	10.354 ppb	19.2992	186.39%
As 188.979†	-1.1	-1.8170 µg/L	µg/L	2.29567	-1.8170 ppb	2.29567	126.35%
B 249.677†	32.0	1.2100 µg/L	µg/L	0.72174	1.2100 ppb	0.72174	59.65%
Ba 233.527†	2.5	0.0690 µg/L	µg/L	0.02445	0.0690 ppb	0.02445	35.42%
Be 313.107†	47.5	0.0303 µg/L	µg/L	0.03777	0.0303 ppb	0.03777	124.47%
Ca 317.933Radial†	53.6	48.803 µg/L	µg/L	2.5091	48.803 ppb	2.5091	5.14%
Cd 226.502†	-2.9	-0.0890 µg/L	µg/L	0.14195	-0.0890 ppb	0.14195	159.49%
Co 228.616†	-1.0	-0.0509 µg/L	µg/L	0.11820	-0.0509 ppb	0.11820	232.04%
Cr 267.716†	29.0	0.6679 µg/L	µg/L	0.22542	0.6679 ppb	0.22542	33.75%
Cu 324.752†	66.0	0.4897 µg/L	µg/L	0.29144	0.4897 ppb	0.29144	59.51%
Fe 238.204 Radial†	5.0	94.336 µg/L	µg/L	5.7803	94.336 ppb	5.7803	6.13%
K 766.490 Radial†	49.9	33.763 µg/L	µg/L	15.1033	33.763 ppb	15.1033	44.73%
Mg 279.077 IEC†	1.6	20.007 µg/L	µg/L	27.1529	20.007 ppb	27.1529	135.71%
Mn 257.610†	236.0	0.8329 µg/L	µg/L	0.05077	0.8329 ppb	0.05077	6.10%
Mo 202.031†	3.1	0.3903 µg/L	µg/L	0.48299	0.3903 ppb	0.48299	123.75%
Na 589.592 Radial†	-36.2	-15.642 µg/L	µg/L	4.6936	-15.642 ppb	4.6936	30.01%

Ni 231.604†	24.3	1.3937 µg/L	0.81738	1.3937 ppb	0.81738	58.65%
P 214.914†	25.6	41.407 µg/L	8.4324	41.407 ppb	8.4324	20.36%
Pb 220.353†	8.2	2.2101 µg/L	2.39281	2.2101 ppb	2.39281	108.27%
S 181.975 Axial†	3.2	12.191 µg/L	0.7639	12.191 ppb	0.7639	6.27%
Sb 206.836†	3.7	3.4272 µg/L	4.37020	3.4272 ppb	4.37020	127.51%
Se 196.026†	1.3	1.3961 µg/L	4.66454	1.3961 ppb	4.66454	334.12%
SiO2†	186.4	32.052 µg/L	8.4600	32.052 ppb	8.4600	26.39%
Si 251.611†	221.0	15.042 µg/L	0.5782	15.042 ppb	0.5782	3.84%
Sn 189.927†	-2.7	-1.4270 µg/L	1.94281	-1.4270 ppb	1.94281	136.14%
Sr 421.552†	66.4	0.8637 µg/L	0.15565	0.8637 ppb	0.15565	18.02%
Ti 334.940†	81.7	0.1977 µg/L	0.10460	0.1977 ppb	0.10460	52.90%
Tl 190.801†	-5.4	-8.6609 µg/L	1.92517	-8.6609 ppb	1.92517	22.23%
U 409.014†	35.9	3.8192 µg/L	4.62094	3.8192 ppb	4.62094	120.99%
V 292.402†	4.1	0.0624 µg/L	0.15809	0.0624 ppb	0.15809	253.47%
Zn 213.857†	51.6	1.2983 µg/L	0.20947	1.2983 ppb	0.20947	16.13%

Sequence No.: 4
 Sample ID: 1202004446|936817|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 302
 Date Collected: 1/11/2010 15:35:10
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202004446|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55020.8	55020.8	99.0 %		15:35:43
1	Al 396.153Radial†	121808.0	123056.0	90389 µg/L	90389 ppb	15:35:43
1	Ca 317.933Radial†	106702.0	107616.8	97956 µg/L	97956 ppb	15:35:43
1	Fe 238.204 Radial†	8621.3	8698.3	162610 µg/L	162610 ppb	15:36:04
1	K 766.490 Radial†	59654.6	59756.1	40400 µg/L	40400 ppb	15:35:43
1	Mg 279.077 IEC†	2826.5	2847.5	35152 µg/L	35152 ppb	15:36:04
1	Na 589.592 Radial†	22352.6	22188.8	9588.9 µg/L	9588.9 ppb	15:35:43
1	Sr 421.552†	160849.1	162570.4	2114.6 µg/L	2114.6 ppb	15:35:43
1	Sc 361.383	1906617.4	1906617.4	102.05 %		15:37:09
1	Y 371.029	1196474.1	1196474.1	102.63 %		15:37:09
1	Ag 328.068†	29786.5	29398.4	294.62 µg/L	294.62 ppb	15:37:15
1	As 188.979†	620.5	612.3	1098.1 µg/L	1098.1 ppb	15:37:35
1	B 249.677†	40906.2	39692.7	1488.0 µg/L	1488.0 ppb	15:37:15
1	Ba 233.527†	71931.9	70534.5	1970.5 µg/L	1970.5 ppb	15:37:15
1	Be 313.107†	1277845.1	1248061.7	797.89 µg/L	797.89 ppb	15:37:09
1	Cd 226.502†	23102.2	22771.2	606.84 µg/L	606.84 ppb	15:37:15
1	Co 228.616†	19659.3	19253.3	957.85 µg/L	957.85 ppb	15:37:15
1	Cr 267.716†	109596.6	107538.9	2479.0 µg/L	2479.0 ppb	15:37:15
1	Cu 324.752†	266324.8	255047.3	1875.1 µg/L	1875.1 ppb	15:37:15
1	Mn 257.610†	1636493.7	1603911.7	5599.5 µg/L	5599.5 ppb	15:37:09
1	Mo 202.031†	4543.0	4431.6	557.44 µg/L	557.44 ppb	15:37:35
1	Ni 231.604†	25699.3	24852.8	1427.1 µg/L	1427.1 ppb	15:37:15
1	P 214.914†	5518.5	5143.5	7992.5 µg/L	7992.5 ppb	15:37:35
1	Pb 220.353†	3157.6	3013.2	816.17 µg/L	816.17 ppb	15:37:35
1	S 181.975 Axial†	1160.9	1104.3	4124.0 µg/L	4124.0 ppb	15:37:35
1	Sb 206.836†	1768.9	1708.9	1600.2 µg/L	1600.2 ppb	15:37:35
1	Se 196.026†	2623.9	2557.3	2790.0 µg/L	2790.0 ppb	15:37:35
1	SiO2†	400438.5	388781.0	66838 µg/L	66838 ppb	15:37:15
1	Si 251.611†	475424.8	465536.4	31354 µg/L	31354 ppb	15:37:09
1	Sn 189.927†	1979.3	1907.2	992.51 µg/L	992.51 ppb	15:37:35
1	Ti 334.940†	2387286.3	2338793.0	5733.8 µg/L	5733.8 ppb	15:37:09
1	Tl 190.801†	776.1	787.4	1305.2 µg/L	1305.2 ppb	15:37:35
1	U 409.014†	-840.9	-857.5	-127.86 µg/L	-127.86 ppb	15:37:15
1	V 292.402†	99699.5	97973.3	1221.3 µg/L	1221.3 ppb	15:37:15
1	Zn 213.857†	231178.5	225887.4	5772.9 µg/L	5772.9 ppb	15:37:15
2	Sc RADIAL	55322.1	55322.1	99.5 %		15:36:09
2	Al 396.153Radial†	122978.8	123562.2	90761 µg/L	90761 ppb	15:36:09
2	Ca 317.933Radial†	107511.0	107842.6	98162 µg/L	98162 ppb	15:36:09
2	Fe 238.204 Radial†	8707.6	8737.5	163350 µg/L	163350 ppb	15:36:30
2	K 766.490 Radial†	60238.0	60014.2	40575 µg/L	40575 ppb	15:36:09
2	Mg 279.077 IEC†	2852.9	2858.5	35286 µg/L	35286 ppb	15:36:30
2	Na 589.592 Radial†	22593.2	22307.7	9640.2 µg/L	9640.2 ppb	15:36:09
2	Sr 421.552†	162318.3	163161.7	2122.3 µg/L	2122.3 ppb	15:36:09
2	Sc 361.383	1892274.9	1892274.9	101.28 %		15:37:42
2	Y 371.029	1188168.3	1188168.3	101.92 %		15:37:42
2	Ag 328.068†	29584.1	29419.8	294.87 µg/L	294.87 ppb	15:37:48
2	As 188.979†	626.4	622.8	1116.3 µg/L	1116.3 ppb	15:38:09
2	B 249.677†	40404.0	39500.6	1480.3 µg/L	1480.3 ppb	15:37:48
2	Ba 233.527†	71243.8	70389.4	1966.5 µg/L	1966.5 ppb	15:37:48
2	Be 313.107†	1270612.8	1250411.8	799.40 µg/L	799.40 ppb	15:37:42
2	Cd 226.502†	22877.0	22720.4	605.33 µg/L	605.33 ppb	15:37:48
2	Co 228.616†	19465.1	19207.5	955.52 µg/L	955.52 ppb	15:37:48
2	Cr 267.716†	108435.6	107206.6	2471.4 µg/L	2471.4 ppb	15:37:48
2	Cu 324.752†	263752.5	254485.6	1871.1 µg/L	1871.1 ppb	15:37:48
2	Mn 257.610†	1625532.1	1605243.6	5604.2 µg/L	5604.2 ppb	15:37:42
2	Mo 202.031†	4514.7	4437.4	558.20 µg/L	558.20 ppb	15:38:09
2	Ni 231.604†	25388.1	24736.5	1420.5 µg/L	1420.5 ppb	15:37:48
2	P 214.914†	5487.3	5153.7	8009.0 µg/L	8009.0 ppb	15:38:09
2	Pb 220.353†	3132.6	3011.9	815.85 µg/L	815.85 ppb	15:38:09

2	S 181.975 Axial†	1156.4	1108.5	4139.6 µg/L	4139.6 ppb	15:38:09
2	Sb 206.836†	1755.9	1709.2	1600.6 µg/L	1600.6 ppb	15:38:09
2	Se 196.026†	2600.5	2553.7	2786.4 µg/L	2786.4 ppb	15:38:09
2	SiO2†	396598.4	387963.7	66698 µg/L	66698 ppb	15:37:48
2	Si 251.611†	473176.0	466847.2	31443 µg/L	31443 ppb	15:37:42
2	Sn 189.927†	1977.3	1919.9	999.06 µg/L	999.06 ppb	15:38:09
2	Ti 334.940†	2374284.4	2343686.7	5745.8 µg/L	5745.8 ppb	15:37:42
2	Tl 190.801†	775.4	792.5	1313.5 µg/L	1313.5 ppb	15:38:09
2	U 409.014†	-814.2	-837.3	-125.86 µg/L	-125.86 ppb	15:37:48
2	V 292.402†	98810.7	97836.2	1219.6 µg/L	1219.6 ppb	15:37:48
2	Zn 213.857†	228751.2	225207.8	5755.2 µg/L	5755.2 ppb	15:37:48
3	Sc RADIAL	55207.4	55207.4	99.3 %		15:36:35
3	Al 396.153Radial†	122600.2	123437.7	90670 µg/L	90670 ppb	15:36:35
3	Ca 317.933Radial†	107018.3	107570.8	97914 µg/L	97914 ppb	15:36:35
3	Fe 238.204 Radial†	8717.7	8765.9	163880 µg/L	163880 ppb	15:36:56
3	K 766.490 Radial†	60170.9	60072.3	40614 µg/L	40614 ppb	15:36:35
3	Mg 279.077 IEC†	2854.5	2866.0	35379 µg/L	35379 ppb	15:36:56
3	Na 589.592 Radial†	22579.7	22341.2	9654.8 µg/L	9654.8 ppb	15:36:35
3	Sr 421.552†	161574.9	162751.9	2116.9 µg/L	2116.9 ppb	15:36:35
3	Sc 361.383	1896720.6	1896720.6	101.52 %		15:38:16
3	Y 371.029	1189363.3	1189363.3	102.02 %		15:38:16
3	Ag 328.068†	29287.8	29059.5	291.31 µg/L	291.31 ppb	15:38:22
3	As 188.979†	598.7	594.0	1066.9 µg/L	1066.9 ppb	15:38:43
3	B 249.677†	39836.9	38848.5	1454.9 µg/L	1454.9 ppb	15:38:22
3	Ba 233.527†	69532.4	68538.7	1914.7 µg/L	1914.7 ppb	15:38:22
3	Be 313.107†	1250436.8	1227596.9	784.81 µg/L	784.81 ppb	15:38:16
3	Cd 226.502†	22445.4	22242.3	592.03 µg/L	592.03 ppb	15:38:22
3	Co 228.616†	18930.4	18635.7	926.91 µg/L	926.91 ppb	15:38:22
3	Cr 267.716†	105115.1	103684.7	2390.2 µg/L	2390.2 ppb	15:38:22
3	Cu 324.752†	258140.8	248347.5	1826.3 µg/L	1826.3 ppb	15:38:22
3	Mn 257.610†	1602799.8	1579089.1	5513.3 µg/L	5513.3 ppb	15:38:16
3	Mo 202.031†	4282.7	4198.5	528.51 µg/L	528.51 ppb	15:38:43
3	Ni 231.604†	24752.2	24051.4	1381.1 µg/L	1381.1 ppb	15:38:22
3	P 214.914†	5272.0	4928.9	7647.3 µg/L	7647.3 ppb	15:38:43
3	Pb 220.353†	3040.5	2913.9	789.26 µg/L	789.26 ppb	15:38:43
3	S 181.975 Axial†	1117.6	1067.6	3985.7 µg/L	3985.7 ppb	15:38:43
3	Sb 206.836†	1667.8	1618.4	1515.7 µg/L	1515.7 ppb	15:38:43
3	Se 196.026†	2515.0	2463.4	2690.4 µg/L	2690.4 ppb	15:38:43
3	SiO2†	389187.9	379746.1	65285 µg/L	65285 ppb	15:38:22
3	Si 251.611†	468016.2	460669.5	31029 µg/L	31029 ppb	15:38:16
3	Sn 189.927†	1875.6	1815.1	944.31 µg/L	944.31 ppb	15:38:43
3	Ti 334.940†	2336680.3	2301150.0	5641.4 µg/L	5641.4 ppb	15:38:16
3	Tl 190.801†	747.5	763.1	1265.7 µg/L	1265.7 ppb	15:38:43
3	U 409.014†	-829.3	-850.3	-127.32 µg/L	-127.32 ppb	15:38:22
3	V 292.402†	96105.0	94942.3	1183.6 µg/L	1183.6 ppb	15:38:22
3	Zn 213.857†	224988.9	220972.4	5646.0 µg/L	5646.0 ppb	15:38:22

Mean Data: 1202004446|936817|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1898537.6	101.61 %	%	0.393			0.39%
Sc RADIAL	55183.4	99.3 %	%	0.27			0.28%
Y 371.029	1191335.2	102.19 %	%	0.385			0.38%
Ag 328.068†	29292.6	293.60 µg/L	µg/L	1.986	293.60 ppb	1.986	0.68%
Al 396.153Radial†	123352.0	90606 µg/L	µg/L	194.0	90606 ppb	194.0	0.21%
As 188.979†	609.7	1093.8 µg/L	µg/L	24.96	1093.8 ppb	24.96	2.28%
B 249.677†	39347.2	1474.4 µg/L	µg/L	17.34	1474.4 ppb	17.34	1.18%
Ba 233.527†	69820.9	1950.6 µg/L	µg/L	31.09	1950.6 ppb	31.09	1.59%
Be 313.107†	1242023.5	794.03 µg/L	µg/L	8.023	794.03 ppb	8.023	1.01%
Ca 317.933Radial†	107676.7	98011 µg/L	µg/L	132.4	98011 ppb	132.4	0.14%
Cd 226.502†	22577.9	601.40 µg/L	µg/L	8.153	601.40 ppb	8.153	1.36%
Co 228.616†	19032.2	946.76 µg/L	µg/L	17.231	946.76 ppb	17.231	1.82%
Cr 267.716†	106143.4	2446.9 µg/L	µg/L	49.23	2446.9 ppb	49.23	2.01%
Cu 324.752†	252626.8	1857.5 µg/L	µg/L	27.06	1857.5 ppb	27.06	1.46%
Fe 238.204 Radial†	8733.9	163280 µg/L	µg/L	634.0	163280 ppb	634.0	0.39%
K 766.490 Radial†	59947.5	40530 µg/L	µg/L	113.8	40530 ppb	113.8	0.28%
Mg 279.077 IEC†	2857.3	35272 µg/L	µg/L	114.2	35272 ppb	114.2	0.32%
Mn 257.610†	1596081.5	5572.4 µg/L	µg/L	51.18	5572.4 ppb	51.18	0.92%
Mo 202.031†	4355.8	548.05 µg/L	µg/L	16.929	548.05 ppb	16.929	3.09%
Na 589.592 Radial†	22279.3	9628.0 µg/L	µg/L	34.60	9628.0 ppb	34.60	0.36%

Ni 231.604†	24546.9	1409.6 µg/L	24.87	1409.6 ppb	24.87	1.76%
P 214.914†	5075.4	7882.9 µg/L	204.21	7882.9 ppb	204.21	2.59%
Pb 220.353†	2979.7	807.09 µg/L	15.443	807.09 ppb	15.443	1.91%
S 181.975 Axial†	1093.5	4083.1 µg/L	84.71	4083.1 ppb	84.71	2.07%
Sb 206.836†	1678.8	1572.2 µg/L	48.86	1572.2 ppb	48.86	3.11%
Se 196.026†	2524.8	2755.6 µg/L	56.48	2755.6 ppb	56.48	2.05%
SiO2†	385496.9	66274 µg/L	859.1	66274 ppb	859.1	1.30%
Si 251.611†	464351.0	31275 µg/L	217.7	31275 ppb	217.7	0.70%
Sn 189.927†	1880.7	978.63 µg/L	29.903	978.63 ppb	29.903	3.06%
Sr 421.552†	162828.0	2117.9 µg/L	3.94	2117.9 ppb	3.94	0.19%
Ti 334.940†	2327876.5	5707.0 µg/L	57.11	5707.0 ppb	57.11	1.00%
Tl 190.801†	781.0	1294.8 µg/L	25.54	1294.8 ppb	25.54	1.97%
U 409.014†	-848.4	-127.01 µg/L	1.036	-127.01 ppb	1.036	0.82%
V 292.402†	96917.3	1208.2 µg/L	21.29	1208.2 ppb	21.29	1.76%
Zn 213.857†	224022.5	5724.7 µg/L	68.69	5724.7 ppb	68.69	1.20%

Sequence No.: 5

Sample ID: 243521001|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 303

Date Collected: 1/11/2010 15:38:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 243521001|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55586.9	55586.9	100.0 %		15:39:24
1	Al 396.153Radial†	110367.8	110360.4	81082 µg/L	81082 ppb	15:39:24
1	Ca 317.933Radial†	18367.9	18169.3	16538 µg/L	16538 ppb	15:39:24
1	Fe 238.204 Radial†	5667.4	5655.1	105700 µg/L	105700 ppb	15:39:44
1	K 766.490 Radial†	20552.1	20033.0	13544 µg/L	13544 ppb	15:39:24
1	Mg 279.077 IEC†	1230.0	1221.6	15021 µg/L	15021 ppb	15:39:44
1	Na 589.592 Radial†	1522.3	1124.9	486.13 µg/L	486.13 ppb	15:39:44
1	Sr 421.552†	13790.1	13830.6	179.90 µg/L	179.90 ppb	15:39:24
1	Sc 361.383	1893421.0	1893421.0	101.34 %		15:40:49
1	Y 371.029	1189333.1	1189333.1	102.02 %		15:40:49
1	Ag 328.068†	-1475.8	-1246.8	-1.5398 µg/L	-1.5398 ppb	15:40:55
1	As 188.979†	13.3	17.4	74.672 µg/L	74.672 ppb	15:41:15
1	B 249.677†	1081.5	674.3	-7.0903 µg/L	-7.0903 ppb	15:40:55
1	Ba 233.527†	40125.5	39640.2	1106.5 µg/L	1106.5 ppb	15:40:55
1	Be 313.107†	19637.2	15231.6	7.9215 µg/L	7.9215 ppb	15:40:55
1	Cd 226.502†	367.8	495.4	-1.0656 µg/L	-1.0656 ppb	15:41:15
1	Co 228.616†	1166.8	1139.8	46.946 µg/L	46.946 ppb	15:41:15
1	Cr 267.716†	5596.6	5663.7	131.00 µg/L	131.00 ppb	15:40:55
1	Cu 324.752†	13358.0	7247.1	62.458 µg/L	62.458 ppb	15:40:55
1	Mn 257.610†	801981.2	791619.6	2766.9 µg/L	2766.9 ppb	15:40:49
1	Mo 202.031†	27.7	7.1	5.0354 µg/L	5.0354 ppb	15:41:15
1	Ni 231.604†	1769.5	1415.3	81.270 µg/L	81.270 ppb	15:41:15
1	P 214.914†	888.9	612.8	893.61 µg/L	893.61 ppb	15:41:15
1	Pb 220.353†	490.1	402.5	110.11 µg/L	110.11 ppb	15:41:15
1	S 181.975 Axial†	145.8	110.6	398.02 µg/L	398.02 ppb	15:41:15
1	Sb 206.836†	26.1	1.2	18.271 µg/L	18.271 ppb	15:41:15
1	Se 196.026†	-66.2	-79.3	-66.601 µg/L	-66.601 ppb	15:41:15
1	Si02†	300620.7	293019.1	50375 µg/L	50375 ppb	15:40:49
1	Si 251.611†	349796.0	344817.2	23241 µg/L	23241 ppb	15:40:49
1	Sn 189.927†	-67.8	-99.4	-65.197 µg/L	-65.197 ppb	15:41:15
1	Ti 334.940†	2055220.4	2027426.0	4974.5 µg/L	4974.5 ppb	15:40:49
1	Tl 190.801†	-60.6	-33.0	-0.0461 µg/L	-0.0461 ppb	15:41:15
1	U 409.014†	-195.3	-226.1	-44.893 µg/L	-44.893 ppb	15:40:49
1	V 292.402†	20255.5	20261.5	253.85 µg/L	253.85 ppb	15:40:55
1	Zn 213.857†	9927.2	9142.9	206.55 µg/L	206.55 ppb	15:40:55
2	Sc RADIAL	55323.1	55323.1	99.5 %		15:39:50
2	Al 396.153Radial†	111002.4	111524.4	81937 µg/L	81937 ppb	15:39:50
2	Ca 317.933Radial†	18205.7	18093.9	16470 µg/L	16470 ppb	15:39:50
2	Fe 238.204 Radial†	5676.0	5690.8	106370 µg/L	106370 ppb	15:40:10
2	K 766.490 Radial†	20629.6	20208.9	13663 µg/L	13663 ppb	15:39:50
2	Mg 279.077 IEC†	1237.6	1235.1	15188 µg/L	15188 ppb	15:40:10
2	Na 589.592 Radial†	1537.6	1147.6	495.93 µg/L	495.93 ppb	15:40:10
2	Sr 421.552†	13532.3	13637.2	177.38 µg/L	177.38 ppb	15:39:50
2	Sc 361.383	1897014.3	1897014.3	101.53 %		15:41:23
2	Y 371.029	1191928.0	1191928.0	102.24 %		15:41:23
2	Ag 328.068†	-1528.4	-1295.8	-1.9437 µg/L	-1.9437 ppb	15:41:29
2	As 188.979†	8.3	12.4	66.371 µg/L	66.371 ppb	15:41:49
2	B 249.677†	1108.6	699.0	-6.3431 µg/L	-6.3431 ppb	15:41:29
2	Ba 233.527†	40252.9	39690.8	1107.9 µg/L	1107.9 ppb	15:41:29
2	Be 313.107†	19726.2	15282.6	7.9544 µg/L	7.9544 ppb	15:41:29
2	Cd 226.502†	350.7	477.8	-1.6558 µg/L	-1.6558 ppb	15:41:49
2	Co 228.616†	1175.0	1145.6	47.237 µg/L	47.237 ppb	15:41:49
2	Cr 267.716†	5653.1	5708.9	132.04 µg/L	132.04 ppb	15:41:29
2	Cu 324.752†	13352.3	7216.5	62.295 µg/L	62.295 ppb	15:41:29
2	Mn 257.610†	804090.6	792198.2	2769.0 µg/L	2769.0 ppb	15:41:23
2	Mo 202.031†	10.2	-10.2	2.9137 µg/L	2.9137 ppb	15:41:49
2	Ni 231.604†	1771.3	1413.7	81.181 µg/L	81.181 ppb	15:41:49
2	P 214.914†	887.3	609.6	887.90 µg/L	887.90 ppb	15:41:49
2	Pb 220.353†	489.7	401.2	109.79 µg/L	109.79 ppb	15:41:49

2	S 181.975 Axial†	148.3	112.8	406.24 µg/L	406.24 ppb	15:41:49
2	Sb 206.836†	32.1	7.1	23.763 µg/L	23.763 ppb	15:41:49
2	Se 196.026†	-74.6	-87.4	-75.175 µg/L	-75.175 ppb	15:41:49
2	SiO2†	301409.2	293233.8	50412 µg/L	50412 ppb	15:41:23
2	Si 251.611†	350339.6	344698.7	23233 µg/L	23233 ppb	15:41:23
2	Sn 189.927†	-70.3	-101.7	-66.524 µg/L	-66.524 ppb	15:41:49
2	Ti 334.940†	2058899.1	2027207.7	4973.9 µg/L	4973.9 ppb	15:41:23
2	Tl 190.801†	-64.8	-37.0	-6.3116 µg/L	-6.3116 ppb	15:41:49
2	U 409.014†	-359.4	-387.3	-62.239 µg/L	-62.239 ppb	15:41:23
2	V 292.402†	20285.5	20253.2	253.72 µg/L	253.72 ppb	15:41:29
2	Zn 213.857†	9948.2	9145.0	206.42 µg/L	206.42 ppb	15:41:29
3	Sc RADIAL	55229.8	55229.8	99.3 %		15:40:16
3	Al 396.153Radial†	110277.1	110982.8	81539 µg/L	81539 ppb	15:40:16
3	Ca 317.933Radial†	18150.6	18069.4	16447 µg/L	16447 ppb	15:40:16
3	Fe 238.204 Radial†	5655.1	5679.4	106160 µg/L	106160 ppb	15:40:36
3	K 766.490 Radial†	20496.2	20109.6	13596 µg/L	13596 ppb	15:40:16
3	Mg 279.077 IEC†	1233.8	1233.4	15167 µg/L	15167 ppb	15:40:36
3	Na 589.592 Radial†	1522.5	1135.0	490.48 µg/L	490.48 ppb	15:40:36
3	Sr 421.552†	13511.5	13639.3	177.41 µg/L	177.41 ppb	15:40:16
3	Sc 361.383	1900197.1	1900197.1	101.70 %		15:41:57
3	Y 371.029	1194677.5	1194677.5	102.48 %		15:41:57
3	Ag 328.068†	-1499.6	-1265.0	-1.7213 µg/L	-1.7213 ppb	15:42:02
3	As 188.979†	7.4	11.5	64.439 µg/L	64.439 ppb	15:42:23
3	B 249.677†	1053.3	642.8	-8.4544 µg/L	-8.4544 ppb	15:42:02
3	Ba 233.527†	39313.0	38700.2	1080.3 µg/L	1080.3 ppb	15:42:02
3	Be 313.107†	19429.1	14957.9	7.7810 µg/L	7.7810 ppb	15:42:02
3	Cd 226.502†	320.8	447.8	-2.4475 µg/L	-2.4475 ppb	15:42:23
3	Co 228.616†	1134.5	1103.9	45.337 µg/L	45.337 ppb	15:42:23
3	Cr 267.716†	5472.1	5521.6	127.71 µg/L	127.71 ppb	15:42:02
3	Cu 324.752†	13178.8	7023.8	60.871 µg/L	60.871 ppb	15:42:02
3	Mn 257.610†	792409.2	779385.9	2724.4 µg/L	2724.4 ppb	15:41:57
3	Mo 202.031†	23.5	2.9	4.5277 µg/L	4.5277 ppb	15:42:23
3	Ni 231.604†	1701.5	1342.2	77.074 µg/L	77.074 ppb	15:42:23
3	P 214.914†	861.7	582.9	844.96 µg/L	844.96 ppb	15:42:23
3	Pb 220.353†	483.5	394.3	107.90 µg/L	107.90 ppb	15:42:23
3	S 181.975 Axial†	141.0	105.4	378.41 µg/L	378.41 ppb	15:42:23
3	Sb 206.836†	26.8	1.8	18.524 µg/L	18.524 ppb	15:42:23
3	Se 196.026†	-51.4	-64.5	-50.910 µg/L	-50.910 ppb	15:42:23
3	SiO2†	298168.1	289549.7	49779 µg/L	49779 ppb	15:41:57
3	Si 251.611†	346492.3	340338.0	22940 µg/L	22940 ppb	15:41:57
3	Sn 189.927†	-59.2	-90.6	-60.706 µg/L	-60.706 ppb	15:42:23
3	Ti 334.940†	2023419.9	1988926.3	4880.0 µg/L	4880.0 ppb	15:41:57
3	Tl 190.801†	-62.0	-34.1	-2.5750 µg/L	-2.5750 ppb	15:42:23
3	U 409.014†	-232.1	-261.6	-48.765 µg/L	-48.765 ppb	15:41:57
3	V 292.402†	19753.6	19696.8	246.86 µg/L	246.86 ppb	15:42:02
3	Zn 213.857†	9781.2	8964.4	201.85 µg/L	201.85 ppb	15:42:02

Mean Data: 243521001|936817|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1896877.5	101.53 %		0.181				0.18%
Sc RADIAL	55379.9	99.6 %		0.33				0.33%
Y 371.029	1191979.5	102.25 %		0.229				0.22%
Ag 328.068†	-1269.2	-1.7350 µg/L		0.20232	-1.7350 ppb		0.20232	11.66%
Al 396.153Radial†	110955.8	81520 µg/L		428.0	81520 ppb		428.0	0.53%
As 188.979†	13.8	68.494 µg/L		5.4371	68.494 ppb		5.4371	7.94%
B 249.677†	672.1	-7.2959 µg/L		1.07057	-7.2959 ppb		1.07057	14.67%
Ba 233.527†	39343.7	1098.2 µg/L		15.57	1098.2 ppb		15.57	1.42%
Be 313.107†	15157.4	7.8856 µg/L		0.09208	7.8856 ppb		0.09208	1.17%
Ca 317.933Radial†	18110.8	16485 µg/L		47.4	16485 ppb		47.4	0.29%
Cd 226.502†	473.7	-1.7230 µg/L		0.69340	-1.7230 ppb		0.69340	40.24%
Co 228.616†	1129.8	46.507 µg/L		1.0231	46.507 ppb		1.0231	2.20%
Cr 267.716†	5631.4	130.25 µg/L		2.260	130.25 ppb		2.260	1.73%
Cu 324.752†	7162.5	61.875 µg/L		0.8733	61.875 ppb		0.8733	1.41%
Fe 238.204 Radial†	5675.1	106080 µg/L		340.2	106080 ppb		340.2	0.32%
K 766.490 Radial†	20117.2	13601 µg/L		59.6	13601 ppb		59.6	0.44%
Mg 279.077 IEC†	1230.0	15126 µg/L		90.8	15126 ppb		90.8	0.60%
Mn 257.610†	787734.6	2753.4 µg/L		25.16	2753.4 ppb		25.16	0.91%
Mo 202.031†	-0.1	4.1589 µg/L		1.10792	4.1589 ppb		1.10792	26.64%
Na 589.592 Radial†	1135.8	490.85 µg/L		4.907	490.85 ppb		4.907	1.00%

Ni 231.604†	1390.4	79.842 µg/L	2.3977	79.842 ppb	2.3977	3.00%
P 214.914†	601.8	875.49 µg/L	26.596	875.49 ppb	26.596	3.04%
Pb 220.353†	399.3	109.27 µg/L	1.197	109.27 ppb	1.197	1.10%
S 181.975 Axial†	109.6	394.22 µg/L	14.301	394.22 ppb	14.301	3.63%
Sb 206.836†	3.4	20.186 µg/L	3.1002	20.186 ppb	3.1002	15.36%
Se 196.026†	-77.1	-64.229 µg/L	12.3052	-64.229 ppb	12.3052	19.16%
SiO2†	291934.2	50189 µg/L	355.5	50189 ppb	355.5	0.71%
Si 251.611†	343284.6	23138 µg/L	171.6	23138 ppb	171.6	0.74%
Sn 189.927†	-97.2	-64.142 µg/L	3.0491	-64.142 ppb	3.0491	4.75%
Sr 421.552†	13702.4	178.23 µg/L	1.444	178.23 ppb	1.444	0.81%
Ti 334.940†	2014520.0	4942.8 µg/L	54.39	4942.8 ppb	54.39	1.10%
Tl 190.801†	-34.7	-2.9776 µg/L	3.15210	-2.9776 ppb	3.15210	105.86%
U 409.014†	-291.7	-51.966 µg/L	9.1053	-51.966 ppb	9.1053	17.52%
V 292.402†	20070.5	251.48 µg/L	3.999	251.48 ppb	3.999	1.59%
Zn 213.857†	9084.1	204.94 µg/L	2.680	204.94 ppb	2.680	1.31%

Sequence No.: 6

Sample ID: 1202004447|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 304

Date Collected: 1/11/2010 15:42:32

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202004447|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54986.3	54986.3	98.9 %		15:43:05
1	Al 396.153Radial†	125366.2	126730.8	93109 µg/L	93109 ppb	15:43:05
1	Ca 317.933Radial†	19238.9	19250.6	17523 µg/L	17523 ppb	15:43:05
1	Fe 238.204 Radial†	6030.3	6083.9	113720 µg/L	113720 ppb	15:43:25
1	K 766.490 Radial†	21694.1	21412.2	14476 µg/L	14476 ppb	15:43:05
1	Mg 279.077 IEC†	1204.6	1209.4	14857 µg/L	14857 ppb	15:43:25
1	Na 589.592 Radial†	1613.4	1233.7	533.15 µg/L	533.15 ppb	15:43:25
1	Sr 421.552†	14506.9	14705.9	191.28 µg/L	191.28 ppb	15:43:05
1	Sc 361.383	1894896.9	1894896.9	101.42 %		15:44:30
1	Y 371.029	1191362.8	1191362.8	102.20 %		15:44:30
1	Ag 328.068†	-1521.7	-1290.9	-1.2900 µg/L	-1.2900 ppb	15:44:36
1	As 188.979†	11.9	16.0	74.454 µg/L	74.454 ppb	15:44:56
1	B 249.677†	1079.4	671.5	-9.7214 µg/L	-9.7214 ppb	15:44:36
1	Ba 233.527†	43006.8	42450.4	1184.9 µg/L	1184.9 ppb	15:44:36
1	Be 313.107†	20455.7	16023.6	8.4546 µg/L	8.4546 ppb	15:44:36
1	Cd 226.502†	364.6	492.0	-2.2848 µg/L	-2.2848 ppb	15:44:56
1	Co 228.616†	1249.1	1220.0	51.126 µg/L	51.126 ppb	15:44:56
1	Cr 267.716†	6299.7	6352.6	146.87 µg/L	146.87 ppb	15:44:36
1	Cu 324.752†	13444.4	7322.0	63.732 µg/L	63.732 ppb	15:44:36
1	Mn 257.610†	853042.1	841349.2	2940.9 µg/L	2940.9 ppb	15:44:30
1	Mo 202.031†	30.2	9.5	5.6502 µg/L	5.6502 ppb	15:44:56
1	Ni 231.604†	1917.9	1560.2	89.592 µg/L	89.592 ppb	15:44:56
1	P 214.914†	761.5	486.5	683.43 µg/L	683.43 ppb	15:44:56
1	Pb 220.353†	511.8	423.5	116.07 µg/L	116.07 ppb	15:44:56
1	S 181.975 Axial†	148.3	112.9	405.70 µg/L	405.70 ppb	15:44:56
1	Sb 206.836†	33.7	8.7	24.920 µg/L	24.920 ppb	15:44:56
1	Se 196.026†	-74.5	-87.4	-73.775 µg/L	-73.775 ppb	15:44:56
1	SiO2†	414344.7	404919.7	69613 µg/L	69613 ppb	15:44:30
1	Si 251.611†	482598.3	475491.1	32120 µg/L	32120 ppb	15:44:30
1	Sn 189.927†	-59.8	-91.4	-62.429 µg/L	-62.429 ppb	15:44:56
1	Ti 334.940†	2028458.4	1999459.2	4905.8 µg/L	4905.8 ppb	15:44:30
1	Tl 190.801†	-61.3	-33.5	0.4270 µg/L	0.4270 ppb	15:44:56
1	U 409.014†	-353.6	-382.0	-63.111 µg/L	-63.111 ppb	15:44:30
1	V 292.402†	20599.4	20585.1	258.06 µg/L	258.06 ppb	15:44:36
1	Zn 213.857†	10376.5	9578.3	215.56 µg/L	215.56 ppb	15:44:36
2	Sc RADIAL	54693.6	54693.6	98.4 %		15:43:31
2	Al 396.153Radial†	126002.0	128055.5	94083 µg/L	94083 ppb	15:43:31
2	Ca 317.933Radial†	19188.6	19303.6	17571 µg/L	17571 ppb	15:43:31
2	Fe 238.204 Radial†	5993.4	6079.1	113630 µg/L	113630 ppb	15:43:51
2	K 766.490 Radial†	21857.7	21695.9	14668 µg/L	14668 ppb	15:43:31
2	Mg 279.077 IEC†	1201.0	1212.2	14893 µg/L	14893 ppb	15:43:51
2	Na 589.592 Radial†	1604.4	1233.2	532.93 µg/L	532.93 ppb	15:43:51
2	Sr 421.552†	14513.6	14791.2	192.39 µg/L	192.39 ppb	15:43:31
2	Sc 361.383	1892164.5	1892164.5	101.27 %		15:45:04
2	Y 371.029	1189265.5	1189265.5	102.02 %		15:45:04
2	Ag 328.068†	-1602.9	-1373.2	-2.0442 µg/L	-2.0442 ppb	15:45:10
2	As 188.979†	11.6	15.7	73.852 µg/L	73.852 ppb	15:45:30
2	B 249.677†	1072.0	665.7	-9.9173 µg/L	-9.9173 ppb	15:45:10
2	Ba 233.527†	43517.3	43015.8	1200.7 µg/L	1200.7 ppb	15:45:10
2	Be 313.107†	20613.5	16208.5	8.5797 µg/L	8.5797 ppb	15:45:10
2	Cd 226.502†	375.2	502.9	-1.9712 µg/L	-1.9712 ppb	15:45:30
2	Co 228.616†	1259.2	1231.8	51.758 µg/L	51.758 ppb	15:45:30
2	Cr 267.716†	6391.3	6452.1	149.17 µg/L	149.17 ppb	15:45:10
2	Cu 324.752†	13498.6	7394.7	64.254 µg/L	64.254 ppb	15:45:10
2	Mn 257.610†	848699.2	838275.4	2930.2 µg/L	2930.2 ppb	15:45:04
2	Mo 202.031†	35.9	15.2	6.3507 µg/L	6.3507 ppb	15:45:30
2	Ni 231.604†	1903.2	1548.4	88.915 µg/L	88.915 ppb	15:45:30
2	P 214.914†	751.3	477.6	669.31 µg/L	669.31 ppb	15:45:30
2	Pb 220.353†	530.1	442.4	121.22 µg/L	121.22 ppb	15:45:30

2	S 181.975 Axial†	154.2	119.0	428.48 µg/L	428.48 ppb	15:45:30
2	Sb 206.836†	28.5	3.6	20.074 µg/L	20.074 ppb	15:45:30
2	Se 196.026†	-83.2	-96.1	-82.763 µg/L	-82.763 ppb	15:45:30
2	SiO2†	412489.8	403678.0	69399 µg/L	69399 ppb	15:45:04
2	Si 251.611†	480569.1	474174.5	32031 µg/L	32031 ppb	15:45:04
2	Sn 189.927†	-58.8	-90.5	-61.939 µg/L	-61.939 ppb	15:45:30
2	Ti 334.940†	2018189.6	1992207.6	4888.0 µg/L	4888.0 ppb	15:45:04
2	Tl 190.801†	-65.3	-37.6	-6.1171 µg/L	-6.1171 ppb	15:45:30
2	U 409.014†	-343.0	-372.1	-62.030 µg/L	-62.030 ppb	15:45:04
2	V 292.402†	20797.6	20810.0	260.85 µg/L	260.85 ppb	15:45:10
2	Zn 213.857†	10497.5	9712.5	219.05 µg/L	219.05 ppb	15:45:10
3	Sc RADIAL	54966.4	54966.4	98.9 %		15:43:56
3	Al 396.153Radial†	125997.7	127415.6	93612 µg/L	93612 ppb	15:43:56
3	Ca 317.933Radial†	19247.5	19266.4	17537 µg/L	17537 ppb	15:43:56
3	Fe 238.204 Radial†	5968.9	6024.1	112600 µg/L	112600 ppb	15:44:17
3	K 766.490 Radial†	21909.0	21637.5	14629 µg/L	14629 ppb	15:43:56
3	Mg 279.077 IEC†	1207.5	1212.7	14901 µg/L	14901 ppb	15:44:17
3	Na 589.592 Radial†	1602.6	1223.4	528.67 µg/L	528.67 ppb	15:44:17
3	Sr 421.552†	14523.4	14727.9	191.57 µg/L	191.57 ppb	15:43:56
3	Sc 361.383	1901222.2	1901222.2	101.76 %		15:45:38
3	Y 371.029	1195183.0	1195183.0	102.52 %		15:45:38
3	Ag 328.068†	-1476.7	-1241.6	-0.9788 µg/L	-0.9788 ppb	15:45:44
3	As 188.979†	13.2	17.2	76.009 µg/L	76.009 ppb	15:46:04
3	B 249.677†	1060.3	649.1	-10.236 µg/L	-10.236 ppb	15:45:44
3	Ba 233.527†	42079.9	41398.4	1155.6 µg/L	1155.6 ppb	15:45:44
3	Be 313.107†	19952.1	15461.6	8.1232 µg/L	8.1232 ppb	15:45:44
3	Cd 226.502†	345.5	472.0	-2.6851 µg/L	-2.6851 ppb	15:46:04
3	Co 228.616†	1190.5	1158.3	48.187 µg/L	48.187 ppb	15:46:04
3	Cr 267.716†	6081.9	6118.0	141.45 µg/L	141.45 ppb	15:45:44
3	Cu 324.752†	13225.0	7062.3	61.736 µg/L	61.736 ppb	15:45:44
3	Mn 257.610†	845103.8	830749.8	2903.8 µg/L	2903.8 ppb	15:45:38
3	Mo 202.031†	38.4	17.5	6.6032 µg/L	6.6032 ppb	15:46:04
3	Ni 231.604†	1836.5	1474.0	84.639 µg/L	84.639 ppb	15:46:04
3	P 214.914†	741.6	464.5	649.38 µg/L	649.38 ppb	15:46:04
3	Pb 220.353†	507.2	417.4	114.45 µg/L	114.45 ppb	15:46:04
3	S 181.975 Axial†	145.2	109.4	392.68 µg/L	392.68 ppb	15:46:04
3	Sb 206.836†	35.9	10.7	26.531 µg/L	26.531 ppb	15:46:04
3	Se 196.026†	-62.8	-75.7	-61.151 µg/L	-61.151 ppb	15:46:04
3	SiO2†	412121.4	401375.6	69004 µg/L	69004 ppb	15:45:38
3	Si 251.611†	479587.1	470948.8	31814 µg/L	31814 ppb	15:45:38
3	Sn 189.927†	-59.8	-91.2	-62.121 µg/L	-62.121 ppb	15:46:04
3	Ti 334.940†	2002828.0	1967617.6	4827.6 µg/L	4827.6 ppb	15:45:38
3	Tl 190.801†	-51.3	-23.6	15.656 µg/L	15.656 ppb	15:46:04
3	U 409.014†	-364.6	-391.7	-63.937 µg/L	-63.937 ppb	15:45:38
3	V 292.402†	19969.6	19898.5	249.54 µg/L	249.54 ppb	15:45:44
3	Zn 213.857†	10223.2	9393.6	211.12 µg/L	211.12 ppb	15:45:44

Mean Data: 1202004447|936817|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1896094.5	101.48 %	0.249			0.25%
Sc RADIAL	54882.1	98.7 %	0.29			0.30%
Y 371.029	1191937.1	102.25 %	0.257			0.25%
Ag 328.068†	-1301.9	-1.4377 µg/L	0.54786	-1.4377 ppb	0.54786	38.11%
Al 396.153Radial†	127400.6	93602 µg/L	486.7	93602 ppb	486.7	0.52%
As 188.979†	16.3	74.771 µg/L	1.1130	74.771 ppb	1.1130	1.49%
B 249.677†	662.1	-9.9582 µg/L	0.25963	-9.9582 ppb	0.25963	2.61%
Ba 233.527†	42288.2	1180.4 µg/L	22.91	1180.4 ppb	22.91	1.94%
Be 313.107†	15897.9	8.3858 µg/L	0.23584	8.3858 ppb	0.23584	2.81%
Ca 317.933Radial†	19273.5	17543 µg/L	24.8	17543 ppb	24.8	0.14%
Cd 226.502†	488.9	-2.3137 µg/L	0.35781	-2.3137 ppb	0.35781	15.46%
Co 228.616†	1203.4	50.357 µg/L	1.9056	50.357 ppb	1.9056	3.78%
Cr 267.716†	6307.6	145.83 µg/L	3.964	145.83 ppb	3.964	2.72%
Cu 324.752†	7259.7	63.241 µg/L	1.3287	63.241 ppb	1.3287	2.10%
Fe 238.204 Radial†	6062.4	113310 µg/L	622.0	113310 ppb	622.0	0.55%
K 766.490 Radial†	21581.8	14591 µg/L	101.3	14591 ppb	101.3	0.69%
Mg 279.077 IEC†	1211.4	14884 µg/L	23.1	14884 ppb	23.1	0.16%
Mn 257.610†	836791.5	2924.9 µg/L	19.05	2924.9 ppb	19.05	0.65%
Mo 202.031†	14.1	6.2014 µg/L	0.49373	6.2014 ppb	0.49373	7.96%
Na 589.592 Radial†	1230.1	531.59 µg/L	2.526	531.59 ppb	2.526	0.48%

Ni 231.604†	1527.5	87.716 µg/L	2.6855	87.716 ppb	2.6855	3.06%
P 214.914†	476.2	667.37 µg/L	17.103	667.37 ppb	17.103	2.56%
Pb 220.353†	427.7	117.25 µg/L	3.533	117.25 ppb	3.533	3.01%
S 181.975 Axial†	113.8	408.95 µg/L	18.119	408.95 ppb	18.119	4.43%
Sb 206.836†	7.7	23.841 µg/L	3.3609	23.841 ppb	3.3609	14.10%
Se 196.026†	-86.4	-72.563 µg/L	10.8568	-72.563 ppb	10.8568	14.96%
SiO2†	403324.4	69339 µg/L	309.2	69339 ppb	309.2	0.45%
Si 251.611†	473538.2	31988 µg/L	157.3	31988 ppb	157.3	0.49%
Sn 189.927†	-91.0	-62.163 µg/L	0.2478	-62.163 ppb	0.2478	0.40%
Sr 421.552†	14741.7	191.75 µg/L	0.576	191.75 ppb	0.576	0.30%
Ti 334.940†	1986428.1	4873.8 µg/L	40.96	4873.8 ppb	40.96	0.84%
Tl 190.801†	-31.6	3.3218 µg/L	11.17129	3.3218 ppb	11.17129	336.30%
U 409.014†	-381.9	-63.026 µg/L	0.9563	-63.026 ppb	0.9563	1.52%
V 292.402†	20431.2	256.15 µg/L	5.895	256.15 ppb	5.895	2.30%
Zn 213.857†	9561.5	215.24 µg/L	3.970	215.24 ppb	3.970	1.84%

Sequence No.: 7

Sample ID: 1202004448|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 305

Date Collected: 1/11/2010 15:46:13

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202004448|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55464.9	55464.9	99.8 %		15:46:46
1	Al 396.153Radial†	215690.5	216176.1	158810 µg/L	158810 ppb	15:46:46
1	Ca 317.933Radial†	25491.7	25350.5	23075 µg/L	23075 ppb	15:47:07
1	Fe 238.204 Radial†	7183.0	7186.8	134350 µg/L	134350 ppb	15:47:07
1	K 766.490 Radial†	34070.7	33628.9	22736 µg/L	22736 ppb	15:46:46
1	Mg 279.077 IEC†	1914.2	1910.2	23547 µg/L	23547 ppb	15:47:07
1	Na 589.592 Radial†	13678.0	13312.8	5753.1 µg/L	5753.1 ppb	15:47:07
1	Sr 421.552†	53906.4	54072.5	703.33 µg/L	703.33 ppb	15:46:46
1	Sc 361.383	1891436.2	1891436.2	101.23 %		15:48:12
1	Y 371.029	1187564.1	1187564.1	101.87 %		15:48:12
1	Ag 328.068†	55812.9	55341.6	530.96 µg/L	530.96 ppb	15:48:18
1	As 188.979†	317.9	318.3	601.49 µg/L	601.49 ppb	15:48:38
1	B 249.677†	14667.0	14095.2	504.32 µg/L	504.32 ppb	15:48:18
1	Ba 233.527†	67235.0	66460.7	1856.0 µg/L	1856.0 ppb	15:48:18
1	Be 313.107†	850343.8	835825.6	533.34 µg/L	533.34 ppb	15:48:12
1	Cd 226.502†	19194.6	19092.9	508.81 µg/L	508.81 ppb	15:48:18
1	Co 228.616†	11546.1	11393.7	560.65 µg/L	560.65 ppb	15:48:38
1	Cr 267.716†	29033.8	28820.9	665.52 µg/L	665.52 ppb	15:48:18
1	Cu 324.752†	92075.6	85018.3	632.33 µg/L	632.33 ppb	15:48:18
1	Mn 257.610†	1091327.7	1078267.0	3767.5 µg/L	3767.5 ppb	15:48:12
1	Mo 202.031†	4147.2	4076.4	512.17 µg/L	512.17 ppb	15:48:38
1	Ni 231.604†	10905.1	10441.3	599.57 µg/L	599.57 ppb	15:48:38
1	P 214.914†	1256.8	977.2	1422.9 µg/L	1422.9 ppb	15:48:38
1	Pb 220.353†	2555.6	2443.3	665.31 µg/L	665.31 ppb	15:48:38
1	S 181.975 Axial†	1582.9	1530.3	5731.8 µg/L	5731.8 ppb	15:48:38
1	Sb 206.836†	494.8	464.2	453.35 µg/L	453.35 ppb	15:48:38
1	Se 196.026†	385.6	367.0	417.74 µg/L	417.74 ppb	15:48:38
1	SiO2†	349148.8	341266.5	58670 µg/L	58670 ppb	15:48:18
1	Si 251.611†	409710.1	404362.7	27196 µg/L	27196 ppb	15:48:12
1	Sn 189.927†	994.8	950.3	479.78 µg/L	479.78 ppb	15:48:38
1	Ti 334.940†	2706147.6	2672541.4	6557.3 µg/L	6557.3 ppb	15:48:12
1	Tl 190.801†	255.9	279.7	519.99 µg/L	519.99 ppb	15:48:38
1	U 409.014†	4222.4	4137.5	415.74 µg/L	415.74 ppb	15:48:18
1	V 292.402†	65792.7	65264.2	816.10 µg/L	816.10 ppb	15:48:18
1	Zn 213.857†	32338.3	31290.9	766.59 µg/L	766.59 ppb	15:48:18
2	Sc RADIAL	55123.5	55123.5	99.1 %		15:47:13
2	Al 396.153Radial†	215033.6	216852.3	159300 µg/L	159300 ppb	15:47:13
2	Ca 317.933Radial†	25412.8	25429.0	23146 µg/L	23146 ppb	15:47:33
2	Fe 238.204 Radial†	7144.5	7192.5	134460 µg/L	134460 ppb	15:47:33
2	K 766.490 Radial†	33850.4	33618.2	22729 µg/L	22729 ppb	15:47:13
2	Mg 279.077 IEC†	1902.8	1910.6	23551 µg/L	23551 ppb	15:47:33
2	Na 589.592 Radial†	13673.5	13393.2	5787.9 µg/L	5787.9 ppb	15:47:33
2	Sr 421.552†	53489.3	53986.4	702.21 µg/L	702.21 ppb	15:47:13
2	Sc 361.383	1889777.1	1889777.1	101.15 %		15:48:46
2	Y 371.029	1187499.2	1187499.2	101.86 %		15:48:46
2	Ag 328.068†	55605.1	55184.6	529.48 µg/L	529.48 ppb	15:48:52
2	As 188.979†	313.4	314.1	594.42 µg/L	594.42 ppb	15:49:12
2	B 249.677†	14600.8	14042.5	502.24 µg/L	502.24 ppb	15:48:52
2	Ba 233.527†	66791.8	66080.7	1845.4 µg/L	1845.4 ppb	15:48:52
2	Be 313.107†	853038.4	839227.1	535.52 µg/L	535.52 ppb	15:48:46
2	Cd 226.502†	19073.0	18989.3	505.94 µg/L	505.94 ppb	15:48:52
2	Co 228.616†	11504.2	11362.3	559.02 µg/L	559.02 ppb	15:49:12
2	Cr 267.716†	28894.8	28708.6	662.93 µg/L	662.93 ppb	15:48:52
2	Cu 324.752†	91645.6	84673.0	629.82 µg/L	629.82 ppb	15:48:52
2	Mn 257.610†	1094553.2	1082402.4	3781.9 µg/L	3781.9 ppb	15:48:46
2	Mo 202.031†	4133.9	4066.8	510.98 µg/L	510.98 ppb	15:49:12
2	Ni 231.604†	10850.0	10396.2	596.98 µg/L	596.98 ppb	15:49:12
2	P 214.914†	1254.3	975.8	1421.2 µg/L	1421.2 ppb	15:49:12
2	Pb 220.353†	2537.5	2427.6	661.08 µg/L	661.08 ppb	15:49:12

2	S 181.975 Axial†	1579.1	1528.0	5722.9 µg/L	5722.9 ppb	15:49:12
2	Sb 206.836†	503.2	473.0	461.66 µg/L	461.66 ppb	15:49:12
2	Se 196.026†	388.7	370.3	421.31 µg/L	421.31 ppb	15:49:12
2	SiO2†	346920.8	339366.5	58343 µg/L	58343 ppb	15:48:52
2	Si 251.611†	411017.7	406010.8	27307 µg/L	27307 ppb	15:48:46
2	Sn 189.927†	1009.9	966.0	487.99 µg/L	487.99 ppb	15:49:12
2	Ti 334.940†	2712713.9	2681380.1	6578.9 µg/L	6578.9 ppb	15:48:46
2	Tl 190.801†	259.4	283.3	526.05 µg/L	526.05 ppb	15:49:12
2	U 409.014†	4154.0	4073.5	408.87 µg/L	408.87 ppb	15:48:52
2	V 292.402†	65464.6	64996.9	812.77 µg/L	812.77 ppb	15:48:52
2	Zn 213.857†	32242.3	31224.0	764.85 µg/L	764.85 ppb	15:48:52
3	Sc RADIAL	55590.2	55590.2	100.0 %		15:47:39
3	Al 396.153Radial†	217585.1	217583.5	159840 µg/L	159840 ppb	15:47:39
3	Ca 317.933Radial†	25405.0	25206.2	22943 µg/L	22943 ppb	15:47:59
3	Fe 238.204 Radial†	7139.6	7127.2	133230 µg/L	133230 ppb	15:47:59
3	K 766.490 Radial†	34365.7	33846.9	22883 µg/L	22883 ppb	15:47:39
3	Mg 279.077 IEC†	1903.6	1895.2	23362 µg/L	23362 ppb	15:47:59
3	Na 589.592 Radial†	13679.6	13283.5	5740.5 µg/L	5740.5 ppb	15:47:59
3	Sr 421.552†	54276.6	54320.9	706.56 µg/L	706.56 ppb	15:47:39
3	Sc 361.383	1887010.2	1887010.2	101.00 %		15:49:19
3	Y 371.029	1185420.0	1185420.0	101.69 %		15:49:19
3	Ag 328.068†	54911.3	54578.3	523.60 µg/L	523.60 ppb	15:49:25
3	As 188.979†	308.3	309.5	585.84 µg/L	585.84 ppb	15:49:46
3	B 249.677†	14372.8	13838.0	494.69 µg/L	494.69 ppb	15:49:25
3	Ba 233.527†	65249.0	64650.0	1805.4 µg/L	1805.4 ppb	15:49:25
3	Be 313.107†	839952.6	827507.2	528.04 µg/L	528.04 ppb	15:49:19
3	Cd 226.502†	18772.4	18719.4	498.62 µg/L	498.62 ppb	15:49:25
3	Co 228.616†	10966.2	10846.2	533.22 µg/L	533.22 ppb	15:49:46
3	Cr 267.716†	28006.5	27871.0	643.59 µg/L	643.59 ppb	15:49:25
3	Cu 324.752†	89476.2	82658.0	615.01 µg/L	615.01 ppb	15:49:25
3	Mn 257.610†	1078498.5	1068093.1	3732.0 µg/L	3732.0 ppb	15:49:19
3	Mo 202.031†	3959.6	3900.3	490.22 µg/L	490.22 ppb	15:49:46
3	Ni 231.604†	10340.2	9907.2	568.90 µg/L	568.90 ppb	15:49:46
3	P 214.914†	1215.7	939.4	1365.0 µg/L	1365.0 ppb	15:49:46
3	Pb 220.353†	2468.4	2362.9	643.53 µg/L	643.53 ppb	15:49:46
3	S 181.975 Axial†	1547.7	1499.1	5614.7 µg/L	5614.7 ppb	15:49:46
3	Sb 206.836†	473.4	444.2	434.54 µg/L	434.54 ppb	15:49:46
3	Se 196.026†	385.6	367.8	418.76 µg/L	418.76 ppb	15:49:46
3	SiO2†	340412.1	333425.1	57322 µg/L	57322 ppb	15:49:25
3	Si 251.611†	406439.3	402073.4	27044 µg/L	27044 ppb	15:49:19
3	Sn 189.927†	962.8	920.9	464.62 µg/L	464.62 ppb	15:49:46
3	Ti 334.940†	2668575.6	2641610.4	6481.4 µg/L	6481.4 ppb	15:49:19
3	Tl 190.801†	256.4	280.7	521.28 µg/L	521.28 ppb	15:49:46
3	U 409.014†	4086.6	4012.9	402.64 µg/L	402.64 ppb	15:49:25
3	V 292.402†	63681.1	63325.9	791.90 µg/L	791.90 ppb	15:49:25
3	Zn 213.857†	31669.1	30703.3	751.92 µg/L	751.92 ppb	15:49:25

Mean Data: 1202004448|936817|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1889407.8	101.13 %		0.120				0.12%
Sc RADIAL	55392.8	99.6 %		0.43				0.44%
Y 371.029	1186827.8	101.81 %		0.105				0.10%
Ag 328.068†	55034.8	528.02 µg/L		3.890	528.02 ppb		3.890	0.74%
Al 396.153Radial†	216870.6	159320 µg/L		517.6	159320 ppb		517.6	0.32%
As 188.979†	314.0	593.92 µg/L		7.836	593.92 ppb		7.836	1.32%
B 249.677†	13991.9	500.42 µg/L		5.065	500.42 ppb		5.065	1.01%
Ba 233.527†	65730.5	1835.6 µg/L		26.67	1835.6 ppb		26.67	1.45%
Be 313.107†	834186.6	532.30 µg/L		3.846	532.30 ppb		3.846	0.72%
Ca 317.933Radial†	25328.6	23055 µg/L		102.9	23055 ppb		102.9	0.45%
Cd 226.502†	18933.9	504.46 µg/L		5.253	504.46 ppb		5.253	1.04%
Co 228.616†	11200.7	550.96 µg/L		15.390	550.96 ppb		15.390	2.79%
Cr 267.716†	28466.8	657.35 µg/L		11.982	657.35 ppb		11.982	1.82%
Cu 324.752†	84116.4	625.72 µg/L		9.359	625.72 ppb		9.359	1.50%
Fe 238.204 Radial†	7168.8	134010 µg/L		677.5	134010 ppb		677.5	0.51%
K 766.490 Radial†	33698.0	22783 µg/L		87.3	22783 ppb		87.3	0.38%
Mg 279.077 IEC†	1905.3	23487 µg/L		108.2	23487 ppb		108.2	0.46%
Mn 257.610†	1076254.2	3760.5 µg/L		25.70	3760.5 ppb		25.70	0.68%
Mo 202.031†	4014.5	504.46 µg/L		12.341	504.46 ppb		12.341	2.45%
Na 589.592 Radial†	13329.9	5760.5 µg/L		24.55	5760.5 ppb		24.55	0.43%

Ni 231.604†	10248.3	588.48 µg/L	17.009	588.48 ppb	17.009	2.89%
P 214.914†	964.2	1403.0 µg/L	32.96	1403.0 ppb	32.96	2.35%
Pb 220.353†	2411.3	656.64 µg/L	11.547	656.64 ppb	11.547	1.76%
S 181.975 Axial†	1519.1	5689.8 µg/L	65.21	5689.8 ppb	65.21	1.15%
Sb 206.836†	460.5	449.85 µg/L	13.890	449.85 ppb	13.890	3.09%
Se 196.026†	368.4	419.27 µg/L	1.836	419.27 ppb	1.836	0.44%
SiO2†	338019.4	58111 µg/L	703.3	58111 ppb	703.3	1.21%
Si 251.611†	404148.9	27182 µg/L	131.9	27182 ppb	131.9	0.49%
Sn 189.927†	945.7	477.46 µg/L	11.860	477.46 ppb	11.860	2.48%
Sr 421.552†	54126.6	704.03 µg/L	2.259	704.03 ppb	2.259	0.32%
Ti 334.940†	2665177.3	6539.2 µg/L	51.24	6539.2 ppb	51.24	0.78%
Tl 190.801†	281.2	522.44 µg/L	3.189	522.44 ppb	3.189	0.61%
U 409.014†	4074.6	409.08 µg/L	6.552	409.08 ppb	6.552	1.60%
V 292.402†	64529.0	806.92 µg/L	13.119	806.92 ppb	13.119	1.63%
Zn 213.857†	31072.7	761.12 µg/L	8.016	761.12 ppb	8.016	1.05%

Sequence No.: 8

Sample ID: 1202004450|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 306

Date Collected: 1/11/2010 15:50:12

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202004450|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55058.4	55058.4	99.0 %		15:50:45
1	Al 396.153Radial†	210587.3	212619.0	156190 µg/L	156190 ppb	15:50:45
1	Ca 317.933Radial†	24364.7	24401.1	22211 µg/L	22211 ppb	15:51:05
1	Fe 238.204 Radial†	6678.7	6730.8	125820 µg/L	125820 ppb	15:51:05
1	K 766.490 Radial†	33371.9	33175.4	22429 µg/L	22429 ppb	15:50:45
1	Mg 279.077 IEC†	1823.6	1832.8	22598 µg/L	22598 ppb	15:51:05
1	Na 589.592 Radial†	13442.7	13176.4	5694.2 µg/L	5694.2 ppb	15:51:05
1	Sr 421.552†	53207.4	53765.6	699.34 µg/L	699.34 ppb	15:50:45
1	Sc 361.383	1901394.7	1901394.7	101.77 %		15:52:10
1	Y 371.029	1192439.1	1192439.1	102.29 %		15:52:10
1	Ag 328.068†	55330.2	54578.5	523.01 µg/L	523.01 ppb	15:52:16
1	As 188.979†	325.9	324.5	608.27 µg/L	608.27 ppb	15:52:36
1	B 249.677†	14519.3	13874.2	498.43 µg/L	498.43 ppb	15:52:16
1	Ba 233.527†	65199.2	64112.4	1790.4 µg/L	1790.4 ppb	15:52:16
1	Be 313.107†	846148.1	827303.4	528.04 µg/L	528.04 ppb	15:52:10
1	Cd 226.502†	18963.6	18766.6	500.99 µg/L	500.99 ppb	15:52:16
1	Co 228.616†	11378.8	11169.5	550.26 µg/L	550.26 ppb	15:52:36
1	Cr 267.716†	28901.4	28540.5	659.00 µg/L	659.00 ppb	15:52:16
1	Cu 324.752†	91688.4	84161.5	625.30 µg/L	625.30 ppb	15:52:16
1	Mn 257.610†	998692.5	981595.0	3430.2 µg/L	3430.2 ppb	15:52:10
1	Mo 202.031†	4135.4	4043.3	507.72 µg/L	507.72 ppb	15:52:36
1	Ni 231.604†	10813.6	10294.9	591.16 µg/L	591.16 ppb	15:52:36
1	P 214.914†	1181.8	897.0	1302.4 µg/L	1302.4 ppb	15:52:36
1	Pb 220.353†	2495.4	2370.9	645.73 µg/L	645.73 ppb	15:52:36
1	S 181.975 Axial†	1591.1	1530.2	5732.6 µg/L	5732.6 ppb	15:52:36
1	Sb 206.836†	490.5	457.5	445.52 µg/L	445.52 ppb	15:52:36
1	Se 196.026†	394.5	373.6	424.39 µg/L	424.39 ppb	15:52:36
1	SiO2†	416768.5	405905.2	69782 µg/L	69782 ppb	15:52:16
1	Si 251.611†	492634.0	483726.4	32603 µg/L	32603 ppb	15:52:10
1	Sn 189.927†	1002.2	952.4	482.15 µg/L	482.15 ppb	15:52:36
1	Ti 334.940†	2542031.1	2497275.2	6127.2 µg/L	6127.2 ppb	15:52:10
1	Tl 190.801†	263.0	285.3	524.39 µg/L	524.39 ppb	15:52:36
1	U 409.014†	4126.0	4021.0	404.93 µg/L	404.93 ppb	15:52:16
1	V 292.402†	63961.9	63124.8	789.32 µg/L	789.32 ppb	15:52:16
1	Zn 213.857†	31802.6	30597.2	751.07 µg/L	751.07 ppb	15:52:16
2	Sc RADIAL	55094.8	55094.8	99.1 %		15:51:11
2	Al 396.153Radial†	210937.1	212831.4	156350 µg/L	156350 ppb	15:51:11
2	Ca 317.933Radial†	24558.7	24580.6	22374 µg/L	22374 ppb	15:51:31
2	Fe 238.204 Radial†	6719.6	6767.6	126510 µg/L	126510 ppb	15:51:31
2	K 766.490 Radial†	33304.6	33085.2	22368 µg/L	22368 ppb	15:51:11
2	Mg 279.077 IEC†	1839.1	1847.3	22777 µg/L	22777 ppb	15:51:31
2	Na 589.592 Radial†	13563.9	13289.8	5743.2 µg/L	5743.2 ppb	15:51:31
2	Sr 421.552†	53026.8	53547.7	696.50 µg/L	696.50 ppb	15:51:11
2	Sc 361.383	1889404.5	1889404.5	101.13 %		15:52:44
2	Y 371.029	1185092.0	1185092.0	101.66 %		15:52:44
2	Ag 328.068†	55648.4	55238.3	529.26 µg/L	529.26 ppb	15:52:50
2	As 188.979†	320.6	321.3	603.12 µg/L	603.12 ppb	15:53:10
2	B 249.677†	14574.4	14019.3	503.84 µg/L	503.84 ppb	15:52:50
2	Ba 233.527†	65612.4	64927.5	1813.2 µg/L	1813.2 ppb	15:52:50
2	Be 313.107†	844984.3	831429.0	530.67 µg/L	530.67 ppb	15:52:44
2	Cd 226.502†	19161.2	19080.3	509.55 µg/L	509.55 ppb	15:52:50
2	Co 228.616†	11365.4	11227.2	553.12 µg/L	553.12 ppb	15:53:10
2	Cr 267.716†	29121.7	28938.6	668.19 µg/L	668.19 ppb	15:52:50
2	Cu 324.752†	92037.6	85078.6	632.06 µg/L	632.06 ppb	15:52:50
2	Mn 257.610†	997128.9	986276.5	3446.6 µg/L	3446.6 ppb	15:52:44
2	Mo 202.031†	4135.6	4069.3	510.98 µg/L	510.98 ppb	15:53:10
2	Ni 231.604†	10813.4	10362.2	595.02 µg/L	595.02 ppb	15:53:10
2	P 214.914†	1188.6	911.1	1323.9 µg/L	1323.9 ppb	15:53:10
2	Pb 220.353†	2504.8	2395.8	652.47 µg/L	652.47 ppb	15:53:10

2	S 181.975 Axial†	1587.2	1536.2	5755.2 µg/L	5755.2 ppb	15:53:10
2	Sb 206.836†	491.0	461.0	448.88 µg/L	448.88 ppb	15:53:10
2	Se 196.026†	381.6	363.4	413.48 µg/L	413.48 ppb	15:53:10
2	SiO2†	419166.0	410874.9	70637 µg/L	70637 ppb	15:52:50
2	Si 251.611†	491574.3	485750.4	32739 µg/L	32739 ppb	15:52:44
2	Sn 189.927†	1007.9	964.3	488.27 µg/L	488.27 ppb	15:53:10
2	Ti 334.940†	2537192.5	2508342.1	6154.3 µg/L	6154.3 ppb	15:52:44
2	Tl 190.801†	266.7	290.6	533.20 µg/L	533.20 ppb	15:53:10
2	U 409.014†	4075.9	3997.1	402.24 µg/L	402.24 ppb	15:52:50
2	V 292.402†	64275.0	63833.3	798.13 µg/L	798.13 ppb	15:52:50
2	Zn 213.857†	31987.3	30978.1	760.68 µg/L	760.68 ppb	15:52:50
3	Sc RADIAL	54771.8	54771.8	98.5 %		15:51:37
3	Al 396.153Radial†	210658.2	213803.7	157060 µg/L	157060 ppb	15:51:37
3	Ca 317.933Radial†	24628.7	24797.7	22572 µg/L	22572 ppb	15:51:57
3	Fe 238.204 Radial†	6734.1	6822.3	127530 µg/L	127530 ppb	15:51:57
3	K 766.490 Radial†	33318.7	33297.7	22512 µg/L	22512 ppb	15:51:37
3	Mg 279.077 IEC†	1848.0	1867.3	23023 µg/L	23023 ppb	15:51:57
3	Na 589.592 Radial†	13597.9	13405.1	5793.0 µg/L	5793.0 ppb	15:51:57
3	Sr 421.552†	53001.3	53837.5	700.27 µg/L	700.27 ppb	15:51:37
3	Sc 361.383	1890249.7	1890249.7	101.17 %		15:53:17
3	Y 371.029	1186314.6	1186314.6	101.76 %		15:53:17
3	Ag 328.068†	54718.1	54294.1	520.38 µg/L	520.38 ppb	15:53:23
3	As 188.979†	308.8	309.4	582.89 µg/L	582.89 ppb	15:53:44
3	B 249.677†	14308.2	13749.7	493.06 µg/L	493.06 ppb	15:53:23
3	Ba 233.527†	63700.9	63009.2	1759.6 µg/L	1759.6 ppb	15:53:23
3	Be 313.107†	833969.9	820168.6	523.49 µg/L	523.49 ppb	15:53:17
3	Cd 226.502†	18673.9	18590.1	495.85 µg/L	495.85 ppb	15:53:23
3	Co 228.616†	10815.5	10678.7	525.66 µg/L	525.66 ppb	15:53:44
3	Cr 267.716†	28032.9	27849.5	643.05 µg/L	643.05 ppb	15:53:23
3	Cu 324.752†	89511.6	82541.1	613.64 µg/L	613.64 ppb	15:53:23
3	Mn 257.610†	984633.3	973484.6	3402.2 µg/L	3402.2 ppb	15:53:17
3	Mo 202.031†	3966.5	3900.3	490.01 µg/L	490.01 ppb	15:53:44
3	Ni 231.604†	10317.3	9867.1	566.59 µg/L	566.59 ppb	15:53:44
3	P 214.914†	1151.9	874.3	1264.9 µg/L	1264.9 ppb	15:53:44
3	Pb 220.353†	2410.5	2301.5	626.89 µg/L	626.89 ppb	15:53:44
3	S 181.975 Axial†	1551.3	1500.0	5619.1 µg/L	5619.1 ppb	15:53:44
3	Sb 206.836†	473.3	443.3	432.14 µg/L	432.14 ppb	15:53:44
3	Se 196.026†	371.7	353.5	403.10 µg/L	403.10 ppb	15:53:44
3	SiO2†	408309.8	399959.1	68760 µg/L	68760 ppb	15:53:23
3	Si 251.611†	487114.4	481124.8	32429 µg/L	32429 ppb	15:53:17
3	Sn 189.927†	956.8	913.3	461.62 µg/L	461.62 ppb	15:53:44
3	Ti 334.940†	2501289.6	2471733.1	6064.5 µg/L	6064.5 ppb	15:53:17
3	Tl 190.801†	254.4	278.3	512.87 µg/L	512.87 ppb	15:53:44
3	U 409.014†	4043.5	3963.3	398.42 µg/L	398.42 ppb	15:53:23
3	V 292.402†	62257.8	61811.0	772.97 µg/L	772.97 ppb	15:53:23
3	Zn 213.857†	31187.7	30173.7	739.82 µg/L	739.82 ppb	15:53:23

Mean Data: 1202004450|936817|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1893683.0	101.36 %	0.358			0.35%
Sc RADIAL	54975.0	98.9 %	0.32			0.32%
Y 371.029	1187948.6	101.90 %	0.338			0.33%
Ag 328.068†	54703.6	524.22 µg/L	4.559	524.22 ppb	4.559	0.87%
Al 396.153Radial†	213084.7	156540 µg/L	464.5	156540 ppb	464.5	0.30%
As 188.979†	318.4	598.09 µg/L	13.414	598.09 ppb	13.414	2.24%
B 249.677†	13881.1	498.44 µg/L	5.388	498.44 ppb	5.388	1.08%
Ba 233.527†	64016.4	1787.7 µg/L	26.89	1787.7 ppb	26.89	1.50%
Be 313.107†	826300.3	527.40 µg/L	3.635	527.40 ppb	3.635	0.69%
Ca 317.933Radial†	24593.1	22385 µg/L	180.8	22385 ppb	180.8	0.81%
Cd 226.502†	18812.3	502.13 µg/L	6.920	502.13 ppb	6.920	1.38%
Co 228.616†	11025.1	543.01 µg/L	15.097	543.01 ppb	15.097	2.78%
Cr 267.716†	28442.8	656.75 µg/L	12.719	656.75 ppb	12.719	1.94%
Cu 324.752†	83927.0	623.67 µg/L	9.316	623.67 ppb	9.316	1.49%
Fe 238.204 Radial†	6773.6	126620 µg/L	860.5	126620 ppb	860.5	0.68%
K 766.490 Radial†	33186.1	22437 µg/L	72.1	22437 ppb	72.1	0.32%
Mg 279.077 IEC†	1849.1	22799 µg/L	213.3	22799 ppb	213.3	0.94%
Mn 257.610†	980452.0	3426.3 µg/L	22.44	3426.3 ppb	22.44	0.65%
Mo 202.031†	4004.3	502.90 µg/L	11.288	502.90 ppb	11.288	2.24%
Na 589.592 Radial†	13290.4	5743.4 µg/L	49.41	5743.4 ppb	49.41	0.86%

Ni 231.604†	10174.7	584.26 µg/L	15.421	584.26 ppb	15.421	2.64%
P 214.914†	894.1	1297.1 µg/L	29.85	1297.1 ppb	29.85	2.30%
Pb 220.353†	2356.1	641.70 µg/L	13.259	641.70 ppb	13.259	2.07%
S 181.975 Axial†	1522.1	5702.3 µg/L	72.95	5702.3 ppb	72.95	1.28%
Sb 206.836†	453.9	442.18 µg/L	8.856	442.18 ppb	8.856	2.00%
Se 196.026†	363.5	413.66 µg/L	10.646	413.66 ppb	10.646	2.57%
SiO2†	405579.7	69726 µg/L	939.6	69726 ppb	939.6	1.35%
Si 251.611†	483533.8	32590 µg/L	155.2	32590 ppb	155.2	0.48%
Sn 189.927†	943.3	477.35 µg/L	13.959	477.35 ppb	13.959	2.92%
Sr 421.552†	53716.9	698.70 µg/L	1.962	698.70 ppb	1.962	0.28%
Ti 334.940†	2492450.1	6115.3 µg/L	46.08	6115.3 ppb	46.08	0.75%
Tl 190.801†	284.7	523.49 µg/L	10.198	523.49 ppb	10.198	1.95%
U 409.014†	3993.8	401.86 µg/L	3.269	401.86 ppb	3.269	0.81%
V 292.402†	62923.0	786.81 µg/L	12.767	786.81 ppb	12.767	1.62%
Zn 213.857†	30583.0	750.52 µg/L	10.439	750.52 ppb	10.439	1.39%

Sequence No.: 9

Sample ID: 1202004449|936817|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 307

Date Collected: 1/11/2010 15:53:52

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202004449|936817|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54070.9	54070.9	97.3 %		15:54:25
1	Al 396.153Radial†	22293.8	22896.2	16822 µg/L	16822 ppb	15:54:25
1	Ca 317.933Radial†	3728.8	3632.2	3306.1 µg/L	3306.1 ppb	15:54:45
1	Fe 238.204 Radial†	1148.7	1167.9	21830 µg/L	21830 ppb	15:54:45
1	K 766.490 Radial†	4645.9	4254.3	2876.2 µg/L	2876.2 ppb	15:54:25
1	Mg 279.077 IEC†	251.7	250.2	3076.0 µg/L	3076.0 ppb	15:54:45
1	Na 589.592 Radial†	548.6	166.5	71.933 µg/L	71.933 ppb	15:54:25
1	Sr 421.552†	2662.9	2776.0	36.108 µg/L	36.108 ppb	15:54:25
1	Sc 361.383	1889799.1	1889799.1	101.15 %		15:55:48
1	Y 371.029	1165610.7	1165610.7	99.987 %		15:55:48
1	Ag 328.068†	-506.0	-290.8	-0.6321 µg/L	-0.6321 ppb	15:55:54
1	As 188.979†	-2.9	1.4	11.703 µg/L	11.703 ppb	15:56:14
1	B 249.677†	537.6	138.6	-1.4887 µg/L	-1.4887 ppb	15:55:54
1	Ba 233.527†	8193.1	8145.9	227.38 µg/L	227.38 ppb	15:55:54
1	Be 313.107†	7499.6	3268.8	1.7172 µg/L	1.7172 ppb	15:55:48
1	Cd 226.502†	-36.4	96.5	-0.3802 µg/L	-0.3802 ppb	15:56:14
1	Co 228.616†	252.1	237.6	9.8225 µg/L	9.8225 ppb	15:56:14
1	Cr 267.716†	1058.0	1187.1	27.454 µg/L	27.454 ppb	15:55:54
1	Cu 324.752†	7229.5	1213.4	10.833 µg/L	10.833 ppb	15:55:54
1	Mn 257.610†	165448.2	163823.0	572.59 µg/L	572.59 ppb	15:55:48
1	Mo 202.031†	23.9	3.4	1.2783 µg/L	1.2783 ppb	15:56:14
1	Ni 231.604†	642.3	304.2	17.469 µg/L	17.469 ppb	15:56:14
1	P 214.914†	394.1	125.3	182.72 µg/L	182.72 ppb	15:56:14
1	Pb 220.353†	174.6	91.5	25.026 µg/L	25.026 ppb	15:56:14
1	S 181.975 Axial†	55.9	22.0	78.926 µg/L	78.926 ppb	15:56:14
1	Sb 206.836†	17.2	-7.5	-3.5084 µg/L	-3.5084 ppb	15:56:14
1	Se 196.026†	-4.0	-17.9	-15.321 µg/L	-15.321 ppb	15:56:14
1	SiO2†	63056.8	58718.2	10095 µg/L	10095 ppb	15:55:54
1	Si 251.611†	71991.4	70825.0	4773.8 µg/L	4773.8 ppb	15:55:48
1	Sn 189.927†	4.8	-27.7	-17.234 µg/L	-17.234 ppb	15:56:14
1	Ti 334.940†	421549.3	416171.3	1021.1 µg/L	1021.1 ppb	15:55:48
1	Tl 190.801†	-31.0	-3.8	4.7915 µg/L	4.7915 ppb	15:56:14
1	U 409.014†	-8.8	-42.1	-8.7762 µg/L	-8.7762 ppb	15:55:48
1	V 292.402†	3900.9	4130.7	51.763 µg/L	51.763 ppb	15:55:54
1	Zn 213.857†	2499.2	1817.9	40.843 µg/L	40.843 ppb	15:56:14
2	Sc RADIAL	53601.5	53601.5	96.4 %		15:54:51
2	Al 396.153Radial†	22110.3	22906.6	16830 µg/L	16830 ppb	15:54:51
2	Ca 317.933Radial†	3715.7	3652.2	3324.4 µg/L	3324.4 ppb	15:55:11
2	Fe 238.204 Radial†	1155.2	1185.0	22150 µg/L	22150 ppb	15:55:11
2	K 766.490 Radial†	4592.5	4240.8	2867.1 µg/L	2867.1 ppb	15:54:51
2	Mg 279.077 IEC†	250.3	251.0	3085.6 µg/L	3085.6 ppb	15:55:11
2	Na 589.592 Radial†	517.5	139.2	60.142 µg/L	60.142 ppb	15:54:51
2	Sr 421.552†	2649.0	2785.7	36.234 µg/L	36.234 ppb	15:54:51
2	Sc 361.383	1877816.3	1877816.3	100.51 %		15:56:20
2	Y 371.029	1159302.6	1159302.6	99.446 %		15:56:20
2	Ag 328.068†	-429.5	-217.8	0.0725 µg/L	0.0725 ppb	15:56:26
2	As 188.979†	-2.1	2.1	13.029 µg/L	13.029 ppb	15:56:46
2	B 249.677†	528.5	133.0	-1.8068 µg/L	-1.8068 ppb	15:56:26
2	Ba 233.527†	8179.3	8183.9	228.44 µg/L	228.44 ppb	15:56:26
2	Be 313.107†	7473.3	3289.9	1.7305 µg/L	1.7305 ppb	15:56:20
2	Cd 226.502†	-14.7	117.8	0.1632 µg/L	0.1632 ppb	15:56:46
2	Co 228.616†	249.2	236.3	9.7541 µg/L	9.7541 ppb	15:56:46
2	Cr 267.716†	1086.8	1222.5	28.270 µg/L	28.270 ppb	15:56:26
2	Cu 324.752†	7297.2	1326.3	11.685 µg/L	11.685 ppb	15:56:26
2	Mn 257.610†	164275.7	163700.3	572.20 µg/L	572.20 ppb	15:56:20
2	Mo 202.031†	22.6	2.3	1.1525 µg/L	1.1525 ppb	15:56:46
2	Ni 231.604†	639.7	305.6	17.551 µg/L	17.551 ppb	15:56:46
2	P 214.914†	400.1	133.8	196.13 µg/L	196.13 ppb	15:56:46
2	Pb 220.353†	152.9	71.0	19.466 µg/L	19.466 ppb	15:56:46

2	S 181.975 Axial†	61.3	27.7	100.33 µg/L	100.33 ppb	15:56:46
2	Sb 206.836†	27.3	2.6	5.9755 µg/L	5.9755 ppb	15:56:46
2	Se 196.026†	-8.0	-21.9	-19.573 µg/L	-19.573 ppb	15:56:46
2	SiO2†	63130.1	59189.0	10176 µg/L	10176 ppb	15:56:26
2	Si 251.611†	71589.2	70879.1	4777.4 µg/L	4777.4 ppb	15:56:20
2	Sn 189.927†	11.0	-21.5	-14.054 µg/L	-14.054 ppb	15:56:46
2	Ti 334.940†	419122.0	416415.7	1021.7 µg/L	1021.7 ppb	15:56:20
2	Tl 190.801†	-40.6	-13.5	-10.712 µg/L	-10.712 ppb	15:56:46
2	U 409.014†	-21.7	-55.0	-10.213 µg/L	-10.213 ppb	15:56:20
2	V 292.402†	3886.3	4140.8	51.893 µg/L	51.893 ppb	15:56:26
2	Zn 213.857†	2495.2	1829.7	41.060 µg/L	41.060 ppb	15:56:46
3	Sc RADIAL	54158.8	54158.8	97.4 %		15:55:17
3	Al 396.153Radial†	22389.9	22957.5	16867 µg/L	16867 ppb	15:55:17
3	Ca 317.933Radial†	3737.9	3635.3	3309.0 µg/L	3309.0 ppb	15:55:37
3	Fe 238.204 Radial†	1156.0	1173.5	21934 µg/L	21934 ppb	15:55:37
3	K 766.490 Radial†	4620.0	4220.0	2853.1 µg/L	2853.1 ppb	15:55:17
3	Mg 279.077 IEC†	251.8	249.9	3073.0 µg/L	3073.0 ppb	15:55:37
3	Na 589.592 Radial†	521.5	137.7	59.506 µg/L	59.506 ppb	15:55:17
3	Sr 421.552†	2675.7	2784.8	36.222 µg/L	36.222 ppb	15:55:17
3	Sc 361.383	1880663.9	1880663.9	100.66 %		15:56:53
3	Y 371.029	1161579.9	1161579.9	99.642 %		15:56:53
3	Ag 328.068†	-436.8	-224.4	-0.0292 µg/L	-0.0292 ppb	15:56:58
3	As 188.979†	-2.1	2.2	12.896 µg/L	12.896 ppb	15:57:19
3	B 249.677†	557.2	160.7	-0.6654 µg/L	-0.6654 ppb	15:56:58
3	Ba 233.527†	7732.1	7727.3	215.70 µg/L	215.70 ppb	15:56:58
3	Be 313.107†	7405.6	3211.5	1.6941 µg/L	1.6941 ppb	15:56:53
3	Cd 226.502†	-42.1	90.6	-0.5646 µg/L	-0.5646 ppb	15:57:19
3	Co 228.616†	225.3	212.2	8.6182 µg/L	8.6182 ppb	15:57:19
3	Cr 267.716†	980.1	1114.8	25.783 µg/L	25.783 ppb	15:56:58
3	Cu 324.752†	7178.3	1197.2	10.724 µg/L	10.724 ppb	15:56:58
3	Mn 257.610†	159298.6	158508.2	554.11 µg/L	554.11 ppb	15:56:53
3	Mo 202.031†	21.7	1.3	1.0214 µg/L	1.0214 ppb	15:57:19
3	Ni 231.604†	607.0	272.2	15.631 µg/L	15.631 ppb	15:57:19
3	P 214.914†	389.3	122.5	178.09 µg/L	178.09 ppb	15:57:19
3	Pb 220.353†	172.4	90.2	24.658 µg/L	24.658 ppb	15:57:19
3	S 181.975 Axial†	56.9	23.2	83.659 µg/L	83.659 ppb	15:57:19
3	Sb 206.836†	28.4	3.7	6.8778 µg/L	6.8778 ppb	15:57:19
3	Se 196.026†	-2.7	-16.6	-13.983 µg/L	-13.983 ppb	15:57:19
3	SiO2†	60465.1	56446.3	9704.1 µg/L	9704.1 ppb	15:56:58
3	Si 251.611†	70109.8	69301.4	4671.5 µg/L	4671.5 ppb	15:56:53
3	Sn 189.927†	10.8	-21.7	-14.150 µg/L	-14.150 ppb	15:57:19
3	Ti 334.940†	404430.9	401189.3	984.35 µg/L	984.35 ppb	15:56:53
3	Tl 190.801†	-33.2	-6.1	0.7767 µg/L	0.7767 ppb	15:57:19
3	U 409.014†	-100.6	-133.3	-18.538 µg/L	-18.538 ppb	15:56:53
3	V 292.402†	3614.6	3865.1	48.460 µg/L	48.460 ppb	15:56:58
3	Zn 213.857†	2263.4	1595.6	35.091 µg/L	35.091 ppb	15:57:19

Mean Data: 1202004449|936817|5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1882759.7	100.77 %	0.335			0.33%
Sc RADIAL	53943.7	97.0 %	0.54			0.56%
Y 371.029	1162164.4	99.692 %	0.2740			0.27%
Ag 328.068†	-244.3	-0.1963 µg/L	0.38083	-0.1963 ppb	0.38083	194.03%
Al 396.153Radial†	22920.1	16839 µg/L	24.1	16839 ppb	24.1	0.14%
As 188.979†	1.9	12.542 µg/L	0.7304	12.542 ppb	0.7304	5.82%
B 249.677†	144.1	-1.3203 µg/L	0.58906	-1.3203 ppb	0.58906	44.61%
Ba 233.527†	8019.1	223.84 µg/L	7.073	223.84 ppb	7.073	3.16%
Be 313.107†	3256.7	1.7139 µg/L	0.01845	1.7139 ppb	0.01845	1.08%
Ca 317.933Radial†	3639.9	3313.2 µg/L	9.83	3313.2 ppb	9.83	0.30%
Cd 226.502†	101.6	-0.2605 µg/L	0.37832	-0.2605 ppb	0.37832	145.22%
Co 228.616†	228.7	9.3983 µg/L	0.67639	9.3983 ppb	0.67639	7.20%
Cr 267.716†	1174.8	27.169 µg/L	1.2678	27.169 ppb	1.2678	4.67%
Cu 324.752†	1245.7	11.081 µg/L	0.5264	11.081 ppb	0.5264	4.75%
Fe 238.204 Radial†	1175.5	21971 µg/L	163.0	21971 ppb	163.0	0.74%
K 766.490 Radial†	4238.3	2865.5 µg/L	11.68	2865.5 ppb	11.68	0.41%
Mg 279.077 IEC†	250.4	3078.2 µg/L	6.58	3078.2 ppb	6.58	0.21%
Mn 257.610†	162010.5	566.30 µg/L	10.556	566.30 ppb	10.556	1.86%
Mo 202.031†	2.3	1.1507 µg/L	0.12849	1.1507 ppb	0.12849	11.17%
Na 589.592 Radial†	147.8	63.861 µg/L	6.9982	63.861 ppb	6.9982	10.96%

Ni 231.604†	294.0	16.884 µg/L	1.0856	16.884 ppb	1.0856	6.43%
P 214.914†	127.2	185.64 µg/L	9.367	185.64 ppb	9.367	5.05%
Pb 220.353†	84.2	23.050 µg/L	3.1095	23.050 ppb	3.1095	13.49%
S 181.975 Axial†	24.3	87.640 µg/L	11.2456	87.640 ppb	11.2456	12.83%
Sb 206.836†	-0.4	3.1150 µg/L	5.75373	3.1150 ppb	5.75373	184.71%
Se 196.026†	-18.8	-16.292 µg/L	2.9190	-16.292 ppb	2.9190	17.92%
SiO2†	58117.8	9991.5 µg/L	252.14	9991.5 ppb	252.14	2.52%
Si 251.611†	70335.2	4740.9 µg/L	60.09	4740.9 ppb	60.09	1.27%
Sn 189.927†	-23.6	-15.146 µg/L	1.8091	-15.146 ppb	1.8091	11.94%
Sr 421.552†	2782.2	36.188 µg/L	0.0693	36.188 ppb	0.0693	0.19%
Ti 334.940†	411258.8	1009.1 µg/L	21.40	1009.1 ppb	21.40	2.12%
Tl 190.801†	-7.8	-1.7147 µg/L	8.04655	-1.7147 ppb	8.04655	469.28%
U 409.014†	-76.8	-12.509 µg/L	5.2705	-12.509 ppb	5.2705	42.13%
V 292.402†	4045.5	50.705 µg/L	1.9458	50.705 ppb	1.9458	3.84%
Zn 213.857†	1747.8	38.998 µg/L	3.3853	38.998 ppb	3.3853	8.68%

Sequence No.: 10

Sample ID: 243521002|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 308

Date Collected: 1/11/2010 15:57:27

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 243521002|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55067.0	55067.0	99.0 %		15:58:00
1	Al 396.153Radial†	90193.6	91034.3	66883 µg/L	66883 ppb	15:58:00
1	Ca 317.933Radial†	14147.7	14081.9	12818 µg/L	12818 ppb	15:58:20
1	Fe 238.204 Radial†	5977.3	6021.5	112550 µg/L	112550 ppb	15:58:20
1	K 766.490 Radial†	14730.7	14349.7	9701.6 µg/L	9701.6 ppb	15:58:00
1	Mg 279.077 IEC†	1016.0	1017.2	12472 µg/L	12472 ppb	15:58:20
1	Na 589.592 Radial†	5009.4	4660.0	2013.8 µg/L	2013.8 ppb	15:58:00
1	Sr 421.552†	12004.7	12158.2	158.14 µg/L	158.14 ppb	15:58:00
1	Sc 361.383	1885267.4	1885267.4	100.90 %		15:59:25
1	Y 371.029	1183490.1	1183490.1	101.52 %		15:59:25
1	Ag 328.068†	-1528.1	-1304.9	-2.3583 µg/L	-2.3583 ppb	15:59:31
1	As 188.979†	5.6	9.8	60.167 µg/L	60.167 ppb	15:59:52
1	B 249.677†	955.0	553.6	-13.928 µg/L	-13.928 ppb	15:59:31
1	Ba 233.527†	37981.5	37686.7	1051.8 µg/L	1051.8 ppb	15:59:31
1	Be 313.107†	17713.4	13408.8	7.3535 µg/L	7.3535 ppb	15:59:31
1	Cd 226.502†	357.0	486.2	-2.2321 µg/L	-2.2321 ppb	15:59:52
1	Co 228.616†	823.3	804.3	33.469 µg/L	33.469 ppb	15:59:52
1	Cr 267.716†	15267.5	15271.8	351.95 µg/L	351.95 ppb	15:59:31
1	Cu 324.752†	9047.3	3032.0	32.335 µg/L	32.335 ppb	15:59:31
1	Mn 257.610†	778018.6	771294.4	2697.0 µg/L	2697.0 ppb	15:59:25
1	Mo 202.031†	63.2	42.4	9.6912 µg/L	9.6912 ppb	15:59:52
1	Ni 231.604†	3540.5	3177.9	182.49 µg/L	182.49 ppb	15:59:52
1	P 214.914†	623.2	353.3	462.78 µg/L	462.78 ppb	15:59:52
1	Pb 220.353†	276.4	192.8	52.914 µg/L	52.914 ppb	15:59:52
1	S 181.975 Axial†	124.1	89.7	318.90 µg/L	318.90 ppb	15:59:52
1	Sb 206.836†	27.5	2.8	12.759 µg/L	12.759 ppb	15:59:52
1	Se 196.026†	-76.5	-89.7	-82.763 µg/L	-82.763 ppb	15:59:52
1	SiO2†	414703.4	407361.9	70033 µg/L	70033 ppb	15:59:25
1	Si 251.611†	483008.3	478327.9	32370 µg/L	32370 ppb	15:59:25
1	Sn 189.927†	-29.2	-61.3	-48.165 µg/L	-48.165 ppb	15:59:52
1	Ti 334.940†	1379552.3	1366586.8	3352.9 µg/L	3352.9 ppb	15:59:25
1	Tl 190.801†	-62.7	-35.2	-16.482 µg/L	-16.482 ppb	15:59:52
1	U 409.014†	-1075.5	-1099.2	-139.26 µg/L	-139.26 ppb	15:59:25
1	V 292.402†	10436.2	10616.7	134.52 µg/L	134.52 ppb	15:59:31
1	Zn 213.857†	14562.2	13778.7	323.80 µg/L	323.80 ppb	15:59:31
2	Sc RADIAL	54958.6	54958.6	98.9 %		15:58:26
2	Al 396.153Radial†	90787.8	91815.0	67457 µg/L	67457 ppb	15:58:26
2	Ca 317.933Radial†	14075.7	14037.3	12777 µg/L	12777 ppb	15:58:46
2	Fe 238.204 Radial†	5952.2	6008.1	112300 µg/L	112300 ppb	15:58:46
2	K 766.490 Radial†	14856.6	14506.3	9807.5 µg/L	9807.5 ppb	15:58:26
2	Mg 279.077 IEC†	1023.5	1026.8	12592 µg/L	12592 ppb	15:58:46
2	Na 589.592 Radial†	5066.7	4727.9	2043.1 µg/L	2043.1 ppb	15:58:26
2	Sr 421.552†	12060.3	12238.3	159.19 µg/L	159.19 ppb	15:58:26
2	Sc 361.383	1895948.6	1895948.6	101.48 %		15:59:59
2	Y 371.029	1188673.0	1188673.0	101.97 %		15:59:59
2	Ag 328.068†	-1545.3	-1313.3	-2.4550 µg/L	-2.4550 ppb	16:00:05
2	As 188.979†	6.4	10.5	61.321 µg/L	61.321 ppb	16:00:26
2	B 249.677†	945.0	538.4	-14.434 µg/L	-14.434 ppb	16:00:05
2	Ba 233.527†	38150.1	37640.8	1050.5 µg/L	1050.5 ppb	16:00:05
2	Be 313.107†	17707.0	13303.7	7.2871 µg/L	7.2871 ppb	16:00:05
2	Cd 226.502†	343.1	470.6	-2.6421 µg/L	-2.6421 ppb	16:00:26
2	Co 228.616†	802.4	779.1	32.208 µg/L	32.208 ppb	16:00:26
2	Cr 267.716†	15347.9	15265.8	351.82 µg/L	351.82 ppb	16:00:05
2	Cu 324.752†	9059.3	2993.4	32.030 µg/L	32.030 ppb	16:00:05
2	Mn 257.610†	781170.4	770056.5	2692.7 µg/L	2692.7 ppb	15:59:59
2	Mo 202.031†	71.1	49.8	10.611 µg/L	10.611 ppb	16:00:26
2	Ni 231.604†	3537.0	3154.7	181.16 µg/L	181.16 ppb	16:00:26
2	P 214.914†	622.5	349.1	456.49 µg/L	456.49 ppb	16:00:26
2	Pb 220.353†	272.0	186.9	51.359 µg/L	51.359 ppb	16:00:26

2	S 181.975 Axial†	117.3	82.3	291.13 µg/L	291.13 ppb	16:00:26
2	Sb 206.836†	27.5	2.6	12.600 µg/L	12.600 ppb	16:00:26
2	Se 196.026†	-77.9	-90.8	-83.772 µg/L	-83.772 ppb	16:00:26
2	SiO2†	416039.5	406363.2	69861 µg/L	69861 ppb	15:59:59
2	Si 251.611†	484639.7	477238.9	32296 µg/L	32296 ppb	15:59:59
2	Sn 189.927†	-32.2	-64.2	-49.597 µg/L	-49.597 ppb	16:00:26
2	Ti 334.940†	1386283.1	1365517.4	3350.3 µg/L	3350.3 ppb	15:59:59
2	Tl 190.801†	-63.7	-36.0	-17.605 µg/L	-17.605 ppb	16:00:26
2	U 409.014†	-1239.2	-1254.6	-155.81 µg/L	-155.81 ppb	15:59:59
2	V 292.402†	10507.6	10628.8	134.65 µg/L	134.65 ppb	16:00:05
2	Zn 213.857†	14621.7	13756.0	323.29 µg/L	323.29 ppb	16:00:05
3	Sc RADIAL	54614.1	54614.1	98.2 %		15:58:52
3	Al 396.153Radial†	90111.7	91706.1	67377 µg/L	67377 ppb	15:58:52
3	Ca 317.933Radial†	14113.6	14165.7	12894 µg/L	12894 ppb	15:59:12
3	Fe 238.204 Radial†	5973.1	6067.3	113410 µg/L	113410 ppb	15:59:12
3	K 766.490 Radial†	14784.8	14528.1	9822.2 µg/L	9822.2 ppb	15:58:52
3	Mg 279.077 IEC†	1019.2	1028.9	12616 µg/L	12616 ppb	15:59:12
3	Na 589.592 Radial†	4975.2	4667.1	2016.9 µg/L	2016.9 ppb	15:58:52
3	Sr 421.552†	11932.4	12185.1	158.49 µg/L	158.49 ppb	15:58:52
3	Sc 361.383	1886932.5	1886932.5	100.99 %		16:00:34
3	Y 371.029	1182933.2	1182933.2	101.47 %		16:00:34
3	Ag 328.068†	-1546.9	-1322.2	-2.4691 µg/L	-2.4691 ppb	16:00:39
3	As 188.979†	7.2	11.3	62.890 µg/L	62.890 ppb	16:00:59
3	B 249.677†	943.9	541.8	-14.653 µg/L	-14.653 ppb	16:00:39
3	Ba 233.527†	37273.0	36952.0	1031.3 µg/L	1031.3 ppb	16:00:39
3	Be 313.107†	17343.4	13027.1	7.1321 µg/L	7.1321 ppb	16:00:39
3	Cd 226.502†	336.0	465.1	-2.9530 µg/L	-2.9530 ppb	16:00:59
3	Co 228.616†	774.6	755.4	31.138 µg/L	31.138 ppb	16:00:59
3	Cr 267.716†	14866.8	14861.7	342.50 µg/L	342.50 ppb	16:00:39
3	Cu 324.752†	8886.1	2864.6	31.191 µg/L	31.191 ppb	16:00:39
3	Mn 257.610†	765396.5	758116.2	2651.3 µg/L	2651.3 ppb	16:00:34
3	Mo 202.031†	58.9	38.1	9.1890 µg/L	9.1890 ppb	16:00:59
3	Ni 231.604†	3344.3	2980.6	171.16 µg/L	171.16 ppb	16:00:59
3	P 214.914†	614.1	343.8	446.64 µg/L	446.64 ppb	16:00:59
3	Pb 220.353†	258.5	174.9	48.069 µg/L	48.069 ppb	16:00:59
3	S 181.975 Axial†	125.4	90.9	323.13 µg/L	323.13 ppb	16:00:59
3	Sb 206.836†	30.6	5.8	15.373 µg/L	15.373 ppb	16:00:59
3	Se 196.026†	-67.6	-80.9	-73.236 µg/L	-73.236 ppb	16:00:59
3	SiO2†	410014.4	402356.3	69172 µg/L	69172 ppb	16:00:34
3	Si 251.611†	477320.2	472273.4	31961 µg/L	31961 ppb	16:00:34
3	Sn 189.927†	-32.4	-64.5	-49.943 µg/L	-49.943 ppb	16:00:59
3	Ti 334.940†	1354891.5	1340962.2	3290.1 µg/L	3290.1 ppb	16:00:34
3	Tl 190.801†	-52.2	-24.8	-0.4424 µg/L	-0.4424 ppb	16:00:59
3	U 409.014†	-1158.1	-1180.1	-148.07 µg/L	-148.07 ppb	16:00:34
3	V 292.402†	10235.7	10409.1	131.96 µg/L	131.96 ppb	16:00:39
3	Zn 213.857†	14395.6	13601.0	319.04 µg/L	319.04 ppb	16:00:39

Mean Data: 243521002|936817|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1889382.8	101.12 %	0.308			0.30%
Sc RADIAL	54879.9	98.7 %	0.43			0.43%
Y 371.029	1185032.1	101.65 %	0.272			0.27%
Ag 328.068†	-1313.4	-2.4275 µg/L	0.06033	-2.4275 ppb	0.06033	2.49%
Al 396.153Radial†	91518.5	67239 µg/L	310.6	67239 ppb	310.6	0.46%
As 188.979†	10.6	61.459 µg/L	1.3671	61.459 ppb	1.3671	2.22%
B 249.677†	544.6	-14.338 µg/L	0.3724	-14.338 ppb	0.3724	2.60%
Ba 233.527†	37426.5	1044.5 µg/L	11.49	1044.5 ppb	11.49	1.10%
Be 313.107†	13246.5	7.2575 µg/L	0.11362	7.2575 ppb	0.11362	1.57%
Ca 317.933Radial†	14095.0	12830 µg/L	59.3	12830 ppb	59.3	0.46%
Cd 226.502†	474.0	-2.6091 µg/L	0.36160	-2.6091 ppb	0.36160	13.86%
Co 228.616†	779.6	32.272 µg/L	1.1668	32.272 ppb	1.1668	3.62%
Cr 267.716†	15133.1	348.76 µg/L	5.416	348.76 ppb	5.416	1.55%
Cu 324.752†	2963.3	31.852 µg/L	0.5923	31.852 ppb	0.5923	1.86%
Fe 238.204 Radial†	6032.3	112750 µg/L	580.7	112750 ppb	580.7	0.51%
K 766.490 Radial†	14461.4	9777.1 µg/L	65.80	9777.1 ppb	65.80	0.67%
Mg 279.077 IEC†	1024.3	12560 µg/L	77.4	12560 ppb	77.4	0.62%
Mn 257.610†	766489.0	2680.3 µg/L	25.24	2680.3 ppb	25.24	0.94%
Mo 202.031†	43.4	9.8303 µg/L	0.72097	9.8303 ppb	0.72097	7.33%
Na 589.592 Radial†	4685.0	2024.6 µg/L	16.12	2024.6 ppb	16.12	0.80%

Ni 231.604†	3104.4	178.27 µg/L	6.192	178.27 ppb	6.192	3.47%
P 214.914†	348.7	455.30 µg/L	8.136	455.30 ppb	8.136	1.79%
Pb 220.353†	184.8	50.781 µg/L	2.4737	50.781 ppb	2.4737	4.87%
S 181.975 Axial†	87.6	311.05 µg/L	17.382	311.05 ppb	17.382	5.59%
Sb 206.836†	3.7	13.577 µg/L	1.5570	13.577 ppb	1.5570	11.47%
Se 196.026†	-87.1	-79.924 µg/L	5.8138	-79.924 ppb	5.8138	7.27%
SiO2†	405360.5	69689 µg/L	455.4	69689 ppb	455.4	0.65%
Si 251.611†	475946.8	32209 µg/L	218.0	32209 ppb	218.0	0.68%
Sn 189.927†	-63.3	-49.235 µg/L	0.9424	-49.235 ppb	0.9424	1.91%
Sr 421.552†	12193.9	158.61 µg/L	0.531	158.61 ppb	0.531	0.33%
Ti 334.940†	1357688.8	3331.1 µg/L	35.58	3331.1 ppb	35.58	1.07%
Tl 190.801†	-32.0	-11.510 µg/L	9.6011	-11.510 ppb	9.6011	83.42%
U 409.014†	-1178.0	-147.72 µg/L	8.281	-147.72 ppb	8.281	5.61%
V 292.402†	10551.5	133.71 µg/L	1.517	133.71 ppb	1.517	1.13%
Zn 213.857†	13711.9	322.04 µg/L	2.612	322.04 ppb	2.612	0.81%

Sequence No.: 11
 Sample ID: 243521003|936817|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 309
 Date Collected: 1/11/2010 16:01:08
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 243521003|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55197.7	55197.7	99.3 %		16:01:41
1	Al 396.153Radial†	162064.4	163208.8	119910 µg/L	119910 ppb	16:01:41
1	Ca 317.933Radial†	20647.6	20595.0	18746 µg/L	18746 ppb	16:01:41
1	Fe 238.204 Radial†	6213.2	6244.8	116720 µg/L	116720 ppb	16:02:01
1	K 766.490 Radial†	22016.4	21652.8	14639 µg/L	14639 ppb	16:01:41
1	Mg 279.077 IEC†	1360.9	1362.1	16751 µg/L	16751 ppb	16:02:01
1	Na 589.592 Radial†	4185.0	3817.6	1649.8 µg/L	1649.8 ppb	16:01:41
1	Sr 421.552†	17546.9	17711.7	230.38 µg/L	230.38 ppb	16:01:41
1	Sc 361.383	1887676.7	1887676.7	101.03 %		16:03:07
1	Y 371.029	1200721.4	1200721.4	103.00 %		16:03:07
1	Ag 328.068†	-1579.0	-1353.3	-1.5247 µg/L	-1.5247 ppb	16:03:12
1	As 188.979†	11.7	15.8	77.890 µg/L	77.890 ppb	16:03:33
1	B 249.677†	1097.9	693.8	-9.8020 µg/L	-9.8020 ppb	16:03:12
1	Ba 233.527†	53508.8	53007.1	1479.5 µg/L	1479.5 ppb	16:03:12
1	Be 313.107†	24513.6	20117.1	10.675 µg/L	10.675 ppb	16:03:12
1	Cd 226.502†	411.7	539.9	-1.4256 µg/L	-1.4256 ppb	16:03:33
1	Co 228.616†	1291.1	1266.2	51.163 µg/L	51.163 ppb	16:03:33
1	Cr 267.716†	4650.1	4743.7	109.86 µg/L	109.86 ppb	16:03:12
1	Cu 324.752†	12627.6	6564.3	58.478 µg/L	58.478 ppb	16:03:12
1	Mn 257.610†	702947.0	696006.8	2435.7 µg/L	2435.7 ppb	16:03:07
1	Mo 202.031†	-5.0	-25.2	1.4523 µg/L	1.4523 ppb	16:03:33
1	Ni 231.604†	1568.1	1221.3	70.129 µg/L	70.129 ppb	16:03:33
1	P 214.914†	735.3	463.5	652.81 µg/L	652.81 ppb	16:03:33
1	Pb 220.353†	588.0	500.9	137.82 µg/L	137.82 ppb	16:03:33
1	S 181.975 Axial†	274.4	238.3	876.61 µg/L	876.61 ppb	16:03:33
1	Sb 206.836†	33.5	8.7	29.063 µg/L	29.063 ppb	16:03:33
1	Se 196.026†	-84.3	-97.4	-84.213 µg/L	-84.213 ppb	16:03:33
1	SiO2†	414818.9	406951.6	69962 µg/L	69962 ppb	16:03:07
1	Si 251.611†	483104.3	477811.9	32238 µg/L	32238 ppb	16:03:07
1	Sn 189.927†	-76.2	-107.8	-70.850 µg/L	-70.850 ppb	16:03:33
1	Ti 334.940†	2469863.4	2443998.2	5996.6 µg/L	5996.6 ppb	16:03:07
1	Tl 190.801†	-69.3	-41.7	-3.8167 µg/L	-3.8167 ppb	16:03:33
1	U 409.014†	-622.9	-649.9	-92.373 µg/L	-92.373 ppb	16:03:07
1	V 292.402†	21822.3	21873.1	274.02 µg/L	274.02 ppb	16:03:12
1	Zn 213.857†	9814.1	9060.8	201.49 µg/L	201.49 ppb	16:03:12
2	Sc RADIAL	55140.0	55140.0	99.2 %		16:02:07
2	Al 396.153Radial†	163254.5	164579.7	120920 µg/L	120920 ppb	16:02:07
2	Ca 317.933Radial†	20661.1	20630.4	18779 µg/L	18779 ppb	16:02:07
2	Fe 238.204 Radial†	6224.1	6262.4	117050 µg/L	117050 ppb	16:02:27
2	K 766.490 Radial†	22079.9	21740.1	14698 µg/L	14698 ppb	16:02:07
2	Mg 279.077 IEC†	1361.0	1363.7	16770 µg/L	16770 ppb	16:02:27
2	Na 589.592 Radial†	4290.8	3928.7	1697.8 µg/L	1697.8 ppb	16:02:07
2	Sr 421.552†	17666.7	17851.0	232.19 µg/L	232.19 ppb	16:02:07
2	Sc 361.383	1884531.2	1884531.2	100.87 %		16:03:40
2	Y 371.029	1197470.5	1197470.5	102.72 %		16:03:40
2	Ag 328.068†	-1683.3	-1459.3	-2.4832 µg/L	-2.4832 ppb	16:03:46
2	As 188.979†	9.8	13.9	74.834 µg/L	74.834 ppb	16:04:06
2	B 249.677†	1108.5	706.1	-9.4283 µg/L	-9.4283 ppb	16:03:46
2	Ba 233.527†	53484.2	53071.2	1481.3 µg/L	1481.3 ppb	16:03:46
2	Be 313.107†	24463.4	20107.8	10.665 µg/L	10.665 ppb	16:03:46
2	Cd 226.502†	410.4	539.3	-1.4893 µg/L	-1.4893 ppb	16:04:06
2	Co 228.616†	1274.5	1252.0	50.424 µg/L	50.424 ppb	16:04:06
2	Cr 267.716†	4647.7	4749.0	109.99 µg/L	109.99 ppb	16:03:46
2	Cu 324.752†	12527.0	6485.4	57.932 µg/L	57.932 ppb	16:03:46
2	Mn 257.610†	702594.7	696818.8	2438.5 µg/L	2438.5 ppb	16:03:40
2	Mo 202.031†	-4.1	-24.3	1.5788 µg/L	1.5788 ppb	16:04:06
2	Ni 231.604†	1532.8	1188.8	68.265 µg/L	68.265 ppb	16:04:06
2	P 214.914†	720.4	449.9	630.77 µg/L	630.77 ppb	16:04:06
2	Pb 220.353†	568.5	482.5	132.87 µg/L	132.87 ppb	16:04:06

2	S 181.975 Axial†	282.2	246.5	907.18 µg/L	907.18 ppb	16:04:06
2	Sb 206.836†	19.2	-5.5	15.881 µg/L	15.881 ppb	16:04:06
2	Se 196.026†	-82.8	-96.1	-82.735 µg/L	-82.735 ppb	16:04:06
2	SiO2†	414872.2	407689.8	70089 µg/L	70089 ppb	16:03:40
2	Si 251.611†	483091.0	478596.9	32291 µg/L	32291 ppb	16:03:40
2	Sn 189.927†	-79.9	-111.6	-72.900 µg/L	-72.900 ppb	16:04:06
2	Ti 334.940†	2470168.4	2448381.0	6007.4 µg/L	6007.4 ppb	16:03:40
2	Tl 190.801†	-65.3	-37.9	2.5037 µg/L	2.5037 ppb	16:04:06
2	U 409.014†	-630.0	-657.9	-93.296 µg/L	-93.296 ppb	16:03:40
2	V 292.402†	21805.1	21892.1	274.26 µg/L	274.26 ppb	16:03:46
2	Zn 213.857†	9799.6	9062.6	201.46 µg/L	201.46 ppb	16:03:46
3	Sc RADIAL	55252.0	55252.0	99.4 %		16:02:33
3	Al 396.153Radial†	163545.0	164538.1	120890 µg/L	120890 ppb	16:02:33
3	Ca 317.933Radial†	20712.8	20640.2	18787 µg/L	18787 ppb	16:02:33
3	Fe 238.204 Radial†	6199.5	6225.0	116350 µg/L	116350 ppb	16:02:53
3	K 766.490 Radial†	22124.7	21740.0	14698 µg/L	14698 ppb	16:02:33
3	Mg 279.077 IEC†	1351.8	1351.7	16621 µg/L	16621 ppb	16:02:53
3	Na 589.592 Radial†	4252.3	3881.1	1677.2 µg/L	1677.2 ppb	16:02:33
3	Sr 421.552†	17681.6	17829.9	231.92 µg/L	231.92 ppb	16:02:33
3	Sc 361.383	1894324.0	1894324.0	101.39 %		16:04:14
3	Y 371.029	1203850.7	1203850.7	103.27 %		16:04:14
3	Ag 328.068†	-1688.6	-1455.9	-2.5564 µg/L	-2.5564 ppb	16:04:20
3	As 188.979†	11.0	15.1	76.324 µg/L	76.324 ppb	16:04:40
3	B 249.677†	1091.4	683.6	-10.079 µg/L	-10.079 ppb	16:04:20
3	Ba 233.527†	52691.8	52015.5	1451.8 µg/L	1451.8 ppb	16:04:20
3	Be 313.107†	24066.9	19591.4	10.368 µg/L	10.368 ppb	16:04:20
3	Cd 226.502†	381.3	508.5	-2.2440 µg/L	-2.2440 ppb	16:04:40
3	Co 228.616†	1221.0	1192.6	47.630 µg/L	47.630 ppb	16:04:40
3	Cr 267.716†	4510.9	4590.3	106.31 µg/L	106.31 ppb	16:04:20
3	Cu 324.752†	12426.1	6321.6	56.674 µg/L	56.674 ppb	16:04:20
3	Mn 257.610†	697668.3	688358.9	2409.0 µg/L	2409.0 ppb	16:04:14
3	Mo 202.031†	-1.9	-22.1	1.8212 µg/L	1.8212 ppb	16:04:40
3	Ni 231.604†	1504.7	1153.3	66.223 µg/L	66.223 ppb	16:04:40
3	P 214.914†	701.9	428.0	596.27 µg/L	596.27 ppb	16:04:40
3	Pb 220.353†	562.4	473.6	130.47 µg/L	130.47 ppb	16:04:40
3	S 181.975 Axial†	276.1	239.0	879.31 µg/L	879.31 ppb	16:04:40
3	Sb 206.836†	24.3	-0.6	20.124 µg/L	20.124 ppb	16:04:40
3	Se 196.026†	-75.4	-88.3	-74.417 µg/L	-74.417 ppb	16:04:40
3	SiO2†	413272.8	403986.0	69452 µg/L	69452 ppb	16:04:14
3	Si 251.611†	481285.2	474339.9	32005 µg/L	32005 ppb	16:04:14
3	Sn 189.927†	-72.2	-103.7	-68.637 µg/L	-68.637 ppb	16:04:40
3	Ti 334.940†	2445202.6	2411097.2	5915.9 µg/L	5915.9 ppb	16:04:14
3	Tl 190.801†	-62.8	-35.1	6.1677 µg/L	6.1677 ppb	16:04:40
3	U 409.014†	-638.3	-663.0	-93.703 µg/L	-93.703 ppb	16:04:14
3	V 292.402†	21323.0	21304.9	266.97 µg/L	266.97 ppb	16:04:20
3	Zn 213.857†	9678.9	8893.3	197.30 µg/L	197.30 ppb	16:04:20

Mean Data: 243521003|936817|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	1888844.0	101.10 %		0.268			0.26%
Sc RADIAL	55196.6	99.3 %		0.10			0.10%
Y 371.029	1200680.8	103.00 %		0.274			0.27%
Ag 328.068†	-1422.9	-2.1881 µg/L		0.57565	-2.1881 ppb	0.57565	26.31%
Al 396.153Radial†	164108.9	120570 µg/L		572.9	120570 ppb	572.9	0.48%
As 188.979†	15.0	76.349 µg/L		1.5285	76.349 ppb	1.5285	2.00%
B 249.677†	694.5	-9.7699 µg/L		0.32679	-9.7699 ppb	0.32679	3.34%
Ba 233.527†	52698.0	1470.9 µg/L		16.52	1470.9 ppb	16.52	1.12%
Be 313.107†	19938.8	10.569 µg/L		0.1745	10.569 ppb	0.1745	1.65%
Ca 317.933Radial†	20621.9	18771 µg/L		21.7	18771 ppb	21.7	0.12%
Cd 226.502†	529.2	-1.7196 µg/L		0.45523	-1.7196 ppb	0.45523	26.47%
Co 228.616†	1237.0	49.739 µg/L		1.8633	49.739 ppb	1.8633	3.75%
Cr 267.716†	4694.3	108.72 µg/L		2.085	108.72 ppb	2.085	1.92%
Cu 324.752†	6457.1	57.695 µg/L		0.9250	57.695 ppb	0.9250	1.60%
Fe 238.204 Radial†	6244.1	116710 µg/L		350.1	116710 ppb	350.1	0.30%
K 766.490 Radial†	21710.9	14678 µg/L		34.0	14678 ppb	34.0	0.23%
Mg 279.077 IEC†	1359.2	16714 µg/L		80.8	16714 ppb	80.8	0.48%
Mn 257.610†	693728.2	2427.7 µg/L		16.28	2427.7 ppb	16.28	0.67%
Mo 202.031†	-23.9	1.6174 µg/L		0.18748	1.6174 ppb	0.18748	11.59%
Na 589.592 Radial†	3875.8	1674.9 µg/L		24.10	1674.9 ppb	24.10	1.44%

Ni 231.604†	1187.8	68.206 µg/L	1.9537	68.206 ppb	1.9537	2.86%
P 214.914†	447.1	626.62 µg/L	28.496	626.62 ppb	28.496	4.55%
Pb 220.353†	485.6	133.72 µg/L	3.747	133.72 ppb	3.747	2.80%
S 181.975 Axial†	241.3	887.70 µg/L	16.926	887.70 ppb	16.926	1.91%
Sb 206.836†	0.9	21.689 µg/L	6.7287	21.689 ppb	6.7287	31.02%
Se 196.026†	-93.9	-80.455 µg/L	5.2810	-80.455 ppb	5.2810	6.56%
SiO2†	406209.1	69835 µg/L	337.0	69835 ppb	337.0	0.48%
Si 251.611†	476916.3	32178 µg/L	152.2	32178 ppb	152.2	0.47%
Sn 189.927†	-107.7	-70.796 µg/L	2.1318	-70.796 ppb	2.1318	3.01%
Sr 421.552†	17797.5	231.50 µg/L	0.977	231.50 ppb	0.977	0.42%
Ti 334.940†	2434492.1	5973.3 µg/L	50.01	5973.3 ppb	50.01	0.84%
Tl 190.801†	-38.2	1.6182 µg/L	5.05074	1.6182 ppb	5.05074	312.11%
U 409.014†	-656.9	-93.124 µg/L	0.6813	-93.124 ppb	0.6813	0.73%
V 292.402†	21690.0	271.75 µg/L	4.140	271.75 ppb	4.140	1.52%
Zn 213.857†	9005.6	200.08 µg/L	2.414	200.08 ppb	2.414	1.21%

Sequence No.: 12

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/11/2010 16:04:49

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54427.0	54427.0	97.9 %		16:05:28
1	Al 396.153Radial†	6893.3	7014.7	5133.5 µg/L	5133.5 ppb	16:05:28
1	Ca 317.933Radial†	5551.0	5468.5	4977.6 µg/L	4977.6 ppb	16:05:28
1	Fe 238.204 Radial†	257.7	250.0	4689.4 µg/L	4689.4 ppb	16:05:48
1	K 766.490 Radial†	8099.5	7750.8	5240.2 µg/L	5240.2 ppb	16:05:28
1	Mg 279.077 IEC†	378.4	378.0	4702.0 µg/L	4702.0 ppb	16:05:48
1	Na 589.592 Radial†	22767.4	22859.0	9878.5 µg/L	9878.5 ppb	16:05:28
1	Sr 421.552†	36183.7	36999.2	481.25 µg/L	481.25 ppb	16:05:28
1	Sc 361.383	1901284.7	1901284.7	101.76 %		16:06:52
1	Y 371.029	1169821.6	1169821.6	100.35 %		16:06:52
1	Ag 328.068†	55273.0	54525.5	511.09 µg/L	511.09 ppb	16:06:57
1	As 188.979†	305.9	304.8	523.07 µg/L	523.07 ppb	16:07:18
1	B 249.677†	13607.5	12979.0	501.81 µg/L	501.81 ppb	16:06:57
1	Ba 233.527†	18550.2	18274.8	510.95 µg/L	510.95 ppb	16:06:57
1	Be 313.107†	810790.8	792606.5	507.88 µg/L	507.88 ppb	16:06:52
1	Cd 226.502†	18657.4	18466.8	509.66 µg/L	509.66 ppb	16:06:57
1	Co 228.616†	10391.5	10200.0	513.28 µg/L	513.28 ppb	16:06:57
1	Cr 267.716†	22602.7	22352.5	515.88 µg/L	515.88 ppb	16:06:57
1	Cu 324.752†	76455.6	69197.6	505.16 µg/L	505.16 ppb	16:06:57
1	Mn 257.610†	152009.4	149628.8	521.06 µg/L	521.06 ppb	16:06:52
1	Mo 202.031†	4367.7	4271.8	531.37 µg/L	531.37 ppb	16:07:18
1	Ni 231.604†	9389.8	8896.4	510.85 µg/L	510.85 ppb	16:06:57
1	P 214.914†	1902.1	1604.8	2553.6 µg/L	2553.6 ppb	16:07:18
1	Pb 220.353†	2037.6	1921.2	521.02 µg/L	521.02 ppb	16:07:18
1	S 181.975 Axial†	315.9	277.2	1041.0 µg/L	1041.0 ppb	16:07:18
1	Sb 206.836†	593.9	559.1	520.96 µg/L	520.96 ppb	16:07:18
1	Se 196.026†	500.6	477.9	514.01 µg/L	514.01 ppb	16:07:18
1	SiO2†	36689.9	32431.3	5575.5 µg/L	5575.5 ppb	16:06:57
1	Si 251.611†	39385.0	38353.3	2555.3 µg/L	2555.3 ppb	16:06:57
1	Sn 189.927†	1065.7	1014.8	530.27 µg/L	530.27 ppb	16:07:18
1	Ti 334.940†	214681.0	210367.2	515.96 µg/L	515.96 ppb	16:06:52
1	Tl 190.801†	292.1	313.9	504.09 µg/L	504.09 ppb	16:07:18
1	U 409.014†	5059.6	4938.6	526.65 µg/L	526.65 ppb	16:06:57
1	V 292.402†	41639.6	41192.7	514.67 µg/L	514.67 ppb	16:06:57
1	Zn 213.857†	20876.7	19862.3	507.73 µg/L	507.73 ppb	16:06:57
2	Sc RADIAL	54516.0	54516.0	98.1 %		16:05:54
2	Al 396.153Radial†	6941.5	7052.4	5161.0 µg/L	5161.0 ppb	16:05:54
2	Ca 317.933Radial†	5622.3	5532.0	5035.4 µg/L	5035.4 ppb	16:05:54
2	Fe 238.204 Radial†	257.1	249.0	4670.9 µg/L	4670.9 ppb	16:06:14
2	K 766.490 Radial†	8082.8	7720.3	5219.5 µg/L	5219.5 ppb	16:05:54
2	Mg 279.077 IEC†	385.7	384.7	4786.4 µg/L	4786.4 ppb	16:06:14
2	Na 589.592 Radial†	22891.0	22947.1	9916.6 µg/L	9916.6 ppb	16:05:54
2	Sr 421.552†	36456.2	37216.8	484.08 µg/L	484.08 ppb	16:05:54
2	Sc 361.383	1876723.6	1876723.6	100.45 %		16:07:25
2	Y 371.029	1155071.7	1155071.7	99.083 %		16:07:25
2	Ag 328.068†	55175.9	55139.6	516.85 µg/L	516.85 ppb	16:07:31
2	As 188.979†	306.6	309.5	531.03 µg/L	531.03 ppb	16:07:51
2	B 249.677†	13616.9	13163.4	508.96 µg/L	508.96 ppb	16:07:31
2	Ba 233.527†	18568.7	18531.8	518.13 µg/L	518.13 ppb	16:07:31
2	Be 313.107†	801454.7	793739.2	508.60 µg/L	508.60 ppb	16:07:25
2	Cd 226.502†	18671.7	18720.9	516.69 µg/L	516.69 ppb	16:07:31
2	Co 228.616†	10394.5	10336.6	520.16 µg/L	520.16 ppb	16:07:31
2	Cr 267.716†	22596.2	22636.7	522.44 µg/L	522.44 ppb	16:07:31
2	Cu 324.752†	76379.7	70105.4	511.78 µg/L	511.78 ppb	16:07:31
2	Mn 257.610†	150170.3	149752.9	521.49 µg/L	521.49 ppb	16:07:25
2	Mo 202.031†	4343.7	4304.1	535.38 µg/L	535.38 ppb	16:07:51
2	Ni 231.604†	9449.2	9076.3	521.19 µg/L	521.19 ppb	16:07:31
2	P 214.914†	1890.5	1617.7	2574.0 µg/L	2574.0 ppb	16:07:51
2	Pb 220.353†	2023.8	1933.7	524.41 µg/L	524.41 ppb	16:07:51

2	S 181.975 Axial†	314.0	279.3	1049.1 µg/L	1049.1 ppb	16:07:51
2	Sb 206.836†	591.5	564.3	525.84 µg/L	525.84 ppb	16:07:51
2	Se 196.026†	512.3	496.1	533.26 µg/L	533.26 ppb	16:07:51
2	SiO2†	36693.2	32906.4	5657.2 µg/L	5657.2 ppb	16:07:31
2	Si 251.611†	39487.6	38961.9	2596.2 µg/L	2596.2 ppb	16:07:31
2	Sn 189.927†	1073.2	1036.0	541.33 µg/L	541.33 ppb	16:07:51
2	Ti 334.940†	211758.8	210218.9	515.60 µg/L	515.60 ppb	16:07:25
2	Tl 190.801†	304.2	329.7	529.30 µg/L	529.30 ppb	16:07:51
2	U 409.014†	5002.6	4946.9	527.54 µg/L	527.54 ppb	16:07:31
2	V 292.402†	41674.3	41762.7	521.75 µg/L	521.75 ppb	16:07:31
2	Zn 213.857†	20908.5	20162.4	515.42 µg/L	515.42 ppb	16:07:31
3	Sc RADIAL	54304.2	54304.2	97.7 %		16:06:20
3	Al 396.153Radial†	6890.7	7028.0	5146.2 µg/L	5146.2 ppb	16:06:20
3	Ca 317.933Radial†	5553.9	5484.2	4991.9 µg/L	4991.9 ppb	16:06:20
3	Fe 238.204 Radial†	256.1	249.0	4668.9 µg/L	4668.9 ppb	16:06:40
3	K 766.490 Radial†	8041.7	7710.4	5212.9 µg/L	5212.9 ppb	16:06:20
3	Mg 279.077 IEC†	378.8	379.2	4716.1 µg/L	4716.1 ppb	16:06:40
3	Na 589.592 Radial†	22727.4	22870.7	9883.6 µg/L	9883.6 ppb	16:06:20
3	Sr 421.552†	36125.7	37023.5	481.57 µg/L	481.57 ppb	16:06:20
3	Sc 361.383	1885102.1	1885102.1	100.90 %		16:07:58
3	Y 371.029	1159951.1	1159951.1	99.502 %		16:07:58
3	Ag 328.068†	51958.6	51706.8	484.57 µg/L	484.57 ppb	16:08:04
3	As 188.979†	264.4	266.3	457.25 µg/L	457.25 ppb	16:08:24
3	B 249.677†	12785.0	12278.7	474.65 µg/L	474.65 ppb	16:08:04
3	Ba 233.527†	17018.4	16913.1	472.87 µg/L	472.87 ppb	16:08:04
3	Be 313.107†	763699.4	752772.8	482.35 µg/L	482.35 ppb	16:07:58
3	Cd 226.502†	17038.8	17019.9	469.67 µg/L	469.67 ppb	16:08:04
3	Co 228.616†	9445.6	9350.1	470.41 µg/L	470.41 ppb	16:08:04
3	Cr 267.716†	20097.7	20060.4	463.00 µg/L	463.00 ppb	16:08:04
3	Cu 324.752†	70396.1	63836.9	466.05 µg/L	466.05 ppb	16:08:04
3	Mn 257.610†	143576.1	142552.7	496.44 µg/L	496.44 ppb	16:07:58
3	Mo 202.031†	3714.5	3661.3	455.46 µg/L	455.46 ppb	16:08:24
3	Ni 231.604†	8586.5	8179.4	469.69 µg/L	469.69 ppb	16:08:04
3	P 214.914†	1691.0	1411.7	2242.8 µg/L	2242.8 ppb	16:08:24
3	Pb 220.353†	1777.3	1680.4	455.67 µg/L	455.67 ppb	16:08:24
3	S 181.975 Axial†	288.3	252.4	948.02 µg/L	948.02 ppb	16:08:24
3	Sb 206.836†	527.7	498.4	464.56 µg/L	464.56 ppb	16:08:24
3	Se 196.026†	453.7	435.7	469.15 µg/L	469.15 ppb	16:08:24
3	SiO2†	34192.2	30265.2	5203.1 µg/L	5203.1 ppb	16:08:04
3	Si 251.611†	36521.9	35847.8	2390.6 µg/L	2390.6 ppb	16:08:04
3	Sn 189.927†	897.8	857.4	448.22 µg/L	448.22 ppb	16:08:24
3	Ti 334.940†	201465.8	199080.3	488.26 µg/L	488.26 ppb	16:07:58
3	Tl 190.801†	275.7	300.2	482.09 µg/L	482.09 ppb	16:08:24
3	U 409.014†	4493.9	4420.6	471.29 µg/L	471.29 ppb	16:08:04
3	V 292.402†	37720.4	37659.5	470.30 µg/L	470.30 ppb	16:08:04
3	Zn 213.857†	19104.1	18281.6	467.23 µg/L	467.23 ppb	16:08:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1887703.5	101.04 %	0.668			0.66%
Sc RADIAL	54415.7	97.9 %	0.19			0.20%
Y 371.029	1161614.8	99.645 %	0.6446			0.65%
Ag 328.068†	53790.7	504.17 µg/L	17.218	504.17 ppb	17.218	3.42%
QC value within limits for Ag 328.068 Recovery = 100.83%						
Al 396.153Radial†	7031.7	5146.9 µg/L	13.77	5146.9 ppb	13.77	0.27%
QC value within limits for Al 396.153Radial Recovery = 102.94%						
As 188.979†	293.5	503.78 µg/L	40.497	503.78 ppb	40.497	8.04%
QC value within limits for As 188.979 Recovery = 100.76%						
B 249.677†	12807.0	495.14 µg/L	18.099	495.14 ppb	18.099	3.66%
QC value within limits for B 249.677 Recovery = 99.03%						
Ba 233.527†	17906.6	500.65 µg/L	24.328	500.65 ppb	24.328	4.86%
QC value within limits for Ba 233.527 Recovery = 100.13%						
Be 313.107†	779706.2	499.61 µg/L	14.950	499.61 ppb	14.950	2.99%
QC value within limits for Be 313.107 Recovery = 99.92%						
Ca 317.933Radial†	5494.9	5001.7 µg/L	30.08	5001.7 ppb	30.08	0.60%
QC value within limits for Ca 317.933Radial Recovery = 100.03%						
Cd 226.502†	18069.2	498.68 µg/L	25.362	498.68 ppb	25.362	5.09%
QC value within limits for Cd 226.502 Recovery = 99.74%						
Co 228.616†	9962.2	501.28 µg/L	26.960	501.28 ppb	26.960	5.38%

QC value within limits for Co 228.616 Recovery = 100.26%							
Cr 267.716†	21683.2	500.44 µg/L	32.589	500.44 ppb	32.589	6.51%	
QC value within limits for Cr 267.716 Recovery = 100.09%							
Cu 324.752†	67713.3	494.33 µg/L	24.710	494.33 ppb	24.710	5.00%	
QC value within limits for Cu 324.752 Recovery = 98.87%							
Fe 238.204 Radial†	249.3	4676.4 µg/L	11.32	4676.4 ppb	11.32	0.24%	
QC value within limits for Fe 238.204 Radial Recovery = 93.53%							
K 766.490 Radial†	7727.1	5224.2 µg/L	14.25	5224.2 ppb	14.25	0.27%	
QC value within limits for K 766.490 Radial Recovery = 104.48%							
Mg 279.077 IEC†	380.6	4734.9 µg/L	45.22	4734.9 ppb	45.22	0.95%	
QC value within limits for Mg 279.077 IEC Recovery = 94.70%							
Mn 257.610†	147311.5	513.00 µg/L	14.338	513.00 ppb	14.338	2.79%	
QC value within limits for Mn 257.610 Recovery = 102.60%							
Mo 202.031†	4079.1	507.40 µg/L	45.033	507.40 ppb	45.033	8.88%	
QC value within limits for Mo 202.031 Recovery = 101.48%							
Na 589.592 Radial†	22892.3	9892.9 µg/L	20.69	9892.9 ppb	20.69	0.21%	
QC value within limits for Na 589.592 Radial Recovery = 98.93%							
Ni 231.604†	8717.4	500.58 µg/L	27.246	500.58 ppb	27.246	5.44%	
QC value within limits for Ni 231.604 Recovery = 100.12%							
P 214.914†	1544.8	2456.8 µg/L	185.60	2456.8 ppb	185.60	7.55%	
QC value within limits for P 214.914 Recovery = 98.27%							
Pb 220.353†	1845.1	500.36 µg/L	38.746	500.36 ppb	38.746	7.74%	
QC value within limits for Pb 220.353 Recovery = 100.07%							
S 181.975 Axial†	269.6	1012.7 µg/L	56.16	1012.7 ppb	56.16	5.55%	
QC value within limits for S 181.975 Axial Recovery = 101.27%							
Sb 206.836†	540.6	503.78 µg/L	34.055	503.78 ppb	34.055	6.76%	
QC value within limits for Sb 206.836 Recovery = 100.76%							
Se 196.026†	469.9	505.47 µg/L	32.897	505.47 ppb	32.897	6.51%	
QC value within limits for Se 196.026 Recovery = 101.09%							
SiO2†	31867.7	5478.6 µg/L	242.04	5478.6 ppb	242.04	4.42%	
QC value within limits for SiO2 Recovery = 102.45%							
Si 251.611†	37721.0	2514.0 µg/L	108.84	2514.0 ppb	108.84	4.33%	
QC value within limits for Si 251.611 Recovery = 100.56%							
Sn 189.927†	969.4	506.61 µg/L	50.865	506.61 ppb	50.865	10.04%	
QC value within limits for Sn 189.927 Recovery = 101.32%							
Sr 421.552†	37079.9	482.30 µg/L	1.551	482.30 ppb	1.551	0.32%	
QC value within limits for Sr 421.552 Recovery = 96.46%							
Ti 334.940†	206555.5	506.61 µg/L	15.887	506.61 ppb	15.887	3.14%	
QC value within limits for Ti 334.940 Recovery = 101.32%							
Tl 190.801†	314.6	505.16 µg/L	23.621	505.16 ppb	23.621	4.68%	
QC value within limits for Tl 190.801 Recovery = 101.03%							
U 409.014†	4768.7	508.49 µg/L	32.224	508.49 ppb	32.224	6.34%	
QC value within limits for U 409.014 Recovery = 101.70%							
V 292.402†	40205.0	502.24 µg/L	27.883	502.24 ppb	27.883	5.55%	
QC value within limits for V 292.402 Recovery = 100.45%							
Zn 213.857†	19435.4	496.79 µg/L	25.890	496.79 ppb	25.890	5.21%	
QC value within limits for Zn 213.857 Recovery = 99.36%							
All analyte(s) passed QC.							

Sequence No.: 13
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 1/11/2010 16:08:33
 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	53285.0	53285.0	95.8 %		16:09:06
1	Al 396.153Radial†	24.0	-1.7	-1.2228 µg/L	-1.2228 ppb	16:09:06
1	Ca 317.933Radial†	195.0	1.6	1.4690 µg/L	1.4690 ppb	16:09:26
1	Fe 238.204 Radial†	18.4	6.0	112.07 µg/L	112.07 ppb	16:09:26
1	K 766.490 Radial†	575.9	78.2	52.838 µg/L	52.838 ppb	16:09:06
1	Mg 279.077 IEC†	9.7	1.6	19.112 µg/L	19.112 ppb	16:09:26
1	Na 589.592 Radial†	278.4	-107.2	-46.321 µg/L	-46.321 ppb	16:09:06
1	Sr 421.552†	8.5	46.9	0.6106 µg/L	0.6106 ppb	16:09:06
1	Sc 361.383	1847890.2	1847890.2	98.904 %		16:10:28
1	Y 371.029	1140271.1	1140271.1	97.814 %		16:10:28
1	Ag 328.068†	-271.6	-65.1	-0.5929 µg/L	-0.5929 ppb	16:10:34
1	As 188.979†	-5.1	-0.9	-1.5393 µg/L	-1.5393 ppb	16:10:54
1	B 249.677†	418.1	29.9	1.1246 µg/L	1.1246 ppb	16:10:34
1	Ba 233.527†	-46.4	-1.2	-0.0316 µg/L	-0.0316 ppb	16:10:54
1	Be 313.107†	4185.2	85.8	0.0550 µg/L	0.0550 ppb	16:10:28
1	Cd 226.502†	-129.3	1.7	0.0324 µg/L	0.0324 ppb	16:10:54
1	Co 228.616†	10.3	-1.2	-0.0616 µg/L	-0.0616 ppb	16:10:54
1	Cr 267.716†	-172.6	-33.3	-0.7666 µg/L	-0.7666 ppb	16:10:34
1	Cu 324.752†	5965.0	97.0	0.7178 µg/L	0.7178 ppb	16:10:34
1	Mn 257.610†	-248.8	-0.2	0.0134 µg/L	0.0134 ppb	16:10:34
1	Mo 202.031†	14.9	-5.1	-0.6330 µg/L	-0.6330 ppb	16:10:54
1	Ni 231.604†	324.2	-3.0	-0.1724 µg/L	-0.1724 ppb	16:10:54
1	P 214.914†	278.1	16.9	27.179 µg/L	27.179 ppb	16:10:54
1	Pb 220.353†	86.5	6.4	1.7255 µg/L	1.7255 ppb	16:10:54
1	S 181.975 Axial†	28.9	-4.1	-15.272 µg/L	-15.272 ppb	16:10:54
1	Sb 206.836†	23.5	-0.7	-0.6832 µg/L	-0.6832 ppb	16:10:54
1	Se 196.026†	18.6	4.8	5.1725 µg/L	5.1725 ppb	16:10:54
1	SiO2†	3675.8	93.2	16.019 µg/L	16.019 ppb	16:10:34
1	Si 251.611†	382.0	36.4	2.5062 µg/L	2.5062 ppb	16:10:54
1	Sn 189.927†	30.2	-1.9	-1.0157 µg/L	-1.0157 ppb	16:10:54
1	Ti 334.940†	583.6	-6.6	-0.0162 µg/L	-0.0162 ppb	16:10:34
1	Tl 190.801†	-29.7	-3.2	-5.1271 µg/L	-5.1271 ppb	16:10:54
1	U 409.014†	68.0	35.3	3.7568 µg/L	3.7568 ppb	16:10:34
1	V 292.402†	-229.0	42.6	0.5318 µg/L	0.5318 ppb	16:10:34
1	Zn 213.857†	627.3	-18.7	-0.5123 µg/L	-0.5123 ppb	16:10:54
2	Sc RADIAL	53013.6	53013.6	95.4 %		16:09:32
2	Al 396.153Radial†	24.9	-0.6	-0.4521 µg/L	-0.4521 ppb	16:09:32
2	Ca 317.933Radial†	197.1	5.0	4.5067 µg/L	4.5067 ppb	16:09:52
2	Fe 238.204 Radial†	17.0	4.6	85.106 µg/L	85.106 ppb	16:09:52
2	K 766.490 Radial†	527.8	30.8	20.818 µg/L	20.818 ppb	16:09:32
2	Mg 279.077 IEC†	9.8	1.7	20.840 µg/L	20.840 ppb	16:09:52
2	Na 589.592 Radial†	286.9	-96.8	-41.813 µg/L	-41.813 ppb	16:09:32
2	Sr 421.552†	-12.7	24.7	0.3209 µg/L	0.3209 ppb	16:09:32
2	Sc 361.383	1870035.9	1870035.9	100.09 %		16:11:00
2	Y 371.029	1153272.5	1153272.5	98.929 %		16:11:00
2	Ag 328.068†	-266.1	-56.3	-0.5122 µg/L	-0.5122 ppb	16:11:05
2	As 188.979†	-7.7	-3.4	-5.8436 µg/L	-5.8436 ppb	16:11:26
2	B 249.677†	403.9	10.7	0.3879 µg/L	0.3879 ppb	16:11:05
2	Ba 233.527†	-43.3	2.5	0.0726 µg/L	0.0726 ppb	16:11:26
2	Be 313.107†	4198.8	49.3	0.0316 µg/L	0.0316 ppb	16:11:00
2	Cd 226.502†	-119.9	12.6	0.3385 µg/L	0.3385 ppb	16:11:26
2	Co 228.616†	2.4	-9.2	-0.4615 µg/L	-0.4615 ppb	16:11:26
2	Cr 267.716†	-148.3	-7.0	-0.1593 µg/L	-0.1593 ppb	16:11:05
2	Cu 324.752†	5980.2	40.7	0.3048 µg/L	0.3048 ppb	16:11:05
2	Mn 257.610†	-220.1	31.4	0.1201 µg/L	0.1201 ppb	16:11:05
2	Mo 202.031†	26.0	5.8	0.7197 µg/L	0.7197 ppb	16:11:26
2	Ni 231.604†	316.5	-14.6	-0.8391 µg/L	-0.8391 ppb	16:11:26
2	P 214.914†	256.7	-7.8	-12.867 µg/L	-12.867 ppb	16:11:26
2	Pb 220.353†	85.2	4.0	1.0888 µg/L	1.0888 ppb	16:11:26

2	S 181.975 Axial†	36.2	2.9	10.857 µg/L	10.857 ppb	16:11:26
2	Sb 206.836†	29.1	4.6	4.2992 µg/L	4.2992 ppb	16:11:26
2	Se 196.026†	13.8	-0.1	-0.1272 µg/L	-0.1272 ppb	16:11:26
2	SiO2†	3703.0	76.3	13.116 µg/L	13.116 ppb	16:11:05
2	Si 251.611†	405.1	54.9	3.8355 µg/L	3.8355 ppb	16:11:26
2	Sn 189.927†	26.1	-6.4	-3.3381 µg/L	-3.3381 ppb	16:11:26
2	Ti 334.940†	631.0	33.8	0.0826 µg/L	0.0826 ppb	16:11:05
2	Tl 190.801†	-31.8	-4.9	-7.7971 µg/L	-7.7971 ppb	16:11:26
2	U 409.014†	85.8	52.4	5.5789 µg/L	5.5789 ppb	16:11:05
2	V 292.402†	-212.1	62.1	0.7857 µg/L	0.7857 ppb	16:11:05
2	Zn 213.857†	631.4	-22.1	-0.5897 µg/L	-0.5897 ppb	16:11:26
3	Sc RADIAL	53135.0	53135.0	95.6 %		16:09:58
3	Al 396.153Radial†	42.8	18.1	13.304 µg/L	13.304 ppb	16:09:58
3	Ca 317.933Radial†	198.3	5.6	5.1320 µg/L	5.1320 ppb	16:10:18
3	Fe 238.204 Radial†	15.4	2.9	53.649 µg/L	53.649 ppb	16:10:18
3	K 766.490 Radial†	539.2	41.5	28.069 µg/L	28.069 ppb	16:09:58
3	Mg 279.077 IEC†	5.1	-3.2	-39.871 µg/L	-39.871 ppb	16:10:18
3	Na 589.592 Radial†	267.5	-117.8	-50.901 µg/L	-50.901 ppb	16:09:58
3	Sr 421.552†	-15.0	22.4	0.2908 µg/L	0.2908 ppb	16:09:58
3	Sc 361.383	1878069.6	1878069.6	100.52 %		16:11:32
3	Y 371.029	1158007.1	1158007.1	99.335 %		16:11:32
3	Ag 328.068†	-187.5	23.0	0.2229 µg/L	0.2229 ppb	16:11:37
3	As 188.979†	-5.8	-1.6	-2.6398 µg/L	-2.6398 ppb	16:11:58
3	B 249.677†	401.3	6.4	0.2310 µg/L	0.2310 ppb	16:11:37
3	Ba 233.527†	-42.2	3.8	0.1082 µg/L	0.1082 ppb	16:11:58
3	Be 313.107†	4270.1	102.3	0.0655 µg/L	0.0655 ppb	16:11:32
3	Cd 226.502†	-129.8	3.3	0.0861 µg/L	0.0861 ppb	16:11:58
3	Co 228.616†	18.7	7.0	0.3491 µg/L	0.3491 ppb	16:11:58
3	Cr 267.716†	-131.2	10.6	0.2462 µg/L	0.2462 ppb	16:11:37
3	Cu 324.752†	5904.1	-60.6	-0.4371 µg/L	-0.4371 ppb	16:11:37
3	Mn 257.610†	-177.4	74.9	0.2672 µg/L	0.2672 ppb	16:11:37
3	Mo 202.031†	17.4	-2.9	-0.3624 µg/L	-0.3624 ppb	16:11:58
3	Ni 231.604†	323.4	-9.1	-0.5213 µg/L	-0.5213 ppb	16:11:58
3	P 214.914†	266.9	1.2	1.8566 µg/L	1.8566 ppb	16:11:58
3	Pb 220.353†	87.5	6.0	1.6125 µg/L	1.6125 ppb	16:11:58
3	S 181.975 Axial†	34.0	0.5	2.0496 µg/L	2.0496 ppb	16:11:58
3	Sb 206.836†	27.3	2.7	2.4911 µg/L	2.4911 ppb	16:11:58
3	Se 196.026†	7.8	-6.2	-6.4955 µg/L	-6.4955 ppb	16:11:58
3	SiO2†	3703.2	60.7	10.437 µg/L	10.437 ppb	16:11:37
3	Si 251.611†	403.1	51.2	3.5812 µg/L	3.5812 ppb	16:11:58
3	Sn 189.927†	26.9	-5.7	-2.9714 µg/L	-2.9714 ppb	16:11:58
3	Ti 334.940†	677.7	77.5	0.1900 µg/L	0.1900 ppb	16:11:37
3	Tl 190.801†	-31.9	-4.8	-7.7299 µg/L	-7.7299 ppb	16:11:58
3	U 409.014†	70.4	36.6	3.9011 µg/L	3.9011 ppb	16:11:37
3	V 292.402†	-218.9	56.3	0.7021 µg/L	0.7021 ppb	16:11:37
3	Zn 213.857†	637.0	-19.2	-0.5061 µg/L	-0.5061 ppb	16:11:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1865331.9	99.838 %	0.8366			0.84%
Sc RADIAL	53144.5	95.6 %	0.24			0.26%
Y 371.029	1150516.9	98.693 %	0.7878			0.80%
Ag 328.068†	-32.8	-0.2941 µg/L	0.44954	-0.2941 ppb	0.44954	152.86%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	5.3	3.8764 µg/L	8.17379	3.8764 ppb	8.17379	210.86%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.0	-3.3409 µg/L	2.23618	-3.3409 ppb	2.23618	66.93%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	15.7	0.5812 µg/L	0.47716	0.5812 ppb	0.47716	82.10%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1.7	0.0497 µg/L	0.07264	0.0497 ppb	0.07264	146.06%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	79.2	0.0507 µg/L	0.01737	0.0507 ppb	0.01737	34.26%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	4.1	3.7026 µg/L	1.95945	3.7026 ppb	1.95945	52.92%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	5.9	0.1523 µg/L	0.16346	0.1523 ppb	0.16346	107.32%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-1.1	-0.0580 µg/L	0.40533	-0.0580 ppb	0.40533	699.07%

Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
	-9.9	-0.2266 µg/L	0.50976	-0.2266 ppb	0.50976 225.00%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
	25.7	0.1952 µg/L	0.58518	0.1952 ppb	0.58518 299.84%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
	4.5	83.608 µg/L	29.2385	83.608 ppb	29.2385 34.97%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
	50.2	33.908 µg/L	16.7898	33.908 ppb	16.7898 49.52%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
	0.0	0.0272 µg/L	34.56375	0.0272 ppb	34.56375 >999.9%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
	35.4	0.1336 µg/L	0.12741	0.1336 ppb	0.12741 95.40%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
	-0.8	-0.0919 µg/L	0.71580	-0.0919 ppb	0.71580 778.73%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
	-107.2	-46.345 µg/L	4.5437	-46.345 ppb	4.5437 9.80%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
	-8.9	-0.5109 µg/L	0.33345	-0.5109 ppb	0.33345 65.26%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
	3.4	5.3895 µg/L	20.25551	5.3895 ppb	20.25551 375.83%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
	5.5	1.4756 µg/L	0.33966	1.4756 ppb	0.33966 23.02%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
	-0.2	-0.7885 µg/L	13.29374	-0.7885 ppb	13.29374 >999.9%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
	2.2	2.0357 µg/L	2.52222	2.0357 ppb	2.52222 123.90%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
	-0.5	-0.4834 µg/L	5.84214	-0.4834 ppb	5.84214 >999.9%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated			
	76.7	13.190 µg/L	2.7916	13.190 ppb	2.7916 21.16%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated			
	47.5	3.3076 µg/L	0.70558	3.3076 ppb	0.70558 21.33%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
	-4.7	-2.4417 µg/L	1.24848	-2.4417 ppb	1.24848 51.13%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
	31.3	0.4074 µg/L	0.17663	0.4074 ppb	0.17663 43.35%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
	34.9	0.0854 µg/L	0.10314	0.0854 ppb	0.10314 120.72%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
	-4.3	-6.8847 µg/L	1.52250	-6.8847 ppb	1.52250 22.11%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
	41.4	4.4123 µg/L	1.01292	4.4123 ppb	1.01292 22.96%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
	53.7	0.6732 µg/L	0.12942	0.6732 ppb	0.12942 19.22%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
	-20.0	-0.5360 µg/L	0.04657	-0.5360 ppb	0.04657 8.69%
	QC value within limits for Zn 213.857	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 14

Sample ID: 243521004|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 310

Date Collected: 1/11/2010 16:12:06

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 243521004|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54778.1	54778.1	98.5 %		16:12:45
1	Al 396.153Radial†	96810.4	98230.2	72170 µg/L	72170 ppb	16:12:45
1	Ca 317.933Radial†	14054.7	14062.9	12800 µg/L	12800 ppb	16:13:05
1	Fe 238.204 Radial†	5607.7	5678.2	106140 µg/L	106140 ppb	16:13:05
1	K 766.490 Radial†	19966.9	19742.5	13348 µg/L	13348 ppb	16:12:45
1	Mg 279.077 IEC†	1034.1	1040.9	12776 µg/L	12776 ppb	16:13:05
1	Na 589.592 Radial†	2059.9	1693.1	731.65 µg/L	731.65 ppb	16:12:45
1	Sr 421.552†	12207.7	12428.1	161.65 µg/L	161.65 ppb	16:12:45
1	Sc 361.383	1882860.0	1882860.0	100.78 %		16:14:10
1	Y 371.029	1185295.7	1185295.7	101.68 %		16:14:10
1	Ag 328.068†	-1529.6	-1308.3	-1.9730 µg/L	-1.9730 ppb	16:14:16
1	As 188.979†	6.1	10.3	65.713 µg/L	65.713 ppb	16:14:36
1	B 249.677†	1020.8	620.1	-9.3287 µg/L	-9.3287 ppb	16:14:16
1	Ba 233.527†	43483.2	43194.3	1205.7 µg/L	1205.7 ppb	16:14:16
1	Be 313.107†	19418.6	15123.3	7.5270 µg/L	7.5270 ppb	16:14:16
1	Cd 226.502†	357.1	486.8	-1.4019 µg/L	-1.4019 ppb	16:14:36
1	Co 228.616†	1570.3	1546.6	65.571 µg/L	65.571 ppb	16:14:36
1	Cr 267.716†	4255.4	4363.8	101.10 µg/L	101.10 ppb	16:14:16
1	Cu 324.752†	9809.0	3799.4	37.349 µg/L	37.349 ppb	16:14:16
1	Mn 257.610†	1003955.8	996478.0	3479.5 µg/L	3479.5 ppb	16:14:10
1	Mo 202.031†	14.3	-6.1	3.4130 µg/L	3.4130 ppb	16:14:36
1	Ni 231.604†	1342.9	1001.8	57.524 µg/L	57.524 ppb	16:14:36
1	P 214.914†	704.0	434.3	602.82 µg/L	602.82 ppb	16:14:36
1	Pb 220.353†	534.6	449.4	122.60 µg/L	122.60 ppb	16:14:36
1	S 181.975 Axial†	236.5	201.4	739.89 µg/L	739.89 ppb	16:14:36
1	Sb 206.836†	25.2	0.5	21.230 µg/L	21.230 ppb	16:14:36
1	Se 196.026†	-71.1	-84.5	-73.328 µg/L	-73.328 ppb	16:14:36
1	SiO2†	393419.0	386766.8	66492 µg/L	66492 ppb	16:14:10
1	Si 251.611†	458085.7	454209.2	30641 µg/L	30641 ppb	16:14:10
1	Sn 189.927†	-65.4	-97.3	-65.572 µg/L	-65.572 ppb	16:14:36
1	Ti 334.940†	2404352.5	2385245.5	5852.8 µg/L	5852.8 ppb	16:14:10
1	Tl 190.801†	-62.9	-35.5	4.7108 µg/L	4.7108 ppb	16:14:36
1	U 409.014†	-377.0	-407.5	-64.129 µg/L	-64.129 ppb	16:14:10
1	V 292.402†	21393.6	21503.0	269.19 µg/L	269.19 ppb	16:14:16
1	Zn 213.857†	9711.1	8983.4	202.48 µg/L	202.48 ppb	16:14:16
2	Sc RADIAL	54839.8	54839.8	98.6 %		16:13:11
2	Al 396.153Radial†	97412.5	98730.1	72537 µg/L	72537 ppb	16:13:11
2	Ca 317.933Radial†	13967.1	13958.1	12705 µg/L	12705 ppb	16:13:31
2	Fe 238.204 Radial†	5601.3	5665.3	105890 µg/L	105890 ppb	16:13:31
2	K 766.490 Radial†	20194.9	19950.9	13488 µg/L	13488 ppb	16:13:11
2	Mg 279.077 IEC†	1037.7	1043.4	12807 µg/L	12807 ppb	16:13:31
2	Na 589.592 Radial†	2096.0	1727.3	746.44 µg/L	746.44 ppb	16:13:11
2	Sr 421.552†	12252.6	12459.8	162.07 µg/L	162.07 ppb	16:13:11
2	Sc 361.383	1875564.6	1875564.6	100.39 %		16:14:44
2	Y 371.029	1180931.8	1180931.8	101.30 %		16:14:44
2	Ag 328.068†	-1584.1	-1368.5	-2.5425 µg/L	-2.5425 ppb	16:14:50
2	As 188.979†	7.7	12.0	68.512 µg/L	68.512 ppb	16:15:10
2	B 249.677†	997.2	600.5	-10.014 µg/L	-10.014 ppb	16:14:50
2	Ba 233.527†	43471.8	43350.7	1210.1 µg/L	1210.1 ppb	16:14:50
2	Be 313.107†	19471.2	15250.7	7.6037 µg/L	7.6037 ppb	16:14:50
2	Cd 226.502†	361.3	492.3	-1.2191 µg/L	-1.2191 ppb	16:15:10
2	Co 228.616†	1553.1	1535.6	64.990 µg/L	64.990 ppb	16:15:10
2	Cr 267.716†	4236.6	4361.5	101.06 µg/L	101.06 ppb	16:14:50
2	Cu 324.752†	9769.9	3798.2	37.319 µg/L	37.319 ppb	16:14:50
2	Mn 257.610†	1001238.8	997646.6	3483.5 µg/L	3483.5 ppb	16:14:44
2	Mo 202.031†	12.5	-7.8	3.1971 µg/L	3.1971 ppb	16:15:10
2	Ni 231.604†	1349.9	1013.9	58.219 µg/L	58.219 ppb	16:15:10
2	P 214.914†	699.6	432.7	600.55 µg/L	600.55 ppb	16:15:10
2	Pb 220.353†	542.1	459.0	125.20 µg/L	125.20 ppb	16:15:10

2	S 181.975 Axial†	230.6	196.4	721.11 µg/L	721.11 ppb	16:15:10
2	Sb 206.836†	34.3	9.6	29.816 µg/L	29.816 ppb	16:15:10
2	Se 196.026†	-65.5	-79.2	-67.534 µg/L	-67.534 ppb	16:15:10
2	SiO2†	392550.5	387420.2	66604 µg/L	66604 ppb	16:14:44
2	Si 251.611†	456965.0	454860.9	30684 µg/L	30684 ppb	16:14:44
2	Sn 189.927†	-68.0	-100.2	-67.054 µg/L	-67.054 ppb	16:15:10
2	Ti 334.940†	2400498.2	2390686.2	5866.2 µg/L	5866.2 ppb	16:14:44
2	Tl 190.801†	-67.9	-40.8	-3.4551 µg/L	-3.4551 ppb	16:15:10
2	U 409.014†	-435.6	-467.4	-70.480 µg/L	-70.480 ppb	16:14:44
2	V 292.402†	21421.1	21612.9	270.53 µg/L	270.53 ppb	16:14:50
2	Zn 213.857†	9737.0	9046.7	204.17 µg/L	204.17 ppb	16:14:50
3	Sc RADIAL	54416.4	54416.4	97.9 %		16:13:37
3	Al 396.153Radial†	97627.3	99717.9	73263 µg/L	73263 ppb	16:13:37
3	Ca 317.933Radial†	14072.5	14175.9	12903 µg/L	12903 ppb	16:13:57
3	Fe 238.204 Radial†	5635.1	5744.1	107370 µg/L	107370 ppb	16:13:57
3	K 766.490 Radial†	20122.2	20035.9	13546 µg/L	13546 ppb	16:13:37
3	Mg 279.077 IEC†	1040.1	1054.0	12937 µg/L	12937 ppb	16:13:57
3	Na 589.592 Radial†	2118.0	1766.3	763.31 µg/L	763.31 ppb	16:13:37
3	Sr 421.552†	12250.2	12554.0	163.29 µg/L	163.29 ppb	16:13:37
3	Sc 361.383	1888325.1	1888325.1	101.07 %		16:15:18
3	Y 371.029	1188258.5	1188258.5	101.93 %		16:15:18
3	Ag 328.068†	-1487.2	-1261.9	-1.4928 µg/L	-1.4928 ppb	16:15:24
3	As 188.979†	8.4	12.6	69.800 µg/L	69.800 ppb	16:15:44
3	B 249.677†	999.3	595.9	-10.655 µg/L	-10.655 ppb	16:15:24
3	Ba 233.527†	42398.6	41996.2	1172.3 µg/L	1172.3 ppb	16:15:24
3	Be 313.107†	19027.5	14680.6	7.2739 µg/L	7.2739 ppb	16:15:24
3	Cd 226.502†	327.3	456.3	-2.4203 µg/L	-2.4203 ppb	16:15:44
3	Co 228.616†	1470.9	1443.8	60.572 µg/L	60.572 ppb	16:15:44
3	Cr 267.716†	4071.5	4169.6	96.616 µg/L	96.616 ppb	16:15:24
3	Cu 324.752†	9659.3	3623.1	36.175 µg/L	36.175 ppb	16:15:24
3	Mn 257.610†	994199.6	983941.7	3436.1 µg/L	3436.1 ppb	16:15:18
3	Mo 202.031†	8.0	-12.3	2.6897 µg/L	2.6897 ppb	16:15:44
3	Ni 231.604†	1282.9	938.5	53.891 µg/L	53.891 ppb	16:15:44
3	P 214.914†	706.2	434.4	602.24 µg/L	602.24 ppb	16:15:44
3	Pb 220.353†	518.1	431.5	117.75 µg/L	117.75 ppb	16:15:44
3	S 181.975 Axial†	232.0	196.2	720.23 µg/L	720.23 ppb	16:15:44
3	Sb 206.836†	32.5	7.6	27.566 µg/L	27.566 ppb	16:15:44
3	Se 196.026†	-67.1	-80.3	-68.624 µg/L	-68.624 ppb	16:15:44
3	SiO2†	391370.4	383610.0	65949 µg/L	65949 ppb	16:15:18
3	Si 251.611†	455605.3	450439.5	30387 µg/L	30387 ppb	16:15:18
3	Sn 189.927†	-60.5	-92.3	-63.141 µg/L	-63.141 ppb	16:15:44
3	Ti 334.940†	2377164.4	2351439.8	5769.8 µg/L	5769.8 ppb	16:15:18
3	Tl 190.801†	-70.8	-43.2	-8.1757 µg/L	-8.1757 ppb	16:15:44
3	U 409.014†	-381.4	-410.8	-64.722 µg/L	-64.722 ppb	16:15:18
3	V 292.402†	20878.6	20931.9	262.15 µg/L	262.15 ppb	16:15:24
3	Zn 213.857†	9526.9	8773.2	196.74 µg/L	196.74 ppb	16:15:24

Mean Data: 243521004|936817|1

Analyte	Mean Corrected	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1882249.9	100.74	%	0.343				0.34%
Sc RADIAL	54678.1	98.3	%	0.41				0.42%
Y 371.029	1184828.6	101.64	%	0.316				0.31%
Ag 328.068†	-1312.9	-2.0028	µg/L	0.52550	-2.0028	ppb	0.52550	26.24%
Al 396.153Radial†	98892.7	72657	µg/L	556.2	72657	ppb	556.2	0.77%
As 188.979†	11.6	68.008	µg/L	2.0897	68.008	ppb	2.0897	3.07%
B 249.677†	605.5	-9.9994	µg/L	0.66340	-9.9994	ppb	0.66340	6.63%
Ba 233.527†	42847.0	1196.0	µg/L	20.68	1196.0	ppb	20.68	1.73%
Be 313.107†	15018.2	7.4682	µg/L	0.17257	7.4682	ppb	0.17257	2.31%
Ca 317.933Radial†	14065.6	12803	µg/L	99.2	12803	ppb	99.2	0.77%
Cd 226.502†	478.5	-1.6804	µg/L	0.64726	-1.6804	ppb	0.64726	38.52%
Co 228.616†	1508.6	63.711	µg/L	2.7336	63.711	ppb	2.7336	4.29%
Cr 267.716†	4298.3	99.592	µg/L	2.5770	99.592	ppb	2.5770	2.59%
Cu 324.752†	3740.2	36.947	µg/L	0.6694	36.947	ppb	0.6694	1.81%
Fe 238.204 Radial†	5695.9	106460	µg/L	789.2	106460	ppb	789.2	0.74%
K 766.490 Radial†	19909.7	13461	µg/L	102.1	13461	ppb	102.1	0.76%
Mg 279.077 IEC†	1046.1	12840	µg/L	85.4	12840	ppb	85.4	0.67%
Mn 257.610†	992688.8	3466.4	µg/L	26.33	3466.4	ppb	26.33	0.76%
Mo 202.031†	-8.7	3.0999	µg/L	0.37129	3.0999	ppb	0.37129	11.98%
Na 589.592 Radial†	1728.9	747.13	µg/L	15.840	747.13	ppb	15.840	2.12%

Ni 231.604†	984.7	56.545 µg/L	2.3242	56.545 ppb	2.3242	4.11%
P 214.914†	433.8	601.87 µg/L	1.180	601.87 ppb	1.180	0.20%
Pb 220.353†	446.6	121.85 µg/L	3.776	121.85 ppb	3.776	3.10%
S 181.975 Axial†	198.0	727.08 µg/L	11.107	727.08 ppb	11.107	1.53%
Sb 206.836†	5.9	26.204 µg/L	4.4521	26.204 ppb	4.4521	16.99%
Se 196.026†	-81.4	-69.829 µg/L	3.0790	-69.829 ppb	3.0790	4.41%
SiO2†	385932.3	66349 µg/L	350.3	66349 ppb	350.3	0.53%
Si 251.611†	453169.9	30571 µg/L	160.4	30571 ppb	160.4	0.52%
Sn 189.927†	-96.6	-65.256 µg/L	1.9758	-65.256 ppb	1.9758	3.03%
Sr 421.552†	12480.6	162.34 µg/L	0.851	162.34 ppb	0.851	0.52%
Ti 334.940†	2375790.5	5829.6 µg/L	52.19	5829.6 ppb	52.19	0.90%
Tl 190.801†	-39.8	-2.3067 µg/L	6.51955	-2.3067 ppb	6.51955	282.64%
U 409.014†	-428.5	-66.444 µg/L	3.5082	-66.444 ppb	3.5082	5.28%
V 292.402†	21349.3	267.29 µg/L	4.502	267.29 ppb	4.502	1.68%
Zn 213.857†	8934.4	201.13 µg/L	3.894	201.13 ppb	3.894	1.94%

Sequence No.: 15

Sample ID: 243521005|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 311

Date Collected: 1/11/2010 16:15:54

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 243521005|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54268.4	54268.4	97.6 %		16:16:26
1	Al 396.153Radial†	75047.9	76858.0	56468 µg/L	56468 ppb	16:16:26
1	Ca 317.933Radial†	13008.8	13125.4	11947 µg/L	11947 ppb	16:16:46
1	Fe 238.204 Radial†	5217.4	5331.8	99659 µg/L	99659 ppb	16:16:46
1	K 766.490 Radial†	12788.9	12579.2	8504.6 µg/L	8504.6 ppb	16:16:26
1	Mg 279.077 IEC†	878.6	891.5	10929 µg/L	10929 ppb	16:16:46
1	Na 589.592 Radial†	5336.0	5069.0	2190.6 µg/L	2190.6 ppb	16:16:26
1	Sr 421.552†	8242.7	8482.5	110.33 µg/L	110.33 ppb	16:16:26
1	Sc 361.383	1885863.1	1885863.1	100.94 %		16:17:51
1	Y 371.029	1188063.1	1188063.1	101.91 %		16:17:51
1	Ag 328.068†	-1406.9	-1184.3	-2.3946 µg/L	-2.3946 ppb	16:17:57
1	As 188.979†	4.0	8.2	53.063 µg/L	53.063 ppb	16:18:17
1	B 249.677†	851.0	450.2	-13.881 µg/L	-13.881 ppb	16:17:57
1	Ba 233.527†	21177.1	21026.4	586.88 µg/L	586.88 ppb	16:17:57
1	Be 313.107†	14662.7	10381.0	5.4642 µg/L	5.4642 ppb	16:17:57
1	Cd 226.502†	302.9	432.5	-2.0737 µg/L	-2.0737 ppb	16:18:17
1	Co 228.616†	730.7	712.3	29.119 µg/L	29.119 ppb	16:18:17
1	Cr 267.716†	2381.6	2500.7	57.840 µg/L	57.840 ppb	16:17:57
1	Cu 324.752†	8447.8	2435.2	26.811 µg/L	26.811 ppb	16:17:57
1	Mn 257.610†	637708.7	632042.9	2211.0 µg/L	2211.0 ppb	16:17:51
1	Mo 202.031†	30.8	10.2	5.1911 µg/L	5.1911 ppb	16:18:17
1	Ni 231.604†	1126.0	784.8	45.063 µg/L	45.063 ppb	16:18:17
1	P 214.914†	894.9	622.3	911.88 µg/L	911.88 ppb	16:18:17
1	Pb 220.353†	241.0	157.7	43.264 µg/L	43.264 ppb	16:18:17
1	S 181.975 Axial†	66.3	32.4	105.55 µg/L	105.55 ppb	16:18:17
1	Sb 206.836†	29.2	4.4	15.188 µg/L	15.188 ppb	16:18:17
1	Se 196.026†	-64.5	-77.9	-71.423 µg/L	-71.423 ppb	16:18:17
1	SiO2†	352875.0	345977.4	59480 µg/L	59480 ppb	16:17:51
1	Si 251.611†	410883.2	406720.9	27511 µg/L	27511 ppb	16:17:51
1	Sn 189.927†	-23.6	-55.8	-43.321 µg/L	-43.321 ppb	16:18:17
1	Ti 334.940†	1322711.3	1309841.4	3213.7 µg/L	3213.7 ppb	16:17:51
1	Tl 190.801†	-55.3	-27.9	-8.7484 µg/L	-8.7484 ppb	16:18:17
1	U 409.014†	-1260.2	-1281.9	-156.33 µg/L	-156.33 ppb	16:17:51
1	V 292.402†	8757.6	8950.4	113.46 µg/L	113.46 ppb	16:17:57
1	Zn 213.857†	14151.8	13367.6	317.43 µg/L	317.43 ppb	16:17:57
2	Sc RADIAL	54249.6	54249.6	97.6 %		16:16:52
2	Al 396.153Radial†	75107.9	76946.1	56532 µg/L	56532 ppb	16:16:52
2	Ca 317.933Radial†	13051.6	13173.8	11991 µg/L	11991 ppb	16:17:12
2	Fe 238.204 Radial†	5245.8	5362.9	100240 µg/L	100240 ppb	16:17:12
2	K 766.490 Radial†	12750.9	12544.8	8481.3 µg/L	8481.3 ppb	16:16:52
2	Mg 279.077 IEC†	882.3	895.6	10979 µg/L	10979 ppb	16:17:12
2	Na 589.592 Radial†	5325.6	5060.2	2186.8 µg/L	2186.8 ppb	16:16:52
2	Sr 421.552†	8247.9	8490.7	110.44 µg/L	110.44 ppb	16:16:52
2	Sc 361.383	1892834.3	1892834.3	101.31 %		16:18:25
2	Y 371.029	1191150.2	1191150.2	102.18 %		16:18:25
2	Ag 328.068†	-1391.8	-1164.2	-2.1672 µg/L	-2.1672 ppb	16:18:31
2	As 188.979†	6.0	10.2	56.629 µg/L	56.629 ppb	16:18:51
2	B 249.677†	829.3	425.8	-15.012 µg/L	-15.012 ppb	16:18:31
2	Ba 233.527†	20909.4	20684.8	577.35 µg/L	577.35 ppb	16:18:31
2	Be 313.107†	14652.0	10316.9	5.4219 µg/L	5.4219 ppb	16:18:31
2	Cd 226.502†	302.0	430.5	-2.1986 µg/L	-2.1986 ppb	16:18:51
2	Co 228.616†	734.3	713.2	29.159 µg/L	29.159 ppb	16:18:51
2	Cr 267.716†	2315.2	2426.4	56.128 µg/L	56.128 ppb	16:18:31
2	Cu 324.752†	8418.1	2375.2	26.426 µg/L	26.426 ppb	16:18:31
2	Mn 257.610†	640398.2	632370.7	2212.2 µg/L	2212.2 ppb	16:18:25
2	Mo 202.031†	31.6	10.9	5.2971 µg/L	5.2971 ppb	16:18:51
2	Ni 231.604†	1133.3	787.9	45.242 µg/L	45.242 ppb	16:18:51
2	P 214.914†	909.6	633.6	929.68 µg/L	929.68 ppb	16:18:51
2	Pb 220.353†	232.0	147.9	40.599 µg/L	40.599 ppb	16:18:51

2	S 181.975 Axial†	64.7	30.6	98.537 µg/L	98.537 ppb	16:18:51
2	Sb 206.836†	24.1	-0.7	10.438 µg/L	10.438 ppb	16:18:51
2	Se 196.026†	-63.1	-76.3	-69.724 µg/L	-69.724 ppb	16:18:51
2	SiO2†	354944.4	346732.5	59609 µg/L	59609 ppb	16:18:25
2	Si 251.611†	412986.4	407297.6	27550 µg/L	27550 ppb	16:18:25
2	Sn 189.927†	-13.5	-45.8	-38.203 µg/L	-38.203 ppb	16:18:51
2	Ti 334.940†	1328937.2	1311160.6	3217.0 µg/L	3217.0 ppb	16:18:25
2	Tl 190.801†	-56.7	-29.1	-10.604 µg/L	-10.604 ppb	16:18:51
2	U 409.014†	-1122.3	-1141.2	-141.39 µg/L	-141.39 ppb	16:18:25
2	V 292.402†	8734.7	8895.8	112.83 µg/L	112.83 ppb	16:18:31
2	Zn 213.857†	13978.2	13144.6	311.52 µg/L	311.52 ppb	16:18:31
3	Sc RADIAL	53890.0	53890.0	96.9 %		16:17:18
3	Al 396.153Radial†	75374.1	77734.4	57112 µg/L	57112 ppb	16:17:18
3	Ca 317.933Radial†	13102.1	13315.2	12120 µg/L	12120 ppb	16:17:38
3	Fe 238.204 Radial†	5253.5	5406.6	101060 µg/L	101060 ppb	16:17:38
3	K 766.490 Radial†	12794.2	12676.6	8570.5 µg/L	8570.5 ppb	16:17:18
3	Mg 279.077 IEC†	882.7	902.1	11058 µg/L	11058 ppb	16:17:38
3	Na 589.592 Radial†	5401.3	5174.8	2236.3 µg/L	2236.3 ppb	16:17:18
3	Sr 421.552†	8280.8	8581.0	111.61 µg/L	111.61 ppb	16:17:18
3	Sc 361.383	1894422.6	1894422.6	101.39 %		16:18:59
3	Y 371.029	1191201.0	1191201.0	102.18 %		16:18:59
3	Ag 328.068†	-1367.5	-1139.1	-1.8855 µg/L	-1.8855 ppb	16:19:05
3	As 188.979†	7.2	11.3	58.648 µg/L	58.648 ppb	16:19:25
3	B 249.677†	833.2	428.9	-15.148 µg/L	-15.148 ppb	16:19:05
3	Ba 233.527†	20547.5	20310.6	566.91 µg/L	566.91 ppb	16:19:05
3	Be 313.107†	14361.0	10017.7	5.2496 µg/L	5.2496 ppb	16:19:05
3	Cd 226.502†	274.5	403.1	-3.0682 µg/L	-3.0682 ppb	16:19:25
3	Co 228.616†	686.6	665.5	26.871 µg/L	26.871 ppb	16:19:25
3	Cr 267.716†	2242.2	2352.5	54.421 µg/L	54.421 ppb	16:19:05
3	Cu 324.752†	8359.2	2310.1	26.025 µg/L	26.025 ppb	16:19:05
3	Mn 257.610†	632455.6	624007.4	2183.3 µg/L	2183.3 ppb	16:18:59
3	Mo 202.031†	36.7	16.0	5.9582 µg/L	5.9582 ppb	16:19:25
3	Ni 231.604†	1080.9	735.2	42.219 µg/L	42.219 ppb	16:19:25
3	P 214.914†	871.1	594.8	865.92 µg/L	865.92 ppb	16:19:25
3	Pb 220.353†	237.0	152.6	41.885 µg/L	41.885 ppb	16:19:25
3	S 181.975 Axial†	60.1	26.0	81.149 µg/L	81.149 ppb	16:19:25
3	Sb 206.836†	25.5	0.6	11.484 µg/L	11.484 ppb	16:19:25
3	Se 196.026†	-62.8	-75.9	-69.196 µg/L	-69.196 ppb	16:19:25
3	SiO2†	351398.9	342941.9	58958 µg/L	58958 ppb	16:18:59
3	Si 251.611†	408915.8	402941.2	27256 µg/L	27256 ppb	16:18:59
3	Sn 189.927†	-20.0	-52.2	-41.636 µg/L	-41.636 ppb	16:19:25
3	Ti 334.940†	1308386.8	1289793.0	3164.5 µg/L	3164.5 ppb	16:18:59
3	Tl 190.801†	-55.2	-27.5	-8.5777 µg/L	-8.5777 ppb	16:19:25
3	U 409.014†	-1074.4	-1093.0	-136.41 µg/L	-136.41 ppb	16:18:59
3	V 292.402†	8545.5	8702.0	110.47 µg/L	110.47 ppb	16:19:05
3	Zn 213.857†	13809.6	12966.7	306.72 µg/L	306.72 ppb	16:19:05

Mean Data: 243521005|936817|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1891040.0	101.21 %		0.244			0.24%
Sc RADIAL	54136.0	97.4 %		0.38			0.39%
Y 371.029	1190138.1	102.09 %		0.154			0.15%
Ag 328.068†	-1162.6	-2.1491 µg/L		0.25503	-2.1491 ppb	0.25503	11.87%
Al 396.153Radial†	77179.5	56704 µg/L		354.6	56704 ppb	354.6	0.63%
As 188.979†	9.9	56.113 µg/L		2.8279	56.113 ppb	2.8279	5.04%
B 249.677†	435.0	-14.680 µg/L		0.6956	-14.680 ppb	0.6956	4.74%
Ba 233.527†	20674.0	577.05 µg/L		9.992	577.05 ppb	9.992	1.73%
Be 313.107†	10238.5	5.3785 µg/L		0.11369	5.3785 ppb	0.11369	2.11%
Ca 317.933Radial†	13204.8	12019 µg/L		89.8	12019 ppb	89.8	0.75%
Cd 226.502†	422.0	-2.4468 µg/L		0.54176	-2.4468 ppb	0.54176	22.14%
Co 228.616†	697.0	28.383 µg/L		1.3095	28.383 ppb	1.3095	4.61%
Cr 267.716†	2426.5	56.130 µg/L		1.7092	56.130 ppb	1.7092	3.05%
Cu 324.752†	2373.5	26.421 µg/L		0.3930	26.421 ppb	0.3930	1.49%
Fe 238.204 Radial†	5367.1	100320 µg/L		702.4	100320 ppb	702.4	0.70%
K 766.490 Radial†	12600.2	8518.8 µg/L		46.23	8518.8 ppb	46.23	0.54%
Mg 279.077 IEC†	896.4	10989 µg/L		65.2	10989 ppb	65.2	0.59%
Mn 257.610†	629473.7	2202.2 µg/L		16.40	2202.2 ppb	16.40	0.74%
Mo 202.031†	12.4	5.4821 µg/L		0.41565	5.4821 ppb	0.41565	7.58%
Na 589.592 Radial†	5101.3	2204.5 µg/L		27.55	2204.5 ppb	27.55	1.25%

Ni 231.604†	769.3	44.175 µg/L	1.6959	44.175 ppb	1.6959	3.84%
P 214.914†	616.9	902.49 µg/L	32.903	902.49 ppb	32.903	3.65%
Pb 220.353†	152.7	41.916 µg/L	1.3325	41.916 ppb	1.3325	3.18%
S 181.975 Axial†	29.7	95.079 µg/L	12.5630	95.079 ppb	12.5630	13.21%
Sb 206.836†	1.4	12.370 µg/L	2.4961	12.370 ppb	2.4961	20.18%
Se 196.026†	-76.7	-70.114 µg/L	1.1634	-70.114 ppb	1.1634	1.66%
SiO2†	345217.3	59349 µg/L	344.9	59349 ppb	344.9	0.58%
Si 251.611†	405653.3	27439 µg/L	159.7	27439 ppb	159.7	0.58%
Sn 189.927†	-51.2	-41.053 µg/L	2.6086	-41.053 ppb	2.6086	6.35%
Sr 421.552†	8518.1	110.80 µg/L	0.711	110.80 ppb	0.711	0.64%
Ti 334.940†	1303598.3	3198.4 µg/L	29.39	3198.4 ppb	29.39	0.92%
Tl 190.801†	-28.2	-9.3099 µg/L	1.12360	-9.3099 ppb	1.12360	12.07%
U 409.014†	-1172.0	-144.71 µg/L	10.366	-144.71 ppb	10.366	7.16%
V 292.402†	8849.4	112.25 µg/L	1.579	112.25 ppb	1.579	1.41%
Zn 213.857†	13159.6	311.89 µg/L	5.362	311.89 ppb	5.362	1.72%

Sequence No.: 16

Sample ID: 243521006|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 312

Date Collected: 1/11/2010 16:19:35

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 243521006|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53978.6	53978.6	97.1 %		16:20:07
1	Al 396.153Radial†	64725.4	66638.8	48959 µg/L	48959 ppb	16:20:07
1	Ca 317.933Radial†	27702.3	28330.8	25788 µg/L	25788 ppb	16:20:28
1	Fe 238.204 Radial†	5741.7	5900.6	110290 µg/L	110290 ppb	16:20:28
1	K 766.490 Radial†	12806.3	12667.4	8564.2 µg/L	8564.2 ppb	16:20:07
1	Mg 279.077 IEC†	1870.3	1917.7	23664 µg/L	23664 ppb	16:20:28
1	Na 589.592 Radial†	2713.4	2397.1	1035.9 µg/L	1035.9 ppb	16:20:28
1	Sr 421.552†	13633.9	14080.6	183.15 µg/L	183.15 ppb	16:20:28
1	Sc 361.383	1889874.3	1889874.3	101.15 %		16:21:32
1	Y 371.029	1178550.1	1178550.1	101.10 %		16:21:32
1	Ag 328.068†	-1547.6	-1320.4	-1.6534 µg/L	-1.6534 ppb	16:21:38
1	As 188.979†	0.7	5.0	52.189 µg/L	52.189 ppb	16:21:58
1	B 249.677†	860.4	457.7	-16.933 µg/L	-16.933 ppb	16:21:38
1	Ba 233.527†	30559.8	30257.8	844.80 µg/L	844.80 ppb	16:21:38
1	Be 313.107†	12245.1	7960.0	3.3865 µg/L	3.3865 ppb	16:21:38
1	Cd 226.502†	357.0	485.4	-1.5571 µg/L	-1.5571 ppb	16:21:58
1	Co 228.616†	1280.3	1254.1	53.436 µg/L	53.436 ppb	16:21:58
1	Cr 267.716†	40970.8	40645.7	936.56 µg/L	936.56 ppb	16:21:38
1	Cu 324.752†	18170.0	12029.1	97.755 µg/L	97.755 ppb	16:21:38
1	Mn 257.610†	874054.4	864357.6	3020.5 µg/L	3020.5 ppb	16:21:32
1	Mo 202.031†	119.5	97.9	16.509 µg/L	16.509 ppb	16:21:58
1	Ni 231.604†	8756.2	8325.8	478.10 µg/L	478.10 ppb	16:21:38
1	P 214.914†	3089.3	2789.9	4409.2 µg/L	4409.2 ppb	16:21:58
1	Pb 220.353†	321.1	236.4	64.075 µg/L	64.075 ppb	16:21:58
1	S 181.975 Axial†	177.3	141.9	514.06 µg/L	514.06 ppb	16:21:58
1	Sb 206.836†	32.4	7.6	18.629 µg/L	18.629 ppb	16:21:58
1	Se 196.026†	-66.4	-79.6	-70.911 µg/L	-70.911 ppb	16:21:58
1	SiO2†	327040.9	319695.2	54961 µg/L	54961 ppb	16:21:32
1	Si 251.611†	380438.6	375758.7	25357 µg/L	25357 ppb	16:21:32
1	Sn 189.927†	-96.5	-127.8	-76.759 µg/L	-76.759 ppb	16:21:58
1	Ti 334.940†	1910974.4	1888627.7	4633.3 µg/L	4633.3 ppb	16:21:32
1	Tl 190.801†	-62.8	-35.3	-11.199 µg/L	-11.199 ppb	16:21:58
1	U 409.014†	-302.6	-332.6	-57.678 µg/L	-57.678 ppb	16:21:38
1	V 292.402†	22716.8	22732.3	284.63 µg/L	284.63 ppb	16:21:38
1	Zn 213.857†	13628.0	12819.9	298.04 µg/L	298.04 ppb	16:21:38
2	Sc RADIAL	54285.3	54285.3	97.6 %		16:20:33
2	Al 396.153Radial†	65568.6	67125.8	49317 µg/L	49317 ppb	16:20:33
2	Ca 317.933Radial†	27567.8	28032.0	25516 µg/L	25516 ppb	16:20:54
2	Fe 238.204 Radial†	5727.5	5852.6	109390 µg/L	109390 ppb	16:20:54
2	K 766.490 Radial†	12818.9	12605.8	8522.6 µg/L	8522.6 ppb	16:20:33
2	Mg 279.077 IEC†	1870.4	1907.0	23531 µg/L	23531 ppb	16:20:54
2	Na 589.592 Radial†	2703.9	2371.6	1024.9 µg/L	1024.9 ppb	16:20:54
2	Sr 421.552†	13595.8	13962.3	181.61 µg/L	181.61 ppb	16:20:54
2	Sc 361.383	1880858.5	1880858.5	100.67 %		16:22:06
2	Y 371.029	1172398.0	1172398.0	100.57 %		16:22:06
2	Ag 328.068†	-1620.2	-1399.9	-2.4363 µg/L	-2.4363 ppb	16:22:11
2	As 188.979†	4.4	8.6	58.162 µg/L	58.162 ppb	16:22:32
2	B 249.677†	909.8	510.9	-14.588 µg/L	-14.588 ppb	16:22:11
2	Ba 233.527†	30826.1	30667.1	856.23 µg/L	856.23 ppb	16:22:11
2	Be 313.107†	12261.9	8034.7	3.4353 µg/L	3.4353 ppb	16:22:11
2	Cd 226.502†	365.3	495.3	-1.1471 µg/L	-1.1471 ppb	16:22:32
2	Co 228.616†	1270.2	1250.1	53.240 µg/L	53.240 ppb	16:22:32
2	Cr 267.716†	41248.2	41115.4	947.39 µg/L	947.39 ppb	16:22:11
2	Cu 324.752†	18312.6	12256.8	99.334 µg/L	99.334 ppb	16:22:11
2	Mn 257.610†	869260.7	863737.8	3018.2 µg/L	3018.2 ppb	16:22:06
2	Mo 202.031†	117.9	96.9	16.348 µg/L	16.348 ppb	16:22:32
2	Ni 231.604†	8809.6	8420.3	483.53 µg/L	483.53 ppb	16:22:11
2	P 214.914†	3060.7	2776.1	4387.7 µg/L	4387.7 ppb	16:22:32
2	Pb 220.353†	323.4	240.1	65.103 µg/L	65.103 ppb	16:22:32

2	S 181.975 Axial†	183.8	149.3	541.75 µg/L	541.75 ppb	16:22:32
2	Sb 206.836†	41.5	16.7	27.121 µg/L	27.121 ppb	16:22:32
2	Se 196.026†	-59.1	-72.7	-63.650 µg/L	-63.650 ppb	16:22:32
2	SiO2†	325933.8	320145.3	55039 µg/L	55039 ppb	16:22:06
2	Si 251.611†	379046.5	376178.8	25386 µg/L	25386 ppb	16:22:06
2	Sn 189.927†	-100.2	-132.0	-78.844 µg/L	-78.844 ppb	16:22:32
2	Ti 334.940†	1900792.9	1887569.7	4630.7 µg/L	4630.7 ppb	16:22:06
2	Tl 190.801†	-68.7	-41.3	-20.824 µg/L	-20.824 ppb	16:22:32
2	U 409.014†	-216.7	-248.7	-48.529 µg/L	-48.529 ppb	16:22:11
2	V 292.402†	22934.4	23056.1	288.63 µg/L	288.63 ppb	16:22:11
2	Zn 213.857†	13681.2	12937.4	301.28 µg/L	301.28 ppb	16:22:11
3	Sc RADIAL	53742.8	53742.8	96.7 %		16:20:59
3	Al 396.153Radial†	65119.3	67338.8	49474 µg/L	49474 ppb	16:20:59
3	Ca 317.933Radial†	27796.9	28553.9	25991 µg/L	25991 ppb	16:21:20
3	Fe 238.204 Radial†	5750.9	5936.1	110950 µg/L	110950 ppb	16:21:20
3	K 766.490 Radial†	12796.5	12715.2	8596.6 µg/L	8596.6 ppb	16:20:59
3	Mg 279.077 IEC†	1886.2	1942.6	23972 µg/L	23972 ppb	16:21:20
3	Na 589.592 Radial†	2712.4	2408.4	1040.8 µg/L	1040.8 ppb	16:21:20
3	Sr 421.552†	13663.6	14173.0	184.35 µg/L	184.35 ppb	16:21:20
3	Sc 361.383	1870402.8	1870402.8	100.11 %		16:22:39
3	Y 371.029	1168047.9	1168047.9	100.20 %		16:22:39
3	Ag 328.068†	-1544.6	-1333.3	-1.7244 µg/L	-1.7244 ppb	16:22:44
3	As 188.979†	-2.8	1.4	46.136 µg/L	46.136 ppb	16:23:05
3	B 249.677†	921.5	527.6	-14.432 µg/L	-14.432 ppb	16:22:44
3	Ba 233.527†	30335.0	30347.7	847.31 µg/L	847.31 ppb	16:22:44
3	Be 313.107†	12187.5	8028.5	3.4594 µg/L	3.4594 ppb	16:22:44
3	Cd 226.502†	335.3	467.4	-2.1453 µg/L	-2.1453 ppb	16:23:05
3	Co 228.616†	1217.7	1204.7	51.114 µg/L	51.114 ppb	16:23:05
3	Cr 267.716†	40381.8	40479.0	932.72 µg/L	932.72 ppb	16:22:44
3	Cu 324.752†	18164.9	12210.9	99.141 µg/L	99.141 ppb	16:22:44
3	Mn 257.610†	851108.4	850432.2	2972.1 µg/L	2972.1 ppb	16:22:39
3	Mo 202.031†	110.6	90.3	15.584 µg/L	15.584 ppb	16:23:05
3	Ni 231.604†	8680.9	8340.7	478.96 µg/L	478.96 ppb	16:22:44
3	P 214.914†	2961.6	2694.1	4252.8 µg/L	4252.8 ppb	16:23:05
3	Pb 220.353†	314.1	232.7	63.073 µg/L	63.073 ppb	16:23:05
3	S 181.975 Axial†	175.0	141.5	512.30 µg/L	512.30 ppb	16:23:05
3	Sb 206.836†	38.9	14.4	24.693 µg/L	24.693 ppb	16:23:05
3	Se 196.026†	-51.7	-65.6	-56.027 µg/L	-56.027 ppb	16:23:05
3	SiO2†	320204.4	316232.1	54366 µg/L	54366 ppb	16:22:39
3	Si 251.611†	372274.2	371518.7	25072 µg/L	25072 ppb	16:22:39
3	Sn 189.927†	-96.0	-128.3	-77.055 µg/L	-77.055 ppb	16:23:05
3	Ti 334.940†	1859262.3	1856639.4	4554.8 µg/L	4554.8 ppb	16:22:39
3	Tl 190.801†	-56.2	-29.3	-2.3986 µg/L	-2.3986 ppb	16:23:05
3	U 409.014†	-282.0	-315.0	-55.940 µg/L	-55.940 ppb	16:22:44
3	V 292.402†	22445.1	22694.7	284.18 µg/L	284.18 ppb	16:22:44
3	Zn 213.857†	13559.3	12891.6	299.70 µg/L	299.70 ppb	16:22:44

Mean Data: 243521006|936817|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1880378.5	100.64	%	0.522			0.52%
Sc RADIAL	54002.2	97.1	%	0.49			0.50%
Y 371.029	1172998.7	100.62	%	0.453			0.45%
Ag 328.068†	-1351.2	-1.9380	µg/L	0.43299	-1.9380 ppb	0.43299	22.34%
Al 396.153Radial†	67034.5	49250	µg/L	263.6	49250 ppb	263.6	0.54%
As 188.979†	5.0	52.162	µg/L	6.0133	52.162 ppb	6.0133	11.53%
B 249.677†	498.7	-15.318	µg/L	1.4010	-15.318 ppb	1.4010	9.15%
Ba 233.527†	30424.2	849.45	µg/L	6.007	849.45 ppb	6.007	0.71%
Be 313.107†	8007.7	3.4270	µg/L	0.03716	3.4270 ppb	0.03716	1.08%
Ca 317.933Radial†	28305.6	25765	µg/L	238.4	25765 ppb	238.4	0.93%
Cd 226.502†	482.7	-1.6165	µg/L	0.50175	-1.6165 ppb	0.50175	31.04%
Co 228.616†	1236.3	52.597	µg/L	1.2880	52.597 ppb	1.2880	2.45%
Cr 267.716†	40746.7	938.89	µg/L	7.604	938.89 ppb	7.604	0.81%
Cu 324.752†	12165.6	98.743	µg/L	0.8617	98.743 ppb	0.8617	0.87%
Fe 238.204 Radial†	5896.4	110210	µg/L	782.8	110210 ppb	782.8	0.71%
K 766.490 Radial†	12662.8	8561.1	µg/L	37.10	8561.1 ppb	37.10	0.43%
Mg 279.077 IEC†	1922.5	23722	µg/L	226.2	23722 ppb	226.2	0.95%
Mn 257.610†	859509.2	3003.6	µg/L	27.29	3003.6 ppb	27.29	0.91%
Mo 202.031†	95.0	16.147	µg/L	0.4945	16.147 ppb	0.4945	3.06%
Na 589.592 Radial†	2392.3	1033.8	µg/L	8.15	1033.8 ppb	8.15	0.79%

Ni 231.604†	8362.2	480.20 µg/L	2.919	480.20 ppb	2.919	0.61%
P 214.914†	2753.4	4349.9 µg/L	84.75	4349.9 ppb	84.75	1.95%
Pb 220.353†	236.4	64.084 µg/L	1.0146	64.084 ppb	1.0146	1.58%
S 181.975 Axial†	144.2	522.70 µg/L	16.518	522.70 ppb	16.518	3.16%
Sb 206.836†	12.9	23.481 µg/L	4.3739	23.481 ppb	4.3739	18.63%
Se 196.026†	-72.6	-63.529 µg/L	7.4427	-63.529 ppb	7.4427	11.72%
SiO2†	318690.9	54789 µg/L	368.1	54789 ppb	368.1	0.67%
Si 251.611†	374485.4	25272 µg/L	173.5	25272 ppb	173.5	0.69%
Sn 189.927†	-129.4	-77.553 µg/L	1.1285	-77.553 ppb	1.1285	1.46%
Sr 421.552†	14071.9	183.04 µg/L	1.374	183.04 ppb	1.374	0.75%
Ti 334.940†	1877612.3	4606.3 µg/L	44.60	4606.3 ppb	44.60	0.97%
Tl 190.801†	-35.3	-11.474 µg/L	9.2159	-11.474 ppb	9.2159	80.32%
U 409.014†	-298.8	-54.049 µg/L	4.8590	-54.049 ppb	4.8590	8.99%
V 292.402†	22827.7	285.81 µg/L	2.448	285.81 ppb	2.448	0.86%
Zn 213.857†	12883.0	299.67 µg/L	1.622	299.67 ppb	1.622	0.54%

Sequence No.: 17

Sample ID: 243521007|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 313

Date Collected: 1/11/2010 16:23:15

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 243521007|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54025.0	54025.0	97.2 %		16:23:47
1	Al 396.153Radial†	61551.8	63315.6	46518 µg/L	46518 ppb	16:23:47
1	Ca 317.933Radial†	10517.2	10621.3	9667.9 µg/L	9667.9 ppb	16:24:07
1	Fe 238.204 Radial†	4713.3	4837.1	90412 µg/L	90412 ppb	16:24:07
1	K 766.490 Radial†	10998.1	10795.4	7298.6 µg/L	7298.6 ppb	16:23:47
1	Mg 279.077 IEC†	730.2	742.8	9095.7 µg/L	9095.7 ppb	16:24:07
1	Na 589.592 Radial†	4650.2	4387.9	1896.2 µg/L	1896.2 ppb	16:23:47
1	Sr 421.552†	6345.1	6567.7	85.428 µg/L	85.428 ppb	16:23:47
1	Sc 361.383	1871414.5	1871414.5	100.16 %		16:25:11
1	Y 371.029	1177802.4	1177802.4	101.03 %		16:25:11
1	Ag 328.068†	-1302.2	-1090.5	-2.3380 µg/L	-2.3380 ppb	16:25:16
1	As 188.979†	4.9	9.2	51.700 µg/L	51.700 ppb	16:25:37
1	B 249.677†	761.6	367.5	-14.179 µg/L	-14.179 ppb	16:25:16
1	Ba 233.527†	18483.2	18498.9	516.34 µg/L	516.34 ppb	16:25:16
1	Be 313.107†	13555.7	9387.9	4.8762 µg/L	4.8762 ppb	16:25:16
1	Cd 226.502†	260.4	392.4	-1.8906 µg/L	-1.8906 ppb	16:25:37
1	Co 228.616†	632.0	619.4	24.721 µg/L	24.721 ppb	16:25:37
1	Cr 267.716†	1985.3	2123.3	49.121 µg/L	49.121 ppb	16:25:37
1	Cu 324.752†	8019.2	2072.0	23.322 µg/L	23.322 ppb	16:25:16
1	Mn 257.610†	566295.5	565623.9	1978.8 µg/L	1978.8 ppb	16:25:11
1	Mo 202.031†	35.0	14.7	5.3768 µg/L	5.3768 ppb	16:25:37
1	Ni 231.604†	1031.9	699.4	40.160 µg/L	40.160 ppb	16:25:37
1	P 214.914†	890.3	624.5	923.01 µg/L	923.01 ppb	16:25:37
1	Pb 220.353†	202.7	121.2	33.217 µg/L	33.217 ppb	16:25:37
1	S 181.975 Axial†	62.0	28.6	92.822 µg/L	92.822 ppb	16:25:37
1	Sb 206.836†	30.2	5.7	16.043 µg/L	16.043 ppb	16:25:37
1	Se 196.026†	-58.8	-72.7	-67.645 µg/L	-67.645 ppb	16:25:37
1	SiO2†	365451.3	361232.3	62102 µg/L	62102 ppb	16:25:11
1	Si 251.611†	425498.1	424454.8	28721 µg/L	28721 ppb	16:25:11
1	Sn 189.927†	-22.8	-55.2	-42.146 µg/L	-42.146 ppb	16:25:37
1	Ti 334.940†	1259084.2	1256435.4	3082.8 µg/L	3082.8 ppb	16:25:11
1	Tl 190.801†	-53.4	-26.4	-8.8773 µg/L	-8.8773 ppb	16:25:37
1	U 409.014†	-1256.3	-1287.6	-155.08 µg/L	-155.08 ppb	16:25:11
1	V 292.402†	7672.6	7934.1	100.62 µg/L	100.62 ppb	16:25:16
1	Zn 213.857†	13525.5	12850.5	306.64 µg/L	306.64 ppb	16:25:16
2	Sc RADIAL	53972.3	53972.3	97.1 %		16:24:13
2	Al 396.153Radial†	61735.6	63566.8	46703 µg/L	46703 ppb	16:24:13
2	Ca 317.933Radial†	10429.1	10541.1	9594.9 µg/L	9594.9 ppb	16:24:33
2	Fe 238.204 Radial†	4677.9	4805.5	89821 µg/L	89821 ppb	16:24:33
2	K 766.490 Radial†	11036.6	10846.1	7332.8 µg/L	7332.8 ppb	16:24:13
2	Mg 279.077 IEC†	729.4	742.8	9095.6 µg/L	9095.6 ppb	16:24:33
2	Na 589.592 Radial†	4715.0	4459.3	1927.1 µg/L	1927.1 ppb	16:24:13
2	Sr 421.552†	6355.7	6585.0	85.653 µg/L	85.653 ppb	16:24:13
2	Sc 361.383	1877858.3	1877858.3	100.51 %		16:25:43
2	Y 371.029	1182255.8	1182255.8	101.42 %		16:25:43
2	Ag 328.068†	-1336.7	-1120.4	-2.6701 µg/L	-2.6701 ppb	16:25:49
2	As 188.979†	2.2	6.4	46.827 µg/L	46.827 ppb	16:26:09
2	B 249.677†	766.1	369.3	-13.923 µg/L	-13.923 ppb	16:25:49
2	Ba 233.527†	18308.5	18261.7	509.72 µg/L	509.72 ppb	16:25:49
2	Be 313.107†	13423.6	9210.0	4.7588 µg/L	4.7588 ppb	16:25:49
2	Cd 226.502†	255.8	386.9	-1.9612 µg/L	-1.9612 ppb	16:26:09
2	Co 228.616†	625.5	610.7	24.266 µg/L	24.266 ppb	16:26:09
2	Cr 267.716†	2007.6	2138.6	49.471 µg/L	49.471 ppb	16:26:09
2	Cu 324.752†	7960.0	1985.6	22.638 µg/L	22.638 ppb	16:25:49
2	Mn 257.610†	569515.0	566887.1	1983.2 µg/L	1983.2 ppb	16:25:43
2	Mo 202.031†	27.1	6.7	4.3602 µg/L	4.3602 ppb	16:26:09
2	Ni 231.604†	1026.7	690.7	39.663 µg/L	39.663 ppb	16:26:09
2	P 214.914†	891.3	622.5	920.66 µg/L	920.66 ppb	16:26:09
2	Pb 220.353†	220.8	138.5	37.914 µg/L	37.914 ppb	16:26:09

2	S 181.975 Axial†	61.1	27.5	88.627 µg/L	88.627 ppb	16:26:09
2	Sb 206.836†	25.6	1.0	11.704 µg/L	11.704 ppb	16:26:09
2	Se 196.026†	-61.5	-75.2	-70.292 µg/L	-70.292 ppb	16:26:09
2	SiO2†	367742.2	362259.6	62279 µg/L	62279 ppb	16:25:43
2	Si 251.611†	428041.9	425528.0	28793 µg/L	28793 ppb	16:25:43
2	Sn 189.927†	-13.6	-45.9	-37.226 µg/L	-37.226 ppb	16:26:09
2	Ti 334.940†	1267090.0	1260087.3	3091.8 µg/L	3091.8 ppb	16:25:43
2	Tl 190.801†	-53.9	-26.8	-9.3630 µg/L	-9.3630 ppb	16:26:09
2	U 409.014†	-1278.0	-1304.9	-156.81 µg/L	-156.81 ppb	16:25:43
2	V 292.402†	7616.1	7851.6	99.570 µg/L	99.570 ppb	16:25:49
2	Zn 213.857†	13429.6	12708.8	303.15 µg/L	303.15 ppb	16:25:49
3	Sc RADIAL	54282.8	54282.8	97.6 %		16:24:39
3	Al 396.153Radial†	61967.1	63440.1	46610 µg/L	46610 ppb	16:24:39
3	Ca 317.933Radial†	10445.9	10496.9	9554.7 µg/L	9554.7 ppb	16:24:59
3	Fe 238.204 Radial†	4674.1	4774.0	89232 µg/L	89232 ppb	16:24:59
3	K 766.490 Radial†	11093.0	10838.8	7327.9 µg/L	7327.9 ppb	16:24:39
3	Mg 279.077 IEC†	724.9	733.9	8985.9 µg/L	8985.9 ppb	16:24:59
3	Na 589.592 Radial†	4704.8	4421.0	1910.5 µg/L	1910.5 ppb	16:24:39
3	Sr 421.552†	6384.6	6577.1	85.550 µg/L	85.550 ppb	16:24:39
3	Sc 361.383	1875968.5	1875968.5	100.41 %		16:26:15
3	Y 371.029	1180132.1	1180132.1	101.23 %		16:26:15
3	Ag 328.068†	-1303.3	-1088.5	-2.4296 µg/L	-2.4296 ppb	16:26:21
3	As 188.979†	1.8	6.0	45.887 µg/L	45.887 ppb	16:26:41
3	B 249.677†	744.3	348.4	-14.549 µg/L	-14.549 ppb	16:26:21
3	Ba 233.527†	18181.7	18153.8	506.70 µg/L	506.70 ppb	16:26:21
3	Be 313.107†	13340.6	9140.8	4.7261 µg/L	4.7261 ppb	16:26:21
3	Cd 226.502†	241.6	373.0	-2.2584 µg/L	-2.2584 ppb	16:26:41
3	Co 228.616†	605.1	591.0	23.341 µg/L	23.341 ppb	16:26:41
3	Cr 267.716†	1915.2	2048.6	47.395 µg/L	47.395 ppb	16:26:41
3	Cu 324.752†	7977.6	2011.1	22.771 µg/L	22.771 ppb	16:26:21
3	Mn 257.610†	565312.9	563272.9	1970.5 µg/L	1970.5 ppb	16:26:15
3	Mo 202.031†	32.0	11.7	4.9576 µg/L	4.9576 ppb	16:26:41
3	Ni 231.604†	993.6	658.7	37.827 µg/L	37.827 ppb	16:26:41
3	P 214.914†	868.7	600.9	886.10 µg/L	886.10 ppb	16:26:41
3	Pb 220.353†	218.2	136.3	37.294 µg/L	37.294 ppb	16:26:41
3	S 181.975 Axial†	59.7	26.2	83.939 µg/L	83.939 ppb	16:26:41
3	Sb 206.836†	28.1	3.5	13.925 µg/L	13.925 ppb	16:26:41
3	Se 196.026†	-49.8	-63.6	-58.017 µg/L	-58.017 ppb	16:26:41
3	SiO2†	365391.5	360287.1	61940 µg/L	61940 ppb	16:26:15
3	Si 251.611†	425318.0	423244.2	28639 µg/L	28639 ppb	16:26:15
3	Sn 189.927†	-17.4	-49.7	-39.114 µg/L	-39.114 ppb	16:26:41
3	Ti 334.940†	1252864.7	1247189.6	3060.1 µg/L	3060.1 ppb	16:26:15
3	Tl 190.801†	-53.0	-26.0	-8.2811 µg/L	-8.2811 ppb	16:26:41
3	U 409.014†	-1198.7	-1227.3	-148.40 µg/L	-148.40 ppb	16:26:15
3	V 292.402†	7490.6	7734.3	98.118 µg/L	98.118 ppb	16:26:21
3	Zn 213.857†	13427.7	12720.3	303.61 µg/L	303.61 ppb	16:26:21

Mean Data: 243521007|936817|1

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1875080.4	100.36 %		0.177				0.18%
Sc RADIAL	54093.4	97.3 %		0.30				0.31%
Y 371.029	1180063.4	101.23 %		0.191				0.19%
Ag 328.068†	-1099.8	-2.4792 µg/L		0.17156	-2.4792 ppb		0.17156	6.92%
Al 396.153Radial†	63440.8	46610 µg/L		92.3	46610 ppb		92.3	0.20%
As 188.979†	7.2	48.138 µg/L		3.1201	48.138 ppb		3.1201	6.48%
B 249.677†	361.8	-14.217 µg/L		0.3146	-14.217 ppb		0.3146	2.21%
Ba 233.527†	18304.8	510.92 µg/L		4.928	510.92 ppb		4.928	0.96%
Be 313.107†	9246.3	4.7870 µg/L		0.07889	4.7870 ppb		0.07889	1.65%
Ca 317.933Radial†	10553.1	9605.8 µg/L		57.38	9605.8 ppb		57.38	0.60%
Cd 226.502†	384.1	-2.0367 µg/L		0.19520	-2.0367 ppb		0.19520	9.58%
Co 228.616†	607.0	24.109 µg/L		0.7032	24.109 ppb		0.7032	2.92%
Cr 267.716†	2103.5	48.662 µg/L		1.1116	48.662 ppb		1.1116	2.28%
Cu 324.752†	2022.9	22.910 µg/L		0.3624	22.910 ppb		0.3624	1.58%
Fe 238.204 Radial†	4805.5	89822 µg/L		590.2	89822 ppb		590.2	0.66%
K 766.490 Radial†	10826.7	7319.8 µg/L		18.54	7319.8 ppb		18.54	0.25%
Mg 279.077 IEC†	739.8	9059.1 µg/L		63.37	9059.1 ppb		63.37	0.70%
Mn 257.610†	565261.3	1977.5 µg/L		6.43	1977.5 ppb		6.43	0.33%
Mo 202.031†	11.0	4.8982 µg/L		0.51087	4.8982 ppb		0.51087	10.43%
Na 589.592 Radial†	4422.7	1911.3 µg/L		15.44	1911.3 ppb		15.44	0.81%

Ni 231.604†	682.9	39.216 µg/L	1.2284	39.216 ppb	1.2284	3.13%
P 214.914†	616.0	909.92 µg/L	20.667	909.92 ppb	20.667	2.27%
Pb 220.353†	132.0	36.141 µg/L	2.5517	36.141 ppb	2.5517	7.06%
S 181.975 Axial†	27.4	88.463 µg/L	4.4437	88.463 ppb	4.4437	5.02%
Sb 206.836†	3.4	13.891 µg/L	2.1699	13.891 ppb	2.1699	15.62%
Se 196.026†	-70.5	-65.318 µg/L	6.4595	-65.318 ppb	6.4595	9.89%
SiO2†	361259.7	62107 µg/L	169.6	62107 ppb	169.6	0.27%
Si 251.611†	424409.0	28718 µg/L	77.0	28718 ppb	77.0	0.27%
Sn 189.927†	-50.3	-39.495 µg/L	2.4820	-39.495 ppb	2.4820	6.28%
Sr 421.552†	6576.6	85.543 µg/L	0.1127	85.543 ppb	0.1127	0.13%
Ti 334.940†	1254570.8	3078.2 µg/L	16.31	3078.2 ppb	16.31	0.53%
Tl 190.801†	-26.4	-8.8404 µg/L	0.54190	-8.8404 ppb	0.54190	6.13%
U 409.014†	-1273.3	-153.43 µg/L	4.442	-153.43 ppb	4.442	2.90%
V 292.402†	7840.0	99.436 µg/L	1.2555	99.436 ppb	1.2555	1.26%
Zn 213.857†	12759.9	304.47 µg/L	1.896	304.47 ppb	1.896	0.62%

Sequence No.: 18

Sample ID: 243521008|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 314

Date Collected: 1/11/2010 16:26:50

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 243521008|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	52490.9	52490.9	94.4 %		16:27:23
1	Al 396.153Radial†	64711.9	68513.9	50337 µg/L	50337 ppb	16:27:23
1	Ca 317.933Radial†	13891.9	14512.0	13209 µg/L	13209 ppb	16:27:43
1	Fe 238.204 Radial†	5170.8	5463.5	102120 µg/L	102120 ppb	16:27:43
1	K 766.490 Radial†	10420.1	10513.9	7108.3 µg/L	7108.3 ppb	16:27:23
1	Mg 279.077 IEC†	707.7	741.0	9056.2 µg/L	9056.2 ppb	16:27:43
1	Na 589.592 Radial†	2004.5	1725.4	745.64 µg/L	745.64 ppb	16:27:23
1	Sr 421.552†	7545.3	8029.8	104.44 µg/L	104.44 ppb	16:27:23
1	Sc 361.383	1897439.8	1897439.8	101.56 %		16:28:47
1	Y 371.029	1204255.2	1204255.2	103.30 %		16:28:47
1	Ag 328.068†	-1383.3	-1152.5	-1.4132 µg/L	-1.4132 ppb	16:28:53
1	As 188.979†	0.9	5.2	52.903 µg/L	52.903 ppb	16:29:13
1	B 249.677†	847.0	441.2	-15.006 µg/L	-15.006 ppb	16:28:53
1	Ba 233.527†	29174.3	28773.1	803.17 µg/L	803.17 ppb	16:28:53
1	Be 313.107†	15019.8	10644.0	5.0109 µg/L	5.0109 ppb	16:28:53
1	Cd 226.502†	319.4	446.9	-1.9341 µg/L	-1.9341 ppb	16:29:13
1	Co 228.616†	854.2	829.5	31.528 µg/L	31.528 ppb	16:29:13
1	Cr 267.716†	4755.2	4823.5	111.49 µg/L	111.49 ppb	16:28:53
1	Cu 324.752†	12576.7	6449.9	56.318 µg/L	56.318 ppb	16:28:53
1	Mn 257.610†	967461.4	952887.9	3327.4 µg/L	3327.4 ppb	16:28:47
1	Mo 202.031†	95.4	73.7	13.173 µg/L	13.173 ppb	16:29:13
1	Ni 231.604†	1617.9	1262.3	72.486 µg/L	72.486 ppb	16:29:13
1	P 214.914†	1639.4	1350.0	2085.2 µg/L	2085.2 ppb	16:29:13
1	Pb 220.353†	374.4	287.5	78.151 µg/L	78.151 ppb	16:29:13
1	S 181.975 Axial†	135.5	100.1	360.14 µg/L	360.14 ppb	16:29:13
1	Sb 206.836†	21.3	-3.6	13.757 µg/L	13.757 ppb	16:29:13
1	Se 196.026†	-73.1	-86.0	-80.537 µg/L	-80.537 ppb	16:29:13
1	SiO2†	303196.7	294927.3	50703 µg/L	50703 ppb	16:28:47
1	Si 251.611†	352292.6	346544.4	23363 µg/L	23363 ppb	16:28:47
1	Sn 189.927†	-47.2	-78.9	-56.046 µg/L	-56.046 ppb	16:29:13
1	Ti 334.940†	2025872.0	1994231.9	4893.2 µg/L	4893.2 ppb	16:28:47
1	Tl 190.801†	-64.1	-36.3	-6.6306 µg/L	-6.6306 ppb	16:29:13
1	U 409.014†	-522.7	-548.1	-78.434 µg/L	-78.434 ppb	16:28:47
1	V 292.402†	14701.8	14750.6	185.52 µg/L	185.52 ppb	16:28:53
1	Zn 213.857†	14566.7	13690.6	324.91 µg/L	324.91 ppb	16:28:53
2	Sc RADIAL	53821.7	53821.7	96.8 %		16:27:48
2	Al 396.153Radial†	66333.0	68493.7	50322 µg/L	50322 ppb	16:27:48
2	Ca 317.933Radial†	13919.9	14177.2	12905 µg/L	12905 ppb	16:28:09
2	Fe 238.204 Radial†	5165.1	5322.2	99479 µg/L	99479 ppb	16:28:09
2	K 766.490 Radial†	10772.9	10605.4	7170.2 µg/L	7170.2 ppb	16:27:48
2	Mg 279.077 IEC†	705.9	720.6	8806.2 µg/L	8806.2 ppb	16:28:09
2	Na 589.592 Radial†	2030.9	1700.2	734.75 µg/L	734.75 ppb	16:27:48
2	Sr 421.552†	7696.0	7987.9	103.90 µg/L	103.90 ppb	16:27:48
2	Sc 361.383	1884455.6	1884455.6	100.86 %		16:29:21
2	Y 371.029	1194655.2	1194655.2	102.48 %		16:29:21
2	Ag 328.068†	-1380.0	-1158.7	-1.6625 µg/L	-1.6625 ppb	16:29:27
2	As 188.979†	6.6	10.8	61.684 µg/L	61.684 ppb	16:29:47
2	B 249.677†	863.0	462.7	-13.338 µg/L	-13.338 ppb	16:29:27
2	Ba 233.527†	29346.3	29141.5	813.46 µg/L	813.46 ppb	16:29:27
2	Be 313.107†	15202.0	10926.5	5.1945 µg/L	5.1945 ppb	16:29:27
2	Cd 226.502†	317.2	446.9	-1.5590 µg/L	-1.5590 ppb	16:29:47
2	Co 228.616†	852.8	833.9	31.762 µg/L	31.762 ppb	16:29:47
2	Cr 267.716†	4749.8	4850.4	112.12 µg/L	112.12 ppb	16:29:27
2	Cu 324.752†	12594.7	6553.1	56.830 µg/L	56.830 ppb	16:29:27
2	Mn 257.610†	959189.8	951250.8	3321.3 µg/L	3321.3 ppb	16:29:21
2	Mo 202.031†	86.2	65.2	12.018 µg/L	12.018 ppb	16:29:47
2	Ni 231.604†	1608.1	1263.6	72.560 µg/L	72.560 ppb	16:29:47
2	P 214.914†	1632.0	1353.8	2094.4 µg/L	2094.4 ppb	16:29:47
2	Pb 220.353†	375.5	291.2	79.150 µg/L	79.150 ppb	16:29:47

2	S 181.975 Axial†	129.7	95.3	342.51 µg/L	342.51 ppb	16:29:47
2	Sb 206.836†	30.8	6.0	22.687 µg/L	22.687 ppb	16:29:47
2	Se 196.026†	-62.9	-76.3	-70.282 µg/L	-70.282 ppb	16:29:47
2	SiO2†	300857.0	294664.7	50658 µg/L	50658 ppb	16:29:21
2	Si 251.611†	349659.3	346323.8	23348 µg/L	23348 ppb	16:29:21
2	Sn 189.927†	-41.5	-73.6	-52.874 µg/L	-52.874 ppb	16:29:47
2	Ti 334.940†	2009276.0	1991522.4	4886.6 µg/L	4886.6 ppb	16:29:21
2	Tl 190.801†	-63.1	-35.7	-5.6294 µg/L	-5.6294 ppb	16:29:47
2	U 409.014†	-453.3	-482.8	-70.948 µg/L	-70.948 ppb	16:29:21
2	V 292.402†	14793.3	14941.0	187.81 µg/L	187.81 ppb	16:29:27
2	Zn 213.857†	14650.4	13872.4	330.31 µg/L	330.31 ppb	16:29:27
3	Sc RADIAL	54193.0	54193.0	97.5 %		16:28:14
3	Al 396.153Radial†	67084.3	68795.1	50544 µg/L	50544 ppb	16:28:14
3	Ca 317.933Radial†	13913.5	14072.0	12809 µg/L	12809 ppb	16:28:35
3	Fe 238.204 Radial†	5177.5	5298.4	99033 µg/L	99033 ppb	16:28:35
3	K 766.490 Radial†	10813.2	10570.6	7146.6 µg/L	7146.6 ppb	16:28:14
3	Mg 279.077 IEC†	709.2	719.0	8786.5 µg/L	8786.5 ppb	16:28:35
3	Na 589.592 Radial†	2076.9	1733.0	748.92 µg/L	748.92 ppb	16:28:14
3	Sr 421.552†	7790.6	8030.4	104.45 µg/L	104.45 ppb	16:28:14
3	Sc 361.383	1889933.8	1889933.8	101.15 %		16:29:55
3	Y 371.029	1199652.5	1199652.5	102.91 %		16:29:55
3	Ag 328.068†	-1297.1	-1072.7	-0.9420 µg/L	-0.9420 ppb	16:30:01
3	As 188.979†	-4.0	0.3	43.514 µg/L	43.514 ppb	16:30:21
3	B 249.677†	805.3	403.3	-15.504 µg/L	-15.504 ppb	16:30:01
3	Ba 233.527†	28567.4	28287.1	789.60 µg/L	789.60 ppb	16:30:01
3	Be 313.107†	14648.8	10335.9	4.8392 µg/L	4.8392 ppb	16:30:01
3	Cd 226.502†	308.3	437.2	-1.7745 µg/L	-1.7745 ppb	16:30:21
3	Co 228.616†	814.5	793.6	29.865 µg/L	29.865 ppb	16:30:21
3	Cr 267.716†	4580.5	4669.4	107.93 µg/L	107.93 ppb	16:30:01
3	Cu 324.752†	12420.4	6344.5	55.269 µg/L	55.269 ppb	16:30:01
3	Mn 257.610†	952507.5	941888.2	3288.7 µg/L	3288.7 ppb	16:29:55
3	Mo 202.031†	91.0	69.7	12.562 µg/L	12.562 ppb	16:30:21
3	Ni 231.604†	1547.2	1198.7	68.837 µg/L	68.837 ppb	16:30:21
3	P 214.914†	1574.4	1292.2	1995.1 µg/L	1995.1 ppb	16:30:21
3	Pb 220.353†	368.3	283.0	76.956 µg/L	76.956 ppb	16:30:21
3	S 181.975 Axial†	125.5	90.8	325.46 µg/L	325.46 ppb	16:30:21
3	Sb 206.836†	24.7	-0.1	16.750 µg/L	16.750 ppb	16:30:21
3	Se 196.026†	-53.4	-66.8	-60.232 µg/L	-60.232 ppb	16:30:21
3	SiO2†	299355.7	292315.8	50254 µg/L	50254 ppb	16:29:55
3	Si 251.611†	348177.5	343854.0	23183 µg/L	23183 ppb	16:29:55
3	Sn 189.927†	-43.6	-75.5	-53.807 µg/L	-53.807 ppb	16:30:21
3	Ti 334.940†	1989127.3	1965829.2	4823.5 µg/L	4823.5 ppb	16:29:55
3	Tl 190.801†	-60.9	-33.3	-2.4011 µg/L	-2.4011 ppb	16:30:21
3	U 409.014†	-510.1	-537.6	-76.716 µg/L	-76.716 ppb	16:29:55
3	V 292.402†	14314.7	14425.4	181.41 µg/L	181.41 ppb	16:30:01
3	Zn 213.857†	14384.0	13566.9	322.58 µg/L	322.58 ppb	16:30:01

Mean Data: 243521008|936817|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1890609.7	101.19 %	0.349			0.34%
Sc RADIAL	53501.9	96.2 %	1.61			1.67%
Y 371.029	1199520.9	102.90 %	0.412			0.40%
Ag 328.068†	-1128.0	-1.3392 µg/L	0.36587	-1.3392 ppb	0.36587	27.32%
Al 396.153Radial†	68600.9	50401 µg/L	123.8	50401 ppb	123.8	0.25%
As 188.979†	5.4	52.700 µg/L	9.0869	52.700 ppb	9.0869	17.24%
B 249.677†	435.7	-14.616 µg/L	1.1341	-14.616 ppb	1.1341	7.76%
Ba 233.527†	28733.9	802.08 µg/L	11.964	802.08 ppb	11.964	1.49%
Be 313.107†	10635.4	5.0149 µg/L	0.17767	5.0149 ppb	0.17767	3.54%
Ca 317.933Radial†	14253.7	12974 µg/L	209.2	12974 ppb	209.2	1.61%
Cd 226.502†	443.7	-1.7558 µg/L	0.18824	-1.7558 ppb	0.18824	10.72%
Co 228.616†	819.0	31.052 µg/L	1.0341	31.052 ppb	1.0341	3.33%
Cr 267.716†	4781.1	110.52 µg/L	2.257	110.52 ppb	2.257	2.04%
Cu 324.752†	6449.1	56.139 µg/L	0.7962	56.139 ppb	0.7962	1.42%
Fe 238.204 Radial†	5361.4	100210 µg/L	1668.7	100210 ppb	1668.7	1.67%
K 766.490 Radial†	10563.3	7141.7 µg/L	31.22	7141.7 ppb	31.22	0.44%
Mg 279.077 IEC†	726.9	8883.0 µg/L	150.37	8883.0 ppb	150.37	1.69%
Mn 257.610†	948675.6	3312.5 µg/L	20.79	3312.5 ppb	20.79	0.63%
Mo 202.031†	69.5	12.584 µg/L	0.5778	12.584 ppb	0.5778	4.59%
Na 589.592 Radial†	1719.6	743.10 µg/L	7.416	743.10 ppb	7.416	1.00%

Ni 231.604†	1241.5	71.294 µg/L	2.1288	71.294 ppb	2.1288	2.99%
P 214.914†	1332.0	2058.2 µg/L	54.88	2058.2 ppb	54.88	2.67%
Pb 220.353†	287.2	78.086 µg/L	1.0987	78.086 ppb	1.0987	1.41%
S 181.975 Axial†	95.4	342.71 µg/L	17.341	342.71 ppb	17.341	5.06%
Sb 206.836†	0.8	17.731 µg/L	4.5452	17.731 ppb	4.5452	25.63%
Se 196.026†	-76.3	-70.350 µg/L	10.1526	-70.350 ppb	10.1526	14.43%
SiO2†	293969.3	50539 µg/L	247.2	50539 ppb	247.2	0.49%
Si 251.611†	345574.1	23298 µg/L	100.1	23298 ppb	100.1	0.43%
Sn 189.927†	-76.0	-54.242 µg/L	1.6302	-54.242 ppb	1.6302	3.01%
Sr 421.552†	8016.0	104.27 µg/L	0.317	104.27 ppb	0.317	0.30%
Ti 334.940†	1983861.2	4867.8 µg/L	38.46	4867.8 ppb	38.46	0.79%
Tl 190.801†	-35.1	-4.8870 µg/L	2.21033	-4.8870 ppb	2.21033	45.23%
U 409.014†	-522.9	-75.366 µg/L	3.9212	-75.366 ppb	3.9212	5.20%
V 292.402†	14705.7	184.91 µg/L	3.244	184.91 ppb	3.244	1.75%
Zn 213.857†	13709.9	325.93 µg/L	3.970	325.93 ppb	3.970	1.22%

Sequence No.: 19

Sample ID: 243521009|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 315

Date Collected: 1/11/2010 16:30:30

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 243521009|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53714.1	53714.1	96.6 %		16:31:03
1	Al 396.153Radial†	47208.9	48836.7	35880 µg/L	35880 ppb	16:31:03
1	Ca 317.933Radial†	8885.6	8995.2	8187.7 µg/L	8187.7 ppb	16:31:03
1	Fe 238.204 Radial†	4127.2	4258.7	79600 µg/L	79600 ppb	16:31:23
1	K 766.490 Radial†	10097.0	9928.2	6712.3 µg/L	6712.3 ppb	16:31:03
1	Mg 279.077 IEC†	540.7	551.1	6729.6 µg/L	6729.6 ppb	16:31:23
1	Na 589.592 Radial†	4844.8	4617.0	1995.2 µg/L	1995.2 ppb	16:31:03
1	Sr 421.552†	5157.8	5376.6	69.934 µg/L	69.934 ppb	16:31:03
1	Sc 361.383	1884254.9	1884254.9	100.85 %		16:32:28
1	Y 371.029	1191164.2	1191164.2	102.18 %		16:32:28
1	Ag 328.068†	-1180.2	-960.7	-2.0591 µg/L	-2.0591 ppb	16:32:33
1	As 188.979†	0.8	5.1	41.886 µg/L	41.886 ppb	16:32:54
1	B 249.677†	710.8	312.0	-12.934 µg/L	-12.934 ppb	16:32:33
1	Ba 233.527†	17962.8	17857.1	498.41 µg/L	498.41 ppb	16:32:33
1	Be 313.107†	12029.7	7782.6	3.7825 µg/L	3.7825 ppb	16:32:33
1	Cd 226.502†	228.3	358.8	-1.2935 µg/L	-1.2935 ppb	16:32:54
1	Co 228.616†	668.9	651.6	25.982 µg/L	25.982 ppb	16:32:54
1	Cr 267.716†	1826.2	1951.9	45.149 µg/L	45.149 ppb	16:32:54
1	Cu 324.752†	7708.6	1709.4	19.696 µg/L	19.696 ppb	16:32:33
1	Mn 257.610†	621516.0	616526.0	2154.5 µg/L	2154.5 ppb	16:32:28
1	Mo 202.031†	39.5	18.9	5.4794 µg/L	5.4794 ppb	16:32:54
1	Ni 231.604†	943.8	605.1	34.745 µg/L	34.745 ppb	16:32:54
1	P 214.914†	929.7	657.6	985.96 µg/L	985.96 ppb	16:32:54
1	Pb 220.353†	238.4	155.3	42.251 µg/L	42.251 ppb	16:32:54
1	S 181.975 Axial†	67.9	34.0	115.14 µg/L	115.14 ppb	16:32:54
1	Sb 206.836†	21.8	-2.9	8.8273 µg/L	8.8273 ppb	16:32:54
1	Se 196.026†	-55.6	-69.1	-64.527 µg/L	-64.527 ppb	16:32:54
1	SiO2†	300078.6	293924.6	50531 µg/L	50531 ppb	16:32:28
1	Si 251.611†	348928.5	345636.0	23360 µg/L	23360 ppb	16:32:28
1	Sn 189.927†	-10.6	-42.9	-34.543 µg/L	-34.543 ppb	16:32:54
1	Ti 334.940†	1339386.1	1327494.1	3257.3 µg/L	3257.3 ppb	16:32:28
1	Tl 190.801†	-55.7	-28.4	-10.986 µg/L	-10.986 ppb	16:32:54
1	U 409.014†	-1056.2	-1080.7	-130.85 µg/L	-130.85 ppb	16:32:28
1	V 292.402†	6828.9	7045.4	89.343 µg/L	89.343 ppb	16:32:33
1	Zn 213.857†	12068.2	11313.5	269.97 µg/L	269.97 ppb	16:32:33
2	Sc RADIAL	54474.9	54474.9	98.0 %		16:31:28
2	Al 396.153Radial†	47671.7	48626.5	35726 µg/L	35726 ppb	16:31:28
2	Ca 317.933Radial†	8962.8	8945.5	8142.5 µg/L	8142.5 ppb	16:31:28
2	Fe 238.204 Radial†	4134.4	4206.3	78621 µg/L	78621 ppb	16:31:49
2	K 766.490 Radial†	10194.3	9881.5	6680.7 µg/L	6680.7 ppb	16:31:28
2	Mg 279.077 IEC†	538.2	540.7	6602.2 µg/L	6602.2 ppb	16:31:49
2	Na 589.592 Radial†	4907.9	4611.3	1992.8 µg/L	1992.8 ppb	16:31:28
2	Sr 421.552†	5192.4	5337.3	69.423 µg/L	69.423 ppb	16:31:28
2	Sc 361.383	1886307.7	1886307.7	100.96 %		16:33:01
2	Y 371.029	1191775.7	1191775.7	102.23 %		16:33:01
2	Ag 328.068†	-1269.0	-1047.4	-2.9368 µg/L	-2.9368 ppb	16:33:07
2	As 188.979†	-0.6	3.7	39.187 µg/L	39.187 ppb	16:33:28
2	B 249.677†	687.9	288.5	-13.536 µg/L	-13.536 ppb	16:33:07
2	Ba 233.527†	17962.2	17837.1	497.85 µg/L	497.85 ppb	16:33:07
2	Be 313.107†	12110.5	7849.5	3.8270 µg/L	3.8270 ppb	16:33:07
2	Cd 226.502†	220.1	350.4	-1.3876 µg/L	-1.3876 ppb	16:33:28
2	Co 228.616†	659.0	641.2	25.463 µg/L	25.463 ppb	16:33:28
2	Cr 267.716†	1821.8	1945.6	45.007 µg/L	45.007 ppb	16:33:28
2	Cu 324.752†	7621.3	1614.7	18.916 µg/L	18.916 ppb	16:33:07
2	Mn 257.610†	621608.3	615946.7	2152.4 µg/L	2152.4 ppb	16:33:01
2	Mo 202.031†	39.8	19.2	5.4758 µg/L	5.4758 ppb	16:33:28
2	Ni 231.604†	930.6	590.9	33.933 µg/L	33.933 ppb	16:33:28
2	P 214.914†	918.6	645.6	967.66 µg/L	967.66 ppb	16:33:28
2	Pb 220.353†	247.4	163.9	44.587 µg/L	44.587 ppb	16:33:28

2	S 181.975 Axial†	67.2	33.3	112.64 µg/L	112.64 ppb	16:33:28
2	Sb 206.836†	22.7	-2.1	9.5526 µg/L	9.5526 ppb	16:33:28
2	Se 196.026†	-55.3	-68.7	-64.116 µg/L	-64.116 ppb	16:33:28
2	SiO2†	300044.2	293566.7	50469 µg/L	50469 ppb	16:33:01
2	Si 251.611†	348868.5	345200.1	23331 µg/L	23331 ppb	16:33:01
2	Sn 189.927†	-6.8	-39.1	-32.403 µg/L	-32.403 ppb	16:33:28
2	Ti 334.940†	1339188.4	1325852.9	3253.3 µg/L	3253.3 ppb	16:33:01
2	Tl 190.801†	-55.7	-28.4	-10.991 µg/L	-10.991 ppb	16:33:28
2	U 409.014†	-1036.7	-1060.2	-128.47 µg/L	-128.47 ppb	16:33:01
2	V 292.402†	6911.0	7119.3	90.235 µg/L	90.235 ppb	16:33:07
2	Zn 213.857†	12077.7	11309.8	270.14 µg/L	270.14 ppb	16:33:07
3	Sc RADIAL	53624.3	53624.3	96.5 %		16:31:54
3	Al 396.153Radial†	47476.4	49195.8	36144 µg/L	36144 ppb	16:31:54
3	Ca 317.933Radial†	8894.0	9019.3	8209.7 µg/L	8209.7 ppb	16:31:54
3	Fe 238.204 Radial†	4164.2	4304.1	80449 µg/L	80449 ppb	16:32:15
3	K 766.490 Radial†	10132.5	9982.4	6749.0 µg/L	6749.0 ppb	16:31:54
3	Mg 279.077 IEC†	548.4	560.0	6838.9 µg/L	6838.9 ppb	16:32:15
3	Na 589.592 Radial†	4851.8	4632.6	2002.0 µg/L	2002.0 ppb	16:31:54
3	Sr 421.552†	5164.7	5392.7	70.144 µg/L	70.144 ppb	16:31:54
3	Sc 361.383	1888357.8	1888357.8	101.07 %		16:33:35
3	Y 371.029	1192498.7	1192498.7	102.29 %		16:33:35
3	Ag 328.068†	-1126.7	-905.2	-1.4872 µg/L	-1.4872 ppb	16:33:41
3	As 188.979†	1.7	5.9	43.511 µg/L	43.511 ppb	16:34:01
3	B 249.677†	694.7	294.5	-13.878 µg/L	-13.878 ppb	16:33:41
3	Ba 233.527†	17614.1	17473.4	487.70 µg/L	487.70 ppb	16:33:41
3	Be 313.107†	11872.4	7600.9	3.6865 µg/L	3.6865 ppb	16:33:41
3	Cd 226.502†	189.6	320.0	-2.4871 µg/L	-2.4871 ppb	16:34:01
3	Co 228.616†	643.3	624.9	24.750 µg/L	24.750 ppb	16:34:01
3	Cr 267.716†	1739.4	1862.1	43.077 µg/L	43.077 ppb	16:34:01
3	Cu 324.752†	7690.2	1674.6	19.519 µg/L	19.519 ppb	16:33:41
3	Mn 257.610†	612932.7	606694.5	2120.4 µg/L	2120.4 ppb	16:33:35
3	Mo 202.031†	36.7	16.1	5.1612 µg/L	5.1612 ppb	16:34:01
3	Ni 231.604†	915.9	575.4	33.040 µg/L	33.040 ppb	16:34:01
3	P 214.914†	902.5	628.6	938.13 µg/L	938.13 ppb	16:34:01
3	Pb 220.353†	232.1	148.5	40.407 µg/L	40.407 ppb	16:34:01
3	S 181.975 Axial†	70.6	36.6	124.55 µg/L	124.55 ppb	16:34:01
3	Sb 206.836†	23.3	-1.5	9.8972 µg/L	9.8972 ppb	16:34:01
3	Se 196.026†	-45.4	-58.9	-53.648 µg/L	-53.648 ppb	16:34:01
3	SiO2†	297818.7	291042.1	50035 µg/L	50035 ppb	16:33:35
3	Si 251.611†	345954.6	341941.9	23111 µg/L	23111 ppb	16:33:35
3	Sn 189.927†	-6.2	-38.5	-32.372 µg/L	-32.372 ppb	16:34:01
3	Ti 334.940†	1319627.3	1305058.8	3202.2 µg/L	3202.2 ppb	16:33:35
3	Tl 190.801†	-52.4	-25.0	-6.0175 µg/L	-6.0175 ppb	16:34:01
3	U 409.014†	-1084.1	-1106.0	-133.71 µg/L	-133.71 ppb	16:33:35
3	V 292.402†	6708.3	6911.3	87.702 µg/L	87.702 ppb	16:33:41
3	Zn 213.857†	11894.9	11116.0	264.65 µg/L	264.65 ppb	16:33:41

Mean Data: 243521009|936817|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1886306.8	100.96 %		0.110			0.11%
Sc RADIAL	53937.8	97.0 %		0.84			0.87%
Y 371.029	1191812.8	102.23 %		0.057			0.06%
Ag 328.068†	-971.1	-2.1610 µg/L		0.73012	-2.1610 ppb	0.73012	33.79%
Al 396.153Radial†	48886.3	35917 µg/L		211.5	35917 ppb	211.5	0.59%
As 188.979†	4.9	41.528 µg/L		2.1842	41.528 ppb	2.1842	5.26%
B 249.677†	298.3	-13.449 µg/L		0.4782	-13.449 ppb	0.4782	3.56%
Ba 233.527†	17722.5	494.65 µg/L		6.029	494.65 ppb	6.029	1.22%
Be 313.107†	7744.3	3.7653 µg/L		0.07180	3.7653 ppb	0.07180	1.91%
Ca 317.933Radial†	8986.7	8180.0 µg/L		34.26	8180.0 ppb	34.26	0.42%
Cd 226.502†	343.1	-1.7227 µg/L		0.66360	-1.7227 ppb	0.66360	38.52%
Co 228.616†	639.2	25.398 µg/L		0.6186	25.398 ppb	0.6186	2.44%
Cr 267.716†	1919.9	44.411 µg/L		1.1572	44.411 ppb	1.1572	2.61%
Cu 324.752†	1666.2	19.377 µg/L		0.4090	19.377 ppb	0.4090	2.11%
Fe 238.204 Radial†	4256.3	79557 µg/L		914.7	79557 ppb	914.7	1.15%
K 766.490 Radial†	9930.7	6714.0 µg/L		34.14	6714.0 ppb	34.14	0.51%
Mg 279.077 IEC†	550.6	6723.6 µg/L		118.47	6723.6 ppb	118.47	1.76%
Mn 257.610†	613055.7	2142.5 µg/L		19.10	2142.5 ppb	19.10	0.89%
Mo 202.031†	18.1	5.3721 µg/L		0.18269	5.3721 ppb	0.18269	3.40%
Na 589.592 Radial†	4620.3	1996.7 µg/L		4.77	1996.7 ppb	4.77	0.24%

Ni 231.604†	590.5	33.906 µg/L	0.8527	33.906 ppb	0.8527	2.52%
P 214.914†	643.9	963.92 µg/L	24.134	963.92 ppb	24.134	2.50%
Pb 220.353†	155.9	42.415 µg/L	2.0949	42.415 ppb	2.0949	4.94%
S 181.975 Axial†	34.6	117.44 µg/L	6.283	117.44 ppb	6.283	5.35%
Sb 206.836†	-2.1	9.4257 µg/L	0.54611	9.4257 ppb	0.54611	5.79%
Se 196.026†	-65.6	-60.764 µg/L	6.1657	-60.764 ppb	6.1657	10.15%
SiO2†	292844.5	50345 µg/L	270.1	50345 ppb	270.1	0.54%
Si 251.611†	344259.3	23267 µg/L	136.1	23267 ppb	136.1	0.58%
Sn 189.927†	-40.2	-33.106 µg/L	1.2447	-33.106 ppb	1.2447	3.76%
Sr 421.552†	5368.9	69.834 µg/L	0.3708	69.834 ppb	0.3708	0.53%
Ti 334.940†	1319468.6	3237.6 µg/L	30.69	3237.6 ppb	30.69	0.95%
Tl 190.801†	-27.2	-9.3314 µg/L	2.86986	-9.3314 ppb	2.86986	30.76%
U 409.014†	-1082.3	-131.01 µg/L	2.623	-131.01 ppb	2.623	2.00%
V 292.402†	7025.3	89.093 µg/L	1.2850	89.093 ppb	1.2850	1.44%
Zn 213.857†	11246.5	268.25 µg/L	3.122	268.25 ppb	3.122	1.16%

Sequence No.: 20

Sample ID: 243521010|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 316

Date Collected: 1/11/2010 16:34:10

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 243521010|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53811.7	53811.7	96.8 %		16:34:43
1	Al 396.153Radial†	56297.1	58137.8	42713 µg/L	42713 ppb	16:34:43
1	Ca 317.933Radial†	19353.4	19793.6	18017 µg/L	18017 ppb	16:34:43
1	Fe 238.204 Radial†	3811.6	3924.8	73360 µg/L	73360 ppb	16:35:03
1	K 766.490 Radial†	12947.7	12854.4	8690.7 µg/L	8690.7 ppb	16:34:43
1	Mg 279.077 IEC†	967.8	991.3	12208 µg/L	12208 ppb	16:35:03
1	Na 589.592 Radial†	3119.7	2825.6	1221.1 µg/L	1221.1 ppb	16:34:43
1	Sr 421.552†	11611.8	12035.0	156.54 µg/L	156.54 ppb	16:34:43
1	Sc 361.383	1896589.6	1896589.6	101.51 %		16:36:07
1	Y 371.029	1191015.0	1191015.0	102.17 %		16:36:07
1	Ag 328.068†	-1137.1	-910.6	-1.2661 µg/L	-1.2661 ppb	16:36:13
1	As 188.979†	-0.3	3.9	37.770 µg/L	37.770 ppb	16:36:34
1	B 249.677†	794.1	389.4	-7.9673 µg/L	-7.9673 ppb	16:36:13
1	Ba 233.527†	35858.0	35370.1	987.28 µg/L	987.28 ppb	16:36:13
1	Be 313.107†	11756.4	7435.7	3.3287 µg/L	3.3287 ppb	16:36:13
1	Cd 226.502†	213.7	342.9	-0.5742 µg/L	-0.5742 ppb	16:36:34
1	Co 228.616†	841.3	817.1	33.084 µg/L	33.084 ppb	16:36:34
1	Cr 267.716†	16527.9	16423.1	378.64 µg/L	378.64 ppb	16:36:13
1	Cu 324.752†	13440.6	7306.4	59.954 µg/L	59.954 ppb	16:36:13
1	Mn 257.610†	733347.2	722684.8	2523.0 µg/L	2523.0 ppb	16:36:07
1	Mo 202.031†	328.5	303.4	40.607 µg/L	40.607 ppb	16:36:34
1	Ni 231.604†	4692.8	4292.2	246.48 µg/L	246.48 ppb	16:36:34
1	P 214.914†	1818.4	1527.0	2403.1 µg/L	2403.1 ppb	16:36:34
1	Pb 220.353†	294.3	208.8	57.008 µg/L	57.008 ppb	16:36:34
1	S 181.975 Axial†	159.9	124.2	454.56 µg/L	454.56 ppb	16:36:34
1	Sb 206.836†	25.4	0.5	12.215 µg/L	12.215 ppb	16:36:34
1	Se 196.026†	-54.2	-67.4	-57.961 µg/L	-57.961 ppb	16:36:34
1	SiO2†	368460.7	359353.9	61779 µg/L	61779 ppb	16:36:07
1	Si 251.611†	429096.5	422360.8	28549 µg/L	28549 ppb	16:36:07
1	Sn 189.927†	-60.1	-91.6	-55.163 µg/L	-55.163 ppb	16:36:34
1	Ti 334.940†	1606769.0	1582260.3	3881.9 µg/L	3881.9 ppb	16:36:07
1	Tl 190.801†	-53.9	-26.2	-3.0427 µg/L	-3.0427 ppb	16:36:34
1	U 409.014†	-362.3	-390.3	-56.489 µg/L	-56.489 ppb	16:36:13
1	V 292.402†	16681.9	16707.7	209.15 µg/L	209.15 ppb	16:36:13
1	Zn 213.857†	7509.6	6744.9	152.65 µg/L	152.65 ppb	16:36:13
2	Sc RADIAL	53863.3	53863.3	96.9 %		16:35:09
2	Al 396.153Radial†	56631.0	58426.6	42925 µg/L	42925 ppb	16:35:09
2	Ca 317.933Radial†	19334.1	19754.5	17981 µg/L	17981 ppb	16:35:09
2	Fe 238.204 Radial†	3788.2	3896.9	72838 µg/L	72838 ppb	16:35:29
2	K 766.490 Radial†	13000.6	12896.3	8718.9 µg/L	8718.9 ppb	16:35:09
2	Mg 279.077 IEC†	960.3	982.6	12102 µg/L	12102 ppb	16:35:29
2	Na 589.592 Radial†	3096.2	2798.2	1209.2 µg/L	1209.2 ppb	16:35:09
2	Sr 421.552†	11618.3	12030.2	156.48 µg/L	156.48 ppb	16:35:09
2	Sc 361.383	1878827.0	1878827.0	100.56 %		16:36:41
2	Y 371.029	1180383.1	1180383.1	101.25 %		16:36:41
2	Ag 328.068†	-1079.3	-863.7	-0.8764 µg/L	-0.8764 ppb	16:36:46
2	As 188.979†	-0.5	3.8	37.325 µg/L	37.325 ppb	16:37:07
2	B 249.677†	781.8	384.6	-7.9899 µg/L	-7.9899 ppb	16:36:46
2	Ba 233.527†	35516.0	35364.0	987.11 µg/L	987.11 ppb	16:36:46
2	Be 313.107†	11723.5	7512.5	3.3801 µg/L	3.3801 ppb	16:36:46
2	Cd 226.502†	217.9	349.1	-0.3291 µg/L	-0.3291 ppb	16:37:07
2	Co 228.616†	823.6	807.4	32.609 µg/L	32.609 ppb	16:37:07
2	Cr 267.716†	16404.2	16454.0	379.35 µg/L	379.35 ppb	16:36:46
2	Cu 324.752†	13379.6	7370.9	60.377 µg/L	60.377 ppb	16:36:46
2	Mn 257.610†	724811.6	721026.7	2517.2 µg/L	2517.2 ppb	16:36:41
2	Mo 202.031†	327.3	305.3	40.823 µg/L	40.823 ppb	16:37:07
2	Ni 231.604†	4654.7	4297.9	246.81 µg/L	246.81 ppb	16:37:07
2	P 214.914†	1824.7	1550.2	2441.3 µg/L	2441.3 ppb	16:37:07
2	Pb 220.353†	308.2	225.3	61.503 µg/L	61.503 ppb	16:37:07

2	S 181.975 Axial†	151.1	116.9	427.14 µg/L	427.14 ppb	16:37:07
2	Sb 206.836†	30.7	6.0	17.331 µg/L	17.331 ppb	16:37:07
2	Se 196.026†	-40.6	-54.3	-44.019 µg/L	-44.019 ppb	16:37:07
2	SiO2†	364579.7	358926.1	61706 µg/L	61706 ppb	16:36:41
2	Si 251.611†	424304.0	421591.4	28497 µg/L	28497 ppb	16:36:41
2	Sn 189.927†	-60.4	-92.5	-55.547 µg/L	-55.547 ppb	16:37:07
2	Ti 334.940†	1589308.9	1579861.9	3876.0 µg/L	3876.0 ppb	16:36:41
2	Tl 190.801†	-56.6	-29.4	-8.1660 µg/L	-8.1660 ppb	16:37:07
2	U 409.014†	-338.2	-369.7	-54.190 µg/L	-54.190 ppb	16:36:46
2	V 292.402†	16460.2	16642.6	208.34 µg/L	208.34 ppb	16:36:46
2	Zn 213.857†	7414.7	6720.5	152.16 µg/L	152.16 ppb	16:36:46
3	Sc RADIAL	54229.3	54229.3	97.5 %		16:35:34
3	Al 396.153Radial†	56955.3	58364.5	42879 µg/L	42879 ppb	16:35:34
3	Ca 317.933Radial†	19444.1	19732.5	17961 µg/L	17961 ppb	16:35:34
3	Fe 238.204 Radial†	3816.8	3899.8	72893 µg/L	72893 ppb	16:35:55
3	K 766.490 Radial†	13069.2	12875.9	8705.2 µg/L	8705.2 ppb	16:35:34
3	Mg 279.077 IEC†	963.2	978.9	12056 µg/L	12056 ppb	16:35:55
3	Na 589.592 Radial†	3131.0	2812.3	1215.3 µg/L	1215.3 ppb	16:35:34
3	Sr 421.552†	11761.8	12096.4	157.34 µg/L	157.34 ppb	16:35:34
3	Sc 361.383	1896762.0	1896762.0	101.52 %		16:37:14
3	Y 371.029	1191530.7	1191530.7	102.21 %		16:37:14
3	Ag 328.068†	-1148.7	-921.9	-1.4502 µg/L	-1.4502 ppb	16:37:20
3	As 188.979†	-3.4	0.9	32.140 µg/L	32.140 ppb	16:37:40
3	B 249.677†	749.6	345.6	-9.5216 µg/L	-9.5216 ppb	16:37:20
3	Ba 233.527†	34965.1	34487.4	962.64 µg/L	962.64 ppb	16:37:20
3	Be 313.107†	11500.7	7182.8	3.1972 µg/L	3.1972 ppb	16:37:20
3	Cd 226.502†	197.4	326.8	-0.9616 µg/L	-0.9616 ppb	16:37:40
3	Co 228.616†	801.4	777.8	31.273 µg/L	31.273 ppb	16:37:40
3	Cr 267.716†	16050.5	15951.4	367.76 µg/L	367.76 ppb	16:37:20
3	Cu 324.752†	13276.0	7143.2	58.721 µg/L	58.721 ppb	16:37:20
3	Mn 257.610†	718822.7	708312.2	2473.0 µg/L	2473.0 ppb	16:37:14
3	Mo 202.031†	313.6	288.7	38.759 µg/L	38.759 ppb	16:37:40
3	Ni 231.604†	4483.7	4085.7	234.62 µg/L	234.62 ppb	16:37:40
3	P 214.914†	1778.3	1487.4	2339.4 µg/L	2339.4 ppb	16:37:40
3	Pb 220.353†	306.7	221.0	60.329 µg/L	60.329 ppb	16:37:40
3	S 181.975 Axial†	151.1	115.5	421.84 µg/L	421.84 ppb	16:37:40
3	Sb 206.836†	34.0	9.0	19.912 µg/L	19.912 ppb	16:37:40
3	Se 196.026†	-42.8	-56.2	-46.011 µg/L	-46.011 ppb	16:37:40
3	SiO2†	362943.2	353885.9	60839 µg/L	60839 ppb	16:37:14
3	Si 251.611†	422436.1	415761.7	28104 µg/L	28104 ppb	16:37:14
3	Sn 189.927†	-54.5	-86.1	-52.253 µg/L	-52.253 ppb	16:37:40
3	Ti 334.940†	1572751.1	1548607.8	3799.3 µg/L	3799.3 ppb	16:37:14
3	Tl 190.801†	-57.4	-29.7	-9.3327 µg/L	-9.3327 ppb	16:37:40
3	U 409.014†	-316.4	-345.1	-51.563 µg/L	-51.563 ppb	16:37:20
3	V 292.402†	16177.7	16209.6	202.97 µg/L	202.97 ppb	16:37:20
3	Zn 213.857†	7368.0	6604.7	149.22 µg/L	149.22 ppb	16:37:20

Mean Data: 243521010|936817|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1890726.2	101.20 %	0.552			0.55%
Sc RADIAL	53968.1	97.1 %	0.41			0.42%
Y 371.029	1187642.9	101.88 %	0.540			0.53%
Ag 328.068†	-898.8	-1.1976 µg/L	0.29299	-1.1976 ppb	0.29299	24.47%
Al 396.153Radial†	58309.6	42839 µg/L	111.7	42839 ppb	111.7	0.26%
As 188.979†	2.9	35.745 µg/L	3.1298	35.745 ppb	3.1298	8.76%
B 249.677†	373.2	-8.4929 µg/L	0.89089	-8.4929 ppb	0.89089	10.49%
Ba 233.527†	35073.8	979.01 µg/L	14.178	979.01 ppb	14.178	1.45%
Be 313.107†	7377.0	3.3020 µg/L	0.09437	3.3020 ppb	0.09437	2.86%
Ca 317.933Radial†	19760.2	17986 µg/L	28.1	17986 ppb	28.1	0.16%
Cd 226.502†	339.6	-0.6216 µg/L	0.31887	-0.6216 ppb	0.31887	51.30%
Co 228.616†	800.8	32.322 µg/L	0.9387	32.322 ppb	0.9387	2.90%
Cr 267.716†	16276.1	375.25 µg/L	6.494	375.25 ppb	6.494	1.73%
Cu 324.752†	7273.5	59.684 µg/L	0.8606	59.684 ppb	0.8606	1.44%
Fe 238.204 Radial†	3907.2	73030 µg/L	286.7	73030 ppb	286.7	0.39%
K 766.490 Radial†	12875.5	8704.9 µg/L	14.14	8704.9 ppb	14.14	0.16%
Mg 279.077 IEC†	984.3	12122 µg/L	78.4	12122 ppb	78.4	0.65%
Mn 257.610†	717341.3	2504.4 µg/L	27.37	2504.4 ppb	27.37	1.09%
Mo 202.031†	299.1	40.063 µg/L	1.1343	40.063 ppb	1.1343	2.83%
Na 589.592 Radial†	2812.0	1215.2 µg/L	5.92	1215.2 ppb	5.92	0.49%

Ni 231.604†	4225.3	242.64 µg/L	6.942	242.64 ppb	6.942	2.86%
P 214.914†	1521.5	2394.6 µg/L	51.49	2394.6 ppb	51.49	2.15%
Pb 220.353†	218.4	59.613 µg/L	2.3314	59.613 ppb	2.3314	3.91%
S 181.975 Axial†	118.9	434.51 µg/L	17.561	434.51 ppb	17.561	4.04%
Sb 206.836†	5.2	16.486 µg/L	3.9178	16.486 ppb	3.9178	23.76%
Se 196.026†	-59.3	-49.331 µg/L	7.5405	-49.331 ppb	7.5405	15.29%
SiO2†	357388.6	61441 µg/L	522.8	61441 ppb	522.8	0.85%
Si 251.611†	419904.6	28383 µg/L	243.5	28383 ppb	243.5	0.86%
Sn 189.927†	-90.1	-54.321 µg/L	1.8016	-54.321 ppb	1.8016	3.32%
Sr 421.552†	12053.9	156.79 µg/L	0.480	156.79 ppb	0.480	0.31%
Ti 334.940†	1570243.3	3852.4 µg/L	46.07	3852.4 ppb	46.07	1.20%
Tl 190.801†	-28.4	-6.8471 µg/L	3.34595	-6.8471 ppb	3.34595	48.87%
U 409.014†	-368.4	-54.081 µg/L	2.4645	-54.081 ppb	2.4645	4.56%
V 292.402†	16520.0	206.82 µg/L	3.361	206.82 ppb	3.361	1.62%
Zn 213.857†	6690.1	151.34 µg/L	1.853	151.34 ppb	1.853	1.22%

Sequence No.: 21

Sample ID: 243521011|936817|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 317

Date Collected: 1/11/2010 16:37:50

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 243521011|936817|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	53884.2	53884.2	96.9 %		16:38:22
1	Al 396.153Radial†	40760.5	42029.1	30879 µg/L	30879 ppb	16:38:22
1	Ca 317.933Radial†	10017.8	10134.4	9224.7 µg/L	9224.7 ppb	16:38:42
1	Fe 238.204 Radial†	5183.6	5335.1	99719 µg/L	99719 ppb	16:38:42
1	K 766.490 Radial†	10598.4	10412.5	7039.7 µg/L	7039.7 ppb	16:38:22
1	Mg 279.077 IEC†	737.1	752.0	9195.4 µg/L	9195.4 ppb	16:38:42
1	Na 589.592 Radial†	6472.7	6280.8	2714.2 µg/L	2714.2 ppb	16:38:22
1	Sr 421.552†	5591.4	5807.2	75.535 µg/L	75.535 ppb	16:38:22
1	Sc 361.383	1908946.9	1908946.9	102.17 %		16:39:47
1	Y 371.029	1212056.9	1212056.9	103.97 %		16:39:47
1	Ag 328.068†	-1464.8	-1224.1	-2.8119 µg/L	-2.8119 ppb	16:39:53
1	As 188.979†	4.5	8.6	56.264 µg/L	56.264 ppb	16:40:13
1	B 249.677†	663.1	256.2	-21.424 µg/L	-21.424 ppb	16:39:53
1	Ba 233.527†	13487.8	13246.8	369.81 µg/L	369.81 ppb	16:39:53
1	Be 313.107†	13043.5	8620.5	4.0600 µg/L	4.0600 ppb	16:39:53
1	Cd 226.502†	306.0	431.9	-1.9719 µg/L	-1.9719 ppb	16:40:13
1	Co 228.616†	572.4	548.6	19.343 µg/L	19.343 ppb	16:40:13
1	Cr 267.716†	15752.1	15558.4	358.49 µg/L	358.49 ppb	16:39:53
1	Cu 324.752†	7525.2	1431.1	19.492 µg/L	19.492 ppb	16:39:53
1	Mn 257.610†	791982.7	775397.3	2709.7 µg/L	2709.7 ppb	16:39:47
1	Mo 202.031†	79.2	57.3	11.046 µg/L	11.046 ppb	16:40:13
1	Ni 231.604†	3475.0	3070.3	176.31 µg/L	176.31 ppb	16:40:13
1	P 214.914†	973.9	688.9	1011.6 µg/L	1011.6 ppb	16:40:13
1	Pb 220.353†	197.8	112.5	30.305 µg/L	30.305 ppb	16:40:13
1	S 181.975 Axial†	43.8	9.6	19.933 µg/L	19.933 ppb	16:40:13
1	Sb 206.836†	26.0	0.9	13.424 µg/L	13.424 ppb	16:40:13
1	Se 196.026†	-70.7	-83.1	-79.266 µg/L	-79.266 ppb	16:40:13
1	SiO2†	345007.5	334049.6	57429 µg/L	57429 ppb	16:39:47
1	Si 251.611†	401577.9	392690.9	26531 µg/L	26531 ppb	16:39:47
1	Sn 189.927†	-5.0	-37.3	-34.749 µg/L	-34.749 ppb	16:40:13
1	Ti 334.940†	1648910.5	1613259.5	3958.5 µg/L	3958.5 ppb	16:39:47
1	Tl 190.801†	-66.2	-37.9	-19.797 µg/L	-19.797 ppb	16:40:13
1	U 409.014†	-1497.4	-1499.0	-179.38 µg/L	-179.38 ppb	16:39:47
1	V 292.402†	8247.7	8346.4	105.99 µg/L	105.99 ppb	16:39:53
1	Zn 213.857†	15349.3	14370.0	342.60 µg/L	342.60 ppb	16:39:53
2	Sc RADIAL	54240.0	54240.0	97.6 %		16:38:48
2	Al 396.153Radial†	41363.1	42371.0	31130 µg/L	31130 ppb	16:38:48
2	Ca 317.933Radial†	10031.1	10080.2	9175.3 µg/L	9175.3 ppb	16:39:08
2	Fe 238.204 Radial†	5182.5	5298.9	99044 µg/L	99044 ppb	16:39:08
2	K 766.490 Radial†	10667.7	10411.8	7039.3 µg/L	7039.3 ppb	16:38:48
2	Mg 279.077 IEC†	736.7	746.5	9128.8 µg/L	9128.8 ppb	16:39:08
2	Na 589.592 Radial†	6559.1	6325.5	2733.5 µg/L	2733.5 ppb	16:38:48
2	Sr 421.552†	5650.1	5829.4	75.824 µg/L	75.824 ppb	16:38:48
2	Sc 361.383	1918515.1	1918515.1	102.68 %		16:40:21
2	Y 371.029	1219773.9	1219773.9	104.63 %		16:40:21
2	Ag 328.068†	-1450.2	-1202.8	-2.6677 µg/L	-2.6677 ppb	16:40:27
2	As 188.979†	2.7	6.9	53.073 µg/L	53.073 ppb	16:40:47
2	B 249.677†	666.6	256.3	-21.207 µg/L	-21.207 ppb	16:40:27
2	Ba 233.527†	13439.7	13134.2	366.67 µg/L	366.67 ppb	16:40:27
2	Be 313.107†	12949.5	8465.2	3.9608 µg/L	3.9608 ppb	16:40:27
2	Cd 226.502†	316.5	440.7	-1.6338 µg/L	-1.6338 ppb	16:40:47
2	Co 228.616†	593.8	566.7	20.253 µg/L	20.253 ppb	16:40:47
2	Cr 267.716†	15807.9	15535.9	357.97 µg/L	357.97 ppb	16:40:27
2	Cu 324.752†	7541.2	1409.9	19.276 µg/L	19.276 ppb	16:40:27
2	Mn 257.610†	795459.2	774917.0	2707.9 µg/L	2707.9 ppb	16:40:21
2	Mo 202.031†	76.0	53.8	10.584 µg/L	10.584 ppb	16:40:47
2	Ni 231.604†	3495.8	3073.6	176.50 µg/L	176.50 ppb	16:40:47
2	P 214.914†	966.0	676.5	992.20 µg/L	992.20 ppb	16:40:47
2	Pb 220.353†	200.9	114.6	30.872 µg/L	30.872 ppb	16:40:47

2	S 181.975 Axial†	48.7	14.2	37.311 µg/L	37.311 ppb	16:40:47
2	Sb 206.836†	29.7	4.4	16.637 µg/L	16.637 ppb	16:40:47
2	Se 196.026†	-72.2	-84.2	-80.433 µg/L	-80.433 ppb	16:40:47
2	SiO2†	347203.0	334503.6	57507 µg/L	57507 ppb	16:40:21
2	Si 251.611†	403747.8	392843.9	26542 µg/L	26542 ppb	16:40:21
2	Sn 189.927†	-14.8	-46.9	-39.598 µg/L	-39.598 ppb	16:40:47
2	Ti 334.940†	1656872.8	1612964.9	3957.8 µg/L	3957.8 ppb	16:40:21
2	Tl 190.801†	-64.7	-36.2	-17.000 µg/L	-17.000 ppb	16:40:47
2	U 409.014†	-1488.5	-1483.0	-177.53 µg/L	-177.53 ppb	16:40:21
2	V 292.402†	8277.6	8335.3	105.83 µg/L	105.83 ppb	16:40:27
2	Zn 213.857†	15313.2	14259.9	339.94 µg/L	339.94 ppb	16:40:27
3	Sc RADIAL	55026.8	55026.8	99.0 %		16:39:14
3	Al 396.153Radial†	41728.7	42134.0	30956 µg/L	30956 ppb	16:39:14
3	Ca 317.933Radial†	10006.2	9908.0	9018.6 µg/L	9018.6 ppb	16:39:34
3	Fe 238.204 Radial†	5154.4	5194.6	97093 µg/L	97093 ppb	16:39:34
3	K 766.490 Radial†	10756.1	10344.8	6993.9 µg/L	6993.9 ppb	16:39:14
3	Mg 279.077 IEC†	740.6	739.7	9046.5 µg/L	9046.5 ppb	16:39:34
3	Na 589.592 Radial†	6587.4	6258.0	2704.4 µg/L	2704.4 ppb	16:39:14
3	Sr 421.552†	5653.7	5750.3	74.795 µg/L	74.795 ppb	16:39:14
3	Sc 361.383	1913669.6	1913669.6	102.42 %		16:40:55
3	Y 371.029	1214789.5	1214789.5	104.21 %		16:40:55
3	Ag 328.068†	-1378.4	-1136.3	-2.2189 µg/L	-2.2189 ppb	16:41:01
3	As 188.979†	4.0	8.2	54.499 µg/L	54.499 ppb	16:41:21
3	B 249.677†	624.8	217.1	-22.112 µg/L	-22.112 ppb	16:41:01
3	Ba 233.527†	13253.3	12985.3	362.51 µg/L	362.51 ppb	16:41:01
3	Be 313.107†	12819.3	8370.1	3.9248 µg/L	3.9248 ppb	16:41:01
3	Cd 226.502†	276.0	401.9	-2.4411 µg/L	-2.4411 ppb	16:41:21
3	Co 228.616†	557.3	532.5	18.674 µg/L	18.674 ppb	16:41:21
3	Cr 267.716†	15405.4	15181.9	349.81 µg/L	349.81 ppb	16:41:01
3	Cu 324.752†	7526.9	1414.6	19.133 µg/L	19.133 ppb	16:41:01
3	Mn 257.610†	781387.6	763140.0	2666.7 µg/L	2666.7 ppb	16:40:55
3	Mo 202.031†	77.2	55.1	10.666 µg/L	10.666 ppb	16:41:21
3	Ni 231.604†	3337.8	2928.0	168.14 µg/L	168.14 ppb	16:41:21
3	P 214.914†	946.2	659.5	967.06 µg/L	967.06 ppb	16:41:21
3	Pb 220.353†	203.1	117.1	31.597 µg/L	31.597 ppb	16:41:21
3	S 181.975 Axial†	47.4	13.0	33.243 µg/L	33.243 ppb	16:41:21
3	Sb 206.836†	23.5	-1.6	10.858 µg/L	10.858 ppb	16:41:21
3	Se 196.026†	-63.3	-75.7	-71.498 µg/L	-71.498 ppb	16:41:21
3	SiO2†	342493.3	330761.6	56864 µg/L	56864 ppb	16:40:55
3	Si 251.611†	398404.2	388622.4	26257 µg/L	26257 ppb	16:40:55
3	Sn 189.927†	-1.2	-33.6	-32.376 µg/L	-32.376 ppb	16:41:21
3	Ti 334.940†	1624509.4	1585453.2	3890.3 µg/L	3890.3 ppb	16:40:55
3	Tl 190.801†	-58.7	-30.5	-8.5262 µg/L	-8.5262 ppb	16:41:21
3	U 409.014†	-1521.2	-1518.6	-180.97 µg/L	-180.97 ppb	16:40:55
3	V 292.402†	8059.9	8143.1	103.39 µg/L	103.39 ppb	16:41:01
3	Zn 213.857†	15168.1	14156.1	337.84 µg/L	337.84 ppb	16:41:01

Mean Data: 243521011|936817|1

Analyte	Mean Corrected	Conc.	Units	Calib.	Std.Dev.	Conc.	Units	Sample	Std.Dev.	RSD
Sc 361.383	1913710.5	102.43	%		0.256					0.25%
Sc RADIAL	54383.7	97.8	%		1.05					1.08%
Y 371.029	1215540.1	104.27	%		0.336					0.32%
Ag 328.068†	-1187.7	-2.5661	µg/L	0.30928		-2.5661	ppb	0.30928		12.05%
Al 396.153Radial†	42178.0	30988	µg/L	128.7		30988	ppb	128.7		0.42%
As 188.979†	7.9	54.612	µg/L	1.5981		54.612	ppb	1.5981		2.93%
B 249.677†	243.2	-21.581	µg/L	0.4724		-21.581	ppb	0.4724		2.19%
Ba 233.527†	13122.1	366.33	µg/L	3.662		366.33	ppb	3.662		1.00%
Be 313.107†	8485.3	3.9818	µg/L	0.07004		3.9818	ppb	0.07004		1.76%
Ca 317.933Radial†	10040.9	9139.5	µg/L	107.60		9139.5	ppb	107.60		1.18%
Cd 226.502†	424.8	-2.0156	µg/L	0.40541		-2.0156	ppb	0.40541		20.11%
Co 228.616†	549.2	19.423	µg/L	0.7923		19.423	ppb	0.7923		4.08%
Cr 267.716†	15425.4	355.42	µg/L	4.866		355.42	ppb	4.866		1.37%
Cu 324.752†	1418.5	19.301	µg/L	0.1808		19.301	ppb	0.1808		0.94%
Fe 238.204 Radial†	5276.2	98619	µg/L	1363.7		98619	ppb	1363.7		1.38%
K 766.490 Radial†	10389.7	7024.3	µg/L	26.29		7024.3	ppb	26.29		0.37%
Mg 279.077 IEC†	746.0	9123.6	µg/L	74.63		9123.6	ppb	74.63		0.82%
Mn 257.610†	771151.4	2694.8	µg/L	24.32		2694.8	ppb	24.32		0.90%
Mo 202.031†	55.4	10.765	µg/L	0.2462		10.765	ppb	0.2462		2.29%
Na 589.592 Radial†	6288.1	2717.4	µg/L	14.83		2717.4	ppb	14.83		0.55%

Ni 231.604†	3023.9	173.65 µg/L	4.775	173.65 ppb	4.775	2.75%
P 214.914†	675.0	990.30 µg/L	22.341	990.30 ppb	22.341	2.26%
Pb 220.353†	114.7	30.925 µg/L	0.6473	30.925 ppb	0.6473	2.09%
S 181.975 Axial†	12.3	30.162 µg/L	9.0892	30.162 ppb	9.0892	30.13%
Sb 206.836†	1.2	13.640 µg/L	2.8957	13.640 ppb	2.8957	21.23%
Se 196.026†	-81.0	-77.066 µg/L	4.8568	-77.066 ppb	4.8568	6.30%
SiO2†	333104.9	57267 µg/L	351.1	57267 ppb	351.1	0.61%
Si 251.611†	391385.7	26443 µg/L	161.3	26443 ppb	161.3	0.61%
Sn 189.927†	-39.3	-35.574 µg/L	3.6814	-35.574 ppb	3.6814	10.35%
Sr 421.552†	5795.6	75.384 µg/L	0.5310	75.384 ppb	0.5310	0.70%
Ti 334.940†	1603892.5	3935.5 µg/L	39.18	3935.5 ppb	39.18	1.00%
Tl 190.801†	-34.9	-15.108 µg/L	5.8687	-15.108 ppb	5.8687	38.85%
U 409.014†	-1500.2	-179.29 µg/L	1.718	-179.29 ppb	1.718	0.96%
V 292.402†	8275.0	105.07 µg/L	1.456	105.07 ppb	1.456	1.39%
Zn 213.857†	14262.0	340.13 µg/L	2.386	340.13 ppb	2.386	0.70%

Sequence No.: 22

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/11/2010 16:41:30

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	55115.3	55115.3	99.1 %		16:42:08
1	Al 396.153Radial†	7062.1	7097.1	5193.7 µg/L	5193.7 ppb	16:42:08
1	Ca 317.933Radial†	5586.1	5433.1	4945.4 µg/L	4945.4 ppb	16:42:28
1	Fe 238.204 Radial†	262.0	251.1	4710.1 µg/L	4710.1 ppb	16:42:28
1	K 766.490 Radial†	8279.2	7828.8	5292.9 µg/L	5292.9 ppb	16:42:08
1	Mg 279.077 IEC†	387.4	382.2	4754.5 µg/L	4754.5 ppb	16:42:28
1	Na 589.592 Radial†	23246.8	23052.2	9962.0 µg/L	9962.0 ppb	16:42:08
1	Sr 421.552†	36612.0	36969.8	480.87 µg/L	480.87 ppb	16:42:08
1	Sc 361.383	1927957.5	1927957.5	103.19 %		16:43:32
1	Y 371.029	1188058.4	1188058.4	101.91 %		16:43:32
1	Ag 328.068†	56664.2	55122.2	516.70 µg/L	516.70 ppb	16:43:37
1	As 188.979†	316.5	311.0	533.66 µg/L	533.66 ppb	16:43:58
1	B 249.677†	14007.6	13181.8	509.66 µg/L	509.66 ppb	16:43:37
1	Ba 233.527†	19026.0	18483.7	516.79 µg/L	516.79 ppb	16:43:37
1	Be 313.107†	829716.9	799924.7	512.57 µg/L	512.57 ppb	16:43:32
1	Cd 226.502†	19197.4	18736.4	517.11 µg/L	517.11 ppb	16:43:37
1	Co 228.616†	10692.5	10350.4	520.86 µg/L	520.86 ppb	16:43:37
1	Cr 267.716†	23256.2	22678.5	523.41 µg/L	523.41 ppb	16:43:37
1	Cu 324.752†	78340.3	69984.7	510.90 µg/L	510.90 ppb	16:43:37
1	Mn 257.610†	155801.7	151237.3	526.66 µg/L	526.66 ppb	16:43:32
1	Mo 202.031†	4496.8	4337.5	539.54 µg/L	539.54 ppb	16:43:58
1	Ni 231.604†	9665.2	9035.6	518.85 µg/L	518.85 ppb	16:43:37
1	P 214.914†	1949.9	1625.3	2586.3 µg/L	2586.3 ppb	16:43:58
1	Pb 220.353†	2101.6	1955.5	530.34 µg/L	530.34 ppb	16:43:58
1	S 181.975 Axial†	326.8	283.4	1064.5 µg/L	1064.5 ppb	16:43:58
1	Sb 206.836†	618.2	574.6	535.40 µg/L	535.40 ppb	16:43:58
1	Se 196.026†	521.1	491.0	527.95 µg/L	527.95 ppb	16:43:58
1	SiO2†	37506.0	32723.4	5625.7 µg/L	5625.7 ppb	16:43:37
1	Si 251.611†	40480.2	38879.2	2590.4 µg/L	2590.4 ppb	16:43:37
1	Sn 189.927†	1098.5	1032.1	539.26 µg/L	539.26 ppb	16:43:58
1	Ti 334.940†	219210.3	211837.8	519.57 µg/L	519.57 ppb	16:43:32
1	Tl 190.801†	307.7	325.0	521.92 µg/L	521.92 ppb	16:43:58
1	U 409.014†	5127.1	4935.2	526.28 µg/L	526.28 ppb	16:43:37
1	V 292.402†	42846.9	41796.6	522.20 µg/L	522.20 ppb	16:43:37
1	Zn 213.857†	21449.1	20133.2	514.67 µg/L	514.67 ppb	16:43:37
2	Sc RADIAL	55231.5	55231.5	99.3 %		16:42:34
2	Al 396.153Radial†	7011.3	7031.0	5145.3 µg/L	5145.3 ppb	16:42:34
2	Ca 317.933Radial†	5565.3	5400.3	4915.5 µg/L	4915.5 ppb	16:42:54
2	Fe 238.204 Radial†	259.9	248.3	4659.1 µg/L	4659.1 ppb	16:42:54
2	K 766.490 Radial†	8267.4	7799.4	5273.0 µg/L	5273.0 ppb	16:42:34
2	Mg 279.077 IEC†	387.8	381.8	4750.1 µg/L	4750.1 ppb	16:42:54
2	Na 589.592 Radial†	23167.6	22923.1	9906.2 µg/L	9906.2 ppb	16:42:34
2	Sr 421.552†	36524.0	36803.4	478.71 µg/L	478.71 ppb	16:42:34
2	Sc 361.383	1923080.1	1923080.1	102.93 %		16:44:05
2	Y 371.029	1183842.0	1183842.0	101.55 %		16:44:05
2	Ag 328.068†	56765.5	55360.0	518.92 µg/L	518.92 ppb	16:44:10
2	As 188.979†	316.1	311.3	534.23 µg/L	534.23 ppb	16:44:31
2	B 249.677†	14008.2	13216.8	511.04 µg/L	511.04 ppb	16:44:10
2	Ba 233.527†	19035.6	18539.8	518.36 µg/L	518.36 ppb	16:44:10
2	Be 313.107†	828968.2	801236.6	513.41 µg/L	513.41 ppb	16:44:05
2	Cd 226.502†	19186.5	18773.0	518.13 µg/L	518.13 ppb	16:44:10
2	Co 228.616†	10678.0	10362.5	521.46 µg/L	521.46 ppb	16:44:10
2	Cr 267.716†	23257.6	22737.0	524.76 µg/L	524.76 ppb	16:44:10
2	Cu 324.752†	78585.3	70415.3	514.04 µg/L	514.04 ppb	16:44:10
2	Mn 257.610†	155651.8	151474.6	527.47 µg/L	527.47 ppb	16:44:05
2	Mo 202.031†	4457.2	4310.1	536.14 µg/L	536.14 ppb	16:44:31
2	Ni 231.604†	9661.8	9056.1	520.03 µg/L	520.03 ppb	16:44:10
2	P 214.914†	1940.4	1620.9	2578.9 µg/L	2578.9 ppb	16:44:31
2	Pb 220.353†	2064.0	1924.2	521.83 µg/L	521.83 ppb	16:44:31

2	S 181.975 Axial†	324.8	282.2	1060.0 µg/L	1060.0 ppb	16:44:31
2	Sb 206.836†	611.7	569.8	530.94 µg/L	530.94 ppb	16:44:31
2	Se 196.026†	512.9	484.4	520.87 µg/L	520.87 ppb	16:44:31
2	SiO2†	37620.2	32926.5	5660.6 µg/L	5660.6 ppb	16:44:10
2	Si 251.611†	40499.2	38997.1	2598.5 µg/L	2598.5 ppb	16:44:10
2	Sn 189.927†	1094.4	1030.9	538.63 µg/L	538.63 ppb	16:44:31
2	Ti 334.940†	219168.7	212336.3	520.80 µg/L	520.80 ppb	16:44:05
2	Tl 190.801†	306.0	324.2	520.50 µg/L	520.50 ppb	16:44:31
2	U 409.014†	5155.0	4974.9	530.54 µg/L	530.54 ppb	16:44:10
2	V 292.402†	42887.2	41941.1	523.97 µg/L	523.97 ppb	16:44:10
2	Zn 213.857†	21397.2	20135.4	514.73 µg/L	514.73 ppb	16:44:10
3	Sc RADIAL	54495.0	54495.0	98.0 %		16:43:00
3	Al 396.153Radial†	7050.3	7166.1	5247.4 µg/L	5247.4 ppb	16:43:00
3	Ca 317.933Radial†	5613.3	5525.0	5029.0 µg/L	5029.0 ppb	16:43:20
3	Fe 238.204 Radial†	262.9	255.0	4782.2 µg/L	4782.2 ppb	16:43:20
3	K 766.490 Radial†	8261.6	7905.9	5345.1 µg/L	5345.1 ppb	16:43:00
3	Mg 279.077 IEC†	385.5	384.7	4783.9 µg/L	4783.9 ppb	16:43:20
3	Na 589.592 Radial†	23124.6	23194.5	10023 µg/L	10023 ppb	16:43:00
3	Sr 421.552†	36331.2	37103.6	482.61 µg/L	482.61 ppb	16:43:00
3	Sc 361.383	1921128.3	1921128.3	102.82 %		16:44:38
3	Y 371.029	1181994.9	1181994.9	101.39 %		16:44:38
3	Ag 328.068†	54445.8	53160.0	498.20 µg/L	498.20 ppb	16:44:44
3	As 188.979†	274.2	270.9	465.13 µg/L	465.13 ppb	16:45:04
3	B 249.677†	13407.1	12646.0	488.86 µg/L	488.86 ppb	16:44:44
3	Ba 233.527†	17922.9	17476.5	488.62 µg/L	488.62 ppb	16:44:44
3	Be 313.107†	790456.0	764600.4	489.93 µg/L	489.93 ppb	16:44:38
3	Cd 226.502†	18011.0	17648.8	487.03 µg/L	487.03 ppb	16:44:44
3	Co 228.616†	9978.7	9693.1	487.66 µg/L	487.66 ppb	16:44:44
3	Cr 267.716†	21110.3	20671.7	477.11 µg/L	477.11 ppb	16:44:44
3	Cu 324.752†	73587.6	65632.4	479.16 µg/L	479.16 ppb	16:44:44
3	Mn 257.610†	148699.1	144866.5	504.50 µg/L	504.50 ppb	16:44:38
3	Mo 202.031†	3845.4	3719.6	462.71 µg/L	462.71 ppb	16:45:04
3	Ni 231.604†	9000.8	8422.7	483.66 µg/L	483.66 ppb	16:44:44
3	P 214.914†	1740.4	1428.3	2268.1 µg/L	2268.1 ppb	16:45:04
3	Pb 220.353†	1847.1	1715.3	465.10 µg/L	465.10 ppb	16:45:04
3	S 181.975 Axial†	297.8	256.4	962.75 µg/L	962.75 ppb	16:45:04
3	Sb 206.836†	540.7	501.3	467.19 µg/L	467.19 ppb	16:45:04
3	Se 196.026†	462.1	435.4	469.00 µg/L	469.00 ppb	16:45:04
3	SiO2†	35716.0	31111.7	5348.6 µg/L	5348.6 ppb	16:44:44
3	Si 251.611†	38286.4	36885.1	2460.5 µg/L	2460.5 ppb	16:44:44
3	Sn 189.927†	920.9	863.2	451.23 µg/L	451.23 ppb	16:45:04
3	Ti 334.940†	208275.4	201958.4	495.32 µg/L	495.32 ppb	16:44:38
3	Tl 190.801†	279.1	298.3	479.17 µg/L	479.17 ppb	16:45:04
3	U 409.014†	4722.4	4559.3	486.09 µg/L	486.09 ppb	16:44:44
3	V 292.402†	39705.7	38889.2	485.61 µg/L	485.61 ppb	16:44:44
3	Zn 213.857†	20035.5	18832.3	481.32 µg/L	481.32 ppb	16:44:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1924055.3	102.98 %	0.188			0.18%
Sc RADIAL	54947.3	98.8 %	0.71			0.72%
Y 371.029	1184631.8	101.62 %	0.267			0.26%
Ag 328.068†	54547.4	511.27 µg/L	11.373	511.27 ppb	11.373	2.22%
QC value within limits for Ag 328.068 Recovery = 102.25%						
Al 396.153Radial†	7098.1	5195.5 µg/L	51.05	5195.5 ppb	51.05	0.98%
QC value within limits for Al 396.153Radial Recovery = 103.91%						
As 188.979†	297.8	511.01 µg/L	39.735	511.01 ppb	39.735	7.78%
QC value within limits for As 188.979 Recovery = 102.20%						
B 249.677†	13014.9	503.19 µg/L	12.424	503.19 ppb	12.424	2.47%
QC value within limits for B 249.677 Recovery = 100.64%						
Ba 233.527†	18166.7	507.92 µg/L	16.740	507.92 ppb	16.740	3.30%
QC value within limits for Ba 233.527 Recovery = 101.58%						
Be 313.107†	788587.2	505.30 µg/L	13.317	505.30 ppb	13.317	2.64%
QC value within limits for Be 313.107 Recovery = 101.06%						
Ca 317.933Radial†	5452.8	4963.3 µg/L	58.84	4963.3 ppb	58.84	1.19%
QC value within limits for Ca 317.933Radial Recovery = 99.27%						
Cd 226.502†	18386.1	507.42 µg/L	17.668	507.42 ppb	17.668	3.48%
QC value within limits for Cd 226.502 Recovery = 101.48%						
Co 228.616†	10135.3	509.99 µg/L	19.341	509.99 ppb	19.341	3.79%

QC value within limits for Co 228.616 Recovery = 102.00%							
Cr 267.716†	22029.1	508.43 µg/L	27.127	508.43 ppb	27.127	5.34%	
QC value within limits for Cr 267.716 Recovery = 101.69%							
Cu 324.752†	68677.4	501.37 µg/L	19.294	501.37 ppb	19.294	3.85%	
QC value within limits for Cu 324.752 Recovery = 100.27%							
Fe 238.204 Radial†	251.5	4717.1 µg/L	61.86	4717.1 ppb	61.86	1.31%	
QC value within limits for Fe 238.204 Radial Recovery = 94.34%							
K 766.490 Radial†	7844.7	5303.7 µg/L	37.21	5303.7 ppb	37.21	0.70%	
QC value within limits for K 766.490 Radial Recovery = 106.07%							
Mg 279.077 IEC†	382.9	4762.9 µg/L	18.38	4762.9 ppb	18.38	0.39%	
QC value within limits for Mg 279.077 IEC Recovery = 95.26%							
Mn 257.610†	149192.8	519.54 µg/L	13.032	519.54 ppb	13.032	2.51%	
QC value within limits for Mn 257.610 Recovery = 103.91%							
Mo 202.031†	4122.4	512.79 µg/L	43.412	512.79 ppb	43.412	8.47%	
QC value within limits for Mo 202.031 Recovery = 102.56%							
Na 589.592 Radial†	23056.6	9963.9 µg/L	58.65	9963.9 ppb	58.65	0.59%	
QC value within limits for Na 589.592 Radial Recovery = 99.64%							
Ni 231.604†	8838.2	507.51 µg/L	20.667	507.51 ppb	20.667	4.07%	
QC value within limits for Ni 231.604 Recovery = 101.50%							
P 214.914†	1558.2	2477.8 µg/L	181.62	2477.8 ppb	181.62	7.33%	
QC value within limits for P 214.914 Recovery = 99.11%							
Pb 220.353†	1865.0	505.76 µg/L	35.467	505.76 ppb	35.467	7.01%	
QC value within limits for Pb 220.353 Recovery = 101.15%							
S 181.975 Axial†	274.0	1029.1 µg/L	57.50	1029.1 ppb	57.50	5.59%	
QC value within limits for S 181.975 Axial Recovery = 102.91%							
Sb 206.836†	548.6	511.18 µg/L	38.156	511.18 ppb	38.156	7.46%	
QC value within limits for Sb 206.836 Recovery = 102.24%							
Se 196.026†	470.3	505.94 µg/L	32.184	505.94 ppb	32.184	6.36%	
QC value within limits for Se 196.026 Recovery = 101.19%							
SiO2†	32253.8	5545.0 µg/L	170.94	5545.0 ppb	170.94	3.08%	
QC value within limits for SiO2 Recovery = 103.69%							
Si 251.611†	38253.8	2549.8 µg/L	77.43	2549.8 ppb	77.43	3.04%	
QC value within limits for Si 251.611 Recovery = 101.99%							
Sn 189.927†	975.4	509.71 µg/L	50.644	509.71 ppb	50.644	9.94%	
QC value within limits for Sn 189.927 Recovery = 101.94%							
Sr 421.552†	36959.0	480.73 µg/L	1.956	480.73 ppb	1.956	0.41%	
QC value within limits for Sr 421.552 Recovery = 96.15%							
Ti 334.940†	208710.8	511.90 µg/L	14.367	511.90 ppb	14.367	2.81%	
QC value within limits for Ti 334.940 Recovery = 102.38%							
Tl 190.801†	315.8	507.20 µg/L	24.282	507.20 ppb	24.282	4.79%	
QC value within limits for Tl 190.801 Recovery = 101.44%							
U 409.014†	4823.1	514.30 µg/L	24.528	514.30 ppb	24.528	4.77%	
QC value within limits for U 409.014 Recovery = 102.86%							
V 292.402†	40875.6	510.59 µg/L	21.656	510.59 ppb	21.656	4.24%	
QC value within limits for V 292.402 Recovery = 102.12%							
Zn 213.857†	19700.3	503.57 µg/L	19.273	503.57 ppb	19.273	3.83%	
QC value within limits for Zn 213.857 Recovery = 100.71%							
All analyte(s) passed QC.							

Sequence No.: 23

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/11/2010 16:45:14

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	54232.3	54232.3	97.5 %		16:45:47
1	Al 396.153Radial†	31.7	5.8	4.2836 µg/L	4.2836 ppb	16:45:47
1	Ca 317.933Radial†	202.1	5.4	4.8967 µg/L	4.8967 ppb	16:46:07
1	Fe 238.204 Radial†	17.0	4.2	77.887 µg/L	77.887 ppb	16:46:07
1	K 766.490 Radial†	557.4	48.7	32.901 µg/L	32.901 ppb	16:45:47
1	Mg 279.077 IEC†	2.0	-6.5	-81.201 µg/L	-81.201 ppb	16:46:07
1	Na 589.592 Radial†	264.9	-126.1	-54.476 µg/L	-54.476 ppb	16:45:47
1	Sr 421.552†	-1.9	36.1	0.4698 µg/L	0.4698 ppb	16:45:47
1	Sc 361.383	1904928.7	1904928.7	101.96 %		16:47:09
1	Y 371.029	1173102.0	1173102.0	100.63 %		16:47:09
1	Ag 328.068†	-195.0	18.2	0.1808 µg/L	0.1808 ppb	16:47:14
1	As 188.979†	-1.8	2.5	4.3139 µg/L	4.3139 ppb	16:47:35
1	B 249.677†	428.6	27.5	1.0434 µg/L	1.0434 ppb	16:47:14
1	Ba 233.527†	-39.8	6.8	0.1904 µg/L	0.1904 ppb	16:47:35
1	Be 313.107†	4264.8	37.2	0.0238 µg/L	0.0238 ppb	16:47:09
1	Cd 226.502†	-130.3	4.6	0.1181 µg/L	0.1181 ppb	16:47:35
1	Co 228.616†	2.3	-9.3	-0.4688 µg/L	-0.4688 ppb	16:47:35
1	Cr 267.716†	-159.5	-15.3	-0.3506 µg/L	-0.3506 ppb	16:47:14
1	Cu 324.752†	5934.8	-113.3	-0.8192 µg/L	-0.8192 ppb	16:47:14
1	Mn 257.610†	-221.3	34.3	0.1291 µg/L	0.1291 ppb	16:47:14
1	Mo 202.031†	21.8	1.2	0.1470 µg/L	0.1470 ppb	16:47:35
1	Ni 231.604†	332.1	-5.0	-0.2894 µg/L	-0.2894 ppb	16:47:35
1	P 214.914†	272.1	2.6	4.2365 µg/L	4.2365 ppb	16:47:35
1	Pb 220.353†	91.5	8.6	2.3382 µg/L	2.3382 ppb	16:47:35
1	S 181.975 Axial†	31.4	-2.5	-9.2910 µg/L	-9.2910 ppb	16:47:35
1	Sb 206.836†	25.6	0.6	0.5898 µg/L	0.5898 ppb	16:47:35
1	Se 196.026†	13.3	-0.9	-0.8973 µg/L	-0.8973 ppb	16:47:35
1	SiO2†	3716.8	22.1	3.7939 µg/L	3.7939 ppb	16:47:14
1	Si 251.611†	390.6	33.3	2.2720 µg/L	2.2720 ppb	16:47:35
1	Sn 189.927†	31.5	-1.6	-0.8427 µg/L	-0.8427 ppb	16:47:35
1	Ti 334.940†	653.2	44.0	0.1077 µg/L	0.1077 ppb	16:47:14
1	Tl 190.801†	-31.8	-4.3	-6.8660 µg/L	-6.8660 ppb	16:47:35
1	U 409.014†	49.7	15.4	1.6288 µg/L	1.6288 ppb	16:47:14
1	V 292.402†	-219.8	58.5	0.7297 µg/L	0.7297 ppb	16:47:14
1	Zn 213.857†	636.6	-28.6	-0.7564 µg/L	-0.7564 ppb	16:47:35
2	Sc RADIAL	53670.2	53670.2	96.5 %		16:46:12
2	Al 396.153Radial†	18.4	-7.6	-5.6242 µg/L	-5.6242 ppb	16:46:12
2	Ca 317.933Radial†	193.5	-1.4	-1.2484 µg/L	-1.2484 ppb	16:46:33
2	Fe 238.204 Radial†	18.6	6.1	113.36 µg/L	113.36 ppb	16:46:33
2	K 766.490 Radial†	587.9	86.3	58.321 µg/L	58.321 ppb	16:46:12
2	Mg 279.077 IEC†	7.5	-0.8	-10.650 µg/L	-10.650 ppb	16:46:33
2	Na 589.592 Radial†	277.4	-110.2	-47.637 µg/L	-47.637 ppb	16:46:12
2	Sr 421.552†	-20.3	17.0	0.2215 µg/L	0.2215 ppb	16:46:12
2	Sc 361.383	1906186.0	1906186.0	102.02 %		16:47:40
2	Y 371.029	1173874.9	1173874.9	100.70 %		16:47:40
2	Ag 328.068†	-252.1	-37.6	-0.3388 µg/L	-0.3388 ppb	16:47:46
2	As 188.979†	-6.2	-1.8	-3.0663 µg/L	-3.0663 ppb	16:48:06
2	B 249.677†	397.4	-3.4	-0.1656 µg/L	-0.1656 ppb	16:47:46
2	Ba 233.527†	-38.4	8.1	0.2265 µg/L	0.2265 ppb	16:48:06
2	Be 313.107†	4220.8	-8.6	-0.0056 µg/L	-0.0056 ppb	16:47:40
2	Cd 226.502†	-130.5	4.5	0.1124 µg/L	0.1124 ppb	16:48:06
2	Co 228.616†	9.1	-2.7	-0.1338 µg/L	-0.1338 ppb	16:48:06
2	Cr 267.716†	-124.0	19.6	0.4518 µg/L	0.4518 ppb	16:47:46
2	Cu 324.752†	5990.6	-62.4	-0.4450 µg/L	-0.4450 ppb	16:47:46
2	Mn 257.610†	-207.9	47.6	0.1799 µg/L	0.1799 ppb	16:47:46
2	Mo 202.031†	26.5	5.7	0.7157 µg/L	0.7157 ppb	16:48:06
2	Ni 231.604†	317.4	-19.7	-1.1299 µg/L	-1.1299 ppb	16:48:06
2	P 214.914†	274.3	4.6	7.3393 µg/L	7.3393 ppb	16:48:06
2	Pb 220.353†	84.9	2.1	0.5595 µg/L	0.5595 ppb	16:48:06

2	S 181.975 Axial†	39.4	5.3	20.099 µg/L	20.099 ppb	16:48:06
2	Sb 206.836†	22.3	-2.7	-2.4892 µg/L	-2.4892 ppb	16:48:06
2	Se 196.026†	6.6	-7.5	-7.8555 µg/L	-7.8555 ppb	16:48:06
2	SiO2†	3780.1	81.7	14.046 µg/L	14.046 ppb	16:47:46
2	Si 251.611†	393.0	35.4	2.3341 µg/L	2.3341 ppb	16:48:06
2	Sn 189.927†	34.8	1.7	0.8509 µg/L	0.8509 ppb	16:48:06
2	Ti 334.940†	648.8	39.2	0.0963 µg/L	0.0963 ppb	16:47:46
2	Tl 190.801†	-31.2	-3.7	-5.9777 µg/L	-5.9777 ppb	16:48:06
2	U 409.014†	106.1	70.6	7.5253 µg/L	7.5253 ppb	16:47:46
2	V 292.402†	-260.2	19.0	0.2555 µg/L	0.2555 ppb	16:47:46
2	Zn 213.857†	640.4	-25.2	-0.6746 µg/L	-0.6746 ppb	16:48:06
3	Sc RADIAL	54241.8	54241.8	97.6 %		16:46:38
3	Al 396.153Radial†	30.6	4.6	3.3688 µg/L	3.3688 ppb	16:46:38
3	Ca 317.933Radial†	194.9	-2.0	-1.8139 µg/L	-1.8139 ppb	16:46:59
3	Fe 238.204 Radial†	15.8	3.0	55.638 µg/L	55.638 ppb	16:46:59
3	K 766.490 Radial†	595.0	87.1	58.919 µg/L	58.919 ppb	16:46:38
3	Mg 279.077 IEC†	6.8	-1.6	-20.147 µg/L	-20.147 ppb	16:46:59
3	Na 589.592 Radial†	272.0	-118.8	-51.338 µg/L	-51.338 ppb	16:46:38
3	Sr 421.552†	-6.3	31.6	0.4113 µg/L	0.4113 ppb	16:46:38
3	Sc 361.383	1901260.9	1901260.9	101.76 %		16:48:12
3	Y 371.029	1171025.0	1171025.0	100.45 %		16:48:12
3	Ag 328.068†	-220.6	-7.2	-0.0591 µg/L	-0.0591 ppb	16:48:18
3	As 188.979†	-6.4	-2.0	-3.4294 µg/L	-3.4294 ppb	16:48:38
3	B 249.677†	424.7	24.5	0.9314 µg/L	0.9314 ppb	16:48:18
3	Ba 233.527†	-35.7	10.7	0.2996 µg/L	0.2996 ppb	16:48:38
3	Be 313.107†	4217.7	-1.0	-0.0007 µg/L	-0.0007 ppb	16:48:12
3	Cd 226.502†	-124.0	10.6	0.2849 µg/L	0.2849 ppb	16:48:38
3	Co 228.616†	4.4	-7.3	-0.3649 µg/L	-0.3649 ppb	16:48:38
3	Cr 267.716†	-118.1	25.1	0.5787 µg/L	0.5787 ppb	16:48:18
3	Cu 324.752†	5951.5	-85.6	-0.6192 µg/L	-0.6192 ppb	16:48:18
3	Mn 257.610†	-214.5	40.6	0.1484 µg/L	0.1484 ppb	16:48:18
3	Mo 202.031†	27.2	6.5	0.8099 µg/L	0.8099 ppb	16:48:38
3	Ni 231.604†	324.1	-12.3	-0.7091 µg/L	-0.7091 ppb	16:48:38
3	P 214.914†	270.0	1.0	1.6027 µg/L	1.6027 ppb	16:48:38
3	Pb 220.353†	100.1	17.3	4.6771 µg/L	4.6771 ppb	16:48:38
3	S 181.975 Axial†	39.7	5.7	21.382 µg/L	21.382 ppb	16:48:38
3	Sb 206.836†	16.0	-8.8	-8.1769 µg/L	-8.1769 ppb	16:48:38
3	Se 196.026†	9.0	-5.1	-5.3868 µg/L	-5.3868 ppb	16:48:38
3	SiO2†	3717.6	29.9	5.1376 µg/L	5.1376 ppb	16:48:18
3	Si 251.611†	383.0	26.5	1.8291 µg/L	1.8291 ppb	16:48:38
3	Sn 189.927†	29.5	-3.4	-1.7871 µg/L	-1.7871 ppb	16:48:38
3	Ti 334.940†	663.4	55.2	0.1356 µg/L	0.1356 ppb	16:48:18
3	Tl 190.801†	-27.4	-0.0	-0.0452 µg/L	-0.0452 ppb	16:48:38
3	U 409.014†	47.8	13.6	1.4450 µg/L	1.4450 ppb	16:48:18
3	V 292.402†	-234.8	43.3	0.5455 µg/L	0.5455 ppb	16:48:18
3	Zn 213.857†	635.3	-28.7	-0.7497 µg/L	-0.7497 ppb	16:48:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1904125.2	101.91 %		0.137				0.13%
Sc RADIAL	54048.1	97.2 %		0.59				0.61%
Y 371.029	1172667.3	100.59 %		0.126				0.13%
Ag 328.068†	-8.8	-0.0724 µg/L		0.26005	-0.0724 ppb		0.26005	359.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.9	0.6760 µg/L		5.47536	0.6760 ppb		5.47536	809.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.4	-0.7272 µg/L		4.36954	-0.7272 ppb		4.36954	600.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	16.2	0.6031 µg/L		0.66805	0.6031 ppb		0.66805	110.78%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.5	0.2388 µg/L		0.05565	0.2388 ppb		0.05565	23.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	9.2	0.0059 µg/L		0.01575	0.0059 ppb		0.01575	268.25%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.7	0.6114 µg/L		3.72189	0.6114 ppb		3.72189	608.70%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.6	0.1718 µg/L		0.09802	0.1718 ppb		0.09802	57.06%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-6.4	-0.3225 µg/L		0.17153	-0.3225 ppb		0.17153	53.18%

Cr 267.716†	9.8	0.2266 µg/L	0.50388	0.2266 ppb	0.50388	222.32%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cu 324.752†	-87.1	-0.6278 µg/L	0.18726	-0.6278 ppb	0.18726	29.83%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Fe 238.204 Radial†	4.4	82.295 µg/L	29.1128	82.295 ppb	29.1128	35.38%
QC value within limits for Cu 324.752 Recovery = Not calculated						
K 766.490 Radial†	74.0	50.047 µg/L	14.8516	50.047 ppb	14.8516	29.68%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-3.0	-37.333 µg/L	38.2868	-37.333 ppb	38.2868	102.56%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mn 257.610†	40.9	0.1525 µg/L	0.02566	0.1525 ppb	0.02566	16.83%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mo 202.031†	4.5	0.5575 µg/L	0.35861	0.5575 ppb	0.35861	64.32%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Na 589.592 Radial†	-118.4	-51.150 µg/L	3.4236	-51.150 ppb	3.4236	6.69%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	-12.4	-0.7095 µg/L	0.42025	-0.7095 ppb	0.42025	59.24%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
P 214.914†	2.7	4.3928 µg/L	2.87148	4.3928 ppb	2.87148	65.37%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Pb 220.353†	9.3	2.5249 µg/L	2.06515	2.5249 ppb	2.06515	81.79%
QC value within limits for P 214.914 Recovery = Not calculated						
S 181.975 Axial†	2.9	10.730 µg/L	17.3506	10.730 ppb	17.3506	161.70%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	-3.6	-3.3588 µg/L	4.44755	-3.3588 ppb	4.44755	132.42%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Se 196.026†	-4.5	-4.7132 µg/L	3.52768	-4.7132 ppb	3.52768	74.85%
QC value within limits for Sb 206.836 Recovery = Not calculated						
SiO2†	44.6	7.6593 µg/L	5.57207	7.6593 ppb	5.57207	72.75%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	31.7	2.1450 µg/L	0.27537	2.1450 ppb	0.27537	12.84%
QC value within limits for SiO2 Recovery = Not calculated						
Sn 189.927†	-1.1	-0.5930 µg/L	1.33658	-0.5930 ppb	1.33658	225.41%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sr 421.552†	28.3	0.3675 µg/L	0.12978	0.3675 ppb	0.12978	35.31%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 334.940†	46.2	0.1132 µg/L	0.02023	0.1132 ppb	0.02023	17.87%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Tl 190.801†	-2.7	-4.2963 µg/L	3.70826	-4.2963 ppb	3.70826	86.31%
QC value within limits for Ti 334.940 Recovery = Not calculated						
U 409.014†	33.2	3.5330 µg/L	3.45865	3.5330 ppb	3.45865	97.89%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	40.2	0.5103 µg/L	0.23907	0.5103 ppb	0.23907	46.85%
QC value within limits for U 409.014 Recovery = Not calculated						
Zn 213.857†	-27.5	-0.7269 µg/L	0.04541	-0.7269 ppb	0.04541	6.25%
QC value within limits for V 292.402 Recovery = Not calculated						
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

ICPMS #6 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Thursday, January 14, 2010 22:28:35

Sample Description:

Method File: C:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\091212\Sample.254

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		1466.5		1466.475		63.499		4.3
Mg	24.0		21178.1		21178.088		215.477		1.0
Co	58.9		35590.7		35590.685		453.803		1.3
Rh	102.9		65103.8		65103.813		303.865		0.5
In	114.9		73018.5		73018.537		339.841		0.5
Pb	208.0		45960.6		45960.621		478.231		1.0
[> Ba	137.9		72708.3		72708.310		600.325		0.8
[Ba++	69.0		1905.1		0.026		0.000		1.3
[> Ce	139.9		91020.7		91020.663		793.064		0.9
[CeO	155.9		1540.3		0.017		0.000		1.3
Bkgd	220.0		15.4		15.400		2.329		15.1

Current Optimization File Data

Current Value	Description
0.81	Nebulizer Gas Flow
13.25	Lens Voltage
1450.00	ICP RF Power
-1781.25	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	11.0	3218.4
Co	59	17	12.3	34144.1
In	115	17	14.0	75235.6

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	590	2080	0.655
Be	9.0	9.0	2031	2080	0.666
Mg	24.0	23.9	5672	2120	0.617
Mg	25.0	24.9	5915	2080	0.703
Mg	26.0	26.0	6172	2120	0.691
Co	58.9	58.9	14167	2170	0.631
Rh	102.9	103.0	24870	2230	0.686
In	114.9	114.9	27791	2260	0.678
Ce	139.9	139.9	33848	2280	0.739
Pb	206.0	206.0	49948	2430	0.717
Pb	207.0	207.0	50135	2385	0.659
Pb	208.0	207.9	50451	2430	0.708
U	238.1	238.1	57737	2470	0.695

ICPMS#6 - Summary Report

Sample ID: Blank

Sample Date/Time: Friday, January 15, 2010 04:40:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\Blank.094

Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	ug/L		46	
Be	9	ug/L		14	
B	11	ug/L		837	
Na	23	ug/L		13006	
Mg	24	ug/L		3334	
Al	27	ug/L		4001	
P	31	ug/L		4519	
K	39	ug/L		657146	
Ca	43	ug/L		452	
> Sc	45	ug/L		1026504	
V	51	ug/L		10930	
Cr	52	ug/L		996	
Cr	53	ug/L		75686	
Mn	55	ug/L		891	
Fe	57	ug/L		5355	
Co	59	ug/L		224	
Ni	60	ug/L		77	
Cu	63	ug/L		142	
Cu	65	ug/L		88	
Zn	66	ug/L		149	
Zn	67	ug/L		7168	
Zn	68	ug/L		800	
> Ge	74	ug/L		199165	
As	75	ug/L		197	
Se	77	ug/L		2687	
Se	82	ug/L		-26	
Kr	83	ug/L		95	
Sr	88	ug/L		129	
Y	89	ug/L		41	
Ag	107	ug/L		53	
Cd	111	ug/L		25	
Cd	114	ug/L		33	
> In	115	ug/L		99470	
Sn	120	ug/L		156	
Sb	121	ug/L		302	
Sb	123	ug/L		248	
Ba	135	ug/L		26	
Ba	137	ug/L		30	
Ho	165	ug/L		19	
> Lu	175	ug/L		139088	
Tl	205	ug/L		474	
Pb	208	ug/L		412	
Bi	209	ug/L		23	
U	238	ug/L		195	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Simple Linear	
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	
V	51Simple Linear	
Cr	52Simple Linear	
Cr	53Simple Linear	
Mn	55Simple Linear	
Fe	57Simple Linear	
Co	59Simple Linear	
Ni	60Simple Linear	
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	
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	
U	238Simple Linear	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175					
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Friday, January 15, 2010 04:46:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\Standard 1.095

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.000	ug/L	3.527	6499	0.006
Be	9	10.000	ug/L	5.828	3052	0.003
B	11	20.000	ug/L	6.543	6380	0.005
Na	23	1000.000	ug/L	1.552	3532687	3.456
Mg	24	1000.000	ug/L	12.650	2462658	2.418
Al	27	1000.000	ug/L	5.776	3644626	3.576
P	31	1000.000	ug/L	1.197	204552	0.196
K	39	1000.000	ug/L	5.277	4683365	3.960
Ca	43	1000.000	ug/L	1.875	9300	0.009
> Sc	45		ug/L		1018468	1018468.477
V	51	10.000	ug/L	4.265	55142	0.044
Cr	52	10.000	ug/L	0.971	38120	0.036
Cr	53		ug/L		80997	0.006
Mn	55	10.000	ug/L	2.066	55803	0.054
Fe	57	1000.000	ug/L	1.918	111196	0.104
Co	59	10.000	ug/L	2.612	39139	0.038
Ni	60	10.000	ug/L	1.373	8317	0.008
Cu	63		ug/L		19558	0.019
Cu	65	10.000	ug/L	1.049	9396	0.009
Zn	66	10.000	ug/L	2.639	6578	0.032
Zn	67		ug/L		8287	0.005
Zn	68		ug/L		5446	0.023
> Ge	74		ug/L		200308	200308.460
As	75	10.000	ug/L	4.622	7328	0.036
Se	77		ug/L		3223	0.003
Se	82	10.000	ug/L	4.986	615	0.003
Kr	83		ug/L		83	-0.000
Sr	88	10.000	ug/L	2.126	75534	0.751
Y	89		ug/L		46	0.000
Ag	107	10.000	ug/L	2.594	30094	0.299
Cd	111	10.000	ug/L	0.855	7195	0.071
Cd	114		ug/L		16102	0.160
> In	115		ug/L		100359	100358.573
Sn	120	10.000	ug/L	1.117	28840	0.286
Sb	121	10.000	ug/L	13.175	21765	0.214
Sb	123		ug/L		16707	0.164
Ba	135		ug/L		6890	0.050
Ba	137	10.000	ug/L	1.152	12094	0.087
Ho	165		ug/L		18	-0.000
> Lu	175		ug/L		138417	138416.716
Tl	205	10.000	ug/L	0.893	56604	0.406
Pb	208	10.000	ug/L	0.683	97243	0.700
Bi	209		ug/L		28	0.000
U	238	10.000	ug/L	0.982	97043	0.700

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	
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	
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	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175					
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Friday, January 15, 2010 04:52:24

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\Standard 2.096

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	100.027	ug/L	5.567	65570	0.065
Be	9	100.007	ug/L	1.458	30214	0.030
B	11	200.018	ug/L	1.528	56148	0.055
Na	23	10005.318	ug/L	5.898	36735772	36.525
Mg	24	10004.476	ug/L	2.701	25465387	25.321
Al	27	9993.055	ug/L	4.339	33597275	33.411
P	31	9993.849	ug/L	1.631	1864166	1.850
K	39	10004.082	ug/L	12.737	42158622	41.302
Ca	43	9999.944	ug/L	0.311	87800	0.087
> Sc	45		ug/L		1005527	1005526.871
V	51	99.971	ug/L	0.808	435659	0.423
Cr	52	99.974	ug/L	0.858	358336	0.355
Cr	53		ug/L		114531	0.040
Mn	55	99.986	ug/L	0.244	535701	0.532
Fe	57	9997.220	ug/L	1.379	1022298	1.011
Co	59	99.983	ug/L	1.092	377878	0.376
Ni	60	99.975	ug/L	0.129	79464	0.079
Cu	63		ug/L		185138	0.184
Cu	65	99.987	ug/L	0.078	90758	0.090
Zn	66	100.008	ug/L	1.027	63516	0.324
Zn	67		ug/L		17467	0.053
Zn	68		ug/L		47000	0.236
> Ge	74		ug/L		195881	195881.126
As	75	100.039	ug/L	1.255	72798	0.371
Se	77		ug/L		7292	0.024
Se	82	99.973	ug/L	1.724	6080	0.031
Kr	83		ug/L		86	-0.000
Sr	88	99.986	ug/L	0.477	731434	7.410
Y	89		ug/L		107	0.001
Ag	107	99.978	ug/L	0.632	289225	2.930
Cd	111	100.011	ug/L	0.739	71353	0.723
Cd	114		ug/L		159843	1.619
> In	115		ug/L		98692	98691.529
Sn	120	99.984	ug/L	1.346	277750	2.813
Sb	121	100.155	ug/L	6.412	250113	2.532
Sb	123		ug/L		193096	1.955
Ba	135		ug/L		68218	0.497
Ba	137	100.002	ug/L	1.426	119851	0.873
Ho	165		ug/L		19	-0.000
> Lu	175		ug/L		137280	137280.258
Tl	205	99.974	ug/L	0.518	543008	3.952
Pb	208	99.981	ug/L	0.724	942645	6.864
Bi	209		ug/L		75	0.000
U	238	99.955	ug/L	0.884	919303	6.695

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
> |	Sc	45				
|	V	51				
|	Cr	52				
|	Cr	53				
|	Mn	55				
|	Fe	57				
|	Co	59				
|	Ni	60				
|	Cu	63				
|	Cu	65				
|	Zn	66				
|	Zn	67				
|	Zn	68				
> |	Ge	74				
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
|	Sr	88				
|	Y	89				
|	Ag	107				
|	Cd	111				
|	Cd	114				
> |	In	115				
|	Sn	120				
|	Sb	121				
|	Sb	123				
|	Ba	135				
|	Ba	137				
|	Ho	165				
> |	Lu	175				
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	U	238				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Friday, January 15, 2010 04:58:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nohrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 1.097

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.973	ug/L	4.866	33374	0.033
Be	9	50.376	ug/L	1.052	15201	0.015
B	11	101.617	ug/L	1.310	28884	0.028
Na	23	4288.383	ug/L	4.313	15727502	15.655
Mg	24	4973.097	ug/L	6.774	12641285	12.587
Al	27	5207.227	ug/L	3.135	17482176	17.410
P	31	5064.088	ug/L	1.608	945315	0.937
K	39	4877.914	ug/L	8.439	20856955	20.139
Ca	43	4951.802	ug/L	1.107	43633	0.043
> Sc	45		ug/L		1003964	1003963.560
V	51	50.387	ug/L	0.704	224545	0.213
Cr	52	51.318	ug/L	0.571	184126	0.182
Cr	53		ug/L		95681	0.022
Mn	55	51.290	ug/L	0.751	274788	0.273
Fe	57	5062.042	ug/L	0.814	519375	0.512
Co	59	49.721	ug/L	0.420	187726	0.187
Ni	60	50.825	ug/L	1.051	40371	0.040
Cu	63		ug/L		93234	0.093
Cu	65	50.792	ug/L	1.245	46073	0.046
Zn	66	50.685	ug/L	2.227	32598	0.164
Zn	67		ug/L		12463	0.027
Zn	68		ug/L		24587	0.120
> Ge	74		ug/L		197953	197952.943
As	75	45.878	ug/L	0.627	33844	0.170
Se	77		ug/L		4896	0.011
Se	82	48.089	ug/L	1.093	2942	0.015
Kr	83		ug/L		90	-0.000
Sr	88	51.059	ug/L	0.123	375092	3.784
Y	89		ug/L		57	0.000
Ag	107	50.252	ug/L	1.118	145976	1.473
Cd	111	48.912	ug/L	2.087	35042	0.353
Cd	114		ug/L		80546	0.813
> In	115		ug/L		99089	99089.211
Sn	120	50.586	ug/L	2.308	141156	1.423
Sb	121	49.125	ug/L	10.368	123298	1.242
Sb	123		ug/L		94914	0.956
Ba	135		ug/L		34312	0.246
Ba	137	49.502	ug/L	0.292	60308	0.432
Ho	165		ug/L		25	0.000
> Lu	175		ug/L		139495	139494.543
Tl	205	48.098	ug/L	0.941	265715	1.901
Pb	208	49.920	ug/L	0.797	478473	3.427
Bi	209		ug/L		97	0.001
U	238	52.993	ug/L	0.179	495350	3.550

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Li	7	101.946			
|	Be	9	100.751			
|	B	11	101.617			
|	Na	23	85.768			
|	Mg	24	99.462			
|	Al	27	103.113			
|	P	31	101.282			
|	K	39	97.558			
|	Ca	43	99.036			
>	Sc	45		97.8		
|	V	51	100.774			
|	Cr	52	102.637			
|	Cr	53				
|	Mn	55	102.579			
|	Fe	57	101.241			
|	Co	59	99.442			
|	Ni	60	101.650			
|	Cu	63				
|	Cu	65	101.585			
|	Zn	66	101.371			
|	Zn	67				
|	Zn	68				
>	Ge	74		99.4		
|	As	75	91.755			
|	Se	77				
|	Se	82	96.178			
|	Kr	83				
|	Sr	88	102.119			
|	Y	89				
|	Ag	107	100.504			
|	Cd	111	97.824			
|	Cd	114				
>	In	115		99.6		
|	Sn	120	101.171			
|	Sb	121	98.251			
|	Sb	123				
|	Ba	135				
|	Ba	137	99.005			
|	Ho	165				
>	Lu	175		100.3		
|	Tl	205	96.196			
|	Pb	208	99.841			
|	Bi	209				
|	U	238	105.987			

QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
QC Std 1	Na	23ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Friday, January 15, 2010 05:04:11

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 2.098

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.010	ug/L	160.915	52	0.000
Be	9	0.002	ug/L	409.681	14	0.000
B	11	2.263	ug/L	26.197	1461	0.001
Na	23	-0.863	ug/L	129.548	9670	-0.003
Mg	24	-0.241	ug/L	341.862	2667	-0.001
Al	27	0.108	ug/L	304.316	4334	0.000
P	31	0.616	ug/L	74.749	4587	0.000
K	39	5.616	ug/L	46.983	673865	0.023
Ca	43	4.302	ug/L	33.124	485	0.000
> Sc	45		ug/L		1015811	1015810.657
V	51	0.350	ug/L	150.337	12310	0.001
Cr	52	-0.048	ug/L	89.300	812	-0.000
Cr	53		ug/L		73698	-0.001
Mn	55	-0.010	ug/L	34.593	825	-0.000
Fe	57	3.133	ug/L	69.222	5620	0.000
Co	59	0.010	ug/L	52.827	259	0.000
Ni	60	0.048	ug/L	181.594	115	0.000
Cu	63		ug/L		146	0.000
Cu	65	0.006	ug/L	80.480	93	0.000
Zn	66	-0.012	ug/L	73.091	141	-0.000
Zn	67		ug/L		7018	-0.001
Zn	68		ug/L		780	-0.000
> Ge	74		ug/L		198131	198131.490
As	75	-0.244	ug/L	34.764	16	-0.001
Se	77		ug/L		2505	-0.001
Se	82	0.215	ug/L	11.391	-13	0.000
Kr	83		ug/L		88	-0.000
Sr	88	0.000	ug/L	1128.997	132	0.000
Y	89		ug/L		40	-0.000
Ag	107	0.003	ug/L	58.476	62	0.000
Cd	111	-0.013	ug/L	43.585	16	-0.000
Cd	114		ug/L		35	0.000
> In	115		ug/L		100495	100494.879
Sn	120	0.192	ug/L	11.174	702	0.005
Sb	121	0.827	ug/L	17.642	2405	0.021
Sb	123		ug/L		1822	0.016
Ba	135		ug/L		22	-0.000
Ba	137	-0.001	ug/L	823.150	29	-0.000
Ho	165		ug/L		18	-0.000
> Lu	175		ug/L		139520	139519.815
Tl	205	0.026	ug/L	58.512	621	0.001
Pb	208	0.001	ug/L	178.706	425	0.000
Bi	209		ug/L		21	-0.000
U	238	0.068	ug/L	3.776	832	0.005

Sample ID: QC Std 2

Report Date/Time: Friday, January 15, 2010 05:06:43

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			99.0		
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74			99.5		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115			101.0		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			100.3		
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Friday, January 15, 2010 05:10:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nohrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 3.099

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.853	ug/L	2.580	7156	0.007
Be	9	0.524	ug/L	3.206	172	0.000
B	11	16.622	ug/L	2.674	5420	0.005
Na	23	266.923	ug/L	14.084	993874	0.974
Mg	24	18.659	ug/L	13.838	50758	0.047
Al	27	34.165	ug/L	5.510	118826	0.114
P	31	59.288	ug/L	1.484	15466	0.011
K	39	312.245	ug/L	11.855	1941084	1.289
Ca	43	229.072	ug/L	1.938	2445	0.002
> Sc	45		ug/L		1005918	1005917.924
V	51	11.059	ug/L	3.464	57733	0.047
Cr	52	11.110	ug/L	0.994	40703	0.039
Cr	53		ug/L		80333	0.006
Mn	55	5.753	ug/L	0.959	31657	0.031
Fe	57	115.382	ug/L	1.786	16991	0.012
Co	59	1.116	ug/L	1.244	4438	0.004
Ni	60	2.207	ug/L	2.981	1828	0.002
Cu	63		ug/L		2312	0.002
Cu	65	1.180	ug/L	1.251	1157	0.001
Zn	66	11.089	ug/L	0.950	7268	0.036
Zn	67		ug/L		8351	0.006
Zn	68		ug/L		5902	0.026
> Ge	74		ug/L		198477	198477.004
As	75	5.321	ug/L	5.474	4108	0.020
Se	77		ug/L		2959	0.001
Se	82	5.510	ug/L	2.633	315	0.002
Kr	83		ug/L		88	-0.000
Sr	88	11.365	ug/L	0.443	85022	0.842
Y	89		ug/L		43	0.000
Ag	107	1.017	ug/L	2.755	3057	0.030
Cd	111	1.041	ug/L	3.763	783	0.008
Cd	114		ug/L		1793	0.017
> In	115		ug/L		100783	100783.184
Sn	120	5.351	ug/L	2.186	15327	0.151
Sb	121	2.663	ug/L	13.518	7088	0.067
Sb	123		ug/L		5503	0.052
Ba	135		ug/L		1490	0.011
Ba	137	2.161	ug/L	1.470	2655	0.019
Ho	165		ug/L		18	-0.000
> Lu	175		ug/L		139115	139114.805
Tl	205	1.061	ug/L	1.896	6309	0.042
Pb	208	2.234	ug/L	1.346	21750	0.153
Bi	209		ug/L		23	0.000
U	238	0.248	ug/L	1.640	2507	0.017

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7	108.528				
Be	9	104.781				
B	11	110.813				
Na	23	106.769				
Mg	24	124.393				
Al	27	113.884				
P	31	118.577				
K	39	104.082				
Ca	43	114.536				
> Sc	45		98.0			
V	51	110.590				
Cr	52	111.102				
Cr	53					
Mn	55	115.063				
Fe	57	115.382				
Co	59	111.645				
Ni	60	110.350				
Cu	63					
Cu	65	117.974				
Zn	66	110.886				
Zn	67					
Zn	68					
> Ge	74		99.7			
As	75	106.414				
Se	77					
Se	82	110.203				
Kr	83					
Sr	88	113.651				
Y	89					
Ag	107	101.722				
Cd	111	104.114				
Cd	114					
> In	115		101.3			
Sn	120	107.011				
Sb	121	88.762				
Sb	123					
Ba	135					
Ba	137	108.070				
Ho	165					
> Lu	175		100.0			
Tl	205	106.102				
Pb	208	111.716				
Bi	209					
U	238	124.033				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Friday, January 15, 2010 05:16:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nohrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 4.100

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.278	ug/L	12.913	228	0.000
Be	9	0.059	ug/L	23.027	31	0.000
B	11	1.640	ug/L	10.712	1283	0.000
Na	23	84716.405	ug/L	5.272	313255945	309.260
Mg	24	95541.465	ug/L	5.588	244846250	241.808
Al	27	104431.327	ug/L	5.999	353646320	349.158
P	31	92628.819	ug/L	1.267	17366505	17.143
K	39	88158.216	ug/L	3.056	369288182	363.966
Ca	43	88535.743	ug/L	1.341	779431	0.769
> Sc	45		ug/L		1012742	1012742.207
V	51	0.269	ug/L	111.575	11935	0.001
Cr	52	2.684	ug/L	1.540	10646	0.010
Cr	53		ug/L		78781	0.004
Mn	55	5.338	ug/L	0.825	29639	0.028
Fe	57	89501.292	ug/L	0.432	9175596	9.055
Co	59	0.295	ug/L	3.429	1343	0.001
Ni	60	2.877	ug/L	5.401	2377	0.002
Cu	63		ug/L		3536	0.003
Cu	65	3.713	ug/L	1.352	3478	0.003
Zn	66	3.905	ug/L	2.794	2576	0.013
Zn	67		ug/L		9186	0.012
Zn	68		ug/L		1301	0.003
> Ge	74		ug/L		192480	192479.655
As	75	-0.056	ug/L	608.243	151	-0.000
Se	77		ug/L		4629	0.011
Se	82	-0.532	ug/L	22.149	-58	-0.000
Kr	83		ug/L		177	0.000
Sr	88	1.113	ug/L	0.460	8110	0.082
Y	89		ug/L		263	0.002
Ag	107	0.303	ug/L	36.935	914	0.009
Cd	111	1.184	ug/L	37.598	855	0.009
Cd	114		ug/L		4706	0.048
> In	115		ug/L		96800	96800.030
Sn	120	0.216	ug/L	3.086	741	0.006
Sb	121	0.398	ug/L	24.609	1269	0.010
Sb	123		ug/L		1027	0.008
Ba	135		ug/L		442	0.003
Ba	137	0.609	ug/L	2.049	771	0.005
Ho	165		ug/L		416	0.003
> Lu	175		ug/L		139406	139405.650
Tl	205	-0.015	ug/L	34.896	392	-0.001
Pb	208	0.160	ug/L	2.022	1941	0.011
Bi	209		ug/L		317	0.002
U	238	-0.003	ug/L	72.024	170	-0.000

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
|	Li	7					
|	Be	9					
|	B	11					
|	Na	23	84.716				
|	Mg	24	95.541				
|	Al	27	104.431				
|	P	31	92.629				
|	K	39	88.158				
|	Ca	43	88.536				
> |	Sc	45		98.7			
|	V	51					
|	Cr	52	72.542				
|	Cr	53					
|	Mn	55	92.040				
|	Fe	57	89.501				
|	Co	59	117.992				
|	Ni	60	106.549				
|	Cu	63					
|	Cu	65	128.018				
|	Zn	66	108.486				
|	Zn	67					
|	Zn	68					
> |	Ge	74		96.6			
|	As	75					
|	Se	77					
|	Se	82					
|	Kr	83					
|	Sr	88	92.746				
|	Y	89					
|	Ag	107					
|	Cd	111	296.089				
|	Cd	114					
> |	In	115		97.3			
|	Sn	120					
|	Sb	121	397.708				
|	Sb	123					
|	Ba	135					
|	Ba	137	90.844				
|	Ho	165					
> |	Lu	175		100.2			
|	Tl	205					
|	Pb	208	79.860				
|	Bi	209					
|	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Friday, January 15, 2010 05:21:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nohrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 5.101

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	20.494	ug/L	0.883	13459	0.013
Be	9	20.546	ug/L	2.034	6214	0.006
B	11	21.806	ug/L	0.781	6848	0.006
Na	23	92316.881	ug/L	2.824	338637024	337.006
Mg	24	99133.673	ug/L	5.056	252072914	250.899
Al	27	101776.016	ug/L	6.934	341922271	340.280
P	31	94064.286	ug/L	1.235	17497938	17.409
K	39	91434.488	ug/L	4.163	379961251	377.493
Ca	43	88056.353	ug/L	0.788	769214	0.765
> Sc	45		ug/L		1004928	1004927.748
V	51	19.106	ug/L	1.081	91869	0.081
Cr	52	21.658	ug/L	0.567	78340	0.077
Cr	53		ug/L		86473	0.012
Mn	55	24.297	ug/L	0.832	130757	0.129
Fe	57	89356.599	ug/L	2.486	9089138	9.040
Co	59	18.695	ug/L	0.491	70790	0.070
Ni	60	21.028	ug/L	1.020	16763	0.017
Cu	63		ug/L		36226	0.036
Cu	65	21.140	ug/L	1.522	19244	0.019
Zn	66	22.018	ug/L	0.899	13778	0.071
Zn	67		ug/L		11284	0.023
Zn	68		ug/L		9451	0.045
> Ge	74		ug/L		191440	191439.861
As	75	19.509	ug/L	2.477	14028	0.072
Se	77		ug/L		5327	0.014
Se	82	18.991	ug/L	2.116	1108	0.006
Kr	83		ug/L		156	0.000
Sr	88	20.992	ug/L	1.025	149313	1.556
Y	89		ug/L		241	0.002
Ag	107	18.635	ug/L	1.172	52424	0.546
Cd	111	18.729	ug/L	1.209	13002	0.135
Cd	114		ug/L		33399	0.348
> In	115		ug/L		95894	95893.916
Sn	120	19.786	ug/L	1.724	53532	0.557
Sb	121	20.950	ug/L	2.449	51087	0.530
Sb	123		ug/L		39946	0.414
Ba	135		ug/L		13160	0.095
Ba	137	19.067	ug/L	1.085	22969	0.166
Ho	165		ug/L		411	0.003
> Lu	175		ug/L		137833	137832.509
Tl	205	16.884	ug/L	2.371	92448	0.667
Pb	208	18.121	ug/L	0.604	171874	1.244
Bi	209		ug/L		449	0.003
U	238	20.170	ug/L	1.209	186392	1.351

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7	102.469				
Be	9	102.731				
B	11	109.029				
Na	23	92.317				
Mg	24	99.134				
Al	27	101.776				
P	31	94.064				
K	39	91.434				
Ca	43	88.056				
> Sc	45		97.9			
V	51	95.529				
Cr	52	91.383				
Cr	53					
Mn	55	94.176				
Fe	57	89.357				
Co	59	92.323				
Ni	60	92.636				
Cu	63					
Cu	65	92.315				
Zn	66	93.297				
Zn	67					
Zn	68					
> Ge	74		96.1			
As	75	97.545				
Se	77					
Se	82	94.954				
Kr	83					
Sr	88	99.019				
Y	89					
Ag	107	93.176				
Cd	111	91.809				
Cd	114					
> In	115		96.4			
Sn	120	98.932				
Sb	121	104.229				
Sb	123					
Ba	135					
Ba	137	92.247				
Ho	165					
> Lu	175		99.1			
Tl	205	84.418				
Pb	208	89.708				
Bi	209					
U	238	100.849				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, January 15, 2010 05:27:48

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nohrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 6.102

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.454	ug/L	5.267	32865	0.033
Be	9	50.889	ug/L	3.683	15277	0.015
B	11	99.227	ug/L	2.450	28083	0.027
Na	23	4295.686	ug/L	0.880	15680539	15.682
Mg	24	4817.356	ug/L	5.739	12178864	12.192
Al	27	5306.805	ug/L	4.870	17725516	17.743
P	31	5084.037	ug/L	1.225	944368	0.941
K	39	4491.561	ug/L	5.730	19167053	18.544
Ca	43	4870.001	ug/L	1.049	42707	0.042
> Sc	45		ug/L		999069	999068.647
V	51	49.902	ug/L	0.805	221386	0.211
Cr	52	50.560	ug/L	1.557	180512	0.180
Cr	53		ug/L		94476	0.021
Mn	55	50.131	ug/L	1.322	267269	0.267
Fe	57	4950.801	ug/L	0.450	505608	0.501
Co	59	49.285	ug/L	1.940	185152	0.185
Ni	60	50.682	ug/L	2.523	40055	0.040
Cu	63		ug/L		92025	0.092
Cu	65	49.984	ug/L	1.690	45117	0.045
Zn	66	50.154	ug/L	1.127	31976	0.162
Zn	67		ug/L		12646	0.028
Zn	68		ug/L		24027	0.118
> Ge	74		ug/L		196177	196177.105
As	75	45.138	ug/L	1.889	33003	0.167
Se	77		ug/L		4770	0.011
Se	82	47.570	ug/L	1.737	2884	0.015
Kr	83		ug/L		89	-0.000
Sr	88	49.385	ug/L	0.666	364650	3.660
Y	89		ug/L		59	0.000
Ag	107	48.781	ug/L	1.277	142436	1.430
Cd	111	47.630	ug/L	0.970	34304	0.344
Cd	114		ug/L		79392	0.797
> In	115		ug/L		99600	99599.834
Sn	120	49.277	ug/L	1.466	138228	1.386
Sb	121	46.402	ug/L	10.924	117243	1.173
Sb	123		ug/L		90944	0.910
Ba	135		ug/L		33251	0.243
Ba	137	49.581	ug/L	1.979	59212	0.433
Ho	165		ug/L		27	0.000
> Lu	175		ug/L		136747	136747.425
Tl	205	48.354	ug/L	0.236	261867	1.912
Pb	208	49.495	ug/L	0.301	465065	3.398
Bi	209		ug/L		94	0.001
U	238	52.366	ug/L	1.166	479839	3.508

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7	100.907				
Be	9	101.779				
B	11	99.227				
Na	23	85.914				
Mg	24	96.347				
Al	27	105.085				
P	31	101.681				
K	39	89.831				
Ca	43	97.400				
> Sc	45		97.3			
V	51	99.805				
Cr	52	101.121				
Cr	53					
Mn	55	100.261				
Fe	57	99.016				
Co	59	98.571				
Ni	60	101.364				
Cu	63					
Cu	65	99.969				
Zn	66	100.307				
Zn	67					
Zn	68					
> Ge	74		98.5			
As	75	90.276				
Se	77					
Se	82	95.139				
Kr	83					
Sr	88	98.770				
Y	89					
Ag	107	97.561				
Cd	111	95.260				
Cd	114					
> In	115		100.1			
Sn	120	98.554				
Sb	121	92.804				
Sb	123					
Ba	135					
Ba	137	99.163				
Ho	165					
> Lu	175		98.3			
Tl	205	96.709				
Pb	208	98.989				
Bi	209					
U	238	104.733				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, January 15, 2010 05:33:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nohrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 7.103

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.039	ug/L	19.698	68	0.000
Be	9	0.004	ug/L	472.432	14	0.000
B	11	1.769	ug/L	34.532	1275	0.000
Na	23	2.406	ug/L	41.248	21016	0.009
Mg	24	0.464	ug/L	218.391	4334	0.001
Al	27	1.176	ug/L	53.843	7669	0.004
P	31	1.654	ug/L	37.613	4610	0.000
K	39	6.705	ug/L	163.141	654015	0.028
Ca	43	7.088	ug/L	82.937	491	0.000
> Sc	45		ug/L		979179	979178.959
V	51	0.445	ug/L	151.019	12259	0.002
Cr	52	-0.152	ug/L	21.570	420	-0.001
Cr	53		ug/L		71996	-0.000
Mn	55	-0.036	ug/L	16.061	661	-0.000
Fe	57	5.329	ug/L	20.177	5636	0.001
Co	59	0.005	ug/L	66.598	233	0.000
Ni	60	0.004	ug/L	114.253	77	0.000
Cu	63		ug/L		152	0.000
Cu	65	0.025	ug/L	49.037	106	0.000
Zn	66	0.002	ug/L	1681.870	147	0.000
Zn	67		ug/L		7070	0.000
Zn	68		ug/L		756	-0.000
> Ge	74		ug/L		194779	194778.527
As	75	0.081	ug/L	241.028	251	0.000
Se	77		ug/L		2496	-0.001
Se	82	0.245	ug/L	74.126	-11	0.000
Kr	83		ug/L		84	-0.000
Sr	88	0.000	ug/L	789.731	132	0.000
Y	89		ug/L		43	0.000
Ag	107	0.004	ug/L	101.038	65	0.000
Cd	111	-0.012	ug/L	98.327	16	-0.000
Cd	114		ug/L		36	0.000
> In	115		ug/L		99699	99699.146
Sn	120	0.149	ug/L	9.507	573	0.004
Sb	121	0.702	ug/L	15.549	2072	0.018
Sb	123		ug/L		1652	0.014
Ba	135		ug/L		29	0.000
Ba	137	0.003	ug/L	140.617	33	0.000
Ho	165		ug/L		18	-0.000
> Lu	175		ug/L		134857	134856.917
Tl	205	0.058	ug/L	31.818	769	0.002
Pb	208	-0.001	ug/L	539.965	393	-0.000
Bi	209		ug/L		20	-0.000
U	238	0.058	ug/L	16.958	709	0.004

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			95.4		
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74			97.8		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115			100.2		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			97.0		
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004451

Sample Date/Time: Friday, January 15, 2010 05:39:37

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\6020 noirs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\1202004451.104

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.001	ug/L	1211.631	53	0.000
Be	9	-0.008	ug/L	197.309	13	-0.000
B	11	0.237	ug/L	24.161	1046	0.000
Na	23	12.788	ug/L	13.853	70508	0.047
Mg	24	0.713	ug/L	80.767	6001	0.002
Al	27	11.698	ug/L	9.869	51092	0.039
P	31	33.698	ug/L	0.314	12639	0.006
K	39	-17.019	ug/L	37.752	677026	-0.070
Ca	43	-1.010	ug/L	45.365	513	-0.000
> Sc	45		ug/L		1187959	1187958.976
V	51	0.114	ug/L	496.253	13223	0.000
Cr	52	0.307	ug/L	0.187	2447	0.001
Cr	53		ug/L		68910	-0.016
Mn	55	0.321	ug/L	2.295	3062	0.002
Fe	57	18.487	ug/L	7.359	8419	0.002
Co	59	-0.009	ug/L	61.101	218	-0.000
Ni	60	0.026	ug/L	24.493	114	0.000
Cu	63		ug/L		422	0.000
Cu	65	0.133	ug/L	8.965	245	0.000
Zn	66	0.649	ug/L	1.073	645	0.002
Zn	67		ug/L		6822	-0.006
Zn	68		ug/L		1077	0.001
> Ge	74		ug/L		226534	226534.164
As	75	-0.073	ug/L	191.494	162	-0.000
Se	77		ug/L		2408	-0.003
Se	82	0.304	ug/L	31.144	-9	0.000
Kr	83		ug/L		70	-0.000
Sr	88	0.031	ug/L	1.804	435	0.002
Y	89		ug/L		89	0.000
Ag	107	-0.006	ug/L	17.467	41	-0.000
Cd	111	-0.010	ug/L	89.300	21	-0.000
Cd	114		ug/L		29	-0.000
> In	115		ug/L		120110	120110.388
Sn	120	0.134	ug/L	2.947	641	0.004
Sb	121	0.256	ug/L	26.682	1140	0.006
Sb	123		ug/L		916	0.005
Ba	135		ug/L		146	0.001
Ba	137	0.145	ug/L	1.611	246	0.001
Ho	165		ug/L		17	-0.000
> Lu	175		ug/L		166065	166065.370
Tl	205	0.029	ug/L	39.630	759	0.001
Pb	208	0.012	ug/L	39.319	624	0.001
Bi	209		ug/L		49	0.000
U	238	0.011	ug/L	44.146	357	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate	Rel. % Difference
[	Li	7						
|	Be	9						
|	B	11						
|	Na	23						
|	Mg	24						
|	Al	27						
|	P	31						
|	K	39						
|	Ca	43						
>	Sc	45			115.7			
|	V	51						
|	Cr	52						
|	Cr	53						
|	Mn	55						
|	Fe	57						
|	Co	59						
|	Ni	60						
|	Cu	63						
|	Cu	65						
[	Zn	66						
|	Zn	67						
|	Zn	68						
>	Ge	74			113.7			
|	As	75						
|	Se	77						
|	Se	82						
|	Kr	83						
[	Sr	88						
|	Y	89						
|	Ag	107						
|	Cd	111						
|	Cd	114						
>	In	115			120.8			
|	Sn	120						
|	Sb	121						
|	Sb	123						
[	Ba	135						
|	Ba	137						
|	Ho	165						
>	Lu	175			119.4			
|	Tl	205						
|	Pb	208						
|	Bi	209						
|	U	238						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits	Message
	In	115		

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004452

Sample Date/Time: Friday, January 15, 2010 05:51:24

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 936820[40]rmj

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\1202004452.106

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	2.834	ug/L	5.954	1888	0.002
Be	9	22.165	ug/L	2.358	6664	0.007
B	11	43.852	ug/L	2.236	12869	0.012
Na	23	281.125	ug/L	9.914	1038311	1.026
Mg	24	1118.423	ug/L	7.617	2830981	2.831
Al	27	3684.304	ug/L	6.922	12311892	12.318
P	31	232.811	ug/L	1.341	47448	0.043
K	39	1248.548	ug/L	5.971	5789584	5.155
Ca	43	2761.706	ug/L	2.194	24413	0.024
> Sc	45		ug/L		999146	999146.348
V	51	30.754	ug/L	1.399	140540	0.130
Cr	52	67.723	ug/L	0.864	241504	0.241
Cr	53		ug/L		114943	0.041
Mn	55	152.120	ug/L	1.799	809366	0.809
Fe	57	4631.109	ug/L	0.801	473336	0.469
Co	59	26.388	ug/L	0.352	99257	0.099
Ni	60	39.517	ug/L	1.023	31255	0.031
Cu	63		ug/L		90474	0.090
Cu	65	48.874	ug/L	1.054	44125	0.044
Zn	66	167.323	ug/L	0.761	105267	0.541
Zn	67		ug/L		24944	0.092
Zn	68		ug/L		77123	0.393
> Ge	74		ug/L		194215	194215.248
As	75	27.877	ug/L	1.300	20252	0.103
Se	77		ug/L		6800	0.022
Se	82	76.241	ug/L	0.971	4591	0.024
Kr	83		ug/L		86	-0.000
Sr	88	62.940	ug/L	2.107	465660	4.665
Y	89		ug/L		24506	0.245
Ag	107	7.469	ug/L	2.312	21899	0.219
Cd	111	16.338	ug/L	0.838	11810	0.118
Cd	114		ug/L		27234	0.273
> In	115		ug/L		99828	99827.640
Sn	120	11.916	ug/L	1.486	33618	0.335
Sb	121	14.089	ug/L	1.844	35856	0.356
Sb	123		ug/L		28022	0.278
Ba	135		ug/L		36268	0.267
Ba	137	53.250	ug/L	1.539	63241	0.465
Ho	165		ug/L		1256	0.009
> Lu	175		ug/L		135987	135986.896
Ti	205	32.627	ug/L	3.033	175838	1.290
Pb	208	24.411	ug/L	0.577	228297	1.676
Bi	209		ug/L		1785	0.013
U	238	0.579	ug/L	2.603	5464	0.039

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		97.3			
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		97.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		100.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		97.8			
Tl	205					
Pb	208					
Bi	209					
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#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, January 15, 2010 05:57:17

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nohrs tht\mozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 6.107

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.557	ug/L	4.292	32419	0.033
Be	9	50.284	ug/L	1.814	14859	0.015
B	11	101.688	ug/L	1.224	28305	0.028
Na	23	4485.816	ug/L	6.277	16111036	16.376
Mg	24	5051.143	ug/L	2.342	12571384	12.784
Al	27	5448.176	ug/L	4.057	17911438	18.216
P	31	5202.019	ug/L	0.694	950845	0.963
K	39	4563.081	ug/L	1.160	19150376	18.839
Ca	43	5014.974	ug/L	0.427	43267	0.044
> Sc	45		ug/L		983118	983117.795
V	51	50.899	ug/L	0.837	222002	0.215
Cr	52	52.032	ug/L	0.706	182792	0.185
Cr	53		ug/L		95107	0.023
Mn	55	51.385	ug/L	0.581	269590	0.273
Fe	57	5051.117	ug/L	0.803	507518	0.511
Co	59	50.180	ug/L	0.615	185527	0.188
Ni	60	51.686	ug/L	0.777	40202	0.041
Cu	63		ug/L		92923	0.094
Cu	65	50.487	ug/L	1.269	44848	0.046
Zn	66	50.760	ug/L	1.296	32085	0.164
Zn	67		ug/L		12471	0.028
Zn	68		ug/L		24185	0.120
> Ge	74		ug/L		194517	194517.012
As	75	45.752	ug/L	1.835	33165	0.170
Se	77		ug/L		4788	0.011
Se	82	49.233	ug/L	0.585	2961	0.015
Kr	83		ug/L		89	-0.000
Sr	88	50.874	ug/L	2.356	367829	3.770
Y	89		ug/L		69	0.000
Ag	107	50.789	ug/L	1.495	145233	1.489
Cd	111	49.485	ug/L	0.713	34904	0.358
Cd	114		ug/L		79630	0.816
> In	115		ug/L		97545	97544.968
Sn	120	50.964	ug/L	0.748	140014	1.434
Sb	121	47.480	ug/L	11.465	117414	1.201
Sb	123		ug/L		90572	0.926
Ba	135		ug/L		33805	0.251
Ba	137	50.945	ug/L	1.785	59891	0.445
Ho	165		ug/L		26	0.000
> Lu	175		ug/L		134606	134605.557
Tl	205	49.558	ug/L	0.535	264167	1.959
Pb	208	50.982	ug/L	1.559	471486	3.500
Bi	209		ug/L		108	0.001
U	238	54.731	ug/L	1.345	493616	3.666

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7	101.113				
Be	9	100.568				
B	11	101.688				
Na	23	89.716				
Mg	24	101.023				
Al	27	107.885				
P	31	104.040				
K	39	91.262				
Ca	43	100.299				
> Sc	45		95.8			
V	51	101.797				
Cr	52	104.064				
Cr	53					
Mn	55	102.771				
Fe	57	101.022				
Co	59	100.361				
Ni	60	103.373				
Cu	63					
Cu	65	100.974				
Zn	66	101.520				
Zn	67					
Zn	68					
> Ge	74		97.7			
As	75	91.504				
Se	77					
Se	82	98.466				
Kr	83					
Sr	88	101.748				
Y	89					
Ag	107	101.577				
Cd	111	98.969				
Cd	114					
> In	115		98.1			
Sn	120	101.929				
Sb	121	94.960				
Sb	123					
Ba	135					
Ba	137	101.891				
Ho	165					
> Lu	175		96.8			
Tl	205	99.116				
Pb	208	101.964				
Bi	209					
U	238	109.461				

QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
QC Std 6	Na	23CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, January 15, 2010 06:03:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 7.108

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.009	ug/L	101.402	49	0.000
Be	9	-0.001	ug/L	1311.334	13	-0.000
B	11	1.805	ug/L	26.446	1284	0.000
Na	23	0.828	ug/L	255.490	15343	0.003
Mg	24	-0.207	ug/L	295.684	2667	-0.001
Al	27	0.566	ug/L	81.525	5668	0.002
P	31	0.888	ug/L	80.095	4468	0.000
K	39	9.523	ug/L	14.883	664784	0.039
Ca	43	1.946	ug/L	236.662	447	0.000
> Sc	45		ug/L		978326	978326.001
V	51	0.178	ug/L	539.419	11155	0.001
Cr	52	-0.049	ug/L	75.817	780	-0.000
Cr	53		ug/L		72515	0.000
Mn	55	-0.026	ug/L	8.217	713	-0.000
Fe	57	5.354	ug/L	36.360	5634	0.001
Co	59	0.006	ug/L	76.256	236	0.000
Ni	60	0.006	ug/L	88.708	78	0.000
Cu	63		ug/L		140	0.000
Cu	65	0.010	ug/L	121.168	93	0.000
Zn	66	-0.005	ug/L	53.330	142	-0.000
Zn	67		ug/L		6949	-0.000
Zn	68		ug/L		729	-0.000
> Ge	74		ug/L		194297	194296.655
As	75	-0.033	ug/L	1282.808	167	-0.000
Se	77		ug/L		2629	0.000
Se	82	0.045	ug/L	296.213	-23	0.000
Kr	83		ug/L		93	0.000
Sr	88	0.001	ug/L	150.768	138	0.000
Y	89		ug/L		34	-0.000
Ag	107	0.004	ug/L	13.412	64	0.000
Cd	111	-0.009	ug/L	100.269	18	-0.000
Cd	114		ug/L		36	0.000
> In	115		ug/L		98284	98284.492
Sn	120	0.151	ug/L	11.862	572	0.004
Sb	121	0.732	ug/L	14.042	2117	0.018
Sb	123		ug/L		1694	0.015
Ba	135		ug/L		24	-0.000
Ba	137	0.001	ug/L	789.963	31	0.000
Ho	165		ug/L		17	-0.000
> Lu	175		ug/L		135399	135398.988
Tl	205	0.198	ug/L	6.770	1520	0.008
Pb	208	-0.001	ug/L	513.563	395	-0.000
Bi	209		ug/L		24	0.000
U	238	0.055	ug/L	16.103	687	0.004

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
|	Sc	45	95.3			
|	V	51				
|	Cr	52				
|	Cr	53				
|	Mn	55				
|	Fe	57				
|	Co	59				
|	Ni	60				
|	Cu	63				
|	Cu	65				
|	Zn	66				
|	Zn	67				
|	Zn	68				
|	Ge	74	97.6			
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
|	Sr	88				
|	Y	89				
|	Ag	107				
|	Cd	111				
|	Cd	114				
|	In	115	98.8			
|	Sn	120				
|	Sb	121				
|	Sb	123				
|	Ba	135				
|	Ba	137				
|	Ho	165				
|	Lu	175	97.3			
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	U	238				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521001

Sample Date/Time: Friday, January 15, 2010 06:09:07

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820[2]rmj

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\243521001.109

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.306	ug/L	4.638	40466	0.033
Be	9	3.234	ug/L	4.850	1214	0.001
B	11	13.145	ug/L	2.878	5467	0.004
Na	23	399.726	ug/L	2.529	1815531	1.459
Mg	24	8103.063	ug/L	5.868	25293323	20.508
Al	27	67502.239	ug/L	5.018	278402422	225.689
P	31	364.703	ug/L	1.332	88676	0.067
K	39	7984.127	ug/L	2.717	41447084	32.963
Ca	43	7040.719	ug/L	1.062	75984	0.061
> Sc	45		ug/L		1233368	1233368.354
V	51	76.265	ug/L	0.420	410775	0.322
Cr	52	37.346	ug/L	0.451	164937	0.133
Cr	53		ug/L		82397	-0.007
Mn	55	962.310	ug/L	0.262	6314861	5.119
Fe	57	40225.690	ug/L	0.772	5025639	4.070
Co	59	18.131	ug/L	1.215	84267	0.068
Ni	60	27.208	ug/L	1.055	26593	0.021
Cu	63		ug/L		62008	0.050
Cu	65	27.621	ug/L	0.599	30829	0.025
Zn	66	88.467	ug/L	0.744	63861	0.286
Zn	67		ug/L		18544	0.047
Zn	68		ug/L		52205	0.231
> Ge	74		ug/L		222568	222567.945
As	75	8.079	ug/L	5.402	6881	0.030
Se	77		ug/L		2353	-0.003
Se	82	0.011	ug/L	914.811	-29	0.000
Kr	83		ug/L		174	0.000
Sr	88	86.828	ug/L	1.610	750990	6.435
Y	89		ug/L		345148	2.957
Ag	107	0.296	ug/L	3.182	1075	0.009
Cd	111	1.077	ug/L	3.600	938	0.008
Cd	114		ug/L		531	0.004
> In	115		ug/L		116698	116698.281
Sn	120	0.929	ug/L	4.232	3233	0.026
Sb	121	0.437	ug/L	17.906	1641	0.011
Sb	123		ug/L		1275	0.008
Ba	135		ug/L		379912	2.267
Ba	137	448.103	ug/L	1.014	655558	3.912
Ho	165		ug/L		18142	0.108
> Lu	175		ug/L		167585	167584.567
Tl	205	0.808	ug/L	1.627	5923	0.032
Pb	208	41.519	ug/L	0.484	478191	2.850
Bi	209		ug/L		6347	0.038
U	238	10.615	ug/L	1.494	119392	0.711

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		120.2			
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		111.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		117.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		120.5			
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Al	27	Sample is out of limits (over linear range)
	Sc	45	
	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004453

Sample Date/Time: Friday, January 15, 2010 06:15:00

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 936820[2]rmj

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\1202004453.110

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	51.565	ug/L	5.227	41391	0.034
Be	9	3.255	ug/L	4.360	1219	0.001
B	11	12.667	ug/L	3.323	5293	0.003
Na	23	390.453	ug/L	14.236	1769943	1.425
Mg	24	8175.980	ug/L	6.932	25465387	20.693
Al	27	69573.052	ug/L	3.882	286276784	232.612
P	31	357.408	ug/L	0.286	86824	0.066
K	39	8039.512	ug/L	9.581	41624969	33.192
Ca	43	7342.252	ug/L	0.548	79045	0.064
> Sc	45		ug/L		1230681	1230680.772
V	51	77.698	ug/L	0.639	417324	0.328
Cr	52	37.178	ug/L	0.920	163836	0.132
Cr	53		ug/L		80318	-0.008
Mn	55	1056.726	ug/L	0.998	6919029	5.621
Fe	57	42035.625	ug/L	1.656	5240172	4.253
Co	59	19.683	ug/L	0.878	91262	0.074
Ni	60	28.319	ug/L	0.704	27615	0.022
Cu	63		ug/L		64674	0.052
Cu	65	28.946	ug/L	1.163	32232	0.026
Zn	66	92.995	ug/L	0.863	67535	0.301
Zn	67		ug/L		19118	0.049
Zn	68		ug/L		55443	0.244
> Ge	74		ug/L		223943	223942.535
As	75	8.805	ug/L	3.814	7526	0.033
Se	77		ug/L		2314	-0.003
Se	82	-0.179	ug/L	142.016	-42	-0.000
Kr	83		ug/L		185	0.000
Sr	88	88.552	ug/L	0.589	781353	6.563
Y	89		ug/L		367564	3.088
Ag	107	0.321	ug/L	3.984	1182	0.009
Cd	111	1.198	ug/L	9.221	1061	0.009
Cd	114		ug/L		437	0.003
> In	115		ug/L		119040	119039.834
Sn	120	0.912	ug/L	1.979	3240	0.026
Sb	121	0.204	ug/L	11.414	975	0.005
Sb	123		ug/L		776	0.004
Ba	135		ug/L		412006	2.418
Ba	137	479.593	ug/L	1.028	713218	4.187
Ho	165		ug/L		18916	0.111
> Lu	175		ug/L		170356	170355.753
Tl	205	0.751	ug/L	1.183	5639	0.030
Pb	208	43.632	ug/L	0.567	510809	2.995
Bi	209		ug/L		6639	0.039
U	238	9.342	ug/L	1.339	106842	0.626

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
>	Sc	45		119.9			
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
|	Cu	65					
|	Zn	66					
|	Zn	67					
|	Zn	68					
>	Ge	74		112.4			
|	As	75					
|	Se	77					
|	Se	82					
|	Kr	83					
|	Sr	88					
|	Y	89					
|	Ag	107					
|	Cd	111					
|	Cd	114					
>	In	115		119.7			
|	Sn	120					
|	Sb	121					
|	Sb	123					
|	Ba	135					
|	Ba	137					
|	Ho	165					
>	Lu	175		122.5			
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)
	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004454

Sample Date/Time: Friday, January 15, 2010 06:20:54

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\6020 nohrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\1202004454.111

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	81.680	ug/L	3.684	65080	0.053
Be	9	23.196	ug/L	1.340	8528	0.007
B	11	53.885	ug/L	1.881	19108	0.015
Na	23	1268.522	ug/L	11.235	5669519	4.631
Mg	24	9895.955	ug/L	8.441	30627289	25.046
Al	27	76745.132	ug/L	2.193	313574570	256.591
P	31	1158.886	ug/L	1.293	267414	0.214
K	39	9296.024	ug/L	2.371	47673041	38.379
Ca	43	8121.198	ug/L	0.963	86741	0.071
> Sc	45		ug/L		1221839	1221839.079
V	51	105.721	ug/L	1.054	559033	0.447
Cr	52	62.181	ug/L	0.636	271248	0.221
Cr	53		ug/L		91245	0.001
Mn	55	1086.963	ug/L	1.424	7065227	5.782
Fe	57	45476.050	ug/L	1.399	5627143	4.601
Co	59	40.024	ug/L	1.098	183948	0.150
Ni	60	51.022	ug/L	0.999	49319	0.040
Cu	63		ug/L		113386	0.093
Cu	65	51.012	ug/L	1.201	56312	0.046
Zn	66	119.034	ug/L	0.442	86207	0.385
Zn	67		ug/L		22325	0.064
Zn	68		ug/L		70700	0.312
> Ge	74		ug/L		223440	223440.405
As	75	40.289	ug/L	0.859	33577	0.149
Se	77		ug/L		2604	-0.002
Se	82	7.037	ug/L	4.550	461	0.002
Kr	83		ug/L		203	0.000
Sr	88	116.496	ug/L	1.413	1009692	8.634
Y	89		ug/L		365982	3.129
Ag	107	20.797	ug/L	1.747	71331	0.610
Cd	111	5.500	ug/L	2.432	4676	0.040
Cd	114		ug/L		8012	0.068
> In	115		ug/L		116943	116943.321
Sn	120	11.098	ug/L	1.473	36696	0.312
Sb	121	14.853	ug/L	1.906	44267	0.376
Sb	123		ug/L		34146	0.290
Ba	135		ug/L		478536	2.885
Ba	137	571.592	ug/L	1.335	827540	4.990
Ho	165		ug/L		19196	0.116
> Lu	175		ug/L		165848	165847.829
Tl	205	39.564	ug/L	1.153	259951	1.564
Pb	208	124.406	ug/L	0.751	1416933	8.541
Bi	209		ug/L		7073	0.042
U	238	30.894	ug/L	0.850	343443	2.069

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Dilution %	Duplicate Rel. % Difference
Li	7						
Be	9						
B	11						
Na	23						
Mg	24						
Al	27						
P	31						
K	39						
Ca	43						
> Sc	45			119.0			
V	51						
Cr	52						
Cr	53						
Mn	55						
Fe	57						
Co	59						
Ni	60						
Cu	63						
Cu	65						
Zn	66						
Zn	67						
Zn	68						
> Ge	74			112.2			
As	75						
Se	77						
Se	82						
Kr	83						
Sr	88						
Y	89						
Ag	107						
Cd	111						
Cd	114						
> In	115			117.6			
Sn	120						
Sb	121						
Sb	123						
Ba	135						
Ba	137						
Ho	165						
> Lu	175			119.2			
Tl	205						
Pb	208						
Bi	209						
U	238						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	V	51	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004456

Sample Date/Time: Friday, January 15, 2010 06:26:49

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 9368202[rmj]

Method File: c:\elandata\Method\6020 noirs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\1202004456.112

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	86.207	ug/L	2.545	68503	0.056
Be	9	24.685	ug/L	1.659	9052	0.007
B	11	58.582	ug/L	0.656	20638	0.016
Na	23	1339.689	ug/L	9.538	5974781	4.891
Mg	24	10484.802	ug/L	1.041	32347923	26.536
Al	27	88850.251	ug/L	3.471	362045639	297.064
P	31	1386.315	ug/L	1.220	318086	0.257
K	39	9848.582	ug/L	2.583	50341308	40.660
Ca	43	9640.094	ug/L	0.900	102619	0.084
> Sc	45		ug/L		1218884	1218884.131
V	51	114.623	ug/L	1.686	603563	0.485
Cr	52	65.723	ug/L	1.521	285940	0.234
Cr	53		ug/L		91569	0.001
Mn	55	1390.555	ug/L	0.258	9017377	7.397
Fe	57	49838.313	ug/L	0.764	6151938	5.042
Co	59	44.884	ug/L	0.855	205764	0.169
Ni	60	55.363	ug/L	1.115	53381	0.044
Cu	63		ug/L		123418	0.101
Cu	65	55.425	ug/L	0.583	61029	0.050
Zn	66	127.119	ug/L	0.453	90813	0.411
Zn	67		ug/L		23080	0.069
Zn	68		ug/L		73097	0.328
> Ge	74		ug/L		220435	220434.544
As	75	43.154	ug/L	0.397	35465	0.160
Se	77		ug/L		2557	-0.002
Se	82	7.521	ug/L	7.990	488	0.002
Kr	83		ug/L		206	0.000
Sr	88	127.398	ug/L	0.590	1109163	9.442
Y	89		ug/L		374526	3.188
Ag	107	21.914	ug/L	0.885	75498	0.642
Cd	111	6.126	ug/L	1.276	5229	0.044
Cd	114		ug/L		8916	0.076
> In	115		ug/L		117458	117458.040
Sn	120	12.002	ug/L	0.346	39846	0.338
Sb	121	15.719	ug/L	1.313	47039	0.397
Sb	123		ug/L		36616	0.309
Ba	135		ug/L		490988	2.937
Ba	137	579.130	ug/L	1.460	845015	5.055
Ho	165		ug/L		19451	0.116
> Lu	175		ug/L		167148	167147.830
Tl	205	42.144	ug/L	1.232	279055	1.666
Pb	208	130.624	ug/L	1.162	1499403	8.968
Bi	209		ug/L		7531	0.045
U	238	39.693	ug/L	1.283	444634	2.659

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		118.7			
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		110.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		118.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		120.2			
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	V	51	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)
	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004455

Sample Date/Time: Friday, January 15, 2010 06:32:43

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 936820|10|rmj

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\1202004455.113

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	12.890	ug/L	4.241	8526	0.008
Be	9	0.782	ug/L	5.211	251	0.000
B	11	4.388	ug/L	5.634	2044	0.001
Na	23	103.394	ug/L	7.384	394045	0.377
Mg	24	1964.240	ug/L	2.398	5024790	4.971
Al	27	17201.785	ug/L	8.823	58095289	57.513
P	31	104.498	ug/L	0.389	23982	0.019
K	39	1933.119	ug/L	5.549	8708001	7.981
Ca	43	1793.063	ug/L	0.668	16180	0.016
> Sc	45		ug/L		1010088	1010088.155
V	51	20.505	ug/L	2.387	98311	0.087
Cr	52	9.834	ug/L	1.706	36288	0.035
Cr	53		ug/L		82542	0.008
Mn	55	249.161	ug/L	0.855	1339701	1.325
Fe	57	10507.382	ug/L	0.960	1079022	1.063
Co	59	4.777	ug/L	1.305	18344	0.018
Ni	60	7.172	ug/L	0.519	5797	0.006
Cu	63		ug/L		13577	0.013
Cu	65	7.500	ug/L	0.345	6919	0.007
Zn	66	22.112	ug/L	2.129	14246	0.072
Zn	67		ug/L		10377	0.017
Zn	68		ug/L		11995	0.057
> Ge	74		ug/L		197097	197096.626
As	75	1.768	ug/L	20.240	1486	0.007
Se	77		ug/L		3173	0.003
Se	82	0.136	ug/L	83.728	-18	0.000
Kr	83		ug/L		96	0.000
Sr	88	21.900	ug/L	0.797	161626	1.623
Y	89		ug/L		74541	0.749
Ag	107	0.069	ug/L	7.826	255	0.002
Cd	111	0.246	ug/L	14.797	202	0.002
Cd	114		ug/L		126	0.001
> In	115		ug/L		99504	99504.215
Sn	120	0.227	ug/L	5.014	790	0.006
Sb	121	0.065	ug/L	8.022	465	0.002
Sb	123		ug/L		366	0.001
Ba	135		ug/L		81193	0.591
Ba	137	119.628	ug/L	1.833	143522	1.044
Ho	165		ug/L		3783	0.027
> Lu	175		ug/L		137435	137435.408
Tl	205	0.567	ug/L	12.350	3551	0.022
Pb	208	10.703	ug/L	1.861	101379	0.735
Bi	209		ug/L		1364	0.010
U	238	2.636	ug/L	0.637	24459	0.177

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			98.4		
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74			99.0		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115			100.0		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			98.8		
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521002

Sample Date/Time: Friday, January 15, 2010 06:38:36

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\6020 noirs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\243521002.114

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	48.326	ug/L	3.969	38845	0.031
Be	9	2.537	ug/L	2.987	955	0.001
B	11	7.687	ug/L	6.116	3611	0.002
Na	23	1094.081	ug/L	9.727	4938978	3.994
Mg	24	6345.591	ug/L	2.894	19795359	16.060
Al	27	42045.705	ug/L	3.729	173235951	140.577
P	31	227.742	ug/L	1.028	57370	0.042
K	39	4775.877	ug/L	6.563	25081712	19.717
Ca	43	5131.593	ug/L	0.815	55488	0.045
> Sc	45		ug/L		1232446	1232445.913
V	51	46.201	ug/L	1.435	253817	0.195
Cr	52	46.763	ug/L	0.020	206067	0.166
Cr	53		ug/L		86153	-0.004
Mn	55	735.415	ug/L	0.381	4822486	3.912
Fe	57	39534.308	ug/L	0.486	4935846	4.000
Co	59	12.923	ug/L	0.672	60097	0.049
Ni	60	29.433	ug/L	0.788	28739	0.023
Cu	63		ug/L		32821	0.026
Cu	65	14.884	ug/L	1.948	16649	0.013
Zn	66	100.569	ug/L	1.090	73761	0.325
Zn	67		ug/L		19251	0.049
Zn	68		ug/L		57608	0.251
> Ge	74		ug/L		226212	226211.589
As	75	6.289	ug/L	0.987	5495	0.023
Se	77		ug/L		2270	-0.003
Se	82	0.318	ug/L	33.436	-8	0.000
Kr	83		ug/L		154	0.000
Sr	88	61.825	ug/L	1.249	557760	4.582
Y	89		ug/L		435960	3.582
Ag	107	0.267	ug/L	7.268	1018	0.008
Cd	111	1.021	ug/L	13.465	928	0.007
Cd	114		ug/L		238	0.002
> In	115		ug/L		121700	121699.787
Sn	120	2.108	ug/L	1.006	7409	0.059
Sb	121	0.091	ug/L	14.821	648	0.002
Sb	123		ug/L		493	0.002
Ba	135		ug/L		260278	1.528
Ba	137	304.329	ug/L	1.648	452423	2.657
Ho	165		ug/L		23594	0.138
> Lu	175		ug/L		170306	170305.571
Tl	205	0.559	ug/L	2.505	4346	0.022
Pb	208	14.891	ug/L	1.532	174593	1.022
Bi	209		ug/L		2405	0.014
U	238	1.669	ug/L	3.623	19269	0.112

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		120.1			
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		113.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		122.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		122.4			
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	
	In	115	
	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243521003

Sample Date/Time: Friday, January 15, 2010 06:44:29

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820[2]rmj

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\243521003.115

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	74.498	ug/L	3.696	59387	0.049
Be	9	4.498	ug/L	0.940	1667	0.001
B	11	15.531	ug/L	1.655	6220	0.004
Na	23	933.671	ug/L	0.901	4182347	3.408
Mg	24	9509.233	ug/L	4.831	29422845	24.067
Al	27	99551.826	ug/L	3.552	406842006	332.844
P	31	350.395	ug/L	1.061	84654	0.065
K	39	9185.577	ug/L	4.807	47139387	37.923
Ca	43	8129.093	ug/L	1.146	86872	0.071
Sc	45		ug/L		1222466	1222466.311
V	51	92.543	ug/L	1.481	491222	0.391
Cr	52	45.166	ug/L	0.851	197449	0.161
Cr	53		ug/L		81727	-0.007
Mn	55	1001.045	ug/L	2.183	6510148	5.325
Fe	57	51739.904	ug/L	2.400	6404541	5.234
Co	59	22.495	ug/L	0.561	103562	0.084
Ni	60	33.961	ug/L	0.249	32877	0.027
Cu	63		ug/L		67936	0.055
Cu	65	31.138	ug/L	2.473	34429	0.028
Zn	66	103.239	ug/L	2.276	73655	0.334
Zn	67		ug/L		20283	0.056
Zn	68		ug/L		60082	0.269
Ge	74		ug/L		220084	220084.333
As	75	10.217	ug/L	3.423	8547	0.038
Se	77		ug/L		2184	-0.004
Se	82	-0.342	ug/L	74.883	-53	-0.000
Kr	83		ug/L		231	0.001
Sr	88	103.246	ug/L	0.777	911842	7.652
Y	89		ug/L		482239	4.047
Ag	107	0.472	ug/L	2.716	1710	0.014
Cd	111	1.519	ug/L	4.076	1337	0.011
Cd	114		ug/L		407	0.003
In	115		ug/L		119148	119147.984
Sn	120	0.964	ug/L	1.064	3418	0.027
Sb	121	0.126	ug/L	5.961	742	0.003
Sb	123		ug/L		573	0.002
Ba	135		ug/L		467614	2.728
Ba	137	536.478	ug/L	1.703	802733	4.683
Ho	165		ug/L		24594	0.143
Lu	175		ug/L		171442	171441.911
Tl	205	0.970	ug/L	2.049	7156	0.038
Pb	208	50.968	ug/L	2.290	600240	3.499
Bi	209		ug/L		8120	0.047
U	238	3.949	ug/L	1.561	45585	0.265

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		119.1			
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		110.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		119.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		123.3			
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)
	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243521004

Sample Date/Time: Friday, January 15, 2010 06:50:22

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820[2]rmj

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\243521004.116

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	45.190	ug/L	3.424	35212	0.029
Be	9	3.090	ug/L	4.603	1124	0.001
B	11	11.364	ug/L	2.197	4709	0.003
Na	23	573.105	ug/L	5.439	2515148	2.092
Mg	24	6730.547	ug/L	5.891	20349188	17.034
Al	27	63941.284	ug/L	6.179	255479281	213.783
P	31	341.786	ug/L	0.553	80828	0.063
K	39	7343.121	ug/L	8.688	36999972	30.316
Ca	43	5765.572	ug/L	1.103	60369	0.050
> Sc	45		ug/L		1194672	1194672.007
V	51	69.338	ug/L	1.067	362882	0.293
Cr	52	33.072	ug/L	0.393	141606	0.118
Cr	53		ug/L		75404	-0.011
Mn	55	935.801	ug/L	0.624	5948411	4.978
Fe	57	37298.395	ug/L	1.700	4514629	3.773
Co	59	19.024	ug/L	0.485	85636	0.071
Ni	60	24.824	ug/L	0.889	23509	0.020
Cu	63		ug/L		42789	0.036
Cu	65	20.064	ug/L	1.207	21719	0.018
Zn	66	81.024	ug/L	1.161	58439	0.262
Zn	67		ug/L		17378	0.042
Zn	68		ug/L		47971	0.212
> Ge	74		ug/L		222319	222319.428
As	75	8.066	ug/L	3.942	6864	0.030
Se	77		ug/L		2143	-0.004
Se	82	0.248	ug/L	131.879	-12	0.000
Kr	83		ug/L		163	0.000
Sr	88	74.648	ug/L	0.477	659190	5.532
Y	89		ug/L		343415	2.882
Ag	107	0.313	ug/L	2.776	1155	0.009
Cd	111	1.166	ug/L	5.749	1033	0.008
Cd	114		ug/L		563	0.004
> In	115		ug/L		119125	119124.878
Sn	120	0.864	ug/L	1.106	3083	0.024
Sb	121	0.090	ug/L	15.179	633	0.002
Sb	123		ug/L		505	0.002
Ba	135		ug/L		355928	2.122
Ba	137	418.804	ug/L	1.100	613195	3.656
Ho	165		ug/L		17700	0.105
> Lu	175		ug/L		167733	167732.714
Tl	205	0.770	ug/L	2.305	5676	0.030
Pb	208	43.813	ug/L	0.683	504996	3.008
Bi	209		ug/L		7019	0.042
U	238	3.077	ug/L	0.166	34806	0.206

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		116.4			
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		111.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		119.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		120.6			
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, January 15, 2010 06:56:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nohrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 6.117

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.800	ug/L	3.284	31438	0.033
Be	9	48.605	ug/L	4.649	13862	0.015
B	11	96.477	ug/L	1.280	25960	0.027
Na	23	4460.784	ug/L	4.214	15463986	16.284
Mg	24	4967.701	ug/L	3.320	11934211	12.573
Al	27	5330.215	ug/L	1.831	16916206	17.821
P	31	5239.730	ug/L	0.718	924408	0.970
K	39	4970.639	ug/L	3.364	20084270	20.522
Ca	43	4919.456	ug/L	0.214	40975	0.043
> Sc	45		ug/L		948949	948949.189
V	51	52.156	ug/L	2.364	219312	0.220
Cr	52	53.228	ug/L	1.903	180466	0.189
Cr	53		ug/L		90064	0.021
Mn	55	52.630	ug/L	0.994	266490	0.280
Fe	57	5248.599	ug/L	1.381	508812	0.531
Co	59	51.410	ug/L	1.573	183450	0.193
Ni	60	52.490	ug/L	1.441	39406	0.041
Cu	63		ug/L		90442	0.095
Cu	65	52.050	ug/L	0.418	44626	0.047
Zn	66	50.704	ug/L	0.808	31539	0.164
Zn	67		ug/L		11718	0.025
Zn	68		ug/L		23784	0.120
> Ge	74		ug/L		191408	191408.002
As	75	45.859	ug/L	1.501	32713	0.170
Se	77		ug/L		4800	0.012
Se	82	49.229	ug/L	1.736	2913	0.015
Kr	83		ug/L		79	-0.000
Sr	88	50.607	ug/L	0.938	363987	3.751
Y	89		ug/L		87	0.000
Ag	107	50.249	ug/L	1.739	142915	1.473
Cd	111	50.049	ug/L	2.128	35108	0.362
Cd	114		ug/L		79239	0.816
> In	115		ug/L		97024	97023.985
Sn	120	50.516	ug/L	1.791	138024	1.421
Sb	121	47.101	ug/L	10.373	115909	1.191
Sb	123		ug/L		89495	0.919
Ba	135		ug/L		33496	0.255
Ba	137	51.091	ug/L	0.653	58590	0.446
Ho	165		ug/L		34	0.000
> Lu	175		ug/L		131313	131313.463
Tl	205	49.380	ug/L	1.092	256765	1.952
Pb	208	51.230	ug/L	1.121	462194	3.517
Bi	209		ug/L		99	0.001
U	238	54.502	ug/L	1.545	479509	3.651

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	101.600				
Be	9	97.210				
B	11	96.477				
Na	23	89.216				
Mg	24	99.354				
Al	27	105.549				
P	31	104.795				
K	39	99.413				
Ca	43	98.389				
> Sc	45		92.4			
V	51	104.313				
Cr	52	106.456				
Cr	53					
Mn	55	105.259				
Fe	57	104.972				
Co	59	102.820				
Ni	60	104.981				
Cu	63					
Cu	65	104.099				
Zn	66	101.408				
Zn	67					
Zn	68					
> Ge	74		96.1			
As	75	91.717				
Se	77					
Se	82	98.458				
Kr	83					
Sr	88	101.214				
Y	89					
Ag	107	100.498				
Cd	111	100.098				
Cd	114					
> In	115		97.5			
Sn	120	101.032				
Sb	121	94.202				
Sb	123					
Ba	135					
Ba	137	102.182				
Ho	165					
> Lu	175		94.4			
Tl	205	98.761				
Pb	208	102.460				
Bi	209					
U	238	109.004				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Na	23	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, January 15, 2010 07:02:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nolsr thtlimozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 7.118

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.065	ug/L	30.995	84	0.000
Be	9	0.019	ug/L	109.189	18	0.000
B	11	1.453	ug/L	49.577	1169	0.000
Na	23	-0.621	ug/L	165.088	10004	-0.002
Mg	24	1.869	ug/L	55.441	7669	0.005
Al	27	0.598	ug/L	30.304	5668	0.002
P	31	2.778	ug/L	16.308	4727	0.001
K	39	6.349	ug/L	69.465	640727	0.026
Ca	43	5.504	ug/L	57.759	469	0.000
> Sc	45		ug/L		961487	961486.566
V	51	0.134	ug/L	361.753	10784	0.001
Cr	52	0.111	ug/L	14.579	1312	0.000
Cr	53		ug/L		70459	-0.000
Mn	55	0.131	ug/L	9.966	1503	0.001
Fe	57	8.814	ug/L	7.938	5873	0.001
Co	59	0.014	ug/L	16.944	262	0.000
Ni	60	0.004	ug/L	310.155	75	0.000
Cu	63		ug/L		131	-0.000
Cu	65	0.016	ug/L	14.354	97	0.000
Zn	66	-0.029	ug/L	33.854	127	-0.000
Zn	67		ug/L		6591	-0.002
Zn	68		ug/L		748	-0.000
> Ge	74		ug/L		193939	193939.196
As	75	-0.201	ug/L	55.802	47	-0.001
Se	77		ug/L		2641	0.000
Se	82	0.161	ug/L	203.027	-16	0.000
Kr	83		ug/L		86	-0.000
Sr	88	0.000	ug/L	302.849	129	0.000
Y	89		ug/L		52	0.000
Ag	107	0.004	ug/L	69.842	64	0.000
Cd	111	-0.006	ug/L	88.387	20	-0.000
Cd	114		ug/L		35	0.000
> In	115		ug/L		98251	98251.196
Sn	120	0.145	ug/L	15.916	556	0.004
Sb	121	0.735	ug/L	11.753	2125	0.019
Sb	123		ug/L		1633	0.014
Ba	135		ug/L		28	0.000
Ba	137	0.011	ug/L	71.642	42	0.000
Ho	165		ug/L		17	-0.000
> Lu	175		ug/L		134406	134406.334
Tl	205	0.041	ug/L	30.588	675	0.002
Pb	208	0.004	ug/L	63.470	437	0.000
Bi	209		ug/L		19	-0.000
U	238	0.046	ug/L	15.887	607	0.003

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
>	Sc	45	93.7			
|	V	51				
|	Cr	52				
|	Cr	53				
|	Mn	55				
|	Fe	57				
|	Co	59				
|	Ni	60				
|	Cu	63				
|	Cu	65				
[	Zn	66				
|	Zn	67				
|	Zn	68				
>	Ge	74	97.4			
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
[	Sr	88				
|	Y	89				
|	Ag	107				
|	Cd	111				
|	Cd	114				
>	In	115	98.8			
|	Sn	120				
|	Sb	121				
|	Sb	123				
[	Ba	135				
|	Ba	137				
|	Ho	165				
>	Lu	175	96.6			
|	Tl	205				
|	Pb	208				
|	Bi	209				
|	U	238				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521005

Sample Date/Time: Friday, January 15, 2010 07:08:05

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820[2]rmj

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\243521005.119

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	49.978	ug/L	4.440	39437	0.033
Be	9	1.927	ug/L	3.073	716	0.001
B	11	6.036	ug/L	5.898	2996	0.002
Na	23	1121.585	ug/L	10.094	4967678	4.094
Mg	24	5310.613	ug/L	5.836	16265370	13.441
Al	27	34428.571	ug/L	3.125	139288704	115.109
P	31	395.148	ug/L	1.406	93806	0.073
K	39	4585.957	ug/L	5.451	23680872	18.933
Ca	43	4491.442	ug/L	0.492	47744	0.039
Sc	45		ug/L		1209909	1209909.269
V	51	41.974	ug/L	0.848	227565	0.177
Cr	52	21.616	ug/L	0.843	94142	0.077
Cr	53		ug/L		72079	-0.014
Mn	55	626.537	ug/L	0.666	4033707	3.333
Fe	57	36731.254	ug/L	0.443	4502365	3.716
Co	59	10.943	ug/L	2.005	49995	0.041
Ni	60	17.896	ug/L	1.047	17190	0.014
Cu	63		ug/L		29563	0.024
Cu	65	13.756	ug/L	0.717	15113	0.012
Zn	66	97.364	ug/L	0.339	70074	0.315
Zn	67		ug/L		18113	0.046
Zn	68		ug/L		53875	0.239
Ge	74		ug/L		221958	221957.582
As	75	4.926	ug/L	4.921	4270	0.018
Se	77		ug/L		2275	-0.003
Se	82	0.296	ug/L	45.842	-9	0.000
Kr	83		ug/L		156	0.000
Sr	88	41.496	ug/L	1.460	367712	3.075
Y	89		ug/L		443746	3.712
Ag	107	0.286	ug/L	1.189	1065	0.008
Cd	111	1.061	ug/L	0.892	946	0.008
Cd	114		ug/L		150	0.001
In	115		ug/L		119532	119531.799
Sn	120	2.934	ug/L	1.763	10053	0.083
Sb	121	0.382	ug/L	14.322	1518	0.010
Sb	123		ug/L		1204	0.008
Ba	135		ug/L		195322	1.152
Ba	137	228.970	ug/L	1.268	338936	1.999
Ho	165		ug/L		24126	0.142
Lu	175		ug/L		169564	169564.099
Tl	205	0.282	ug/L	3.701	2471	0.011
Pb	208	12.560	ug/L	0.121	146710	0.862
Bi	209		ug/L		1639	0.010
U	238	1.478	ug/L	2.007	17027	0.099

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		117.9			
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		111.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		120.2			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		121.9			
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	In	115	
	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243521006

Sample Date/Time: Friday, January 15, 2010 07:13:59

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\6020 nolrs thtlimozr.mth

Dataset File: C:\elandata\Dataset\100114\243521006.120

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	32.159	ug/L	2.144	24925	0.021
Be	9	1.480	ug/L	4.379	544	0.000
B	11	7.502	ug/L	4.576	3419	0.002
Na	23	622.275	ug/L	13.384	2713438	2.272
Mg	24	7729.035	ug/L	4.949	23228562	19.562
Al	27	32126.738	ug/L	3.361	127564655	107.413
P	31	1391.953	ug/L	0.499	311133	0.258
K	39	4960.093	ug/L	6.095	25081712	20.478
Ca	43	9857.238	ug/L	0.566	102213	0.086
Sc	45		ug/L		1187459	1187459.088
V	51	70.843	ug/L	0.678	368272	0.299
Cr	52	30.798	ug/L	0.732	131159	0.109
Cr	53		ug/L		73970	-0.011
Mn	55	1035.270	ug/L	1.169	6540953	5.507
Fe	57	31338.764	ug/L	1.151	3771196	3.171
Co	59	12.858	ug/L	1.200	57614	0.048
Ni	60	26.872	ug/L	1.483	25287	0.021
Cu	63		ug/L		71433	0.060
Cu	65	33.114	ug/L	0.375	35565	0.030
Zn	66	88.125	ug/L	1.707	62668	0.285
Zn	67		ug/L		17600	0.044
Zn	68		ug/L		50352	0.226
Ge	74		ug/L		219283	219282.865
As	75	3.664	ug/L	11.403	3192	0.014
Se	77		ug/L		2147	-0.004
Se	82	0.413	ug/L	61.352	-1	0.000
Kr	83		ug/L		131	0.000
Sr	88	86.287	ug/L	0.952	750805	6.395
Y	89		ug/L		256194	2.182
Ag	107	0.389	ug/L	9.579	1400	0.011
Cd	111	1.485	ug/L	4.698	1289	0.011
Cd	114		ug/L		645	0.005
In	115		ug/L		117379	117378.652
Sn	120	0.879	ug/L	6.283	3085	0.025
Sb	121	0.164	ug/L	23.001	841	0.004
Sb	123		ug/L		716	0.004
Ba	135		ug/L		339250	2.032
Ba	137	404.051	ug/L	0.630	589006	3.527
Ho	165		ug/L		13224	0.079
Lu	175		ug/L		166986	166986.401
Tl	205	0.416	ug/L	3.045	3313	0.016
Pb	208	26.356	ug/L	0.691	302630	1.809
Bi	209		ug/L		4004	0.024
U	238	6.042	ug/L	0.866	67824	0.405

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		115.7			
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		110.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		118.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		120.1			
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Mn	55	Sample is out of limits (over linear range)
	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243521007

Sample Date/Time: Friday, January 15, 2010 07:19:54

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\6020 nolrs thtmozr.mth

Dataset File: C:\elandata\Dataset\100114\243521007.121

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	56.808	ug/L	4.053	44858	0.037
Be	9	2.163	ug/L	10.466	803	0.001
B	11	6.850	ug/L	0.762	3269	0.002
Na	23	1275.354	ug/L	8.358	5653865	4.656
Mg	24	5840.004	ug/L	2.383	17899973	14.781
Al	27	39085.691	ug/L	6.350	158187172	130.680
P	31	446.238	ug/L	2.002	105306	0.083
K	39	4898.812	ug/L	0.362	25259596	20.225
Ca	43	4981.632	ug/L	0.665	52926	0.043
> Sc	45		ug/L		1210608	1210608.331
V	51	48.356	ug/L	1.641	260355	0.204
Cr	52	26.797	ug/L	1.890	116480	0.095
Cr	53		ug/L		71562	-0.015
Mn	55	727.156	ug/L	0.595	4683734	3.868
Fe	57	41506.638	ug/L	1.244	5089413	4.199
Co	59	12.164	ug/L	1.234	55576	0.046
Ni	60	20.403	ug/L	1.002	19596	0.016
Cu	63		ug/L		34148	0.028
Cu	65	15.794	ug/L	0.961	17347	0.014
Zn	66	134.118	ug/L	0.058	96419	0.434
Zn	67		ug/L		21775	0.062
Zn	68		ug/L		72764	0.324
> Ge	74		ug/L		221849	221849.198
As	75	5.483	ug/L	4.589	4726	0.020
Se	77		ug/L		2130	-0.004
Se	82	0.339	ug/L	29.320	-6	0.000
Kr	83		ug/L		159	0.000
Sr	88	46.756	ug/L	1.925	418280	3.465
Y	89		ug/L		502460	4.164
Ag	107	0.279	ug/L	6.817	1052	0.008
Cd	111	1.086	ug/L	10.821	977	0.008
Cd	114		ug/L		212	0.001
> In	115		ug/L		120684	120684.173
Sn	120	3.237	ug/L	2.111	11178	0.091
Sb	121	0.147	ug/L	7.197	815	0.004
Sb	123		ug/L		677	0.003
Ba	135		ug/L		208744	1.219
Ba	137	242.792	ug/L	1.498	362968	2.119
Ho	165		ug/L		27339	0.160
> Lu	175		ug/L		171252	171252.151
Tl	205	0.287	ug/L	3.389	2524	0.011
Pb	208	14.919	ug/L	1.645	175885	1.024
Bi	209		ug/L		1894	0.011
U	238	1.607	ug/L	1.594	18676	0.108

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		117.9			
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		111.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		121.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		123.1			
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	In	115	
	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243521008
 Sample Date/Time: Friday, January 15, 2010 07:25:48
 Sample Type:
 Sample Description: LANL 6020
 Number of Replicates: 3
 Batch ID: 936820|2|rmj
 Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
 Dataset File: C:\elandata\Dataset\100114\243521008.122

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	33.318	ug/L	3.607	26216	0.022
Be	9	1.758	ug/L	2.403	653	0.001
B	11	5.231	ug/L	3.714	2718	0.001
Na	23	474.328	ug/L	5.817	2103477	1.732
Mg	24	4522.927	ug/L	5.764	13802713	11.447
Al	27	32676.792	ug/L	6.734	131764314	109.252
P	31	997.002	ug/L	0.794	227785	0.185
K	39	3368.715	ug/L	4.714	17543857	13.908
Ca	43	5654.682	ug/L	0.876	59766	0.049
> Sc	45		ug/L		1205713	1205712.848
V	51	51.645	ug/L	0.741	276078	0.218
Cr	52	19.850	ug/L	1.193	86246	0.071
Cr	53		ug/L		70331	-0.015
Mn	55	1085.701	ug/L	0.668	6964646	5.776
Fe	57	28860.290	ug/L	0.875	3526774	2.920
Co	59	12.141	ug/L	0.547	55251	0.046
Ni	60	21.928	ug/L	1.281	20969	0.017
Cu	63		ug/L		54321	0.045
Cu	65	25.108	ug/L	0.706	27405	0.023
Zn	66	94.615	ug/L	1.037	68693	0.306
Zn	67		ug/L		17946	0.044
Zn	68		ug/L		53886	0.237
> Ge	74		ug/L		223897	223897.203
As	75	5.149	ug/L	4.735	4493	0.019
Se	77		ug/L		2195	-0.004
Se	82	0.192	ug/L	157.342	-16	0.000
Kr	83		ug/L		146	0.000
Sr	88	50.437	ug/L	1.486	443526	3.738
Y	89		ug/L		386361	3.257
Ag	107	0.340	ug/L	4.385	1245	0.010
Cd	111	1.290	ug/L	14.234	1136	0.009
Cd	114		ug/L		483	0.004
> In	115		ug/L		118626	118626.374
Sn	120	1.247	ug/L	0.775	4347	0.035
Sb	121	0.109	ug/L	8.028	686	0.003
Sb	123		ug/L		555	0.002
Ba	135		ug/L		284657	1.701
Ba	137	340.696	ug/L	0.862	497795	2.974
Ho	165		ug/L		19683	0.117
> Lu	175		ug/L		167368	167368.047
Tl	205	0.350	ug/L	2.319	2887	0.014
Pb	208	27.001	ug/L	0.071	310752	1.854
Bi	209		ug/L		5115	0.030
U	238	3.230	ug/L	0.374	36445	0.216

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		117.5			
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		112.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		119.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		120.3			
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Mn	55	Sample is out of limits (over linear range)
	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243521009

Sample Date/Time: Friday, January 15, 2010 07:31:42

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\243521009.123

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	41.165	ug/L	5.268	31578	0.027
Be	9	1.031	ug/L	4.520	380	0.000
B	11	1.776	ug/L	7.302	1534	0.000
Na	23	1369.134	ug/L	5.116	5896509	4.998
Mg	24	2678.750	ug/L	2.254	7979441	6.780
Al	27	13795.534	ug/L	3.504	54245601	46.124
P	31	443.778	ug/L	2.286	101782	0.082
K	39	2965.509	ug/L	2.879	15159093	12.243
Ca	43	2893.932	ug/L	1.230	30095	0.025
> Sc	45		ug/L		1176404	1176404.473
V	51	20.089	ug/L	2.594	112401	0.085
Cr	52	12.684	ug/L	1.446	54177	0.045
Cr	53		ug/L		65447	-0.018
Mn	55	687.974	ug/L	0.546	4306158	3.660
Fe	57	28087.644	ug/L	0.717	3348870	2.842
Co	59	8.516	ug/L	2.103	37879	0.032
Ni	60	12.274	ug/L	1.488	11490	0.010
Cu	63		ug/L		18672	0.016
Cu	65	9.030	ug/L	0.283	9681	0.008
Zn	66	75.421	ug/L	1.244	54411	0.244
Zn	67		ug/L		14771	0.030
Zn	68		ug/L		41301	0.182
> Ge	74		ug/L		222318	222318.107
As	75	1.825	ug/L	15.166	1723	0.007
Se	77		ug/L		2119	-0.004
Se	82	0.505	ug/L	36.899	5	0.000
Kr	83		ug/L		138	0.000
Sr	88	21.702	ug/L	0.683	192210	1.608
Y	89		ug/L		419177	3.510
Ag	107	0.218	ug/L	3.567	825	0.006
Cd	111	0.867	ug/L	0.708	778	0.006
Cd	114		ug/L		134	0.001
> In	115		ug/L		119414	119413.581
Sn	120	4.312	ug/L	1.637	14672	0.121
Sb	121	0.139	ug/L	3.909	783	0.004
Sb	123		ug/L		645	0.003
Ba	135		ug/L		123020	0.734
Ba	137	148.345	ug/L	0.554	217040	1.295
Ho	165		ug/L		22553	0.134
> Lu	175		ug/L		167582	167581.926
Tl	205	0.217	ug/L	4.522	2011	0.009
Pb	208	11.744	ug/L	0.442	135605	0.806
Bi	209		ug/L		761	0.004
U	238	1.322	ug/L	2.155	15074	0.089

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Dil Duplicate	Rel. % Difference
Li	7						
Be	9						
B	11						
Na	23						
Mg	24						
Al	27						
P	31						
K	39						
Ca	43						
> Sc	45			114.6			
V	51						
Cr	52						
Cr	53						
Mn	55						
Fe	57						
Co	59						
Ni	60						
Cu	63						
Cu	65						
Zn	66						
Zn	67						
Zn	68						
> Ge	74			111.6			
As	75						
Se	77						
Se	82						
Kr	83						
Sr	88						
Y	89						
Ag	107						
Cd	111						
Cd	114						
> In	115			120.1			
Sn	120						
Sb	121						
Sb	123						
Ba	135						
Ba	137						
Ho	165						
> Lu	175			120.5			
Tl	205						
Pb	208						
Bi	209						
U	238						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits	Message
	In	115		
	Lu	175		

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243521010

Sample Date/Time: Friday, January 15, 2010 07:37:36

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rm|

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\243521010.124

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	27.397	ug/L	5.558	21183	0.018
Be	9	1.240	ug/L	0.682	457	0.000
B	11	4.378	ug/L	1.297	2393	0.001
Na	23	649.452	ug/L	7.680	2825628	2.371
Mg	24	7141.432	ug/L	8.540	21403077	18.074
Al	27	27384.607	ug/L	7.582	108491202	91.558
P	31	1578.941	ug/L	1.298	351320	0.292
K	39	4505.212	ug/L	2.735	22794229	18.600
Ca	43	9197.632	ug/L	0.397	95179	0.080
> Sc	45		ug/L		1184555	1184554.568
V	51	55.444	ug/L	1.014	290220	0.234
Cr	52	50.716	ug/L	1.498	214672	0.180
Cr	53		ug/L		84487	-0.002
Mn	55	867.964	ug/L	1.176	5469789	4.617
Fe	57	28011.394	ug/L	1.269	3362724	2.834
Co	59	12.356	ug/L	1.298	55231	0.046
Ni	60	23.533	ug/L	0.829	22101	0.019
Cu	63		ug/L		60606	0.051
Cu	65	28.511	ug/L	0.580	30558	0.026
Zn	66	65.937	ug/L	0.848	47498	0.213
Zn	67		ug/L		14906	0.031
Zn	68		ug/L		39112	0.172
> Ge	74		ug/L		221888	221887.535
As	75	2.366	ug/L	7.362	2164	0.009
Se	77		ug/L		2205	-0.004
Se	82	0.025	ug/L	434.255	-28	0.000
Kr	83		ug/L		131	0.000
Sr	88	85.633	ug/L	1.027	746666	6.346
Y	89		ug/L		299472	2.546
Ag	107	0.241	ug/L	4.079	894	0.007
Cd	111	1.088	ug/L	5.790	954	0.008
Cd	114		ug/L		470	0.004
> In	115		ug/L		117628	117628.421
Sn	120	0.650	ug/L	1.894	2334	0.018
Sb	121	0.047	ug/L	27.388	498	0.001
Sb	123		ug/L		405	0.001
Ba	135		ug/L		315486	1.882
Ba	137	378.978	ug/L	0.286	554434	3.308
Ho	165		ug/L		14638	0.087
> Lu	175		ug/L		167582	167581.531
Tl	205	0.307	ug/L	2.987	2604	0.012
Pb	208	25.314	ug/L	0.560	291742	1.738
Bi	209		ug/L		3449	0.020
U	238	7.493	ug/L	1.932	84345	0.502

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		115.4			
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		111.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		118.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		120.5			
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243521011

Sample Date/Time: Friday, January 15, 2010 07:43:30

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820[2]rmj

Method File: c:\elandata\Method\6020 nolrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\243521011.125

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	34.900	ug/L	2.229	27090	0.023
Be	9	1.185	ug/L	7.695	439	0.000
B	11	1.891	ug/L	1.790	1589	0.001
Na	23	1117.552	ug/L	3.192	4865924	4.080
Mg	24	3707.135	ug/L	2.928	11159926	9.382
Al	27	14880.726	ug/L	3.469	59145204	49.753
P	31	446.529	ug/L	0.334	103501	0.083
K	39	2903.535	ug/L	6.270	15009003	11.987
Ca	43	3508.815	ug/L	1.327	36772	0.030
> Sc	45		ug/L		1189088	1189088.271
V	51	28.640	ug/L	0.581	156617	0.121
Cr	52	35.986	ug/L	1.092	153250	0.128
Cr	53		ug/L		75646	-0.010
Mn	55	922.637	ug/L	0.881	5836610	4.908
Fe	57	33129.165	ug/L	1.140	3991102	3.352
Co	59	6.903	ug/L	1.102	31091	0.026
Ni	60	23.297	ug/L	0.384	21965	0.018
Cu	63		ug/L		24435	0.020
Cu	65	11.555	ug/L	1.003	12492	0.010
Zn	66	97.486	ug/L	0.969	70145	0.315
Zn	67		ug/L		17022	0.041
Zn	68		ug/L		53041	0.235
> Ge	74		ug/L		221925	221925.039
As	75	3.425	ug/L	8.756	3039	0.013
Se	77		ug/L		2141	-0.004
Se	82	0.976	ug/L	21.050	38	0.000
Kr	83		ug/L		141	0.000
Sr	88	28.641	ug/L	1.760	255189	2.123
Y	89		ug/L		520448	4.331
Ag	107	0.232	ug/L	10.976	879	0.007
Cd	111	0.993	ug/L	8.714	892	0.007
Cd	114		ug/L		169	0.001
> In	115		ug/L		120152	120152.049
Sn	120	6.053	ug/L	2.002	20649	0.170
Sb	121	0.286	ug/L	3.754	1234	0.007
Sb	123		ug/L		974	0.006
Ba	135		ug/L		124353	0.730
Ba	137	145.159	ug/L	0.953	215761	1.267
Ho	165		ug/L		30079	0.177
> Lu	175		ug/L		170243	170243.467
Tl	205	0.143	ug/L	3.925	1543	0.006
Pb	208	8.387	ug/L	0.510	98535	0.576
Bi	209		ug/L		918	0.005
U	238	1.473	ug/L	0.535	17035	0.099

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		115.8			
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		111.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		120.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		122.4			
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	In	115	
	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, January 15, 2010 07:49:24

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nohrs thtlimozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 6.126

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	48.922	ug/L	3.230	30153	0.032
Be	9	46.716	ug/L	2.607	13269	0.014
B	11	91.861	ug/L	2.197	24652	0.025
Na	23	4355.188	ug/L	4.071	15036098	15.899
Mg	24	4872.808	ug/L	3.800	11657297	12.333
Al	27	5067.499	ug/L	3.080	16013936	16.943
P	31	5116.961	ug/L	1.057	899072	0.947
K	39	4383.901	ug/L	6.954	17707844	18.099
Ca	43	4853.539	ug/L	0.367	40263	0.042
> Sc	45		ug/L		944993	944993.483
V	51	50.487	ug/L	0.889	211749	0.213
Cr	52	51.851	ug/L	0.916	175099	0.184
Cr	53		ug/L		87219	0.019
Mn	55	51.765	ug/L	0.333	261041	0.275
Fe	57	5083.331	ug/L	0.067	490919	0.514
Co	59	49.547	ug/L	0.623	176081	0.186
Ni	60	51.408	ug/L	0.430	38435	0.041
Cu	63		ug/L		88970	0.094
Cu	65	51.043	ug/L	0.975	43582	0.046
Zn	66	49.168	ug/L	0.675	30614	0.159
Zn	67		ug/L		11321	0.023
Zn	68		ug/L		23001	0.116
> Ge	74		ug/L		191575	191574.894
As	75	45.410	ug/L	1.072	32423	0.168
Se	77		ug/L		4586	0.010
Se	82	48.559	ug/L	2.491	2875	0.015
Kr	83		ug/L		85	-0.000
Sr	88	49.953	ug/L	1.201	357934	3.702
Y	89		ug/L		96	0.001
Ag	107	49.986	ug/L	0.299	141650	1.465
Cd	111	48.884	ug/L	0.789	34167	0.353
Cd	114		ug/L		76715	0.793
> In	115		ug/L		96658	96657.560
Sn	120	50.698	ug/L	0.760	138015	1.426
Sb	121	46.377	ug/L	11.637	113558	1.173
Sb	123		ug/L		87950	0.908
Ba	135		ug/L		33435	0.251
Ba	137	50.324	ug/L	1.610	58533	0.439
Ho	165		ug/L		30	0.000
> Lu	175		ug/L		133192	133192.393
Tl	205	48.102	ug/L	0.498	253735	1.902
Pb	208	49.914	ug/L	0.830	456800	3.427
Bi	209		ug/L		104	0.001
U	238	53.605	ug/L	0.434	478423	3.591

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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7	97.844				
Be	9	93.432				
B	11	91.861				
Na	23	87.104				
Mg	24	97.456				
Al	27	100.347				
P	31	102.339				
K	39	87.678				
Ca	43	97.071				
> Sc	45		92.1			
V	51	100.973				
Cr	52	103.703				
Cr	53					
Mn	55	103.529				
Fe	57	101.667				
Co	59	99.093				
Ni	60	102.816				
Cu	63					
Cu	65	102.087				
Zn	66	98.337				
Zn	67					
Zn	68					
> Ge	74		96.2			
As	75	90.821				
Se	77					
Se	82	97.118				
Kr	83					
Sr	88	99.906				
Y	89					
Ag	107	99.971				
Cd	111	97.769				
Cd	114					
> In	115		97.2			
Sn	120	101.396				
Sb	121	92.755				
Sb	123					
Ba	135					
Ba	137	100.647				
Ho	165					
> Lu	175		95.8			
Tl	205	96.203				
Pb	208	99.828				
Bi	209					
U	238	107.209				

QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
QC Std 6	Na	23CCV is out of limits (+/- 10%)
QC Std 6	K	39CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, January 15, 2010 07:55:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 nohrs thtimozr.mth

Dataset File: C:\elandata\Dataset\100114\QC Std 7.127

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.055	ug/L	9.961	76	0.000
Be	9	-0.001	ug/L	1299.341	12	-0.000
B	11	0.924	ug/L	56.940	1019	0.000
Na	23	-0.498	ug/L	95.997	10337	-0.002
Mg	24	-0.314	ug/L	80.937	2334	-0.001
Al	27	0.716	ug/L	3.683	6001	0.002
P	31	5.190	ug/L	30.843	5113	0.001
K	39	13.982	ug/L	89.819	665533	0.058
Ca	43	3.292	ug/L	58.344	447	0.000
> Sc	45		ug/L		953804	953804.345
V	51	0.428	ug/L	76.414	11889	0.002
Cr	52	-0.013	ug/L	181.435	882	-0.000
Cr	53		ug/L		67117	-0.003
Mn	55	0.170	ug/L	5.388	1690	0.001
Fe	57	10.846	ug/L	3.979	6022	0.001
Co	59	0.008	ug/L	88.947	238	0.000
Ni	60	0.001	ug/L	478.248	73	0.000
Cu	63		ug/L		126	-0.000
Cu	65	0.007	ug/L	184.967	88	0.000
Zn	66	-0.001	ug/L	4609.181	144	-0.000
Zn	67		ug/L		6322	-0.003
Zn	68		ug/L		739	-0.000
> Ge	74		ug/L		192474	192473.554
As	75	-0.302	ug/L	151.429	-27	-0.001
Se	77		ug/L		2439	-0.001
Se	82	0.175	ug/L	52.714	-15	0.000
Kr	83		ug/L		87	-0.000
Sr	88	0.002	ug/L	75.717	142	0.000
Y	89		ug/L		51	0.000
Ag	107	0.002	ug/L	38.616	58	0.000
Cd	111	-0.006	ug/L	181.307	20	-0.000
Cd	114		ug/L		33	0.000
> In	115		ug/L		97222	97221.527
Sn	120	0.144	ug/L	19.209	546	0.004
Sb	121	0.738	ug/L	16.901	2109	0.019
Sb	123		ug/L		1626	0.014
Ba	135		ug/L		28	0.000
Ba	137	0.007	ug/L	106.257	37	0.000
Ho	165		ug/L		19	0.000
> Lu	175		ug/L		134471	134471.273
Tl	205	0.007	ug/L	171.948	495	0.000
Pb	208	0.001	ug/L	208.550	411	0.000
Bi	209		ug/L		23	0.000
U	238	0.045	ug/L	20.333	591	0.003

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	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	
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	
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		92.9			
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		96.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Ag	107					
Cd	111					
Cd	114					
> In	115		97.7			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		96.7			
Tl	205					
Pb	208					
Bi	209					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Friday, January 15, 2010 23:34:07

Sample Description:

Method File: C:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\091212\Sample.255

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		1798.3		1798.313		74.522		4.1
Mg	24.0		22465.5		22465.457		489.213		2.2
Co	58.9		34520.7		34520.662		386.104		1.1
Rh	102.9		68325.0		68325.013		651.900		1.0
In	114.9		76064.2		76064.170		453.325		0.6
Pb	208.0		45597.7		45597.655		216.888		0.5
[> Ba	137.9		70330.7		70330.696		178.418		0.3
[Ba++	69.0		1852.8		0.026		0.001		2.4
[> Ce	139.9		90202.9		90202.891		531.819		0.6
[CeO	155.9		1524.2		0.017		0.000		2.5
Bkgd	220.0		19.7		19.700		2.439		12.4

Current Optimization File Data

Current Value	Description
0.82	Nebulizer Gas Flow
13.25	Lens Voltage
1450.00	ICP RF Power
-1781.25	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	19	12.3	3023.0
Co	59	19	13.0	34010.4
In	115	19	14.8	73040.2

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	582	2080	0.656
Be	9.0	9.1	2045	2080	0.677
Mg	24.0	24.0	5682	2120	0.620
Mg	25.0	24.9	5901	2080	0.665
Mg	26.0	25.9	6158	2120	0.710
Co	58.9	58.9	14165	2170	0.644
Rh	102.9	102.8	24851	2230	0.709
In	114.9	114.9	27784	2260	0.696
Ce	139.9	139.9	33853	2280	0.752
Pb	206.0	206.0	49948	2430	0.732
Pb	207.0	207.0	50135	2385	0.694
Pb	208.0	208.0	50451	2430	0.719
U	238.1	238.0	57731	2470	0.716

ICPMS#6 - Summary Report

Sample ID: Blank

Sample Date/Time: Saturday, January 16, 2010 06:07:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lutl.mth

Dataset File: C:\elandata\Dataset\100115\Blank.117

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		1024364	
[	Ni	60	ug/L		91	
[>	Lu	175	ug/L		182917	
|	Tl	205	ug/L		248	
[	U	238	ug/L		164	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Simple Linear	
Lu	175Simple Linear	
Tl	205Simple Linear	
U	238Simple Linear	

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Sc	45					
[	Ni	60					
[>	Lu	175					
|	Tl	205					
[	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Saturday, January 16, 2010 06:10:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Inluti.mth

Dataset File: C:\elandata\Dataset\100115\Standard 1.118

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		919904	919903.649
[	Ni 60	10.000	ug/L	9.031	8874	0.010
[>	Lu 175		ug/L		156288	156287.629
[	Tl 205	10.000	ug/L	9.072	62187	0.398
[	U 238	10.000	ug/L	16.238	114534	0.739

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recov	Dilution	% Di	Duplicate	Rel. % Difference
[>	Sc	45									
[	Ni	60									
[>	Lu	175									
[	Tl	205									
[	U	238									

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Saturday, January 16, 2010 06:14:34

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\Standard 2.119

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		907255	907254.639
[	Ni 60	99.993	ug/L	9.973	86195	0.095
[>	Lu 175		ug/L		156012	156011.820
|	Tl 205	99.966	ug/L	11.121	597771	3.848
[	U 238	99.922	ug/L	15.946	1059740	6.846

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel.	% Difference
[>	Sc 45						
[	Ni 60						
[>	Lu 175						
|	Tl 205						
[	U 238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Saturday, January 16, 2010 06:18:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\m1utl.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 1.120

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		919447	919446.793
[	Ni 60	50.971	ug/L	9.745	44574	0.049
[>	Lu 175		ug/L		156209	156208.966
[	Tl 205	48.790	ug/L	10.072	292091	1.878
[	U 238	54.405	ug/L	18.250	575844	3.727

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Sc 45			89.8			
[	Ni 60	101.942					
[>	Lu 175			85.4			
[	Tl 205	97.580					
[	U 238	108.809					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Saturday, January 16, 2010 06:22:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\QC Std 2.121

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1057279	1057278.578
[	Ni 60	-0.012	ug/L	68.203	81	-0.000
[>	Lu 175		ug/L		186805	186805.423
[	Tl 205	0.149	ug/L	9.508	1323	0.006
[	U 238	0.082	ug/L	10.903	1215	0.006

Calibration

Analyte	Mass Curve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Sc 45		103.2				
[	Ni 60						
[>	Lu 175		102.1				
[	Tl 205						
[	U 238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Saturday, January 16, 2010 06:25:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\niutl.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 3.122

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		952545	952544.565
[	Ni 60	2.165	ug/L	11.981	2038	0.002
[>	Lu 175		ug/L		164565	164564.549
[	Tl 205	1.099	ug/L	11.776	7141	0.042
[	U 238	0.237	ug/L	18.612	2783	0.016

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Sc 45			93.0		
[	Ni 60	108.252				
[>	Lu 175			90.0		
[	Tl 205	109.926				
[	U 238	118.331				

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Saturday, January 16, 2010 06:29:28

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\miutl.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 4.123

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		975467	975466.972
[	Ni 60	3.069	ug/L	10.611	2931	0.003
[>	Lu 175		ug/L		161496	161496.483
|	Tl 205	0.029	ug/L	11.603	398	0.001
[	U 238	-0.004	ug/L	30.268	95	-0.000

Calibration

Analyte	Mass Curve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Sc 45			95.2			
[	Ni 60	113.658					
[>	Lu 175			88.3			
|	Tl 205						
[	U 238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Saturday, January 16, 2010 06:33:11

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lutl.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 5.124

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		993603	993602.935
[	Ni 60	21.024	ug/L	5.126	19970	0.020
[>	Lu 175		ug/L		163679	163678.834
|	Tl 205	17.194	ug/L	9.719	108208	0.662
[	U 238	20.680	ug/L	14.380	230386	1.417

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Sc 45		97.0				
[	Ni 60	92.616					
[>	Lu 175		89.5				
|	Tl 205	85.968					
[	U 238	103.400					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, January 16, 2010 06:36:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\QC Std 6.125

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		990995	990994.662
[	Ni 60	50.030	ug/L	8.382	47216	0.048
[>	Lu 175		ug/L		162387	162386.734
[	TI 205	47.599	ug/L	11.329	296807	1.832
[	U 238	52.227	ug/L	14.295	577799	3.578

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
TI	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Sc 45		96.7			
[	Ni 60	100.061				
[>	Lu 175		88.8			
[	TI 205	95.198				
[	U 238	104.455				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, January 16, 2010 06:40:39

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\QC Std 7.126

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1121007	1121007.133
[	Ni 60	-0.016	ug/L	76.575	82	-0.000
[>	Lu 175		ug/L		186850	186850.487
[	Tl 205	0.156	ug/L	14.502	1373	0.006
[	U 238	0.063	ug/L	26.007	962	0.004

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Sc 45		109.4				
[	Ni 60						
[>	Lu 175		102.2				
[	Tl 205						
[	U 238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004451

Sample Date/Time: Saturday, January 16, 2010 06:44:23

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\m1.mth

Dataset File: C:\elandata\Dataset\100115\1202004451.127

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1146659	1146658.816
[	Ni 60	0.017	ug/L	50.960	120	0.000
[>	Lu 175		ug/L		198938	198937.645
[	Tl 205	0.068	ug/L	18.484	784	0.003
[	U 238	0.004	ug/L	56.712	232	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Sc 45		111.9			
[	Ni 60					
[>	Lu 175		108.8			
[	Tl 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004452

Sample Date/Time: Saturday, January 16, 2010 06:48:06

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 936820|40|rmj

Method File: c:\elandata\Method\niutl.mth

Dataset File: C:\elandata\Dataset\100115\1202004452.128

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1023915	1023914.953
[	Ni 60	37.965	ug/L	6.659	37040	0.036
[>	Lu 175		ug/L		170506	170505.629
[	Tl 205	29.399	ug/L	8.400	192651	1.132
[	U 238	0.549	ug/L	16.037	6519	0.038

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Sc 45		100.0				
[	Ni 60						
[>	Lu 175		93.2				
[	Tl 205						
[	U 238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, January 16, 2010 06:51:49

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\niutl.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 6.129

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		981300	981299.960
[	Ni 60	50.220	ug/L	8.222	46889	0.048
[>	Lu 175		ug/L		161816	161816.155
[	Tl 205	48.262	ug/L	7.944	300005	1.858
[	U 238	53.601	ug/L	15.028	589247	3.672

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Sc 45		95.8			
[	Ni 60	100.440				
[>	Lu 175		88.5			
[	Tl 205	96.523				
[	U 238	107.201				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, January 16, 2010 06:55:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\m10115.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 7.130

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc	45		ug/L		1098758	1098758.060
[Ni	60	-0.015	ug/L	74.399	81	-0.000
[> Lu	175		ug/L		176577	176577.138
[TI	205	0.243	ug/L	8.841	1887	0.009
[U	238	0.063	ug/L	11.881	920	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Ti	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Sc	45		107.3			
[Ni	60					
[> Lu	175		96.5			
[TI	205					
[U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521001

Sample Date/Time: Saturday, January 16, 2010 06:59:17

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\m101.mth

Dataset File: C:\elandata\Dataset\100115\243521001.131

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1148406	1148405.996
[	Ni 60	27.911	ug/L	4.893	30596	0.027
[>	Lu 175		ug/L		190650	190649.825
[	Tl 205	0.775	ug/L	10.249	5927	0.030
[	U 238	10.870	ug/L	17.580	140918	0.745

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Sc 45			112.1		
[	Ni 60					
[>	Lu 175			104.2		
[	Tl 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004453

Sample Date/Time: Saturday, January 16, 2010 07:03:00

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\1202004453.132

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1158154	1158153.574
[	Ni 60	28.514	ug/L	4.221	31525	0.027
[>	Lu 175		ug/L		192778	192778.180
[	Tl 205	0.753	ug/L	9.532	5822	0.029
[	U 238	9.676	ug/L	16.127	126651	0.663

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Sc 45		113.1			
[	Ni 60					
[>	Lu 175		105.4			
[	Tl 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004454

Sample Date/Time: Saturday, January 16, 2010 07:06:44

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\1202004454.133

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1158068	1158067.579
[	Ni 60	50.930	ug/L	5.750	56173	0.048
[>	Lu 175		ug/L		193357	193356.939
|	Tl 205	39.100	ug/L	6.618	290912	1.505
[	U 238	31.618	ug/L	12.471	416541	2.166

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Sc 45		113.1			
[	Ni 60					
[>	Lu 175		105.7			
|	Tl 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004456

Sample Date/Time: Saturday, January 16, 2010 07:10:28

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 9368202|rmj

Method File: c:\elandata\Method\lutl.mth

Dataset File: C:\elandata\Dataset\100115\1202004456.134

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1153077	1153077.001
[	Ni 60	55.113	ug/L	6.833	60528	0.052
[>	Lu 175		ug/L		192551	192550.566
|	Tl 205	42.818	ug/L	5.907	317207	1.648
[	U 238	41.344	ug/L	13.330	542306	2.833

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Sc 45		112.6			
[	Ni 60					
[>	Lu 175		105.3			
|	Tl 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004455

Sample Date/Time: Saturday, January 16, 2010 07:14:12

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 936820|10|rmj

Method File: c:\elandata\Method\inluti.mth

Dataset File: C:\elandata\Dataset\100115\1202004455.135

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1011920	1011919.577
[	Ni 60	6.751	ug/L	8.714	6581	0.006
[>	Lu 175		ug/L		168976	168976.010
|	Tl 205	0.534	ug/L	11.361	3689	0.021
[	U 238	2.487	ug/L	14.476	28777	0.170

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Sc 45		98.8			
[	Ni 60					
[>	Lu 175		92.4			
|	Tl 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521002

Sample Date/Time: Saturday, January 16, 2010 07:17:55

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\lutl.mth

Dataset File: C:\elandata\Dataset\100115\243521002.136

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1172392	1172391.746
[	Ni 60	29.259	ug/L	5.857	32733	0.028
[>	Lu 175		ug/L		197682	197682.447
|	Tl 205	0.578	ug/L	11.572	4650	0.022
[	U 238	1.668	ug/L	16.340	22559	0.114

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[>	Sc 45			114.5			
[	Ni 60						
[>	Lu 175			108.1			
|	Tl 205						
[	U 238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, January 16, 2010 07:21:37

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\QC Std 6.137

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		975021	975020.550
[	Ni 60	50.747	ug/L	6.559	47158	0.048
[>	Lu 175		ug/L		163841	163840.679
[	Tl 205	46.414	ug/L	7.824	292775	1.787
[	U 238	50.984	ug/L	9.594	571013	3.493

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Sc 45		95.2				
[	Ni 60	101.494					
[>	Lu 175		89.6				
[	Tl 205	92.829					
[	U 238	101.969					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, January 16, 2010 07:25:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\miutl.mth

Dataset File: C:\elandata\Dataset\100115\QC Std 7.138

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc	45		ug/L		1107677	1107676.506
[Ni	60	-0.003	ug/L	833.992	95	-0.000
[> Lu	175		ug/L		182211	182211.186
[TI	205	0.179	ug/L	12.994	1496	0.007
[U	238	0.055	ug/L	14.379	849	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Ti	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[> Sc	45		108.1			
[Ni	60					
[> Lu	175		99.6			
[TI	205					
[U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521003

Sample Date/Time: Saturday, January 16, 2010 07:29:06

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\243521003.139

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1158286	1158286.191
[	Ni 60	33.445	ug/L	5.360	36920	0.032
[>	Lu 175		ug/L		190840	190840.052
[	Tl 205	0.992	ug/L	9.137	7533	0.038
[	U 238	4.282	ug/L	12.847	55801	0.293

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Sc 45			113.1		
[	Ni 60					
[>	Lu 175			104.3		
[	Tl 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521004

Sample Date/Time: Saturday, January 16, 2010 07:32:49

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\mutil.mth

Dataset File: C:\elandata\Dataset\100115\243521004.140

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1131943	1131943.311
[	Ni 60	25.225	ug/L	6.242	27277	0.024
[>	Lu 175		ug/L		193448	193448.046
[	Tl 205	0.777	ug/L	7.673	6037	0.030
[	U 238	3.160	ug/L	13.397	41868	0.217

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Sc 45			110.5		
[	Ni 60					
[>	Lu 175			105.8		
[	Tl 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521005

Sample Date/Time: Saturday, January 16, 2010 07:36:32

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\mnu1.mth

Dataset File: C:\elandata\Dataset\100115\243521005.141

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1147086	1147086.155
[	Ni 60	18.347	ug/L	6.036	20106	0.017
[>	Lu 175		ug/L		192402	192401.687
[	Tl 205	0.318	ug/L	9.196	2610	0.012
[	U 238	1.559	ug/L	13.380	20583	0.107

Calibration

Analyte	Mass Curve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Sc 45			112.0		
[	Ni 60					
[>	Lu 175			105.2		
[	Tl 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521006

Sample Date/Time: Saturday, January 16, 2010 07:40:16

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\niutl.mth

Dataset File: C:\elandata\Dataset\100115\243521006.142

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1150956	1150955.564
[	Ni 60	26.654	ug/L	2.570	29311	0.025
[>	Lu 175		ug/L		190830	190829.909
|	Tl 205	0.451	ug/L	12.748	3553	0.017
[	U 238	6.407	ug/L	16.290	83200	0.439

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Sc 45		112.4			
[	Ni 60					
[>	Lu 175		104.3			
|	Tl 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521007

Sample Date/Time: Saturday, January 16, 2010 07:44:00

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820[2]rm]

Method File: c:\elandata\Method\m1011.mth

Dataset File: C:\elandata\Dataset\100115\243521007.143

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1156326	1156326.245
[	Ni 60	21.028	ug/L	3.661	23239	0.020
[>	Lu 175		ug/L		197337	197337.218
[	Tl 205	0.328	ug/L	10.003	2744	0.013
[	U 238	1.683	ug/L	15.471	22709	0.115

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Sc 45			112.9			
[	Ni 60						
[>	Lu 175			107.9			
[	Tl 205						
[	U 238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521008

Sample Date/Time: Saturday, January 16, 2010 07:47:44

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\243521008.144

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc	45		ug/L		1125780	1125780.192
[Ni	60	23.194	ug/L	7.000	24938	0.022
[> Lu	175		ug/L		193196	193196.049
[TI	205	0.403	ug/L	9.506	3250	0.016
[U	238	3.343	ug/L	15.322	44117	0.229

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
TI	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[> Sc	45		109.9			
[Ni	60					
[> Lu	175		105.6			
[TI	205					
[U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521009

Sample Date/Time: Saturday, January 16, 2010 07:51:27

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\243521009.145

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1121205	1121204.997
[	Ni 60	12.502	ug/L	7.736	13430	0.012
[>	Lu 175		ug/L		193498	193498.319
[	Tl 205	0.271	ug/L	10.857	2272	0.010
[	U 238	1.383	ug/L	14.615	18379	0.095

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Sc 45			109.5		
[	Ni 60					
[>	Lu 175			105.8		
[	Tl 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521010

Sample Date/Time: Saturday, January 16, 2010 07:55:11

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 936820|2|rmj

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\243521010.146

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1148120	1148120.479
[	Ni 60	23.868	ug/L	3.034	26184	0.023
[>	Lu 175		ug/L		190486	190485.748
[	Tl 205	0.376	ug/L	10.687	2999	0.014
[	U 238	8.127	ug/L	15.641	105323	0.557

Calibration

Analyte	Mass Curve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Sc 45		112.1			
[	Ni 60					
[>	Lu 175		104.1			
[	Tl 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243521011

Sample Date/Time: Saturday, January 16, 2010 07:58:54

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 9368202[rmj]

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\243521011.147

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc	45		ug/L		1164469	1164468.685
[Ni	60	23.577	ug/L	6.252	26182	0.022
[> Lu	175		ug/L		196139	196138.839
[TI	205	0.197	ug/L	11.457	1747	0.008
[U	238	1.586	ug/L	14.666	21327	0.109

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Ti	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dilution	Duplicate Rel. % Difference
[> Sc	45		113.7			
[Ni	60					
[> Lu	175		107.2			
[TI	205					
[U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, January 16, 2010 08:02:37

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\QC Std 6.148

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		967201	967200.683
[	Ni 60	50.567	ug/L	10.001	46560	0.048
[>	Lu 175		ug/L		159923	159923.099
[	Tl 205	48.504	ug/L	12.032	296928	1.867
[	U 238	53.630	ug/L	16.340	582151	3.674

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Sc 45			94.4		
[	Ni 60	101.133				
[>	Lu 175			87.4		
[	Tl 205	97.008				
[	U 238	107.259				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, January 16, 2010 08:06:21

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\mth

Dataset File: C:\elandata\Dataset\100115\QC Std 7.149

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		1108071	1108070.796
[	Ni 60	-0.001	ug/L	120.658	97	-0.000
[>	Lu 175		ug/L		178365	178364.695
[	TI 205	0.126	ug/L	11.986	1101	0.005
[	U 238	0.056	ug/L	9.524	839	0.004

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Lu	175Linear Thru Zero	
TI	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Sc 45		108.2			
[	Ni 60					
[>	Lu 175		97.5			
[	TI 205					
[	U 238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Method Name: SOIL
 Method Description: 7471A, ILM04 ANALYST JXL1
 Element: Hg

Date: 01/07/2010
 Technique: FI-MHS
 Calibration Type:
 Hg, Calc. Intercept : Linear
 Wavelength: 253.7 nm
 Sample Info Name: 010710S1.SIF

Results Data Set Name: 010710S2

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 01/07/2010
 Sample ID: Calib Blank

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0034	0.0034	10:15:26	No
2			0.0035	0.0035	10:16:01	No
Mean:			0.0034			
SD :			0.0000			
%RSD:			1.1933			

Auto-zero performed.

Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 01/07/2010
 Sample ID: S0.2

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0024	0.0058	10:17:24	No
2			0.0021	0.0055	10:17:59	No
Mean:			0.0023			
SD :			0.0002			
%RSD:			10.1161			

[Hg] Standard number 1 applied. [0.200]
 Correlation Coefficient: 1.00000 Slope: 0.01126
 Intercept : 0.00000

Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 01/07/2010
 Sample ID: S0.5

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0050	0.0084	10:19:22	No
2			0.0040	0.0074	10:19:58	No
Mean:			0.0045			
SD :			0.0007			
%RSD:			16.5462			

[Hg] Standard number 2 applied. [0.500]
 Correlation Coefficient: 0.99318 Slope: 0.00886
 Intercept : 0.00018

Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 01/07/2010
 Sample ID: S2.0

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0188	0.0222	10:21:22	No
2			0.0195	0.0229	10:21:57	No
Mean:			0.0191			
SD :			0.0005			
%RSD:			2.5139			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99956
Intercept : 0.00004

Slope: 0.00952

=====

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 01/07/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0478	0.0512	10:23:22	No
2			0.0466	0.0500	10:23:57	No
Mean:			0.0472			
SD :			0.0008			
%RSD:			1.7801			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99993 Slope: 0.00942
Intercept : 0.00009

=====

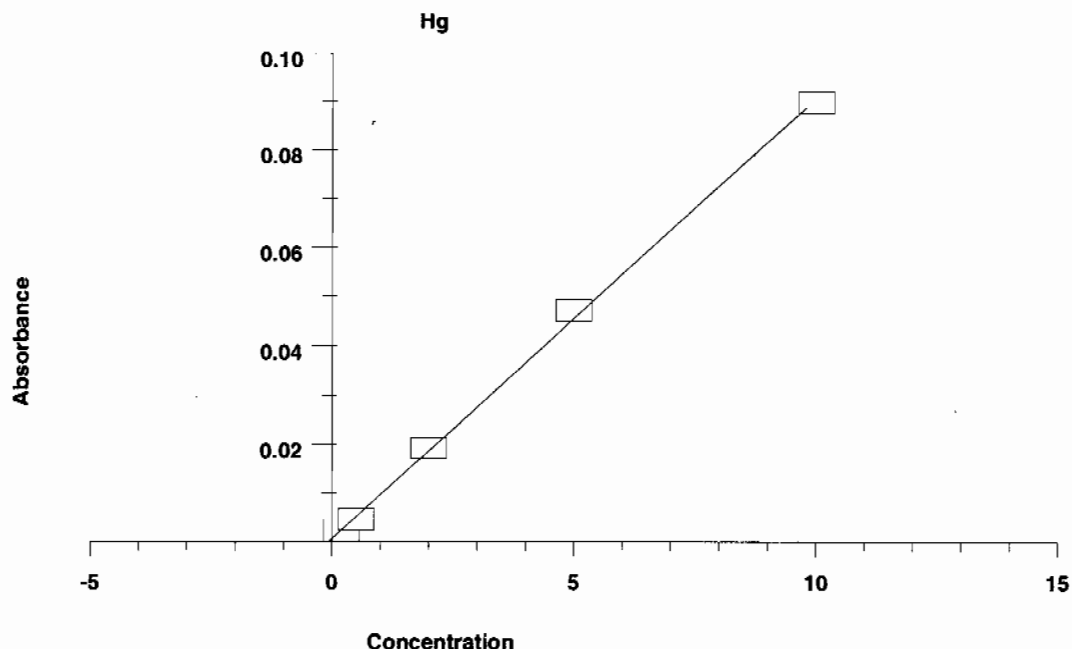
Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 01/07/2010
Sample ID: S10

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0897	0.0931	10:25:23	No
2			0.0899	0.0933	10:25:58	No
Mean:			0.0898			
SD :			0.0001			
%RSD:			0.1097			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99967 Slope: 0.00901
Intercept : 0.00056

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0034	---	----	-----	-----
S0.2	0.0023	0.200	0.188	0.0002	10.1
S0.5	0.0045	0.500	0.436	0.0007	16.5
S2.0	0.0191	2.000	2.061	0.0005	2.5
S5.0	0.0472	5.000	5.173	0.0008	1.8
S10	0.0898	10.000	9.905	0.0001	0.1
Correlation Coefficient: 0.99967		Slope:	0.00901	Intercept:	0.0006



=====
 Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 01/07/2010
 Sample ID: ICV

Repl #	SampleConc µg/L	StdndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.017	5.017	0.0458	0.0492	10:27:27	No
2	5.079	5.079	0.0463	0.0497	10:28:02	No
Mean:	5.048	5.048	0.0460			
SD :	0.0436	0.0436	0.0004			
%RSD:	0.9	0.9	0.8525			

 QC value within specified limits.
 =====

=====
 Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 01/07/2010
 Sample ID: ICB

Repl #	SampleConc µg/L	StdndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0001	0.0033	10:29:24	No
2	-0.069	-0.069	-0.0001	0.0034	10:29:58	No
Mean:	-0.073	-0.073	-0.0001			
SD :	0.0061	0.0061	0.0001			
%RSD:	8.4	8.4	57.6697			

 QC value within specified limits.
 =====

=====
 Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 01/07/2010
 Sample ID: CRDL

Repl #	SampleConc µg/L	StdndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.212	0.212	0.0025	0.0059	10:31:21	No
2	0.190	0.190	0.0023	0.0057	10:31:56	No
Mean:	0.201	0.201	0.0024			
SD :	0.0158	0.0158	0.0001			
%RSD:	7.8	7.8	5.9868			

 =====

QC value within specified limits.

```

=====
Element: Hg      Seq. No.: 10      AS Loc.: 7      Date: 01/07/2010
Sample ID: CCV

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      ug/L       ug/L      Signal    Height    Stored
1      5.068      5.068    0.0462    0.0496    10:33:21  No
2      4.958      4.958    0.0452    0.0486    10:33:55  No
Mean:   5.013      5.013    0.0457
SD :    0.0782    0.0782    0.0007
%RSD:   1.6        1.6      1.5400
QC value within specified limits.

```

```

=====
Element: Hg      Seq. No.: 11      AS Loc.: 8      Date: 01/07/2010
Sample ID: CCB

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      ug/L       ug/L      Signal    Height    Stored
1     -0.081     -0.081   -0.0002    0.0033    10:35:23  No
2     -0.073     -0.073   -0.0001    0.0033    10:35:58  No
Mean:  -0.077     -0.077   -0.0001
SD :    0.0058    0.0058    0.0001
%RSD:   7.5        7.5     39.2466
QC value within specified limits.

```

```

=====
Element: Hg      Seq. No.: 12      AS Loc.: 12     Date: 01/07/2010
Sample ID: 1202006434|i||937632|MB

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      ug/L       ug/L      Signal    Height    Stored
1      0.015      0.015    0.0007    0.0041    10:37:24  No
2      0.012      0.012    0.0007    0.0041    10:37:59  No
Mean:   0.014      0.014    0.0007
SD :    0.0017    0.0017    0.0000
%RSD:  12.2        12.2     2.1895

```

```

=====
Element: Hg      Seq. No.: 13      AS Loc.: 13     Date: 01/07/2010
Sample ID: 1202006439|i|10||LCS

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      ug/L       ug/L      Signal    Height    Stored
1      2.964      2.964    0.0273    0.0307    10:39:23  No
2      3.060      3.060    0.0281    0.0315    10:39:58  No
Mean:   3.012      3.012    0.0277
SD :    0.0677    0.0677    0.0006
%RSD:   2.2        2.2     2.2031

```

```

=====
Element: Hg      Seq. No.: 14      AS Loc.: 14     Date: 01/07/2010
Sample ID: 243385001|i|||

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      ug/L       ug/L      Signal    Height    Stored
1      0.280      0.280    0.0031    0.0065    10:41:24  No
2      0.269      0.269    0.0030    0.0064    10:41:59  No
Mean:   0.274      0.274    0.0030
SD :    0.0081    0.0081    0.0001
%RSD:   2.9        2.9     2.3995

```

```

=====
Element: Hg      Seq. No.: 15      AS Loc.: 15     Date: 01/07/2010
Sample ID: 1202006435|i|||DUP

```

%RSD: 3.5 3.5 3.0607

=====
 Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 01/07/2010
 Sample ID: 243385004|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.513	0.513	0.0052	0.0086	10:55:13	No
2	0.349	0.349	0.0037	0.0071	10:55:48	No
Mean:	0.431	0.431	0.0044			
SD :	0.1163	0.1163	0.0010			
%RSD:	27.0	27.0	23.5798			

=====
 Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.266	5.266	0.0480	0.0514	10:57:12	No
2	5.299	5.299	0.0483	0.0517	10:57:47	No
Mean:	5.283	5.283	0.0481			
SD :	0.0232	0.0232	0.0002			
%RSD:	0.4	0.4	0.4345			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.121	-0.121	-0.0005	0.0029	10:59:14	No
2	-0.118	-0.118	-0.0005	0.0029	10:59:49	No
Mean:	-0.119	-0.119	-0.0005			
SD :	0.0023	0.0023	0.0000			
%RSD:	1.9	1.9	4.0037			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 01/07/2010
 Sample ID: 243385005|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.496	0.496	0.0050	0.0084	11:01:14	No
2	0.355	0.355	0.0038	0.0072	11:01:49	No
Mean:	0.425	0.425	0.0044			
SD :	0.0993	0.0993	0.0009			
%RSD:	23.4	23.4	20.3771			

=====
 Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 01/07/2010
 Sample ID: 243385006|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.297	0.297	0.0032	0.0067	11:03:12	No
2	0.239	0.239	0.0027	0.0061	11:03:47	No
Mean:	0.268	0.268	0.0030			
SD :	0.0412	0.0412	0.0004			
%RSD:	15.4	15.4	12.4851			

=====
 Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 01/07/2010
 Sample ID: 243385007|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.471	0.471	0.0048	0.0082	11:05:12	No
2	0.466	0.466	0.0048	0.0082	11:05:47	No
Mean:	0.468	0.468	0.0048			
SD :	0.0034	0.0034	0.0000			
%RSD:	0.7	0.7	0.6406			

=====
 Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 01/07/2010
 Sample ID: 243385008|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.264	0.264	0.0029	0.0064	11:07:11	No
2	0.247	0.247	0.0028	0.0062	11:07:46	No
Mean:	0.255	0.255	0.0029			
SD :	0.0119	0.0119	0.0001			
%RSD:	4.7	4.7	3.7399			

=====
 Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 01/07/2010
 Sample ID: 243385009|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.169	0.169	0.0021	0.0055	11:09:11	No
2	0.186	0.186	0.0022	0.0057	11:09:46	No
Mean:	0.178	0.178	0.0022			
SD :	0.0115	0.0115	0.0001			
%RSD:	6.5	6.5	4.8151			

=====
 Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 01/07/2010
 Sample ID: 243385010|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.165	0.165	0.0020	0.0055	11:11:10	No
2	0.177	0.177	0.0022	0.0056	11:11:45	No
Mean:	0.171	0.171	0.0021			
SD :	0.0085	0.0085	0.0001			
%RSD:	5.0	5.0	3.6475			

=====
 Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 01/07/2010
 Sample ID: 243385011|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.320	0.320	0.0034	0.0069	11:13:10	No
2	0.291	0.291	0.0032	0.0066	11:13:45	No
Mean:	0.306	0.306	0.0033			
SD :	0.0207	0.0207	0.0002			
%RSD:	6.8	6.8	5.6384			

=====
 Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 01/07/2010
 Sample ID: 1202006448|i||937638|MB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.041	-0.041	0.0002	0.0036	11:15:11	No
2	-0.048	-0.048	0.0001	0.0035	11:15:46	No
Mean:	-0.045	-0.045	0.0002			
SD :	0.0050	0.0050	0.0000			

%RSD: 11.1 11.1 28.9448

=====
 Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 01/07/2010
 Sample ID: 1202006453|i|10|LCS
 =====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	4.321	4.321	0.0395	0.0429	11:17:13	No
2	4.436	4.436	0.0405	0.0439	11:17:49	No
Mean:	4.379	4.379	0.0400			
SD :	0.0814	0.0814	0.0007			
%RSD:	1.9	1.9	1.8329			

=====
 Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 01/07/2010
 Sample ID: 243457001|i|||
 =====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.216	0.216	0.0025	0.0059	11:19:16	No
2	0.194	0.194	0.0023	0.0057	11:19:51	No
Mean:	0.205	0.205	0.0024			
SD :	0.0157	0.0157	0.0001			
%RSD:	7.7	7.7	5.8916			

=====
 Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV
 =====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.476	5.476	0.0499	0.0533	11:21:18	No
2	5.459	5.459	0.0497	0.0532	11:21:53	No
Mean:	5.468	5.468	0.0498			
SD :	0.0118	0.0118	0.0001			
%RSD:	0.2	0.2	0.2141			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB
 =====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.150	-0.150	-0.0008	0.0026	11:23:21	No
2	-0.146	-0.146	-0.0008	0.0027	11:23:56	No
Mean:	-0.148	-0.148	-0.0008			
SD :	0.0031	0.0031	0.0000			
%RSD:	2.1	2.1	3.6014			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 01/07/2010
 Sample ID: 1202006449|i|||DUP
 =====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.188	0.188	0.0023	0.0057	11:25:20	No
2	0.160	0.160	0.0020	0.0054	11:25:55	No
Mean:	0.174	0.174	0.0021			
SD :	0.0196	0.0196	0.0002			
%RSD:	11.2	11.2	8.2869			

=====
 Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 01/07/2010
 Sample ID: 1202006451|i|||MS
 =====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.575	2.575	0.0238	0.0272	11:27:16	No
2	2.478	2.478	0.0229	0.0263	11:27:51	No
Mean:	2.526	2.526	0.0233			
SD :	0.0685	0.0685	0.0006			
%RSD:	2.7	2.7	2.6467			

=====
 Element: Hg Seq. No.: 38 AS Loc.: 34 Date: 01/07/2010
 Sample ID: 1202006452|i||MSD

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.600	2.600	0.0240	0.0274	11:29:11	No
2	2.585	2.585	0.0238	0.0273	11:29:46	No
Mean:	2.593	2.593	0.0239			
SD :	0.0106	0.0106	0.0001			
%RSD:	0.4	0.4	0.3982			

=====
 Element: Hg Seq. No.: 39 AS Loc.: 35 Date: 01/07/2010
 Sample ID: 1202006450|i|5|SDILT

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.142	-0.142	-0.0007	0.0027	11:31:08	No
2	-0.154	-0.154	-0.0008	0.0026	11:31:43	No
Mean:	-0.148	-0.148	-0.0008			
SD :	0.0085	0.0085	0.0001			
%RSD:	5.7	5.7	9.8499			

=====
 Element: Hg Seq. No.: 40 AS Loc.: 36 Date: 01/07/2010
 Sample ID: 243457002|i||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.489	0.489	0.0050	0.0084	11:33:05	No
2	0.474	0.474	0.0048	0.0083	11:33:40	No
Mean:	0.482	0.482	0.0049			
SD :	0.0103	0.0103	0.0001			
%RSD:	2.1	2.1	1.8967			

=====
 Element: Hg Seq. No.: 41 AS Loc.: 37 Date: 01/07/2010
 Sample ID: 243457003|i||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.280	0.280	0.0031	0.0065	11:35:02	No
2	0.247	0.247	0.0028	0.0062	11:35:37	No
Mean:	0.263	0.263	0.0029			
SD :	0.0231	0.0231	0.0002			
%RSD:	8.8	8.8	7.1080			

=====
 Element: Hg Seq. No.: 42 AS Loc.: 38 Date: 01/07/2010
 Sample ID: 243457004|i||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.223	0.223	0.0026	0.0060	11:36:58	No
2	0.212	0.212	0.0025	0.0059	11:37:33	No
Mean:	0.218	0.218	0.0025			
SD :	0.0078	0.0078	0.0001			

%RSD: 3.6 3.6 2.7838

=====
 Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 01/07/2010
 Sample ID: 243472001|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0006	0.0040	11:38:56	No
2	0.016	0.016	0.0007	0.0041	11:39:31	No
Mean:	0.010	0.010	0.0007			
SD :	0.0079	0.0079	0.0001			
%RSD:	75.7	75.7	10.9212			

=====
 Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 01/07/2010
 Sample ID: 243472002|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.006	-0.006	0.0005	0.0039	11:40:55	No
2	-0.020	-0.020	0.0004	0.0038	11:41:29	No
Mean:	-0.013	-0.013	0.0004			
SD :	0.0097	0.0097	0.0001			
%RSD:	75.8	75.8	19.5298			

=====
 Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 01/07/2010
 Sample ID: 243472003|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.018	-0.018	0.0004	0.0038	11:42:53	No
2	-0.029	-0.029	0.0003	0.0037	11:43:28	No
Mean:	-0.024	-0.024	0.0003			
SD :	0.0076	0.0076	0.0001			
%RSD:	31.9	31.9	19.8760			

=====
 Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	5.455	5.455	0.0497	0.0531	11:44:53	No
2	5.509	5.509	0.0502	0.0536	11:45:28	No
Mean:	5.482	5.482	0.0499			
SD :	0.0377	0.0377	0.0003			
%RSD:	0.7	0.7	0.6795			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.165	-0.165	-0.0009	0.0025	11:46:56	No
2	-0.162	-0.162	-0.0009	0.0025	11:47:31	No
Mean:	-0.164	-0.164	-0.0009			
SD :	0.0023	0.0023	0.0000			
%RSD:	1.4	1.4	2.3130			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 01/07/2010
 Sample ID: 243521001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.199	0.199	0.0024	0.0058	11:48:59	No
2	0.223	0.223	0.0026	0.0060	11:49:34	No
Mean:	0.211	0.211	0.0025			
SD :	0.0169	0.0169	0.0002			
%RSD:	8.0	8.0	6.1854			

=====
 Element: Hg Seq. No.: 49 AS Loc.: 43 Date: 01/07/2010
 Sample ID: 243521002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.535	0.535	0.0054	0.0088	11:50:58	No
2	0.504	0.504	0.0051	0.0085	11:51:33	No
Mean:	0.519	0.519	0.0052			
SD :	0.0216	0.0216	0.0002			
%RSD:	4.2	4.2	3.7071			

=====
 Element: Hg Seq. No.: 50 AS Loc.: 44 Date: 01/07/2010
 Sample ID: 243521003|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.429	0.429	0.0044	0.0078	11:52:59	No
2	0.428	0.428	0.0044	0.0078	11:53:34	No
Mean:	0.428	0.428	0.0044			
SD :	0.0009	0.0009	0.0000			
%RSD:	0.2	0.2	0.1764			

=====
 Element: Hg Seq. No.: 51 AS Loc.: 45 Date: 01/07/2010
 Sample ID: 243521004|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.169	0.169	0.0021	0.0055	11:54:59	No
2	0.177	0.177	0.0022	0.0056	11:55:34	No
Mean:	0.173	0.173	0.0021			
SD :	0.0058	0.0058	0.0001			
%RSD:	3.3	3.3	2.4518			

=====
 Element: Hg Seq. No.: 52 AS Loc.: 46 Date: 01/07/2010
 Sample ID: 243521005|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.263	0.263	0.0029	0.0064	11:57:01	No
2	0.235	0.235	0.0027	0.0061	11:57:36	No
Mean:	0.249	0.249	0.0028			
SD :	0.0198	0.0198	0.0002			
%RSD:	7.9	7.9	6.3405			

=====
 Element: Hg Seq. No.: 53 AS Loc.: 47 Date: 01/07/2010
 Sample ID: 243521006|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.234	0.234	0.0027	0.0061	11:59:03	No
2	0.224	0.224	0.0026	0.0060	11:59:38	No
Mean:	0.229	0.229	0.0026			
SD :	0.0069	0.0069	0.0001			

%RSD: 3.0 3.0 2.3734

=====
 Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 01/07/2010
 Sample ID: 243521007|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.203	0.203	0.0024	0.0058	12:01:02	No
2	0.205	0.205	0.0024	0.0058	12:01:37	No
Mean:	0.204	0.204	0.0024			
SD :	0.0014	0.0014	0.0000			
%RSD:	0.7	0.7	0.5096			

=====
 Element: Hg Seq. No.: 55 AS Loc.: 49 Date: 01/07/2010
 Sample ID: 243521008|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.105	0.105	0.0015	0.0049	12:02:57	No
2	0.096	0.096	0.0014	0.0048	12:03:32	No
Mean:	0.100	0.100	0.0015			
SD :	0.0063	0.0063	0.0001			
%RSD:	6.3	6.3	3.9003			

=====
 Element: Hg Seq. No.: 56 AS Loc.: 50 Date: 01/07/2010
 Sample ID: 243521009|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.038	0.038	0.0009	0.0043	12:04:52	No
2	0.018	0.018	0.0007	0.0041	12:05:27	No
Mean:	0.028	0.028	0.0008			
SD :	0.0138	0.0138	0.0001			
%RSD:	49.4	49.4	15.3202			

=====
 Element: Hg Seq. No.: 57 AS Loc.: 51 Date: 01/07/2010
 Sample ID: 243521010|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.003	0.003	0.0006	0.0040	12:06:48	No
2	-0.009	-0.009	0.0005	0.0039	12:07:23	No
Mean:	-0.003	-0.003	0.0005			
SD :	0.0084	0.0084	0.0001			
%RSD:	245.2	245.2	14.2668			

=====
 Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.051	5.051	0.0461	0.0495	12:08:47	No
2	5.076	5.076	0.0463	0.0497	12:09:22	No
Mean:	5.063	5.063	0.0462			
SD :	0.0174	0.0174	0.0002			
%RSD:	0.3	0.3	0.3398			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 59 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.176	-0.176	-0.0010	0.0024	12:10:50	No
2	-0.186	-0.186	-0.0011	0.0023	12:11:24	No
Mean:	-0.181	-0.181	-0.0011			
SD :	0.0074	0.0074	0.0001			
%RSD:	4.1	4.1	6.1846			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 01/07/2010
 Sample ID: 243521011|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0009	0.0043	12:12:49	No
2	0.018	0.018	0.0007	0.0042	12:13:23	No
Mean:	0.027	0.027	0.0008			
SD :	0.0121	0.0121	0.0001			
%RSD:	44.9	44.9	13.5508			

=====
 Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 01/07/2010
 Sample ID: 1202006370|i||937611|MB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.168	-0.168	-0.0009	0.0025	12:14:46	No
2	-0.168	-0.168	-0.0010	0.0025	12:15:21	No
Mean:	-0.168	-0.168	-0.0010			
SD :	0.0005	0.0005	0.0000			
%RSD:	0.3	0.3	0.5012			

=====
 Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 01/07/2010
 Sample ID: 1202006375|i|10|LCS

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	3.995	3.995	0.0365	0.0400	12:16:43	No
2	4.020	4.020	0.0368	0.0402	12:17:18	No
Mean:	4.007	4.007	0.0367			
SD :	0.0176	0.0176	0.0002			
%RSD:	0.4	0.4	0.4328			

=====
 Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 01/07/2010
 Sample ID: 243517003|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.285	0.285	0.0031	0.0065	12:18:40	No
2	0.272	0.272	0.0030	0.0064	12:19:15	No
Mean:	0.279	0.279	0.0031			
SD :	0.0085	0.0085	0.0001			
%RSD:	3.1	3.1	2.5070			

=====
 Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 01/07/2010
 Sample ID: 1202006371|i|||DUP

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.230	0.230	0.0026	0.0061	12:20:38	No
2	0.222	0.222	0.0026	0.0060	12:21:13	No
Mean:	0.226	0.226	0.0026			
SD :	0.0059	0.0059	0.0001			

%RSD: 2.6 2.6 2.0367

=====
 Element: Hg Seq. No.: 65 AS Loc.: 57 Date: 01/07/2010
 Sample ID: 1202006373|i|||MS

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.635	2.635	0.0243	0.0277	12:22:37	No
2	2.616	2.616	0.0241	0.0275	12:23:13	No
Mean:	2.625	2.625	0.0242			
SD :	0.0137	0.0137	0.0001			
%RSD:	0.5	0.5	0.5109			

=====
 Element: Hg Seq. No.: 66 AS Loc.: 58 Date: 01/07/2010
 Sample ID: 1202006374|i|||MSD

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.578	2.578	0.0238	0.0272	12:24:37	No
2	2.632	2.632	0.0243	0.0277	12:25:12	No
Mean:	2.605	2.605	0.0240			
SD :	0.0383	0.0383	0.0003			
%RSD:	1.5	1.5	1.4362			

=====
 Element: Hg Seq. No.: 67 AS Loc.: 59 Date: 01/07/2010
 Sample ID: 1202006372|i|5||SDILT

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.144	-0.144	-0.0007	0.0027	12:26:37	No
2	-0.142	-0.142	-0.0007	0.0027	12:27:11	No
Mean:	-0.143	-0.143	-0.0007			
SD :	0.0014	0.0014	0.0000			
%RSD:	1.0	1.0	1.7294			

=====
 Element: Hg Seq. No.: 68 AS Loc.: 60 Date: 01/07/2010
 Sample ID: 243517004|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.293	0.293	0.0032	0.0066	12:28:37	No
2	0.292	0.292	0.0032	0.0066	12:29:11	No
Mean:	0.293	0.293	0.0032			
SD :	0.0004	0.0004	0.0000			
%RSD:	0.1	0.1	0.1136			

=====
 Element: Hg Seq. No.: 69 AS Loc.: 61 Date: 01/07/2010
 Sample ID: 243517005|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.070	0.070	0.0012	0.0046	12:30:37	No
2	0.061	0.061	0.0011	0.0045	12:31:12	No
Mean:	0.066	0.066	0.0012			
SD :	0.0067	0.0067	0.0001			
%RSD:	10.2	10.2	5.2075			

=====
 Element: Hg Seq. No.: 70 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl	SampleConc	StdConc	Blncorr	Peak	Time	Peak
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#	µg/L	µg/L	Signal	Height		Stored
1	5.141	5.141	0.0469	0.0503	12:32:38	No
2	5.012	5.012	0.0457	0.0491	12:33:13	No
Mean:	5.077	5.077	0.0463			
SD :	0.0910	0.0910	0.0008			
%RSD:	1.8	1.8	1.7704			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.209	-0.209	-0.0013	0.0021	12:34:41	No
2	-0.212	-0.212	-0.0013	0.0021	12:35:16	No
Mean:	-0.210	-0.210	-0.0013			
SD :	0.0019	0.0019	0.0000			
%RSD:	0.9	0.9	1.2584			

QC failed, value less than lower limit for Hg.
 Current analysis method being continued.

=====
 Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 01/07/2010
 Sample ID: 243517006|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.139	0.139	0.0018	0.0052	12:36:44	No
2	0.132	0.132	0.0017	0.0052	12:37:19	No
Mean:	0.135	0.135	0.0018			
SD :	0.0047	0.0047	0.0000			
%RSD:	3.5	3.5	2.4009			

=====
 Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 01/07/2010
 Sample ID: 243517007|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.459	0.459	0.0047	0.0081	12:38:42	No
2	0.412	0.412	0.0043	0.0077	12:39:17	No
Mean:	0.436	0.436	0.0045			
SD :	0.0331	0.0331	0.0003			
%RSD:	7.6	7.6	6.6476			

=====
 Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 01/07/2010
 Sample ID: 243517008|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.221	0.221	0.0026	0.0060	12:40:37	No
2	0.213	0.213	0.0025	0.0059	12:41:12	No
Mean:	0.217	0.217	0.0025			
SD :	0.0057	0.0057	0.0001			
%RSD:	2.6	2.6	2.0378			

=====
 Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 01/07/2010
 Sample ID: 243517009|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.208	0.208	0.0024	0.0059	12:42:32	No
2	0.204	0.204	0.0024	0.0058	12:43:07	No
Mean:	0.206	0.206	0.0024			

SD : 0.0030 0.0030 0.0000
 %RSD: 1.5 1.5 1.1137

=====
 Element: Hg Seq. No.: 76 AS Loc.: 66 Date: 01/07/2010
 Sample ID: 243540001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.115	0.115	0.0016	0.0050	12:44:26	No
2	0.107	0.107	0.0015	0.0050	12:45:01	No
Mean:	0.111	0.111	0.0016			
SD :	0.0056	0.0056	0.0001			
%RSD:	5.1	5.1	3.2516			

=====
 Element: Hg Seq. No.: 77 AS Loc.: 67 Date: 01/07/2010
 Sample ID: 243540002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.025	0.025	0.0008	0.0042	12:46:22	No
2	0.018	0.018	0.0007	0.0041	12:46:56	No
Mean:	0.021	0.021	0.0008			
SD :	0.0046	0.0046	0.0000			
%RSD:	21.6	21.6	5.5350			

=====
 Element: Hg Seq. No.: 78 AS Loc.: 68 Date: 01/07/2010
 Sample ID: 243540003|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.327	0.327	0.0035	0.0069	12:48:18	No
2	0.296	0.296	0.0032	0.0066	12:48:54	No
Mean:	0.311	0.311	0.0034			
SD :	0.0218	0.0218	0.0002			
%RSD:	7.0	7.0	5.8311			

=====
 Element: Hg Seq. No.: 79 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.101	5.101	0.0465	0.0499	12:50:18	No
2	5.125	5.125	0.0467	0.0502	12:50:53	No
Mean:	5.113	5.113	0.0466			
SD :	0.0173	0.0173	0.0002			
%RSD:	0.3	0.3	0.3348			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 80 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.210	-0.210	-0.0013	0.0021	12:52:21	No
2	-0.220	-0.220	-0.0014	0.0020	12:52:56	No
Mean:	-0.215	-0.215	-0.0014			
SD :	0.0068	0.0068	0.0001			
%RSD:	3.2	3.2	4.4445			

QC failed, value less than lower limit for Hg.
 Current analysis method being continued.

=====
Element: Hg Seq. No.: 81 AS Loc.: 7 Date: 01/07/2010
Sample ID: CCV
=====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	4.621	4.621	0.0422	0.0456	13:02:46	No
2	4.523	4.523	0.0413	0.0447	13:03:21	No
Mean:	4.572	4.572	0.0417			
SD :	0.0693	0.0693	0.0006			
%RSD:	1.5	1.5	1.4960			

QC value within specified limits.

=====
Element: Hg Seq. No.: 82 AS Loc.: 8 Date: 01/07/2010
Sample ID: CCB
=====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.172	-0.172	-0.0010	0.0024	13:04:49	No
2	-0.157	-0.157	-0.0009	0.0026	13:05:24	No
Mean:	-0.165	-0.165	-0.0009			
SD :	0.0105	0.0105	0.0001			
%RSD:	6.4	6.4	10.2290			

QC value within specified limits.

=====
Element: Hg Seq. No.: 83 AS Loc.: 52 Date: 01/07/2010
Sample ID: 243521011|i||937638|
=====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0007	0.0042	13:06:49	No
2	0.011	0.011	0.0007	0.0041	13:07:23	No
Mean:	0.015	0.015	0.0007			
SD :	0.0051	0.0051	0.0000			
%RSD:	34.0	34.0	6.5532			

=====
Element: Hg Seq. No.: 84 AS Loc.: 53 Date: 01/07/2010
Sample ID: 1202006370|i||937611|MB
=====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.176	-0.176	-0.0010	0.0024	13:08:45	No
2	-0.209	-0.209	-0.0013	0.0021	13:09:19	No
Mean:	-0.193	-0.193	-0.0012			
SD :	0.0234	0.0234	0.0002			
%RSD:	12.1	12.1	17.9087			

=====
Element: Hg Seq. No.: 85 AS Loc.: 54 Date: 01/07/2010
Sample ID: 1202006375|i|10||LCS
=====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	3.726	3.726	0.0341	0.0375	13:10:42	No
2	3.749	3.749	0.0343	0.0378	13:11:17	No
Mean:	3.737	3.737	0.0342			
SD :	0.0162	0.0162	0.0001			
%RSD:	0.4	0.4	0.4265			

=====
Element: Hg Seq. No.: 86 AS Loc.: 55 Date: 01/07/2010
Sample ID: 243517003|i|||
=====

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.196	0.196	0.0023	0.0058	13:12:40	No

Sample ID: 243517005|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.057	0.057	0.0011	0.0045	13:24:36	No
2	0.040	0.040	0.0009	0.0043	13:25:11	No
Mean:	0.049	0.049	0.0010			
SD :	0.0120	0.0120	0.0001			
%RSD:	24.5	24.5	10.7735			

=====
 Element: Hg Seq. No.: 93 AS Loc.: 7 Date: 01/07/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.101	5.101	0.0465	0.0499	13:26:37	No
2	5.060	5.060	0.0461	0.0496	13:27:12	No
Mean:	5.080	5.080	0.0463			
SD :	0.0287	0.0287	0.0003			
%RSD:	0.6	0.6	0.5578			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 94 AS Loc.: 8 Date: 01/07/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.137	-0.137	-0.0007	0.0028	13:28:40	No
2	-0.158	-0.158	-0.0009	0.0026	13:29:15	No
Mean:	-0.147	-0.147	-0.0008			
SD :	0.0151	0.0151	0.0001			
%RSD:	10.3	10.3	17.7591			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 95 AS Loc.: 62 Date: 01/07/2010
 Sample ID: 243517006|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.140	0.140	0.0018	0.0052	13:30:42	No
2	0.135	0.135	0.0018	0.0052	13:31:17	No
Mean:	0.137	0.137	0.0018			
SD :	0.0034	0.0034	0.0000			
%RSD:	2.5	2.5	1.6959			

=====
 Element: Hg Seq. No.: 96 AS Loc.: 63 Date: 01/07/2010
 Sample ID: 243517007|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.437	0.437	0.0045	0.0079	13:32:41	No
2	0.397	0.397	0.0041	0.0076	13:33:16	No
Mean:	0.417	0.417	0.0043			
SD :	0.0279	0.0279	0.0003			
%RSD:	6.7	6.7	5.8155			

=====
 Element: Hg Seq. No.: 97 AS Loc.: 64 Date: 01/07/2010
 Sample ID: 243517008|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.171	0.171	0.0021	0.0055	13:34:36	No

Miscellaneous

Prep LogBook

Analyst: BXA1
 Batch: 936816
 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	1202004445		SW846 3050B	29-DEC-2009 18:18	0.5 g	50 mL	100	.5	g
LCS	1202004446		SW846 3050B	29-DEC-2009 18:18	0.5 g	50 mL	100	.25	mL
SAMPLE	243521001		SW846 3050B	29-DEC-2009 18:18	0.503 g	50 mL	99.40358	.25	mL
DUP	1202004447	243521001	SW846 3050B	29-DEC-2009 18:18	0.505 g	50 mL	99.0099	.25	mL
MS	1202004448	243521001	SW846 3050B	29-DEC-2009 18:18	0.521 g	50 mL	95.96929	.25	mL
MSD	1202004450	243521001	SW846 3050B	29-DEC-2009 18:18	0.5 g	50 mL	100	.25	mL
SDILT	1202004449	243521001	SW846 3050B	29-DEC-2009 18:18	0.503 g	50 mL	99.40358	.25	mL
SAMPLE	243521002		SW846 3050B	29-DEC-2009 18:18	0.5 g	50 mL	100	.25	mL
SAMPLE	243521003		SW846 3050B	29-DEC-2009 18:18	0.509 g	50 mL	98.23183	.25	mL
SAMPLE	243521004		SW846 3050B	29-DEC-2009 18:18	0.504 g	50 mL	99.20635	.25	mL
SAMPLE	243521005		SW846 3050B	29-DEC-2009 18:18	0.508 g	50 mL	98.4252	.25	mL
SAMPLE	243521006		SW846 3050B	29-DEC-2009 18:18	0.524 g	50 mL	95.41985	.25	mL
SAMPLE	243521007		SW846 3050B	29-DEC-2009 18:18	0.5 g	50 mL	100	.25	mL
SAMPLE	243521008		SW846 3050B	29-DEC-2009 18:18	0.503 g	50 mL	99.40358	.25	mL
SAMPLE	243521009		SW846 3050B	29-DEC-2009 18:18	0.506 g	50 mL	98.81423	.25	mL
SAMPLE	243521010		SW846 3050B	29-DEC-2009 18:18	0.51 g	50 mL	98.03922	.25	mL
SAMPLE	243521011		SW846 3050B	29-DEC-2009 18:18	0.525 g	50 mL	95.2381	.25	mL

Comments sample#24521001 is a rich, brown, clumpy soil.

Reagent/Solvent Lot ID	Amount	Description
1244970	10 mL	HYDROCHLORIC ACID
1234886	1.25 mL	Nitric Acid CONC.

Prep LogBook

Analyst: BXA1 Verified by: _____

Batch: 936819

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	1202004451		SW846 3050B	13-JAN-2010 16:34	0.512 g	50 mL	97.65625	.516	g
LCS	1202004452		SW846 3050B	13-JAN-2010 16:34	0.516 g	50 mL	96.89922	.5	mL
SAMPLE	243521001		SW846 3050B	13-JAN-2010 16:34	0.517 g	50 mL	96.7118	.5	mL
DUP	1202004453	243521001	SW846 3050B	13-JAN-2010 16:34	0.512 g	50 mL	97.65625	.5	mL
MS	1202004454	243521001	SW846 3050B	13-JAN-2010 16:34	0.517 g	50 mL	96.7118	.5	mL
MSD	1202004456	243521001	SW846 3050B	13-JAN-2010 16:34	0.512 g	50 mL	97.65625	.5	mL
SDILT	1202004455	243521001	SW846 3050B	13-JAN-2010 16:34	0.517 g	50 mL	96.7118	.5	mL
SAMPLE	243521002		SW846 3050B	13-JAN-2010 16:34	0.516 g	50 mL	96.89922	.5	mL
SAMPLE	243521003		SW846 3050B	13-JAN-2010 16:34	0.508 g	50 mL	98.4252	.5	mL
SAMPLE	243521004		SW846 3050B	13-JAN-2010 16:34	0.52 g	50 mL	96.15385	.5	mL
SAMPLE	243521005		SW846 3050B	13-JAN-2010 16:34	0.509 g	50 mL	98.23183	.5	mL
SAMPLE	243521006		SW846 3050B	13-JAN-2010 16:34	0.52 g	50 mL	96.15385	.5	mL
SAMPLE	243521007		SW846 3050B	13-JAN-2010 16:34	0.506 g	50 mL	98.81423	.5	mL
SAMPLE	243521008		SW846 3050B	13-JAN-2010 16:34	0.538 g	50 mL	92.9368	.5	mL
SAMPLE	243521009		SW846 3050B	13-JAN-2010 16:34	0.51 g	50 mL	98.03922	.5	mL
SAMPLE	243521010		SW846 3050B	13-JAN-2010 16:34	0.527 g	50 mL	94.87666	.5	mL
SAMPLE	243521011		SW846 3050B	13-JAN-2010 16:34	0.521 g	50 mL	95.96929	.5	mL

Comments sample#243521001 is a rich brown, clumpy soil.

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1252836	5 mL	Nitric Acid CONC.

Prep LogBook

Analyst: TXB3 Verified by: _____
 Batch: 937637
 Lab SOP: GL-MA-E-010 REV# 23

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202006448		SW846 7471A Prep	06-JAN-2010 13:05	0.507 g	30 mL	59.1716		g
LCS	1202006453		SW846 7471A Prep	06-JAN-2010 13:05	0.201 g	30 mL	149.25373	201	g
SAMPLE	243457001		SW846 7471A Prep	06-JAN-2010 13:05	0.552 g	30 mL	54.34783		g
DUP	1202006449	243457001	SW846 7471A Prep	06-JAN-2010 13:05	0.523 g	30 mL	57.36138		g
SDILT	1202006450	243457001	SW846 7471A Prep	06-JAN-2010 13:05	0.552 g	30 mL	54.34783		g
MS	1202006451	243457001	SW846 7471A Prep	06-JAN-2010 13:05	0.55 g	30 mL	54.54545		g
MSD	1202006452	243457001	SW846 7471A Prep	06-JAN-2010 13:05	0.6 g	30 mL	50		g
SAMPLE	243457002		SW846 7471A Prep	06-JAN-2010 13:05	0.5 g	30 mL	60		g
SAMPLE	243457003		SW846 7471A Prep	06-JAN-2010 13:05	0.548 g	30 mL	54.74453		g
SAMPLE	243457004		SW846 7471A Prep	06-JAN-2010 13:05	0.575 g	30 mL	52.17391		g
SAMPLE	243472001		SW846 7471A Prep	06-JAN-2010 13:05	0.542 g	30 mL	55.35055		g
SAMPLE	243472002		SW846 7471A Prep	06-JAN-2010 13:05	0.549 g	30 mL	54.64481		g
SAMPLE	243472003		SW846 7471A Prep	06-JAN-2010 13:05	0.548 g	30 mL	54.74453		g
SAMPLE	243521001		SW846 7471A Prep	06-JAN-2010 13:05	0.527 g	30 mL	56.926		g
SAMPLE	243521002		SW846 7471A Prep	06-JAN-2010 13:05	0.516 g	30 mL	58.13953		g
SAMPLE	243521003		SW846 7471A Prep	06-JAN-2010 13:05	0.584 g	30 mL	51.36986		g
SAMPLE	243521004		SW846 7471A Prep	06-JAN-2010 13:05	0.56 g	30 mL	53.57143		g
SAMPLE	243521005		SW846 7471A Prep	06-JAN-2010 13:05	0.505 g	30 mL	59.40594		g
SAMPLE	243521006		SW846 7471A Prep	06-JAN-2010 13:05	0.547 g	30 mL	54.84461		g
SAMPLE	243521007		SW846 7471A Prep	06-JAN-2010 13:05	0.532 g	30 mL	56.39098		g
SAMPLE	243521008		SW846 7471A Prep	06-JAN-2010 13:05	0.596 g	30 mL	50.33557		g
SAMPLE	243521009		SW846 7471A Prep	06-JAN-2010 13:05	0.523 g	30 mL	57.36138		g
SAMPLE	243521010		SW846 7471A Prep	06-JAN-2010 13:05	0.502 g	30 mL	59.76096		g
SAMPLE	243521011		SW846 7471A Prep	06-JAN-2010 13:05	0.526 g	30 mL	57.03422		g

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution
1206350-C	2 mL	Hg reducing agent
WHG100106-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100106-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5

Comments: Sample 243457001 is a clumpy brown soil.
 Digestion Start Date: 06-JAN-10 13:05
 Digestion End Date: 06-JAN-10 13:35

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Prep LogBook

WHG100106-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100106-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100106-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100106-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

DATA EXCEPTION REPORT

Mo. Day Yr. 12-JAN-10	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: ICP	Test / Method: SW846 3050B/6010B	Matrix Type: Solid	Client Code: LANL
Batch ID: 936817	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 243521(10-1075)			
Application Issues: Failed Recovery for MS/PS Failed Recovery for MSD/PSD			
Specification and Requirements Exception Description:		DER Disposition:	
1. Failed Recovery for MS/PS: QC 1202004448MS 2. Failed Recovery for MSD/PSD: QC 1202004450MSD		1./2. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for barium, 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.	

Originator's Name:

Helen Camello 13-JAN-10

Data Validator/Group Leader:

Bryan Davis 14-JAN-10

DATA EXCEPTION REPORT

Mo. Day Yr. 19-JAN-10	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: ICP/MS	Test / Method: SW846 3050B/6020	Matrix Type: Solid	Client Code: LANL
Batch ID: 936820	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 243521(10-1075)			
Application Issues: Failed Recovery for MS/PS Failed RPD for MS/MSD, or PS/PSD			
Specification and Requirements Exception Description:		DER Disposition:	
1. Failed Recovery for MS/PS: QC 1202004454MS 2. Failed RPD for MS/MSD, or PS/PSD: QC 1202004456MSD		The matrix spike failed outside of the control limits for Se due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOP's, a corrective action is not required and the data is qualified and reported. The matrix spike and matrix spike dup % RPD failed outside of the control limits for U due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOP's, a corrective action is not required and the data is qualified and reported.	

Originator's Name:

Rose Jenkins

19-JAN-10

Data Validator/Group Leader:

Samantha Jacobs

20-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%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L **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: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 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: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H2O/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H2O/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-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: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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: 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: UI091215-48 **Opened:** 04-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **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

Serial ID: UI091215-49.13 **Opened:** 11-JAN-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 18-DEC-09 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 12-JAN-10 **Lot Number :** 1018220
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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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: 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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

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

Standard Logbook

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: UI091228-40 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: Q2SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091228-41 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: Q2SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Standard Logbook

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCaSPIKEB **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: 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		

Standard Logbook

Serial ID: IHG100106-01 **Opened:** 06-JAN-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 06-JAN-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 07-JAN-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100106-02 **Opened:** 06-JAN-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 07-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: WHG100106-07 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-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.
IHG100106-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100106-08 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-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.
IHG100106-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Standard Logbook

Serial ID: WHG100106-09 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-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.
IHG100106-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100106-10 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-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.
IHG100106-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100106-11 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-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.
IHG100106-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100106-12 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-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.
IHG100106-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100106-14 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 07-JAN-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.	Allquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100111-42 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
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.
WI100111-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100111-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100111-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100111-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100111-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100111-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100111-43 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: W1100111-44 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1253514
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: W100111-45 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
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: W100111-46 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1253514
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: WI100111-47 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL &1%HNO3-1253514
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: WMS100114-04AB **Opened:** 14-JAN-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 14-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 15-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

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
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: <u>WMS100114-05B</u>	Opened: <u>14-JAN-10</u>	Balance Id : <u>40245216</u>
Name: <u>ICPMS ICV</u>	Received: <u>14-JAN-10</u>	Pipet Id : <u>1758088</u>
Type: <u>Working</u>	Expires: <u>15-JAN-10</u>	Solvent : <u>2%HNO3/1%HCl - 1238829</u>
Employee: <u>Rose Jenkins</u>		
Supplier: <u>GEL</u>		
Description: <u>ICPMS ICV</u>		
Comments: <u>None</u>		

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100114-06B **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 - 1238829
Employee: Rose Jenkins
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: WMS100114-07B **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: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1238829
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: WMS100114-08B **Opened:** 14-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 14-JAN-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 15-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
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: WMS100115-04AB **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 15-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100115-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100115-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100115-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100115-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100115-04B **Opened:** 15-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 15-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 16-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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: WMS100115-05B

Opened: 15-JAN-10

Balance Id : 40245216

Name: ICPMS ICV

Received: 15-JAN-10

Pipet Id : 1758088

Type: Working

Expires: 16-JAN-10

Solvent : 2%HNO3/1%HCl - 1238829

Employee: Rose Jenkins

Supplier: GEL

Description: ICPMS ICV

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
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: WMS100115-06B **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 - 1238829
Employee: Rose Jenkins
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: WMS100115-07B **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: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1238829
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: WMS100115-08B **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 15-JAN-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 16-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
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.	Aliquot	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: 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: 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: 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

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: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

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

Standard Logbook

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
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

Standard Logbook

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: 1253514 Opened: 11-JAN-10 Amount : 20 L
Name: B-ICP-RINSE SOLN Received: 11-JAN-10 Lot Number : H04040+G34050
Type: Reagent/Solvent Expires: 17-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 10-1075**

Method/Analysis Information

Product: Cyanide, Total
Analytical Batch: 936843 **Method:** SW846 9012A
Prep Batch : 936841 **Method:** SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
243521001	RE12-10-7606
243521002	RE12-10-7607
243521003	RE12-10-7596
243521004	RE12-10-7597
243521005	RE12-10-7608
243521006	RE12-10-7600
243521007	RE12-10-7601
243521008	RE12-10-7602
243521009	RE12-10-7599
243521010	RE12-10-7598
243521011	RE12-10-7603
1202004497	Method Blank (MB)
1202004498	243517008(RE12-10-7561) Sample Duplicate (DUP)
1202004499	243517009(RE12-10-7563) Sample Duplicate (DUP)
1202004500	243517008(RE12-10-7561) Matrix Spike (MS)
1202004501	243517009(RE12-10-7563) Matrix Spike (MS)
1202004502	243517008(RE12-10-7561) Matrix Spike Duplicate (MSD)
1202004503	243517009(RE12-10-7563) Matrix Spike Duplicate (MSD)
1202004504	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 243517008 (RE12-10-7561) and 243517009 (RE12-10-7563).

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. 1202004498 (RE12-10-7561) and 1202004499 (RE12-10-7563).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

All samples in this SDG met the specified holding time.

Sample Preservation/Integrity

All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions

The following sample in this sample group was diluted due to high concentration: 1202004504 (LCS).

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information**Nonconformance (NCR) Documentation**

An NCR 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

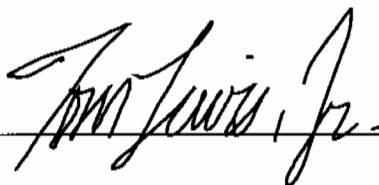
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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:

20Jan10

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: 10-1075 GEL Work Order: 243521

The Qualifiers in this report are defined as follows:

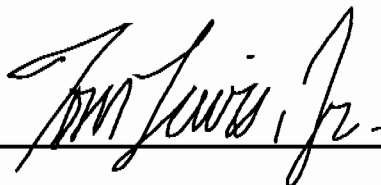
- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.

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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7602
Sample ID: 243521008
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 7.03%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	64.2	236	ug/kg	1	AXC2	01/04/10	1124	936843	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7601
Sample ID: 243521007
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 10.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	71.6	263	ug/kg	1	AXC2	01/04/10	1124	936843	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7599
Sample ID: 243521009
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 8.97%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	74.7	275	ug/kg	1	AXC2	01/04/10	1125	936843	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7598
Sample ID: 243521010
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 9.69%

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	72.4	266	ug/kg	1	AXC2	01/04/10	1126	936843	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	12/31/09	1509	936841

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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7603
Sample ID: 243521011
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 3.72%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	70.6	260	ug/kg	1	AXC2	01/04/10	1127	936843	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7606
Sample ID: 243521001
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 10.4%

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	70.3	258	ug/kg	1	AXC2	01/04/10	1115	936843	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	12/31/09	1509	936841

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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7607
Sample ID: 243521002
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 6.17%

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	69.7	256	ug/kg	1	AXC2	01/04/10	1119	936843	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	12/31/09	1509	936841

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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7596
Sample ID: 243521003
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 10%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	68.7	253	ug/kg	1	AXC2	01/04/10	1120	936843	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7597
Sample ID: 243521004
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 5.14%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total Federal "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	64.0	235	ug/kg	1	AXC2	01/04/10	1121	936843	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

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 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7608
Sample ID: 243521005
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 10.7%

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	73.2	269	ug/kg	1	AXC2	01/04/10	1122	936843	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	12/31/09	1509	936841

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

Report Date: January 6, 2010

Client SDG: 10-1075

Client Sample ID: RE12-10-7600
Sample ID: 243521006
Matrix: R
Collect Date: 21-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 14%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total Federal "Dry Weight Corrected"</i>											
Cyanide, Total	J	170	69.4	255	ug/kg	1	AXC2	01/04/10	1123	936843	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: January 6, 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: 243521

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Flow Injection Analysis											
Batch	936843										
QC1202004498	243517008	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	01/04/10	11:08
QC1202004499	243517009	DUP									
Cyanide, Total		U	ND	J	96.0	ug/kg	200	(+/-264)		01/04/10	11:12
QC1202004504	LCS										
Cyanide, Total	67900				75500	ug/kg	111	(46%-145%)		01/04/10	11:07
QC1202004497	MB										
Cyanide, Total				U	250	ug/kg				01/04/10	11:02
QC1202004500	243517008	MS									
Cyanide, Total	5340	U	ND		4890	ug/kg	91.7	(50%-130%)		01/04/10	11:09
QC1202004501	243517009	MS									
Cyanide, Total	5590	U	ND		5160	ug/kg	92.2	(50%-130%)		01/04/10	11:13
QC1202004502	243517008	MSD									
Cyanide, Total	5660	U	ND		5230	ug/kg	6.58	92.4	(0%-30%)	01/04/10	11:10
QC1202004503	243517009	MSD									
Cyanide, Total	5480	U	ND		4360	ug/kg	16.9	79.3	(0%-30%)	01/04/10	11:14

Notes:

RER is calculated at the 95% confidence level (2-sigma).

The Qualifiers in this report are defined as follows:

** Analyte is a surrogate compound

< Result is less than value reported

> Result is greater than value reported

A The TIC is a suspected aldol-condensation product

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

BD Results are either below the MDC or tracer recovery is low

C Analyte has been confirmed by GC/MS analysis

D Results are reported from a diluted aliquot of the sample

E 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

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QC Summary

Workorder: 243521

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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: 06-JAN-2010 08:56

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1075

Flow Injection Analysis

Method: SW846 9012A

Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	04-JAN-2010 10:36:47	OM_1-4-2010_10-26-17	137	150	91	(90%-110%)	Yes
CCV	04-JAN-2010 10:51:04	OM_1-4-2010_10-26-17	109	100	109	(90%-110%)	Yes
CCV	04-JAN-2010 11:03:30	OM_1-4-2010_10-26-17	103	100	103	(90%-110%)	Yes
CCV	04-JAN-2010 11:15:55	OM_1-4-2010_10-26-17	103	100	103	(90%-110%)	Yes
CCV	04-JAN-2010 11:28:25	OM_1-4-2010_10-26-17	103	100	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	04-JAN-2010 10:38:37	OM_1-4-2010_10-26-17	-3.1	5	Yes
CCB	04-JAN-2010 10:52:55	OM_1-4-2010_10-26-17	-2.04	5	Yes
CCB	04-JAN-2010 11:05:20	OM_1-4-2010_10-26-17	-2.7	5	Yes
CCB	04-JAN-2010 11:17:45	OM_1-4-2010_10-26-17	-1.79	5	Yes
CCB	04-JAN-2010 11:30:15	OM_1-4-2010_10-26-17	-2.53	5	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5
 Batch: 936841
 Lab SOP: GL-GC-E-067 REV# 13

Verified by: _____

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202004497		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50		g
LCS	1202004504		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.25 g	25 mL	100		mL
SAMPLE	243517008		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692		mL
DUP	1202004498	243517008	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.57 g	25 mL	43.85965		mL
MS	1202004500	243517008	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.53 g	25 mL	47.16981		mL
MSD	1202004502	243517008	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50		mL
SAMPLE	243517009		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.51 g	25 mL	49.01961		mL
DUP	1202004499	243517009	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.54 g	25 mL	46.2963		mL
MS	1202004501	243517009	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.51 g	25 mL	49.01961		mL
MSD	1202004503	243517009	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692		mL
SAMPLE	243521001		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.54 g	25 mL	46.2963		mL
SAMPLE	243521002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692		mL
SAMPLE	243521003		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.55 g	25 mL	45.45455		mL
SAMPLE	243521004		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.56 g	25 mL	44.64286		mL
SAMPLE	243521005		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692		mL
SAMPLE	243521006		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.57 g	25 mL	43.85965		mL
SAMPLE	243521007		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.53 g	25 mL	47.16981		mL
SAMPLE	243521008		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.57 g	25 mL	43.85965		mL
SAMPLE	243521009		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50		mL
SAMPLE	243521010		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692		mL
SAMPLE	243521011		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50		mL
SAMPLE	243547002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.51 g	25 mL	49.01961		mL
SAMPLE	243547003		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.53 g	25 mL	47.16981		mL
SAMPLE	243549002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.56 g	25 mL	44.64286		mL
SAMPLE	243550001		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50		mL
SAMPLE	243550002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.58 g	25 mL	43.10345		mL
SAMPLE	243550003		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.55 g	25 mL	45.45455		mL
SAMPLE	243550004		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50		mL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN091231-07	.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	1/4/2010 10:29:37	OM_1-4-2010_10-26-17
150 ppb		1	axc2	1/4/2010 10:30:29	OM_1-4-2010_10-26-17
100 ppb		1	axc2	1/4/2010 10:31:22	OM_1-4-2010_10-26-17
50 ppb		1	axc2	1/4/2010 10:32:15	OM_1-4-2010_10-26-17
10 ppb		1	axc2	1/4/2010 10:33:08	OM_1-4-2010_10-26-17
CRDL 5.0 ppb		1	axc2	1/4/2010 10:34:02	OM_1-4-2010_10-26-17
ICAL-00		1	axc2	1/4/2010 10:34:56	OM_1-4-2010_10-26-17
ICV		1	axc2	1/4/2010 10:36:47	OM_1-4-2010_10-26-17
ICB		1	axc2	1/4/2010 10:38:37	OM_1-4-2010_10-26-17
CRDL		1	axc2	1/4/2010 10:40:27	OM_1-4-2010_10-26-17
1202005554	937245	1	axc2	1/4/2010 10:42:17	OM_1-4-2010_10-26-17
1202005558*	937245	1	axc2	1/4/2010 10:43:10	OM_1-4-2010_10-26-17
243585002	937245	1	axc2	1/4/2010 10:44:03	OM_1-4-2010_10-26-17
243608001	937245	1	axc2	1/4/2010 10:44:56	OM_1-4-2010_10-26-17
1202005555	937245	1	axc2	1/4/2010 10:45:49	OM_1-4-2010_10-26-17
1202005556	937245	1	axc2	1/4/2010 10:46:42	OM_1-4-2010_10-26-17
1202005557	937245	1	axc2	1/4/2010 10:47:34	OM_1-4-2010_10-26-17
243627001	937245	1	axc2	1/4/2010 10:48:27	OM_1-4-2010_10-26-17
243629001	937245	1	axc2	1/4/2010 10:49:19	OM_1-4-2010_10-26-17
243631001	937245	1	axc2	1/4/2010 10:50:12	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 10:51:04	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 10:52:55	OM_1-4-2010_10-26-17
1202005558	937245	1	axc2	1/4/2010 10:54:44	OM_1-4-2010_10-26-17
243632001	937245	1	axc2	1/4/2010 10:55:36	OM_1-4-2010_10-26-17
243633001	937245	1	axc2	1/4/2010 10:56:28	OM_1-4-2010_10-26-17
243633002	937245	1	axc2	1/4/2010 10:57:20	OM_1-4-2010_10-26-17
243633006	937245	1	axc2	1/4/2010 10:58:12	OM_1-4-2010_10-26-17
1202006217	937245	1	axc2	1/4/2010 10:59:04	OM_1-4-2010_10-26-17
1202006218	937245	1	axc2	1/4/2010 10:59:57	OM_1-4-2010_10-26-17
1202006219	937245	1	axc2	1/4/2010 11:00:51	OM_1-4-2010_10-26-17
243633009	937245	1	axc2	1/4/2010 11:01:44	OM_1-4-2010_10-26-17
1202004497	936843	1	axc2	1/4/2010 11:02:37	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 11:03:30	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 11:05:20	OM_1-4-2010_10-26-17
1202004504	936843	25	axc2	1/4/2010 11:07:10	OM_1-4-2010_10-26-17
243517008	936843	1	axc2	1/4/2010 11:08:03	OM_1-4-2010_10-26-17
1202004498	936843	1	axc2	1/4/2010 11:08:56	OM_1-4-2010_10-26-17
1202004500	936843	1	axc2	1/4/2010 11:09:48	OM_1-4-2010_10-26-17
1202004502	936843	1	axc2	1/4/2010 11:10:41	OM_1-4-2010_10-26-17
243517009	936843	1	axc2	1/4/2010 11:11:34	OM_1-4-2010_10-26-17
1202004499	936843	1	axc2	1/4/2010 11:12:26	OM_1-4-2010_10-26-17
1202004501	936843	1	axc2	1/4/2010 11:13:18	OM_1-4-2010_10-26-17
1202004503	936843	1	axc2	1/4/2010 11:14:10	OM_1-4-2010_10-26-17
243521001	936843	1	axc2	1/4/2010 11:15:02	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 11:15:55	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 11:17:45	OM_1-4-2010_10-26-17
243521002	936843	1	axc2	1/4/2010 11:19:33	OM_1-4-2010_10-26-17
243521003	936843	1	axc2	1/4/2010 11:20:27	OM_1-4-2010_10-26-17
243521004	936843	1	axc2	1/4/2010 11:21:21	OM_1-4-2010_10-26-17
243521005	936843	1	axc2	1/4/2010 11:22:14	OM_1-4-2010_10-26-17
243521006	936843	1	axc2	1/4/2010 11:23:08	OM_1-4-2010_10-26-17
243521007	936843	1	axc2	1/4/2010 11:24:01	OM_1-4-2010_10-26-17
243521008	936843	1	axc2	1/4/2010 11:24:54	OM_1-4-2010_10-26-17
243521009	936843	1	axc2	1/4/2010 11:25:47	OM_1-4-2010_10-26-17
243521010	936843	1	axc2	1/4/2010 11:26:40	OM_1-4-2010_10-26-17
243521011	936843	1	axc2	1/4/2010 11:27:33	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 11:28:25	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 11:30:15	OM_1-4-2010_10-26-17

243547002	936843	1	axc2	1/4/2010	11:32:04	OM_1-4-2010_10-26-17
243547003	936843	1	axc2	1/4/2010	11:32:56	OM_1-4-2010_10-26-17
243549002	936843	1	axc2	1/4/2010	11:33:49	OM_1-4-2010_10-26-17
243550001	936843	1	axc2	1/4/2010	11:34:41	OM_1-4-2010_10-26-17
243550002	936843	1	axc2	1/4/2010	11:35:33	OM_1-4-2010_10-26-17
243550003	936843	1	axc2	1/4/2010	11:36:25	OM_1-4-2010_10-26-17
243550004	936843	1	axc2	1/4/2010	11:37:19	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010	11:38:11	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010	11:40:02	OM_1-4-2010_10-26-17

Original Run Filename: OM_1-4-2010_10-26-17.OMN created 1/4/2010 10:26:17
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_1-4-2010_10-26-17.OMN last modified 1/4/2010 11:41:07
 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)				
WCN100104-01	1	S1	200	7.63	1/4/2010@10:29:37			200 ppb
WCN100104-02	1	S2	150	5.81	1/4/2010@10:30:29			150 ppb
WCN100104-03	1	S3	100	3.99	1/4/2010@10:31:22			100 ppb
WCN100104-04	1	S4	50.0	2.09	1/4/2010@10:32:15			50 ppb
WCN100104-05	1	S5	10.0	0.463	1/4/2010@10:33:08			10 ppb
WCN100104-06	1	S6	5.00	0.277	1/4/2010@10:34:02			CRDL 5.0 ppb
WCN100104-08	1	S7	0.00	0.0108	1/4/2010@10:34:56			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99973 > 0.99500					
Message			Pass					
Action			Continue					
WCN100104-07	1	S8	137	5.30	1/4/2010@10:36:47			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-8.9 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-8.9 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100104-08	1	S7	-3.10	-0.0205	1/4/2010@10:38:37			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-3.10 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-3.10 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100104-06	1	S6	5.20	0.295	1/4/2010@10:40:27			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			5.20 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			5.20 > 2.50					
Message			Pass					
Action			None					
1202005554|937245|MB	1	1	-1.46	0.0418	1/4/2010@10:42:17			
1202005558|LCS	1	2	44.5	1.79	1/4/2010@10:43:10			
243585002	1	3	-0.484	0.0790	1/4/2010@10:44:03			
243608001	1	4	-2.24	0.0123	1/4/2010@10:44:56			
1202005555|DUP	1	5	-1.58	0.0374	1/4/2010@10:45:49			
1202005556|MS	1	6	94.9	3.71	1/4/2010@10:46:42			
1202005557|MSD	1	7	100	3.91	1/4/2010@10:47:34			
243627001	1	8	-1.51	0.0399	1/4/2010@10:48:27			
243629001	1	9	-1.99	0.0217	1/4/2010@10:49:19			
243631001	1	10	-2.35	0.00803	1/4/2010@10:50:12			
WCN100104-03	1	S3	109	4.23	1/4/2010@10:51:04			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			8.6 < 10.0					

Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			8.6 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100104-08	1	S7	-2.04	0.0199	1/4/2010@10:52:55			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-2.04 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-2.04 > -5.00					
Message			CCB Passed					
Action			Continue					
1202005558||LCS	1	2	45.4	1.83	1/4/2010@10:54:44			
243632001	1	11	-1.49	0.0405	1/4/2010@10:55:36			
243633001	1	12	-1.66	0.0344	1/4/2010@10:56:28			
243633002	1	13	-1.45	0.0422	1/4/2010@10:57:20			
243633006	1	14	-2.75	-0.00712	1/4/2010@10:58:12			
1202006217||DUP	1	15	-1.99	0.0215	1/4/2010@10:59:04			
1202006218||MS	1	16	96.0	3.75	1/4/2010@10:59:57			
1202006219||MSD	1	17	100	3.91	1/4/2010@11:00:51			
243633009	1	18	-1.26	0.0496	1/4/2010@11:01:44			
1202004497|936843|MB	1	19	-1.90	0.0251	1/4/2010@11:02:37			
WCN100104-03	1	S3	103	4.01	1/4/2010@11:03:30			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					
WCN100104-08	1	S7	-2.70	-0.00550	1/4/2010@11:05:20			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-2.70 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-2.70 > -5.00					
Message			CCB Passed					
Action			Continue					
1202004504||LCS	1	20	30.2	1.25	1/4/2010@11:07:10			25.00
243517008	1	21	-0.543	0.0767	1/4/2010@11:08:03			
1202004498||DUP	1	22	0.103	0.101	1/4/2010@11:08:56			
1202004500||MS	1	23	91.7	3.59	1/4/2010@11:09:48			
1202004502||MSD	1	24	92.4	3.61	1/4/2010@11:10:41			
243517009	1	25	0.220	0.106	1/4/2010@11:11:34			
1202004499||DUP	1	26	1.82	0.166	1/4/2010@11:12:26			
1202004501||MS	1	27	92.4	3.61	1/4/2010@11:13:18			
1202004503||MSD	1	28	79.5	3.12	1/4/2010@11:14:10			
243521001	1	29	-0.679	0.0715	1/4/2010@11:15:02			
WCN100104-03	1	S3	103	4.02	1/4/2010@11:15:55			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.0 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.0 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100104-08	1	S7	-1.79	0.0294	1/4/2010@11:17:45			CCB
Known Conc:			0.00					

DQM Test: > + Concentration Limit						
Result:		-1.79 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.79 > -5.00				
Message		CCB Passed				
Action		Continue				
243521002	1	30	-1.46	0.0420	1/4/2010@11:19:33	
243521003	1	31	-0.362	0.0836	1/4/2010@11:20:27	
243521004	1	32	1.22	0.144	1/4/2010@11:21:21	
243521005	1	33	-0.936	0.0618	1/4/2010@11:22:14	
243521006	1	34	3.33	0.224	1/4/2010@11:23:08	
243521007	1	35	-1.34	0.0463	1/4/2010@11:24:01	
243521008	1	36	-0.707	0.0705	1/4/2010@11:24:54	
243521009	1	37	-1.63	0.0352	1/4/2010@11:25:47	
243521010	1	38	0.857	0.130	1/4/2010@11:26:40	
243521011	1	39	-1.68	0.0334	1/4/2010@11:27:33	
WCN100104-03	1	S3	103	4.01	1/4/2010@11:28:25	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				
WCN100104-08	1	S7	-2.53	9.28e-4	1/4/2010@11:30:15	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-2.53 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-2.53 > -5.00				
Message		CCB Passed				
Action		Continue				
243547002	1	40	-1.86	0.0265	1/4/2010@11:32:04	
243547003	1	41	-1.82	0.0282	1/4/2010@11:32:56	
243549002	1	42	1.59	0.158	1/4/2010@11:33:49	
243550001	1	43	-1.68	0.0335	1/4/2010@11:34:41	
243550002	1	44	-1.41	0.0438	1/4/2010@11:35:33	
243550003	1	45	-1.87	0.0261	1/4/2010@11:36:25	
243550004	1	46	-1.49	0.0406	1/4/2010@11:37:19	
WCN100104-03	1	S3	104	4.04	1/4/2010@11:38:11	CCV
Known Conc:		100				
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				
WCN100104-08	1	S7	-2.65	-0.00342	1/4/2010@11:40:02	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-2.65 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-2.65 > -5.00				
Message		CCB Passed				
Action		Continue				

Analyte Properties Table for OM_1-4-2010_10-26-17.OMN

Figure 1: TCYANIDE

