

# Sample Custody Record

Samples Shipped to: ARI



Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

JOB <u>17917-00</u> LAB NUMBER _____ PROJECT NAME <u>SADDLE ROCK</u> HART CROWSER CONTACT <u>S. HUGHES</u> <u>R. McGinnis, A. Conroy</u> SAMPLED BY: <u>A, ST, NG</u>	REQUESTED ANALYSIS METALS TOTAL SOLIDS pH	NO. OF CONTAINERS 1	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS WCT9
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LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	METALS	TOTAL SOLIDS	pH	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/COMPOSITING INSTRUCTIONS
	SR01-001		2/18/13	1625	S	X	X	A	1	METALS - Al, Sb, As,
	SR01-002		"	1552	"	X	X		1	Ba, Cr, Fe, Pb,
	SR01-003		"	1651	"	X	X		1	Mn, Hg, Se, Ag, V
	SR01-004		"	1711	"	X	X		1	
	SR01-005		"	1731	"	X	X		1	
	SR01-006		"	1655	"	X	X		1	
	SR01-C01		"	1728	"	X	X		1	
	SR01-C02		"	1828	"	X	X		1	
	SR01-C03		2/19/13	0800	"	X	X		1	
	SR02-001		"	1053	"	X	X	X	1	
	SR02-002		"	1032	"	X	X		1	
	SR02-003		"	1014	"	X	X		1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE	SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:	TOTAL NUMBER OF CONTAINERS
	2/25/13		2/25/13	LEVEL IV DATA PACKAGE	12
ANNE CONROY	156	RICH HUDSON	1310		SAMPLE RECEIPT INFORMATION CUSTODY SEALS: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A GOOD CONDITION <input type="checkbox"/> YES <input type="checkbox"/> NO TEMPERATURE _____ SHIPMENT METHOD: <input type="checkbox"/> HAND <input type="checkbox"/> COURIER <input type="checkbox"/> OVERNIGHT
RELINQUISHED BY	DATE	RECEIVED BY	DATE	COOLER NO.:	STORAGE LOCATION:
SIGNATURE	TIME	SIGNATURE	TIME	See Lab Work Order No. _____ for Other Contract Requirements	TURNAROUND TIME:  <input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK <input type="checkbox"/> 48 HOURS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> 72 HOURS    OTHER _____
PRINT NAME		PRINT NAME			
COMPANY		COMPANY			

# Sample Custody Record

20F4



Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

Samples Shipped to: ART

JOB <u>17917-00</u> LAB NUMBER _____ PROJECT NAME <u>SADDLE ROCK</u> HART CROWSER CONTACT <u>S. HUGHES</u> <u>R. McCommis, A. Connor</u> SAMPLED BY: <u>A, NG, SF</u>	REQUESTED ANALYSIS METALS TOTAL SOLIDS PH	NO. OF CONTAINERS  <u>12</u>	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS  <u>DE79</u>
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LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	METALS	TOTAL SOLIDS	PH	NO. OF CONTAINERS
	SRO2-004		2/19/13	0953	S	X	X		1
	SRO2-005		"	0919	"	X	X		1
	SRO2-006		"	1118	"	X	X		1
	SRO2-007		"	1130	"	X	X		1
	SRO2-008		"	1153	"	X	X		1
	SRO2-009		"	1214	"	X	X		1
	SRO2-010		"	1219	"	X	X		1
	SRO2-011		"	1044	"	X	X		1
	SRO2-C01		"	1020	"	X	X		1
	SRO2-C02		"	1103	"	X	X		1
	SRO2-C03		"	1137	"	X	X		1
	SRO3-001		2/20/13	0943	"	X	X		1

RELINQUISHED BY	DATE	RECEIVED BY	DATE	SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:	TOTAL NUMBER OF CONTAINERS
	2/25/13		2/25/13	LEVEL IV DATA PACKAGE	12
SIGNATURE <u>Hart Crowser</u>	TIME 1156	SIGNATURE <u>Rick Hughes</u>	TIME 1310		
PRINT NAME <u>Hart Crowser</u>	COMPANY <u>ARC</u>	PRINT NAME <u>ARC</u>	COMPANY <u>ARC</u>	COOLER NO.: _____ STORAGE LOCATION: _____  See Lab Work Order No. _____ for Other Contract Requirements	SAMPLE RECEIPT INFORMATION CUSTODY SEALS: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A GOOD CONDITION <input type="checkbox"/> YES <input type="checkbox"/> NO TEMPERATURE _____ SHIPMENT METHOD: <input type="checkbox"/> HAND <input type="checkbox"/> COURIER <input type="checkbox"/> OVERNIGHT  TURNAROUND TIME: <input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK <input type="checkbox"/> 48 HOURS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> 72 HOURS    OTHER _____
RELINQUISHED BY	DATE	RECEIVED BY	DATE		
SIGNATURE	TIME	SIGNATURE	TIME		
PRINT NAME	COMPANY	PRINT NAME	COMPANY		



# Cooler Receipt Form

ARI Client: Hart Crowser

Project Name: Saddle Rock

COC No(s) \_\_\_\_\_ (NA)

Delivered by Fed-Ex UPS (Courier) Hand Delivered  Other: \_\_\_\_\_

Assigned ARI Job No WE79

Tracking No \_\_\_\_\_ NA

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler?  YES  NO

Were custody papers included with the cooler?  YES  NO

Were custody papers properly filled out (ink, signed, etc)  YES  NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry). 5.1 1.9 4.9

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID# 90877952

Cooler Accepted by: [Signature] Date 2/25/13 Time 1310

**Complete custody forms and attach all shipping documents**

**Log-In Phase:**

Was a temperature blank included in the cooler?  YES  NO

What kind of packing material was used? Bubble Wrap  Wet Ice  Gel Packs  Baggies  Foam Block  Paper  Other: \_\_\_\_\_

Was sufficient ice used (if appropriate)? NA  YES  NO

Were all bottles sealed in individual plastic bags?  YES  NO

Did all bottles arrive in good condition (unbroken)?  YES  NO

Were all bottle labels complete and legible?  YES  NO

Did the number of containers listed on COC match with the number of containers received?  YES  NO

Did all bottle labels and tags agree with custody papers?  YES  NO

Were all bottles used correct for the requested analyses?  YES  NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)  NA  YES  NO

Were all VOC vials free of air bubbles?  NA  YES  NO

Was sufficient amount of sample sent in each bottle?  YES  NO

Date VOC Trip Blank was made at ARI.  NA

Was Sample Split by ARI  NA  YES Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by: JM Date: 2/25/13 Time: 1340

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

By \_\_\_\_\_ Date: \_\_\_\_\_

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"



Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: JM

Sample Set Used: **Yes-490**

PC: Kelly  
 VTSR: 02/25/13 13:10  
 Data Due: 03/11/13

COC/Cooler Rcpt Sent: \_\_\_\_\_

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:

Acknow/Receipt Sent: \_\_\_\_\_

SDG No:  
 Analytical Protocol: In-house  
 See enclosed instructions  
 No enclosed instructions  
 Cooler Temp: 1.9 - 5.1

Validatable Package: LV4

EDD Requested: \_\_\_\_\_

EDD Format:

Deliverables Require Spectra (Circle one): YES NO

J-flags required: YES NO

Special Instructions:

Disposal Approved in Advance: Yes

24 Sample(s)

ARI ID	Client ID	Matrix-Rtype	Sampling Date/Time	TOT MET	CONV
13-3533-WE79A	SR01-D01 ✓	*F Soil-32	02/18/13 16:25	X	Okay
13-3534-WE79B	SR01-D02 ✓	*F Soil-32	02/18/13 15:52	X	Okay
13-3535-WE79C	SR01-D03 ✓	*F Soil-32	02/18/13 16:51	X	Okay
13-3536-WE79D	SR01-D04 ✓	*F Soil-32	02/18/13 17:11	X	Okay
13-3537-WE79E	SR01-D05 ✓	*F Soil-32	02/18/13 17:31	X	Okay
13-3538-WE79F	SR01-D06 ✓	*F Soil-32	02/18/13 16:55	X	Okay
13-3539-WE79G	SR01-C01 ✓	*F Soil-32	02/18/13 17:28	X	Okay
13-3540-WE79H	SR01-C02 ✓	*F Soil-32	02/18/13 18:28	X	Okay
13-3541-WE79I	SR01-C03 ✓	*F Soil-32	02/19/13 08:00	X	Okay
13-3542-WE79J	SR02-D01 ✓	*F Soil-32	02/19/13 10:53	X	X ✓ Okay
13-3543-WE79K	SR02-D02 ✓	*F Soil-32	02/19/13 10:32	X	Okay
13-3544-WE79L	SR02-D03 ✓	*F Soil-32	02/19/13 10:14	X	Okay
13-3545-WE79M	SR02-D04 ✓	*F Soil-32	02/19/13 09:53	X	Okay

*Handwritten mark*



Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: JM

Sample Set Used: **Yes-490**

PC: Kelly  
 VTSR: 02/25/13  
 Data Due: 03/11/13

COC/Cooler Rcpt Sent: \_\_\_\_\_

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:

Acknow/Receipt Sent: \_\_\_\_\_

SDG No:  
 Analytical Protocol: In-house  
 See enclosed instructions  
 No enclosed instructions  
 Cooler Temp: 1.9 - 5.1

Validatable Package: LV4

EDD Requested: \_\_\_\_\_

EDD Format:

Deliverables Require Spectra (Circle one): YES NO

Special Instructions:

Disposal Approved in Advance: Yes

24 Sample(s)

ARI ID	Client ID	Matrix/Rtype	Sampling Date/Time	TOT MET	CONV	
13-3546-WE79N	SR02-D05	*F Soil-32	02/19/13 09:19	X		Okay
13-3547-WE79O	SR02-D06	*F Soil-32	02/19/13 11:18	X		Okay
13-3548-WE79P	SR02-D07	*F Soil-32	02/19/13 11:30	X		Okay
13-3549-WE79Q	SR02-D08	*F Soil-32	02/19/13 11:53	X		Okay
13-3550-WE79R	SR02-D09	*F Soil-32	02/19/13 12:14	X		Okay
13-3551-WE79S	SR02-D10	*F Soil-32	02/19/13 12:19	X		Okay
13-3552-WE79T	SR02-D11	*F Soil-32	02/19/13 10:44	X		Okay
13-3553-WE79U	SR02-C01	*F Soil-32	02/19/13 10:20	X		Okay
13-3554-WE79V	SR02-C02	*F Soil-32	02/19/13 11:03	X		Okay
13-3555-WE79W	SR02-C03	*F Soil-32	02/19/13 11:37	X		Okay
13-3556-WE79X	SR03-D01	*F Soil-32	02/20/13 09:43	X	X	Okay

# Sample ID Cross Reference Report



ARI Job No: WE79  
Client: Hart Crowser, Inc.  
Project Event: 17917-00  
Project Name: Saddle Rock

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. SR01-D01	WE79A	13-3533	Soil	02/18/13 16:25	02/25/13 13:10
2. SR01-D02	WE79B	13-3534	Soil	02/18/13 15:52	02/25/13 13:10
3. SR01-D03	WE79C	13-3535	Soil	02/18/13 16:51	02/25/13 13:10
4. SR01-D04	WE79D	13-3536	Soil	02/18/13 17:11	02/25/13 13:10
5. SR01-D05	WE79E	13-3537	Soil	02/18/13 17:31	02/25/13 13:10
6. SR01-D06	WE79F	13-3538	Soil	02/18/13 16:55	02/25/13 13:10
7. SR01-C01	WE79G	13-3539	Soil	02/18/13 17:28	02/25/13 13:10
8. SR01-C02	WE79H	13-3540	Soil	02/18/13 18:28	02/25/13 13:10
9. SR01-C03	WE79I	13-3541	Soil	02/19/13 08:00	02/25/13 13:10
10. SR02-D01	WE79J	13-3542	Soil	02/19/13 10:53	02/25/13 13:10
11. SR02-D02	WE79K	13-3543	Soil	02/19/13 10:32	02/25/13 13:10
12. SR02-D03	WE79L	13-3544	Soil	02/19/13 10:14	02/25/13 13:10
13. SR02-D04	WE79M	13-3545	Soil	02/19/13 09:53	02/25/13 13:10
14. SR02-D05	WE79N	13-3546	Soil	02/19/13 09:19	02/25/13 13:10
15. SR02-D06	WE79O	13-3547	Soil	02/19/13 11:18	02/25/13 13:10
16. SR02-D07	WE79P	13-3548	Soil	02/19/13 11:30	02/25/13 13:10
17. SR02-D08	WE79Q	13-3549	Soil	02/19/13 11:53	02/25/13 13:10
18. SR02-D09	WE79R	13-3550	Soil	02/19/13 12:14	02/25/13 13:10
19. SR02-D10	WE79S	13-3551	Soil	02/19/13 12:19	02/25/13 13:10
20. SR02-D11	WE79T	13-3552	Soil	02/19/13 10:44	02/25/13 13:10
21. SR02-C01	WE79U	13-3553	Soil	02/19/13 10:20	02/25/13 13:10
22. SR02-C02	WE79V	13-3554	Soil	02/19/13 11:03	02/25/13 13:10
23. SR02-C03	WE79W	13-3555	Soil	02/19/13 11:37	02/25/13 13:10
24. SR03-D01	WE79X	13-3556	Soil	02/20/13 09:43	02/25/13 13:10

**METALS SUMMARY-GRID 02/25/13**

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ARI Job No: **WE79**

Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: JM  
 Sample Set Used: Yes-490  
 Validatable Package: LV4

*Special*  
*Hg BL 0.01*

PC: Kelly  
 VTSR: 02/25/13  
 Data Due PM: 03/10/13

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:  
 SDG No:

*1 mile*

Named Metals List:

LIMS ID	ARI ID	CLIENT ID	MATRIX	TYPE	AG	AL	AS	AU	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	SR	TI	TL	V	ZN
13-3533	WE79A	SR01-D01	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3534	WE79B	SR01-D02	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3535	WE79C	SR01-D03	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3536	WE79D	SR01-D04	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3537	WE79E	SR01-D05	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3538	WE79F	SR01-D06	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3539	WE79G	SR01-C01	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3540	WE79H	SR01-C02	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3541	WE79I	SR01-C03	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3542	WE79J	SR02-D01	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3543	WE79K	SR02-D02	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3544	WE79L	SR02-D03	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3545	WE79M	SR02-D04	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3546	WE79N	SR02-D05	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3547	WE79O	SR02-D06	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3548	WE79P	SR02-D07	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3549	WE79Q	SR02-D08	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3550	WE79R	SR02-D09	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3551	WE79S	SR02-D10	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3552	WE79T	SR02-D11	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3553	WE79U	SR02-C01	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	

PM OK 1/10 Date 2/25/13



**METALS SUMMARY-GRID 02/25/13**

Page 2 of 2

Client: Hart Crowser, Inc.

Logged by: JM



ARI Job No: WE79

Project #: 17917-00

Project: Saddle Rock

LIMS ID	ARI ID	CLIENT ID	MATRIX	TYPE	AG	AL	AS	AU	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	SR	TI	TL	V	ZN		
13-3554	WE79V	SR02-C02	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M		
13-3555	WE79W	SR02-C03	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M								M	
13-3556	WE79X	SR03-D01	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M								M	

24 Sample(s)

*C/p-Q  
Special #19  
\* See Jay BL 0.01  
QC One  
Sample*

PM OK JB Date 2/25/13



METALS SUMMARY 02/25/13

Page 1 of 3



ARI Job No: WE79

Inquiry Number: NONE  
Analysis Requested: 02/25/13  
Contact: McGinnis, Roger  
Client: Hart Crowser, Inc.  
Logged by: JM  
Sample Set Used: Yes-490  
Validatable Package: LV4

*clp-Q*

PC: Kelly  
VTSR: 02/25/13  
Data Due PM: 03/10/13

Project #: 17917-00  
Project: Saddle Rock  
Sample Site:  
SDG No:

*minke*

Metals Prep Special Instructions:  
Metals Special Instructions:

\_\_\_\_ See enclosed instructions  
\_\_\_\_ No enclosed instructions

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH
13-3533	WE79A	SR01-D01	02/18/13 16:25	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3534	WE79B	SR01-D02	02/18/13 15:52	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3535	WE79C	SR01-D03	02/18/13 16:51	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3536	WE79D	SR01-D04	02/18/13 17:11	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3537	WE79E	SR01-D05	02/18/13 17:31	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3538	WE79F	SR01-D06	02/18/13 16:55	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3539	WE79G	SR01-C01	02/18/13 17:28	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3540	WE79H	SR01-C02	02/18/13 18:28	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3541	WE79I	SR01-C03	02/19/13 08:00	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3542	WE79J	SR02-D01	02/19/13 10:53	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														

*QC sample  
clp-Q  
Special H9  
0.01  
5ay  
see*

CONTINUED ON NEXT PAGE....

PM OK

*JB*

Date

*2/25/13*

**METALS SUMMARY-LIST 02/25/13**

Page 2 of 3

Client: Hart Crowser, Inc.

Logged by: JM



ARI Job No: WE79

Project #: 17917-00

Project: Saddle Rock

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH
13-3543	WE79K	SR02-D02	02/19/13 10:32	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3544	WE79L	SR02-D03	02/19/13 10:14	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3545	WE79M	SR02-D04	02/19/13 09:53	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3546	WE79N	SR02-D05	02/19/13 09:19	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3547	WE79O	SR02-D06	02/19/13 11:18	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3548	WE79P	SR02-D07	02/19/13 11:30	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3549	WE79Q	SR02-D08	02/19/13 11:53	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3550	WE79R	SR02-D09	02/19/13 12:14	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3551	WE79S	SR02-D10	02/19/13 12:19	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3552	WE79T	SR02-D11	02/19/13 10:44	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3553	WE79U	SR02-C01	02/19/13 10:20	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3554	WE79V	SR02-C02	02/19/13 11:03	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3555	WE79W	SR02-C03	02/19/13 11:37	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														

CONTINUED ON NEXT PAGE....

PM OK

*JM* Date 2/25/13

METALS SUMMARY-LIST 02/25/13

Page 3 of 3

Client: Hart Crowser, Inc.

Logged by: JM



ARI Job No: WE79

Project #: 17917-00

Project: Saddle Rock

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH	
13-3556	WE79X	SR03-D01	02/20/13 09:43	Soil	Okay	32	NA	X							
COMMENTS-ALL LABS: Freeze															
								TOTALS:	24						

PM OK *JM* Date 2/25/13

CONVENTIONAL SUMMARY-GRID

Page 1 of 1



ARI Job No: WE79

Inquiry Number: NONE  
Analysis Requested: 02/25/13  
Contact: McGinnis, Roger  
Client: Hart Crowser, Inc.  
Logged by: JM  
Sample Set Used: Yes-490  
Validatable Package: LV4

PC: Kelly  
VTSR: 02/25/13  
Data Due: 03/08/13

Project #: 17917-00  
Project: Saddle Rock  
Sample Site:  
SDG No:

Job	Matrix	pH	TCol	FCol	S2	SO4	NH3	NO2	NO3	NO23	TKN	TRB	CND	TS	TVS	TDS	VSS	TSS	TSP	ALK	CNT	CNA	WAD	CL	OPHS	TOTP	BOD	COD	TOC	OGT	OGNP	MISC	
WE79J	Soil	X																															
WE79X	Soil	X																															

2

Misc Tests:

Total Requests: 2

Total Samples: 2

*Handwritten initials and date: 2/25/13*

CONVENTIONAL SUMMARY-LIST 02/25/13

Page 1 of 1



ARI Job No: WE79

Inquiry Number: NONE  
Analysis Requested: 02/25/13  
Contact: McGinnis, Roger  
Client: Hart Crowser, Inc.  
Logged by: JM  
Sample Set Used: Yes-490  
Validatable Package: LV4

PC: Kelly  
VTSR: 02/25/13  
Data Due: 03/08/13

Project #: 17917-00  
Project: Saddle Rock  
Sample Site:  
SDG No:

LIMS ID	ARI ID	CLIENT ID	MATRIX	SAMPLED	RTYPE	COMMENTS/INSTRUCTIONS
13-3542	WE79J	SR02-D01	Soil	02/19/13 10:53	32	Conventional Lab: NONE All Labs: Freeze
		1 Test(s)				pH in Soil
13-3556	WE79X	SR03-D01	Soil	02/20/13 09:43	32	Conventional Lab: NONE All Labs: Freeze
		1 Test(s)				pH in Soil

*[Signature]* Date 2/25/13



# Sample Custody Record

Samples Shipped to: ART



Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

JOB <u>17917-00</u> LAB NUMBER _____ PROJECT NAME <u>SADDLE ROCK</u> HART CROWSER CONTACT <u>S. Hughes</u> <u>R. McGinnis, A. Conroy</u> SAMPLED BY: <u>A, SF, NG</u>	REQUESTED ANALYSIS METALS TOTAL SOLIDS	NO. OF CONTAINERS  <u>WCSO</u>	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
---	--	--------------------------------------	--

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX													
	SR03-C03		2/20/13	1343	S	X	X											
	SR04-001		2/21/13	1005	"	X	X											
	SR04-002		"	1015	"	X	X											
	SR04-003		"	1025	"	X	X											
	SR04-005		"	1105	"	X	X											
	SR04-006		"	1030	"	X	X											
	SR04-004		"	1048	"	X	X											
	SR04-001		"	1158	"	X	X											
	SR04-C02		"	1221	"	X	X											
	SR04-C03		"	1238	"	X	X											

RELINQUISHED BY	DATE	RECEIVED BY	DATE	SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:	10	TOTAL NUMBER OF CONTAINERS
	2/25/13		2/25/13	<b>LEVEL II DATA PACKAGE</b>	10	SAMPLE RECEIPT INFORMATION CUSTODY SEALS: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A GOOD CONDITION <input type="checkbox"/> YES <input type="checkbox"/> NO TEMPERATURE _____ SHIPMENT METHOD: <input type="checkbox"/> HAND <input type="checkbox"/> COURIER <input type="checkbox"/> OVERNIGHT
PRINT NAME <u>Anne Conroy</u>	TIME <u>1156</u>	PRINT NAME <u>Rich Hudson</u>	TIME <u>1316</u>			
COMPANY <u>Hart Crowser</u>		COMPANY <u>ART</u>		COOLER NO.:	STORAGE LOCATION:	TURNAROUND TIME:
RELINQUISHED BY	DATE	RECEIVED BY	DATE	See Lab Work Order No. _____ for Other Contract Requirements		<input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK <input type="checkbox"/> 48 HOURS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> 72 HOURS    OTHER _____
SIGNATURE		SIGNATURE				
PRINT NAME	TIME	PRINT NAME	TIME			
COMPANY		COMPANY				



# Cooler Receipt Form

ARI Client Hart Crouser

Project Name Saddle Rock

COC No(s) NA

Delivered by Fed-Ex UPS  Courier  Hand Delivered  Other

Assigned ARI Job No 21 E80

Tracking No \_\_\_\_\_ NA

**Preliminary Examination Phase**

Were intact, properly signed and dated custody seals attached to the outside of to cooler?  YES  NO

Were custody papers included with the cooler?  YES  NO

Were custody papers properly filled out (ink, signed, etc)  YES  NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 5.1 1.9 4.9

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90877956

Cooler Accepted by [Signature] Date 2/25/13 Time 1310

*Complete custody forms and attach all shipping documents*

**Log-In Phase:**

Was a temperature blank included in the cooler?  YES  NO

What kind of packing material was used? .. Bubble Wrap  Wet Ice  Gel Packs  Baggies  Foam Block  Paper Other: \_\_\_\_\_

Was sufficient ice used (if appropriate)? .. NA  YES  NO

Were all bottles sealed in individual plastic bags?  YES  NO

Did all bottles arrive in good condition (unbroken)?  YES  NO

Were all bottle labels complete and legible?  YES  NO

Did the number of containers listed on COC match with the number of containers received?  YES  NO

Did all bottle labels and tags agree with custody papers?  YES  NO

Were all bottles used correct for the requested analyses?  YES  NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)  NA  YES  NO

Were all VOC vials free of air bubbles?  NA  YES  NO

Was sufficient amount of sample sent in each bottle?  YES  NO

Date VOC Trip Blank was made at ARI  NA

Was Sample Split by ARI  NA  YES Date/Time \_\_\_\_\_ Equipment \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by JM Date 2/25/13 Time 1349

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

By \_\_\_\_\_ Date \_\_\_\_\_

<p>Small Air Bubbles 2mm</p>	<p>Peabubbles 2-4 mm</p>	<p>LARGE Air Bubbles &gt; 4 mm</p>	<p>Small → "sm"</p> <p>Peabubbles → "pb"</p> <p>Large → "lg"</p> <p>Headspace → "hs"</p>
----------------------------------	------------------------------	--	--



**ANALYSIS SUMMARY 02/25/13**

Page 1 of 2



ARI Job No: **WE80**

Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: JM

Sample Set Used: **Yes-490**

PC: Kelly  
 VTSR: 02/25/13 13:10  
 Data Due: 03/11/13

COC/Cooler Rcpt Sent: \_\_\_\_\_

Acknow/Receipt Sent: \_\_\_\_\_

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site: *MINE*  
 SDG No:  
 Analytical Protocol: In-house  
 See enclosed instructions  
 No enclosed instructions  
 Cooler Temp: 1.9 - 5.1

Validatable Package: LV4

EDD Requested: \_\_\_\_\_

EDD Format:

Deliverables Require Spectra (Circle one): YES NO

J-flags required: YES NO

Special Instructions:

Disposal Approved in Advance: Yes

22 Sample(s)

ARI ID	Client ID	Matrix-Rtype	Soil-32	Sampling Date/Time	TOT MET	
13-3557-WE80A	SR03-D02 ✓	*F	Soil-32	02/20/13 10:07 ✓	X	Okay
13-3558-WE80B	SR03-D03 ✓	*F	Soil-32	02/20/13 10:31 ✓	X	Okay
13-3559-WE80C	SR03-D04 ✓	*F	Soil-32	02/20/13 11:27 ✓	X	Okay
13-3560-WE80D	SR03-D05 ✓	*F	Soil-32	02/20/13 11:57 ✓	X	Okay
13-3561-WE80E	SR03-D06 ✓	*F	Soil-32	02/20/13 13:27 ✓	X	Okay
13-3562-WE80F	SR03-D07 ✓	*F	Soil-32	02/20/13 13:00 ✓	X	Okay
13-3563-WE80G	SR03-D08 ✓	*F	Soil-32	02/20/13 12:27 ✓	X	Okay
13-3564-WE80H	SR03-D09 ✓	*F	Soil-32	02/20/13 10:59 ✓	X	Okay
13-3565-WE80I	SR03-D10 ✓	*F	Soil-32	02/20/13 10:47 ✓	X	Okay
13-3566-WE80J	SR03-D11 ✓	*F	Soil-32	02/20/13 11:17 ✓	X	Okay
13-3567-WE80K	SR03-C01 ✓	*F	Soil-32	02/20/13 11:37 ✓	X	Okay
13-3568-WE80L	SR03-C02 ✓	*F	Soil-32	02/20/13 12:40 ✓	X	Okay
13-3569-WE80M	SR03-C03 ✓	*F	Soil-32	02/20/13 13:48 ✓	X	Okay

# of Folders Done \_\_\_\_\_ By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

PM OK

Date *2/25/13* Time *4:43*



Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: JM

Sample Set Used: **Yes-490**

PC: Kelly  
 VTSR: 02/25/13  
 Data Due: 03/11/13

COC/Cooler Rcpt Sent: \_\_\_\_\_

Acknow/Receipt Sent: \_\_\_\_\_

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:  
 SDG No:  
 Analytical Protocol: In-house  
 \_\_\_\_\_ See enclosed instructions  
 \_\_\_\_\_ No enclosed instructions  
 Cooler Temp: 1.9 - 5.1

Validatable Package: LV4

EDD Requested: \_\_\_\_\_

EDD Format:

Deliverables Require Spectra (Circle one): YES NO

Special Instructions:

Disposal Approved in Advance: Yes

22 Sample(s)

ARI ID	Client ID	Matrix/Rtype	Sampling Date/Time	TOT MET	
13-3570-WE80N	SR04-D01 ✓	*F Soil-32	02/21/13 10:05 ✓	X	Okay
13-3571-WE80O	SR04-D02 ✓	*F Soil-32	02/21/13 10:15 ✓	X	Okay
13-3572-WE80P	SR04-D03 ✓	*F Soil-32	02/21/13 10:25 ✓	X	Okay
13-3573-WE80Q	SR04-D05 ✓	*F Soil-32	02/21/13 11:05 ✓	X	Okay
13-3574-WE80R	SR04-D06 ✓	*F Soil-32	02/21/13 10:30 ✓	X	Okay
13-3575-WE80S	SR04-D04 ✓	*F Soil-32	02/21/13 10:48 ✓	X	Okay
13-3576-WE80T	SR04-C01 ✓	*F Soil-32	02/21/13 11:58 ✓	X	Okay
13-3577-WE80U	SR04-C02 ✓	*F Soil-32	02/21/13 12:21 ✓	X	Okay
13-3578-WE80V	SR04-C03 ✓	*F Soil-32	02/21/13 12:38 ✓	X	Okay

*Handwritten:* JM 2/25/13 4:03

# Sample ID Cross Reference Report



ARI Job No: WE80  
Client: Hart Crowser, Inc.  
Project Event: 17917-00  
Project Name: Saddle Rock

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. SR03-D02	WE80A	13-3557	Soil	02/20/13 10:07	02/25/13 13:10
2. SR03-D03	WE80B	13-3558	Soil	02/20/13 10:31	02/25/13 13:10
3. SR03-D04	WE80C	13-3559	Soil	02/20/13 11:27	02/25/13 13:10
4. SR03-D05	WE80D	13-3560	Soil	02/20/13 11:57	02/25/13 13:10
5. SR03-D06	WE80E	13-3561	Soil	02/20/13 13:27	02/25/13 13:10
6. SR03-D07	WE80F	13-3562	Soil	02/20/13 13:00	02/25/13 13:10
7. SR03-D08	WE80G	13-3563	Soil	02/20/13 12:27	02/25/13 13:10
8. SR03-D09	WE80H	13-3564	Soil	02/20/13 10:59	02/25/13 13:10
9. SR03-D10	WE80I	13-3565	Soil	02/20/13 10:47	02/25/13 13:10
10. SR03-D11	WE80J	13-3566	Soil	02/20/13 11:17	02/25/13 13:10
11. SR03-C01	WE80K	13-3567	Soil	02/20/13 11:37	02/25/13 13:10
12. SR03-C02	WE80L	13-3568	Soil	02/20/13 12:40	02/25/13 13:10
13. SR03-C03	WE80M	13-3569	Soil	02/20/13 13:43	02/25/13 13:10
14. SR04-D01	WE80N	13-3570	Soil	02/21/13 10:05	02/25/13 13:10
15. SR04-D02	WE80O	13-3571	Soil	02/21/13 10:15	02/25/13 13:10
16. SR04-D03	WE80P	13-3572	Soil	02/21/13 10:25	02/25/13 13:10
17. SR04-D05	WE80Q	13-3573	Soil	02/21/13 11:05	02/25/13 13:10
18. SR04-D06	WE80R	13-3574	Soil	02/21/13 10:30	02/25/13 13:10
19. SR04-D04	WE80S	13-3575	Soil	02/21/13 10:48	02/25/13 13:10
20. SR04-C01	WE80T	13-3576	Soil	02/21/13 11:58	02/25/13 13:10
21. SR04-C02	WE80U	13-3577	Soil	02/21/13 12:21	02/25/13 13:10
22. SR04-C03	WE80V	13-3578	Soil	02/21/13 12:38	02/25/13 13:10

**METALS SUMMARY-GRID 02/25/13**

Page 1 of 2



ARI Job No: **WE80**

Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: JM  
 Sample Set Used: Yes-490  
 Validatable Package: LV4

*CLP-Q*

PC: Kelly  
 VTSR: 02/25/13  
 Data Due PM: 03/10/13

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:  
 SDG No:

Named Metals List:

LIMS ID	ARI ID	CLIENT ID	MATRIX	TYPE	AG	AL	AS	AU	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	SR	TI	TL	V	ZN
13-3557	WE80A	SR03-D02	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3558	WE80B	SR03-D03	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3559	WE80C	SR03-D04	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3560	WE80D	SR03-D05	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3561	WE80E	SR03-D06	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3562	WE80F	SR03-D07	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3563	WE80G	SR03-D08	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3564	WE80H	SR03-D09	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3565	WE80I	SR03-D10	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3566	WE80J	SR03-D11	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3567	WE80K	SR03-C01	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3568	WE80L	SR03-C02	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3569	WE80M	SR03-C03	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3570	WE80N	SR04-D01	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3571	WE80O	SR04-D02	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3572	WE80P	SR04-D03	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3573	WE80Q	SR04-D05	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3574	WE80R	SR04-D06	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3575	WE80S	SR04-D04	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3576	WE80T	SR04-C01	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	
13-3577	WE80U	SR04-C02	Soil	TOT	M	I	M			I					M	I	C			I					M	M	M						M	

PM OK *[Signature]* Date *2/25/13*

METALS SUMMARY-GRID 02/25/13

Page 2 of 2

Client: Hart Crowser, Inc.

Logged by: JM



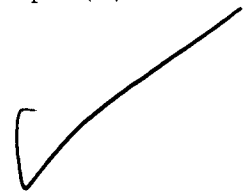
ARI Job No: WE80

Project #: 17917-00

Project: Saddle Rock

LIMS ID	ARI ID	CLIENT ID	MATRIX	TYPE	AG	AL	AS	AU	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	SR	TI	TL	V	ZN
13-3578	WE80V	SR04-C03	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M

22 Sample(s)



a/p-Q  
 Special  
 for  
 0.01  
 See Jay  
 QC one  
 sample

PM OK *JM* Date 2/25/13

METALS SUMMARY 02/25/13

Page 1 of 2



ARI Job No: WE80

Inquiry Number: NONE  
Analysis Requested: 02/25/13  
Contact: McGinnis, Roger  
Client: Hart Crowser, Inc.  
Logged by: JM  
Sample Set Used: Yes-490  
Validatable Package: LV4

*clp-Q*

PC: Kelly  
VTSR: 02/25/13  
Data Due PM: 03/10/13

Project #: 17917-00  
Project: Saddle Rock  
Sample Site:  
SDG No:

Metals Prep Special Instructions:  
Metals Special Instructions:

~~X~~ See enclosed instructions  
No enclosed instructions

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH
13-3557	WE80A	SR03-D02	02/20/13 10:07	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3558	WE80B	SR03-D03	02/20/13 10:31	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3559	WE80C	SR03-D04	02/20/13 11:27	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3560	WE80D	SR03-D05	02/20/13 11:57	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3561	WE80E	SR03-D06	02/20/13 13:27	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3562	WE80F	SR03-D07	02/20/13 13:00	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3563	WE80G	SR03-D08	02/20/13 12:27	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3564	WE80H	SR03-D09	02/20/13 10:59	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3565	WE80I	SR03-D10	02/20/13 10:47	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3566	WE80J	SR03-D11	02/20/13 11:17	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														

*QC ONE  
Sample*

*clp-Q  
Special  
for Hg*

CONTINUED ON NEXT PAGE....

PM OK

*10* Date 2/25/13

**METALS SUMMARY-LIST 02/25/13**

Page 2 of 2

Client: Hart Crowser, Inc.

Logged by: JM



ARI Job No: WE80

Project #: 17917-00

Project: Saddle Rock

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH
13-3567	WE80K	SR03-C01	02/20/13 11:37	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3568	WE80L	SR03-C02	02/20/13 12:40	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3569	WE80M	SR03-C03	02/20/13 13:43	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3570	WE80N	SR04-D01	02/21/13 10:05	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3571	WE80O	SR04-D02	02/21/13 10:15	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3572	WE80P	SR04-D03	02/21/13 10:25	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3573	WE80Q	SR04-D05	02/21/13 11:05	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3574	WE80R	SR04-D06	02/21/13 10:30	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3575	WE80S	SR04-D04	02/21/13 10:48	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3576	WE80T	SR04-C01	02/21/13 11:58	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3577	WE80U	SR04-C02	02/21/13 12:21	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3578	WE80V	SR04-C03	02/21/13 12:38	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
								<b>TOTALS:</b>	22					

PM OK

Date

2/25/13

# Sample Custody Record

Samples Shipped to: ART



Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

JOB <u>17917-00</u> LAB NUMBER _____ PROJECT NAME <u>SADDLE ROCK</u> HART CROWSER CONTACT <u>S. HUGHES</u> <u>R. McGinnis, A-Comm</u> SAMPLED BY: <u>A, SF, NG</u>						REQUESTED ANALYSIS METALS _____ TOTAL SOLIDS _____										NO. OF CONTAINERS  <u>WE81</u>	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS		
LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX														
	SR05-001		2/21/13	0700	S	X	X											1	METALS - Al, Sb, As,
	SR05-002		2/21/13	1552	"	X	X											1	Ba, Cr, Fe, Pb, Mn,
	SR05-003		2/21/13	1519	"	X	X											1	Hg, Se, Ag, V
	SR05-004		"	1533	"	X	X											1	
	SR05-005		"	1543	"	X	X											1	
	SR05-006		"	1537	"	X	X											1	
	SR05-001		"	1621	"	X	X											1	
	SR05-002		"	1630	"	X	X											1	
	SR05-003		2/22/13	0941	"	X	X											1	
	SR06-001		"	1100	"	X	X											1	
	SR06-002		"	1115	"	X	X											1	
	SR06-003		"	1138	"	X	X											1	
RELINQUISHED BY		DATE	RECEIVED BY		DATE	SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS: <u>LEVEL IV DATA PACKAGE</u>										12	TOTAL NUMBER OF CONTAINERS		
SIGNATURE		TIME	SIGNATURE		TIME											SAMPLE RECEIPT INFORMATION			
PRINT NAME			PRINT NAME			CUSTODY SEALS:													
COMPANY			COMPANY			<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A													
RELINQUISHED BY		DATE	RECEIVED BY		DATE	COOLER NO.: _____ STORAGE LOCATION: _____  See Lab Work Order No. _____ for Other Contract Requirements										GOOD CONDITION <input type="checkbox"/> YES <input type="checkbox"/> NO			
SIGNATURE		TIME	SIGNATURE		TIME											TEMPERATURE _____			
PRINT NAME			PRINT NAME			SHIPMENT METHOD: <input type="checkbox"/> HAND													
COMPANY			COMPANY			<input type="checkbox"/> COURIER <input type="checkbox"/> OVERNIGHT													
RELINQUISHED BY		DATE	RECEIVED BY		DATE	TURNAROUND TIME:										<input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK			
SIGNATURE		TIME	SIGNATURE		TIME											<input type="checkbox"/> 48 HOURS <input checked="" type="checkbox"/> STANDARD			
PRINT NAME			PRINT NAME			<input type="checkbox"/> 72 HOURS    OTHER _____													
COMPANY			COMPANY																







# Cooler Receipt Form

ARI Client Hart Crouser

Project Name Saddle Rock

COC No(s) \_\_\_\_\_ NA

Delivered by Fed-Ex UPS (Courier) Hand Delivered Other

Assigned ARI Job No WESI

Tracking No \_\_\_\_\_ NA

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler? (YES) NO

Were custody papers included with the cooler? (YES) NO

Were custody papers properly filled out (ink, signed, etc) .. (YES) NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) .. 5.19 19

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID# 90877952

Cooler Accepted by: [Signature] Date 2/25/13 Time: 1310

**Complete custody forms and attach all shipping documents**

**Log-In Phase:**

Was a temperature blank included in the cooler? .. YES (NO)

What kind of packing material was used? .. Bubble Wrap (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other: \_\_\_\_\_

Was sufficient ice used (if appropriate)? .. NA (YES) NO

Were all bottles sealed in individual plastic bags? .. (YES) NO

Did all bottles arrive in good condition (unbroken)? .. (YES) NO

Were all bottle labels complete and legible? .. (YES) NO

Did the number of containers listed on COC match with the number of containers received? .. (YES) NO

Did all bottle labels and tags agree with custody papers? .. (YES) NO

Were all bottles used correct for the requested analyses? .. (YES) NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) .. (NA) YES NO

Were all VOC vials free of air bubbles? .. (NA) YES NO

Was sufficient amount of sample sent in each bottle? .. (YES) NO

Date VOC Trip Blank was made at ARI .. (NA)

Was Sample Split by ARI: (NA) YES Date/Time \_\_\_\_\_ Equipment \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by JM Date: 2/25/13 Time: 1354

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

By: \_\_\_\_\_ Date \_\_\_\_\_

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"



Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc  
 Logged by: JM

Sample Set Used: Yes-490

PC: Kelly  
 VTSR: 02/25/13 13:10  
 Data Due: 03/11/13

COC/Cooler Rcpt Sent: \_\_\_\_\_

Acknow/Receipt Sent: \_\_\_\_\_

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:  
 SDG No:  
 Analytical Protocol: In-house  
 See enclosed instructions  
~~X~~ No enclosed instructions  
 Cooler Temp: 1.9 - 5.1

Validatable Package: LV4

EDD Requested: \_\_\_\_\_

EDD Format:

Deliverables Require Spectra (Circle one): YES NO

J-flags required: YES NO

Special Instructions:

Disposal Approved in Advance: Yes

24 Sample(s)

ARI ID	Client ID	Matrix-Rtype	Sampling Date/Time	TOT MET	
13-3579-WE81A	SR05-D01 ✓	*F Soil-32	02/21/13 07:00	X	Okay
13-3580-WE81B	SR05-D02 ✓	*F Soil-32	02/21/13 15:52	X	Okay
13-3581-WE81C	SR05-D03 ✓	*F Soil-32	02/21/13 15:19	X	Okay
13-3582-WE81D	SR05-D04 ✓	*F Soil-32	02/21/13 15:33	X	Okay
13-3583-WE81E	SR05-D05 ✓	*F Soil-32	02/21/13 15:43	X	Okay
13-3584-WE81F	SR05-D06 ✓	*F Soil-32	02/21/13 15:37	X	Okay
13-3585-WE81G	SR05-C01 ✓	*F Soil-32	02/21/13 16:21	X	Okay
13-3586-WE81H	SR05-C02 ✓	*F Soil-32	02/21/13 16:30	X	Okay
13-3587-WE81I	SR05-C03 ✓	*F Soil-32	02/22/13 09:41	X	Okay
13-3588-WE81J	SR06-D01 ✓	*F Soil-32	02/22/13 11:00	X	Okay
13-3589-WE81K	SR06-D02 ✓	*F Soil-32	02/22/13 11:15	X	Okay
13-3590-WE81L	SR06-D03 ✓	*F Soil-32	02/22/13 11:38	X	Okay
13-3591-WE81M	SR06-D04 ✓	*F Soil-32	02/22/13 12:05	X	Okay

*[Handwritten signature]*



Inquiry Number: NONE  
Analysis Requested: 02/25/13  
Contact: McGinnis, Roger  
Client: Hart Crowser, Inc.  
Logged by: JM

Sample Set Used: Yes-490

PC: Kelly  
VTSR: 02/25/13  
Data Due: 03/11/13

COC/Cooler Rcpt Sent: \_\_\_\_\_

Acknow/Receipt Sent: \_\_\_\_\_

Project #: 17917-00  
Project: Saddle Rock  
Sample Site:  
SDG No:  
Analytical Protocol: In-house  
 See enclosed instructions  
 No enclosed instructions  
Cooler Temp: 1.9 - 5.1

Validatable Package: LV4

EDD Requested: \_\_\_\_\_

EDD Format:

Deliverables Require Spectra (Circle one): YES NO

Special Instructions:  
Disposal Approved in Advance: Yes

24 Sample(s)

ARI ID	Client ID	Matrix/Rtype	Sampling Date/Time	TOT MET	
13-3592-WE81N	SR06-D05	*F Soil-32	02/22/13 12:18	X	Okay
13-3593-WE81O	SR06-D06	*F Soil-32	02/22/13 11:44	X	Okay
13-3594-WE81P	SR06-C01	*F Soil-32	02/22/13 12:37	X	Okay
13-3595-WE81Q	SR06-C02	*F Soil-32	02/22/13 13:02	X	Okay
13-3596-WE81R	SR06-C03	*F Soil-32	02/22/13 13:24	X	Okay
13-3597-WE81S	SR07-D01	*F Soil-32	02/20/13 15:57	X	Okay
13-3598-WE81T	SR07-D02	*F Soil-32	02/20/13 16:07	X	Okay
13-3599-WE81U	SR07-D03	*F Soil-32	02/20/13 16:16	X	Okay
13-3600-WE81V	SR07-D04	*F Soil-32	02/20/13 16:29	X	Okay
13-3601-WE81W	SR07-D05	*F Soil-32	02/20/13 16:40	X	Okay
13-3602-WE81X	SR07-D06	*F Soil-32	02/20/13 16:27	X	Okay

# Sample ID Cross Reference Report



ARI Job No: WE81  
Client: Hart Crowser, Inc.  
Project Event: 17917-00  
Project Name: Saddle Rock

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. SR05-D01	WE81A	13-3579	Soil	02/21/13 07:00	02/25/13 13:10
2. SR05-D02	WE81B	13-3580	Soil	02/21/13 15:52	02/25/13 13:10
3. SR05-D03	WE81C	13-3581	Soil	02/21/13 15:19	02/25/13 13:10
4. SR05-D04	WE81D	13-3582	Soil	02/21/13 15:33	02/25/13 13:10
5. SR05-D05	WE81E	13-3583	Soil	02/21/13 15:43	02/25/13 13:10
6. SR05-D06	WE81F	13-3584	Soil	02/21/13 15:37	02/25/13 13:10
7. SR05-C01	WE81G	13-3585	Soil	02/21/13 16:21	02/25/13 13:10
8. SR05-C02	WE81H	13-3586	Soil	02/21/13 16:30	02/25/13 13:10
9. SR05-C03	WE81I	13-3587	Soil	02/22/13 09:41	02/25/13 13:10
10. SR06-D01	WE81J	13-3588	Soil	02/22/13 11:00	02/25/13 13:10
11. SR06-D02	WE81K	13-3589	Soil	02/22/13 11:15	02/25/13 13:10
12. SR06-D03	WE81L	13-3590	Soil	02/22/13 11:38	02/25/13 13:10
13. SR06-D04	WE81M	13-3591	Soil	02/22/13 12:05	02/25/13 13:10
14. SR06-D05	WE81N	13-3592	Soil	02/22/13 12:18	02/25/13 13:10
15. SR06-D06	WE81O	13-3593	Soil	02/22/13 11:44	02/25/13 13:10
16. SR06-C01	WE81P	13-3594	Soil	02/22/13 12:37	02/25/13 13:10
17. SR06-C02	WE81Q	13-3595	Soil	02/22/13 13:02	02/25/13 13:10
18. SR06-C03	WE81R	13-3596	Soil	02/22/13 13:24	02/25/13 13:10
19. SR07-D01	WE81S	13-3597	Soil	02/20/13 15:57	02/25/13 13:10
20. SR07-D02	WE81T	13-3598	Soil	02/20/13 16:07	02/25/13 13:10
21. SR07-D03	WE81U	13-3599	Soil	02/20/13 16:16	02/25/13 13:10
22. SR07-D04	WE81V	13-3600	Soil	02/20/13 16:29	02/25/13 13:10
23. SR07-D05	WE81W	13-3601	Soil	02/20/13 16:40	02/25/13 13:10
24. SR07-D06	WE81X	13-3602	Soil	02/20/13 16:27	02/25/13 13:10

**METALS SUMMARY-GRID 02/25/13**

Page 1 of 2



ARI Job No: **WE81**

Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: JM  
 Sample Set Used: Yes-490  
 Validatable Package: LV4

*clp - a*

PC: Kelly  
 VTSR: 02/25/13  
 Data Due PM: 03/10/13

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:  
 SDG No:

Named Metals List:

LIMS ID	ARI ID	CLIENT ID	MATRIX	TYPE	AG	AL	AS	AU	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	SR	TI	TL	V	ZN
13-3579	WE81A	SR05-D01	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3580	WE81B	SR05-D02	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3581	WE81C	SR05-D03	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3582	WE81D	SR05-D04	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3583	WE81E	SR05-D05	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3584	WE81F	SR05-D06	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3585	WE81G	SR05-C01	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3586	WE81H	SR05-C02	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3587	WE81I	SR05-C03	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3588	WE81J	SR06-D01	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3589	WE81K	SR06-D02	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3590	WE81L	SR06-D03	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3591	WE81M	SR06-D04	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3592	WE81N	SR06-D05	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3593	WE81O	SR06-D06	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3594	WE81P	SR06-C01	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3595	WE81Q	SR06-C02	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3596	WE81R	SR06-C03	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3597	WE81S	SR07-D01	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3598	WE81T	SR07-D02	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3599	WE81U	SR07-D03	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	

PM OK

*[Signature]*

Date

*2/24/13*

**METALS SUMMARY-GRID 02/25/13**

Page 2 of 2

Client: Hart Crowser, Inc.

Logged by: JM



ARI Job No: **WE81**

Project #: 17917-00

Project: Saddle Rock

LIMS ID	ARI ID	CLIENT ID	MATRIX	TYPE	AG	AL	AS	AU	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	SR	TI	TL	V	ZN
13-3600	WE81V	SR07-D04	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M						M	
13-3601	WE81W	SR07-D05	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M						M	
13-3602	WE81X	SR07-D06	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M						M	

24 Sample(s)

PM OK

*JM*

Date

*2/25/13*

**METALS SUMMARY 02/25/13**

Page 1 of 3



ARI Job No: **WE81**

Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: JM  
 Sample Set Used: Yes-490  
 Validatable Package: LV4

*clp 2*

PC: Kelly  
 VTSR: 02/25/13  
 Data Due PM: 03/10/13

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:  
 SDG No:

Metals Prep Special Instructions:  
 Metals Special Instructions:

See enclosed instructions  
 No enclosed instructions

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH
13-3579	WE81A	SR05-D01	02/21/13 07:00	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3580	WE81B	SR05-D02	02/21/13 15:52	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3581	WE81C	SR05-D03	02/21/13 15:19	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3582	WE81D	SR05-D04	02/21/13 15:33	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3583	WE81E	SR05-D05	02/21/13 15:43	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3584	WE81F	SR05-D06	02/21/13 15:37	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3585	WE81G	SR05-C01	02/21/13 16:21	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3586	WE81H	SR05-C02	02/21/13 16:30	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3587	WE81I	SR05-C03	02/22/13 09:41	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3588	WE81J	SR06-D01	02/22/13 11:00	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														

*clp - 2*  
*Special BL*  
*for #9*  
*0.01*  
*See Jay*  
*QC one*  
*sample*

CONTINUED ON NEXT PAGE....

PM OK

*JB* Date 2/25/13



METALS SUMMARY-LIST 02/25/13

Page 2 of 3

Client: Hart Crowser, Inc.

Logged by: JM



ARI Job No: WE81

Project #: 17917-00

Project: Saddle Rock

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH
13-3589	WE81K	SR06-D02	02/22/13 11:15	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3590	WE81L	SR06-D03	02/22/13 11:38	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3591	WE81M	SR06-D04	02/22/13 12:05	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3592	WE81N	SR06-D05	02/22/13 12:18	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3593	WE81O	SR06-D06	02/22/13 11:44	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3594	WE81P	SR06-C01	02/22/13 12:37	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3595	WE81Q	SR06-C02	02/22/13 13:02	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3596	WE81R	SR06-C03	02/22/13 13:24	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3597	WE81S	SR07-D01	02/20/13 15:57	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3598	WE81T	SR07-D02	02/20/13 16:07	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3599	WE81U	SR07-D03	02/20/13 16:16	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3600	WE81V	SR07-D04	02/20/13 16:29	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3601	WE81W	SR07-D05	02/20/13 16:40	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														

CONTINUED ON NEXT PAGE....

PM OK

*JB* Date 2/25/13

METALS SUMMARY-LIST 02/25/13

Page 3 of 3

Client: Hart Crowser, Inc.

Logged by: JM



ARI Job No: WE81

Project #: 17917-00

Project: Saddle Rock

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH
13-3602	WE81X	SR07-D06	02/20/13 16:27	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
								TOTALS:	24					

PM OK JM Date 2/25/13







# Cooler Receipt Form

ARI Client Hart Crouser

Project Name: Saddle Rock

COC No(s) \_\_\_\_\_ (NA)

Delivered by Fed-Ex UPS (Courier) Hand Delivered  Other \_\_\_\_\_

Assigned ARI Job No WEBZ

Tracking No \_\_\_\_\_ NA

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler?  YES  NO

Were custody papers included with the cooler?  YES  NO

Were custody papers properly filled out (ink, signed, etc) .  YES  NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) ... 5.1 1.9 1.9

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID# 90877952

Cooler Accepted by: \_\_\_\_\_ Date 2/25/13 Time: 1310

*Complete custody forms and attach all shipping documents*

**Log-In Phase:**

Was a temperature blank included in the cooler?  YES  NO

What kind of packing material was used? ... Bubble Wrap  Wet Ice  Gel Packs  Baggies  Foam Block  Paper  Other: \_\_\_\_\_

Was sufficient ice used (if appropriate)? ... NA  YES  NO

Were all bottles sealed in individual plastic bags?  YES  NO

Did all bottles arrive in good condition (unbroken)?  YES  NO

Were all bottle labels complete and legible?  YES  NO

Did the number of containers listed on COC match with the number of containers received?  YES  NO

Did all bottle labels and tags agree with custody papers?  YES  NO

Were all bottles used correct for the requested analyses?  YES  NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)  NA  YES  NO

Were all VOC vials free of air bubbles?  NA  YES  NO

Was sufficient amount of sample sent in each bottle?  YES  NO

Date VOC Trip Blank was made at ARI.  NA

Was Sample Split by ARI:  NA YES Date/Time \_\_\_\_\_ Equipment \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by JM Date: 2/25/13 Time: 1401

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

By \_\_\_\_\_ Date \_\_\_\_\_

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"



Inquiry Number: NONE  
Analysis Requested: 02/25/13  
Contact: McGinnis, Roger  
Client: Hart Crowser, Inc.  
Logged by: JM

Sample Set Used: Yes-490

COC/Cooler Rcpt Sent: \_\_\_\_\_

Acknow/Receipt Sent: \_\_\_\_\_

EDD Requested: \_\_\_\_\_

PC: Kelly  
VTSR: 02/25/13 13:10  
Data Due: 03/11/13

Project #: 17917-00  
Project: Saddle Rock  
Sample Site: *mide*  
SDG No:  
Analytical Protocol: In-house  
\_\_\_\_ See enclosed instructions  
\_\_\_\_ No enclosed instructions  
Cooler Temp: 1.9 - 5.1

Validatable Package: LV4

EDD Format:

Deliverables Require Spectra (Circle one): YES NO

J-flags required: YES NO

Special Instructions:

Disposal Approved in Advance: Yes

23 Sample(s)

ARI ID	Client ID	Matrix-Rtype	Sampling Date/Time	TOT MET	CONV	
13-3603-WE82A	SR07-C01 ✓	*F Soil-32	02/20/13 17:27 ✓	X		Okay
13-3604-WE82B	SR07-C02 ✓	*F Soil-32	02/20/13 17:36 ✓	X		Okay
13-3605-WE82C	SR08-D01 ✓	*F Soil-32	02/19/13 15:07 ✓	X	X	Okay
13-3606-WE82D	SR08-D02 ✓	*F Soil-32	02/19/13 15:20 ✓	X		Okay
13-3607-WE82E	SR08-D03 ✓	*F Soil-32	02/19/13 15:32 ✓	X		Okay
13-3608-WE82F	SR08-D04 ✓	*F Soil-32	02/19/13 16:10 ✓	X		Okay
13-3609-WE82G	SR08-D05 ✓	*F Soil-32	02/19/13 15:51 ✓	X		Okay
13-3610-WE82H	SR08-D06 ✓	*F Soil-32	02/19/13 16:02 ✓	X		Okay
13-3611-WE82I	SR08-C01 ✓	*F Soil-32	02/19/13 16:32 ✓	X		Okay
13-3612-WE82J	SR08-C02 ✓	*F Soil-32	02/19/13 17:02 ✓	X		Okay
13-3613-WE82K	SR08-C03 ✓	*F Soil-32	02/20/13 08:29 ✓	X		Okay
13-3614-WE82L	BG-D01 ✓	*F Soil-32	02/21/13 09:46 ✓	X		Okay
13-3615-WE82M	BG-D02 ✓	*F Soil-32	02/21/13 11:21 ✓	X		Okay

*2/25/13 4:14*



Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: JM

Sample Set Used: Yes-490

COC/Cooler Rcpt Sent: \_\_\_\_\_

Acknow/Receipt Sent: \_\_\_\_\_

EDD Requested: \_\_\_\_\_

PC: Kelly  
 VTSR: 02/25/13  
 Data Due: 03/11/13

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:  
 SDG No:  
 Analytical Protocol: In-house  
~~X~~ See enclosed instructions  
~~X~~ No enclosed instructions  
 Cooler Temp: 1.9 - 5.1

Validatable Package: LV4

EDD Format:

Deliverables Require Spectra (Circle one): YES NO

Special Instructions:  
 Disposal Approved in Advance: Yes

23 Sample(s)

ARI ID	Client ID	Matrix/Rtype	Sampling Date/Time	TOT MET	CONV
13-3616-WE82N	BG-D03	*F Soil-32	02/21/13 13:41	X	Okay
13-3617-WE82O	BG-D04	*F Soil-32	02/22/13 09:30	X	Okay
13-3618-WE82P	BG-D05	*F Soil-32	02/22/13 09:52	X	Okay
13-3619-WE82Q	BG-D06	*F Soil-32	02/22/13 10:25	X	Okay
13-3620-WE82R	BG-D07	*F Soil-32	02/20/13 16:35	X	Okay
13-3621-WE82S	BG-D08	*F Soil-32	02/22/13 10:55	X	Okay
13-3622-WE82T	BG-D09	*F Soil-32	02/22/13 15:03	X	Okay
13-3623-WE82U	BG-D10	*F Soil-32	02/20/13 16:07	X	Okay
13-3624-WE82V	BG-D11	*F Soil-32	02/20/13 15:38	X	Okay
13-3625-WE82W	BG-D12	*F Soil-32	02/22/13 14:40	X	Okay

# Sample ID Cross Reference Report



ARI Job No: WE82  
Client: Hart Crowser, Inc.  
Project Event: 17917-00  
Project Name: Saddle Rock

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. SR07-C01	WE82A	13-3603	Soil	02/20/13 17:27	02/25/13 13:10
2. SR07-C02	WE82B	13-3604	Soil	02/20/13 17:36	02/25/13 13:10
3. SR08-D01	WE82C	13-3605	Soil	02/19/13 15:07	02/25/13 13:10
4. SR08-D02	WE82D	13-3606	Soil	02/19/13 15:20	02/25/13 13:10
5. SR08-D03	WE82E	13-3607	Soil	02/19/13 15:32	02/25/13 13:10
6. SR08-D04	WE82F	13-3608	Soil	02/19/13 16:10	02/25/13 13:10
7. SR08-D05	WE82G	13-3609	Soil	02/19/13 15:51	02/25/13 13:10
8. SR08-D06	WE82H	13-3610	Soil	02/19/13 16:02	02/25/13 13:10
9. SR08-C01	WE82I	13-3611	Soil	02/19/13 16:32	02/25/13 13:10
10. SR08-C02	WE82J	13-3612	Soil	02/19/13 17:02	02/25/13 13:10
11. SR08-C03	WE82K	13-3613	Soil	02/20/13 08:29	02/25/13 13:10
12. BG-D01	WE82L	13-3614	Soil	02/21/13 09:46	02/25/13 13:10
13. BG-D02	WE82M	13-3615	Soil	02/21/13 11:21	02/25/13 13:10
14. BG-D03	WE82N	13-3616	Soil	02/21/13 13:41	02/25/13 13:10
15. BG-D04	WE82O	13-3617	Soil	02/22/13 09:30	02/25/13 13:10
16. BG-D05	WE82P	13-3618	Soil	02/22/13 09:52	02/25/13 13:10
17. BG-D06	WE82Q	13-3619	Soil	02/22/13 10:25	02/25/13 13:10
18. BG-D07	WE82R	13-3620	Soil	02/20/13 16:35	02/25/13 13:10
19. BG-D08	WE82S	13-3621	Soil	02/22/13 10:55	02/25/13 13:10
20. BG-D09	WE82T	13-3622	Soil	02/22/13 15:03	02/25/13 13:10
21. BG-D10	WE82U	13-3623	Soil	02/20/13 16:07	02/25/13 13:10
22. BG-D11	WE82V	13-3624	Soil	02/20/13 15:38	02/25/13 13:10
23. BG-D12	WE82W	13-3625	Soil	02/22/13 14:40	02/25/13 13:10



**METALS SUMMARY-GRID 02/25/13**

Page 1 of 2



ARI Job No: WE82

Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: JM  
 Sample Set Used: Yes-190  
 Validatable Package: LV4

*CLP-a*

PC: Kelly  
 VTSR: 02/25/13  
 Data Due PM: 03/10/13

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:  
 SDG No:

Named Metals List:

LIMS ID	ARI ID	CLIENT ID	MATRIX	TYPE	AG	AL	AS	AU	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	SR	TI	TL	V	ZN
13-3603	WE82A	SR07-C01	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3604	WE82B	SR07-C02	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3605	WE82C	SR08-D01	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3606	WE82D	SR08-D02	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3607	WE82E	SR08-D03	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3608	WE82F	SR08-D04	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3609	WE82G	SR08-D05	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3610	WE82H	SR08-D06	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3611	WE82I	SR08-C01	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3612	WE82J	SR08-C02	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3613	WE82K	SR08-C03	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3614	WE82L	BG-D01	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3615	WE82M	BG-D02	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3616	WE82N	BG-D03	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3617	WE82O	BG-D04	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3618	WE82P	BG-D05	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3619	WE82Q	BG-D06	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3620	WE82R	BG-D07	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3621	WE82S	BG-D08	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3622	WE82T	BG-D09	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	
13-3623	WE82U	BG-D10	Soil	TOT	M	I	M			I					M	I	C			I				M	M	M							M	

PM OK

Date

*2/25/13*

*Special*

*BH9*  
*BL*

**METALS SUMMARY-GRID 02/25/13**

Page 2 of 2

Client: Hart Crowser, Inc.

Logged by: JM



ARI Job No: WE82

Project #: 17917-00

Project: Saddle Rock

LIMS ID	ARI ID	CLIENT ID	MATRIX	TYPE	AG	AL	AS	AU	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	SR	TI	TL	V	ZN		
13-3624	WE82V	BG-D11	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M		
13-3625	WE82W	BG-D12	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M								M	

23 Sample(s)

*c/p-Q  
Special Hg BL  
0.01  
see say  
QC one  
sample*

PM OK

Date

*10 2/25/13*

METALS SUMMARY 02/25/13

Page 1 of 3



ARI Job No: WE82

Inquiry Number: NONE  
Analysis Requested: 02/25/13  
Contact: McGinnis, Roger  
Client: Hart Crowser, Inc.  
Logged by: JM  
Sample Set Used: Yes-490  
Validatable Package: LV4

*CLP - Q*

PC: Kelly  
VTSR: 02/25/13  
Data Due PM: 03/10/13

Project #: 17917-00  
Project: Saddle Rock  
Sample Site:  
SDG No:

Metals Prep Special Instructions:  
Metals Special Instructions:

See enclosed instructions  
 No enclosed instructions

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH
13-3603	WE82A	SR07-C01	02/20/13 17:27	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3604	WE82B	SR07-C02	02/20/13 17:36	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3605	WE82C	SR08-D01	02/19/13 15:07	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3606	WE82D	SR08-D02	02/19/13 15:20	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3607	WE82E	SR08-D03	02/19/13 15:32	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3608	WE82F	SR08-D04	02/19/13 16:10	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3609	WE82G	SR08-D05	02/19/13 15:51	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3610	WE82H	SR08-D06	02/19/13 16:02	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3611	WE82I	SR08-C01	02/19/13 16:32	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3612	WE82J	SR08-C02	02/19/13 17:02	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														

*CLP - Q*  
*Special BL for Jay*  
*see*  
*QC one sample*

CONTINUED ON NEXT PAGE....

PM OK *[Signature]* Date 2/25/13

**METALS SUMMARY-LIST 02/25/13**

Page 2 of 3

Client: Hart Crowser, Inc.

Logged by: JM



ARI Job No: WE82

Project #: 17917-00

Project: Saddle Rock

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH
13-3613	WE82K	SR08-C03	02/20/13 08:29	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3614	WE82L	BG-D01	02/21/13 09:46	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3615	WE82M	BG-D02	02/21/13 11:21	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3616	WE82N	BG-D03	02/21/13 13:41	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3617	WE82O	BG-D04	02/22/13 09:30	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3618	WE82P	BG-D05	02/22/13 09:52	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3619	WE82Q	BG-D06	02/22/13 10:25	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3620	WE82R	BG-D07	02/20/13 16:35	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3621	WE82S	BG-D08	02/22/13 10:55	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3622	WE82T	BG-D09	02/22/13 15:03	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3623	WE82U	BG-D10	02/20/13 16:07	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3624	WE82V	BG-D11	02/20/13 15:38	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3625	WE82W	BG-D12	02/22/13 14:40	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														

CONTINUED ON NEXT PAGE....

PM OK

*[Signature]*

Date

*2/25/13*

METALS SUMMARY-LIST 02/25/13

Page 3 of 3

Client: Hart Crowser, Inc.

Logged by: JM



ARI Job No: WE82

Project #: 17917-00

Project: Saddle Rock

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH		
TOTALS:								23								

PM OK JS Date 2/25/13

CONVENTIONAL SUMMARY-GRID

Page 1 of 1



ARI Job No: WE82

Inquiry Number: NONE  
Analysis Requested: 02/25/13  
Contact: McGinnis, Roger  
Client: Hart Crowser, Inc.  
Logged by: JM  
Sample Set Used: Yes-490  
Validatable Package: LV4

PC: Kelly  
VTSR: 02/25/13  
Data Due: 03/08/13

Project #: 17917-00  
Project: Saddle Rock  
Sample Site:  
SDG No:

Job	Matrix	pH	TCol	FCol	S2	SO4	NH3	NO2	NO3	NO23	TKN	TRB	CND	TS	TVS	TDS	VSS	TSS	TSP	ALK	CNT	CNA	WAD	CL	OPHS	TOTP	BOD	COD	TOC	OGT	OGNP	MISC
WE82C	Soil	X																								X						

1

1

Misc Tests:

Total Requests: 2

Total Samples: 1

2/25/13

CONVENTIONAL SUMMARY-LIST 02/25/13

Page 1 of 1




ARI Job No: WE82

Inquiry Number: NONE  
Analysis Requested: 02/25/13  
Contact: McGinnis, Roger  
Client: Hart Crowser, Inc.  
Logged by: JM  
Sample Set Used: Yes-490  
Validatable Package: LV4

PC: Kelly  
VTSR: 02/25/13  
Data Due: 03/08/13

Project #: 17917-00  
Project: Saddle Rock  
Sample Site:  
SDG No:

LIMS ID	ARI ID	CLIENT ID	MATRIX	SAMPLED	RTYPE	COMMENTS/INSTRUCTIONS
13-3605	WE82C	SR08-D01	Soil	02/19/13 15:07	32	Conventional Lab: NONE
		2 Test(s)				All Labs: Freeze
		Total Phosphorus	pH in Soil			

 Date 2/25/13





# Cooler Receipt Form

ARI Client Hart Crowser

Project Name: Saddle Rock

COC No(s) \_\_\_\_\_ (NA)

Delivered by Fed-Ex UPS (Courier) Hand Delivered Other \_\_\_\_\_

Assigned ARI Job No WES3

Tracking No \_\_\_\_\_ NA

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler?  YES  NO

Were custody papers included with the cooler?  YES  NO

Were custody papers properly filled out (ink, signed, etc) . . . . .  YES  NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) . . . . . 5.1 1.9 4.9

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID# 90877956

Cooler Accepted by: [Signature] Date 2/25/13 Time 1310

**Complete custody forms and attach all shipping documents**

**Log-In Phase:**

Was a temperature blank included in the cooler?  YES  NO

What kind of packing material was used? Bubble Wrap  Wet Ice  Gel Packs  Baggies  Foam Block  Paper Other: \_\_\_\_\_

Was sufficient ice used (if appropriate)? . . . . . NA  YES  NO

Were all bottles sealed in individual plastic bags? . . . . .  YES  NO

Did all bottles arrive in good condition (unbroken)? . . . . .  YES  NO

Were all bottle labels complete and legible? . . . . .  YES  NO

Did the number of containers listed on COC match with the number of containers received? . . . . .  YES  NO

Did all bottle labels and tags agree with custody papers? . . . . .  YES  NO

Were all bottles used correct for the requested analyses? . . . . .  YES  NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)  NA YES  NO

Were all VOC vials free of air bubbles? . . . . .  NA YES  NO

Was sufficient amount of sample sent in each bottle? . . . . .  YES  NO

Date VOC Trip Blank was made at ARI. . . . .  NA

Was Sample Split by ARI  NA YES Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_


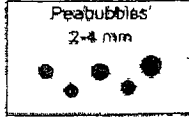
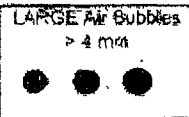
Samples Logged by JM Date: 2/25/13 Time: 1420

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

By: \_\_\_\_\_ Date: \_\_\_\_\_

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"



Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: JM

Sample Set Used: **Yes-490**

PC: Kelly  
 VTSR: 02/25/13 13:10  
 Data Due: 03/11/13

COC/Cooler Rcpt Sent: \_\_\_\_\_

Acknow/Receipt Sent: \_\_\_\_\_

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:  
 SDG No:  
 Analytical Protocol: In-house  
 See enclosed instructions  
 No enclosed instructions  
 Cooler Temp: 1.9 - 5.1

Validatable Package: LV4

EDD Requested: \_\_\_\_\_

EDD Format:  
 Deliverables Require Spectra (Circle one): YES NO

J-flags required: YES NO

Special Instructions:

Disposal Approved in Advance: Yes

10 Sample(s)

ARI ID	Client ID	Matrix-Rtype	Sampling Date/Time	TOT MET	
13-3626-WE83A	BG-D13 ✓	*F Soil-32	02/22/13 13:39	X	Okay
13-3627-WE83B	BG-D14 ✓	*F Soil-32	02/22/13 12:25	X	Okay
13-3628-WE83C	BG-D15 ✓	*F Soil-32	02/22/13 11:58	X	Okay
13-3629-WE83D	BG-D16 ✓	*F Soil-32	02/20/13 08:13	X	Okay
13-3630-WE83E	BG-D17 ✓	*F Soil-32	02/21/13 16:20	X	Okay
13-3631-WE83F	BG-D18 ✓	*F Soil-32	02/22/13 14:20	X	Okay
13-3632-WE83G	BG-D19 ✓	*F Soil-32	02/21/13 11:58	X	Okay
13-3633-WE83H	BG-D20 ✓	*F Soil-32	02/21/13 10:26	X	Okay
13-3634-WE83I	BG-D21 ✓	*F Soil-32	02/22/13 10:22	X	Okay
13-3635-WE83J	BG-D22 ✓	*F Soil-32	02/22/13 15:23	X	Okay

*mine*

*TR*

# Sample ID Cross Reference Report



ARI Job No: WE83  
Client: Hart Crowser, Inc.  
Project Event: 17917-00  
Project Name: Saddle Rock

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. BG-D13	WE83A	13-3626	Soil	02/22/13 13:39	02/25/13 13:10
2. BG-D14	WE83B	13-3627	Soil	02/22/13 12:25	02/25/13 13:10
3. BG-D15	WE83C	13-3628	Soil	02/22/13 11:58	02/25/13 13:10
4. BG-D16	WE83D	13-3629	Soil	02/20/13 08:13	02/25/13 13:10
5. BG-D17	WE83E	13-3630	Soil	02/21/13 16:20	02/25/13 13:10
6. BG-D18	WE83F	13-3631	Soil	02/22/13 14:20	02/25/13 13:10
7. BG-D19	WE83G	13-3632	Soil	02/21/13 11:58	02/25/13 13:10
8. BG-D20	WE83H	13-3633	Soil	02/21/13 10:26	02/25/13 13:10
9. BG-D21	WE83I	13-3634	Soil	02/22/13 10:22	02/25/13 13:10
10. BG-D22	WE83J	13-3635	Soil	02/22/13 15:23	02/25/13 13:10

**METALS SUMMARY-GRID 02/25/13**

Page 1 of 1



ARI Job No: **WE83**

Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: JM  
 Sample Set Used: Yes **790**  
 Validatable Package: **LV4**

PC: Kelly  
 VTSR: 02/25/13  
 Data Due PM: 03/10/13

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:  
 SDG No:

Named Metals List:

LIMS ID	ARI ID	CLIENT ID	MATRIX	TYPE	AG	AL	AS	AU	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	SR	TI	TL	V	ZN
13-3626	WE83A	BG-D13	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M
13-3627	WE83B	BG-D14	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M
13-3628	WE83C	BG-D15	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M
13-3629	WE83D	BG-D16	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M
13-3630	WE83E	BG-D17	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M
13-3631	WE83F	BG-D18	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M
13-3632	WE83G	BG-D19	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M
13-3633	WE83H	BG-D20	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M
13-3634	WE83I	BG-D21	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M
13-3635	WE83J	BG-D22	Soil	TOT	M	I	M			I					M		I	C			I				M	M	M							M

10 Sample(s)

*Handwritten notes:*  
 \* C/P-Q  
 Run 720  
 ms/Daps  
 Special Hg BL  
 0.01

PM OK

*Handwritten signature*  
 Date 2/25/13

METALS SUMMARY 02/25/13

Page 1 of 2



ARI Job No: WE83

Inquiry Number: NONE  
Analysis Requested: 02/25/13  
Contact: McGinnis, Roger  
Client: Hart Crowser, Inc.  
Logged by: JM  
Sample Set Used: Yes 490  
Validatable Package: LV4

*CLP-Q*

PC: Kelly  
VTSR: 02/25/13  
Data Due PM: 03/10/13

Project #: 17917-00  
Project: Saddle Rock  
Sample Site:  
SDG No:

Metals Prep Special Instructions:  
Metals Special Instructions:

~~X~~ See enclosed instructions  
~~X~~ No enclosed instructions

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH
13-3626	WE83A	BG-D13	02/22/13 13:39	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3627	WE83B	BG-D14	02/22/13 12:25	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3628	WE83C	BG-D15	02/22/13 11:58	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3629	WE83D	BG-D16	02/20/13 08:13	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3630	WE83E	BG-D17	02/21/13 16:20	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3631	WE83F	BG-D18	02/22/13 14:20	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3632	WE83G	BG-D19	02/21/13 11:58	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3633	WE83H	BG-D20	02/21/13 10:26	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3634	WE83I	BG-D21	02/22/13 10:22	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														
13-3635	WE83J	BG-D22	02/22/13 15:23	Soil	Okay	32	NA	X						
COMMENTS-ALL LABS: Freeze														

*CLP-Q sets of BL*  
*TWO*  
*Special Hg*  
*0.01*

CONTINUED ON NEXT PAGE....

PM OK *MB* Date 2/25/13

METALS SUMMARY-LIST 02/25/13

Page 2 of 2

Client: Hart Crowser, Inc.

Logged by: JM



ARI Job No: WE83

Project #: 17917-00

Project: Saddle Rock

LIMS ID	ARI ID	CLIENT ID	SAMP DATE	MATRIX	COND	RTYPE	FLD FILT	TOT MET	DISS MET	LEN MET	HARD	ORG LEN	CONV LEN	ALT MTH	
TOTALS:								10							

PM OK

*[Handwritten signature]*  
Date 2/25/13

# Sample Custody Record



Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

Samples Shipped to: ART

JOB <u>17917-00</u> LAB NUMBER _____ PROJECT NAME <u>SADDLE ROCK</u> HART CROWSER CONTACT <u>S. HUGHES</u> <u>A. CORNWELL, R. MCGINNIS</u> SAMPLED BY: <u>ARC, SF, NG</u>	REQUESTED ANALYSIS ARCHIVE	NO. OF CONTAINERS 1284	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
---	-------------------------------	---------------------------	--

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX																
	SR01-C01-D		2/18/13	1663	S	X															1
	SR01-C02-D		"	1728	"	X															1
	SR01-C03-D		2/19/13	0813	"	X															1
	SR02-C01-D		"	0952	"	X															1
	SR02-C02-D		"	1050	"	X															1
	SR02-C03-D		"	1128	"	X															1
	SR03-C01-D		2/20/13	1500	"	X															1
	SR03-C02-D		"	1210	"	X															1
	SR03-C03-D		"	1315	"	X															1
	SR04-C01-D		2/21/13	1146	"	X															1
	SR04-C02-D		"	1213	"	X															1
	SR04-C03-D		"	1226	"	X															1

RELINQUISHED BY	DATE	RECEIVED BY	DATE	SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:	12	TOTAL NUMBER OF CONTAINERS
	2/25/13		2/25/13			SAMPLE RECEIPT INFORMATION CUSTODY SEALS: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A GOOD CONDITION <input type="checkbox"/> YES <input type="checkbox"/> NO TEMPERATURE _____ SHIPMENT METHOD: <input type="checkbox"/> HAND <input type="checkbox"/> COURIER <input type="checkbox"/> OVERNIGHT
SIGNATURE	TIME	SIGNATURE	TIME			
PRINT NAME		PRINT NAME				
COMPANY	1202	COMPANY	1310			
RELINQUISHED BY	DATE	RECEIVED BY	DATE	COOLER NO.:	STORAGE LOCATION:	TURNAROUND TIME:
SIGNATURE	TIME	SIGNATURE	TIME	See Lab Work Order No. _____ for Other Contract Requirements		<input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK <input type="checkbox"/> 48 HOURS <input type="checkbox"/> STANDARD <input type="checkbox"/> 72 HOURS    OTHER <u>ARCHIVE</u>
PRINT NAME		PRINT NAME				
COMPANY		COMPANY				







# Cooler Receipt Form

ARI Client Hart Crowser

Project Name: Saddle rock

COC No(s) \_\_\_\_\_ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other:

Assigned ARI Job No WES4

Tracking No. \_\_\_\_\_ NA

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc) . . . . . YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) . . . . . \_\_\_\_\_

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID# 5.4 90877952

Cooler Accepted by: [Signature] Date: 2/25/13 Time: 1310

**Complete custody forms and attach all shipping documents**

**Log-In Phase:**

Was a temperature blank included in the cooler? . . . . . YES NO

What kind of packing material was used? . . . . . Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: \_\_\_\_\_

Was sufficient ice used (if appropriate)? . . . . . NA YES NO

Were all bottles sealed in individual plastic bags? . . . . . YES NO

Did all bottles arrive in good condition (unbroken)? . . . . . YES NO

Were all bottle labels complete and legible? . . . . . YES NO

Did the number of containers listed on COC match with the number of containers received? . . . . . YES NO

Did all bottle labels and tags agree with custody papers? . . . . . YES NO

Were all bottles used correct for the requested analyses? . . . . . YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) . . . . . NA YES NO

Were all VOC vials free of air bubbles? . . . . . NA YES NO

Was sufficient amount of sample sent in each bottle? . . . . . YES NO

Date VOC Trip Blank was made at ARI. . . . . NA \_\_\_\_\_

Was Sample Split by ARI: NA YES Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by [Signature] Date: 2-25-13 Time: 1430

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

By \_\_\_\_\_ Date: \_\_\_\_\_

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

**ANALYSIS SUMMARY 02/25/13**

Page 1 of 2



ARI Job No: **WE84**

Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: TS

Sample Set Used: **Yes-490**

PC: Kelly  
 VTSR: 02/25/13 13:10  
 Data Due: 03/11/13

COC/Cooler Rcpt Sent: \_\_\_\_\_

Acknow/Receipt Sent: \_\_\_\_\_

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:

Validatable Package: LV4

EDD Requested: \_\_\_\_\_

EDD Format:

Deliverables Require Spectra (Circle one): YES NO

J-flags required: YES NO

Special Instructions:

Disposal Approved in Advance: Yes

SDG No:  
 Analytical Protocol: In-house  
 \_\_\_\_\_ See enclosed instructions  
 \_\_\_\_\_ No enclosed instructions  
 Cooler Temp: 5.4

23 Sample(s)

ARI ID	Client ID	Matrix-Rtype	Sampling Date/Time	* ON * *HOLD*	Bottles on Hold	
13-3636-WE84A	SR01-C01-D	*F Soil-32	02/18/13 16:13	X	1	Okay
13-3637-WE84B	SR01-C02-D	*F Soil-32	02/18/13 17:28	X	1	Okay
13-3638-WE84C	SR01-C03-D	*F Soil-32	02/19/13 08:13	X	1	Okay
13-3639-WE84D	SR02-C01-D	*F Soil-32	02/19/13 09:52	X	1	Okay
13-3640-WE84E	SR02-C02-D	*F Soil-32	02/19/13 10:50	X	1	Okay
13-3641-WE84F	SR02-C03-D	*F Soil-32	02/19/13 11:28	X	1	Okay
13-3642-WE84G	SR03-C01-D	*F Soil-32	02/20/13 11:00	X	1	Okay
13-3643-WE84H	SR03-C02-D	*F Soil-32	02/20/13 12:10	X	1	Okay
13-3644-WE84I	SR03-C03-D	*F Soil-32	02/20/13 13:15	X	1	Okay
13-3645-WE84J	SR04-C01-D	*F Soil-32	02/21/13 11:46	X	1	Okay
13-3646-WE84K	SR04-C02-D	*F Soil-32	02/21/13 12:13	X	1	Okay
13-3647-WE84L	SR04-C03-D	*F Soil-32	02/21/13 12:26	X	1	Okay
13-3648-WE84M	SR05-C01-D	*F Soil-32	02/21/13 16:05	X	1	Okay

**ANALYSIS SUMMARY 02/25/13**

Page 2 of 2



ARI Job No: **WE84**

Inquiry Number: NONE  
 Analysis Requested: 02/25/13  
 Contact: McGinnis, Roger  
 Client: Hart Crowser, Inc.  
 Logged by: TS

Sample Set Used: **Yes-490**

PC: Kelly  
 VTSR: 02/25/13  
 Data Due: 03/11/13

COC/Cooler Rcpt Sent: \_\_\_\_\_

Acknow/Receipt Sent: \_\_\_\_\_

Project #: 17917-00  
 Project: Saddle Rock  
 Sample Site:

Validatable Package: LV4

EDD Requested: \_\_\_\_\_

EDD Format:

Deliverables Require Spectra (Circle one): YES NO

SDG No:  
 Analytical Protocol: In-house  
 \_\_\_\_\_ See enclosed instructions  
 \_\_\_\_\_ No enclosed instructions  
 Cooler Temp: 5.4

Special Instructions:  
 Disposal Approved in Advance: Yes

23 Sample(s)

ARI ID	Client ID	Matrix/Rtype	Sampling Date/Time	* ON * *HOLD*	Bottles on Hold	
13-3649-WE84N	SR05-C02-D	*F Soil-32	02/21/13 16:25	X	1	Okay
13-3650-WE84O	SR05-C03-D	*F Soil-32	02/22/13 09:19	X	1	Okay
13-3651-WE84P	SR06-C01-D	*F Soil-32	02/22/13 12:27	X	1	Okay
13-3652-WE84Q	SR06-C02-D	*F Soil-32	02/22/13 12:45	X	1	Okay
13-3653-WE84R	SR06-C03-D	*F Soil-32	02/22/13 13:10	X	1	Okay
13-3654-WE84S	SR07-C01-D	*F Soil-32	02/20/13 17:25	X	1	Okay
13-3655-WE84T	SR07-C02-D	*F Soil-32	02/20/13 17:30	X	1	Okay
13-3656-WE84U	SR08-C01-D	*F Soil-32	02/19/13 16:42	X	1	Okay
13-3657-WE84V	SR08-C02-D	*F Soil-32	02/19/13 16:59	X	1	Okay
13-3658-WE84W	SR08-C03-D	*F Soil-32	02/20/13 08:00	X	1	Okay

# Sample ID Cross Reference Report



ARI Job No: WE84  
Client: Hart Crowser, Inc.  
Project Event: 17917-00  
Project Name: Saddle Rock

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. SR01-C01-D	WE84A	13-3636	Soil	02/18/13 16:13	02/25/13 13:10
2. SR01-C02-D	WE84B	13-3637	Soil	02/18/13 17:28	02/25/13 13:10
3. SR01-C03-D	WE84C	13-3638	Soil	02/19/13 08:13	02/25/13 13:10
4. SR02-C01-D	WE84D	13-3639	Soil	02/19/13 09:52	02/25/13 13:10
5. SR02-C02-D	WE84E	13-3640	Soil	02/19/13 10:50	02/25/13 13:10
6. SR02-C03-D	WE84F	13-3641	Soil	02/19/13 11:28	02/25/13 13:10
7. SR03-C01-D	WE84G	13-3642	Soil	02/20/13 11:00	02/25/13 13:10
8. SR03-C02-D	WE84H	13-3643	Soil	02/20/13 12:10	02/25/13 13:10
9. SR03-C03-D	WE84I	13-3644	Soil	02/20/13 13:15	02/25/13 13:10
10. SR04-C01-D	WE84J	13-3645	Soil	02/21/13 11:46	02/25/13 13:10
11. SR04-C02-D	WE84K	13-3646	Soil	02/21/13 12:13	02/25/13 13:10
12. SR04-C03-D	WE84L	13-3647	Soil	02/21/13 12:26	02/25/13 13:10
13. SR05-C01-D	WE84M	13-3648	Soil	02/21/13 16:05	02/25/13 13:10
14. SR05-C02-D	WE84N	13-3649	Soil	02/21/13 16:25	02/25/13 13:10
15. SR05-C03-D	WE84O	13-3650	Soil	02/22/13 09:19	02/25/13 13:10
16. SR06-C01-D	WE84P	13-3651	Soil	02/22/13 12:27	02/25/13 13:10
17. SR06-C02-D	WE84Q	13-3652	Soil	02/22/13 12:45	02/25/13 13:10
18. SR06-C03-D	WE84R	13-3653	Soil	02/22/13 13:10	02/25/13 13:10
19. SR07-C01-D	WE84S	13-3654	Soil	02/20/13 17:25	02/25/13 13:10
20. SR07-C02-D	WE84T	13-3655	Soil	02/20/13 17:30	02/25/13 13:10
21. SR08-C01-D	WE84U	13-3656	Soil	02/19/13 16:42	02/25/13 13:10
22. SR08-C02-D	WE84V	13-3657	Soil	02/19/13 16:59	02/25/13 13:10
23. SR08-C03-D	WE84W	13-3658	Soil	02/20/13 08:00	02/25/13 13:10

Table of Contents: ARI Job WE79

Client: Hart Crowser, Inc.

Project: 17917-00 Saddle Rock

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AV  
Signature

March-04-2013  
Date



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

March 6, 2013

Steve Hughes  
Hart Crowser, Inc.  
1700 Westlake Avenue N. Suite 200  
Seattle, WA 98109-3256

**RE: Client Project: Upper Columbia 17917-00**  
**ARI Job No. WE79**

Dear Steve:

Please find enclosed the chain of custody documentation and data package for samples from the project referenced above

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

A handwritten signature in black ink, appearing to read "Kelly Bottem".

Kelly Bottem  
Client Services Manager  
kellyb@arilabs.com  
206/695-6211

Enclosures

cc: eFile WE79

KFB/kfb

**Chain of Custody Documentation**

**ARI Job ID: WE79**

# Sample Custody Record

Samples Shipped to: ART



Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

JOB <u>17917-00</u> LAB NUMBER _____ PROJECT NAME <u>SADDLE ROCK</u> HART CROWSER CONTACT <u>S. HUGHES</u> <u>R. McGinnis, A. Conroy</u> SAMPLED BY: <u>A. ST. NG</u>						REQUESTED ANALYSIS METALS TOTAL SOLIDS pH										NO. OF CONTAINERS  <u>1</u>	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS  <u>WCT9</u>	
LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX													
	SRO1-001		2/18/13	1625	S	X	X	X										
	SRO1-002		"	1552	"	X	X	X										
	SRO1-003		"	1651	"	X	X	X										
	SRO1-004		"	1711	"	X	X	X										
	SRO1-005		"	1731	"	X	X	X										
	SRO1-006		"	1655	"	X	X	X										
	SRO1-C01		"	1728	"	X	X	X										
	SRO1-C02		"	1828	"	X	X	X										
	SRO1-C03		2/19/13	0800	"	X	X	X										
	SRO2-001		"	1053	"	X	X	X										
	SRO2-002		"	1032	"	X	X	X										
	SRO2-003		"	1014	"	X	X	X										
RELINQUISHED BY  SIGNATURE <u>Anne Conroy</u> PRINT NAME <u>Hart Crowser</u> COMPANY		DATE <u>2/25/13</u> TIME <u>1016</u>	RECEIVED BY  SIGNATURE <u>Rich Hudson</u> PRINT NAME <u>AR1</u> COMPANY		DATE <u>2/25/13</u> TIME <u>1310</u>	SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS: <u>LEVEL II DATA PACKAGE</u>										12 TOTAL NUMBER OF CONTAINERS	SAMPLE RECEIPT INFORMATION CUSTODY SEALS: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A GOOD CONDITION <input type="checkbox"/> YES <input type="checkbox"/> NO TEMPERATURE _____ SHIPMENT METHOD: <input type="checkbox"/> HAND <input type="checkbox"/> COURIER <input type="checkbox"/> OVERNIGHT	
RELINQUISHED BY SIGNATURE PRINT NAME COMPANY		DATE TIME	RECEIVED BY SIGNATURE PRINT NAME COMPANY		DATE TIME	COOLER NO.: _____ STORAGE LOCATION: _____  See Lab Work Order No. _____ for Other Contract Requirements										TURNAROUND TIME: <input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK <input type="checkbox"/> 48 HOURS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> 72 HOURS    OTHER _____		



# Sample Custody Record

2 of 4



Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

Samples Shipped to: ARF

JOB <u>17917-00</u> LAB NUMBER _____ PROJECT NAME <u>SADDLE ROCK</u> HART CROWSER CONTACT <u>S. HUGHERS</u> <u>R. McGinnis, A. Carrero</u> SAMPLED BY: <u>A, NG, SF</u>	REQUESTED ANALYSIS METALS TOTAL SOLIDS PH	NO. OF CONTAINERS  <u>1</u>	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS  <u>DE79</u>
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LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	METALS	TOTAL SOLIDS	PH	NO. OF CONTAINERS
	SRO2-004		2/19/13	0953	S	X	X		1
	SRO2-005		"	0919	"	X	X		1
	SRO2-006		"	1118	"	X	X		1
	SRO2-007		"	1130	"	X	X		1
	SRO2-008		"	1153	"	X	X		1
	SRO2-009		"	1214	"	X	X		1
	SRO2-010		"	1219	"	X	X		1
	SRO2-011		"	1044	"	X	X		1
	SRO2-C01		"	1020	"	X	X		1
	SRO2-C02		"	1103	"	X	X		1
	SRO2-C03		"	1137	"	X	X		1
	SRO3-001		2/20/13	0943	"	X	X		1

RELINQUISHED BY	DATE	RECEIVED BY	DATE	SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:	TOTAL NUMBER OF CONTAINERS
	2/25/13		2/25/13	LEVEL IV DATA PACKAGE	12
SIGNATURE	TIME	SIGNATURE	TIME		
PRINT NAME		PRINT NAME		COOLER NO.: _____ STORAGE LOCATION: _____  See Lab Work Order No. _____ for Other Contract Requirements	SAMPLE RECEIPT INFORMATION CUSTODY SEALS: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A GOOD CONDITION <input type="checkbox"/> YES <input type="checkbox"/> NO TEMPERATURE _____ SHIPMENT METHOD: <input type="checkbox"/> HAND <input type="checkbox"/> COURIER <input type="checkbox"/> OVERNIGHT
COMPANY		COMPANY			
RELINQUISHED BY	DATE	RECEIVED BY	DATE	TURNAROUND TIME: <input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK <input type="checkbox"/> 48 HOURS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> 72 HOURS    OTHER _____	
SIGNATURE	TIME	SIGNATURE	TIME		
PRINT NAME		PRINT NAME			
COMPANY		COMPANY			



# Cooler Receipt Form

ARI Client: Hart Crowser

Project Name: Saddle Rock

COC No(s): \_\_\_\_\_ (NA)

Delivered by: Fed-Ex UPS (Courier) Hand Delivered Other: \_\_\_\_\_

Assigned ARI Job No: WE79

Tracking No: \_\_\_\_\_ NA

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler? (YES) NO

Were custody papers included with the cooler? (YES) NO

Were custody papers properly filled out (ink, signed, etc.) (YES) NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 5.1 1.9 4.9

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90877952

Cooler Accepted by: [Signature] Date: 2/25/13 Time: 1310

*Complete custody forms and attach all shipping documents*

**Log-In Phase:**

Was a temperature blank included in the cooler? ..... YES (NO)

What kind of packing material was used? ... Bubble Wrap (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other: \_\_\_\_\_

Was sufficient ice used (if appropriate)? ..... NA (YES) NO

Were all bottles sealed in individual plastic bags? ..... (YES) NO

Did all bottles arrive in good condition (unbroken)? ..... (YES) NO

Were all bottle labels complete and legible? ..... (YES) NO

Did the number of containers listed on COC match with the number of containers received? ..... (YES) NO

Did all bottle labels and tags agree with custody papers? ..... (YES) NO

Were all bottles used correct for the requested analyses? ..... (YES) NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... (NA) YES NO

Were all VOC vials free of air bubbles? ..... (NA) YES NO

Was sufficient amount of sample sent in each bottle? ..... (YES) NO

Date VOC Trip Blank was made at ARI..... (NA)

Was Sample Split by ARI: (NA) YES Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by: JM Date: 2/25/13 Time: 1340

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

By: \_\_\_\_\_ Date: \_\_\_\_\_



Small → "sm"  
Peabubbles → "pb"  
Large → "lg"  
Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WE79



**Case Narrative**

**Project: 17917-00**

**ARI Job No.: WE79**

**March 6, 2013**

**Sample Receipt:**

Please find enclosed the original chain of custody (COC) record and analytical results for the project referenced above. Analytical Resources, Inc. accepted twenty four soil samples in good condition on February 25, 2013. The samples were received with cooler temperatures between 4.9 and 5.1°C. Please see the Cooler Receipt Form for further details.

**Total Metals by 200.8, 6010C and 7471A**

The samples were digested on 2/26/13 and analyzed between 2/27/13 and 2/28/13 within the method recommended holding time.

***Initial calibration (s):*** All analytes were within method acceptance criteria.

***Continuing calibration (s):*** All analytes were within method acceptance criteria.

***Samples:*** No anomalies were encountered for these samples.

***Method Blank:*** The method blanks were free of contamination.

***LCS:*** Is in control.

***Matrix spike/Sample Duplicate/RPD:*** The matrix spikes in association with sample SR01-D01 is out of control low for antimony and mercury. No further corrective action was taken.

**Conventional Chemistry Parameters**

The samples were analyzed on 2/28/13 within the method recommended holding times.

***Initial calibration (s):*** All analytes were within method acceptance criteria.

***Continuing calibration (s):*** All analytes of interest were within method acceptance criteria.

***Samples:*** There were no anomalies with these samples.

***SRM/ LCS/ Sample Replicates:*** All percent recoveries and RPDs were in control.

# Sample ID Cross Reference Report



ARI Job No: WE79  
Client: Hart Crowser, Inc.  
Project Event: 17917-00  
Project Name: Saddle Rock

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. SR01-D01	WE79A	13-3533	Soil	02/18/13 16:25	02/25/13 13:10
2. SR01-D02	WE79B	13-3534	Soil	02/18/13 15:52	02/25/13 13:10
3. SR01-D03	WE79C	13-3535	Soil	02/18/13 16:51	02/25/13 13:10
4. SR01-D04	WE79D	13-3536	Soil	02/18/13 17:11	02/25/13 13:10
5. SR01-D05	WE79E	13-3537	Soil	02/18/13 17:31	02/25/13 13:10
6. SR01-D06	WE79F	13-3538	Soil	02/18/13 16:55	02/25/13 13:10
7. SR01-C01	WE79G	13-3539	Soil	02/18/13 17:28	02/25/13 13:10
8. SR01-C02	WE79H	13-3540	Soil	02/18/13 18:28	02/25/13 13:10
9. SR01-C03	WE79I	13-3541	Soil	02/19/13 08:00	02/25/13 13:10
10. SR02-D01	WE79J	13-3542	Soil	02/19/13 10:53	02/25/13 13:10
11. SR02-D02	WE79K	13-3543	Soil	02/19/13 10:32	02/25/13 13:10
12. SR02-D03	WE79L	13-3544	Soil	02/19/13 10:14	02/25/13 13:10
13. SR02-D04	WE79M	13-3545	Soil	02/19/13 09:53	02/25/13 13:10
14. SR02-D05	WE79N	13-3546	Soil	02/19/13 09:19	02/25/13 13:10
15. SR02-D06	WE79O	13-3547	Soil	02/19/13 11:18	02/25/13 13:10
16. SR02-D07	WE79P	13-3548	Soil	02/19/13 11:30	02/25/13 13:10
17. SR02-D08	WE79Q	13-3549	Soil	02/19/13 11:53	02/25/13 13:10
18. SR02-D09	WE79R	13-3550	Soil	02/19/13 12:14	02/25/13 13:10
19. SR02-D10	WE79S	13-3551	Soil	02/19/13 12:19	02/25/13 13:10
20. SR02-D11	WE79T	13-3552	Soil	02/19/13 10:44	02/25/13 13:10
21. SR02-C01	WE79U	13-3553	Soil	02/19/13 10:20	02/25/13 13:10
22. SR02-C02	WE79V	13-3554	Soil	02/19/13 11:03	02/25/13 13:10
23. SR02-C03	WE79W	13-3555	Soil	02/19/13 11:37	02/25/13 13:10
24. SR03-D01	WE79X	13-3556	Soil	02/20/13 09:43	02/25/13 13:10



## Data Reporting Qualifiers

Effective 2/14/2011

### Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- \* Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but  $\geq$  the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is  $\leq 5$  times the Reporting Limit and the replicate control limit defaults to  $\pm 1$  RL instead of the normal 20% RPD

### Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- \* Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria ( $< 20\%$  RSD,  $< 20\%$  Drift or minimum RRF).



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- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
- NA The flagged analyte was not analyzed for
- NR Spiked compound recovery is not reported due to chromatographic interference
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
- EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by  $\geq 40\%$  RPD with no obvious chromatographic interference
- X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**
- Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**



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### **Geotechnical Data**

- A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
- F Samples were frozen prior to particle size determination
- SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
- SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
- W Weight of sample in some pipette aliquots was below the level required for accurate weighting





Quality Control Parameters for Mercury Analysis using CVAA EPA Methods 7470A or 245.1 for Aqueous Samples EPA Methods 7471B or 245.5 for Solid Samples						
	Aqueous Samples <sup>2</sup>			Spike Recovery		RPD <sup>5</sup>
	DL <sup>1</sup> µg/L	LOD <sup>1</sup> µg/L	LOQ <sup>1</sup> µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	0.10 <sup>2</sup>	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	0.02 <sup>2</sup>	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			Spike Recovery		RPD <sup>5</sup>
	DL <sup>1</sup> mg/kg	LOD <sup>1</sup> mg/kg	LOQ <sup>1</sup> mg/kg	Matrix Spike	LCS	
Mercury	0.0021	0.0125	0.025 <sup>3</sup>	75 – 125	80 – 120	≤ 20
	Tissue Samples			Spike Recovery		RPD <sup>5</sup>
	DL <sup>1</sup> mg/kg	LOD <sup>1</sup> mg/kg	LOQ <sup>1</sup> mg/kg	Matrix Spike	LCS	
Mercury	0.0021	0.0125	0.005 <sup>4</sup>	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S

(2) 20 mL sample with 20 mL final volume

(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.

(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.

(5) Relative Percent Difference between analytes in replicate analyzes. If C<sub>O</sub> and C<sub>D</sub> are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_o - C_d|}{\frac{C_o + C_d}{2}} \times 100$$



**Quality Control Parameters for Metals Analysis ICP-MS EPA  
Methods 200.8 or 6020A**

Analyte	Mass	Aqueous Samples <sup>2</sup>			Spike Recovery		RPD <sup>3</sup>	Solids <sup>2</sup>
		DL <sup>1</sup> µg/L	LOD <sup>1</sup> µg/L	LOQ <sup>1</sup> µg/L	Matrix Spike	LCS		LOQ <sup>1</sup> mg/kg
Aluminum	27	1.601	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Antimony	121	0.010	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
	123	0.011	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Arsenic #1	75	0.048	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Arsenic #2	75	0.092	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Barium	135	0.020	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	137	0.019	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Beryllium	9	0.021	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Cadmium	111	0.010	0.05	0.1	75 – 125	80 – 120	≤ 20	0.1
	114	0.005	0.05	0.1	75 – 125	80 – 120	≤ 20	0.1
Calcium	43	3.983	25	50.0	75 – 125	80 – 120	≤ 20	50.0
Chromium	52	0.045	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	53	0.118	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Cobalt	59	0.011	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Copper	63	0.158	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	65	0.236	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Iron	54	5.753	10	20.0	75 – 125	80 – 120	≤ 20	20.0
	57	3.876	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Lead	208	0.046	0.05	0.1	75 – 125	80 – 120	≤ 20	0.1
Magnesium	24	0.297	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Manganese	55	0.022	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Molybdenum	98	0.013	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Nickel	60	0.079	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	62	0.089	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Potassium	39	2.944	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Selenium	82	0.127	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	78	0.324	0.25	2.0	75 – 125	80 – 120	≤ 20	2.0
Silver	107	0.008	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Sodium	23	2.833	50	100.0	75 – 125	80 – 120	≤ 20	100.0
Thorium <sup>4</sup>	232	0.013	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Thallium	205	0.004	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Uranium <sup>4</sup>	238	0.003	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Vanadium	51	0.043	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Zinc	66	0.497	2	4.0	75 – 125	80 – 120	≤ 20	4.0
	67	0.531	2	4.0	75 – 125	80 – 120	≤ 20	4.0
	68	0.524	2	4.0	75 – 125	80 – 120	≤ 20	4.0

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S  
 (2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.

(3) Relative Percent Difference in replicate analyzes.  $RPD = \frac{|C_o - C_D|}{\frac{C_o + C_D}{2}} \times 100$  where C<sub>o</sub>=Original, C<sub>D</sub>=Duplicate

(4) ARI has no accreditation for these elements.



**Quality Control Parameters for Metals Analysis-ICP-OES  
EPA Methods 200.7 and 6010C**

Analyte	Aqueous Samples <sup>2</sup>			Spike Recovery		RPD <sup>5</sup>	Solids <sup>3</sup>	Tissue <sup>4</sup>
	DL <sup>1</sup> µg/L	LOD <sup>1</sup> µg/L	LOQ <sup>1</sup> µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Antimony	6.28	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Arsenic	3.33	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Barium	1.33	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Beryllium	0.16	0.5	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Boron	7.39	10	20	75 – 125	80 – 120	≤ 20	2.0	0.4
Cadmium	0.18	0.5	2.0	75 – 125	80 – 120	≤ 20	0.2	0.04
Calcium	11.27	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Chromium	1.24	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.1
Cobalt	0.27	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Copper	0.92	1.0	2.0	75 – 125	80 – 120	≤ 20	0.2	0.04
Iron	7.50	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Lead	1.55	10	20	75 – 125	80 – 120	≤ 20	2.0	0.4
Magnesium	9.61	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Manganese	0.28	0.5	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Molybdenum	0.79	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.1
Nickel	3.86	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2
Potassium	65.70	250	500	75 – 125	80 – 120	≤ 20	50	10
Selenium	4.99	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Silicon	8.17	30	60	75 – 125	80 – 120	≤ 20	(6)	(6)
Silver	0.43	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Sodium	11.35	250	500	75 – 125	80 – 120	≤ 20	50	10
Strontium	0.09	1.0	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Thallium	3.10	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Tin	1.41	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2
Titanium	2.11	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.01
Vanadium	0.27	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Zinc	1.45	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S

(2) 50 mL sample and 50 mL final volume

(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.

(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.

(5) Relative Percent Difference between analytes in replicate analyzes. If C<sub>O</sub> and C<sub>D</sub> are the concentrations of the

original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} \times 100$$

(6) ARI does not analyze for Silicon in solids or tissue samples



## MDL/RL Summary for Conventional Analyses

MDL's and reporting limits are updated periodically. Assure you are using ARI's current detection limits by downloading the files at the time of use: <http://www.arilabs.com/portal/downloads/ARI-MDLs.zip>

Analyte	ARI SOP	MDL Date	Spike Level (ppm)	MDL (ppm)	RL (ppm unless noted)	
					Water	Soil <sup>(4)</sup>
Alkalinity	604S	8/11/11	10	0.37	2.0	NA
Ammonia (Auto. Phenate)	615S	8/10/11	0.01	0.021	0.04	0.1
Ammonia (ISE)	616S	1/8/09	0.5	0.122	0.1	5.0
BOD	605S			NA	1.0	NA
Cation Exchange Capacity	607S			NA	NA	1 meq/100g
Chloride	612S	8/10/11	0.50	0.049	1.0	10.0
Chlorophyll a	608S			NA	1.0	NA
Chromium, Hexavalent	614S	8/10/11	0.050	0.050	0.04	0.1
COD	609S	8/10/11	25	9.81	20	NA
Coliform (total, fecal)	628S			NA	1 CFU/100 mL	NA
Color	610S			NA	5 Pt-Co Units	NA
Conductivity - Orion Meter	611S	1/9/09	3 $\mu$ S	0.28 $\mu$ S	1.0 $\mu$ S	1.0 $\mu$ S
Cyanide	601S	8/10/11	0.02	0.0025	0.005	0.25
Cyanide WAD	601S	1/9/09	0.005	0.001	0.005	0.25
Dissolved Oxygen	632S			NA	0.1	NA
Fluoride (ISE)	623S	1/9/09	0.5	0.20	0.1	1.0
Hardness	626S			NA	0.33 <sup>(1)</sup>	NA
Iron (II), Ferrous	600S	1/9/09	0.050	0.003	0.04	NA
Nitrate	617S			NA	0.01	0.1
Nitrite	617S	8/10/11	0.015	0.009	0.019	0.1
Nitrate+Nitrite	617S	8/10/11	0.015	0.014	0.028	0.1
HEM Method 1664	648S	8/10/11	12.1	2.29	5.0	500 <sup>(2)</sup>
SGT-HEM Method 1664	648S	8/10/11	4.0	2.16	5.0	500 <sup>(2)</sup>
pH	618S			NA	0.01 Units	0.05 Units
Phenols	633S	12/30/08	0.06	0.035	0.04	0.4
Phosphorous (Total)	631S	8/10/11	0.05	0.018	0.036	0.4
Phosphorous (Ortho)	631S	8/10/11	0.01	0.0035	0.0069	0.04
Salinity	635S			NA	0.1 (g/Kg)	NA



## MDL/RL Summary for Conventional Analyses

MDL's and reporting limits are updated periodically. Assure you are using ARI's current detection limits by downloading the files at the time of use: <http://www.arilabs.com/portal/downloads/ARI-MDLs.zip>

Analyte	ARI SOP	MDL Date	Spike Level (ppm)	MDL (ppm)	RL (ppm unless noted)	
					Water	Soil <sup>(4)</sup>
Sulfide - Method 376.2	640S	4/12/07	0.15	0.026	0.05	1.0
Sulfide (Acid Volatile)	640S	1/29/07	0.014	0.045	0.135	1.0
Sulfide (PSEP)	640S	1/29/09	0.25	0.348	0.45	1.0
Sulfide (EPA Method 9030)	640S	1/6/09	0.5	0.10	0.30	1.0
Sulfate	637S	8/10/11	3.0	3.34	6.7	20.0
Sulfite	641S	4/3/08	5.0	1.4	2.0 <sup>(5)</sup>	NA
TIC – Inorganic Carbon		1/11/08	5.0	0.434	1.5	NA
TKN (EPA Method 351.4 – ISE)	642S	8/10/11	0.6	0.54	0.8	0.8
TKN (EPA Method 351.2 – FIA)	654S				0.3	0.3
TOC - Aqueous	602S	8/10/11	1.00	0.79	1.5	NA
TOC – Solid <sup>(3)</sup>	602S	8/10/11	0.005%	0.0047%	NA	0.01%
Total Solids	639S			NA	5.0	0.01%
Total Suspended Solids	639S	8/10/11		0.4	1.0	NA
Total Dissolved Solids	639S	8/10/11		23.2	46	NA
Total Volatile Solids	639S			NA	5.0	0.01%
Total Settleable Solids	639S			NA	0.1	NA
Turbidity	643S			NA	0.05 NTU	NA

Method Detection Limit (MDL) studies are performed in accordance with 40 CFR Part 136, Appendix B. Reporting Limit (RL) is defined as the lowest value at which qualitative detection of a given analyte is reported. The RL is based on the MDL, method efficiency, and analyte response.

- (1) Calculated using Ca and Mg RL from ICP analyses of water.
- (2) HEM Reporting Limit based on a 10 g sample size
- (3) TOC MDL study performed using muffled (500°C for 1 hr) Ottawa sand.
- (4) RL assumes 100% solids
- (5) An RL for sulfite is calculated for each analytical batch using blank data and is typically between 1 and 2 ppm.

Metals Analysis  
Report and Summary QC Forms

ARI Job ID: WE79

**Cover Page**  
**INORGANIC ANALYSIS DATA PACKAGE**



CLIENT: Hart Crowser, Inc.  
PROJECT: Saddle Rock  
SDG: WE79

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SR01-D01	WE79A	13-3533	
SR01-D01D	WE79ADUP	13-3533	
SR01-D01S	WE79ASPK	13-3533	
SR01-D02	WE79B	13-3534	
PBS	WE79MB1	13-3534	
LCSS	WE79MB1SPK	13-3534	
SR01-D03	WE79C	13-3535	
SR01-D04	WE79D	13-3536	
SR01-D05	WE79E	13-3537	
SR01-D06	WE79F	13-3538	
SR01-C01	WE79G	13-3539	
SR01-C02	WE79H	13-3540	
SR01-C03	WE79I	13-3541	
SR02-D01	WE79J	13-3542	
SR02-D02	WE79K	13-3543	
SR02-D03	WE79L	13-3544	
SR02-D04	WE79M	13-3545	
SR02-D05	WE79N	13-3546	
SR02-D06	WE79O	13-3547	
SR02-D07	WE79P	13-3548	
SR02-D08	WE79Q	13-3549	

Were ICP interelement corrections applied ?                      Yes/No    YES  
Were ICP background corrections applied ?                      Yes/No    YES  
If yes - were raw data generated before  
application of background corrections ?                      Yes/No    NO

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature:                       Name: Jay Kuhn

Date: 3/4/13                      Title: Inorganics Director

# Cover Page

## INORGANIC ANALYSIS DATA PACKAGE



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

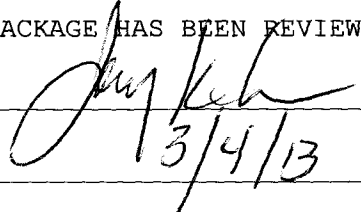
SDG: WE79

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SR02-D09	WE79R	13-3550	
SR02-D10	WE79S	13-3551	
SR02-D11	WE79T	13-3552	
PBS	WE79MB2	13-3553	
LCSS	WE79MB2SPK	13-3553	
SR02-C01	WE79U	13-3553	
SR02-C02	WE79V	13-3554	
SR02-C03	WE79W	13-3555	
SR03-D01	WE79X	13-3556	

Were ICP interelement corrections applied ?                      Yes/No    YES  
Were ICP background corrections applied ?                      Yes/No    YES  
If yes - were raw data generated before  
application of background corrections ?                      Yes/No    NO

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature:                       Name: Jay Kuhn  
Date: 3/4/13                      Title: Inorganics Director



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1


Sample ID: SR01-D01

SAMPLE

Lab Sample ID: WE79A

LIMS ID: 13-3533

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/18/13

Date Received: 02/25/13

Percent Total Solids: 82.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	10	14	17,600	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.10	0.2	178	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.17	0.9	84.7	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.044	0.6	13.7	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.2	10	42,300	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.054	0.1	14.3	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.12	0.3	899	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.38	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0092	0.2	1.7	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	21.9	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

**Sample ID: SR01-D01  
DUPLICATE**

Lab Sample ID: WE79A

LIMS ID: 13-3533

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/18/13

Date Received: 02/25/13

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	17,600	18,200	3.4%	+/- 20%	
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	178	190	6.5%	+/- 20%	
Barium	6010C	84.7	84.9	0.2%	+/- 20%	
Chromium	200.8	13.7	14.4	5.0%	+/- 20%	
Iron	6010C	42,300	43,100	1.9%	+/- 20%	
Lead	200.8	14.3	14.6	2.1%	+/- 20%	
Manganese	6010C	899	922	2.5%	+/- 20%	
Mercury	7471A	0.38	0.33	14.1%	+/- 20%	
Selenium	200.8	0.6 U	0.6 U	0.0%	+/- 0.6	L
Silver	200.8	1.7	1.6	6.1%	+/- 20%	
Vanadium	200.8	21.9	24.0	9.2%	+/- 20%	

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR01-D01  
MATRIX SPIKE

Lab Sample ID: WE79A

LIMS ID: 13-3533

Matrix: Soil

Data Release Authorized

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/18/13

Date Received: 02/25/13

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	17,600	19,200	231	693%	H
Antimony	200.8	0.2 U	0.2 U	28.7	0.0%	N
Arsenic	200.8	178	208	28.7	105%	H
Barium	6010C	84.7	316	231	100%	
Chromium	200.8	13.7	39.9	28.7	91.3%	
Iron	6010C	42,300	43,600	231	563%	H
Lead	200.8	14.3	43.6	28.7	102%	
Manganese	6010C	899	987	57.8	152%	H
Mercury	7471A	0.38	0.45	0.119	58.8%	N
Selenium	200.8	0.6 U	79.3	91.8	86.4%	
Silver	200.8	1.7	28.7	28.7	94.1%	
Vanadium	200.8	21.9	49.4	28.7	95.8%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR01-D02  
SAMPLE

Lab Sample ID: WE79B

LIMS ID: 13-3534

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/18/13

Date Received: 02/25/13

Percent Total Solids: 86.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	3.9	6	15,700	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.097	0.2	53.3	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.067	0.3	119	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.043	0.6	10.8	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.83	6	23,100	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.053	0.1	12.2	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.044	0.1	511	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.33	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0090	0.2	1.0	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	25.6	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR01-D03  
SAMPLE

Lab Sample ID: WE79C

LIMS ID: 13-3535

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/18/13

Date Received: 02/25/13

Percent Total Solids: 87.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	9.8	10	8,320	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.099	0.6	209	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.17	0.8	74.0	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.043	0.6	7.9	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.1	10	26,700	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.053	0.1	14.9	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.11	0.3	154	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.59	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	2	2	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0091	0.2	9.4	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	12.0	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR01-D04  
SAMPLE

Lab Sample ID: WE79D

LIMS ID: 13-3536

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/18/13

Date Received: 02/25/13

Percent Total Solids: 83.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	10	14	17,800	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.096	0.2	212	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.17	0.8	105	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.042	0.6	13.2	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.1	10	33,900	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.052	0.1	15.8	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.11	0.3	672	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.26	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0089	0.2	1.3	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	24.4	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR01-D05  
SAMPLE

Lab Sample ID: WE79E

LIMS ID: 13-3537

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/18/13

Date Received: 02/25/13

Percent Total Solids: 83.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	9.9	10	17,800	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.10	0.2	139	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.17	0.8	101	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.044	0.6	12.6	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.1	10	37,200	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.055	0.1	11.4	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.11	0.3	898	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.36	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0094	0.2	1.1	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.020	0.2	21.4	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR01-D06  
SAMPLE

Lab Sample ID: WE79F

LIMS ID: 13-3538

Matrix: Soil

Data Release Authorized 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/18/13

Date Received: 02/25/13

Percent Total Solids: 83.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	10	14	18,500	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.10	0.2	136	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.17	0.9	84.2	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.045	0.6	13.9	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.2	10	39,400	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.056	0.1	14.4	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.12	0.3	943	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.008	0.302	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0095	0.2	1.4	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.020	0.2	22.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR01-C01  
SAMPLE

Lab Sample ID: WE79G

LIMS ID: 13-3539

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/18/13

Date Received: 02/25/13

Percent Total Solids: 74.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	11	20	14,900	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.11	0.2	145	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.19	1	110	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.047	0.6	12.7	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.4	20	28,300	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.058	0.1	12.7	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.13	0.3	537	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.26	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.12	0.6	0.8	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0099	0.2	2.5	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.021	0.2	23.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR01-C02  
SAMPLE

Lab Sample ID: WE79H

LIMS ID: 13-3540

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/18/13

Date Received: 02/25/13

Percent Total Solids: 83.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	9.8	10	16,200	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.099	0.2	71.0	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.16	0.8	124	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.043	0.6	11.6	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.1	10	24,200	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.053	0.1	11.7	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.11	0.3	507	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.23	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0091	0.2	2.4	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	23.4	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

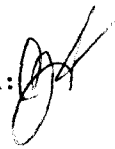
Page 1 of 1

Sample ID: SR01-C03  
SAMPLE

Lab Sample ID: WE79I

LIMS ID: 13-3541

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 82.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	9.8	10	15,700	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.10	0.2	58.7	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.17	0.8	128	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.044	0.6	11.8	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.1	10	21,700	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.054	0.1	16.2	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.11	0.3	486	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.18	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0092	0.2	1.5	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.020	0.2	26.8	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR02-D01  
SAMPLE

Lab Sample ID: WE79J

LIMS ID: 13-3542

Matrix: Soil

Data Release Authorized 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 89.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	3.8	5	1,360	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.096	0.2	82.8	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.065	0.3	60.0	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.042	0.5	1.6	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.81	5	12,200	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.052	0.1	4.7	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.043	0.1	2.8	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.009	0.277	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	1.3	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0088	0.2	12.9	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	4.0	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR02-D02  
SAMPLE

Lab Sample ID: WE79K

LIMS ID: 13-3543

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 77.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	4.4	6	1,970	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.10	0.2	162	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.075	0.4	57.2	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.045	0.6	1.4	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.94	6	7,490	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.056	0.1	12.9	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.050	0.1	3.1	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.23	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.12	0.6	1.5	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0095	0.2	14.0	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.020	0.2	1.5	


Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**  
**TOTAL METALS**  
Page 1 of 1

Sample ID: SR02-D03  
SAMPLE

Lab Sample ID: WE79L  
LIMS ID: 13-3544  
Matrix: Soil  
Data Release Authorized:   
Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: 02/19/13  
Date Received: 02/25/13

Percent Total Solids: 87.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	4.0	6	3,260	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.095	0.2	204	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.067	0.3	55.7	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.041	0.5	3.6	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.84	6	14,000	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.051	0.1	20.7	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.045	0.1	19.2	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.009	0.245	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	1.4	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0087	0.2	8.1	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	7.6	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


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Sample ID: SR02-D04  
SAMPLE

Lab Sample ID: WE79M

LIMS ID: 13-3545

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 89.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	3.7	5	2,640	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.093	0.2	190	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.063	0.3	59.8	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.041	0.5	2.1	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.79	5	11,400	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.050	0.1	18.0	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.042	0.1	16.1	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.009	0.455	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	2.2	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0086	0.2	16.9	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.018	0.2	4.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR02-D05  
SAMPLE

Lab Sample ID: WE79N

LIMS ID: 13-3546

Matrix: Soil

Data Release Authorized 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 90.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	3.8	5	3,510	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.093	0.2	183	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.064	0.3	63.7	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.041	0.5	2.6	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.80	5	12,900	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.050	0.1	59.1	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.043	0.1	16.4	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.27	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	1.5	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0085	0.2	12.8	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.018	0.2	5.0	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR02-D06  
SAMPLE

Lab Sample ID: WE790

LIMS ID: 13-3547

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 83.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	4.1	6	1,270	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.098	0.2	99.6	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.070	0.3	46.7	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.043	0.6	1.6	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.87	6	8,270	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.053	0.1	11.6	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.047	0.1	2.5	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.40	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.6	1.2	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0090	0.2	14.9	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	2.2	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR02-D07  
SAMPLE

Lab Sample ID: WE79P

LIMS ID: 13-3548

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 84.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	3.8	5	2,380	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.098	0.2	172	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.064	0.3	35.2	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.043	0.6	1.2	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.81	5	5,750	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.053	0.1	24.3	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.043	0.1	3.2	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0011	0.02	1.02	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.6	3.6	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0090	0.2	19.1	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	1.2	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR02-D08  
SAMPLE

Lab Sample ID: WE79Q

LIMS ID: 13-3549

Matrix: Soil

Data Release Authorized 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 81.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	10	14	17,600	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.10	0.2	116	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.17	0.8	114	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.043	0.6	14.4	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.1	10	31,300	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.054	0.1	12.7	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.11	0.3	316	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.009	0.502	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.6	0.7	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0092	0.2	3.3	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	28.0	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR02-D09  
SAMPLE

Lab Sample ID: WE79R

LIMS ID: 13-3550

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 82.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	10	14	16,200	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.25	0.6	513	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.17	0.8	180	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.044	0.6	10.6	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.1	10	42,600	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.055	0.1	28.3	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.11	0.3	111	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.69	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.12	0.6	2.8	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0094	0.2	5.8	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.020	0.2	21.6	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR02-D10  
SAMPLE

Lab Sample ID: WE79S

LIMS ID: 13-3551

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 78.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	4.4	6	2,570	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.016	0.3	0.3	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.11	0.3	148	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.075	0.4	50.1	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.048	0.6	2.2	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.94	6	7,210	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.059	0.1	21.2	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.050	0.1	8.5	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.009	0.702	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.12	0.6	2.7	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.010	0.3	17.4	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.021	0.3	2.2	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

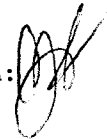
Page 1 of 1

Sample ID: SR02-D11  
SAMPLE

Lab Sample ID: WE79T

LIMS ID: 13-3552

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 87.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	3.8	5	3,140	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.098	0.2	218	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.064	0.3	50.6	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.043	0.6	1.9	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.80	5	13,200	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.053	0.1	13.7	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.042	0.1	10.0	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.009	0.168	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.6	1.4	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0090	0.2	9.6	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	3.8	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR02-C01  
SAMPLE

Lab Sample ID: WE79U

LIMS ID: 13-3553

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 76.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	4.5	6	19,200	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.11	0.2	28.2	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.077	0.4	148	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.046	0.6	14.2	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.96	6	24,100	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.057	0.1	15.6	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.051	0.1	611	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.009	0.191	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0097	0.2	0.7	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.021	0.2	31.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

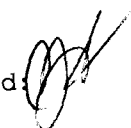
Page 1 of 1

Sample ID: SR02-C02  
SAMPLE

Lab Sample ID: WE79V

LIMS ID: 13-3554

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 78.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	4.2	6	16,600	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.11	0.2	26.0	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.071	0.4	139	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.047	0.6	15.3	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.89	6	21,400	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.058	0.1	22.8	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.047	0.1	794	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.10	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0098	0.2	0.9	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.021	0.2	28.8	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR02-C03  
SAMPLE

Lab Sample ID: WE79W

LIMS ID: 13-3555

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 82.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	4.0	6	18,700	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.10	0.2	15.7	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.068	0.3	148	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.044	0.6	14.6	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.85	6	23,700	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.054	0.1	8.7	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.045	0.1	629	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.009	0.045	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0092	0.2	0.6	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.020	0.2	29.2	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

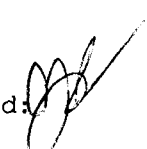
Page 1 of 1

Sample ID: SR03-D01  
SAMPLE

Lab Sample ID: WE79X

LIMS ID: 13-3556

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 90.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	3.9	6	4,890	
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.24	0.5	417	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.066	0.3	99.3	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.042	0.5	2.4	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.83	6	9,440	
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.051	0.1	7.2	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.044	0.1	13.9	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0011	0.02	1.09	
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	2.9	
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0087	0.2	9.6	
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	3.0	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

**Sample ID: METHOD BLANK**

Lab Sample ID: WE79MB

LIMS ID: 13-3534

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: NA

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	3.6	5	5	U
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.75	5	5	U
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.01	U
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.017	0.2	0.2	U


Reported in mg/kg (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**  
**TOTAL METALS**  
Page 1 of 1

**Sample ID: LAB CONTROL**

Lab Sample ID: WE79LCS  
LIMS ID: 13-3534  
Matrix: Soil  
Data Release Authorized:   
Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: NA  
Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Aluminum	6010C	209	200	104%	
Antimony	200.8	25.4	25.0	102%	
Arsenic	200.8	28.2	25.0	113%	
Barium	6010C	211	200	106%	
Chromium	200.8	25.4	25.0	102%	
Iron	6010C	203	200	102%	
Lead	200.8	26.1	25.0	104%	
Manganese	6010C	50.5	50.0	101%	
Mercury	7471A	0.20	0.20	100%	
Selenium	200.8	80.0	80.0	100%	
Silver	200.8	26.2	25.0	105%	
Vanadium	200.8	24.7	25.0	98.8%	

Reported in mg/kg-dry

N-Control limit not met  
NA-Not Applicable, Analyte Not Spiked  
Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


**Sample ID: METHOD BLANK**

Page 1 of 1

Lab Sample ID: WE79MB

LIMS ID: 13-3553

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE79-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: NA

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	3.6	5	5	U
3050B	02/26/13	200.8	02/28/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.75	5	5	U
3050B	02/26/13	200.8	02/28/13	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.01	U
3050B	02/26/13	200.8	02/28/13	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	02/26/13	200.8	02/28/13	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	02/26/13	200.8	02/28/13	7440-62-2	Vanadium	0.017	0.2	0.2	U

Reported in mg/kg (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**  
**TOTAL METALS**  
Page 1 of 1

**Sample ID: LAB CONTROL**

Lab Sample ID: WE79LCS  
LIMS ID: 13-3553  
Matrix: Soil  
Data Release Authorized  
Reported: 03/01/13



QC Report No: WE79-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: NA  
Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Aluminum	6010C	206	200	103%	
Antimony	200.8	25.4	25.0	102%	
Arsenic	200.8	27.5	25.0	110%	
Barium	6010C	208	200	104%	
Chromium	200.8	25.0	25.0	100%	
Iron	6010C	201	200	100%	
Lead	200.8	25.9	25.0	104%	
Manganese	6010C	49.8	50.0	99.6%	
Mercury	7471A	0.20	0.20	100%	
Selenium	200.8	78.2	80.0	97.8%	
Silver	200.8	25.8	25.0	103%	
Vanadium	200.8	24.4	25.0	97.6%	

Reported in mg/kg-dry

N-Control limit not met  
NA-Not Applicable, Analyte Not Spiked  
Control Limits: 80-120%

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE79



UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP022771	2000.0	1992.88	99.6	2000.0	2053.19	102.7	2089.97	104.5	2057.21	102.9	2015.37	100.8	2030.97	101.5
Antimony	SB	PMS	MS022882	50.0	50.16	100.3	50.0	48.31	96.6	48.02	96.0	48.55	97.1	50.06	100.1	50.21	100.4
Arsenic	AS	PMS	MS022882	50.0	51.82	103.6	50.0	48.57	97.1	48.21	96.4	48.50	97.0	48.86	97.7	49.28	98.6
Barium	BA	ICP	IP022771	1000.0	1004.60	100.5	1000.0	1033.33	103.3	1053.57	105.4	1055.07	105.5	1042.55	104.3	1045.32	104.5
Chromium	CR	PMS	MS022882	50.0	50.34	100.7	50.0	48.31	96.6	48.55	97.1	48.30	96.6	48.90	97.8	48.74	97.5
Iron	FE	ICP	IP022771	2000.0	2028.12	101.4	2000.0	2103.63	105.2	2110.30	105.5	2046.12	102.3	2012.70	100.6	2046.13	102.3
Lead	PB	PMS	MS022882	50.0	50.32	100.6	50.0	49.17	98.3	49.86	99.7	48.70	97.4	49.26	98.5	49.73	99.5
Manganese	MN	ICP	IP022771	1000.0	966.39	96.6	1000.0	984.88	98.5	1004.23	100.4	973.57	97.4	963.77	96.4	971.20	97.1
Mercury	HG	CVA	HG022702	8.0	7.81	97.6	4.0	3.96	99.0	3.99	99.8	4.02	100.5	4.05	101.3	3.96	99.0
Selenium	SE	PMS	MS022882	80.0	78.05	97.6	50.0	48.98	98.0	48.60	97.2	49.02	98.0	49.01	98.0	49.85	99.7
Silver	AG	PMS	MS022882	50.0	51.08	102.2	50.0	48.98	98.0	48.52	97.0	49.20	98.4	50.01	100.0	49.63	99.3
Vanadium	V	PMS	MS022882	50.0	50.53	101.1	50.0	48.35	96.7	48.22	96.4	47.94	95.9	48.78	97.6	48.31	96.6

Control Limits: Mercury 80-120; Other Metals 90-110

05000: 02:54

# Calibration Verification



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE79

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Aluminum	AL	ICP	IP022771	2000.0	2027.18	101.4	2035.08	101.8	2019.41	101.0	2032.49	101.6				
Antimony	SB	PMS	MS022882	50.0	50.28	100.6	50.24	100.5								
Arsenic	AS	PMS	MS022882	50.0	49.13	98.3	48.99	98.0								
Barium	BA	ICP	IP022771	1000.0	1043.84	104.4	1039.20	103.9	1030.95	103.1	1041.95	104.2				
Chromium	CR	PMS	MS022882	50.0	48.65	97.3	49.11	98.2								
Iron	FE	ICP	IP022771	2000.0	2031.15	101.6	2049.05	102.5	2039.58	102.0	2067.49	103.4				
Lead	PB	PMS	MS022882	50.0	49.25	98.5	49.49	99.0								
Manganese	MN	ICP	IP022771	1000.0	964.59	96.5	976.41	97.6	976.31	97.6	984.66	98.5				
Mercury	HG	CVA	HG022702	4.0	3.99	99.8	3.98	99.5								
Selenium	SE	PMS	MS022882	50.0	49.75	99.5	49.81	99.6								
Silver	AG	PMS	MS022882	50.0	49.14	98.3	49.21	98.4								
Vanadium	V	PMS	MS022882	50.0	48.09	96.2	48.86	97.7								

Control Limits: Mercury 80-120; Other Metals 90-110

WE79:0234



# CRDL Standard

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE79



UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Aluminum	AL	ICP	IP022771	50.0	56.70	113.4	54.24	108.5	62.10	124.2						
Antimony	SB	PMS	MS022882	0.2	0.22	110.0										
Arsenic	AS	PMS	MS022882	0.2	0.24	120.0										
Barium	BA	ICP	IP022771	3.0	3.09	103.0	3.49	116.3	2.88	96.0						
Chromium	CR	PMS	MS022882	0.5	0.49	98.0										
Iron	FE	ICP	IP022771	50.0	54.47	108.9	51.19	102.4	53.28	106.6						
Lead	PB	PMS	MS022882	0.1	0.10	100.0										
Manganese	MN	ICP	IP022771	1.0	1.05	105.0	0.86	86.0	1.00	100.0						
Mercury	HG	CVA	HG022702	0.1	0.11	110.0										
Selenium	SE	PMS	MS022882	0.5	0.56	112.0										
Silver	AG	PMS	MS022882	0.2	0.23	115.0										
Vanadium	V	PMS	MS022882	0.2	0.19	95.0										

Control Limits: no control limits have been established by the EPA at this time.

25000:6234

# Calibration Blanks



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE79

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Aluminum	AL	ICP	IP022771	200.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Antimony	SB	PMS	MS022882	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS022882	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Barium	BA	ICP	IP022771	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Chromium	CR	PMS	MS022882	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Iron	FE	ICP	IP022771	100.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Lead	PB	PMS	MS022882	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Manganese	MN	ICP	IP022771	15.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Mercury	HG	CVA	HG022702	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Selenium	SE	PMS	MS022882	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Silver	AG	PMS	MS022882	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Vanadium	V	PMS	MS022882	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

00000:0234

# Calibration Blanks



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE79

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Aluminum	AL	ICP	IP022771	200.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U				
Antimony	SB	PMS	MS022882	60.0	0.2	0.2	U	0.2	U								
Arsenic	AS	PMS	MS022882	10.0	0.2	0.2	U	0.2	U								
Barium	BA	ICP	IP022771	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U				
Chromium	CR	PMS	MS022882	10.0	0.5	0.5	U	0.5	U								
Iron	FE	ICP	IP022771	100.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U				
Lead	PB	PMS	MS022882	3.0	0.1	0.1	U	0.1	U								
Manganese	MN	ICP	IP022771	15.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U				
Mercury	HG	CVA	HG022702	0.2	0.1	0.1	U	0.1	U								
Selenium	SE	PMS	MS022882	5.0	0.5	0.5	U	0.5	U								
Silver	AG	PMS	MS022882	10.0	0.2	0.2	U	0.2	U								
Vanadium	V	PMS	MS022882	50.0	0.2	0.2	U	0.2	U								

WE79: 0005

# ICP Interference Check Sample

**ANALYTICAL  
RESOURCES  
INCORPORATED**

CLIENT: Hart Crowser, Inc.

ICS SOURCE: I.V.

PROJECT: Saddle Rock

RUNID: IP022771

SDG: WE79

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	198296.2	196958.8	98.5	201954.3	198669.0	99.3	201479.2	200257.1	100.1
Antimony		1000	8.6	1003.8	100.4	7.6	997.6	99.8	8.4	1014.6	101.5
Arsenic		1000	19.9	1018.0	101.8	19.4	1012.7	101.3	22.1	1033.4	103.3
Barium		1000	-2.9	981.6	98.2	-2.2	1008.9	100.9	-3.7	1017.6	101.8
Beryllium		1000	0.1	969.0	96.9	0.1	971.1	97.1	0.1	987.6	98.8
Boron			-7.3	-7.6		-9.0	-8.4		-8.3	-9.7	
Cadmium		1000	1.9	1027.8	102.8	2.4	1018.9	101.9	2.1	1037.1	103.7
Calcium	100000	100000	97965.2	97432.7	97.4	100235.9	98855.0	98.9	100289.2	100072.9	100.1
Chromium		1000	-1.0	990.5	99.1	-1.7	999.2	99.9	0.9	1020.7	102.1
Cobalt		1000	1.8	959.9	96.0	1.7	966.6	96.7	1.6	977.0	97.7
Copper		1000	1.1	1044.6	104.5	1.7	1044.5	104.5	1.3	1058.0	105.8
Iron	200000	200000	194545.1	193158.1	96.6	192772.8	191936.4	96.0	196204.1	196316.5	98.2
Lead		1000	-11.6	973.8	97.4	-9.5	967.2	96.7	-10.3	984.1	98.4
Magnesium	100000	100000	101804.3	97714.3	97.7	103888.7	98974.7	99.0	103435.2	100093.5	100.1
Manganese		1000	0.0	940.2	94.0	0.0	938.6	93.9	0.0	965.6	96.6
Molybdenum			3.7	3.9		3.6	3.3		3.0	3.7	
Nickel		1000	0.6	961.6	96.2	-0.8	979.1	97.9	0.8	995.8	99.6
Potassium			15.2	3.7		20.0	3.2		20.0	-21.5	
Selenium		1000	-7.6	984.0	98.4	-15.5	974.6	97.5	-11.5	992.7	99.3
Silicon			-4.3	-4.9		-4.9	-7.4		-3.7	-4.2	
Silver		1000	-0.4	1052.7	105.3	-0.2	1062.7	106.3	-0.4	1073.0	107.3
Sodium			15.7	20.1		9.4	20.0		12.6	15.3	
Strontium			4.1	4.0		4.1	4.0		4.1	4.1	
Thallium		1000	6.6	950.1	95.0	6.8	954.3	95.4	6.5	963.9	96.4
Tin			-8.7	-8.0		-9.1	-9.6		-7.7	-8.6	
Titanium			4.2	3.6		3.6	3.1		3.5	3.3	
Vanadium		1000	0.3	996.5	99.7	-0.9	1001.1	100.1	-0.3	1013.6	101.4
Zinc		1000	-0.8	948.9	94.9	-0.8	958.3	95.8	0.3	979.2	97.9

# ICP Interference Check Sample

ANALYTICAL  
RESOURCES   
INCORPORATED

CLIENT: Hart Crowser, Inc.

ICS SOURCE: I.V.

PROJECT: Saddle Rock

RUNID: MS022882

SDG: WE79

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	18.9	94.5						
Barium			0.1	0.1							
Cadmium		20	0.1	20.2	101.0						
Chromium		20	0.5	20.6	103.0						
Cobalt		20	0.0	20.1	100.5						
Copper		20	0.6	20.0	100.0						
Manganese		20	0.1	20.4	102.0						
Molybdenum	400	400	410.7	406.2	101.6						
Nickel		20	1.0	20.4	102.0						
Selenium			-0.1	-0.1							
Silver		20	0.0	19.7	98.5						
Vanadium			0.0	-0.3							
Zinc		20	1.9	20.8	104.0						

WE79:00055

# Post Digest Spike Sample Recovery

ANALYTICAL  
RESOURCES   
INCORPORATED

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: PMS

SDG: WE79

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT C	SAMPLE RESULT C	SPIKE ADDED	MATRIX	%R
Antimony	SR01-D01A	WE79APOST	MS022882	474.04 B	1000.00U	500	Soil	94.8

# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: ICP

SDG: WE79

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFER- ENCE	Q
Aluminum	SR01-D01L	WE79A-L	Soil	IP022771	60695.47		59656.95		1.7	
Barium	SR01-D01L	WE79A-L	Soil	IP022771	292.60		288.85	B	1.3	
Iron	SR01-D01L	WE79A-L	Soil	IP022771	146171.53		144806.95		0.9	
Manganese	SR01-D01L	WE79A-L	Soil	IP022771	3106.89		3070.55		1.2	

# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: PMS

SDG: WE79

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL	SERIAL	% DIFFER-	Q
					SAMPLE	DILUTION		
					RESULT	RESULT	ENCE	
					(I)	(S)		
					C	C		
Antimony	SR01-D01L	WE79A-L	Soil	MS022882	0.00 U	0.00 B		
Arsenic	SR01-D01L	WE79A-L	Soil	MS022882	155.39	165.05	6.2	
Chromium	SR01-D01L	WE79A-L	Soil	MS022882	11.91	13.20 B	10.8	
Lead	SR01-D01L	WE79A-L	Soil	MS022882	12.50	13.30 B	6.4	
Selenium	SR01-D01L	WE79A-L	Soil	MS022882	0.50 U	0.60 B		
Silver	SR01-D01L	WE79A-L	Soil	MS022882	1.44 B	1.50 B	4.2	
Vanadium	SR01-D01L	WE79A-L	Soil	MS022882	19.14 B	21.20 B	10.8	



# IDLs and ICP Linear Ranges



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE79

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENGTH (nm)	GFA BACK- GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Aluminum	AL	ICP	OPTIMA ICP 2	308.22		200	50.0	4/1/2012	250000.0	1/22/2013
Antimony	SB	PMS	PE ELAN 6000 MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Barium	BA	ICP	OPTIMA ICP 2	455.50		200	3.0	4/1/2012	100000.0	1/22/2013
Chromium	CR	PMS	PE ELAN 6000 MS	0.00		10	0.5	4/1/2012		
Iron	FE	ICP	OPTIMA ICP 2	259.94		100	50.0	4/1/2012	250000.0	1/22/2013
Lead	PB	PMS	PE ELAN 6000 MS	0.00		3	0.1	4/1/2012		
Manganese	MN	ICP	OPTIMA ICP 2	257.61		15	1.0	4/1/2012	30000.0	1/22/2013
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Selenium	SE	PMS	PE ELAN 6000 MS	0.00		5	0.5	4/1/2012		
Silver	AG	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Vanadium	V	PMS	PE ELAN 6000 MS	0.00		50	0.2	4/1/2012		

# ICP Interelement Correction Factors



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE79

IEC DATE: 1/22/2013

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	RE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Antimony	206.84	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	13.7020120	0.000000	0.000000
Arsenic	188.98	0.000000	0.000000	0.000000	0.000000	0.0911890	0.000000	-1.1057220	1.4447090	0.000000	0.000000
Barium	233.53	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1795110	0.000000	0.000000	0.1469350
Beryllium	313.04	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Cadmium	228.80	0.000000	5.5964570	0.000000	0.000000	0.000000	0.000000	0.1385480	0.000000	0.000000	0.000000
Calcium	317.93	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Chromium	267.72	0.000000	0.000000	0.0295099	0.000000	0.1250000	0.000000	0.000000	0.000000	0.000000	0.000000
Cobalt	228.62	0.000000	0.000000	0.1133150	0.000000	0.000000	0.000000	0.000000	-0.0333930	0.000000	-0.0309050
Copper	324.75	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1698980	-0.0211960	0.000000	0.000000
Iron	273.96	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.7025530	0.000000	0.000000
Lead	220.35	-0.2707930	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-1.8104440	1.2410760	0.0536970
Magnesium	279.08	0.000000	0.000000	0.000000	0.000000	0.1060020	0.000000	-1.4277330	-1.1381670	0.000000	0.5549620
Manganese	257.61	0.0049690	0.000000	0.000000	0.000000	0.0038740	0.000000	0.0125790	0.000000	0.000000	0.000000
Molybdenum	202.03	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.0509920	0.000000	0.000000
Nickel	231.60	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Potassium	766.49	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Selenium	196.03	0.1149780	0.000000	0.000000	0.000000	0.000000	0.000000	0.4775670	0.000000	0.000000	0.000000
Silicon	288.16	0.000000	0.000000	0.000000	0.000000	0.000000	-3.2795240	0.000000	0.000000	0.000000	0.000000
Silver	328.07	0.000000	0.000000	0.000000	0.000000	0.000000	-0.0054570	0.000000	0.000000	0.000000	0.000000
Sodium	589.59	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Thallium	190.80	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.9747620	0.3985520	0.000000	0.000000
Tin	189.93	0.000000	0.000000	0.000000	0.000000	-0.0837380	0.000000	0.000000	0.000000	0.000000	0.000000
Titanium	334.90	0.000000	0.000000	0.000000	0.000000	0.0594390	0.000000	0.000000	0.1892210	0.000000	0.000000
Vanadium	292.40	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-4.3335490	0.000000	0.0501910
Zinc	206.20	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1801790	0.000000	0.000000

WE79: 050014

# ICP Interelement Correction Factors



CLIENT: Hart Crowser, Inc.  
PROJECT: Saddle Rock

IEC DATE: 1/22/2013

SDG: WE79

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	17.5877940	0.0000000	0.0000000	0.0000000	2.0603180	0.0000000	14.5677200	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.7545320	0.0000000	-3.8306350	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.3991370	0.0000000	0.0000000	0.0000000	-34.6204750	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1174000	0.0000000	0.0000000	0.0000000	0.0000000	0.2171460	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0100680	0.0000000	0.2372710	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9200350	0.0000000	0.0000000	0.0000000	0.0000000	0.0629730	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0938730	0.0834700	0.0738780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1425980	0.1557020	0.0000000	0.0000000	1.7571760	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0053240	0.0000000	0.3083290	0.0000000	0.0000000	0.0000000	0.1931400	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	6.3157650	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-4.9970650	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	-0.1122540	0.0000000	0.0000000	0.0000000	0.0000000	-0.4494500	0.0000000	0.4360770	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	-1.6204090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	3.6226430	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5136310	-0.1873890	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	1.0549050	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1522160	-0.5618640	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2590480	0.0000000	-0.0606610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

WE79: 000002

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: ICP

PROJECT: Saddle Rock

ARI PREP CODE: SWC

SDG: WE79

PREPDATE: 2/26/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR01-D01	WE79A	1.053	0.0	50.0
SR01-D01D	WE79ADUP	1.053	0.0	50.0
SR01-D01S	WE79ASPK	1.054	0.0	50.0
SR01-D02	WE79B	1.046	0.0	50.0
SR01-D03	WE79C	1.038	0.0	50.0
SR01-D04	WE79D	1.063	0.0	50.0
SR01-D05	WE79E	1.074	0.0	50.0
SR01-D06	WE79F	1.038	0.0	50.0
SR01-C01	WE79G	1.040	0.0	50.0
SR01-C02	WE79H	1.093	0.0	50.0
SR01-C03	WE79I	1.091	0.0	50.0
SR02-D01	WE79J	1.031	0.0	50.0
SR02-D02	WE79K	1.036	0.0	50.0
SR02-D03	WE79L	1.020	0.0	50.0
SR02-D04	WE79M	1.064	0.0	50.0
PBS	WE79MB1	1.000	0.0	50.0
LCSS	WE79MB1SPK	1.000	0.0	50.0
PBS	WE79MB2	1.000	0.0	50.0
LCSS	WE79MB2SPK	1.000	0.0	50.0
SR02-D05	WE79N	1.038	0.0	50.0
SR02-D06	WE79O	1.027	0.0	50.0
SR02-D07	WE79P	1.099	0.0	50.0
SR02-D08	WE79Q	1.089	0.0	50.0
SR02-D09	WE79R	1.075	0.0	50.0
SR02-D10	WE79S	1.015	0.0	50.0
SR02-D11	WE79T	1.075	0.0	50.0
SR02-C01	WE79U	1.028	0.0	50.0
SR02-C02	WE79V	1.083	0.0	50.0
SR02-C03	WE79W	1.080	0.0	50.0
SR03-D01	WE79X	1.003	0.0	50.0

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: PMS

PROJECT: Saddle Rock

ARI PREP CODE: SWN

SDG: WE79

PREPDATE: 2/26/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR01-D01	WE79A	1.063	0.0	50.0
SR01-D01D	WE79ADUP	1.066	0.0	50.0
SR01-D01S	WE79ASPK	1.062	0.0	50.0
SR01-D02	WE79B	1.037	0.0	50.0
SR01-D03	WE79C	1.012	0.0	50.0
SR01-D04	WE79D	1.076	0.0	50.0
SR01-D05	WE79E	1.024	0.0	50.0
SR01-D06	WE79F	1.006	0.0	50.0
SR01-C01	WE79G	1.092	0.0	50.0
SR01-C02	WE79H	1.059	0.0	50.0
SR01-C03	WE79I	1.050	0.0	50.0
SR02-D01	WE79J	1.012	0.0	50.0
SR02-D02	WE79K	1.088	0.0	50.0
SR02-D03	WE79L	1.046	0.0	50.0
SR02-D04	WE79M	1.044	0.0	50.0
PBS	WE79MB1	1.000	0.0	50.0
LCSS	WE79MB1SPK	1.000	0.0	50.0
PBS	WE79MB2	1.000	0.0	50.0
LCSS	WE79MB2SPK	1.000	0.0	50.0
SR02-D05	WE79N	1.037	0.0	50.0
SR02-D06	WE79O	1.063	0.0	50.0
SR02-D07	WE79P	1.045	0.0	50.0
SR02-D08	WE79Q	1.070	0.0	50.0
SR02-D09	WE79R	1.038	0.0	50.0
SR02-D10	WE79S	1.009	0.0	50.0
SR02-D11	WE79T	1.011	0.0	50.0
SR02-C01	WE79U	1.085	0.0	50.0
SR02-C02	WE79V	1.040	0.0	50.0
SR02-C03	WE79W	1.058	0.0	50.0
SR03-D01	WE79X	1.015	0.0	50.0

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: CVA

PROJECT: Saddle Rock

ARI PREP CODE: SMM

SDG: WE79

PREPDATE: 2/26/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR01-D01	WE79A	0.512	0.0	50.0
SR01-D01D	WE79ADUP	0.509	0.0	50.0
SR01-D01S	WE79ASPK	0.513	0.0	50.0
SR01-D02	WE79B	0.562	0.0	50.0
SR01-D03	WE79C	0.581	0.0	50.0
SR01-D04	WE79D	0.543	0.0	50.0
SR01-D05	WE79E	0.541	0.0	50.0
SR01-D06	WE79F	0.712	0.0	50.0
SR01-C01	WE79G	0.580	0.0	50.0
SR01-C02	WE79H	0.591	0.0	50.0
SR01-C03	WE79I	0.582	0.0	50.0
SR02-D01	WE79J	0.632	0.0	50.0
SR02-D02	WE79K	0.533	0.0	50.0
SR02-D03	WE79L	0.659	0.0	50.0
SR02-D04	WE79M	0.643	0.0	50.0
PBS	WE79MB1	0.500	0.0	50.0
LCSW	WE79MB1SPK	0.500	0.0	50.0
PBS	WE79MB2	0.500	0.0	50.0
LCSW	WE79MB2SPK	0.500	0.0	50.0
SR02-D05	WE79N	0.547	0.0	50.0
SR02-D06	WE79O	0.609	0.0	50.0
SR02-D07	WE79P	0.578	0.0	50.0
SR02-D08	WE79Q	0.714	0.0	50.0
SR02-D09	WE79R	0.587	0.0	50.0
SR02-D10	WE79S	0.710	0.0	50.0
SR02-D11	WE79T	0.654	0.0	50.0
SR02-C01	WE79U	0.724	0.0	50.0
SR02-C02	WE79V	0.593	0.0	50.0
SR02-C03	WE79W	0.657	0.0	50.0
SR03-D01	WE79X	0.549	0.0	50.0

# Analysis Run Log



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE79

INSTRUMENT ID: OPTIMA ICP 2

RUNID: IP022771 METHOD: ICP

START DATE: 2/27/2013

END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08323			X			X							X																	
S2	S2	1.00	08364						X																								
S3	S3	1.00	08383																														
S4	S4	1.00	08410																														
S5	S5	1.00	08432			X										X																	
ICV	ICV	1.00	08465			X			X							X					X												
ICB	ICB	1.00	08505			X			X							X					X												
CRI	CRII	1.00	08551			X			X							X					X												
ICSA	ICSAI	1.00	08593			X			X							X					X												
ICSAB	ICSABI	1.00	09034			X			X							X					X												
CCV	CCV1	1.00	09074			X			X							X					X												
CCB	CCB1	1.00	09115			X			X							X					X												
ZZZZZZ	WE77MB	2.00	09160																														
ZZZZZZ	WE77A	2.00	09202																														
SR01-D02	WE79B	2.00	09242			X			X							X					X												
ZZZZZZ	ZZZZZZ	10.00	09282																														
SR01-D01	WE79A	5.00	09363			X			X							X					X												
SR01-D01D	WE79ADUP	5.00	09403			X			X							X					X												
SR01-D01S	WE79ASPK	5.00	09443			X			X							X					X												
SR01-D01L	WE79A-L	25.00	09483			X			X							X					X												
ZZZZZZ	WE77MBSPK	2.00	09523																														
ZZZZZZ	WE77MBSPD	2.00	09563																														
CCV	CCV2	1.00	10003			X			X							X					X												
CCB	CCB2	1.00	10044			X			X							X					X												
PBS	WE79MB1	2.00	10085																														
SR01-D03	WE79C	5.00	10131			X			X							X					X												
SR01-D04	WE79D	5.00	10171			X			X							X					X												
SR01-D05	WE79E	5.00	10211			X			X							X					X												
SR01-D06	WE79F	5.00	10251			X			X							X					X												
SR01-C01	WE79G	5.00	10292			X			X							X					X												
SR01-C02	WE79H	5.00	10332			X			X							X					X												
SR01-C03	WE79I	5.00	10372			X			X							X					X												
SR02-D01	WE79J	2.00	10412			X			X							X					X												
LCSS	WE79MB1SPK	2.00	10453			X			X							X					X												
CCV	CCV3	1.00	10494			X			X							X					X												

WE79: 00056

# Analysis Run Log



CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE79

INSTRUMENT ID: OPTIMA ICP 2  
 RUNID: IP022771 METHOD: ICP

START DATE: 2/27/2013  
 END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN		
CCB	CCB3	1.00	10534			X			X							X																			
PBS	WE79MB2	2.00	10580			X			X							X																			
SR02-D02	WE79K	2.00	11021			X			X							X																			
SR02-D03	WE79L	2.00	11061			X			X							X																			
SR02-D04	WE79M	2.00	11101			X			X							X																			
SR02-D05	WE79N	2.00	11141																																
SR02-D06	WE79O	2.00	11181			X			X							X																			
SR02-D07	WE79P	2.00	11223			X			X							X																			
SR02-D08	WE79Q	2.00	11264																																
SR02-D09	WE79R	2.00	11305																																
LCSS	WE79MB2SPK	2.00	11345			X			X							X																			
CCV	CCV4	1.00	11385			X			X							X																			
CCB	CCB4	1.00	11425			X			X							X																			
PBS	WE79MB1	2.00	11471			X			X							X																			
CRI	CRIF	1.00	11513			X			X							X																			
ICSA	ICSAF	1.00	11554			X			X							X																			
ICSAB	ICSABF	1.00	12000			X			X							X																			
CCV	CCV5	1.00	12040			X			X							X																			
CCB	CCB5	1.00	12081			X			X							X																			
ZZZZZZ	WE83MB1	2.00	12122																																
SR02-D10	WE79S	2.00	12164			X			X							X																			
SR02-D11	WE79T	2.00	12205			X			X							X																			
SR02-C01	WE79U	2.00	12250			X			X							X																			
SR02-C02	WE79V	2.00	12290			X			X							X																			
SR02-C03	WE79W	2.00	12330			X			X							X																			
SR03-D01	WE79X	2.00	12370			X			X							X																			
ZZZZZZ	WE83C	5.00	12410																																
ZZZZZZ	WE83D	2.00	12450																																
ZZZZZZ	WE83MB1SPK	2.00	12490																																
CCV	CCV6	1.00	12531			X			X							X																			
CCB	CCB6	1.00	12571			X			X							X																			
ZZZZZZ	WE83A-L	25.00	13013																																
ZZZZZZ	WE83A	5.00	13053																																
ZZZZZZ	WE83ADUP	5.00	13093																																
ZZZZZZ	WE83ASPK	5.00	13133																																

WE79: 00007



# Analysis Run Log



CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE79

INSTRUMENT ID: OPTIMA ICP 2  
 RUNID: IP022771 METHOD: ICP

START DATE: 2/27/2013  
 END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	ZZZZZZ	5.00	13173																														
ZZZZZZ	WE83B-L	25.00	13214																														
ZZZZZZ	WE83B	5.00	13255																														
ZZZZZZ	WE83BDUP	5.00	13295																														
ZZZZZZ	WE83BSPK	5.00	13335																														
ZZZZZZ	ZZZZZZ	5.00	13375																														
CCV	CCV7	1.00	13420				X			X						X																	
CCB	CCB7	1.00	13460				X			X						X																	
ZZZZZZ	WE83E	2.00	13502																														
ZZZZZZ	WE83F	5.00	13542																														
ZZZZZZ	WE83G	5.00	13582																														
ZZZZZZ	WE83H	5.00	14022																														
ZZZZZZ	WE83I	2.00	14062																														
ZZZZZZ	WE83J	2.00	14104																														
SR02-D05	WE79N	2.00	14144				X			X						X																	
SR02-D08	WE79Q	5.00	14190				X			X						X																	
SR02-D09	WE79R	5.00	14230				X			X						X																	
ZZZZZZ	D1	1.00	14270																														
CCV	CCV8	1.00	14312				X			X						X																	
CCB	CCB8	1.00	14352				X			X						X																	
CRI	CRIF1	1.00	14394				X			X						X																	
ICSA	ICSAF1	1.00	14435				X			X						X																	
ICSAB	ICSABF1	1.00	14481				X			X						X																	
CCV	CCV9	1.00	14521				X			X						X																	
CCB	CCB9	1.00	14562				X			X						X																	

WE79: 000000

# Analysis Run Log



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE79

INSTRUMENT ID: PE ELAN 6000 MS

RUNID: MS022882 METHOD: PMS

START DATE: 2/28/2013

END DATE: 2/28/2013

CLIENT ID	ARI ID	DIL. TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00 09530		X		X							X										X	X	X						X	
S1	S1	1.00 09590		X		X							X										X	X	X						X	
S2	S2	1.00 10060		X		X							X										X	X	X						X	
S3	S3	1.00 10120		X		X							X										X	X	X						X	
S4	S4	1.00 10180		X		X							X										X	X	X						X	
ZZZZZ	Rinse Sampl	1.00 10240																														
ICV	MICV	1.00 10310		X		X							X										X	X	X						X	
ICB	ICB	1.00 10370		X		X							X										X	X	X						X	
CCV	MCCV1	1.00 10430		X		X							X										X	X	X						X	
CCB	CCB1	1.00 10490		X		X							X										X	X	X						X	
CRI	MCRI	1.00 10550		X		X							X										X	X	X						X	
ICSA	ICSAI	1.00 11000		X		X							X										X	X	X						X	
ICSAB	ICSABI	1.00 11060		X		X							X										X	X	X						X	
ZZZZZ	LR200	1.00 11120																														
ZZZZZ	LR300	1.00 11180																														
CCV	MCCV2	1.00 11250		X		X							X										X	X	X						X	
CCB	CCB2	1.00 11310		X		X							X										X	X	X						X	
PBS	WE79MB1	20.00 11410		X		X							X										X	X	X						X	
SR01-D02	WE79B	20.00 11470		X		X							X										X	X	X						X	
SR01-D03	WE79C	20.00 11520		X		X							X										X	X	X						X	
SR01-D04	WE79D	20.00 11580		X		X							X										X	X	X						X	
SR01-D01L	WE79A-L	100.00 12040		X		X							X										X	X	X						X	
SR01-D01	WE79A	20.00 12100		X		X							X										X	X	X						X	
SR01-D01D	WE79ADUP	20.00 12160		X		X							X										X	X	X						X	
SR01-D01S	WE79ASPK	20.00 12220		X		X							X										X	X	X						X	
SR01-D01A	WE79APOST	20.00 12280																						X								
LCSS	WE79MB1SPK	20.00 12340		X		X							X										X	X	X						X	
CCV	MCCV3	1.00 12400		X		X							X										X	X	X						X	
CCB	CCB3	1.00 12470		X		X							X										X	X	X						X	
PBS	WE79MB2	20.00 12520		X		X							X										X	X	X						X	
SR01-D05	WE79E	20.00 12580		X		X							X										X	X	X						X	
SR01-D06	WE79F	20.00 13040		X		X							X										X	X	X						X	
SR01-C01	WE79G	20.00 13100		X		X							X										X	X	X						X	
SR01-C02	WE79H	20.00 13160		X		X							X										X	X	X						X	
SR01-C03	WE79I	20.00 13220		X		X							X										X	X	X						X	

WE79: 000000

# Analysis Run Log



CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE79

INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS022882 METHOD: PMS

START DATE: 2/28/2013  
 END DATE: 2/28/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SR02-D01	WE79J	20.00	13280		X		X							X										X	X	X						X	
SR02-D02	WE79K	20.00	13340		X		X							X										X	X	X						X	
SR02-D03	WE79L	20.00	13400		X		X							X										X	X	X						X	
LCSS	WE79MB2SPK	20.00	13460		X		X							X										X	X	X						X	
CCV	MCCV4	1.00	13520		X		X							X										X	X	X						X	
CCB	CCB4	1.00	13580		X		X							X										X	X	X						X	
SR02-D04	WE79M	20.00	14030		X		X							X										X	X	X						X	
SR02-D05	WE79N	20.00	14090		X		X							X										X	X	X						X	
SR02-D06	WE79O	20.00	14150		X		X							X										X	X	X						X	
SR02-D07	WE79P	20.00	14210		X		X							X										X	X	X						X	
SR02-D08	WE79Q	20.00	14270		X		X							X										X	X	X						X	
SR02-D09	WE79R	20.00	14330		X									X										X	X	X						X	
SR02-D09	WE79R	50.00	14390				X																										
SR02-D10	WE79S	20.00	14450		X		X							X										X	X	X						X	
SR02-D11	WE79T	20.00	14510		X		X							X										X	X	X						X	
SR02-C01	WE79U	20.00	14570		X		X							X										X	X	X						X	
CCV	MCCV5	1.00	15030		X		X							X										X	X	X						X	
CCB	CCB5	1.00	15090		X		X							X										X	X	X						X	
ZZZZZ	WE80MB1	20.00	15170																														
SR02-C02	WE79V	20.00	15230		X		X							X										X	X	X						X	
SR03-D01	WE79X	20.00	15280		X									X										X	X	X						X	
SR03-D01	WE79X	50.00	15340				X																										
ZZZZZ	WE80A-L	100.00	15400																														
ZZZZZ	WE80A	20.00	15460																														
ZZZZZ	WE80ADUP	20.00	15520																														
ZZZZZ	WE80ASPK	20.00	15580																														
ZZZZZ	WE80APOST	20.00	16040																														
ZZZZZ	WE80MB1SPK	20.00	16100																														
CCV	MCCV6	1.00	16160		X		X							X										X	X	X						X	
CCB	CCB6	1.00	16220		X		X							X										X	X	X						X	
ZZZZZ	WE80MB2	20.00	16280																														
SR02-C03	WE79W	20.00	16340		X		X							X										X	X	X						X	
ZZZZZ	WE80B	20.00	16400																														
ZZZZZ	WE80C	20.00	16460																														
ZZZZZ	WE80D	20.00	16520																														

01000: 013M

# Analysis Run Log



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE79

INSTRUMENT ID: PE ELAN 6000 MS

RUNID: MS022882 METHOD: PMS

START DATE: 2/28/2013

END DATE: 2/28/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN	
ZZZZZZ	WE80E	20.00	16580																															
ZZZZZZ	WE80F	20.00	17040																															
ZZZZZZ	WE80G	20.00	17100																															
ZZZZZZ	WE80H	20.00	17160																															
ZZZZZZ	WE80MB2SPK	20.00	17220																															
CCV	MCCV7	1.00	17280		X		X							X										X	X	X							X	
CCB	CCB7	1.00	17340		X		X							X										X	X	X							X	

12000:02311

# Analysis Run Log



CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE79

INSTRUMENT ID: CETAC MERCURY  
 RUNID: HG022702 METHOD: CVA

START DATE: 2/27/2013  
 END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10033														X																
S0.1	S0.1	1.00	10050														X																
S0.5	S0.5	1.00	10064														X																
S1	S1	1.00	10082														X																
S2	S2	1.00	10095														X																
S5	S5	1.00	10113														X																
S10	S10	1.00	10131														X																
ICV	AICV	1.00	10163														X																
ICB	ICB	1.00	10180														X																
CCV	ACCV1	1.00	10194														X																
CCB	CCB1	1.00	10212														X																
CRA	CRA	1.00	10230														X																
ZZZZZ	WE83MB1	1.00	10243																														
ZZZZZ	WE83MB1SPK	1.00	10261																														
ZZZZZ	WE83A	1.00	10274																														
ZZZZZ	WE83ADUP	1.00	10292																														
ZZZZZ	WE83ASPK	1.00	10310																														
ZZZZZ	WE83B	1.00	10323																														
ZZZZZ	WE83BDUP	1.00	10341																														
ZZZZZ	WE83BSPK	1.00	10355																														
ZZZZZ	WE83C	1.00	10373																														
CCV	ACCV2	1.00	10391														X																
CCB	CCB2	1.00	10405														X																
ZZZZZ	WE83D	1.00	10422																														
ZZZZZ	WE83E	1.00	10440																														
ZZZZZ	WE83F	1.00	10453																														
ZZZZZ	WE83G	1.00	10471																														
ZZZZZ	WE83H	1.00	10485																														
ZZZZZ	WE83I	1.00	10502																														
ZZZZZ	WE83J	1.00	10520																														
PBW	WE79MB1	1.00	10534														X																
LCSW	WE79MB1SPK	1.00	10551														X																
SR01-D01	WE79A	1.00	10565														X																
CCV	ACCV3	1.00	10583														X																
CCB	CCB3	1.00	11001														X																

WE79:0002

# Analysis Run Log



CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE79

INSTRUMENT ID: CETAC MERCURY  
 RUNID: HG022702 METHOD: CVA

START DATE: 2/27/2013  
 END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN	
SR01-D01D	WE79ADUP	1.00	11015														X																	
SR01-D01S	WE79ASPK	1.00	11033														X																	
SR01-D02	WE79B	1.00	11051														X																	
SR01-D03	WE79C	1.00	11064														X																	
SR01-D04	WE79D	1.00	11082														X																	
SR01-D05	WE79E	1.00	11095														X																	
SR01-D06	WE79F	1.00	11113														X																	
SR01-C01	WE79G	1.00	11131														X																	
SR01-C02	WE79H	1.00	11144														X																	
SR01-C03	WE79I	1.00	11162														X																	
CCV	ACCV4	1.00	11180														X																	
CCB	CCB4	1.00	11194														X																	
SR02-D01	WE79J	1.00	11212														X																	
SR02-D02	WE79K	1.00	11230														X																	
SR02-D03	WE79L	1.00	11244														X																	
SR02-D04	WE79M	1.00	11262														X																	
SR02-D05	WE79N	1.00	11275														X																	
SR02-D06	WE79O	1.00	11293														X																	
SR02-D07	WE79P	1.00	11311																															
SR02-D08	WE79Q	1.00	11324														X																	
SR02-D09	WE79R	1.00	11342														X																	
SR02-D10	WE79S	1.00	11360														X																	
CCV	ACCV5	1.00	11374														X																	
CCB	CCB5	1.00	11392														X																	
SR02-D11	WE79T	1.00	11405														X																	
PBW	WE79MB2	1.00	11423														X																	
LCSW	WE79MB2SPK	1.00	11441														X																	
SR02-C01	WE79U	1.00	11455														X																	
SR02-C02	WE79V	1.00	11473														X																	
SR02-C03	WE79W	1.00	11491														X																	
SR03-D01	WE79X	1.00	11505																															
CCV	ACCV6	1.00	11533														X																	
CCB	CCB6	1.00	11551														X																	
SR01-D01	WE79A	1.00	12003																															
SR01-D01D	WE79ADUP	1.00	12020																															

2/27/2013 15:00:00

# Analysis Run Log



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE79

INSTRUMENT ID: CETAC MERCURY

RUNID: HG022702 METHOD: CVA

START DATE: 2/27/2013

END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN	
SR01-D01S	WE79ASPK	1.00	12034																															
SR02-D07	WE79P	2.00	12051														X																	
SR03-D01	WE79X	2.00	12065														X																	
CCV	ACCV7	1.00	12083														X																	
CCB	CCB7	1.00	12101														X																	

WE79: 6234

General Chemistry Analysis  
Report and Summary QC Forms

ARI Job ID: WE79



SAMPLE RESULTS-CONVENTIONALS  
WE79-Hart Crowser, Inc.



Matrix: Soil  
Data Release Authorized: *MB*  
Reported: 03/01/13

Project: Saddle Rock  
Event: 17917-00  
Date Sampled: 02/19/13  
Date Received: 02/25/13

Client ID: SR02-D01  
ARI ID: 13-3542 WE79J

Analyte	Date	Method	Units	RL	Sample
pH	02/28/13 022813#1	SW9045	std units	0.01	3.53

RL Analytical reporting limit  
U Undetected at reported detection limit

Results reported on a fresh weight basis  
pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS  
WE79-Hart Crowser, Inc.



Matrix: Soil  
Data Release Authorized: *MB*  
Reported: 03/01/13

Project: Saddle Rock  
Event: 17917-00  
Date Sampled: 02/20/13  
Date Received: 02/25/13

Client ID: SR03-D01  
ARI ID: 13-3556 WE79X

Analyte	Date	Method	Units	RL	Sample
pH	02/28/13 022813#1	SW9045	std units	0.01	5.13

RL Analytical reporting limit  
U Undetected at reported detection limit

Results reported on a fresh weight basis  
pH determined on 1:1 soil:D.I. water extracts.

LAB CONTROL RESULTS-CONVENTIONALS  
WE79-Hart Crowser, Inc.



Matrix: Soil  
Data Release Authorized: *MB*  
Reported: 03/01/13

Project: Saddle Rock  
Event: 17917-00  
Date Sampled: NA  
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
pH SW9045	ICVL	02/28/13	std units	6.97	7.00	0.03

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

REPLICATE RESULTS-CONVENTIONALS  
WE79-Hart Crowser, Inc.



Matrix: Soil  
Data Release Authorized: *MB*  
Reported: 03/01/13

Project: Saddle Rock  
Event: 17917-00  
Date Sampled: 02/20/13  
Date Received: 02/25/13

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: WE79X    Client ID: SR03-D01					
pH	02/28/13	std units	5.13	5.14	0.01

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference

Total Solids

ARI Job ID: WE79

Solids Data Entry Report  
Date: 02/27/13

Checked by: CA Date: 2/27/13  
Data Analyst: DM

Solids Determination performed on 02/26/13 by NB

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
WE79	A	SR01-D01	1.011	10.136	8.498	82.05
WE79	B	SR01-D02	1.016	10.519	9.203	86.15
WE79	C	SR01-D03	1.016	10.729	8.999	82.19
WE79	D	SR01-D04	0.995	10.729	9.156	83.84
WE79	E	SR01-D05	0.999	10.428	8.869	83.47
WE79	F	SR01-D06	1.006	10.188	8.680	83.58
WE79	G	SR01-C01	0.996	10.497	8.057	74.32
WE79	H	SR01-C02	1.006	10.666	9.043	83.20
WE79	I	SR01-C03	0.961	10.570	8.917	82.80
WE79	J	SR02-D01	0.972	5.639	5.167	89.89
WE79	K	SR02-D02	0.982	10.929	8.664	77.23
WE79	L	SR02-D03	0.985	10.470	9.311	87.78
WE79	M	SR02-D04	0.978	10.555	9.546	89.46
WE79	N	SR02-D05	1.000	10.211	9.313	90.25
WE79	O	SR02-D06	0.981	10.669	9.085	83.65
WE79	P	SR02-D07	1.012	10.063	8.682	84.74
WE79	Q	SR02-D08	0.990	10.607	8.847	81.70
WE79	R	SR02-D09	0.993	10.417	8.746	82.27
WE79	S	SR02-D10	1.011	10.764	8.689	78.72
WE79	T	SR02-D11	0.974	10.299	9.141	87.58
WE79	U	SR02-C01	1.008	10.629	8.329	76.09
WE79	V	SR02-C02	1.011	10.957	8.794	78.25
WE79	W	SR02-C03	0.970	10.894	9.105	81.97
WE79	X	SR03-D01	0.991	10.743	9.780	90.13



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# Total Solids Bench Sheet

Laboratory Section METALS

Oven Identification: 07

Balance ID: B116132369

Samples in Oven: Date: 02-26-13 Time: 1337 Temp: 108°C Analyst: NB

Removed from Oven: Date: 2-27-13 Time: 0745 Temp: 102°C Analyst: DM

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs <sup>1</sup>
WE79 A	1.011	10.136	8.498	-	✓
" B	1.016	10.519	9.203	-	✓
" C	1.016	10.165	8.999	-	✓
" D	0.995	10.729	9.156	-	✓
" E	0.999	10.428	8.869	-	✓
" F	1.006	10.188	8.680	-	✓
" G	0.996	10.497	8.057	-	✓
" H	1.006	10.666	9.043	-	✓
" I	0.961	10.570	8.917	-	✓
" J	0.972	5.639	5.167	-	✓
" K	0.982	10.929	8.664	-	✓
" L	0.985	10.470	9.311	-	✓
" M	0.978	10.555	9.546	-	✓
" N	1.000	10.211	9.313	-	✓
" O	0.981	10.669	9.085	-	✓
" P	1.012	10.063	8.682	-	✓
" Q	0.990	10.607	8.847	-	✓
" R	0.993	10.417	8.746	-	✓
" S	1.011	10.764	8.689	-	✓
" T	0.974	10.299	9.141	-	✓
" U	1.008	10.629	8.329	-	✓
" V	1.011	10.957	8.794	-	✓
" W	0.970	10.894	9.105	-	✓

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2<sup>nd</sup> bench sheet for additional weightings.





Metals Raw Data  
Preparation Bench Sheets and Notes

ARI Job ID: WE79





ARI Job No.: WE79

Client ID: Hart Crowser

Parameter: ICP

Client Project: Saddle Rock

List problems, concerns, corrective actions and any other pertinent information

Some samples (C-I)  
were diluted 5X based on the  
color of the digestate, which  
suggested that Fe was over range  
this was not always the case  
but as all analytes were much  
greater than the RL's they were  
not rerun at the lower dilution

Analyst Initials: AA

Date: 2-27-13



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 02-26-13

Bath Temp: 90°C

Start Time: 1502

End Time: 1532

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WE79 A	1	-	0.512	50.0	03-08 1	YES	
" ADUP	1	-	0.509		1		
" ASPK	1	-	0.513		1		
" B	1	-	0.562		1		
" C	1	-	0.581		1		
" D	1	-	0.543		1		
" E	1	-	0.541		1		
" F	1	-	0.712		1		
" G	1	-	0.580		1		
" H	1	-	0.591		1		
" I	1	-	0.582		1		
" J	1	-	0.632		1		
" K	1	-	0.533		1		
" L	1	-	0.659		1		
" M	1	-	0.643		1		
" N	1	-	0.547		1		
" O	1	-	0.609		1		
" P	1	-	0.578		1		
" Q	1	-	0.714		1		
" R	1	-	0.587		1		
" S	1	-	0.710		1		
" T	1	-	0.654		1		
" MBI	-	-	-	↓	1		
" MBISPK	-	-	-	50.0	1	↓	
					NB		
					02-26-13		

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022  
5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418

H<sub>2</sub>SO<sub>4</sub>: I7677  
5% KMnO<sub>4</sub>: MP2425

HCl: ---  
Digest Tube Lot: MFO6LKK01



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 02-26-13

Bath Temp: 90°C

Start Time: 1502

End Time: 1532

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WE79 U	1	-	0.724	50.0	03-08, 1	YES	
" V	1	-	0.593	↓	1	↓	
" W	1	-	0.657	↓	1	↓	
" X	1	-	0.549	↓	1	↓	
" MB2	-	-	-	↓	1	↓	
" MB2SPK	-	-	-	50.0	1	↓	
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: absolute; top: 50%; left: 50%;"></div>							
NB 02-26-13							

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022

H<sub>2</sub>SO<sub>4</sub>: I7677

HCl: —

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418

5% KMnO<sub>4</sub>: MP2425

Digest Tube Lot: MF06LKK01



# Digestion Log

Analyst: NB Date: 02-26-13 Time: 1425  
 Matrix: SOTL Block ID: SWC: #1 / SWN: #4 Block Temp: SWC: 90°C / SWN: 93°C Thermometer: SWC: MP8 / SWN: MP52

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SWC</u>		Prep Code: <u>SWN</u>		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
WE79 A	1	—	1.053	50.0	1.063	50.0	
" ADUP	1	—	1.053		1.066		
" ASPK	1	—	1.054		1.062		
" B	1	—	1.046		1.037		
" C	1	—	1.038		1.012		
" D	1	—	1.063		1.076		
" E	1	—	1.074		1.024		
" F	1	—	1.038		1.006		
" G	1	—	1.040		1.092		
" H	1	—	1.093		1.059		
" I	1	—	1.091		1.050		
" J	1	—	1.031		1.012		
" K	1	—	1.036		1.088		
" L	1	—	1.020		1.046		
" M	1	—	1.064		1.044		
" N	1	—	1.038		1.037		
" O	1	—	1.027		1.063		
" P	1	—	1.099		1.045		
" Q	1	—	1.089		1.070		
" R	1	—	1.075		1.038		
" MBI	—	—	—		—		
" MBISPK	—	—	—		—		
" S	1	—	1.015	↓	1.009	↓	
" T	1	—	1.075	50.0	1.011	50.0	
NB 02-26-13							

Chemical/Reagent ID:

HNO<sub>3</sub>: MP2435/I8022 HCl: I7971 H<sub>2</sub>O<sub>2</sub>: I7845 Tube Lot #: 1208059



**Metals Raw Data  
Run Logs, Calibrations, and Raw Data**

**ARI Job ID: WE79**





# Corrective Actions Inorganic Analyses

Criteria Flagged:	ARI Job No.:	WE79
Unacceptable Blank: <input type="checkbox"/>	Date of Event:	2-27-13
Unacceptable Duplicate: <input type="checkbox"/>	Client ID:	
Unacceptable Spike: <input checked="" type="checkbox"/>	Method/Element:	Hg CVA
Unacceptable Reference: <input type="checkbox"/>	Prep Code:	Smm

**Details of Problem/Recommended Corrective Action:**

1st Analysis: A - 3.22 ppb

ASPK - 3.62 ppb    %R = 63    LOW

2nd Analysis: A - 3.20 ppb

ASPK - 3.74 ppb    %R = 54    LOW

**Samples Affected:** A, ADUP, ASPK, MB, MBSPK

**Corrective Action Taken:**

*[Signature]*

**Analyst Initials:** DM

**Date:** 2-27-13

**Supervisor:** [Signature]

**Date:** 2/27/13



# Corrective Actions Inorganic Analyses

Criteria Flagged:	ARI Job No.: <u>WE79</u>
Unacceptable Blank: <input type="checkbox"/>	Date of Event: <u>2-28-13</u>
Unacceptable Duplicate: <input type="checkbox"/>	Client ID: <u>Hart Crowder</u>
Unacceptable Spike: <input checked="" type="checkbox"/>	Method/Element: <u>ICPMS</u>
Unacceptable Reference: <input checked="" type="checkbox"/> (Serial Dil'n)	Prep Code: <u>SWN</u>

**Details of Problem/Recommended Corrective Action:**

ASPK: Sb ↓ (APOST in control)

A-L/A  $V > 10\%$  ( $4236 \mu\text{g/L} \times 5 = 21,180 \mu\text{g/L}$  /  $19,138 \mu\text{g/L}$ )  
 $C > 10\%$  ( $2,638 \mu\text{g/L} \times 5 = 13,190 \mu\text{g/L}$  /  $11,910 \mu\text{g/L}$ )

**Samples Affected:**

**Corrective Action Taken:**

*Handwritten signature and date*  
3/4/13

Analyst Initials: BA

Supervisor: \_\_\_\_\_

Date: 3-1-13

Date: \_\_\_\_\_

**Metals Data Review Checklist**

Method: ICP ICP-MS GFA CVA

Analysis Date: 2-27-0

<u>ICP</u>	Analyst <u>AK 2-27</u>	Peer <u>JA 2-27-13</u>	Comment
<b>Logbook:</b>			
Analyst, Date, Method info	✓	/	
Sample ID's	✓	/	
Standard/QC solution ID's recorded	/	/	
Prep codes	/	/	
Dilution factors	/	/	
Crossouts/Corrections/Deletions	/	/	
<b>Calibration:</b>			
Blank & Standard intensities	✓	/	
Standard deviations	✓	/	
Curve fit	/	/	
<b>Calibration Verification:</b>			
ICV/CCV	✓	/	
ICB/CCB	/	/	
<b>Samples:</b>			
RSD's & SD's	✓	/	See log
Internal Standards	✓	/	↓
Carry-over	✓	/	
<b>Method QC:</b>			
CRI/CRA	✓	/	
ICSA/ICSAB	✓	/	
Post Spikes/Serial Dilutions	✓	/	
Analytic Spikes	—	—	
<b>Matrix QC:</b>			
SRM/LCS	✓	/	
Matrix Spikes	✓	/	
Matrix Duplicates	✓	/	
Method Blanks	✓	/	
<b>Data Distribution:</b>			
Requested elements/isotope identified	/	/	
Correct samples identified for distribution	/	/	
Raw data match distributed data	/	/	
Data filename correct	/	/	
Necessary Analysts Notes and CAF's	/	/	A.P. WE83 WE79



IEC Date: 1-22-13

Analysis Date: 2-27-13

Analyst: AC

LR Date: 1-22-13

Page: 1 of 4

All corrections made by analyst unless otherwise noted. MA 2-27-13

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			3016-2
		2			-7
		3			-8
		4			-9
		↑ 5			↑ -10
		ICV			3004-11
		ICB			
		CR1			
		ICSA			
		ICSAB			
		CCV1			
		CCB1			
		WE77 MB	SWL	2	
		↓ A			
		WE77 B			
222		<del>222222</del> A-E		10	RW 1/25
DIL		A		5	
		↓ ADAD			✓
		↓ ASPK			✓ AL FE Mn STL
A-L		↓ A-L		25	✓
		WE77 MBSPK		2	✓
		↓ MBSAD		↓	✓
		CCV2			
		CCB2			



IEC Date: \_\_\_\_\_

Analysis Date: 2-27-13

Analyst: KA

LR Date: \_\_\_\_\_

Page: 2 of 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
	✓	WE79 MB1	SWX	2	Ba 0.004
		C		5	A.N.
		D			
		E			
		F			
		G			See A.N.
		H			
		I		2	
		J		2	
		MB1spk		2	✓
		CCB3			
		CCB3			
		WE79 MB2	SWX	2	
79		K			
		L			
79		M			
	✓	N			re: 1/2 noisy Se
		O			
		P			
	✓	Q			re: 1/5 (Fe)
	✓	R			↓
		MB2spk		2	✓
		CCB4			✓
		CCB4			



IEC Date:                      Analysis Date: 2-27-13 Analyst: WA  
LR Date:                      Page: 3 of 4

All corrections made by analyst unless otherwise noted.

M 2-27-13

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		WE79 MBI	SWC	2	
		CR1			
		ICSA			
		ICSAB			
		CERS			
		CERS			
		WE83 MBI	SWC	2	
		WE79 S			
		T			
		U			
		V			
		W			
		X			
		WE83 C		5	See A.N.
		D		2	
503		MBI SPK		b	✓
		CERS			
		CCBG			
		WE83 A-L	SWC	25	✓
		A		5	See A.N.
		ADUP			✓
		ASDK			✓
222		222222 -APOST			Ad fe mn STL
		B-L		25	✓



IEC Date: \_\_\_\_\_ Analysis Date: 2-27-13 Analyst: MA  
LR Date: \_\_\_\_\_ Page: 4 of 4

All corrections made by analyst unless otherwise noted. 2-27

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		WB83 B	SWC	5	See A.N
		↓ B Dup	↓	↓	✓
		↓ B Spk	↓	↓	✓ AI Fe must
222		↓ 22222 B Post	↓	↓	
		CCV7			
		CCV7			
		WB83 E	SWC	2	
		↓ F	↓	5	See A.N.
		↓ G	↓	↓	↓
		↓ H	↓	↓	↓
		↓ I	↓	2	
		↓ J	↓	↓	
		WB79 N		↓	
		↓ Q	↓	5	
		↓ R	↓	5	
		D.			✓ P.O. Check
		CCV8			
		CCB8			
		CR1			
		ICSA			
		ICSAB			
		CCV9			
		CCB9			
		~~~~~	AN	2-27-13	

Nebulizer Parameters: Hg ReAlign

Analyte Back Pressure Flow
All 217.0 kPa 0.75 L/min

2/27/2013 8:08:41 AM Hg ReAlign... Actual peak offset (nm): 0.003
Drift (nm): -0.000 Slit adjustment: 0

Analysis Begun

Start Time: 2/27/2013 8:11:09 AM Plasma On Time: 2/27/2013 7:22:55 AM
Logged In Analyst: Metals Technique: ICP Continuous
Spectrometer: Optima 7300 DV, S/N 077C8121202 Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\BLKS.sif

Batch ID:

Results Data Set: I2130227

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Method Loaded

Method Name: 7300bcESI2FAST

Method Last Saved: 8/13/2012 7:13:22 AM

IEC File: 012213.iec

MSF File:

Method Description: 12Axial Elements

Table with 6 columns: Analyte, Calibration Equation, Processing, View, Internal Standard, IEC. Lists various elements like Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, V, Zn, ScA, ScR with their respective calibration and processing details.

Sequence No.: 1

Autosampler Location: 1

Sample ID: Bl

Date Collected: 2/27/2013 8:11:17 AM

Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: Bl

Analyte Back Pressure Flow
All 217.0 kPa 0.75 L/min

Handwritten note: M 2-27-13



=====  
Analysis Begun

Start Time: 2/27/2013 8:32:31 AM  
Logged In Analyst: Metals  
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 2/27/2013 7:22:55 AM  
Technique: ICP Continuous  
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISSET2.sif  
Batch ID:  
Results Data Set: I2130227  
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

=====  
Sequence No.: 1  
Sample ID: Calib Blank 1  
Autosampler Location: 1  
Date Collected: 2/27/2013 8:32:32 AM  
Data Type: Original

-----  
Nebulizer Parameters: Calib Blank 1  
Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

-----  
Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
ScA 357.253	3161867.8	39746.83	1.26%	100.0 %
ScR 361.383	338212.2	1330.20	0.39%	100.0 %
Ag 328.068†	-101.4	36.98	36.47%	[0.00] mg/L
Al 308.215†	206.3	7.53	3.65%	[0.00] mg/L
As 188.979†	-18.3	3.28	17.93%	[0.00] mg/L
B 249.677†	-35.8	3.85	10.76%	[0.00] mg/L
Ba 233.527†	48.8	3.17	6.48%	[0.00] mg/L
Be 313.042†	684.4	22.16	3.24%	[0.00] mg/L
Ca 317.933†	90.5	7.74	8.55%	[0.00] mg/L
Cd 228.802†	277.4	2.90	1.04%	[0.00] mg/L
Co 228.616†	-147.0	0.34	0.23%	[0.00] mg/L
Cr 267.716†	-182.5	5.42	2.97%	[0.00] mg/L
Cu 324.752†	3043.0	35.80	1.18%	[0.00] mg/L
Fe 273.955†	13.3	2.90	21.72%	[0.00] mg/L
K 766.490†	397.7	32.93	8.28%	[0.00] mg/L
Mg 279.077†	81.1	6.95	8.57%	[0.00] mg/L
Mn 257.610†	257.7	2.55	0.99%	[0.00] mg/L
Mo 202.031†	90.4	4.65	5.15%	[0.00] mg/L
Na 589.592†	-488.3	41.25	8.45%	[0.00] mg/L
Na 330.237†	-106.5	11.51	10.80%	[0.00] mg/L
Ni 231.604†	11.6	3.74	32.12%	[0.00] mg/L
Pb 220.353†	-32.0	5.72	17.88%	[0.00] mg/L
Sb 206.836†	56.5	3.35	5.92%	[0.00] mg/L
Se 196.026†	-53.8	4.62	8.58%	[0.00] mg/L
Si 288.158†	48.5	7.36	15.17%	[0.00] mg/L
Sn 189.927†	-10.2	4.10	40.10%	[0.00] mg/L
Sr 421.552†	370.0	17.22	4.65%	[0.00] mg/L
Ti 334.903†	-65.2	7.98	12.25%	[0.00] mg/L
Tl 190.801†	-43.6	3.66	8.39%	[0.00] mg/L
V 292.402†	89.0	11.29	12.68%	[0.00] mg/L
Zn 206.200†	-14.5	1.46	10.04%	[0.00] mg/L

=====  
Sequence No.: 2  
Sample ID: STD2  
Autosampler Location: 2  
Date Collected: 2/27/2013 8:36:47 AM  
Data Type: Original

-----  
Nebulizer Parameters: STD2  
Analyte Back Pressure Flow  
All 217.0 kPa 0.75 L/min

-----  
Mean Data: STD2  
Mean Corrected  
Calib

Analyte	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	3184615.7	22277.40	0.70%	100.7	%
ScR 361.383	338740.1	4369.73	1.29%	100.2	%
Ba 233.527†	57274.1	293.96	0.51%	[10]	mg/L
Cd 228.802†	262857.3	1518.10	0.58%	[10]	mg/L
Co 228.616†	418316.0	2467.40	0.59%	[10]	mg/L
Cr 267.716†	64853.4	633.01	0.98%	[10]	mg/L
Cu 324.752†	2776283.7	18942.30	0.68%	[10]	mg/L
Mn 257.610†	486460.6	6461.75	1.33%	[10]	mg/L
V 292.402†	1358819.5	6346.82	0.47%	[10]	mg/L

Sequence No.: 3  
Sample ID: STD3

Autosampler Location: 3  
Date Collected: 2/27/2013 8:38:34 AM  
Data Type: Original

## Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: STD3

Analyte	Mean Corrected			RSD	Calib	
	Intensity	Std.Dev.	Conc.		Units	
ScA 357.253	3161374.3	16626.99	0.53%	99.98	%	
ScR 361.383	339807.8	2849.86	0.84%	100.5	%	
Ag 328.068†	222365.6	1283.58	0.58%	[1.0]	mg/L	
As 188.979†	17424.7	204.86	1.18%	[10]	mg/L	
B 249.677†	66340.9	388.42	0.59%	[10]	mg/L	
Be 313.042†	2606651.7	34858.49	1.34%	[5.0]	mg/L	
Na 589.592†	600527.1	6097.51	1.02%	[50]	mg/L	
Ni 231.604†	39988.1	234.12	0.59%	[10]	mg/L	
Pb 220.353†	93367.3	437.04	0.47%	[10]	mg/L	
Se 196.026†	17062.1	190.04	1.11%	[10]	mg/L	
Sr 421.552†	4577418.7	34074.89	0.74%	[5]	mg/L	
Tl 190.801†	23112.1	212.17	0.92%	[10]	mg/L	
Zn 206.200†	41685.6	311.07	0.75%	[10]	mg/L	

Sequence No.: 4  
Sample ID: STD4

Autosampler Location: 4  
Date Collected: 2/27/2013 8:41:08 AM  
Data Type: Original

## Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

## Mean Data: STD4

Analyte	Mean Corrected			RSD	Calib	
	Intensity	Std.Dev.	Conc.		Units	
ScA 357.253	3196768.0	29888.35	0.93%	101.1	%	
ScR 361.383	343527.6	3300.09	0.96%	101.6	%	
Mo 202.031†	220821.5	2727.74	1.24%	[10]	mg/L	
Sb 206.836†	34818.7	365.61	1.05%	[10]	mg/L	
Si 288.158†	17620.1	308.25	1.75%	[10]	mg/L	
Sn 189.927†	50362.9	752.28	1.49%	[10]	mg/L	
Ti 334.903†	227509.2	1649.94	0.73%	[10]	mg/L	

Sequence No.: 5  
Sample ID: STD5

Autosampler Location: 5  
Date Collected: 2/27/2013 8:43:23 AM  
Data Type: Original

## Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

## Mean Data: STD5

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	2986120.9	11140.03	0.37%	94.44	%
ScR 361.383	338193.0	700.15	0.21%	99.99	%
Al 308.215†	40839.5	119.75	0.29%	[30]	mg/L
Ca 317.933†	313724.9	766.61	0.24%	[30]	mg/L
Fe 273.955†	156352.0	1168.76	0.75%	[100]	mg/L
K 766.490†	161553.7	268.74	0.17%	[100]	mg/L
Mg 279.077†	30384.4	122.52	0.40%	[30]	mg/L
Na 330.237†	3001.8	10.58	0.35%	[100]	mg/L

-----  
Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	222400	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1361	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1742	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	6634	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	5727	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	521300	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	10460	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	26290	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	41830	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	6485	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	277600	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1564	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1616	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1013	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	48650	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	22080	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	12010	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	30.02	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	3999	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	9337	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	3482	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1706	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1762	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	5036	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	915500	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	22750	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2311	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	135900	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	4169	0.00000	1.000000	

=====  
Analysis Begun

Start Time: 2/27/2013 8:46:52 AM  
Logged In Analyst: Metals  
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 2/27/2013 7:22:55 AM  
Technique: ICP Continuous  
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISSET2.sif

Batch ID:

Results Data Set: I2130227

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

=====  
Sequence No.: 1

Sample ID: CV

Autosampler Location: 7

Date Collected: 2/27/2013 8:46:53 AM

Data Type: Original

Dilution: 1.000000X

-----  
Nebulizer Parameters: CV

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

-----  
Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3172049.3	100.3	%	0.30			0.30%
ScR 361.383	340504.2	100.7	%	0.21			0.20%
Ag 328.068†	232355.8	1.045	mg/L	0.0050	1.045 mg/L	0.0050	0.47%
Al 308.215†	2760.0	1.993	mg/L	0.0040	1.993 mg/L	0.0040	0.20%
As 188.979†	3452.7	2.012	mg/L	0.0046	2.012 mg/L	0.0046	0.23%
B 249.677†	6717.0	1.011	mg/L	0.0030	1.011 mg/L	0.0030	0.30%
Ba 233.527†	5756.4	1.005	mg/L	0.0076	1.005 mg/L	0.0076	0.75%
Be 313.042†	502280.5	0.9632	mg/L	0.00321	0.9632 mg/L	0.00321	0.33%
Ca 317.933†	21226.3	2.030	mg/L	0.0018	2.030 mg/L	0.0018	0.09%
Cd 228.802†	27392.0	1.032	mg/L	0.0084	1.032 mg/L	0.0084	0.81%
Co 228.616†	42259.9	1.008	mg/L	0.0037	1.008 mg/L	0.0037	0.37%
Cr 267.716†	6516.5	1.004	mg/L	0.0032	1.004 mg/L	0.0032	0.32%
Cu 324.752†	286406.7	1.031	mg/L	0.0062	1.031 mg/L	0.0062	0.60%
Fe 273.955†	3180.1	2.028	mg/L	0.0114	2.028 mg/L	0.0114	0.56%
K 766.490†	32074.4	19.85	mg/L	0.057	19.85 mg/L	0.057	0.29%
Mg 279.077†	2032.1	2.013	mg/L	0.0038	2.013 mg/L	0.0038	0.19%
Mn 257.610†	46993.8	0.9664	mg/L	0.00823	0.9664 mg/L	0.00823	0.85%
Mo 202.031†	22047.4	0.9984	mg/L	0.00463	0.9984 mg/L	0.00463	0.46%
Na 589.592†	613561.4	51.09	mg/L	0.059	51.09 mg/L	0.059	0.12%
Na 330.237†	1573.6	52.39	mg/L	0.107	52.39 mg/L	0.107	0.20%
Ni 231.604†	4036.9	1.010	mg/L	0.0040	1.010 mg/L	0.0040	0.40%
Pb 220.353†	19156.5	2.053	mg/L	0.0061	2.053 mg/L	0.0061	0.30%
Sb 206.836†	7158.5	2.054	mg/L	0.0064	2.054 mg/L	0.0064	0.31%
Se 196.026†	3377.9	1.978	mg/L	0.0074	1.978 mg/L	0.0074	0.37%
Si 288.158†	3550.3	2.010	mg/L	0.0116	2.010 mg/L	0.0116	0.58%
Sn 189.927†	4909.5	0.9762	mg/L	0.00629	0.9762 mg/L	0.00629	0.64%
Sr 421.552†	916196.4	1.001	mg/L	0.0018	1.001 mg/L	0.0018	0.18%
Ti 334.903†	22395.4	0.9830	mg/L	0.00347	0.9830 mg/L	0.00347	0.35%
Tl 190.801†	4632.1	1.996	mg/L	0.0052	1.996 mg/L	0.0052	0.26%
V 292.402†	139738.0	1.033	mg/L	0.0054	1.033 mg/L	0.0054	0.52%
Zn 206.200†	4312.5	1.035	mg/L	0.0024	1.035 mg/L	0.0024	0.23%

User canceled analysis.

=====  
Analysis Begun

Start Time: 2/27/2013 8:50:55 AM  
Logged In Analyst: Metals  
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 2/27/2013 7:22:55 AM  
Technique: ICP Continuous  
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISSET2.sif

Batch ID:

Results Data Set: I2130227

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 2

Sample ID: CB

Autosampler Location: 1

Date Collected: 2/27/2013 8:50:57 AM

Data Type: Original

Dilution: 1.000000X

## Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3152942.2	99.72	%	0.217			0.22%
ScR 361.383	342036.5	101.1	%	1.02			1.01%
Ag 328.068†	8.3	0.00004	mg/L	0.000016	0.00004 mg/L	0.000016	42.56%
Al 308.215†	2.9	0.00211	mg/L	0.008294	0.00211 mg/L	0.008294	393.79%
As 188.979†	0.3	0.00013	mg/L	0.003892	0.00013 mg/L	0.003892	>999.9%
B 249.677†	25.2	0.00381	mg/L	0.000559	0.00381 mg/L	0.000559	14.70%
Ba 233.527†	-0.4	-0.00007	mg/L	0.000698	-0.00007 mg/L	0.000698	963.45%
Be 313.042†	-21.2	-0.00004	mg/L	0.000032	-0.00004 mg/L	0.000032	79.74%
Ca 317.933†	-3.8	-0.00036	mg/L	0.001927	-0.00036 mg/L	0.001927	528.09%
Cd 228.802†	2.3	0.00009	mg/L	0.000031	0.00009 mg/L	0.000031	35.07%
Co 228.616†	-1.0	-0.00002	mg/L	0.000134	-0.00002 mg/L	0.000134	599.74%
Cr 267.716†	4.4	0.00068	mg/L	0.000156	0.00068 mg/L	0.000156	22.94%
Cu 324.752†	88.4	0.00032	mg/L	0.000146	0.00032 mg/L	0.000146	46.01%
Fe 273.955†	1.2	0.00076	mg/L	0.001285	0.00076 mg/L	0.001285	169.43%
K 766.490†	-30.6	-0.01895	mg/L	0.022582	-0.01895 mg/L	0.022582	119.19%
Mg 279.077†	-4.6	-0.00456	mg/L	0.004753	-0.00456 mg/L	0.004753	104.30%
Mn 257.610†	-4.4	-0.00009	mg/L	0.000041	-0.00009 mg/L	0.000041	45.54%
Mo 202.031†	58.6	0.00266	mg/L	0.000188	0.00266 mg/L	0.000188	7.07%
Na 589.592†	9.2	0.00077	mg/L	0.000517	0.00077 mg/L	0.000517	67.42%
Na 330.237†	11.6	0.3853	mg/L	0.32675	0.3853 mg/L	0.32675	84.81%
Ni 231.604†	-3.8	-0.00094	mg/L	0.001165	-0.00094 mg/L	0.001165	123.34%
Pb 220.353†	6.9	0.00074	mg/L	0.000235	0.00074 mg/L	0.000235	31.85%
Sb 206.836†	23.1	0.00662	mg/L	0.000642	0.00662 mg/L	0.000642	9.70%
Se 196.026†	3.8	0.00221	mg/L	0.000849	0.00221 mg/L	0.000849	38.45%
Si 288.158†	1.8	0.00103	mg/L	0.002486	0.00103 mg/L	0.002486	241.64%
Sn 189.927†	5.1	0.00101	mg/L	0.000724	0.00101 mg/L	0.000724	71.62%
Sr 421.552†	-4.0	-0.00000	mg/L	0.000026	-0.00000 mg/L	0.000026	598.81%
Ti 334.903†	-10.7	-0.00047	mg/L	0.000395	-0.00047 mg/L	0.000395	83.57%
Tl 190.801†	3.1	0.00136	mg/L	0.001542	0.00136 mg/L	0.001542	113.80%
V 292.402†	-0.0	0.00000	mg/L	0.000106	0.00000 mg/L	0.000106	>999.9%
Zn 206.200†	0.2	0.00005	mg/L	0.000468	0.00005 mg/L	0.000468	976.82%

Sequence No.: 3  
Sample ID: CRI

Autosampler Location: 301  
Date Collected: 2/27/2013 8:55:13 AM  
Data Type: Original

Dilution: 1.000000X

## Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: CRI

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	3150505.0	99.64	%	0.198			0.20%
ScR 361.383	339861.4	100.5	%	0.46			0.46%
Ag 328.068†	699.2	0.00315	mg/L	0.000051	0.00315	mg/L	0.000051 1.61%
Al 308.215†	77.4	0.05670	mg/L	0.005833	0.05670	mg/L	0.005833 10.29%
As 188.979†	86.9	0.05001	mg/L	0.001192	0.05001	mg/L	0.001192 2.38%
B 249.677†	152.7	0.02302	mg/L	0.000372	0.02302	mg/L	0.000372 1.62%
Ba 233.527†	17.7	0.00309	mg/L	0.000234	0.00309	mg/L	0.000234 7.58%
Be 313.042†	485.0	0.00093	mg/L	0.000014	0.00093	mg/L	0.000014 1.48%
Ca 317.933†	520.3	0.04975	mg/L	0.000761	0.04975	mg/L	0.000761 1.53%
Cd 228.802†	62.7	0.00212	mg/L	0.000164	0.00212	mg/L	0.000164 7.76%
Co 228.616†	147.0	0.00350	mg/L	0.000155	0.00350	mg/L	0.000155 4.43%
Cr 267.716†	31.4	0.00484	mg/L	0.000429	0.00484	mg/L	0.000429 8.87%
Cu 324.752†	585.1	0.00211	mg/L	0.000141	0.00211	mg/L	0.000141 6.67%
Fe 273.955†	85.2	0.05447	mg/L	0.001635	0.05447	mg/L	0.001635 3.00%
K 766.490†	751.2	0.4650	mg/L	0.01365	0.4650	mg/L	0.01365 2.93%
Mg 279.077†	55.7	0.05496	mg/L	0.007408	0.05496	mg/L	0.007408 13.48%
Mn 257.610†	51.1	0.00105	mg/L	0.000046	0.00105	mg/L	0.000046 4.38%
Mo 202.031†	130.9	0.00593	mg/L	0.000064	0.00593	mg/L	0.000064 1.09%
Na 589.592†	5983.4	0.4982	mg/L	0.00671	0.4982	mg/L	0.00671 1.35%
Na 330.237†	23.8	0.7925	mg/L	0.24879	0.7925	mg/L	0.24879 31.39%
Ni 231.604†	42.8	0.01071	mg/L	0.001420	0.01071	mg/L	0.001420 13.26%
Pb 220.353†	194.6	0.02086	mg/L	0.000316	0.02086	mg/L	0.000316 1.51%
Sb 206.836†	184.8	0.05309	mg/L	0.001028	0.05309	mg/L	0.001028 1.94%
Se 196.026†	84.7	0.04963	mg/L	0.000823	0.04963	mg/L	0.000823 1.66%
Si 288.158†	108.5	0.06151	mg/L	0.002302	0.06151	mg/L	0.002302 3.74%
Sn 189.927†	50.8	0.01012	mg/L	0.000694	0.01012	mg/L	0.000694 6.86%
Sr 421.552†	937.9	0.00102	mg/L	0.000021	0.00102	mg/L	0.000021 2.09%
Ti 334.903†	95.1	0.00417	mg/L	0.001618	0.00417	mg/L	0.001618 38.81%
Tl 190.801†	117.6	0.05087	mg/L	0.000290	0.05087	mg/L	0.000290 0.57%
V 292.402†	424.0	0.00314	mg/L	0.000075	0.00314	mg/L	0.000075 2.37%
Zn 206.200†	40.1	0.00962	mg/L	0.000118	0.00962	mg/L	0.000118 1.22%

Sequence No.: 4  
Sample ID: ICSA

Autosampler Location: 302  
Date Collected: 2/27/2013 8:59:30 AM  
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3098987.8	98.01	%	0.296			0.30%
ScR 361.383	338990.5	100.2	%	1.28			1.28%
Ag 328.068†	-236.5	-0.00043	mg/L	0.000182	-0.00043 mg/L	0.000182	42.50%
Al 308.215†	269944.3	198.3	mg/L	3.99	198.3 mg/L	3.99	2.01%
As 188.979†	49.6	0.01987	mg/L	0.002154	0.01987 mg/L	0.002154	10.84%
B 249.677†	-48.6	-0.00732	mg/L	0.001917	-0.00732 mg/L	0.001917	26.17%
Ba 233.527†	147.1	-0.00290	mg/L	0.001413	-0.00290 mg/L	0.001413	48.70%
Be 313.042†	41.7	0.00008	mg/L	0.000021	0.00008 mg/L	0.000021	27.23%
Ca 317.933†	1024471.2	97.97	mg/L	1.856	97.97 mg/L	1.856	1.89%
Cd 228.802†	54.7	0.00192	mg/L	0.000079	0.00192 mg/L	0.000079	4.12%
Co 228.616†	76.3	0.00180	mg/L	0.000130	0.00180 mg/L	0.000130	7.23%
Cr 267.716†	24.7	-0.00098	mg/L	0.001421	-0.00098 mg/L	0.001421	145.20%
Cu 324.752†	-2212.1	0.00105	mg/L	0.000119	0.00105 mg/L	0.000119	11.30%
Fe 273.955†	304175.4	194.5	mg/L	4.30	194.5 mg/L	4.30	2.21%
K 766.490†	24.5	0.01520	mg/L	0.006540	0.01520 mg/L	0.006540	43.04%
Mg 279.077†	103228.4	101.8	mg/L	2.55	101.8 mg/L	2.55	2.51%
Mn 257.610†	65.0	-0.00004	mg/L	0.000287	-0.00004 mg/L	0.000287	739.63%
Mo 202.031†	107.5	0.00371	mg/L	0.000287	0.00371 mg/L	0.000287	7.73%
Na 589.592†	189.0	0.01573	mg/L	0.001186	0.01573 mg/L	0.001186	7.54%
Na 330.237†	-2.6	-0.08379	mg/L	0.079134	-0.08379 mg/L	0.079134	94.45%
Ni 231.604†	2.4	0.00062	mg/L	0.001114	0.00062 mg/L	0.001114	179.38%
Pb 220.353†	-511.9	-0.01156	mg/L	0.001103	-0.01156 mg/L	0.001103	9.54%
Sb 206.836†	30.4	0.00859	mg/L	0.001177	0.00859 mg/L	0.001177	13.69%
Se 196.026†	26.0	-0.00758	mg/L	0.000765	-0.00758 mg/L	0.000765	10.09%
Si 288.158†	-28.1	-0.00434	mg/L	0.003033	-0.00434 mg/L	0.003033	69.92%
Sn 189.927†	-85.3	-0.00873	mg/L	0.000217	-0.00873 mg/L	0.000217	2.49%
Sr 421.552†	3709.7	0.00405	mg/L	0.000112	0.00405 mg/L	0.000112	2.75%
Ti 334.903†	227.5	0.00417	mg/L	0.000060	0.00417 mg/L	0.000060	1.44%
Tl 190.801†	-44.4	0.00658	mg/L	0.001185	0.00658 mg/L	0.001185	18.01%
V 292.402†	1365.7	0.00030	mg/L	0.000189	0.00030 mg/L	0.000189	63.00%
Zn 206.200†	-3.3	-0.00081	mg/L	0.000735	-0.00081 mg/L	0.000735	91.24%

Sequence No.: 5  
Sample ID: ICSAB

Autosampler Location: 303  
Date Collected: 2/27/2013 9:03:46 AM  
Data Type: Original

Dilution: 1.000000X

## Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3124950.3	98.83	%	0.657			0.67%
ScR 361.383	341566.3	101.0	%	0.85			0.84%
Ag 328.068†	233876.2	1.053	mg/L	0.0104	1.053 mg/L	0.0104	0.99%
Al 308.215†	268143.2	197.0	mg/L	2.55	197.0 mg/L	2.55	1.29%
As 188.979†	1789.3	1.018	mg/L	0.0049	1.018 mg/L	0.0049	0.48%
B 249.677†	-35.4	-0.00756	mg/L	0.000496	-0.00756 mg/L	0.000496	6.56%
Ba 233.527†	5785.3	0.9816	mg/L	0.01220	0.9816 mg/L	0.01220	1.24%
Be 313.042†	505271.3	0.9690	mg/L	0.01675	0.9690 mg/L	0.01675	1.73%
Ca 317.933†	1018902.6	97.43	mg/L	1.487	97.43 mg/L	1.487	1.53%
Cd 228.802†	27148.6	1.028	mg/L	0.0120	1.028 mg/L	0.0120	1.17%
Co 228.616†	40163.0	0.9599	mg/L	0.01137	0.9599 mg/L	0.01137	1.18%
Cr 267.716†	6455.2	0.9905	mg/L	0.00952	0.9905 mg/L	0.00952	0.96%
Cu 324.752†	287464.0	1.045	mg/L	0.0109	1.045 mg/L	0.0109	1.04%
Fe 273.955†	302015.4	193.2	mg/L	2.55	193.2 mg/L	2.55	1.32%
K 766.490†	6.0	0.00370	mg/L	0.012192	0.00370 mg/L	0.012192	329.07%
Mg 279.077†	99082.7	97.71	mg/L	1.293	97.71 mg/L	1.293	1.32%
Mn 257.610†	45795.4	0.9402	mg/L	0.01339	0.9402 mg/L	0.01339	1.42%
Mo 202.031†	112.2	0.00388	mg/L	0.000221	0.00388 mg/L	0.000221	5.68%
Na 589.592†	241.3	0.02009	mg/L	0.001962	0.02009 mg/L	0.001962	9.76%
Na 330.237†	8.4	0.00054	mg/L	0.171219	0.00054 mg/L	0.171219	>999.9%
Ni 231.604†	3845.0	0.9616	mg/L	0.00522	0.9616 mg/L	0.00522	0.54%
Pb 220.353†	8685.7	0.9738	mg/L	0.00717	0.9738 mg/L	0.00717	0.74%
Sb 206.836†	3529.5	1.004	mg/L	0.0060	1.004 mg/L	0.0060	0.60%
Se 196.026†	1719.4	0.9840	mg/L	0.01063	0.9840 mg/L	0.01063	1.08%
Si 288.158†	-34.2	-0.00488	mg/L	0.003060	-0.00488 mg/L	0.003060	62.70%
Sn 189.927†	-83.8	-0.00795	mg/L	0.000126	-0.00795 mg/L	0.000126	1.59%
Sr 421.552†	3627.4	0.00396	mg/L <i>cont</i>	0.000034	0.00396 mg/L	0.000034	0.87%
Ti 334.903†	219.1	0.00365	mg/L	0.000432	0.00365 mg/L	0.000432	11.84%
Tl 190.801†	2159.2	0.9501	mg/L	0.00934	0.9501 mg/L	0.00934	0.98%
V 292.402†	136116.5	0.9965	mg/L	0.01047	0.9965 mg/L	0.01047	1.05%
Zn 206.200†	3954.5	0.9489	mg/L	0.00768	0.9489 mg/L	0.00768	0.81%



Sequence No.: 6  
Sample ID: CV {

Autosampler Location: 7  
Date Collected: 2/27/2013 9:07:48 AM  
Data Type: Original

Dilution: 1.000000X

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Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

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Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3171662.8	100.3 %	1.08			1.08%
ScR 361.383	336564.0	99.51 %	0.742			0.75%
Ag 328.068†	233706.5	1.051 mg/L	0.0048	1.051 mg/L	0.0048	0.46%
Al 308.215†	2842.7	2.053 mg/L	0.0249	2.053 mg/L	0.0249	1.21%
As 188.979†	3539.7	2.062 mg/L	0.0203	2.062 mg/L	0.0203	0.98%
B 249.677†	6861.9	1.033 mg/L	0.0050	1.033 mg/L	0.0050	0.49%
Ba 233.527†	5921.0	1.033 mg/L	0.0105	1.033 mg/L	0.0105	1.01%
Be 313.042†	511312.9	0.9805 mg/L	0.01529	0.9805 mg/L	0.01529	1.56%
Ca 317.933†	21848.5	2.089 mg/L	0.0154	2.089 mg/L	0.0154	0.74%
Cd 228.802†	27767.4	1.046 mg/L	0.0049	1.046 mg/L	0.0049	0.47%
Co 228.616†	42946.6	1.025 mg/L	0.0050	1.025 mg/L	0.0050	0.49%
Cr 267.716†	6705.4	1.033 mg/L	0.0066	1.033 mg/L	0.0066	0.64%
Cu 324.752†	288800.3	1.040 mg/L	0.0056	1.040 mg/L	0.0056	0.54%
Fe 273.955†	3298.2	2.104 mg/L	0.0108	2.104 mg/L	0.0108	0.51%
K 766.490†	32009.4	19.81 mg/L	0.308	19.81 mg/L	0.308	1.55%
Mg 279.077†	2113.0	2.093 mg/L	0.0127	2.093 mg/L	0.0127	0.61%
Mn 257.610†	47893.0	0.9849 mg/L	0.01577	0.9849 mg/L	0.01577	1.60%
Mo 202.031†	22433.9	1.016 mg/L	0.0093	1.016 mg/L	0.0093	0.92%
Na 589.592†	621595.2	51.75 mg/L	0.509	51.75 mg/L	0.509	0.98%
Na 330.237†	1601.7	53.32 mg/L	0.545	53.32 mg/L	0.545	1.02%
Ni 231.604†	4174.2	1.044 mg/L	0.0035	1.044 mg/L	0.0035	0.33%
Pb 220.353†	19584.6	2.099 mg/L	0.0197	2.099 mg/L	0.0197	0.94%
Sb 206.836†	7300.5	2.095 mg/L	0.0199	2.095 mg/L	0.0199	0.95%
Se 196.026†	3463.7	2.029 mg/L	0.0175	2.029 mg/L	0.0175	0.86%
Si 288.158†	3649.6	2.066 mg/L	0.0096	2.066 mg/L	0.0096	0.46%
Sn 189.927†	5056.4	1.005 mg/L	0.0100	1.005 mg/L	0.0100	1.00%
Sr 421.552†	926915.8	1.012 mg/L	0.0123	1.012 mg/L	0.0123	1.22%
Ti 334.903†	22713.8	0.9970 mg/L	0.01321	0.9970 mg/L	0.01321	1.33%
Tl 190.801†	4721.1	2.034 mg/L	0.0176	2.034 mg/L	0.0176	0.87%
V 292.402†	140807.9	1.041 mg/L	0.0033	1.041 mg/L	0.0033	0.32%
Zn 206.200†	4471.8	1.073 mg/L	0.0074	1.073 mg/L	0.0074	0.69%

Sequence No.: 7  
Sample ID: CB \

Autosampler Location: 1  
Date Collected: 2/27/2013 9:11:52 AM  
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 217.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3170039.0	100.3	%	0.08			0.08%
ScR 361.383	338089.6	99.96	%	0.231			0.23%
Ag 328.068†	42.3	0.00019	mg/L	0.000146	0.00019 mg/L	0.000146	76.80%
Al 308.215†	5.5	0.00404	mg/L	0.010224	0.00404 mg/L	0.010224	253.03%
As 188.979†	1.8	0.00102	mg/L	0.001757	0.00102 mg/L	0.001757	172.46%
B 249.677†	17.6	0.00266	mg/L	0.000800	0.00266 mg/L	0.000800	30.08%
Ba 233.527†	5.1	0.00089	mg/L	0.000690	0.00089 mg/L	0.000690	77.41%
Be 313.042†	20.7	0.00004	mg/L	0.000032	0.00004 mg/L	0.000032	79.95%
Ca 317.933†	12.0	0.00115	mg/L	0.000795	0.00115 mg/L	0.000795	69.28%
Cd 228.802†	2.7	0.00010	mg/L	0.000084	0.00010 mg/L	0.000084	86.67%
Co 228.616†	1.7	0.00004	mg/L	0.000042	0.00004 mg/L	0.000042	103.55%
Cr 267.716†	-1.2	-0.00018	mg/L	0.000336	-0.00018 mg/L	0.000336	187.24%
Cu 324.752†	49.4	0.00018	mg/L	0.000291	0.00018 mg/L	0.000291	164.15%
Fe 273.955†	4.6	0.00292	mg/L	0.001825	0.00292 mg/L	0.001825	62.59%
K 766.490†	-5.9	-0.00362	mg/L	0.014302	-0.00362 mg/L	0.014302	394.64%
Mg 279.077†	4.9	0.00482	mg/L	0.005371	0.00482 mg/L	0.005371	111.38%
Mn 257.610†	5.9	0.00012	mg/L	0.000113	0.00012 mg/L	0.000113	93.06%
Mo 202.031†	39.7	0.00180	mg/L	0.000044	0.00180 mg/L	0.000044	2.45%
Na 589.592†	23.8	0.00198	mg/L	0.002896	0.00198 mg/L	0.002896	146.30%
Na 330.237†	2.5	0.08439	mg/L	0.111339	0.08439 mg/L	0.111339	131.93%
Ni 231.604†	-1.2	-0.00030	mg/L	0.000542	-0.00030 mg/L	0.000542	180.69%
Pb 220.353†	8.9	0.00096	mg/L	0.000059	0.00096 mg/L	0.000059	6.11%
Sb 206.836†	25.3	0.00728	mg/L	0.001788	0.00728 mg/L	0.001788	24.55%
Se 196.026†	0.3	0.00015	mg/L	0.001640	0.00015 mg/L	0.001640	>999.9%
Si 288.158†	-1.6	-0.00092	mg/L	0.004049	-0.00092 mg/L	0.004049	438.62%
Sn 189.927†	5.7	0.00114	mg/L	0.000907	0.00114 mg/L	0.000907	79.47%
Sr 421.552†	28.5	0.00003	mg/L	0.000036	0.00003 mg/L	0.000036	117.13%
Ti 334.903†	-6.3	-0.00028	mg/L	0.000218	-0.00028 mg/L	0.000218	78.51%
Tl 190.801†	7.3	0.00315	mg/L	0.000415	0.00315 mg/L	0.000415	13.16%
V 292.402†	-3.0	-0.00002	mg/L	0.000153	-0.00002 mg/L	0.000153	706.53%
Zn 206.200†	0.4	0.00011	mg/L	0.001265	0.00011 mg/L	0.001265	>999.9%

Sequence No.: 8  
 Sample ID: WE77 MB SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 304  
 Date Collected: 2/27/2013 9:16:08 AM  
 Data Type: Original

## Nebulizer Parameters: WE77 MB SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE77 MB SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3251857.8	102.8	%	0.73			0.71%
ScR 361.383	346584.4	102.5	%	0.40			0.39%
Ag 328.068†	40.4	0.00018	mg/L	0.000127	0.00036 mg/L	0.000253	69.60%
Al 308.215†	10.5	0.00768	mg/L	0.001328	0.01535 mg/L	0.002657	17.31%
As 188.979†	2.2	0.00126	mg/L	0.001577	0.00252 mg/L	0.003154	125.25%
B 249.677†	3.6	0.00054	mg/L	0.000864	0.00107 mg/L	0.001729	161.55%
Ba 233.527†	-0.7	-0.00013	mg/L	0.000189	-0.00026 mg/L	0.000379	145.54%
Be 313.042†	-7.0	-0.00001	mg/L	0.000020	-0.00003 mg/L	0.000039	144.21%
Ca 317.933†	169.0	0.01616	mg/L	0.000565	0.03231 mg/L	0.001129	3.49%
Cd 228.802†	-2.5	-0.00010	mg/L	0.000111	-0.00020 mg/L	0.000222	110.29%
Co 228.616†	5.1	0.00012	mg/L	0.000041	0.00024 mg/L	0.000081	33.40%
Cr 267.716†	9.9	0.00152	mg/L	0.000588	0.00304 mg/L	0.001175	38.61%
Cu 324.752†	91.0	0.00033	mg/L	0.000064	0.00066 mg/L	0.000129	19.63%
Fe 273.955†	7.3	0.00466	mg/L	0.001840	0.00932 mg/L	0.003679	39.48%
K 766.490†	-10.1	-0.00623	mg/L	0.007330	-0.01246 mg/L	0.014659	117.64%
Mg 279.077†	4.0	0.00390	mg/L	0.005806	0.00780 mg/L	0.011613	148.86%
Mn 257.610†	1.9	0.00004	mg/L	0.000103	0.00008 mg/L	0.000207	266.09%
Mo 202.031†	5.6	0.00025	mg/L	0.000062	0.00051 mg/L	0.000125	24.68%
Na 589.592†	96.8	0.00806	mg/L	0.000983	0.01611 mg/L	0.001967	12.21%
Na 330.237†	2.3	0.07469	mg/L	0.438449	0.1494 mg/L	0.87690	587.03%
Ni 231.604†	-0.1	-0.00002	mg/L	0.000257	-0.00005 mg/L	0.000514	>999.9%
Pb 220.353†	8.3	0.00090	mg/L	0.000577	0.00180 mg/L	0.001155	64.30%
Sb 206.836†	8.0	0.00229	mg/L	0.001541	0.00459 mg/L	0.003082	67.19%
Se 196.026†	3.0	0.00173	mg/L	0.001565	0.00346 mg/L	0.003131	90.46%
Si 288.158†	4.9	0.00277	mg/L	0.005711	0.00555 mg/L	0.011423	205.82%
Sn 189.927†	4.1	0.00083	mg/L	0.000569	0.00165 mg/L	0.001139	68.98%
Sr 421.552†	25.4	0.00003	mg/L	0.000031	0.00006 mg/L	0.000061	110.13%
Ti 334.903†	10.8	0.00047	mg/L	0.000577	0.00094 mg/L	0.001153	122.09%
Tl 190.801†	3.1	0.00132	mg/L	0.001510	0.00264 mg/L	0.003020	114.30%
V 292.402†	19.5	0.00015	mg/L	0.000034	0.00030 mg/L	0.000067	22.55%
Zn 206.200†	8.5	0.00205	mg/L	0.000428	0.00410 mg/L	0.000856	20.90%

Sequence No.: 9  
 Sample ID: WE77 A SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 305  
 Date Collected: 2/27/2013 9:20:25 AM  
 Data Type: Original

## Nebulizer Parameters: WE77 A SWC

Analyte Back Pressure Flow  
 All 217.0 kPa 0.75 L/min

## Mean Data: WE77 A SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3153488.2	99.73 %		0.271			0.27%
ScR 361.383	341944.8	101.1 %		0.21			0.21%
Ag 328.068†	-134.9	-0.00045 mg/L		0.000148	-0.00089 mg/L	0.000296	33.14%
Al 308.215†	56596.9	41.57 mg/L		0.305	83.14 mg/L	0.610	0.73%
As 188.979†	-131.6	-0.00040 mg/L		0.000283	-0.00081 mg/L	0.000567	70.11%
B 249.677†	7.8	0.00112 mg/L		0.000246	0.00224 mg/L	0.000491	21.90%
Ba 233.527†	2194.9	0.3727 mg/L		0.00232	0.7454 mg/L	0.00465	0.62%
Be 313.042†	413.7	0.00074 mg/L		0.000012	0.00148 mg/L	0.000024	1.61%
Ca 317.933†	186660.2	17.85 mg/L		0.066	35.70 mg/L	0.132	0.37%
Cd 228.802†	26.6	0.00150 mg/L		0.000124	0.00300 mg/L	0.000249	8.30%
Co 228.616†	1093.6	0.02219 mg/L		0.000069	0.04439 mg/L	0.000138	0.31%
Cr 267.716†	88.7	0.01406 mg/L		0.000717	0.02812 mg/L	0.001434	5.10%
Cu 324.752†	20246.0	0.07593 mg/L		0.000447	0.1519 mg/L	0.00089	0.59%
Fe 273.955†	111766.4	71.48 mg/L		0.499	143.0 mg/L	1.00	0.70%
K 766.490†	14911.1	9.230 mg/L		0.0326	18.46 mg/L	0.065	0.35%
Mg 279.077†	16168.4	15.92 mg/L		0.047	31.84 mg/L	0.093	0.29%
Mn 257.610†	33858.5	0.6957 mg/L		0.00400	1.391 mg/L	0.0080	0.57%
Mo 202.031†	45.6	0.00185 mg/L		0.000443	0.00371 mg/L	0.000887	23.93%
Na 589.592†	13019.3	1.084 mg/L		0.0056	2.168 mg/L	0.0112	0.52%
Na 330.237†	17.9	1.168 mg/L		0.1623	2.336 mg/L	0.3246	13.90%
Ni 231.604†	323.6	0.08093 mg/L		0.001286	0.1619 mg/L	0.00257	1.59%
Pb 220.353†	-14.6	0.00579 mg/L		0.000951	0.01158 mg/L	0.001902	16.42%
Sb 206.836†	9.9	0.00483 mg/L		0.001144	0.00966 mg/L	0.002288	23.68%
Se 196.026†	6.8	-0.00087 mg/L		0.000571	-0.00174 mg/L	0.001142	65.58%
Si 288.158†	662.5	0.3778 mg/L		0.00282	0.7556 mg/L	0.00563	0.75%
Sn 189.927†	-29.9	-0.00402 mg/L		0.000310	-0.00805 mg/L	0.000620	7.71%
Sr 421.552†	50103.1	0.05473 mg/L		0.000280	0.1095 mg/L	0.00056	0.51%
Ti 334.903†	50431.6	2.216 mg/L		0.0135	4.431 mg/L	0.0269	0.61%
Tl 190.801†	-11.2	0.00398 mg/L		0.001926	0.00795 mg/L	0.003852	48.43%
V 292.402†	18898.0	0.1344 mg/L		0.00107	0.2688 mg/L	0.00214	0.80%
Zn 206.200†	626.2	0.1503 mg/L		0.00093	0.3006 mg/L	0.00186	0.62%

Sequence No.: 10  
 Sample ID: WE79 B SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 306  
 Date Collected: 2/27/2013 9:24:26 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 B SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 B SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3158444.9	99.89	%	0.243			0.24%
ScR 361.383	348101.1	102.9	%	1.34			1.30%
Ag 328.068†	1569.6	0.00732	mg/L	0.000316	0.01464 mg/L	0.000632	4.32%
Al 308.215†	193171.1	141.9	mg/L	2.08	283.8 mg/L	4.16	1.46%
As 188.979†	831.6	0.4981	mg/L	0.00293	0.9962 mg/L	0.00585	0.59%
B 249.677†	8.6	0.00107	mg/L	0.001386	0.00214 mg/L	0.002772	129.43%
Ba 233.527†	6317.9	1.072	mg/L	0.0150	2.145 mg/L	0.0300	1.40%
Be 313.042†	3654.3	0.00694	mg/L	0.000075	0.01387 mg/L	0.000150	1.08%
Ca 317.933†	277170.2	26.50	mg/L	0.372	53.01 mg/L	0.745	1.40%
Cd 228.802†	161.6	0.00354	mg/L	0.000160	0.00709 mg/L	0.000320	4.51%
Co 228.616†	4013.4	0.09462	mg/L	0.000578	0.1892 mg/L	0.00116	0.61%
Cr 267.716†	681.7	0.1078	mg/L	0.00178	0.2156 mg/L	0.00356	1.65%
Cu 324.752†	41217.7	0.1584	mg/L	0.00064	0.3168 mg/L	0.00127	0.40%
Fe 273.955†	325427.5	208.1	mg/L	3.49	416.3 mg/L	6.99	1.68%
K 766.490†	51657.3	31.98	mg/L	0.459	63.95 mg/L	0.919	1.44%
Mg 279.077†	31719.8	31.20	mg/L	0.363	62.40 mg/L	0.726	1.16%
Mn 257.610†	223935.4	4.603	mg/L	0.0730	9.205 mg/L	0.1459	1.59%
Mo 202.031†	94.8	0.00398	mg/L	0.000388	0.00795 mg/L	0.000775	9.75%
Na 589.592†	16459.9	1.370	mg/L	0.0238	2.741 mg/L	0.0475	1.73%
Na 330.237†	37.0	1.238	mg/L	0.0441	2.477 mg/L	0.0883	3.56%
Ni 231.604†	431.4	0.1079	mg/L	0.00240	0.2158 mg/L	0.00479	2.22%
Pb 220.353†	721.3	0.1045	mg/L	0.00041	0.2090 mg/L	0.00083	0.40%
Sb 206.836†	68.3	0.01971	mg/L	0.003457	0.03941 mg/L	0.006914	17.54%
Se 196.026†	18.2	-0.00584	mg/L	0.005651	-0.01168 mg/L	0.011303	96.76%
Si 288.158†	5411.2	3.075	mg/L	0.0514	6.149 mg/L	0.1027	1.67%
Sn 189.927†	-39.4	-0.00546	mg/L	0.001078	-0.01092 mg/L	0.002156	19.74%
Sr 421.552†	409754.7	0.4476	mg/L	0.00686	0.8952 mg/L	0.01371	1.53%
Ti 334.903†	15306.8	0.6712	mg/L	0.00850	1.342 mg/L	0.0170	1.27%
Tl 190.801†	-51.6	0.00366	mg/L	0.000604	0.00732 mg/L	0.001208	16.49%
V 292.402†	37831.4	0.2687	mg/L	0.00090	0.5375 mg/L	0.00181	0.34%
Zn 206.200†	2530.1	0.6075	mg/L	0.00638	1.215 mg/L	0.0128	1.05%

Sequence No.: 11

Autosampler Location: 307

Sample ID: ~~WE79 A-L SWC~~ ZZZZZZ

Date Collected: 2/27/2013 9:28:28 AM

Analyst: ALA

Data Type: Original

Dilution: 10.000000X

*Handwritten:* # 2-27-13 RR 125

Nebulizer Parameters: WE79 A-L SWC

Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: WE79 A-L SWC

Analyte	Mean Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3239087.8	102.4 %		0.65			0.63%
ScR 361.383	343131.8	101.5 %		1.30			1.28%
Ag 328.068†	508.1	0.00231 mg/L		0.000077	0.02307 mg/L	0.000768	3.33%
Al 308.215†	39838.4	29.26 mg/L		0.544	292.6 mg/L	5.44	1.86%
As 188.979†	604.9	0.3486 mg/L		0.00453	3.486 mg/L	0.0453	1.30%
B 249.677†	-4.1	-0.00064 mg/L		0.000880	-0.00644 mg/L	0.008803	136.68%
Ba 233.527†	875.4	0.1424 mg/L		0.00109	1.424 mg/L	0.0109	0.77%
Be 313.042†	739.9	0.00141 mg/L		0.000025	0.01407 mg/L	0.000246	1.75%
Ca 317.933†	9531.4	0.9114 mg/L		0.01445	9.114 mg/L	0.1445	1.59%
Cd 228.802†	71.3	0.00077 mg/L		0.000078	0.00774 mg/L	0.000782	10.11%
Co 228.616†	305.2	0.00720 mg/L		0.000146	0.07197 mg/L	0.001459	2.03%
Cr 267.716†	170.6	0.02779 mg/L		0.000641	0.2779 mg/L	0.00641	2.31%
Cu 324.752†	20102.0	0.07587 mg/L		0.000925	0.7587 mg/L	0.00925	1.22%
Fe 273.955†	111561.8	71.35 mg/L		1.142	713.5 mg/L	11.42	1.60%
K 766.490†	11516.9	7.129 mg/L		0.1076	71.29 mg/L	1.076	1.51%
Mg 279.077†	6146.2	6.029 mg/L		0.1149	60.29 mg/L	1.149	1.91%
Mn 257.610†	73347.6	1.508 mg/L		0.0249	15.08 mg/L	0.249	1.65%
Mo 202.031†	6.7	0.00029 mg/L		0.000132	0.00290 mg/L	0.001319	45.41%
Na 589.592†	5572.0	0.4639 mg/L		0.00865	4.639 mg/L	0.0865	1.86%
Na 330.237†	9.2	0.3009 mg/L		0.03053	3.009 mg/L	0.3053	10.15%
Ni 231.604†	43.7	0.01094 mg/L		0.001011	0.1094 mg/L	0.01011	9.24%
Pb 220.353†	202.5	0.02574 mg/L		0.000446	0.2574 mg/L	0.00446	1.73%
Sb 206.836†	16.2	0.00452 mg/L		0.001072	0.04517 mg/L	0.010717	23.73%
Se 196.026†	9.8	0.00236 mg/L		0.001856	0.02364 mg/L	0.018561	78.52%
Si 288.158†	821.6	0.4670 mg/L		0.00641	4.670 mg/L	0.0641	1.37%
Sn 189.927†	-3.8	-0.00066 mg/L		0.001028	-0.00659 mg/L	0.010281	156.05%
Sr 421.552†	35172.8	0.03842 mg/L		0.000667	0.3842 mg/L	0.00667	1.74%
Ti 334.903†	1046.5	0.04594 mg/L		0.000827	0.4594 mg/L	0.00827	1.80%
Tl 190.801†	-15.3	0.00260 mg/L		0.002441	0.02603 mg/L	0.024415	93.78%
V 292.402†	6834.1	0.04703 mg/L		0.000737	0.4703 mg/L	0.00737	1.57%
Zn 206.200†	277.1	0.06656 mg/L		0.000210	0.6656 mg/L	0.00210	0.32%

User canceled analysis.

Analysis Begun

Start Time: 2/27/2013 9:36:33 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 2/27/2013 7:22:55 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\0227.sif

Batch ID:

Results Data Set: I2130227

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 12
Sample ID: WE79 A SWC
Analyst: ALA
Dilution: -2.000000X

Autosampler Location: 308
Date Collected: 2/27/2013 9:36:34 AM
Data Type: Original

M 2-27-13

5X

Nebulizer Parameters: WE79 A SWC

Analyte Back Pressure Flow
All 218.0 kPa 0.75 L/min

Mean Data: WE79 A SWC

Table with 9 columns: Analyte, Mean Corrected Intensity, Conc., Calib. Units, Std.Dev., Sample Conc., Units, Std.Dev., RSD. Lists various elements like ScA, ScR, Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, V, Zn with their respective values.

Sequence No.: 13  
 Sample ID: WE79 ADUP SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 309  
 Date Collected: 2/27/2013 9:40:35 AM  
 Data Type: Original

SX #2-27-13

Nebulizer Parameters: WE79 ADUP SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: WE79 ADUP SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	3191848.8	100.9 %		0.59			0.58%
ScR 361.383	345577.6	102.2 %		0.44			0.43%
Ag 328.068†	924.4	0.00420 mg/L		0.000314	0.00841 mg/L	0.000628	7.46%
Al 308.215†	85790.5	63.02 mg/L		0.234	126.0 mg/L	0.47	0.37%
As 188.979†	1337.7	0.7706 mg/L		0.00398	1.541 mg/L	0.0080	0.52%
B 249.677†	-15.4	-0.00236 mg/L		0.000804	-0.00471 mg/L	0.001607	34.10%
Ba 233.527†	1805.6	0.2934 mg/L		0.00334	0.5867 mg/L	0.00667	1.14%
Be 313.042†	1579.9	0.00300 mg/L		0.000036	0.00601 mg/L	0.000072	1.21%
Ca 317.933†	19642.0	1.878 mg/L		0.0135	3.757 mg/L	0.0270	0.72%
Cd 228.802†	159.8	0.00179 mg/L		0.000274	0.00359 mg/L	0.000549	15.30%
Co 228.616†	603.9	0.01424 mg/L		0.000286	0.02848 mg/L	0.000573	2.01%
Cr 267.716†	361.3	0.05879 mg/L		0.000851	0.1176 mg/L	0.00170	1.45%
Cu 324.752†	42657.6	0.1609 mg/L		0.00155	0.3218 mg/L	0.00310	0.96%
Fe 273.955†	232881.9	148.9 mg/L		1.36	297.9 mg/L	2.72	0.91%
K 766.490†	24843.5	15.38 mg/L		0.014	30.76 mg/L	0.029	0.09%
Mg 279.077†	12981.2	12.73 mg/L		0.061	25.47 mg/L	0.123	0.48%
Mn 257.610†	155101.2	3.188 mg/L		0.0216	6.376 mg/L	0.0431	0.68%
Mo 202.031†	4.5	0.00018 mg/L		0.000241	0.00036 mg/L	0.000481	135.11%
Na 589.592†	11138.0	0.9274 mg/L		0.00813	1.855 mg/L	0.0163	0.88%
Na 330.237†	24.4	0.7960 mg/L		0.14594	1.592 mg/L	0.2919	18.33%
Ni 231.604†	84.5	0.02113 mg/L		0.000770	0.04226 mg/L	0.001540	3.64%
Pb 220.353†	376.8	0.04933 mg/L		0.000857	0.09866 mg/L	0.001713	1.74%
Sb 206.836†	32.0	0.00889 mg/L		0.001948	0.01779 mg/L	0.003896	21.90%
Se 196.026†	16.3	0.00226 mg/L		0.000561	0.00452 mg/L	0.001122	24.82%
Si 288.158†	1359.1	0.7728 mg/L		0.02141	1.546 mg/L	0.0428	2.77%
Sn 189.927†	-4.5	-0.00072 mg/L		0.000420	-0.00144 mg/L	0.000839	58.19%
Sr 421.552†	74654.9	0.08155 mg/L		0.000376	0.1631 mg/L	0.00075	0.46%
Ti 334.903†	2078.5	0.09123 mg/L		0.000213	0.1825 mg/L	0.00043	0.23%
Tl 190.801†	-34.9	0.00417 mg/L		0.001288	0.00833 mg/L	0.002576	30.93%
V 292.402†	14598.9	0.1006 mg/L		0.00132	0.2013 mg/L	0.00264	1.31%
Zn 206.200†	583.4	0.1401 mg/L		0.00181	0.2802 mg/L	0.00361	1.29%



Sequence No.: 14

Autosampler Location: 310

Sample ID: WE79 ASPK SWC

Date Collected: 2/27/2013 9:44:36 AM

Analyst: ALA

Data Type: Original

Dilution: ~~2.000000X~~ SX # 2-27-13

Nebulizer Parameters: WE79 ASPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: WE79 ASPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3181517.9	100.6 %		0.95			0.95%
ScR 361.383	346709.4	102.5 %		0.27			0.26%
Ag 328.068†	46855.4	0.2108 mg/L		0.00121	0.4217 mg/L	0.00242	0.57%
Al 308.215†	90292.5	66.32 mg/L	SL	0.299	132.6 mg/L	0.60	0.45%
As 188.979†	2727.0	1.567 mg/L		0.0193	3.135 mg/L	0.0386	1.23%
B 249.677†	-8.6	-0.00181 mg/L		0.000603	-0.00362 mg/L	0.001206	33.28%
Ba 233.527†	6379.9	1.092 mg/L		0.0044	2.183 mg/L	0.0088	0.41%
Be 313.042†	102368.2	0.1963 mg/L		0.00139	0.3926 mg/L	0.00279	0.71%
Ca 317.933†	60313.7	5.768 mg/L		0.0407	11.54 mg/L	0.081	0.71%
Cd 228.802†	5902.1	0.2159 mg/L		0.00203	0.4319 mg/L	0.00405	0.94%
Co 228.616†	9302.0	0.2221 mg/L		0.00209	0.4441 mg/L	0.00419	0.94%
Cr 267.716†	1663.3	0.2590 mg/L		0.00179	0.5180 mg/L	0.00357	0.69%
Cu 324.752†	102373.9	0.3761 mg/L		0.00349	0.7522 mg/L	0.00698	0.93%
Fe 273.955†	235955.5	150.9 mg/L	SL	0.32	301.8 mg/L	0.65	0.21%
K 766.490†	30810.9	19.07 mg/L		0.055	38.14 mg/L	0.110	0.29%
Mg 279.077†	18128.6	17.82 mg/L		0.061	35.63 mg/L	0.123	0.34%
Mn 257.610†	166041.2	3.413 mg/L	SL	0.0042	6.826 mg/L	0.0084	0.12%
Mo 202.031†	13.0	0.00051 mg/L		0.000237	0.00101 mg/L	0.000474	46.79%
Na 589.592†	59014.9	4.914 mg/L		0.0160	9.827 mg/L	0.0320	0.33%
Na 330.237†	144.5	4.739 mg/L		0.0166	9.477 mg/L	0.0333	0.35%
Ni 231.604†	874.6	0.2184 mg/L		0.00030	0.4368 mg/L	0.00061	0.14%
Pb 220.353†	8067.2	0.8739 mg/L		0.00803	1.748 mg/L	0.0161	0.92%
Sb 206.836†	38.7	0.00881 mg/L		0.001092	0.01762 mg/L	0.002184	12.39%
Se 196.026†	1374.4	0.7976 mg/L		0.01069	1.595 mg/L	0.0214	1.34%
Si 288.158†	1365.8	0.7779 mg/L		0.00977	1.556 mg/L	0.0195	1.26%
Sn 189.927†	-8.3	-0.00115 mg/L		0.000624	-0.00230 mg/L	0.001249	54.36%
Sr 421.552†	254575.4	0.2781 mg/L		0.00043	0.5562 mg/L	0.00085	0.15%
Ti 334.903†	1988.1	0.08699 mg/L		0.000293	0.1740 mg/L	0.00059	0.34%
Tl 190.801†	1729.5	0.7658 mg/L		0.00636	1.532 mg/L	0.0127	0.83%
V 292.402†	40606.7	0.2928 mg/L		0.00240	0.5857 mg/L	0.00481	0.82%
Zn 206.200†	1394.3	0.3347 mg/L		0.00286	0.6694 mg/L	0.00572	0.85%

Sequence No.: 15 **A-L**  
 Sample ID: WE79 APOST SWC  
 Analyst: ALA  
 Dilution: 2-000000X

Autosampler Location: 311  
 Date Collected: 2/27/2013 9:48:37 AM  
 Data Type: Original

ZSV

## Nebulizer Parameters: WE79 APOST SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 APOST SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3184535.4	100.7	%	0.40				0.40%
ScR 361.383	337371.8	99.75	%	0.063				0.06%
Ag 328.068†	187.6	0.00085	mg/L	0.000283	0.00170	mg/L	0.000566	33.21%
Al 308.215†	16242.8	11.93	mg/L	0.033	23.86	mg/L	0.067	0.28%
As 188.979†	244.5	0.1409	mg/L	0.00067	0.2818	mg/L	0.00135	0.48%
B 249.677†	6.8	0.00102	mg/L	0.001233	0.00205	mg/L	0.002466	120.38%
Ba 233.527†	355.3	0.05777	mg/L	0.000951	0.1155	mg/L	0.00190	1.65%
Be 313.042†	334.5	0.00064	mg/L	0.000014	0.00127	mg/L	0.000028	2.19%
Ca 317.933†	3900.5	0.3730	mg/L	0.00268	0.7460	mg/L	0.00535	0.72%
Cd 228.802†	30.7	0.00039	mg/L	0.000160	0.00077	mg/L	0.000320	41.46%
Co 228.616†	120.6	0.00284	mg/L	0.000178	0.00569	mg/L	0.000357	6.27%
Cr 267.716†	70.0	0.01137	mg/L	0.001171	0.02275	mg/L	0.002341	10.29%
Cu 324.752†	8056.2	0.03042	mg/L	0.000288	0.06085	mg/L	0.000577	0.95%
Fe 273.955†	45281.9	28.96	mg/L	0.228	57.92	mg/L	0.457	0.79%
K 766.490†	4647.8	2.877	mg/L	0.0156	5.754	mg/L	0.0313	0.54%
Mg 279.077†	2653.0	2.603	mg/L	0.0164	5.207	mg/L	0.0328	0.63%
Mn 257.610†	29876.8	0.6141	mg/L	0.00256	1.228	mg/L	0.0051	0.42%
Mo 202.031†	1.6	0.00007	mg/L	0.000040	0.00013	mg/L	0.000081	60.62%
Na 589.592†	2255.2	0.1878	mg/L	0.00124	0.3755	mg/L	0.00248	0.66%
Na 330.237†	2.1	0.06711	mg/L	0.129237	0.1342	mg/L	0.25847	192.57%
Ni 231.604†	18.0	0.00451	mg/L	0.001351	0.00903	mg/L	0.002701	29.92%
Pb 220.353†	84.7	0.01073	mg/L	0.000119	0.02147	mg/L	0.000238	1.11%
Sb 206.836†	9.1	0.00255	mg/L	0.002250	0.00510	mg/L	0.004500	88.24%
Se 196.026†	3.1	0.00046	mg/L	0.000091	0.00092	mg/L	0.000182	19.84%
Si 288.158†	342.6	0.1947	mg/L	0.00377	0.3894	mg/L	0.00753	1.93%
Sn 189.927†	-3.3	-0.00062	mg/L	0.000150	-0.00124	mg/L	0.000301	24.34%
Sr 421.552†	14363.7	0.01569	mg/L	0.000068	0.03138	mg/L	0.000135	0.43%
Ti 334.903†	404.1	0.01774	mg/L	0.000491	0.03548	mg/L	0.000982	2.77%
Tl 190.801†	-4.4	0.00186	mg/L	0.001560	0.00373	mg/L	0.003120	83.74%
V 292.402†	2645.9	0.01815	mg/L	0.000316	0.03630	mg/L	0.000632	1.74%
Zn 206.200†	111.7	0.02684	mg/L	0.000218	0.05368	mg/L	0.000435	0.81%

Sequence No.: 16  
 Sample ID: WE77 MBSPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 312  
 Date Collected: 2/27/2013 9:52:37 AM  
 Data Type: Original

## Nebulizer Parameters: WE77 MBSPK SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE77 MBSPK SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3174944.9	100.4	%	1.23			1.23%
ScR 361.383	344993.5	102.0	%	0.82			0.80%
Ag 328.068†	118193.2	0.5318	mg/L	0.00962	1.064 mg/L	0.0192	1.81%
Al 308.215†	2786.1	2.039	mg/L	0.0196	4.078 mg/L	0.0391	0.96%
As 188.979†	3611.7	2.072	mg/L	0.0213	4.144 mg/L	0.0426	1.03%
B 249.677†	4.8	-0.00047	mg/L	0.000386	-0.00094 mg/L	0.000772	81.93%
Ba 233.527†	11568.4	2.019	mg/L	0.0137	4.039 mg/L	0.0274	0.68%
Be 313.042†	252096.9	0.4834	mg/L	0.00489	0.9669 mg/L	0.00978	1.01%
Ca 317.933†	100770.0	9.636	mg/L	0.0564	19.27 mg/L	0.113	0.58%
Cd 228.802†	14084.3	0.5246	mg/L	0.00923	1.049 mg/L	0.0185	1.76%
Co 228.616†	21400.4	0.5113	mg/L	0.00759	1.023 mg/L	0.0152	1.48%
Cr 267.716†	3286.7	0.5056	mg/L	0.00280	1.011 mg/L	0.0056	0.55%
Cu 324.752†	142718.6	0.5142	mg/L	0.00762	1.028 mg/L	0.0152	1.48%
Fe 273.955†	3156.7	2.016	mg/L	0.0142	4.032 mg/L	0.0284	0.70%
K 766.490†	15700.8	9.719	mg/L	0.0279	19.44 mg/L	0.056	0.29%
Mg 279.077†	10290.5	10.16	mg/L	0.075	20.32 mg/L	0.150	0.74%
Mn 257.610†	24316.9	0.5002	mg/L	0.00433	1.000 mg/L	0.0087	0.87%
Mo 202.031†	33.1	0.00136	mg/L	0.000194	0.00272 mg/L	0.000387	14.24%
Na 589.592†	119952.5	9.987	mg/L	0.0625	19.97 mg/L	0.125	0.63%
Na 330.237†	316.1	10.39	mg/L	0.075	20.77 mg/L	0.150	0.72%
Ni 231.604†	2013.6	0.5026	mg/L	0.00516	1.005 mg/L	0.0103	1.03%
Pb 220.353†	19047.5	2.041	mg/L	0.0321	4.082 mg/L	0.0642	1.57%
Sb 206.836†	17.8	0.00011	mg/L	0.001097	0.00023 mg/L	0.002195	965.89%
Se 196.026†	3512.7	2.058	mg/L	0.0277	4.116 mg/L	0.0554	1.35%
Si 288.158†	-5.5	-0.00017	mg/L	0.001967	-0.00034 mg/L	0.003935	>999.9%
Sn 189.927†	-21.5	-0.00345	mg/L	0.000860	-0.00690 mg/L	0.001720	24.92%
Sr 421.552†	454350.2	0.4963	mg/L	0.00300	0.9926 mg/L	0.00600	0.60%
Ti 334.903†	28.1	0.00056	mg/L	0.000312	0.00113 mg/L	0.000624	55.38%
Tl 190.801†	4780.5	2.064	mg/L	0.0247	4.127 mg/L	0.0493	1.19%
V 292.402†	70012.1	0.5174	mg/L	0.00956	1.035 mg/L	0.0191	1.85%
Zn 206.200†	2052.5	0.4926	mg/L	0.00346	0.9852 mg/L	0.00692	0.70%

Sequence No.: 17  
 Sample ID: WE77 MBSPD SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 313  
 Date Collected: 2/27/2013 9:56:38 AM  
 Data Type: Original

Nebulizer Parameters: WE77 MBSPD SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: WE77 MBSPD SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3225329.5	102.0	%	0.88			0.86%
ScR 361.383	345710.4	102.2	%	0.23			0.23%
Ag 328.068†	113409.7	0.5102	mg/L	0.00561	1.020 mg/L	0.0112	1.10%
Al 308.215†	2725.3	1.995	mg/L	0.0069	3.989 mg/L	0.0138	0.35%
As 188.979†	3423.3	1.964	mg/L	0.0261	3.927 mg/L	0.0522	1.33%
B 249.677†	5.6	-0.00030	mg/L	0.000627	-0.00061 mg/L	0.001254	206.74%
Ba 233.527†	11272.9	1.968	mg/L	0.0087	3.936 mg/L	0.0174	0.44%
Be 313.042†	247002.2	0.4737	mg/L	0.00182	0.9473 mg/L	0.00364	0.38%
Ca 317.933†	98309.8	9.401	mg/L	0.0547	18.80 mg/L	0.109	0.58%
Cd 228.802†	13452.3	0.5011	mg/L	0.00725	1.002 mg/L	0.0145	1.45%
Co 228.616†	20570.5	0.4915	mg/L	0.00570	0.9829 mg/L	0.01140	1.16%
Cr 267.716†	3207.3	0.4934	mg/L	0.00149	0.9867 mg/L	0.00298	0.30%
Cu 324.752†	137674.4	0.4960	mg/L	0.00451	0.9921 mg/L	0.00902	0.91%
Fe 273.955†	3072.0	1.962	mg/L	0.0030	3.924 mg/L	0.0060	0.15%
K 766.490†	15305.5	9.474	mg/L	0.0397	18.95 mg/L	0.079	0.42%
Mg 279.077†	10025.1	9.897	mg/L	0.0115	19.79 mg/L	0.023	0.12%
Mn 257.610†	23730.9	0.4881	mg/L	0.00061	0.9763 mg/L	0.00122	0.13%
Mo 202.031†	23.2	0.00092	mg/L	0.000083	0.00183 mg/L	0.000166	9.05%
Na 589.592†	117785.1	9.807	mg/L	0.0798	19.61 mg/L	0.160	0.81%
Na 330.237†	304.0	9.986	mg/L	0.0481	19.97 mg/L	0.096	0.48%
Ni 231.604†	1956.5	0.4884	mg/L	0.00262	0.9768 mg/L	0.00525	0.54%
Pb 220.353†	18275.4	1.958	mg/L	0.0259	3.916 mg/L	0.0518	1.32%
Sb 206.836†	18.7	0.00048	mg/L	0.000299	0.00095 mg/L	0.000597	62.63%
Se 196.026†	3335.1	1.954	mg/L	0.0279	3.908 mg/L	0.0558	1.43%
Si 288.158†	-0.2	0.00269	mg/L	0.003507	0.00537 mg/L	0.007014	130.49%
Sn 189.927†	-18.2	-0.00283	mg/L	0.000298	-0.00566 mg/L	0.000596	10.53%
Sr 421.552†	444727.5	0.4858	mg/L	0.00236	0.9716 mg/L	0.00471	0.49%
Ti 334.903†	17.1	0.00010	mg/L	0.000376	0.00020 mg/L	0.000752	381.45%
Tl 190.801†	4571.3	1.973	mg/L	0.0229	3.946 mg/L	0.0458	1.16%
V 292.402†	67224.0	0.4968	mg/L	0.00529	0.9937 mg/L	0.01058	1.06%
Zn 206.200†	1999.4	0.4798	mg/L	0.00058	0.9597 mg/L	0.00116	0.12%

Sequence No.: 18  
 Sample ID: CV L  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 10:00:39 AM  
 Data Type: Original

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 Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

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 Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3152643.2	99.71 %	0.989			0.99%
ScR 361.383	330626.4	97.76 %	0.768			0.79%
Ag 328.068†	234646.6	1.056 mg/L	0.0118	1.056 mg/L	0.0118	1.12%
Al 308.215†	2892.7	2.090 mg/L	0.0232	2.090 mg/L	0.0232	1.11%
As 188.979†	3495.5	2.037 mg/L	0.0199	2.037 mg/L	0.0199	0.98%
B 249.677†	6984.2	1.052 mg/L	0.0087	1.052 mg/L	0.0087	0.83%
Ba 233.527†	6036.9	1.054 mg/L	0.0092	1.054 mg/L	0.0092	0.87%
Be 313.042†	519427.0	0.9961 mg/L	0.00749	0.9961 mg/L	0.00749	0.75%
Ca 317.933†	22083.9	2.112 mg/L	0.0155	2.112 mg/L	0.0155	0.73%
Cd 228.802†	27667.8	1.042 mg/L	0.0124	1.042 mg/L	0.0124	1.19%
Co 228.616†	42739.4	1.020 mg/L	0.0094	1.020 mg/L	0.0094	0.92%
Cr 267.716†	6794.8	1.047 mg/L	0.0095	1.047 mg/L	0.0095	0.91%
Cu 324.752†	289203.0	1.041 mg/L	0.0102	1.041 mg/L	0.0102	0.98%
Fe 273.955†	3308.6	2.110 mg/L	0.0163	2.110 mg/L	0.0163	0.77%
K 766.490†	33155.8	20.52 mg/L	0.162	20.52 mg/L	0.162	0.79%
Mg 279.077†	2130.7	2.110 mg/L	0.0175	2.110 mg/L	0.0175	0.83%
Mn 257.610†	48834.6	1.004 mg/L	0.0097	1.004 mg/L	0.0097	0.96%
Mo 202.031†	22251.7	1.008 mg/L	0.0110	1.008 mg/L	0.0110	1.09%
Na 589.592†	637106.0	53.05 mg/L	0.351	53.05 mg/L	0.351	0.66%
Na 330.237†	1629.1	54.23 mg/L	0.554	54.23 mg/L	0.554	1.02%
Ni 231.604†	4217.1	1.055 mg/L	0.0095	1.055 mg/L	0.0095	0.90%
Pb 220.353†	19381.7	2.077 mg/L	0.0198	2.077 mg/L	0.0198	0.95%
Sb 206.836†	7222.9	2.072 mg/L	0.0194	2.072 mg/L	0.0194	0.94%
Se 196.026†	3418.7	2.002 mg/L	0.0203	2.002 mg/L	0.0203	1.01%
Si 288.158†	3698.0	2.094 mg/L	0.0103	2.094 mg/L	0.0103	0.49%
Sn 189.927†	4970.6	0.9884 mg/L	0.00523	0.9884 mg/L	0.00523	0.53%
Sr 421.552†	951600.3	1.039 mg/L	0.0070	1.039 mg/L	0.0070	0.67%
Ti 334.903†	23232.4	1.020 mg/L	0.0053	1.020 mg/L	0.0053	0.52%
Tl 190.801†	4714.1	2.031 mg/L	0.0200	2.031 mg/L	0.0200	0.99%
V 292.402†	140947.0	1.042 mg/L	0.0112	1.042 mg/L	0.0112	1.07%
Zn 206.200†	4509.9	1.082 mg/L	0.0070	1.082 mg/L	0.0070	0.65%

Sequence No.: 19  
 Sample ID: CB ✓  
 Analyst: ALA  
 Dilution: 1.00000X

Autosampler Location: 1  
 Date Collected: 2/27/2013 10:04:43 AM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3152436.1	99.70 %		0.973			0.98%
ScR 361.383	332571.4	98.33 %		0.546			0.56%
Ag 328.068†	29.4	0.00013 mg/L		0.000090	0.00013 mg/L	0.000090	68.02%
Al 308.215†	8.8	0.00642 mg/L		0.007834	0.00642 mg/L	0.007834	122.09%
As 188.979†	2.2	0.00123 mg/L		0.000487	0.00123 mg/L	0.000487	39.67%
B 249.677†	12.6	0.00190 mg/L		0.000275	0.00190 mg/L	0.000275	14.45%
Ba 233.527†	0.2	0.00003 mg/L		0.000529	0.00003 mg/L	0.000529	>999.9%
Be 313.042†	36.7	0.00007 mg/L		0.000035	0.00007 mg/L	0.000035	49.27%
Ca 317.933†	4.7	0.00045 mg/L		0.000878	0.00045 mg/L	0.000878	193.60%
Cd 228.802†	4.1	0.00015 mg/L		0.000216	0.00015 mg/L	0.000216	143.65%
Co 228.616†	-2.2	-0.00005 mg/L		0.000111	-0.00005 mg/L	0.000111	216.12%
Cr 267.716†	-0.8	-0.00012 mg/L		0.000221	-0.00012 mg/L	0.000221	185.07%
Cu 324.752†	103.5	0.00037 mg/L		0.000210	0.00037 mg/L	0.000210	56.46%
Fe 273.955†	4.0	0.00259 mg/L		0.000378	0.00259 mg/L	0.000378	14.62%
K 766.490†	11.3	0.00701 mg/L		0.005930	0.00701 mg/L	0.005930	84.56%
Mg 279.077†	2.6	0.00255 mg/L		0.007308	0.00255 mg/L	0.007308	286.35%
Mn 257.610†	7.9	0.00016 mg/L		0.000169	0.00016 mg/L	0.000169	103.90%
Mo 202.031†	42.4	0.00192 mg/L		0.000079	0.00192 mg/L	0.000079	4.09%
Na 589.592†	52.2	0.00434 mg/L		0.004425	0.00434 mg/L	0.004425	101.84%
Na 330.237†	-7.4	-0.2466 mg/L		0.42007	-0.2466 mg/L	0.42007	170.38%
Ni 231.604†	4.9	0.00122 mg/L		0.000286	0.00122 mg/L	0.000286	23.47%
Pb 220.353†	0.3	0.00003 mg/L		0.000299	0.00003 mg/L	0.000299	989.96%
Sb 206.836†	17.8	0.00513 mg/L		0.001578	0.00513 mg/L	0.001578	30.74%
Se 196.026†	-1.8	-0.00106 mg/L		0.003426	-0.00106 mg/L	0.003426	324.18%
Si 288.158†	4.3	0.00241 mg/L		0.003400	0.00241 mg/L	0.003400	141.22%
Sn 189.927†	4.9	0.00098 mg/L		0.000403	0.00098 mg/L	0.000403	40.91%
Sr 421.552†	47.3	0.00005 mg/L		0.000034	0.00005 mg/L	0.000034	65.93%
Ti 334.903†	0.5	0.00002 mg/L		0.000653	0.00002 mg/L	0.000653	>999.9%
Tl 190.801†	1.7	0.00073 mg/L		0.001430	0.00073 mg/L	0.001430	196.87%
V 292.402†	8.4	0.00006 mg/L		0.000254	0.00006 mg/L	0.000254	408.06%
Zn 206.200†	1.7	0.00040 mg/L		0.000354	0.00040 mg/L	0.000354	88.24%

Sequence No.: 20  
Sample ID: WE79 MB1 SWC  
Analyst: ALA  
Dilution: 2.000000X

*DL*

Autosampler Location: 314  
Date Collected: 2/27/2013 10:08:59 AM  
Data Type: Original

Nebulizer Parameters: WE79 MB1 SWC  
Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: WE79 MB1 SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3208318.0	101.5 %		0.40			0.40%
ScR 361.383	345503.9	102.2 %		0.89			0.87%
Ag 328.068†	56.8	0.00026 mg/L		0.000302	0.00051 mg/L	0.000604	118.30%
Al 308.215†	3.3	0.00241 mg/L		0.003364	0.00483 mg/L	0.006727	139.39%
As 188.979†	0.7	0.00040 mg/L		0.000465	0.00081 mg/L	0.000931	115.29%
B 249.677†	5.8	0.00087 mg/L		0.000928	0.00174 mg/L	0.001856	106.36%
Ba 233.527†	25.1	0.00438 mg/L		0.000540	0.00876 mg/L	0.001080	12.34%
Be 313.042†	-7.7	-0.00001 mg/L		0.000016	-0.00003 mg/L	0.000032	107.84%
Ca 317.933†	36.6	0.00350 mg/L		0.000841	0.00700 mg/L	0.001682	24.02%
Cd 228.802†	-2.5	-0.00010 mg/L		0.000087	-0.00020 mg/L	0.000173	88.58%
Co 228.616†	-0.8	-0.00002 mg/L		0.000173	-0.00004 mg/L	0.000345	868.97%
Cr 267.716†	5.2	0.00080 mg/L		0.000523	0.00160 mg/L	0.001046	65.25%
Cu 324.752†	76.9	0.00028 mg/L		0.000215	0.00055 mg/L	0.000430	77.47%
Fe 273.955†	12.4	0.00790 mg/L		0.000133	0.01581 mg/L	0.000266	1.68%
K 766.490†	-15.5	-0.00957 mg/L		0.001313	-0.01915 mg/L	0.002626	13.71%
Mg 279.077†	0.3	0.00026 mg/L		0.002562	0.00052 mg/L	0.005123	987.79%
Mn 257.610†	-1.4	-0.00003 mg/L		0.000079	-0.00006 mg/L	0.000158	283.23%
Mo 202.031†	2.9	0.00013 mg/L		0.000144	0.00027 mg/L	0.000288	108.23%
Na 589.592†	57.0	0.00475 mg/L		0.002906	0.00949 mg/L	0.005812	61.23%
Na 330.237†	-2.2	-0.07220 mg/L		0.278451	-0.1444 mg/L	0.55690	385.65%
Ni 231.604†	0.8	0.00020 mg/L		0.000547	0.00039 mg/L	0.001095	278.65%
Pb 220.353†	5.6	0.00060 mg/L		0.000205	0.00120 mg/L	0.000410	34.21%
Sb 206.836†	2.1	0.00058 mg/L		0.001573	0.00116 mg/L	0.003146	271.41%
Se 196.026†	3.0	0.00177 mg/L		0.004068	0.00353 mg/L	0.008137	230.45%
Si 288.158†	0.8	0.00046 mg/L		0.000850	0.00091 mg/L	0.001699	186.30%
Sn 189.927†	1.1	0.00022 mg/L		0.000360	0.00045 mg/L	0.000720	161.02%
Sr 421.552†	64.9	0.00007 mg/L		0.000033	0.00014 mg/L	0.000066	46.36%
Ti 334.903†	-10.7	-0.00047 mg/L		0.000349	-0.00095 mg/L	0.000698	73.76%
Tl 190.801†	-1.1	-0.00046 mg/L		0.001647	-0.00091 mg/L	0.003294	361.31%
V 292.402†	-6.5	-0.00004 mg/L		0.000158	-0.00009 mg/L	0.000316	353.90%
Zn 206.200†	1.8	0.00044 mg/L		0.000121	0.00089 mg/L	0.000243	27.34%

Sequence No.: 21  
 Sample ID: WE79 C SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 315  
 Date Collected: 2/27/2013 10:13:16 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 C SWC

Analyte Back Pressure Flow  
 All 217.0 kPa 0.75 L/min

## Mean Data: WE79 C SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3214972.4	101.7	%	0.51			0.50%
ScR 361.383	342167.5	101.2	%	0.61			0.61%
Ag 328.068†	7680.9	0.03457	mg/L	0.000317	0.1728 mg/L	0.00159	0.92%
Al 308.215†	41019.9	30.13	mg/L	0.091	150.7 mg/L	0.46	0.30%
As 188.979†	1355.1	0.7798	mg/L	0.00251	3.899 mg/L	0.0125	0.32%
B 249.677†	2.8	0.00040	mg/L	0.000860	0.00199 mg/L	0.004300	215.56%
Ba 233.527†	1616.5	0.2680	mg/L	0.00502	1.340 mg/L	0.0251	1.87%
Be 313.042†	466.6	0.00088	mg/L	0.000029	0.00441 mg/L	0.000146	3.32%
Ca 317.933†	17364.4	1.660	mg/L	0.0025	8.302 mg/L	0.0123	0.15%
Cd 228.802†	150.7	0.00138	mg/L	0.000238	0.00692 mg/L	0.001191	17.22%
Co 228.616†	268.0	0.00626	mg/L	0.000142	0.03131 mg/L	0.000708	2.26%
Cr 267.716†	188.4	0.03150	mg/L	0.000880	0.1575 mg/L	0.00440	2.79%
Cu 324.752†	24794.6	0.09403	mg/L	0.000640	0.4701 mg/L	0.00320	0.68%
Fe 273.955†	151269.6	96.75	mg/L	0.185	483.7 mg/L	0.93	0.19%
K 766.490†	21039.4	13.02	mg/L	0.041	65.12 mg/L	0.205	0.32%
Mg 279.077†	4953.7	4.837	mg/L	0.0369	24.19 mg/L	0.185	0.76%
Mn 257.610†	27228.3	0.5596	mg/L	0.00118	2.798 mg/L	0.0059	0.21%
Mo 202.031†	7.5	0.00032	mg/L	0.000248	0.00160 mg/L	0.001238	77.52%
Na 589.592†	14446.4	1.203	mg/L	0.0006	6.014 mg/L	0.0030	0.05%
Na 330.237†	35.8	1.188	mg/L	0.2099	5.938 mg/L	1.0497	17.68%
Ni 231.604†	30.9	0.00773	mg/L	0.000759	0.03865 mg/L	0.003797	9.83%
Pb 220.353†	455.6	0.05170	mg/L	0.000682	0.2585 mg/L	0.00341	1.32%
Sb 206.836†	45.1	0.01282	mg/L	0.000667	0.06410 mg/L	0.003337	5.21%
Se 196.026†	15.9	0.00582	mg/L	0.003607	0.02910 mg/L	0.018037	61.98%
Si 288.158†	1542.6	0.8760	mg/L	0.01625	4.380 mg/L	0.0812	1.85%
Sn 189.927†	4.2	0.00098	mg/L	0.000900	0.00491 mg/L	0.004501	91.67%
Sr 421.552†	152201.5	0.1663	mg/L	0.00029	0.8313 mg/L	0.00146	0.18%
Ti 334.903†	1473.3	0.06466	mg/L	0.001500	0.3233 mg/L	0.00750	2.32%
Tl 190.801†	-21.9	0.00313	mg/L	0.001061	0.01563 mg/L	0.005307	33.96%
V 292.402†	7269.5	0.04882	mg/L	0.000354	0.2441 mg/L	0.00177	0.73%
Zn 206.200†	318.2	0.07650	mg/L	0.000719	0.3825 mg/L	0.00359	0.94%



Sequence No.: 22  
 Sample ID: WE79 D SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 316  
 Date Collected: 2/27/2013 10:17:17 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 D SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: WE79 D SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3160907.1	99.97 %		0.196			0.20%
ScR 361.383	340771.7	100.8 %		0.41			0.41%
Ag 328.068†	780.1	0.00355 mg/L		0.000034	0.01775 mg/L	0.000172	0.97%
Al 308.215†	86374.6	63.45 mg/L		0.220	317.2 mg/L	1.10	0.35%
As 188.979†	1215.6	0.7009 mg/L		0.00156	3.504 mg/L	0.0078	0.22%
B 249.677†	-5.3	-0.00084 mg/L		0.000306	-0.00420 mg/L	0.001530	36.39%
Ba 233.527†	2245.7	0.3743 mg/L		0.00070	1.871 mg/L	0.0035	0.19%
Be 313.042†	1422.9	0.00271 mg/L		0.000019	0.01353 mg/L	0.000096	0.71%
Ca 317.933†	15786.1	1.510 mg/L		0.0076	7.548 mg/L	0.0381	0.51%
Cd 228.802†	146.0	0.00166 mg/L		0.000070	0.00830 mg/L	0.000352	4.24%
Co 228.616†	606.5	0.01428 mg/L		0.000076	0.07139 mg/L	0.000380	0.53%
Cr 267.716†	314.9	0.05095 mg/L		0.000661	0.2547 mg/L	0.00331	1.30%
Cu 324.752†	35064.5	0.1322 mg/L		0.00058	0.6608 mg/L	0.00290	0.44%
Fe 273.955†	189115.4	121.0 mg/L		0.15	604.8 mg/L	0.76	0.13%
K 766.490†	21982.1	13.61 mg/L		0.038	68.03 mg/L	0.192	0.28%
Mg 279.077†	11863.1	11.65 mg/L		0.048	58.23 mg/L	0.241	0.41%
Mn 257.610†	116632.4	2.397 mg/L		0.0019	11.99 mg/L	0.010	0.08%
Mo 202.031†	8.1	0.00035 mg/L		0.000123	0.00173 mg/L	0.000614	35.57%
Na 589.592†	8034.8	0.6690 mg/L		0.00163	3.345 mg/L	0.0082	0.24%
Na 330.237†	16.1	0.5134 mg/L		0.20299	2.567 mg/L	1.0149	39.54%
Ni 231.604†	76.7	0.01919 mg/L		0.000848	0.09595 mg/L	0.004240	4.42%
Pb 220.353†	401.1	0.05358 mg/L		0.000664	0.2679 mg/L	0.00332	1.24%
Sb 206.836†	27.2	0.00759 mg/L		0.001771	0.03795 mg/L	0.008853	23.32%
Se 196.026†	21.5	0.00524 mg/L		0.005584	0.02620 mg/L	0.027919	106.57%
Si 288.158†	1462.3	0.8312 mg/L		0.00825	4.156 mg/L	0.0412	0.99%
Sn 189.927†	-5.5	-0.00094 mg/L		0.000592	-0.00471 mg/L	0.002958	62.80%
Sr 421.552†	138343.7	0.1511 mg/L		0.00033	0.7556 mg/L	0.00167	0.22%
Ti 334.903†	2269.3	0.09965 mg/L		0.000941	0.4982 mg/L	0.00470	0.94%
Tl 190.801†	-33.4	0.00114 mg/L		0.003668	0.00570 mg/L	0.018341	321.94%
V 292.402†	13279.5	0.09218 mg/L		0.000123	0.4609 mg/L	0.00062	0.13%
Zn 206.200†	711.8	0.1709 mg/L		0.00071	0.8545 mg/L	0.00355	0.42%

Sequence No.: 23  
 Sample ID: WE79 E SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 317  
 Date Collected: 2/27/2013 10:21:18 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 E SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 E SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3183181.4	100.7	%	0.45			0.45%
ScR 361.383	341482.2	101.0	%	0.21			0.21%
Ag 328.068†	641.3	0.00292	mg/L	0.000407	0.01462 mg/L	0.002033	13.90%
Al 308.215†	86782.5	63.75	mg/L	0.228	318.7 mg/L	1.14	0.36%
As 188.979†	1059.4	0.6109	mg/L	0.00380	3.054 mg/L	0.0190	0.62%
B 249.677†	-8.5	-0.00132	mg/L	0.002012	-0.00659 mg/L	0.010059	152.75%
Ba 233.527†	2184.8	0.3618	mg/L	0.00107	1.809 mg/L	0.0053	0.30%
Be 313.042†	1220.2	0.00231	mg/L	0.000020	0.01157 mg/L	0.000099	0.86%
Ca 317.933†	11768.9	1.125	mg/L	0.0043	5.627 mg/L	0.0213	0.38%
Cd 228.802†	142.2	0.00202	mg/L	0.000239	0.01009 mg/L	0.001194	11.83%
Co 228.616†	589.4	0.01389	mg/L	0.000039	0.06944 mg/L	0.000196	0.28%
Cr 267.716†	349.1	0.05638	mg/L	0.001311	0.2819 mg/L	0.00655	2.32%
Cu 324.752†	33528.9	0.1272	mg/L	0.00052	0.6362 mg/L	0.00261	0.41%
Fe 273.955†	208689.2	133.5	mg/L	0.51	667.4 mg/L	2.55	0.38%
K 766.490†	25567.2	15.83	mg/L	0.035	79.13 mg/L	0.176	0.22%
Mg 279.077†	13540.3	13.29	mg/L	0.054	66.47 mg/L	0.270	0.41%
Mn 257.610†	156741.2	3.222	mg/L	0.0091	16.11 mg/L	0.046	0.28%
Mo 202.031†	14.2	0.00063	mg/L	0.000128	0.00314 mg/L	0.000638	20.33%
Na 589.592†	7666.0	0.6383	mg/L	0.00531	3.191 mg/L	0.0265	0.83%
Na 330.237†	14.9	0.4854	mg/L	0.12199	2.427 mg/L	0.6100	25.13%
Ni 231.604†	82.3	0.02059	mg/L	0.000457	0.1030 mg/L	0.00229	2.22%
Pb 220.353†	301.4	0.04233	mg/L	0.000550	0.2116 mg/L	0.00275	1.30%
Sb 206.836†	32.4	0.00902	mg/L	0.002010	0.04509 mg/L	0.010051	22.29%
Se 196.026†	14.2	0.00095	mg/L	0.002911	0.00475 mg/L	0.014553	306.52%
Si 288.158†	1477.0	0.8398	mg/L	0.00902	4.199 mg/L	0.0451	1.07%
Sn 189.927†	-2.9	-0.00046	mg/L	0.000698	-0.00230 mg/L	0.003492	152.03%
Sr 421.552†	85130.2	0.09299	mg/L	0.000344	0.4649 mg/L	0.00172	0.37%
Ti 334.903†	2030.8	0.08918	mg/L	0.002164	0.4459 mg/L	0.01082	2.43%
Tl 190.801†	-37.5	0.00101	mg/L	0.001537	0.00504 mg/L	0.007685	152.62%
V 292.402†	14183.5	0.09835	mg/L	0.000401	0.4918 mg/L	0.00200	0.41%
Zn 206.200†	510.2	0.1226	mg/L	0.00051	0.6128 mg/L	0.00257	0.42%

Sequence No.: 24  
 Sample ID: WE79 F SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 318  
 Date Collected: 2/27/2013 10:25:19 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 F SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 F SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3192853.5	101.0	%	0.55			0.55%
ScR 361.383	344608.4	101.9	%	0.25			0.25%
Ag 328.068†	805.7	0.00367	mg/L	0.000151	0.01834 mg/L	0.000754	4.11%
Al 308.215†	87471.8	64.25	mg/L	0.315	321.3 mg/L	1.57	0.49%
As 188.979†	979.0	0.5647	mg/L	0.00304	2.823 mg/L	0.0152	0.54%
B 249.677†	-12.6	-0.00194	mg/L	0.000739	-0.00970 mg/L	0.003694	38.09%
Ba 233.527†	1788.2	0.2921	mg/L	0.00072	1.461 mg/L	0.0036	0.25%
Be 313.042†	1673.0	0.00318	mg/L	0.000004	0.01592 mg/L	0.000020	0.12%
Ca 317.933†	20230.6	1.935	mg/L	0.0170	9.673 mg/L	0.0852	0.88%
Cd 228.802†	130.1	0.00182	mg/L	0.000098	0.00909 mg/L	0.000492	5.41%
Co 228.616†	625.9	0.01477	mg/L	0.000061	0.07385 mg/L	0.000306	0.41%
Cr 267.716†	358.8	0.05793	mg/L	0.000894	0.2896 mg/L	0.00447	1.54%
Cu 324.752†	44726.0	0.1677	mg/L	0.00073	0.8386 mg/L	0.00366	0.44%
Fe 273.955†	213568.4	136.6	mg/L	1.31	683.0 mg/L	6.54	0.96%
K 766.490†	25246.3	15.63	mg/L	0.033	78.14 mg/L	0.164	0.21%
Mg 279.077†	14006.2	13.75	mg/L	0.023	68.77 mg/L	0.115	0.17%
Mn 257.610†	159236.0	3.273	mg/L	0.0312	16.37 mg/L	0.156	0.95%
Mo 202.031†	13.2	0.00057	mg/L	0.000344	0.00286 mg/L	0.001722	60.12%
Na 589.592†	10836.3	0.9022	mg/L	0.00263	4.511 mg/L	0.0132	0.29%
Na 330.237†	25.5	0.8335	mg/L	0.32750	4.167 mg/L	1.6375	39.29%
Ni 231.604†	93.4	0.02337	mg/L	0.000956	0.1169 mg/L	0.00478	4.09%
Pb 220.353†	379.2	0.05058	mg/L	0.000990	0.2529 mg/L	0.00495	1.96%
Sb 206.836†	32.8	0.00910	mg/L	0.002047	0.04551 mg/L	0.010236	22.49%
Se 196.026†	17.7	0.00290	mg/L	0.004158	0.01448 mg/L	0.020792	143.63%
Si 288.158†	1233.0	0.7013	mg/L	0.00714	3.507 mg/L	0.0357	1.02%
Sn 189.927†	-4.3	-0.00067	mg/L	0.000844	-0.00335 mg/L	0.004218	125.98%
Sr 421.552†	68620.3	0.07496	mg/L	0.000340	0.3748 mg/L	0.00170	0.45%
Ti 334.903†	2016.5	0.08851	mg/L	0.000810	0.4425 mg/L	0.00405	0.91%
Tl 190.801†	-32.8	0.00346	mg/L	0.000442	0.01728 mg/L	0.002210	12.79%
V 292.402†	13589.3	0.09384	mg/L	0.000504	0.4692 mg/L	0.00252	0.54%
Zn 206.200†	587.9	0.1412	mg/L	0.00062	0.7058 mg/L	0.00311	0.44%

Sequence No.: 25  
Sample ID: WE79 G SWC  
Analyst: ALA  
Dilution: 5.000000X

Autosampler Location: 319  
Date Collected: 2/27/2013 10:29:20 AM  
Data Type: Original

Nebulizer Parameters: WE79 G SWC  
Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: WE79 G SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3230375.6	102.2 %		0.54			0.53%
ScR 361.383	345813.8	102.2 %		0.31			0.30%
Ag 328.068†	1733.5	0.00786 mg/L		0.000125	0.03931 mg/L	0.000626	1.59%
Al 308.215†	62766.0	46.11 mg/L		0.165	230.5 mg/L	0.82	0.36%
As 188.979†	1022.8	0.5926 mg/L		0.00374	2.963 mg/L	0.0187	0.63%
B 249.677†	22.0	0.00327 mg/L		0.000574	0.01633 mg/L	0.002869	17.58%
Ba 233.527†	2021.4	0.3401 mg/L		0.00206	1.700 mg/L	0.0103	0.61%
Be 313.042†	895.6	0.00170 mg/L		0.000030	0.00848 mg/L	0.000149	1.76%
Ca 317.933†	63557.8	6.078 mg/L		0.0305	30.39 mg/L	0.153	0.50%
Cd 228.802†	128.7	0.00163 mg/L		0.000029	0.00814 mg/L	0.000147	1.81%
Co 228.616†	760.3	0.01782 mg/L		0.000110	0.08909 mg/L	0.000551	0.62%
Cr 267.716†	277.7	0.04440 mg/L		0.000410	0.2220 mg/L	0.00205	0.92%
Cu 324.752†	26135.4	0.09836 mg/L		0.000568	0.4918 mg/L	0.00284	0.58%
Fe 273.955†	136836.1	87.52 mg/L		0.313	437.6 mg/L	1.57	0.36%
K 766.490†	19734.0	12.22 mg/L		0.071	61.08 mg/L	0.354	0.58%
Mg 279.077†	9559.0	9.389 mg/L		0.0404	46.94 mg/L	0.202	0.43%
Mn 257.610†	80797.3	1.661 mg/L		0.0057	8.303 mg/L	0.0287	0.35%
Mo 202.031†	26.4	0.00112 mg/L		0.000197	0.00560 mg/L	0.000983	17.55%
Na 589.592†	8698.6	0.7242 mg/L		0.00441	3.621 mg/L	0.0221	0.61%
Na 330.237†	15.1	0.5042 mg/L		0.05077	2.521 mg/L	0.2539	10.07%
Ni 231.604†	105.8	0.02648 mg/L		0.001998	0.1324 mg/L	0.00999	7.55%
Pb 220.353†	325.9	0.04265 mg/L		0.000872	0.2132 mg/L	0.00436	2.05%
Sb 206.836†	26.8	0.00757 mg/L		0.001007	0.03785 mg/L	0.005035	13.30%
Se 196.026†	9.8	0.00040 mg/L		0.004708	0.00199 mg/L	0.023542	>999.9%
Si 288.158†	2458.6	1.396 mg/L		0.0114	6.982 mg/L	0.0568	0.81%
Sn 189.927†	3.7	0.00127 mg/L		0.000182	0.00636 mg/L	0.000911	14.34%
Sr 421.552†	150551.1	0.1644 mg/L		0.00053	0.8222 mg/L	0.00267	0.32%
Ti 334.903†	4076.1	0.1788 mg/L		0.00115	0.8940 mg/L	0.00577	0.65%
Tl 190.801†	-16.9	0.00385 mg/L		0.002259	0.01927 mg/L	0.011294	58.61%
V 292.402†	11387.4	0.07975 mg/L		0.000320	0.3987 mg/L	0.00160	0.40%
Zn 206.200†	682.4	0.1640 mg/L		0.00089	0.8198 mg/L	0.00447	0.54%

Sequence No.: 26  
 Sample ID: WE79 H SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 320  
 Date Collected: 2/27/2013 10:33:21 AM  
 Data Type: Original

Nebulizer Parameters: WE79 H SWC  
 Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: WE79 H SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3197635.3	101.1 %		0.12			0.12%
ScR 361.383	345157.5	102.1 %		0.13			0.13%
Ag 328.068†	1951.0	0.00890 mg/L		0.000071	0.04449 mg/L	0.000354	0.80%
Al 308.215†	80404.1	59.06 mg/L		0.061	295.3 mg/L	0.31	0.10%
As 188.979†	523.8	0.3114 mg/L		0.00278	1.557 mg/L	0.0139	0.89%
B 249.677†	17.9	0.00262 mg/L		0.000159	0.01311 mg/L	0.000794	6.06%
Ba 233.527†	2647.6	0.4493 mg/L		0.00199	2.247 mg/L	0.0100	0.44%
Be 313.042†	1258.8	0.00239 mg/L		0.000024	0.01193 mg/L	0.000119	0.99%
Ca 317.933†	145439.3	13.91 mg/L		0.014	69.54 mg/L	0.071	0.10%
Cd 228.802†	87.6	0.00169 mg/L		0.000131	0.00845 mg/L	0.000654	7.74%
Co 228.616†	1324.9	0.03100 mg/L		0.000132	0.1550 mg/L	0.000666	0.43%
Cr 267.716†	336.8	0.05307 mg/L		0.000146	0.2654 mg/L	0.00073	0.28%
Cu 324.752†	25689.2	0.09673 mg/L		0.000158	0.4836 mg/L	0.00079	0.16%
Fe 273.955†	137587.8	88.00 mg/L		0.376	440.0 mg/L	1.88	0.43%
K 766.490†	23988.6	14.85 mg/L		0.028	74.24 mg/L	0.140	0.19%
Mg 279.077†	13077.8	12.86 mg/L		0.002	64.31 mg/L	0.011	0.02%
Mn 257.610†	89736.0	1.844 mg/L		0.0065	9.222 mg/L	0.0324	0.35%
Mo 202.031†	55.7	0.00235 mg/L		0.000193	0.01177 mg/L	0.000964	8.19%
Na 589.592†	12358.5	1.029 mg/L		0.0007	5.145 mg/L	0.0035	0.07%
Na 330.237†	25.6	0.8835 mg/L		0.13948	4.417 mg/L	0.6974	15.79%
Ni 231.604†	227.6	0.05693 mg/L		0.001056	0.2846 mg/L	0.00528	1.85%
Pb 220.353†	291.0	0.04242 mg/L		0.000932	0.2121 mg/L	0.00466	2.20%
Sb 206.836†	27.3	0.00778 mg/L		0.001703	0.03891 mg/L	0.008513	21.88%
Se 196.026†	6.1	-0.00327 mg/L		0.003791	-0.01635 mg/L	0.018956	115.92%
Si 288.158†	2252.8	1.280 mg/L		0.0049	6.400 mg/L	0.0243	0.38%
Sn 189.927†	-11.6	-0.00106 mg/L		0.000516	-0.00530 mg/L	0.002582	48.68%
Sr 421.552†	225892.4	0.2467 mg/L		0.00005	1.234 mg/L	0.0002	0.02%
Ti 334.903†	7942.5	0.3483 mg/L		0.00213	1.741 mg/L	0.0107	0.61%
Tl 190.801†	-14.8	0.00465 mg/L		0.002158	0.02327 mg/L	0.010791	46.38%
V 292.402†	14689.5	0.1040 mg/L		0.00021	0.5200 mg/L	0.00103	0.20%
Zn 206.200†	950.7	0.2283 mg/L		0.00057	1.141 mg/L	0.0029	0.25%

Sequence No.: 27  
 Sample ID: WE79 I SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 321  
 Date Collected: 2/27/2013 10:37:22 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 I SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 I SWC

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	3228472.1	102.1	%	0.42			0.41%
ScR 361.383	347640.4	102.8	%	0.10			0.10%
Ag 328.068†	1070.2	0.00493	mg/L	0.000196	0.02466	mg/L	0.000981 3.98%
Al 308.215†	77378.8	56.84	mg/L	0.245	284.2	mg/L	1.23 0.43%
As 188.979†	305.9	0.1964	mg/L	0.00278	0.9819	mg/L	0.01389 1.41%
B 249.677†	19.6	0.00287	mg/L	0.000972	0.01434	mg/L	0.004859 33.88%
Ba 233.527†	2713.0	0.4622	mg/L	0.00247	2.311	mg/L	0.0123 0.53%
Be 313.042†	1195.0	0.00226	mg/L	0.000011	0.01129	mg/L	0.000055 0.49%
Ca 317.933†	131127.3	12.54	mg/L	0.035	62.70	mg/L	0.173 0.28%
Cd 228.802†	68.5	0.00165	mg/L	0.000045	0.00824	mg/L	0.000227 2.75%
Co 228.616†	1449.0	0.03346	mg/L	0.000366	0.1673	mg/L	0.00183 1.09%
Cr 267.716†	312.2	0.04891	mg/L	0.000921	0.2446	mg/L	0.00460 1.88%
Cu 324.752†	20296.6	0.07676	mg/L	0.000495	0.3838	mg/L	0.00247 0.64%
Fe 273.955†	122338.4	78.24	mg/L	0.485	391.2	mg/L	2.42 0.62%
K 766.490†	21841.0	13.52	mg/L	0.030	67.60	mg/L	0.149 0.22%
Mg 279.077†	14016.7	13.79	mg/L	0.056	68.97	mg/L	0.282 0.41%
Mn 257.610†	85517.9	1.758	mg/L	0.0053	8.788	mg/L	0.0267 0.30%
Mo 202.031†	44.2	0.00185	mg/L	0.000096	0.00925	mg/L	0.000479 5.18%
Na 589.592†	9291.0	0.7736	mg/L	0.00509	3.868	mg/L	0.0254 0.66%
Na 330.237†	18.9	0.7353	mg/L	0.12884	3.677	mg/L	0.6442 17.52%
Ni 231.604†	154.7	0.03870	mg/L	0.001658	0.1935	mg/L	0.00829 4.29%
Pb 220.353†	420.4	0.05621	mg/L	0.000096	0.2811	mg/L	0.00048 0.17%
Sb 206.836†	21.0	0.00629	mg/L	0.000190	0.03146	mg/L	0.000949 3.02%
Se 196.026†	12.2	0.00055	mg/L	0.000831	0.00277	mg/L	0.004153 149.81%
Si 288.158†	3207.7	1.822	mg/L	0.0042	9.110	mg/L	0.0210 0.23%
Sn 189.927†	-20.7	-0.00293	mg/L	0.000472	-0.01465	mg/L	0.002360 16.11%
Sr 421.552†	206283.0	0.2253	mg/L	0.00065	1.127	mg/L	0.0032 0.29%
Ti 334.903†	14465.3	0.6351	mg/L	0.00153	3.175	mg/L	0.0076 0.24%
Tl 190.801†	-16.2	0.00270	mg/L	0.002143	0.01352	mg/L	0.010715 79.23%
V 292.402†	16130.5	0.1149	mg/L	0.00029	0.5745	mg/L	0.00145 0.25%
Zn 206.200†	1023.0	0.2457	mg/L	0.00121	1.229	mg/L	0.0060 0.49%

Sequence No.: 28  
Sample ID: WE79 J SWC  
Analyst: ALA  
Dilution: 2.000000X

Autosampler Location: 322  
Date Collected: 2/27/2013 10:41:23 AM  
Data Type: Original

Nebulizer Parameters: WE79 J SWC  
Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: WE79 J SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3219131.9	101.8 %		0.31			0.31%
ScR 361.383	343878.2	101.7 %		0.62			0.61%
Ag 328.068†	25270.8	0.1137 mg/L		0.00031	0.2274 mg/L	0.00063	0.28%
Al 308.215†	17212.7	12.64 mg/L		0.139	25.29 mg/L	0.278	1.10%
As 188.979†	1297.0	0.7448 mg/L		0.00709	1.490 mg/L	0.0142	0.95%
B 249.677†	-0.9	-0.00014 mg/L		0.001212	-0.00027 mg/L	0.002424	887.69%
Ba 233.527†	3279.1	0.5559 mg/L		0.00468	1.112 mg/L	0.0094	0.84%
Be 313.042†	133.6	0.00025 mg/L		0.000044	0.00049 mg/L	0.000088	17.84%
Ca 317.933†	46166.2	4.415 mg/L		0.0467	8.829 mg/L	0.0934	1.06%
Cd 228.802†	150.7	0.00157 mg/L		0.000255	0.00313 mg/L	0.000510	16.28%
Co 228.616†	84.8	0.00192 mg/L		0.000083	0.00384 mg/L	0.000166	4.34%
Cr 267.716†	84.9	0.01638 mg/L		0.000139	0.03275 mg/L	0.000279	0.85%
Cu 324.752†	19336.2	0.07519 mg/L		0.000341	0.1504 mg/L	0.00068	0.45%
Fe 273.955†	176695.7	113.0 mg/L		1.29	226.0 mg/L	2.58	1.14%
K 766.490†	43195.1	26.74 mg/L		0.161	53.47 mg/L	0.323	0.60%
Mg 279.077†	1457.0	1.375 mg/L		0.0086	2.751 mg/L	0.0172	0.62%
Mn 257.610†	1278.6	0.02621 mg/L		0.000454	0.05242 mg/L	0.000907	1.73%
Mo 202.031†	57.4	0.00255 mg/L		0.000139	0.00509 mg/L	0.000278	5.47%
Na 589.592†	6569.5	0.5470 mg/L		0.00586	1.094 mg/L	0.0117	1.07%
Na 330.237†	8.2	0.2752 mg/L		0.19167	0.5503 mg/L	0.38334	69.66%
Ni 231.604†	7.2	0.00180 mg/L		0.001518	0.00361 mg/L	0.003036	84.15%
Pb 220.353†	403.6	0.04052 mg/L		0.000684	0.08104 mg/L	0.001369	1.69%
Sb 206.836†	84.0	0.02412 mg/L		0.001053	0.04825 mg/L	0.002105	4.36%
Se 196.026†	22.8	0.01191 mg/L		0.000975	0.02381 mg/L	0.001950	8.19%
Si 288.158†	3671.5	2.084 mg/L		0.0551	4.168 mg/L	0.1103	2.65%
Sn 189.927†	-2.5	-0.00012 mg/L		0.001069	-0.00023 mg/L	0.002138	912.66%
Sr 421.552†	105204.1	0.1149 mg/L		0.00055	0.2298 mg/L	0.00109	0.47%
Ti 334.903†	585.8	0.02548 mg/L		0.001743	0.05096 mg/L	0.003485	6.84%
Tl 190.801†	-23.3	0.00474 mg/L		0.002667	0.00947 mg/L	0.005334	56.33%
V 292.402†	6038.6	0.03882 mg/L		0.000342	0.07763 mg/L	0.000684	0.88%
Zn 206.200†	75.0	0.01836 mg/L		0.000729	0.03672 mg/L	0.001459	3.97%

Sequence No.: 29  
 Sample ID: WE79 MB1SPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 323  
 Date Collected: 2/27/2013 10:45:39 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 MB1SPK SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 MB1SPK SWC

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
ScA 357.253	3200434.8	101.2	%	0.35			0.35%
ScR 361.383	340025.8	100.5	%	0.05			0.05%
Ag 328.068†	118505.4	0.5332	mg/L	0.00031	1.066	0.0006	0.06%
Al 308.215†	2857.2	2.091	mg/L	0.0080	4.183	0.0160	0.38%
As 188.979†	3566.1	2.046	mg/L	0.0125	4.091	0.0250	0.61%
B 249.677†	8.9	0.00015	mg/L	0.001625	0.00030	0.003250	>999.9%
Ba 233.527†	12064.9	2.106	mg/L	0.0058	4.212	0.0117	0.28%
Be 313.042†	253910.9	0.4869	mg/L	0.00339	0.9738	0.00679	0.70%
Ca 317.933†	102909.0	9.841	mg/L	0.0612	19.68	0.122	0.62%
Cd 228.802†	13822.7	0.5148	mg/L	0.00053	1.030	0.0011	0.10%
Co 228.616†	21395.1	0.5112	mg/L	0.00222	1.022	0.0044	0.43%
Cr 267.716†	3368.0	0.5181	mg/L	0.00073	1.036	0.0015	0.14%
Cu 324.752†	141775.9	0.5108	mg/L	0.00154	1.022	0.0031	0.30%
Fe 273.955†	3175.2	2.028	mg/L	0.0099	4.056	0.0197	0.49%
K 766.490†	15980.7	9.892	mg/L	0.0523	19.78	0.105	0.53%
Mg 279.077†	10553.7	10.42	mg/L	0.016	20.84	0.032	0.15%
Mn 257.610†	24557.3	0.5051	mg/L	0.00091	1.010	0.0018	0.18%
Mo 202.031†	19.9	0.00076	mg/L	0.000223	0.00152	0.000446	29.40%
Na 589.592†	122388.7	10.19	mg/L	0.099	20.38	0.198	0.97%
Na 330.237†	316.9	10.41	mg/L	0.343	20.81	0.687	3.30%
Ni 231.604†	2071.3	0.5171	mg/L	0.00156	1.034	0.0031	0.30%
Pb 220.353†	18943.9	2.030	mg/L	0.0076	4.059	0.0153	0.38%
Sb 206.836†	13.9	-0.00118	mg/L	0.001620	-0.00236	0.003241	137.10%
Se 196.026†	3442.5	2.017	mg/L	0.0100	4.034	0.0200	0.50%
Si 288.158†	-0.0	0.00291	mg/L	0.000174	0.00583	0.000348	5.97%
Sn 189.927†	-21.9	-0.00353	mg/L	0.000729	-0.00706	0.001457	20.64%
Sr 421.552†	462741.6	0.5055	mg/L	0.00280	1.011	0.0056	0.55%
Ti 334.903†	30.5	0.00066	mg/L	0.000568	0.00132	0.001136	86.38%
Tl 190.801†	4780.7	2.064	mg/L	0.0091	4.127	0.0182	0.44%
V 292.402†	69953.6	0.5170	mg/L	0.00067	1.034	0.0013	0.13%
Zn 206.200†	2106.1	0.5054	mg/L	0.00113	1.011	0.0023	0.22%



Sequence No.: 30  
 Sample ID: CV3  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 10:49:40 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3183599.7	100.7 %	0.57			0.57%
ScR 361.383	335171.8	99.10 %	0.619			0.62%
Ag 328.068†	233847.7	1.052 mg/L	0.0083	1.052 mg/L	0.0083	0.79%
Al 308.215†	2847.5	2.057 mg/L	0.0092	2.057 mg/L	0.0092	0.45%
As 188.979†	3436.9	2.003 mg/L	0.0093	2.003 mg/L	0.0093	0.46%
B 249.677†	6902.8	1.039 mg/L	0.0035	1.039 mg/L	0.0035	0.34%
Ba 233.527†	6045.5	1.055 mg/L	0.0001	1.055 mg/L	0.0001	0.01%
Be 313.042†	506420.5	0.9711 mg/L	0.00921	0.9711 mg/L	0.00921	0.95%
Ca 317.933†	21739.3	2.079 mg/L	0.0101	2.079 mg/L	0.0101	0.48%
Cd 228.802†	27062.0	1.019 mg/L	0.0053	1.019 mg/L	0.0053	0.52%
Co 228.616†	42245.5	1.008 mg/L	0.0085	1.008 mg/L	0.0085	0.84%
Cr 267.716†	6717.3	1.035 mg/L	0.0027	1.035 mg/L	0.0027	0.26%
Cu 324.752†	286701.6	1.032 mg/L	0.0057	1.032 mg/L	0.0057	0.55%
Fe 273.955†	3208.2	2.046 mg/L	0.0064	2.046 mg/L	0.0064	0.31%
K 766.490†	32821.2	20.32 mg/L	0.058	20.32 mg/L	0.058	0.28%
Mg 279.077†	2096.9	2.077 mg/L	0.0140	2.077 mg/L	0.0140	0.68%
Mn 257.610†	47343.0	0.9736 mg/L	0.00390	0.9736 mg/L	0.00390	0.40%
Mo 202.031†	21972.7	0.9950 mg/L	0.00516	0.9950 mg/L	0.00516	0.52%
Na 589.592†	631432.5	52.57 mg/L	0.216	52.57 mg/L	0.216	0.41%
Na 330.237†	1605.9	53.46 mg/L	0.280	53.46 mg/L	0.280	0.52%
Ni 231.604†	4188.2	1.047 mg/L	0.0028	1.047 mg/L	0.0028	0.27%
Pb 220.353†	19107.7	2.048 mg/L	0.0091	2.048 mg/L	0.0091	0.45%
Sb 206.836†	7126.9	2.045 mg/L	0.0110	2.045 mg/L	0.0110	0.54%
Se 196.026†	3354.0	1.964 mg/L	0.0131	1.964 mg/L	0.0131	0.67%
Si 288.158†	3637.9	2.060 mg/L	0.0155	2.060 mg/L	0.0155	0.75%
Sn 189.927†	4865.0	0.9674 mg/L	0.00653	0.9674 mg/L	0.00653	0.67%
Sr 421.552†	937381.3	1.024 mg/L	0.0044	1.024 mg/L	0.0044	0.43%
Ti 334.903†	22798.6	1.001 mg/L	0.0029	1.001 mg/L	0.0029	0.29%
Tl 190.801†	4673.8	2.014 mg/L	0.0130	2.014 mg/L	0.0130	0.65%
V 292.402†	139653.6	1.032 mg/L	0.0068	1.032 mg/L	0.0068	0.66%
Zn 206.200†	4426.2	1.062 mg/L	0.0040	1.062 mg/L	0.0040	0.38%

Sequence No.: 31  
Sample ID: CB 3  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 1  
Date Collected: 2/27/2013 10:53:44 AM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 220.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3198267.9	101.2	%	0.24			0.24%
ScR 361.383	343808.7	101.7	%	0.45			0.45%
Ag 328.068†	62.7	0.00028	mg/L	0.000093	0.00028 mg/L	0.000093	32.94%
Al 308.215†	5.2	0.00375	mg/L	0.007419	0.00375 mg/L	0.007419	197.59%
As 188.979†	1.6	0.00092	mg/L	0.002711	0.00092 mg/L	0.002711	295.08%
B 249.677†	9.9	0.00150	mg/L	0.000682	0.00150 mg/L	0.000682	45.59%
Ba 233.527†	2.8	0.00048	mg/L	0.000851	0.00048 mg/L	0.000851	175.91%
Be 313.042†	10.5	0.00002	mg/L	0.000038	0.00002 mg/L	0.000038	189.49%
Ca 317.933†	-0.8	-0.00008	mg/L	0.000460	-0.00008 mg/L	0.000460	567.26%
Cd 228.802†	3.6	0.00013	mg/L	0.000015	0.00013 mg/L	0.000015	11.26%
Co 228.616†	-4.6	-0.00011	mg/L	0.000134	-0.00011 mg/L	0.000134	120.76%
Cr 267.716†	1.8	0.00027	mg/L	0.000243	0.00027 mg/L	0.000243	89.70%
Cu 324.752†	81.6	0.00029	mg/L	0.000143	0.00029 mg/L	0.000143	48.89%
Fe 273.955†	3.8	0.00242	mg/L	0.000960	0.00242 mg/L	0.000960	39.76%
K 766.490†	-37.1	-0.02298	mg/L	0.025552	-0.02298 mg/L	0.025552	111.20%
Mg 279.077†	-0.4	-0.00043	mg/L	0.001117	-0.00043 mg/L	0.001117	260.39%
Mn 257.610†	-3.4	-0.00007	mg/L	0.000083	-0.00007 mg/L	0.000083	119.87%
Mo 202.031†	34.5	0.00156	mg/L	0.000225	0.00156 mg/L	0.000225	14.40%
Na 589.592†	9.6	0.00080	mg/L	0.004352	0.00080 mg/L	0.004352	543.41%
Na 330.237†	5.4	0.1786	mg/L	0.28643	0.1786 mg/L	0.28643	160.36%
Ni 231.604†	-0.9	-0.00022	mg/L	0.000128	-0.00022 mg/L	0.000128	58.05%
Pb 220.353†	-2.4	-0.00025	mg/L	0.000482	-0.00025 mg/L	0.000482	191.34%
Sb 206.836†	18.5	0.00530	mg/L	0.002038	0.00530 mg/L	0.002038	38.48%
Se 196.026†	2.8	0.00162	mg/L	0.001676	0.00162 mg/L	0.001676	103.42%
Si 288.158†	4.5	0.00258	mg/L	0.002835	0.00258 mg/L	0.002835	109.87%
Sn 189.927†	-1.3	-0.00026	mg/L	0.000651	-0.00026 mg/L	0.000651	249.69%
Sr 421.552†	15.5	0.00002	mg/L	0.000026	0.00002 mg/L	0.000026	155.60%
Ti 334.903†	5.8	0.00025	mg/L	0.000456	0.00025 mg/L	0.000456	180.40%
Tl 190.801†	3.5	0.00153	mg/L	0.000496	0.00153 mg/L	0.000496	32.46%
V 292.402†	8.9	0.00007	mg/L	0.000136	0.00007 mg/L	0.000136	202.00%
Zn 206.200†	1.3	0.00031	mg/L	0.000234	0.00031 mg/L	0.000234	75.73%

Sequence No.: 32  
 Sample ID: WE79 MB2 SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 324  
 Date Collected: 2/27/2013 10:58:00 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 MB2 SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 MB2 SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3237263.8	102.4 %		0.07			0.07%
ScR 361.383	345319.6	102.1 %		0.46			0.45%
Ag 328.068†	50.0	0.00022 mg/L		0.000109	0.00045 mg/L	0.000217	48.26%
Al 308.215†	6.6	0.00487 mg/L		0.001814	0.00974 mg/L	0.003628	37.25%
As 188.979†	0.5	0.00027 mg/L		0.001553	0.00054 mg/L	0.003107	572.38%
B 249.677†	7.7	0.00115 mg/L		0.000781	0.00231 mg/L	0.001562	67.72%
Ba 233.527†	5.8	0.00102 mg/L		0.000157	0.00204 mg/L	0.000314	15.44%
Be 313.042†	-9.0	-0.00002 mg/L		0.000010	-0.00003 mg/L	0.000019	55.45%
Ca 317.933†	69.0	0.00659 mg/L		0.000632	0.01319 mg/L	0.001263	9.58%
Cd 228.802†	2.2	0.00008 mg/L		0.000094	0.00016 mg/L	0.000187	114.85%
Co 228.616†	-3.3	-0.00008 mg/L		0.000095	-0.00016 mg/L	0.000189	118.99%
Cr 267.716†	-1.3	-0.00021 mg/L		0.000985	-0.00041 mg/L	0.001969	480.05%
Cu 324.752†	101.0	0.00036 mg/L		0.000180	0.00073 mg/L	0.000360	49.41%
Fe 273.955†	5.3	0.00336 mg/L		0.001591	0.00673 mg/L	0.003181	47.30%
K 766.490†	-20.8	-0.01285 mg/L		0.027070	-0.02570 mg/L	0.054140	210.66%
Mg 279.077†	2.2	0.00216 mg/L		0.003526	0.00433 mg/L	0.007053	163.03%
Mn 257.610†	-1.7	-0.00004 mg/L		0.000070	-0.00007 mg/L	0.000140	197.26%
Mo 202.031†	0.5	0.00002 mg/L		0.000047	0.00004 mg/L	0.000094	229.08%
Na 589.592†	59.0	0.00491 mg/L		0.001052	0.00983 mg/L	0.002105	21.42%
Na 330.237†	1.0	0.03165 mg/L		0.112133	0.06330 mg/L	0.224266	354.28%
Ni 231.604†	0.2	0.00005 mg/L		0.000383	0.00009 mg/L	0.000766	839.58%
Pb 220.353†	2.0	0.00021 mg/L		0.000503	0.00042 mg/L	0.001007	238.26%
Sb 206.836†	-4.0	-0.00116 mg/L		0.000314	-0.00231 mg/L	0.000629	27.22%
Se 196.026†	3.1	0.00181 mg/L		0.001745	0.00362 mg/L	0.003490	96.39%
Si 288.158†	0.3	0.00020 mg/L		0.004401	0.00040 mg/L	0.008803	>999.9%
Sn 189.927†	0.1	0.00003 mg/L		0.000955	0.00005 mg/L	0.001910	>999.9%
Sr 421.552†	-16.3	-0.00002 mg/L		0.000014	-0.00004 mg/L	0.000028	77.71%
Ti 334.903†	-3.5	-0.00015 mg/L		0.000625	-0.00031 mg/L	0.001249	405.89%
Tl 190.801†	1.2	0.00052 mg/L		0.000257	0.00105 mg/L	0.000514	49.18%
V 292.402†	13.9	0.00010 mg/L		0.000200	0.00020 mg/L	0.000399	196.91%
Zn 206.200†	5.3	0.00128 mg/L		0.000204	0.00256 mg/L	0.000407	15.89%

Sequence No.: 33  
Sample ID: WE70 K SWC  
Analyst: ALA  
Dilution: 2.000000X

Autosampler Location: 325  
Date Collected: 2/27/2013 11:02:16 AM  
Data Type: Original

*\* 2223*

Nebulizer Parameters: WE70 K SWC  
Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: WE70 K SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3263914.2	103.2 %		0.88			0.85%
ScR 361.383	351466.7	103.9 %		0.08			0.08%
Ag 328.068†	25610.9	0.1152 mg/L		0.00119	0.2304 mg/L	0.00238	1.04%
Al 308.215†	21452.8	15.76 mg/L		0.016	31.52 mg/L	0.031	0.10%
As 188.979†	2319.8	1.332 mg/L		0.0123	2.664 mg/L	0.0246	0.92%
B 249.677†	33.7	0.00507 mg/L		0.000667	0.01014 mg/L	0.001335	13.17%
Ba 233.527†	2670.2	0.4574 mg/L		0.00228	0.9148 mg/L	0.00457	0.50%
Be 313.042†	170.3	0.00032 mg/L		0.000008	0.00065 mg/L	0.000015	2.36%
Ca 317.933†	1904.8	0.1821 mg/L		0.00117	0.3643 mg/L	0.00233	0.64%
Cd 228.802†	234.5	0.00147 mg/L		0.000305	0.00295 mg/L	0.000610	20.68%
Co 228.616†	99.6	0.00229 mg/L		0.000080	0.00458 mg/L	0.000161	3.51%
Cr 267.716†	77.8	0.01372 mg/L		0.001178	0.02743 mg/L	0.002356	8.59%
Cu 324.752†	3765.4	0.01650 mg/L		0.000216	0.03300 mg/L	0.000433	1.31%
Fe 273.955†	93712.1	59.94 mg/L		0.247	119.9 mg/L	0.49	0.41%
K 766.490†	29215.0	18.08 mg/L		0.083	36.17 mg/L	0.166	0.46%
Mg 279.077†	1398.5	1.348 mg/L		0.0078	2.695 mg/L	0.0156	0.58%
Mn 257.610†	1225.7	0.02514 mg/L		0.000070	0.05028 mg/L	0.000139	0.28%
Mo 202.031†	23.4	0.00106 mg/L		0.000020	0.00212 mg/L	0.000041	1.92%
Na 589.592†	3379.5	0.2814 mg/L		0.00490	0.5628 mg/L	0.00980	1.74%
Na 330.237†	10.5	0.3460 mg/L		0.11787	0.6919 mg/L	0.23575	34.07%
Ni 231.604†	12.4	0.00311 mg/L		0.001050	0.00622 mg/L	0.002100	33.75%
Pb 220.353†	967.1	0.1046 mg/L		0.00070	0.2093 mg/L	0.00139	0.66%
Sb 206.836†	50.7	0.01447 mg/L		0.000971	0.02893 mg/L	0.001942	6.71%
Se 196.026†	16.7	0.00794 mg/L		0.002565	0.01588 mg/L	0.005129	32.30%
Si 288.158†	3395.9	1.927 mg/L		0.0023	3.855 mg/L	0.0046	0.12%
Sn 189.927†	4.2	0.00085 mg/L		0.000166	0.00171 mg/L	0.000331	19.41%
Sr 421.552†	201360.5	0.2199 mg/L		0.00011	0.4399 mg/L	0.00022	0.05%
Ti 334.903†	511.3	0.02246 mg/L		0.000794	0.04492 mg/L	0.001587	3.53%
Tl 190.801†	-8.1	0.00436 mg/L		0.001222	0.00872 mg/L	0.002443	28.01%
V 292.402†	1958.0	0.01144 mg/L		0.000016	0.02289 mg/L	0.000032	0.14%
Zn 206.200†	143.0	0.03465 mg/L		0.000439	0.06929 mg/L	0.000879	1.27%

Sequence No.: 34  
 Sample ID: WE79 L SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 326  
 Date Collected: 2/27/2013 11:06:16 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 L SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 L SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3256673.1	103.0 %		0.71			0.69%
ScR 361.383	350449.1	103.6 %		0.58			0.56%
Ag 328.068†	21083.8	0.09485 mg/L		0.000803	0.1897 mg/L	0.00161	0.85%
Al 308.215†	39736.2	29.19 mg/L		0.067	58.38 mg/L	0.135	0.23%
As 188.979†	3499.4	2.019 mg/L		0.0147	4.038 mg/L	0.0294	0.73%
B 249.677†	4.2	0.00061 mg/L		0.001511	0.00122 mg/L	0.003022	248.22%
Ba 233.527†	2962.6	0.4988 mg/L		0.00364	0.9976 mg/L	0.00728	0.73%
Be 313.042†	275.3	0.00051 mg/L		0.000008	0.00101 mg/L	0.000017	1.63%
Ca 317.933†	11517.6	1.101 mg/L		0.0025	2.203 mg/L	0.0050	0.23%
Cd 228.802†	360.7	0.00249 mg/L		0.000171	0.00498 mg/L	0.000342	6.87%
Co 228.616†	389.6	0.00869 mg/L		0.000098	0.01739 mg/L	0.000196	1.13%
Cr 267.716†	194.4	0.03330 mg/L		0.000494	0.06660 mg/L	0.000989	1.48%
Cu 324.752†	19179.3	0.07517 mg/L		0.000739	0.1503 mg/L	0.00148	0.98%
Fe 273.955†	196458.3	125.7 mg/L		0.65	251.3 mg/L	1.30	0.52%
K 766.490†	35588.0	22.03 mg/L		0.046	44.06 mg/L	0.092	0.21%
Mg 279.077†	5491.2	5.352 mg/L		0.0440	10.70 mg/L	0.088	0.82%
Mn 257.610†	8366.8	0.1719 mg/L		0.00011	0.3438 mg/L	0.00022	0.06%
Mo 202.031†	28.3	0.00127 mg/L		0.000190	0.00253 mg/L	0.000380	15.04%
Na 589.592†	14119.5	1.176 mg/L		0.0069	2.351 mg/L	0.0138	0.59%
Na 330.237†	27.9	0.9940 mg/L		0.17852	1.988 mg/L	0.3570	17.96%
Ni 231.604†	57.7	0.01445 mg/L		0.000992	0.02889 mg/L	0.001984	6.87%
Pb 220.353†	1658.5	0.1788 mg/L		0.00059	0.3575 mg/L	0.00117	0.33%
Sb 206.836†	80.3	0.02318 mg/L		0.001216	0.04637 mg/L	0.002432	5.25%
Se 196.026†	22.0	0.00947 mg/L		0.002593	0.01895 mg/L	0.005187	27.38%
Si 288.158†	3360.9	1.908 mg/L		0.0132	3.816 mg/L	0.0263	0.69%
Sn 189.927†	2.3	0.00061 mg/L		0.000618	0.00123 mg/L	0.001236	100.87%
Sr 421.552†	183258.6	0.2002 mg/L		0.00035	0.4004 mg/L	0.00071	0.18%
Ti 334.903†	7255.4	0.3188 mg/L		0.00251	0.6377 mg/L	0.00503	0.79%
Tl 190.801†	-17.8	0.00863 mg/L		0.002495	0.01726 mg/L	0.004989	28.91%
V 292.402†	10380.3	0.07006 mg/L		0.001094	0.1401 mg/L	0.00219	1.56%
Zn 206.200†	346.8	0.08353 mg/L		0.000884	0.1671 mg/L	0.00177	1.06%

Sequence No.: 35  
Sample ID: WE89 M SWC  
Analyst: ALA 7A  
Dilution: 2.000000X

*A2-27-13*

Autosampler Location: 327  
Date Collected: 2/27/2013 11:10:17 AM  
Data Type: Original

Nebulizer Parameters: WE89 M SWC

Analyte Back Pressure Flow  
All 217.0 kPa 0.75 L/min

Mean Data: WE89 M SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3172983.9	100.4 %		0.58			0.58%
ScR 361.383	345445.3	102.1 %		0.35			0.34%
Ag 328.068†	37801.4	0.1700 mg/L		0.00315	0.3400 mg/L	0.00630	1.85%
Al 308.215†	34152.8	25.09 mg/L		0.002	50.17 mg/L	0.004	0.01%
As 188.979†	3499.1	2.014 mg/L		0.0201	4.028 mg/L	0.0401	1.00%
B 249.677†	23.1	0.00347 mg/L		0.000503	0.00694 mg/L	0.001005	14.48%
Ba 233.527†	3348.9	0.5688 mg/L		0.00500	1.138 mg/L	0.0100	0.88%
Be 313.042†	285.9	0.00053 mg/L		0.000009	0.00107 mg/L	0.000018	1.65%
Ca 317.933†	17081.9	1.633 mg/L		0.0061	3.267 mg/L	0.0122	0.37%
Cd 228.802†	354.0	0.00223 mg/L		0.000020	0.00447 mg/L	0.000040	0.89%
Co 228.616†	276.3	0.00623 mg/L		0.000201	0.01246 mg/L	0.000402	3.23%
Cr 267.716†	110.4	0.01984 mg/L		0.000320	0.03968 mg/L	0.000641	1.62%
Cu 324.752†	31197.8	0.1176 mg/L		0.00194	0.2353 mg/L	0.00388	1.65%
Fe 273.955†	168984.7	108.1 mg/L		0.81	216.2 mg/L	1.62	0.75%
K 766.490†	35456.1	21.95 mg/L		0.084	43.89 mg/L	0.167	0.38%
Mg 279.077†	5077.8	4.953 mg/L		0.0239	9.907 mg/L	0.0478	0.48%
Mn 257.610†	7444.0	0.1529 mg/L		0.00099	0.3058 mg/L	0.00198	0.65%
Mo 202.031†	33.6	0.00150 mg/L		0.000703	0.00300 mg/L	0.001406	46.82%
Na 589.592†	15718.2	1.309 mg/L		0.0054	2.617 mg/L	0.0107	0.41%
Na 330.237†	34.0	1.164 mg/L		0.2680	2.328 mg/L	0.5359	23.02%
Ni 231.604†	28.4	0.00712 mg/L		0.000183	0.01424 mg/L	0.000365	2.56%
Pb 220.353†	1609.9	0.1733 mg/L		0.00149	0.3466 mg/L	0.00298	0.86%
Sb 206.836†	116.5	0.03357 mg/L		0.000492	0.06714 mg/L	0.000985	1.47%
Se 196.026†	36.8	0.01867 mg/L		0.003188	0.03733 mg/L	0.006376	17.08%
Si 288.158†	2844.7	1.615 mg/L		0.0062	3.230 mg/L	0.0124	0.38%
Sn 189.927†	0.5	0.00029 mg/L		0.000527	0.00059 mg/L	0.001053	179.64%
Sr 421.552†	291718.9	0.3186 mg/L		0.00059	0.6373 mg/L	0.00118	0.18%
Ti 334.903†	4009.9	0.1761 mg/L		0.00137	0.3523 mg/L	0.00274	0.78%
Tl 190.801†	-15.1	0.00755 mg/L		0.000768	0.01511 mg/L	0.001535	10.16%
V 292.402†	7055.8	0.04650 mg/L		0.000412	0.09300 mg/L	0.000824	0.89%
Zn 206.200†	241.9	0.05831 mg/L		0.000531	0.1166 mg/L	0.00106	0.91%

Sequence No.: 36  
Sample ID: WE79 N SWC  
Analyst: ALA  
Dilution: 2.000000X

Autosampler Location: 328  
Date Collected: 2/27/2013 11:14:18 AM  
Data Type: Original

Nebulizer Parameters: WE79 N SWC  
Analyte Back Pressure Flow  
All 216.0 kPa 0.75 L/min

Mean Data: WE79 N SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3254508.3	102.9 %		1.68			1.63%
ScR 361.383	365013.4	107.9 %		6.45			5.98%
Ag 328.068†	29043.1	0.1306 mg/L		0.00320	0.2613 mg/L	0.00639	2.45%
Al 308.215†	39881.0	29.29 mg/L		4.810	58.59 mg/L	9.619	16.42%
As 188.979†	3336.6	1.922 mg/L		0.0363	3.843 mg/L	0.0727	1.89%
B 249.677†	19.1	0.00286 mg/L		0.000730	0.00572 mg/L	0.001460	25.55%
Ba 233.527†	3356.7	0.5704 mg/L		0.03642	1.141 mg/L	0.0728	6.39%
Be 313.042†	288.9	0.00054 mg/L		0.000134	0.00108 mg/L	0.000268	24.89%
Ca 317.933†	11748.4	1.123 mg/L		0.1853	2.247 mg/L	0.3706	16.49%
Cd 228.802†	346.2	0.00246 mg/L		0.000241	0.00492 mg/L	0.000483	9.82%
Co 228.616†	305.1	0.00687 mg/L		0.000077	0.01374 mg/L	0.000154	1.12%
Cr 267.716†	180.8	0.03074 mg/L		0.001200	0.06148 mg/L	0.002400	3.90%
Cu 324.752†	26113.5	0.09925 mg/L		0.001792	0.1985 mg/L	0.00358	1.80%
Fe 273.955†	167145.5	106.9 mg/L		17.63	213.8 mg/L	35.27	16.50%
K 766.490†	32911.6	20.37 mg/L		3.385	40.74 mg/L	6.770	16.62%
Mg 279.077†	4338.2	4.224 mg/L		0.2904	8.448 mg/L	0.5809	6.88%
Mn 257.610†	6416.2	0.1319 mg/L		0.00829	0.2637 mg/L	0.01659	6.29%
Saturated within auto integration window (code 4)							
Mo 202.031†	40.8	0.00183 mg/L		0.000487	0.00367 mg/L	0.000973	26.52%
Na 589.592†	20463.6	1.704 mg/L		0.2786	3.408 mg/L	0.5572	16.35%
Na 330.237†	51.5	1.747 mg/L		0.2748	3.494 mg/L	0.5497	15.73%
Ni 231.604†	42.2	0.01058 mg/L		0.001776	0.02115 mg/L	0.003552	16.79%
Pb 220.353†	6041.4	0.6492 mg/L		0.01195	1.298 mg/L	0.0239	1.84%
Sb 206.836†	83.8	0.02408 mg/L		0.002238	0.04815 mg/L	0.004476	9.30%
Se 196.026†	31.2	0.01490 mg/L		0.004438	0.02980 mg/L	0.008876	29.78%
Si 288.158†	3509.7	1.992 mg/L		0.1277	3.985 mg/L	0.2554	6.41%
Sn 189.927†	6.4	0.00142 mg/L		0.001059	0.00284 mg/L	0.002119	74.72%
Sr 421.552†	316230.5	0.3454 mg/L		0.05625	0.6908 mg/L	0.11250	16.28%
Ti 334.903†	4604.1	0.2023 mg/L		0.03350	0.4046 mg/L	0.06701	16.56%
Tl 190.801†	-14.6	0.00760 mg/L		0.004328	0.01519 mg/L	0.008657	56.97%
V 292.402†	7881.7	0.05266 mg/L		0.002265	0.1053 mg/L	0.00453	4.30%
Zn 206.200†	357.3	0.08610 mg/L		0.006191	0.1722 mg/L	0.01238	7.19%

Sequence No.: 37  
 Sample ID: WE79 O SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 329  
 Date Collected: 2/27/2013 11:18:18 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 O SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 O SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3382611.4	107.0 %		1.03			0.97%
ScR 361.383	342368.0	101.2 %		1.61			1.59%
Ag 328.068†	39732.8	0.1787 mg/L		0.00250	0.3574 mg/L	0.00501	1.40%
Al 308.215†	14818.6	10.89 mg/L		0.265	21.77 mg/L	0.530	2.43%
As 188.979†	1657.6	0.9533 mg/L		0.01447	1.907 mg/L	0.0289	1.52%
B 249.677†	5.6	0.00084 mg/L		0.001905	0.00168 mg/L	0.003810	227.01%
Ba 233.527†	2359.9	0.4016 mg/L		0.00827	0.8032 mg/L	0.01653	2.06%
Be 313.042†	132.9	0.00025 mg/L		0.000023	0.00050 mg/L	0.000046	9.32%
Ca 317.933†	1771.7	0.1694 mg/L		0.00429	0.3388 mg/L	0.00857	2.53%
Cd 228.802†	167.4	0.00105 mg/L		0.000081	0.00209 mg/L	0.000161	7.70%
Co 228.616†	70.0	0.00152 mg/L		0.000077	0.00305 mg/L	0.000154	5.06%
Cr 267.716†	61.1	0.01151 mg/L		0.000364	0.02302 mg/L	0.000728	3.16%
Cu 324.752†	14127.7	0.05436 mg/L		0.000887	0.1087 mg/L	0.00177	1.63%
Fe 273.955†	111059.5	71.03 mg/L		1.064	142.1 mg/L	2.13	1.50%
K 766.490†	28133.2	17.41 mg/L		0.263	34.83 mg/L	0.526	1.51%
Mg 279.077†	934.0	0.8827 mg/L		0.02483	1.765 mg/L	0.0497	2.81%
Mn 257.610†	1039.5	0.02133 mg/L		0.000549	0.04266 mg/L	0.001098	2.57%
Mo 202.031†	18.9	0.00085 mg/L		0.000141	0.00170 mg/L	0.000283	16.60%
Na 589.592†	8154.8	0.6790 mg/L		0.01549	1.358 mg/L	0.0310	2.28%
Na 330.237†	15.4	0.5237 mg/L		0.15930	1.047 mg/L	0.3186	30.42%
Ni 231.604†	4.3	0.00108 mg/L		0.000280	0.00215 mg/L	0.000559	26.02%
Pb 220.353†	815.1	0.08639 mg/L		0.000737	0.1728 mg/L	0.00147	0.85%
Sb 206.836†	66.3	0.01905 mg/L		0.001984	0.03810 mg/L	0.003968	10.42%
Se 196.026†	28.0	0.01514 mg/L		0.003774	0.03028 mg/L	0.007548	24.92%
Si 288.158†	3308.0	1.878 mg/L		0.0463	3.755 mg/L	0.0926	2.47%
Sn 189.927†	3.4	0.00072 mg/L		0.000202	0.00143 mg/L	0.000404	28.17%
Sr 421.552†	214306.4	0.2341 mg/L		0.00438	0.4682 mg/L	0.00875	1.87%
Ti 334.903†	1351.4	0.05939 mg/L		0.002309	0.1188 mg/L	0.00462	3.89%
Tl 190.801†	-6.6	0.00649 mg/L		0.002659	0.01298 mg/L	0.005318	40.96%
V 292.402†	2907.3	0.01784 mg/L		0.000235	0.03568 mg/L	0.000470	1.32%
Zn 206.200†	67.0	0.01640 mg/L		0.000575	0.03279 mg/L	0.001149	3.51%



Sequence No.: 38  
 Sample ID: WE79 P SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 330  
 Date Collected: 2/27/2013 11:22:33 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 P SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 P SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3224848.9	102.0 %	0.50			0.49%
ScR 361.383	350014.8	103.5 %	0.16			0.15%
Ag 328.068†	36750.8	0.1653 mg/L	0.00126	0.3306 mg/L	0.00252	0.76%
Al 308.215†	30236.1	22.21 mg/L	0.160	44.42 mg/L	0.320	0.72%
As 188.979†	3686.5	2.116 mg/L	0.0234	4.233 mg/L	0.0467	1.10%
B 249.677†	43.8	0.00660 mg/L	0.001305	0.01321 mg/L	0.002610	19.76%
Ba 233.527†	1920.5	0.3274 mg/L	0.00156	0.6549 mg/L	0.00313	0.48%
Be 313.042†	334.1	0.00064 mg/L	0.000030	0.00127 mg/L	0.000060	4.70%
Ca 317.933†	1855.2	0.1774 mg/L	0.00155	0.3548 mg/L	0.00311	0.88%
Cd 228.802†	354.9	0.00166 mg/L	0.000123	0.00332 mg/L	0.000246	7.40%
Co 228.616†	76.5	0.00175 mg/L	0.000140	0.00349 mg/L	0.000280	8.02%
Cr 267.716†	57.9	0.01045 mg/L	0.000507	0.02089 mg/L	0.001015	4.86%
Cu 324.752†	8337.9	0.03265 mg/L	0.000200	0.06531 mg/L	0.000399	0.61%
Fe 273.955†	83770.2	53.58 mg/L	0.451	107.2 mg/L	0.90	0.84%
K 766.490†	35533.8	22.00 mg/L	0.057	43.99 mg/L	0.113	0.26%
Mg 279.077†	1337.3	1.291 mg/L	0.0091	2.581 mg/L	0.0182	0.70%
Mn 257.610†	1454.3	0.02982 mg/L	0.000359	0.05963 mg/L	0.000719	1.21%
Mo 202.031†	20.7	0.00093 mg/L	0.000258	0.00187 mg/L	0.000517	27.67%
Na 589.592†	1912.3	0.1592 mg/L	0.00314	0.3184 mg/L	0.00627	1.97%
Na 330.237†	-2.1	-0.06827 mg/L	0.348460	-0.1365 mg/L	0.69692	510.41%
Ni 231.604†	2.8	0.00073 mg/L	0.001042	0.00146 mg/L	0.002085	143.23%
Pb 220.353†	1591.5	0.1736 mg/L	0.00031	0.3471 mg/L	0.00062	0.18%
Sb 206.836†	236.4	0.06784 mg/L	0.001466	0.1357 mg/L	0.00293	2.16%
Se 196.026†	71.8	0.03954 mg/L	0.003158	0.07908 mg/L	0.006316	7.99%
Si 288.158†	3168.8	1.799 mg/L	0.0144	3.597 mg/L	0.0288	0.80%
Sn 189.927†	1.4	0.00034 mg/L	0.000497	0.00068 mg/L	0.000993	146.73%
Sr 421.552†	125530.2	0.1371 mg/L	0.00050	0.2742 mg/L	0.00101	0.37%
Ti 334.903†	562.6	0.02472 mg/L	0.003600	0.04943 mg/L	0.007199	14.56%
Tl 190.801†	7.0	0.01009 mg/L	0.001780	0.02017 mg/L	0.003560	17.65%
V 292.402†	1829.9	0.01081 mg/L	0.000138	0.02161 mg/L	0.000275	1.27%
Zn 206.200†	69.5	0.01700 mg/L	0.000667	0.03399 mg/L	0.001334	3.92%

Sequence No.: 39  
 Sample ID: WE79 Q SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 331  
 Date Collected: 2/27/2013 11:26:48 AM  
 Data Type: Original

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 Nebulizer Parameters: WE79 Q SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

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 Mean Data: WE79 Q SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3364064.2	106.4 %		0.75			0.70%
ScR 361.383	352417.5	104.2 %		1.58			1.52%
Ag 328.068†	6400.2	0.02892 mg/L		0.000245	0.05783 mg/L	0.000490	0.85%
Al 308.215†	209511.2	153.9 mg/L		2.37	307.8 mg/L	4.73	1.54%
As 188.979†	1887.8	1.109 mg/L		0.0119	2.219 mg/L	0.0237	1.07%
B 249.677†	-18.0	-0.00284 mg/L		0.000923	-0.00568 mg/L	0.001847	32.49%
Ba 233.527†	5932.9	0.9969 mg/L		0.01975	1.994 mg/L	0.0395	1.98%
Be 313.042†	2494.9	0.00471 mg/L		0.000100	0.00942 mg/L	0.000199	2.11%
Ca 317.933†	73186.7	6.998 mg/L		0.0833	14.00 mg/L	0.167	1.19%
Cd 228.802†	257.8	0.00379 mg/L		0.000299	0.00758 mg/L	0.000597	7.88%
Co 228.616†	1961.4	0.04541 mg/L		0.000725	0.09081 mg/L	0.001450	1.60%
Cr 267.716†	994.1	0.1588 mg/L		0.00284	0.3176 mg/L	0.00568	1.79%
Cu 324.752†	126184.1	0.4673 mg/L		0.00382	0.9345 mg/L	0.00764	0.82%
Fe 273.955†	414180.4	264.9 mg/L		3.99	529.8 mg/L	7.97	1.50%
K 766.490†	45233.9	28.00 mg/L		0.309	56.00 mg/L	0.618	1.10%
Mg 279.077†	24615.6	24.16 mg/L		0.430	48.31 mg/L	0.860	1.78%
Mn 257.610†	130651.6	2.685 mg/L		0.0378	5.370 mg/L	0.0756	1.41%
Mo 202.031†	96.3	0.00427 mg/L		0.000231	0.00854 mg/L	0.000462	5.41%
Na 589.592†	18962.6	1.579 mg/L		0.0185	3.158 mg/L	0.0371	1.17%
Na 330.237†	41.1	1.407 mg/L		0.1013	2.814 mg/L	0.2026	7.20%
Ni 231.604†	305.9	0.07651 mg/L		0.002259	0.1530 mg/L	0.00452	2.95%
Pb 220.353†	757.7	0.1083 mg/L		0.00144	0.2166 mg/L	0.00287	1.33%
Sb 206.836†	75.0	0.02108 mg/L		0.001181	0.04217 mg/L	0.002361	5.60%
Se 196.026†	35.8	0.00313 mg/L		0.000690	0.00626 mg/L	0.001379	22.02%
Si 288.158†	7753.1	4.403 mg/L		0.1017	8.806 mg/L	0.2034	2.31%
Sn 189.927†	-11.8	-0.00160 mg/L		0.000627	-0.00320 mg/L	0.001255	39.17%
Sr 421.552†	433015.6	0.4730 mg/L		0.00735	0.9460 mg/L	0.01471	1.55%
Ti 334.903†	17591.4	0.7728 mg/L		0.01008	1.546 mg/L	0.0202	1.30%
Tl 190.801†	-61.2	0.00731 mg/L		0.004000	0.01463 mg/L	0.008000	54.69%
V 292.402†	37820.7	0.2657 mg/L		0.00296	0.5313 mg/L	0.00592	1.11%
Zn 206.200†	2470.0	0.5933 mg/L		0.01206	1.187 mg/L	0.0241	2.03%

Sequence No.: 40  
 Sample ID: WE79 R SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 332  
 Date Collected: 2/27/2013 11:30:50 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 R SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 R SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	3318838.9	105.0 %	%	0.49			0.47%
ScR 361.383	350098.0	103.5 %	%	0.35			0.34%
Ag 328.068†	11041.0	0.04974 mg/L	mg/L	0.000574	0.09948 mg/L	0.001148	1.15%
Al 308.215†	195033.6	143.3 mg/L	mg/L	1.30	286.5 mg/L	2.61	0.91%
As 188.979†	8361.6	4.805 mg/L	mg/L	0.0195	9.609 mg/L	0.0390	0.41%
B 249.677†	-74.4	-0.01127 mg/L	mg/L	0.001677	-0.02255 mg/L	0.003353	14.87%
Ba 233.527†	9546.7	1.613 mg/L	mg/L	0.0029	3.226 mg/L	0.0057	0.18%
Be 313.042†	1592.2	0.00300 mg/L	mg/L	0.000017	0.00600 mg/L	0.000034	0.56%
Ca 317.933†	19422.2	1.857 mg/L	mg/L	0.0178	3.715 mg/L	0.0356	0.96%
Cd 228.802†	856.1	0.00572 mg/L	mg/L	0.000148	0.01145 mg/L	0.000296	2.58%
Co 228.616†	935.0	0.02184 mg/L	mg/L	0.000144	0.04368 mg/L	0.000287	0.66%
Cr 267.716†	624.1	0.1058 mg/L	mg/L	0.00118	0.2116 mg/L	0.00237	1.12%
Cu 324.752†	167995.3	0.6236 mg/L	mg/L	0.00505	1.246 mg/L	0.0101	0.81%
Fe 273.955†	573467.1	366.8 mg/L	mg/L	2.73	733.6 mg/L	5.45	0.74%
K 766.490†	53030.9	32.83 mg/L	mg/L	0.248	65.65 mg/L	0.496	0.76%
Mg 279.077†	17378.9	16.96 mg/L	mg/L	0.167	33.91 mg/L	0.335	0.99%
Mn 257.610†	46949.2	0.9644 mg/L	mg/L	0.00648	1.929 mg/L	0.0130	0.67%
Mo 202.031†	94.5	0.00425 mg/L	mg/L	0.000396	0.00850 mg/L	0.000792	9.31%
Na 589.592†	39930.6	3.325 mg/L	mg/L	0.0292	6.649 mg/L	0.0583	0.88%
Na 330.237†	90.0	2.956 mg/L	mg/L	0.0963	5.912 mg/L	0.1925	3.26%
Ni 231.604†	122.2	0.03059 mg/L	mg/L	0.001489	0.06118 mg/L	0.002977	4.87%
Pb 220.353†	2177.2	0.2517 mg/L	mg/L	0.00157	0.5034 mg/L	0.00314	0.62%
Sb 206.836†	138.6	0.03949 mg/L	mg/L	0.002326	0.07898 mg/L	0.004652	5.89%
Se 196.026†	66.2	0.02219 mg/L	mg/L	0.003614	0.04439 mg/L	0.007228	16.28%
Si 288.158†	3757.4	2.134 mg/L	mg/L	0.0065	4.269 mg/L	0.0131	0.31%
Sn 189.927†	-2.1	-0.00020 mg/L	mg/L	0.001010	-0.00041 mg/L	0.002020	497.71%
Sr 421.552†	275887.0	0.3014 mg/L	mg/L	0.00237	0.6027 mg/L	0.00474	0.79%
Ti 334.903†	4157.1	0.1826 mg/L	mg/L	0.00326	0.3652 mg/L	0.00653	1.79%
Tl 190.801†	-84.7	0.01104 mg/L	mg/L	0.004413	0.02208 mg/L	0.008825	39.98%
V 292.402†	30997.6	0.2102 mg/L	mg/L	0.00145	0.4203 mg/L	0.00289	0.69%
Zn 206.200†	1287.9	0.3093 mg/L	mg/L	0.00204	0.6187 mg/L	0.00408	0.66%

Sequence No.: 41  
 Sample ID: WE79 MB2SPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 333  
 Date Collected: 2/27/2013 11:34:52 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 MB2SPK SWC

Analyte Back Pressure Flow  
 All 217.0 kPa 0.75 L/min

## Mean Data: WE79 MB2SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3291836.6	104.1 %	1.41			1.35%
ScR 361.383	344343.1	101.8 %	0.30			0.29%
Ag 328.068†	115060.3	0.5177 mg/L	0.00859	1.035 mg/L	0.0172	1.66%
Al 308.215†	2810.6	2.057 mg/L	0.0070	4.115 mg/L	0.0139	0.34%
As 188.979†	3457.3	1.983 mg/L	0.0325	3.966 mg/L	0.0651	1.64%
B 249.677†	9.1	0.00021 mg/L	0.001164	0.00041 mg/L	0.002329	564.19%
Ba 233.527†	11941.3	2.085 mg/L	0.0104	4.169 mg/L	0.0208	0.50%
Be 313.042†	251041.0	0.4814 mg/L	0.00315	0.9628 mg/L	0.00629	0.65%
Ca 317.933†	102423.5	9.794 mg/L	0.0573	19.59 mg/L	0.115	0.59%
Cd 228.802†	13442.8	0.5007 mg/L	0.00683	1.001 mg/L	0.0137	1.36%
Co 228.616†	20818.5	0.4974 mg/L	0.00834	0.9947 mg/L	0.01667	1.68%
Cr 267.716†	3326.6	0.5117 mg/L	0.00275	1.023 mg/L	0.0055	0.54%
Cu 324.752†	137167.6	0.4942 mg/L	0.00734	0.9884 mg/L	0.01468	1.49%
Fe 273.955†	3147.2	2.010 mg/L	0.0095	4.020 mg/L	0.0190	0.47%
K 766.490†	15889.4	9.835 mg/L	0.0695	19.67 mg/L	0.139	0.71%
Mg 279.077†	10444.2	10.31 mg/L	0.051	20.62 mg/L	0.101	0.49%
Mn 257.610†	24204.3	0.4979 mg/L	0.00097	0.9958 mg/L	0.00193	0.19%
Mo 202.031†	22.5	0.00088 mg/L	0.000099	0.00175 mg/L	0.000199	11.34%
Na 589.592†	121630.9	10.13 mg/L	0.015	20.25 mg/L	0.030	0.15%
Na 330.237†	306.4	10.06 mg/L	0.226	20.11 mg/L	0.452	2.24%
Ni 231.604†	2059.6	0.5142 mg/L	0.00450	1.028 mg/L	0.0090	0.88%
Pb 220.353†	18504.3	1.983 mg/L	0.0283	3.965 mg/L	0.0566	1.43%
Sb 206.836†	15.0	-0.00083 mg/L	0.000577	-0.00165 mg/L	0.001154	69.95%
Se 196.026†	3340.9	1.957 mg/L	0.0241	3.915 mg/L	0.0483	1.23%
Si 288.158†	-1.8	0.00185 mg/L	0.003242	0.00370 mg/L	0.006484	175.47%
Sn 189.927†	-17.6	-0.00267 mg/L	0.000376	-0.00534 mg/L	0.000752	14.09%
Sr 421.552†	455999.8	0.4981 mg/L	0.00064	0.9962 mg/L	0.00127	0.13%
Ti 334.903†	25.7	0.00045 mg/L	0.000642	0.00090 mg/L	0.001284	142.37%
Tl 190.801†	4634.0	2.000 mg/L	0.0318	4.001 mg/L	0.0636	1.59%
V 292.402†	68111.0	0.5034 mg/L	0.00867	1.007 mg/L	0.0173	1.72%
Zn 206.200†	2092.8	0.5023 mg/L	0.00309	1.005 mg/L	0.0062	0.61%

Sequence No.: 42  
 Sample ID: CV  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 11:38:53 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3222264.7	101.9 %	0.30			0.30%
ScR 361.383	343990.0	101.7 %	1.31			1.28%
Ag 328.068†	233440.3	1.050 mg/L	0.0045	1.050 mg/L	0.0045	0.43%
Al 308.215†	2790.5	2.015 mg/L	0.0301	2.015 mg/L	0.0301	1.49%
As 188.979†	3447.1	2.009 mg/L	0.0131	2.009 mg/L	0.0131	0.65%
B 249.677†	6779.3	1.021 mg/L	0.0159	1.021 mg/L	0.0159	1.56%
Ba 233.527†	5973.8	1.043 mg/L	0.0174	1.043 mg/L	0.0174	1.66%
Be 313.042†	498687.6	0.9563 mg/L	0.01676	0.9563 mg/L	0.01676	1.75%
Ca 317.933†	21523.1	2.058 mg/L	0.0381	2.058 mg/L	0.0381	1.85%
Cd 228.802†	26966.3	1.016 mg/L	0.0058	1.016 mg/L	0.0058	0.58%
Co 228.616†	42533.7	1.015 mg/L	0.0040	1.015 mg/L	0.0040	0.39%
Cr 267.716†	6627.8	1.021 mg/L	0.0167	1.021 mg/L	0.0167	1.64%
Cu 324.752†	285077.0	1.027 mg/L	0.0023	1.027 mg/L	0.0023	0.22%
Fe 273.955†	3155.9	2.013 mg/L	0.0400	2.013 mg/L	0.0400	1.99%
K 766.490†	32388.8	20.05 mg/L	0.353	20.05 mg/L	0.353	1.76%
Mg 279.077†	2069.9	2.050 mg/L	0.0481	2.050 mg/L	0.0481	2.35%
Mn 257.610†	46866.4	0.9638 mg/L	0.01728	0.9638 mg/L	0.01728	1.79%
Mo 202.031†	21956.4	0.9942 mg/L	0.00469	0.9942 mg/L	0.00469	0.47%
Na 589.592†	618325.1	51.48 mg/L	0.680	51.48 mg/L	0.680	1.32%
Na 330.237†	1573.8	52.39 mg/L	0.890	52.39 mg/L	0.890	1.70%
Ni 231.604†	4156.1	1.039 mg/L	0.0164	1.039 mg/L	0.0164	1.57%
Pb 220.353†	19180.6	2.055 mg/L	0.0111	2.055 mg/L	0.0111	0.54%
Sb 206.836†	7133.1	2.047 mg/L	0.0090	2.047 mg/L	0.0090	0.44%
Se 196.026†	3367.6	1.972 mg/L	0.0087	1.972 mg/L	0.0087	0.44%
Si 288.158†	3575.8	2.025 mg/L	0.0279	2.025 mg/L	0.0279	1.38%
Sn 189.927†	4865.3	0.9675 mg/L	0.00275	0.9675 mg/L	0.00275	0.28%
Sr 421.552†	919394.3	1.004 mg/L	0.0152	1.004 mg/L	0.0152	1.51%
Ti 334.903†	22431.3	0.9846 mg/L	0.01521	0.9846 mg/L	0.01521	1.55%
Tl 190.801†	4690.4	2.021 mg/L	0.0094	2.021 mg/L	0.0094	0.47%
V 292.402†	139888.3	1.034 mg/L	0.0036	1.034 mg/L	0.0036	0.35%
Zn 206.200†	4406.7	1.058 mg/L	0.0196	1.058 mg/L	0.0196	1.85%

Sequence No.: 43  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 2/27/2013 11:42:57 AM  
 Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3267988.7	103.4	%	0.59			0.57%
ScR 361.383	349291.9	103.3	%	0.94			0.91%
Ag 328.068†	6.6	0.00003	mg/L	0.000111	0.00003 mg/L	0.000111	374.57%
Al 308.215†	3.3	0.00236	mg/L	0.000634	0.00236 mg/L	0.000634	26.82%
As 188.979†	2.5	0.00145	mg/L	0.001067	0.00145 mg/L	0.001067	73.34%
B 249.677†	11.2	0.00169	mg/L	0.000333	0.00169 mg/L	0.000333	19.73%
Ba 233.527†	-0.4	-0.00007	mg/L	0.000406	-0.00007 mg/L	0.000406	555.58%
Be 313.042†	0.6	0.00000	mg/L	0.000007	0.00000 mg/L	0.000007	605.18%
Ca 317.933†	11.7	0.00112	mg/L	0.000511	0.00112 mg/L	0.000511	45.86%
Cd 228.802†	6.6	0.00024	mg/L	0.000035	0.00024 mg/L	0.000035	14.22%
Co 228.616†	5.0	0.00012	mg/L	0.000027	0.00012 mg/L	0.000027	23.02%
Cr 267.716†	1.2	0.00018	mg/L	0.000735	0.00018 mg/L	0.000735	414.92%
Cu 324.752†	82.1	0.00030	mg/L	0.000093	0.00030 mg/L	0.000093	31.35%
Fe 273.955†	5.8	0.00371	mg/L	0.001535	0.00371 mg/L	0.001535	41.42%
K 766.490†	-3.0	-0.00183	mg/L	0.005133	-0.00183 mg/L	0.005133	280.41%
Mg 279.077†	1.5	0.00150	mg/L	0.013512	0.00150 mg/L	0.013512	901.61%
Mn 257.610†	-2.3	-0.00005	mg/L	0.000144	-0.00005 mg/L	0.000144	305.77%
Mo 202.031†	32.1	0.00146	mg/L	0.000075	0.00146 mg/L	0.000075	5.17%
Na 589.592†	-22.2	-0.00184	mg/L	0.003661	-0.00184 mg/L	0.003661	198.50%
Na 330.237†	12.9	0.4296	mg/L	0.33347	0.4296 mg/L	0.33347	77.62%
Ni 231.604†	-1.5	-0.00037	mg/L	0.000508	-0.00037 mg/L	0.000508	138.60%
Pb 220.353†	8.5	0.00091	mg/L	0.000630	0.00091 mg/L	0.000630	69.01%
Sb 206.836†	17.3	0.00496	mg/L	0.001222	0.00496 mg/L	0.001222	24.61%
Se 196.026†	1.7	0.00102	mg/L	0.003300	0.00102 mg/L	0.003300	325.14%
Si 288.158†	5.6	0.00319	mg/L	0.001387	0.00319 mg/L	0.001387	43.47%
Sn 189.927†	3.9	0.00078	mg/L	0.000415	0.00078 mg/L	0.000415	52.98%
Sr 421.552†	-0.6	-0.00000	mg/L	0.000033	-0.00000 mg/L	0.000033	>999.9%
Ti 334.903†	-0.2	-0.00001	mg/L	0.000266	-0.00001 mg/L	0.000266	>999.9%
Tl 190.801†	-0.5	-0.00022	mg/L	0.000824	-0.00022 mg/L	0.000824	370.34%
V 292.402†	8.6	0.00006	mg/L	0.000093	0.00006 mg/L	0.000093	143.85%
Zn 206.200†	2.2	0.00052	mg/L	0.000789	0.00052 mg/L	0.000789	152.11%

Sequence No.: 44  
 Sample ID: WE79 MB1 SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 334  
 Date Collected: 2/27/2013 11:47:13 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 MB1 SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 MB1 SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3255939.0	103.0 %		0.45			0.43%
ScR 361.383	349945.5	103.5 %		0.48			0.46%
Ag 328.068†	32.0	0.00014 mg/L		0.000230	0.00029 mg/L	0.000460	159.48%
Al 308.215†	6.6	0.00488 mg/L		0.004073	0.00976 mg/L	0.008146	83.50%
As 188.979†	2.7	0.00157 mg/L		0.001275	0.00314 mg/L	0.002551	81.26%
B 249.677†	1.1	0.00017 mg/L		0.000443	0.00034 mg/L	0.000886	258.06%
Ba 233.527†	-0.7	-0.00013 mg/L		0.000081	-0.00025 mg/L	0.000161	64.36%
Be 313.042†	6.6	0.00001 mg/L		0.000007	0.00003 mg/L	0.000014	55.83%
Ca 317.933†	92.2	0.00882 mg/L		0.000466	0.01764 mg/L	0.000932	5.28%
Cd 228.802†	4.5	0.00016 mg/L		0.000269	0.00032 mg/L	0.000538	166.50%
Co 228.616†	1.8	0.00004 mg/L		0.000033	0.00008 mg/L	0.000066	77.54%
Cr 267.716†	0.6	0.00009 mg/L		0.000780	0.00017 mg/L	0.001561	915.26%
Cu 324.752†	112.9	0.00041 mg/L		0.000127	0.00081 mg/L	0.000254	31.25%
Fe 273.955†	7.8	0.00501 mg/L		0.003729	0.01002 mg/L	0.007457	74.42%
K 766.490†	9.0	0.00559 mg/L		0.027918	0.01118 mg/L	0.055836	499.39%
Mg 279.077†	-2.8	-0.00278 mg/L		0.007465	-0.00556 mg/L	0.014930	268.35%
Mn 257.610†	-0.6	-0.00001 mg/L		0.000135	-0.00003 mg/L	0.000270	>999.9%
Mo 202.031†	-0.0	-0.00000 mg/L		0.000164	-0.00000 mg/L	0.000329	>999.9%
Na 589.592†	50.6	0.00422 mg/L		0.001151	0.00843 mg/L	0.002302	27.29%
Na 330.237†	-1.8	-0.05969 mg/L		0.337613	-0.1194 mg/L	0.67523	565.63%
Ni 231.604†	3.7	0.00093 mg/L		0.000989	0.00187 mg/L	0.001978	106.00%
Pb 220.353†	7.8	0.00084 mg/L		0.000653	0.00167 mg/L	0.001306	78.08%
Sb 206.836†	1.3	0.00038 mg/L		0.000873	0.00077 mg/L	0.001745	228.03%
Se 196.026†	5.6	0.00330 mg/L		0.002231	0.00661 mg/L	0.004462	67.54%
Si 288.158†	6.0	0.00342 mg/L		0.001916	0.00685 mg/L	0.003832	55.98%
Sn 189.927†	0.9	0.00018 mg/L		0.000361	0.00036 mg/L	0.000721	199.91%
Sr 421.552†	-3.5	-0.00000 mg/L		0.000013	-0.00001 mg/L	0.000026	343.35%
Ti 334.903†	8.4	0.00037 mg/L		0.001358	0.00074 mg/L	0.002715	368.31%
Tl 190.801†	1.3	0.00056 mg/L		0.001988	0.00112 mg/L	0.003977	356.36%
V 292.402†	11.3	0.00008 mg/L		0.000018	0.00017 mg/L	0.000036	21.87%
Zn 206.200†	3.9	0.00095 mg/L		0.000766	0.00189 mg/L	0.001533	80.97%

Sequence No.: 45  
 Sample ID: CRI  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 301  
 Date Collected: 2/27/2013 11:51:30 AM  
 Data Type: Original

## Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3263069.8	103.2 %		0.34			0.33%
ScR 361.383	350332.9	103.6 %		2.10			2.03%
Ag 328.068†	730.8	0.00329 mg/L		0.000084	0.00329 mg/L	0.000084	2.56%
Al 308.215†	74.0	0.05424 mg/L		0.000597	0.05424 mg/L	0.000597	1.10%
As 188.979†	84.6	0.04872 mg/L		0.002183	0.04872 mg/L	0.002183	4.48%
B 249.677†	141.7	0.02136 mg/L		0.000924	0.02136 mg/L	0.000924	4.33%
Ba 233.527†	20.1	0.00349 mg/L		0.000551	0.00349 mg/L	0.000551	15.78%
Be 313.042†	480.0	0.00092 mg/L		0.000047	0.00092 mg/L	0.000047	5.13%
Ca 317.933†	510.1	0.04878 mg/L		0.001247	0.04878 mg/L	0.001247	2.56%
Cd 228.802†	63.9	0.00217 mg/L		0.000105	0.00217 mg/L	0.000105	4.82%
Co 228.616†	149.4	0.00356 mg/L		0.000173	0.00356 mg/L	0.000173	4.85%
Cr 267.716†	37.7	0.00580 mg/L		0.001199	0.00580 mg/L	0.001199	20.67%
Cu 324.752†	563.0	0.00203 mg/L		0.000011	0.00203 mg/L	0.000011	0.54%
Fe 273.955†	80.1	0.05119 mg/L		0.001195	0.05119 mg/L	0.001195	2.33%
K 766.490†	763.2	0.4724 mg/L		0.01732	0.4724 mg/L	0.01732	3.67%
Mg 279.077†	51.5	0.05087 mg/L		0.003863	0.05087 mg/L	0.003863	7.59%
Mn 257.610†	41.6	0.00086 mg/L		0.000118	0.00086 mg/L	0.000118	13.69%
Mo 202.031†	106.6	0.00483 mg/L		0.000089	0.00483 mg/L	0.000089	1.84%
Na 589.592†	5951.4	0.4955 mg/L		0.01491	0.4955 mg/L	0.01491	3.01%
Na 330.237†	12.6	0.4173 mg/L		0.36668	0.4173 mg/L	0.36668	87.88%
Ni 231.604†	40.6	0.01015 mg/L		0.001136	0.01015 mg/L	0.001136	11.20%
Pb 220.353†	192.4	0.02063 mg/L		0.000654	0.02063 mg/L	0.000654	3.17%
Sb 206.836†	178.4	0.05125 mg/L		0.001021	0.05125 mg/L	0.001021	1.99%
Se 196.026†	85.8	0.05028 mg/L		0.003802	0.05028 mg/L	0.003802	7.56%
Si 288.158†	101.2	0.05736 mg/L		0.001426	0.05736 mg/L	0.001426	2.49%
Sn 189.927†	48.4	0.00964 mg/L		0.000322	0.00964 mg/L	0.000322	3.34%
Sr 421.552†	890.3	0.00097 mg/L		0.000057	0.00097 mg/L	0.000057	5.82%
Ti 334.903†	112.0	0.00491 mg/L		0.000280	0.00491 mg/L	0.000280	5.69%
Tl 190.801†	116.0	0.05017 mg/L		0.002579	0.05017 mg/L	0.002579	5.14%
V 292.402†	418.4	0.00310 mg/L		0.000097	0.00310 mg/L	0.000097	3.13%
Zn 206.200†	40.4	0.00970 mg/L		0.001129	0.00970 mg/L	0.001129	11.64%



Sequence No.: 46  
 Sample ID: ICSA  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 302  
 Date Collected: 2/27/2013 11:55:47 AM  
 Data Type: Original

## Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3145738.3	99.49	%	0.665			0.67%
ScR 361.383	336098.9	99.38	%	0.069			0.07%
Ag 328.068†	-197.1	-0.00024	mg/L	0.000098	-0.00024 mg/L	0.000098	41.46%
Al 308.215†	274924.0	202.0	mg/L	0.43	202.0 mg/L	0.43	0.21%
As 188.979†	49.1	0.01937	mg/L	0.003386	0.01937 mg/L	0.003386	17.48%
B 249.677†	-59.7	-0.00900	mg/L	0.003197	-0.00900 mg/L	0.003197	35.53%
Ba 233.527†	149.8	-0.00218	mg/L	0.000737	-0.00218 mg/L	0.000737	33.83%
Be 313.042†	57.7	0.00011	mg/L	0.000007	0.00011 mg/L	0.000007	6.39%
Ca 317.933†	1048216.4	100.2	mg/L	0.52	100.2 mg/L	0.52	0.52%
Cd 228.802†	67.7	0.00242	mg/L	0.000339	0.00242 mg/L	0.000339	14.03%
Co 228.616†	73.6	0.00174	mg/L	0.000112	0.00174 mg/L	0.000112	6.43%
Cr 267.716†	21.6	-0.00172	mg/L	0.000483	-0.00172 mg/L	0.000483	28.05%
Cu 324.752†	-2012.7	0.00167	mg/L	0.000130	0.00167 mg/L	0.000130	7.81%
Fe 273.955†	301404.3	192.8	mg/L	1.21	192.8 mg/L	1.21	0.63%
K 766.490†	32.4	0.02002	mg/L	0.032935	0.02002 mg/L	0.032935	164.47%
Mg 279.077†	105338.8	103.9	mg/L	0.54	103.9 mg/L	0.54	0.52%
Mn 257.610†	67.3	-0.00002	mg/L	0.000293	-0.00002 mg/L	0.000293	>999.9%
Mo 202.031†	105.9	0.00361	mg/L	0.000063	0.00361 mg/L	0.000063	1.74%
Na 589.592†	112.7	0.00939	mg/L	0.003114	0.00939 mg/L	0.003114	33.17%
Na 330.237†	-0.4	-0.00983	mg/L	0.164432	-0.00983 mg/L	0.164432	>999.9%
Ni 231.604†	-3.2	-0.00079	mg/L	0.000749	-0.00079 mg/L	0.000749	95.18%
Pb 220.353†	-502.9	-0.00951	mg/L	0.000784	-0.00951 mg/L	0.000784	8.25%
Sb 206.836†	27.0	0.00760	mg/L	0.003165	0.00760 mg/L	0.003165	41.62%
Se 196.026†	13.2	-0.01547	mg/L	0.004176	-0.01547 mg/L	0.004176	27.00%
Si 288.158†	-29.5	-0.00493	mg/L	0.001037	-0.00493 mg/L	0.001037	21.05%
Sn 189.927†	-88.0	-0.00907	mg/L	0.000939	-0.00907 mg/L	0.000939	10.36%
Sr 421.552†	3739.3	0.00408	mg/L <i>Co<sup>x</sup></i>	0.000066	0.00408 mg/L	0.000066	1.61%
Ti 334.903†	218.1	0.00362	mg/L	0.000612	0.00362 mg/L	0.000612	16.90%
Tl 190.801†	-43.4	0.00677	mg/L	0.001275	0.00677 mg/L	0.001275	18.85%
V 292.402†	1187.4	-0.00093	mg/L	0.000182	-0.00093 mg/L	0.000182	19.63%
Zn 206.200†	-3.2	-0.00078	mg/L	0.000653	-0.00078 mg/L	0.000653	83.32%

Sequence No.: 47  
 Sample ID: ICSAB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 303  
 Date Collected: 2/27/2013 12:00:04 PM  
 Data Type: Original

## Nebulizer Parameters: ICSAB

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	3163737.0	100.1	%	0.59			0.59%
ScR 361.383	345714.1	102.2	%	0.89			0.87%
Ag 328.068†	236104.8	1.063	mg/L	0.0108	1.063 mg/L	0.0108	1.02%
Al 308.215†	270471.5	198.7	mg/L	1.06	198.7 mg/L	1.06	0.53%
As 188.979†	1780.4	1.013	mg/L	0.0033	1.013 mg/L	0.0033	0.33%
B 249.677†	-41.1	-0.00844	mg/L	0.000878	-0.00844 mg/L	0.000878	10.40%
Ba 233.527†	5941.0	1.009	mg/L	0.0076	1.009 mg/L	0.0076	0.75%
Be 313.042†	506387.1	0.9711	mg/L	0.00617	0.9711 mg/L	0.00617	0.64%
Ca 317.933†	1033776.2	98.86	mg/L	0.704	98.86 mg/L	0.704	0.71%
Cd 228.802†	26914.5	1.019	mg/L	0.0135	1.019 mg/L	0.0135	1.33%
Co 228.616†	40444.5	0.9666	mg/L	0.00740	0.9666 mg/L	0.00740	0.77%
Cr 267.716†	6512.8	0.9992	mg/L	0.00692	0.9992 mg/L	0.00692	0.69%
Cu 324.752†	287453.1	1.044	mg/L	0.0069	1.044 mg/L	0.0069	0.66%
Fe 273.955†	300105.4	191.9	mg/L	1.93	191.9 mg/L	1.93	1.00%
K 766.490†	5.2	0.00324	mg/L	0.006552	0.00324 mg/L	0.006552	202.08%
Mg 279.077†	100358.7	98.97	mg/L	0.481	98.97 mg/L	0.481	0.49%
Mn 257.610†	45717.7	0.9386	mg/L	0.00775	0.9386 mg/L	0.00775	0.83%
Mo 202.031†	100.0	0.00331	mg/L	0.000091	0.00331 mg/L	0.000091	2.75%
Na 589.592†	240.6	0.02004	mg/L	0.000832	0.02004 mg/L	0.000832	4.15%
Na 330.237†	6.1	-0.07889	mg/L	0.065660	-0.07889 mg/L	0.065660	83.24%
Ni 231.604†	3915.0	0.9791	mg/L	0.00740	0.9791 mg/L	0.00740	0.76%
Pb 220.353†	8619.4	0.9672	mg/L	0.00352	0.9672 mg/L	0.00352	0.36%
Sb 206.836†	3508.5	0.9976	mg/L	0.00528	0.9976 mg/L	0.00528	0.53%
Se 196.026†	1703.7	0.9746	mg/L	0.00339	0.9746 mg/L	0.00339	0.35%
Si 288.158†	-38.9	-0.00743	mg/L	0.001836	-0.00743 mg/L	0.001836	24.71%
Sn 189.927†	-92.6	-0.00958	mg/L	0.000785	-0.00958 mg/L	0.000785	8.19%
Sr 421.552†	3639.5	0.00398	mg/L	0.000025	0.00398 mg/L	0.000025	0.63%
Ti 334.903†	209.4	0.00313	mg/L	0.000353	0.00313 mg/L	0.000353	11.26%
Tl 190.801†	2169.4	0.9543	mg/L	0.00122	0.9543 mg/L	0.00122	0.13%
V 292.402†	136727.0	1.001	mg/L	0.0104	1.001 mg/L	0.0104	1.04%
Zn 206.200†	3993.9	0.9583	mg/L	0.00688	0.9583 mg/L	0.00688	0.72%

Sequence No.: 48  
 Sample ID: CV 5  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 12:04:06 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3258382.7	103.1 %	0.99			0.96%
ScR 361.383	340225.6	100.6 %	1.11			1.10%
Ag 328.068†	230464.6	1.037 mg/L	0.0151	1.037 mg/L	0.0151	1.45%
Al 308.215†	2811.3	2.031 mg/L	0.0205	2.031 mg/L	0.0205	1.01%
As 188.979†	3421.4	1.994 mg/L	0.0157	1.994 mg/L	0.0157	0.79%
B 249.677†	6825.1	1.028 mg/L	0.0079	1.028 mg/L	0.0079	0.77%
Ba 233.527†	5989.7	1.045 mg/L	0.0101	1.045 mg/L	0.0101	0.96%
Be 313.042†	506326.0	0.9710 mg/L	0.01241	0.9710 mg/L	0.01241	1.28%
Ca 317.933†	21684.5	2.074 mg/L	0.0194	2.074 mg/L	0.0194	0.93%
Cd 228.802†	26824.5	1.010 mg/L	0.0133	1.010 mg/L	0.0133	1.32%
Co 228.616†	41875.2	0.9992 mg/L	0.01470	0.9992 mg/L	0.01470	1.47%
Cr 267.716†	6680.0	1.029 mg/L	0.0092	1.029 mg/L	0.0092	0.89%
Cu 324.752†	281682.3	1.014 mg/L	0.0165	1.014 mg/L	0.0165	1.63%
Fe 273.955†	3208.1	2.046 mg/L	0.0172	2.046 mg/L	0.0172	0.84%
K 766.490†	32634.0	20.20 mg/L	0.364	20.20 mg/L	0.364	1.80%
Mg 279.077†	2101.1	2.081 mg/L	0.0218	2.081 mg/L	0.0218	1.05%
Mn 257.610†	47227.9	0.9712 mg/L	0.01528	0.9712 mg/L	0.01528	1.57%
Mo 202.031†	21742.8	0.9846 mg/L	0.00797	0.9846 mg/L	0.00797	0.81%
Na 589.592†	627058.2	52.21 mg/L	0.967	52.21 mg/L	0.967	1.85%
Na 330.237†	1593.0	53.03 mg/L	0.749	53.03 mg/L	0.749	1.41%
Ni 231.604†	4174.6	1.044 mg/L	0.0064	1.044 mg/L	0.0064	0.61%
Pb 220.353†	19005.4	2.037 mg/L	0.0171	2.037 mg/L	0.0171	0.84%
Sb 206.836†	7082.5	2.032 mg/L	0.0189	2.032 mg/L	0.0189	0.93%
Se 196.026†	3344.2	1.959 mg/L	0.0087	1.959 mg/L	0.0087	0.44%
Si 288.158†	3605.0	2.041 mg/L	0.0145	2.041 mg/L	0.0145	0.71%
Sn 189.927†	4847.2	0.9639 mg/L	0.00416	0.9639 mg/L	0.00416	0.43%
Sr 421.552†	928371.5	1.014 mg/L	0.0161	1.014 mg/L	0.0161	1.59%
Ti 334.903†	22591.7	0.9916 mg/L	0.01484	0.9916 mg/L	0.01484	1.50%
Tl 190.801†	4615.7	1.989 mg/L	0.0173	1.989 mg/L	0.0173	0.87%
V 292.402†	138016.5	1.020 mg/L	0.0166	1.020 mg/L	0.0166	1.63%
Zn 206.200†	4430.0	1.063 mg/L	0.0106	1.063 mg/L	0.0106	1.00%

Sequence No.: 49  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 2/27/2013 12:08:11 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3251259.9	102.8	%	1.11			1.08%
ScR 361.383	350523.1	103.6	%	0.40			0.39%
Ag 328.068†	53.2	0.00024	mg/L	0.000113	0.00024 mg/L	0.000113	47.36%
Al 308.215†	6.2	0.00450	mg/L	0.002850	0.00450 mg/L	0.002850	63.33%
As 188.979†	5.4	0.00310	mg/L	0.000900	0.00310 mg/L	0.000900	29.04%
B 249.677†	12.2	0.00184	mg/L	0.001257	0.00184 mg/L	0.001257	68.37%
Ba 233.527†	1.0	0.00018	mg/L	0.000417	0.00018 mg/L	0.000417	227.93%
Be 313.042†	6.8	0.00001	mg/L	0.000037	0.00001 mg/L	0.000037	285.65%
Ca 317.933†	-1.4	-0.00013	mg/L	0.000406	-0.00013 mg/L	0.000406	307.07%
Cd 228.802†	1.8	0.00005	mg/L	0.000160	0.00005 mg/L	0.000160	325.40%
Co 228.616†	2.3	0.00006	mg/L	0.000073	0.00006 mg/L	0.000073	132.60%
Cr 267.716†	1.7	0.00027	mg/L	0.001345	0.00027 mg/L	0.001345	498.64%
Cu 324.752†	59.1	0.00021	mg/L	0.000040	0.00021 mg/L	0.000040	18.77%
Fe 273.955†	4.2	0.00269	mg/L	0.001155	0.00269 mg/L	0.001155	42.96%
K 766.490†	-39.8	-0.02466	mg/L	0.013367	-0.02466 mg/L	0.013367	54.20%
Mg 279.077†	-2.6	-0.00255	mg/L	0.004532	-0.00255 mg/L	0.004532	177.93%
Mn 257.610†	-2.1	-0.00004	mg/L	0.000043	-0.00004 mg/L	0.000043	100.00%
Mo 202.031†	31.2	0.00141	mg/L	0.000231	0.00141 mg/L	0.000231	16.39%
Na 589.592†	9.2	0.00076	mg/L	0.001788	0.00076 mg/L	0.001788	234.17%
Na 330.237†	9.9	0.3312	mg/L	0.39831	0.3312 mg/L	0.39831	120.26%
Ni 231.604†	0.1	0.00002	mg/L	0.000413	0.00002 mg/L	0.000413	>999.9%
Pb 220.353†	8.9	0.00095	mg/L	0.000295	0.00095 mg/L	0.000295	31.11%
Sb 206.836†	19.7	0.00566	mg/L	0.001531	0.00566 mg/L	0.001531	27.03%
Se 196.026†	1.7	0.00097	mg/L	0.002975	0.00097 mg/L	0.002975	306.83%
Si 288.158†	5.2	0.00293	mg/L	0.000564	0.00293 mg/L	0.000564	19.28%
Sn 189.927†	5.5	0.00110	mg/L	0.001126	0.00110 mg/L	0.001126	102.30%
Sr 421.552†	8.8	0.00001	mg/L	0.000025	0.00001 mg/L	0.000025	259.87%
Ti 334.903†	0.3	0.00001	mg/L	0.000488	0.00001 mg/L	0.000488	>999.9%
Tl 190.801†	2.4	0.00105	mg/L	0.001823	0.00105 mg/L	0.001823	172.88%
V 292.402†	-5.7	-0.00004	mg/L	0.000102	-0.00004 mg/L	0.000102	255.52%
Zn 206.200†	1.6	0.00039	mg/L	0.000859	0.00039 mg/L	0.000859	221.54%

Sequence No.: 50  
 Sample ID: WE83 MB1 SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 335  
 Date Collected: 2/27/2013 12:12:27 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 MB1 SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 MB1 SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3288953.7	104.0 %		0.37			0.36%
ScR 361.383	350875.1	103.7 %		0.41			0.40%
Ag 328.068†	15.6	0.00007 mg/L		0.000114	0.00014 mg/L	0.000229	162.51%
Al 308.215†	9.1	0.00665 mg/L		0.007042	0.01330 mg/L	0.014084	105.91%
As 188.979†	2.3	0.00135 mg/L		0.001201	0.00270 mg/L	0.002402	89.06%
B 249.677†	12.3	0.00186 mg/L		0.001480	0.00372 mg/L	0.002960	79.66%
Ba 233.527†	-4.1	-0.00072 mg/L		0.000328	-0.00143 mg/L	0.000655	45.75%
Be 313.042†	-14.6	-0.00003 mg/L		0.000057	-0.00006 mg/L	0.000114	202.92%
Ca 317.933†	63.1	0.00603 mg/L		0.001262	0.01207 mg/L	0.002523	20.91%
Cd 228.802†	1.5	0.00005 mg/L		0.000215	0.00010 mg/L	0.000431	424.13%
Co 228.616†	-3.0	-0.00007 mg/L		0.000109	-0.00014 mg/L	0.000219	150.92%
Cr 267.716†	7.1	0.00109 mg/L		0.000301	0.00218 mg/L	0.000602	27.60%
Cu 324.752†	54.2	0.00020 mg/L		0.000075	0.00039 mg/L	0.000150	38.53%
Fe 273.955†	7.5	0.00480 mg/L		0.000990	0.00959 mg/L	0.001979	20.63%
K 766.490†	-5.2	-0.00323 mg/L		0.020014	-0.00647 mg/L	0.040028	618.91%
Mg 279.077†	-2.0	-0.00194 mg/L		0.004421	-0.00389 mg/L	0.008842	227.40%
Mn 257.610†	-1.6	-0.00003 mg/L		0.000036	-0.00006 mg/L	0.000071	111.52%
Mo 202.031†	-1.0	-0.00005 mg/L		0.000176	-0.00009 mg/L	0.000352	379.64%
Na 589.592†	-8.2	-0.00068 mg/L		0.002921	-0.00137 mg/L	0.005843	427.94%
Na 330.237†	2.2	0.07267 mg/L		0.149416	0.1453 mg/L	0.29883	205.60%
Ni 231.604†	-1.9	-0.00048 mg/L		0.001015	-0.00096 mg/L	0.002030	211.98%
Pb 220.353†	2.8	0.00030 mg/L		0.000272	0.00060 mg/L	0.000545	91.01%
Sb 206.836†	1.9	0.00053 mg/L		0.000852	0.00105 mg/L	0.001703	161.53%
Se 196.026†	5.6	0.00329 mg/L		0.002325	0.00658 mg/L	0.004651	70.73%
Si 288.158†	5.3	0.00302 mg/L		0.004408	0.00603 mg/L	0.008817	146.10%
Sn 189.927†	2.5	0.00050 mg/L		0.001523	0.00100 mg/L	0.003047	305.61%
Sr 421.552†	-34.6	-0.00004 mg/L		0.000044	-0.00008 mg/L	0.000089	117.15%
Ti 334.903†	14.2	0.00062 mg/L		0.000800	0.00125 mg/L	0.001601	128.42%
Tl 190.801†	0.5	0.00022 mg/L		0.001068	0.00044 mg/L	0.002135	484.21%
V 292.402†	14.8	0.00011 mg/L		0.000122	0.00023 mg/L	0.000244	107.96%
Zn 206.200†	7.0	0.00167 mg/L		0.000569	0.00335 mg/L	0.001139	34.02%

Sequence No.: 51  
 Sample ID: WE79 S SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 336  
 Date Collected: 2/27/2013 12:16:44 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 S SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 S SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3208794.4	101.5 %		0.51			0.50%
ScR 361.383	351241.8	103.9 %		0.42			0.41%
Ag 328.068†	33101.4	0.1489 mg/L		0.00120	0.2977 mg/L	0.00240	0.81%
Al 308.215†	27958.5	20.54 mg/L		0.083	41.07 mg/L	0.167	0.41%
As 188.979†	2343.1	1.346 mg/L		0.0040	2.692 mg/L	0.0081	0.30%
B 249.677†	41.9	0.00631 mg/L		0.000951	0.01262 mg/L	0.001903	15.07%
Ba 233.527†	2341.0	0.4003 mg/L		0.00257	0.8005 mg/L	0.00515	0.64%
Be 313.042†	261.3	0.00050 mg/L		0.000049	0.00099 mg/L	0.000098	9.83%
Cd 228.802†	4474.2	0.4278 mg/L		0.00160	0.8557 mg/L	0.00320	0.37%
Ca 317.933†	236.4	0.00147 mg/L		0.000091	0.00294 mg/L	0.000182	6.18%
Co 228.616†	102.1	0.00233 mg/L		0.000148	0.00465 mg/L	0.000296	6.36%
Cr 267.716†	125.4	0.02094 mg/L		0.000121	0.04188 mg/L	0.000241	0.58%
Cu 324.752†	8842.9	0.03467 mg/L		0.000310	0.06934 mg/L	0.000621	0.90%
Fe 273.955†	90081.9	57.61 mg/L		0.319	115.2 mg/L	0.64	0.55%
K 766.490†	31922.3	19.76 mg/L		0.123	39.52 mg/L	0.246	0.62%
Mg 279.077†	1772.5	1.718 mg/L		0.0077	3.436 mg/L	0.0155	0.45%
Mn 257.610†	3300.2	0.06777 mg/L		0.000454	0.1355 mg/L	0.00091	0.67%
Mo 202.031†	21.0	0.00094 mg/L		0.000152	0.00189 mg/L	0.000304	16.12%
Na 589.592†	7432.0	0.6188 mg/L		0.00770	1.238 mg/L	0.0154	1.24%
Na 330.237†	19.3	0.6440 mg/L		0.40640	1.288 mg/L	0.8128	63.11%
Ni 231.604†	14.3	0.00358 mg/L		0.001503	0.00716 mg/L	0.003006	41.97%
Pb 220.353†	1584.3	0.1721 mg/L		0.00176	0.3443 mg/L	0.00352	1.02%
Sb 206.836†	104.4	0.02983 mg/L		0.000973	0.05966 mg/L	0.001947	3.26%
Se 196.026†	44.0	0.02342 mg/L		0.001512	0.04685 mg/L	0.003024	6.46%
Si 288.158†	3562.0	2.022 mg/L		0.0342	4.044 mg/L	0.0684	1.69%
Sn 189.927†	0.5	0.00016 mg/L		0.000277	0.00033 mg/L	0.000554	168.49%
Sr 421.552†	167967.6	0.1835 mg/L		0.00067	0.3669 mg/L	0.00135	0.37%
Ti 334.903†	863.0	0.03790 mg/L		0.001510	0.07581 mg/L	0.003021	3.98%
Tl 190.801†	-0.8	0.00722 mg/L		0.001862	0.01444 mg/L	0.003724	25.79%
V 292.402†	2785.4	0.01768 mg/L		0.000178	0.03536 mg/L	0.000355	1.00%
Zn 206.200†	127.1	0.03085 mg/L		0.001402	0.06170 mg/L	0.002804	4.55%

Sequence No.: 52  
 Sample ID: WE79 T SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 337  
 Date Collected: 2/27/2013 12:20:59 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 T SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 T SWC

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3201834.5	101.3 %	0.85			0.84%
ScR 361.383	345030.5	102.0 %	0.44			0.43%
Ag 328.068†	22745.3	0.1023 mg/L	0.00127	0.2046 mg/L	0.00254	1.24%
Al 308.215†	40230.9	29.55 mg/L	0.108	59.10 mg/L	0.217	0.37%
As 188.979†	3771.9	2.170 mg/L	0.0446	4.340 mg/L	0.0892	2.06%
B 249.677†	18.1	0.00271 mg/L	0.002253	0.00542 mg/L	0.004505	83.17%
Ba 233.527†	2834.6	0.4766 mg/L	0.00309	0.9532 mg/L	0.00619	0.65%
Be 313.042†	267.6	0.00050 mg/L	0.000012	0.00100 mg/L	0.000024	2.38%
Ca 317.933†	6900.8	0.6599 mg/L	0.00105	1.320 mg/L	0.0021	0.16%
Cd 228.802†	377.8	0.00226 mg/L	0.000040	0.00452 mg/L	0.000080	1.78%
Co 228.616†	214.0	0.00477 mg/L	0.000053	0.00955 mg/L	0.000107	1.12%
Cr 267.716†	119.0	0.02183 mg/L	0.000840	0.04366 mg/L	0.001681	3.85%
Cu 324.752†	14529.6	0.05841 mg/L	0.000902	0.1168 mg/L	0.00180	1.54%
Fe 273.955†	194899.5	124.7 mg/L	0.36	249.3 mg/L	0.73	0.29%
K 766.490†	42153.6	26.09 mg/L	0.129	52.19 mg/L	0.258	0.49%
Mg 279.077†	3682.0	3.566 mg/L	0.0309	7.132 mg/L	0.0618	0.87%
Mn 257.610†	4577.6	0.09398 mg/L	0.000712	0.1880 mg/L	0.00142	0.76%
Mo 202.031†	36.8	0.00166 mg/L	0.000139	0.00331 mg/L	0.000278	8.39%
Na 589.592†	17871.8	1.488 mg/L	0.0030	2.976 mg/L	0.0060	0.20%
Na 330.237†	37.3	1.277 mg/L	0.0168	2.555 mg/L	0.0336	1.32%
Ni 231.604†	27.5	0.00690 mg/L	0.000929	0.01380 mg/L	0.001858	13.46%
Pb 220.353†	1265.5	0.1368 mg/L	0.00231	0.2736 mg/L	0.00463	1.69%
Sb 206.836†	94.2	0.02712 mg/L	0.001634	0.05423 mg/L	0.003267	6.02%
Se 196.026†	34.8	0.01699 mg/L	0.003005	0.03397 mg/L	0.006011	17.69%
Si 288.158†	4115.9	2.336 mg/L	0.0094	4.673 mg/L	0.0189	0.40%
Sn 189.927†	0.1	0.00012 mg/L	0.000375	0.00024 mg/L	0.000750	310.48%
Sr 421.552†	207438.1	0.2266 mg/L	0.00049	0.4532 mg/L	0.00099	0.22%
Ti 334.903†	3713.5	0.1632 mg/L	0.00275	0.3264 mg/L	0.00550	1.69%
Tl 190.801†	-21.1	0.00717 mg/L	0.002003	0.01434 mg/L	0.004006	27.93%
V 292.402†	7125.8	0.04619 mg/L	0.001061	0.09237 mg/L	0.002122	2.30%
Zn 206.200†	171.5	0.04155 mg/L	0.001110	0.08310 mg/L	0.002220	2.67%

Sequence No.: 53  
 Sample ID: WE79 U SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 338  
 Date Collected: 2/27/2013 12:25:00 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 U SWC

Analyte Back Pressure Flow  
 All 217.0 kPa 0.75 L/min

## Mean Data: WE79 U SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3256234.8	103.0	%	1.27				1.24%
ScR 361.383	344449.4	101.8	%	0.18				0.18%
Ag 328.068†	668.1	0.00324	mg/L	0.000137	0.00648	mg/L	0.000274	4.22%
Al 308.215†	204069.0	149.9	mg/L	1.47	299.8	mg/L	2.94	0.98%
As 188.979†	285.8	0.2581	mg/L	0.00326	0.5162	mg/L	0.00653	1.26%
B 249.677†	28.7	0.00408	mg/L	0.000927	0.00816	mg/L	0.001854	22.73%
Ba 233.527†	6770.5	1.154	mg/L	0.0100	2.309	mg/L	0.0200	0.86%
Be 313.042†	3327.0	0.00628	mg/L	0.000022	0.01257	mg/L	0.000043	0.35%
Ca 317.933†	229108.5	21.91	mg/L	0.311	43.82	mg/L	0.623	1.42%
Cd 228.802†	134.8	0.00429	mg/L	0.000051	0.00857	mg/L	0.000103	1.20%
Co 228.616†	4381.0	0.09970	mg/L	0.001427	0.1994	mg/L	0.00285	1.43%
Cr 267.716†	846.8	0.1329	mg/L	0.00064	0.2658	mg/L	0.00128	0.48%
Cu 324.752†	68325.5	0.2547	mg/L	0.00352	0.5094	mg/L	0.00703	1.38%
Fe 273.955†	295252.3	188.8	mg/L	1.46	377.7	mg/L	2.91	0.77%
K 766.490†	46875.6	29.02	mg/L	0.071	58.03	mg/L	0.143	0.25%
Mg 279.077†	29426.6	28.95	mg/L	0.096	57.90	mg/L	0.192	0.33%
Mn 257.610†	232575.3	4.780	mg/L	0.0406	9.560	mg/L	0.0813	0.85%
Mo 202.031†	95.5	0.00406	mg/L	0.000210	0.00812	mg/L	0.000420	5.18%
Na 589.592†	25436.9	2.118	mg/L	0.0266	4.236	mg/L	0.0531	1.25%
Na 330.237†	43.0	2.016	mg/L	0.2040	4.031	mg/L	0.4081	10.12%
Ni 231.604†	471.6	0.1180	mg/L	0.00100	0.2359	mg/L	0.00199	0.85%
Pb 220.353†	601.6	0.09482	mg/L	0.001527	0.1896	mg/L	0.00305	1.61%
Sb 206.836†	43.8	0.01402	mg/L	0.001636	0.02804	mg/L	0.003273	11.67%
Se 196.026†	22.0	-0.00455	mg/L	0.002714	-0.00911	mg/L	0.005427	59.61%
Si 288.158†	8354.2	4.745	mg/L	0.0086	9.489	mg/L	0.0173	0.18%
Sn 189.927†	-35.1	-0.00460	mg/L	0.000533	-0.00920	mg/L	0.001066	11.59%
Sr 421.552†	341399.0	0.3729	mg/L	0.00317	0.7458	mg/L	0.00635	0.85%
Ti 334.903†	63183.0	2.776	mg/L	0.0293	5.552	mg/L	0.0586	1.06%
Tl 190.801†	-40.7	0.00567	mg/L	0.001803	0.01134	mg/L	0.003607	31.82%
V 292.402†	40767.6	0.2903	mg/L	0.00468	0.5805	mg/L	0.00936	1.61%
Zn 206.200†	2682.5	0.6443	mg/L	0.00289	1.289	mg/L	0.0058	0.45%



Sequence No.: 54  
 Sample ID: WE79 V SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 339  
 Date Collected: 2/27/2013 12:29:01 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 V SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE79 V SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3257368.5	103.0 %		0.46			0.45%
ScR 361.383	354281.3	104.8 %		0.38			0.36%
Ag 328.068†	1095.6	0.00522 mg/L		0.000099	0.01044 mg/L	0.000198	1.90%
Al 308.215†	191311.3	140.5 mg/L		0.71	281.0 mg/L	1.42	0.51%
As 188.979†	267.4	0.2652 mg/L		0.00463	0.5304 mg/L	0.00926	1.75%
B 249.677†	50.7	0.00737 mg/L		0.000191	0.01474 mg/L	0.000382	2.59%
Ba 233.527†	6879.2	1.174 mg/L		0.0143	2.349 mg/L	0.0285	1.22%
Be 313.042†	3483.1	0.00657 mg/L		0.000035	0.01314 mg/L	0.000069	0.53%
Ca 317.933†	309701.1	29.62 mg/L		0.150	59.23 mg/L	0.301	0.51%
Cd 228.802†	181.1	0.00612 mg/L		0.000229	0.01225 mg/L	0.000457	3.73%
Co 228.616†	5042.3	0.1146 mg/L		0.00068	0.2291 mg/L	0.00137	0.60%
Cr 267.716†	933.0	0.1453 mg/L		0.00098	0.2906 mg/L	0.00197	0.68%
Cu 324.752†	60639.9	0.2265 mg/L		0.00203	0.4531 mg/L	0.00406	0.90%
Fe 273.955†	283838.3	181.5 mg/L		0.54	363.1 mg/L	1.08	0.30%
K 766.490†	49920.2	30.90 mg/L		0.152	61.80 mg/L	0.303	0.49%
Mg 279.077†	33984.9	33.45 mg/L		0.261	66.90 mg/L	0.521	0.78%
Mn 257.610†	327211.3	6.726 mg/L		0.0173	13.45 mg/L	0.035	0.26%
Mo 202.031†	140.5	0.00601 mg/L		0.000184	0.01202 mg/L	0.000369	3.07%
Na 589.592†	43285.5	3.604 mg/L		0.0188	7.208 mg/L	0.0377	0.52%
Na 330.237†	84.8	3.528 mg/L		0.0959	7.055 mg/L	0.1919	2.72%
Ni 231.604†	565.5	0.1414 mg/L		0.00027	0.2828 mg/L	0.00053	0.19%
Pb 220.353†	1365.0	0.1745 mg/L		0.00094	0.3490 mg/L	0.00188	0.54%
Sb 206.836†	47.8	0.01546 mg/L		0.001500	0.03091 mg/L	0.003000	9.71%
Se 196.026†	26.5	-0.00084 mg/L		0.003586	-0.00169 mg/L	0.007171	424.65%
Si 288.158†	4588.7	2.608 mg/L		0.0166	5.216 mg/L	0.0332	0.64%
Sn 189.927†	-41.7	-0.00516 mg/L		0.000941	-0.01033 mg/L	0.001883	18.23%
Sr 421.552†	411880.0	0.4499 mg/L		0.00148	0.8998 mg/L	0.00296	0.33%
Ti 334.903†	75250.2	3.306 mg/L		0.0124	6.612 mg/L	0.0247	0.37%
Tl 190.801†	-39.4	0.00511 mg/L		0.001647	0.01022 mg/L	0.003294	32.23%
V 292.402†	43302.1	0.3093 mg/L		0.00304	0.6186 mg/L	0.00608	0.98%
Zn 206.200†	3081.9	0.7398 mg/L		0.00633	1.480 mg/L	0.0127	0.86%

Sequence No.: 55  
 Sample ID: WE79 W SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 340  
 Date Collected: 2/27/2013 12:33:03 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 W SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 W SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3258941.4	103.1 %		0.53			0.51%
ScR 361.383	349384.2	103.3 %		0.67			0.64%
Ag 328.068†	493.2	0.00253 mg/L		0.000149	0.00506 mg/L	0.000297	5.88%
Al 308.215†	225863.0	165.9 mg/L		1.13	331.8 mg/L	2.27	0.68%
As 188.979†	134.6	0.2203 mg/L		0.00309	0.4407 mg/L	0.00619	1.40%
B 249.677†	29.0	0.00412 mg/L		0.000784	0.00823 mg/L	0.001568	19.05%
Ba 233.527†	7670.6	1.308 mg/L		0.0124	2.617 mg/L	0.0248	0.95%
Be 313.042†	3932.6	0.00742 mg/L		0.000099	0.01484 mg/L	0.000199	1.34%
Ca 317.933†	323054.6	30.89 mg/L		0.171	61.78 mg/L	0.342	0.55%
Cd 228.802†	148.3	0.00530 mg/L		0.000053	0.01059 mg/L	0.000107	1.01%
Co 228.616†	4497.9	0.09995 mg/L		0.000349	0.1999 mg/L	0.00070	0.35%
Cr 267.716†	996.7	0.1558 mg/L		0.00197	0.3116 mg/L	0.00395	1.27%
Cu 324.752†	58094.3	0.2186 mg/L		0.00142	0.4372 mg/L	0.00284	0.65%
Fe 273.955†	328142.0	209.9 mg/L		1.73	419.7 mg/L	3.47	0.83%
K 766.490†	52783.2	32.67 mg/L		0.217	65.34 mg/L	0.434	0.66%
Mg 279.077†	36491.2	35.91 mg/L		0.182	71.82 mg/L	0.364	0.51%
Mn 257.610†	271001.0	5.570 mg/L		0.0369	11.14 mg/L	0.074	0.66%
Mo 202.031†	104.2	0.00435 mg/L		0.000222	0.00870 mg/L	0.000443	5.10%
Na 589.592†	43037.0	3.583 mg/L		0.0099	7.167 mg/L	0.0198	0.28%
Na 330.237†	74.0	3.424 mg/L		0.0335	6.848 mg/L	0.0669	0.98%
Ni 231.604†	542.0	0.1356 mg/L		0.00199	0.2711 mg/L	0.00398	1.47%
Pb 220.353†	417.8	0.07842 mg/L		0.000523	0.1568 mg/L	0.00105	0.67%
Sb 206.836†	38.1	0.01334 mg/L		0.002247	0.02668 mg/L	0.004495	16.84%
Se 196.026†	20.9	-0.00709 mg/L		0.004031	-0.01419 mg/L	0.008062	56.82%
Si 288.158†	3554.4	2.021 mg/L		0.0144	4.043 mg/L	0.0289	0.71%
Sn 189.927†	-45.7	-0.00569 mg/L		0.000289	-0.01137 mg/L	0.000577	5.08%
Sr 421.552†	452579.2	0.4944 mg/L		0.00295	0.9887 mg/L	0.00590	0.60%
Ti 334.903†	95971.9	4.217 mg/L		0.0266	8.433 mg/L	0.0533	0.63%
Tl 190.801†	-49.6	0.00443 mg/L		0.003791	0.00887 mg/L	0.007581	85.51%
V 292.402†	47711.8	0.3397 mg/L		0.00254	0.6794 mg/L	0.00508	0.75%
Zn 206.200†	3050.0	0.7320 mg/L		0.00924	1.464 mg/L	0.0185	1.26%

Sequence No.: 56  
 Sample ID: WE79 X SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 341  
 Date Collected: 2/27/2013 12:37:05 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 X SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 X SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3197846.6	101.1 %		0.93			0.92%
ScR 361.383	349121.7	103.2 %		0.84			0.82%
Ag 328.068†	19674.6	0.08856 mg/L		0.000239	0.1771 mg/L	0.00048	0.27%
Al 308.215†	60128.2	44.17 mg/L		0.467	88.34 mg/L	0.934	1.06%
As 188.979†	7631.7	4.380 mg/L		0.0364	8.761 mg/L	0.0727	0.83%
B 249.677†	-12.2	-0.00185 mg/L		0.000562	-0.00371 mg/L	0.001125	30.33%
Ba 233.527†	5215.1	0.8980 mg/L		0.00711	1.796 mg/L	0.0142	0.79%
Be 313.042†	393.4	0.00075 mg/L		0.000017	0.00149 mg/L	0.000034	2.27%
Ca 317.933†	106500.6	10.18 mg/L		0.140	20.37 mg/L	0.279	1.37%
Cd 228.802†	711.3	0.00255 mg/L		0.000065	0.00510 mg/L	0.000130	2.56%
Co 228.616†	175.9	0.00403 mg/L		0.000178	0.00805 mg/L	0.000355	4.41%
Cr 267.716†	352.4	0.05629 mg/L		0.000556	0.1126 mg/L	0.00111	0.99%
Cu 324.752†	11177.2	0.04442 mg/L		0.000354	0.08883 mg/L	0.000708	0.80%
Fe 273.955†	133384.7	85.31 mg/L		1.162	170.6 mg/L	2.32	1.36%
K 766.490†	33869.6	20.96 mg/L		0.211	41.93 mg/L	0.421	1.01%
Mg 279.077†	5872.8	5.750 mg/L		0.0377	11.50 mg/L	0.075	0.66%
Mn 257.610†	6134.1	0.1258 mg/L		0.00143	0.2517 mg/L	0.00286	1.14%
Mo 202.031†	61.3	0.00265 mg/L		0.000463	0.00531 mg/L	0.000927	17.47%
Na 589.592†	6187.6	0.5152 mg/L		0.00592	1.030 mg/L	0.0118	1.15%
Na 330.237†	13.7	0.4569 mg/L		0.07325	0.9138 mg/L	0.14649	16.03%
Ni 231.604†	26.8	0.00673 mg/L		0.000621	0.01345 mg/L	0.001242	9.23%
Pb 220.353†	507.0	0.06173 mg/L		0.000886	0.1235 mg/L	0.00177	1.44%
Sb 206.836†	104.0	0.02926 mg/L		0.002071	0.05852 mg/L	0.004142	7.08%
Se 196.026†	48.5	0.02331 mg/L		0.000985	0.04662 mg/L	0.001970	4.23%
Si 288.158†	3635.8	2.064 mg/L		0.0187	4.128 mg/L	0.0375	0.91%
Sn 189.927†	-19.9	-0.00307 mg/L		0.000935	-0.00614 mg/L	0.001870	30.47%
Sr 421.552†	183793.1	0.2008 mg/L		0.00187	0.4015 mg/L	0.00374	0.93%
Ti 334.903†	992.0	0.04299 mg/L		0.000919	0.08597 mg/L	0.001838	2.14%
Tl 190.801†	-13.7	0.00522 mg/L		0.002698	0.01043 mg/L	0.005396	51.73%
V 292.402†	4707.3	0.03059 mg/L		0.000330	0.06118 mg/L	0.000661	1.08%
Zn 206.200†	164.6	0.03985 mg/L		0.000736	0.07970 mg/L	0.001471	1.85%

Sequence No.: 57  
 Sample ID: WE83 C SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 342  
 Date Collected: 2/27/2013 12:41:06 PM  
 Data Type: Original

Nebulizer Parameters: WE83 C SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: WE83 C SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3245568.0	102.6	%	0.35			0.34%
ScR 361.383	351829.0	104.0	%	0.34			0.33%
Ag 328.068†	-178.3	-0.00064	mg/L	0.000195	-0.00320 mg/L	0.000975	30.49%
Al 308.215†	84449.3	62.03	mg/L	0.280	310.2 mg/L	1.40	0.45%
As 188.979†	51.6	0.03503	mg/L	0.002783	0.1751 mg/L	0.01391	7.94%
B 249.677†	8.8	0.00125	mg/L	0.000728	0.00627 mg/L	0.003640	58.03%
Ba 233.527†	2351.5	0.3979	mg/L	0.00295	1.990 mg/L	0.0148	0.74%
Be 313.042†	639.9	0.00120	mg/L	0.000023	0.00598 mg/L	0.000114	1.91%
Ca 317.933†	197654.6	18.90	mg/L	0.117	94.50 mg/L	0.584	0.62%
Cd 228.802†	43.6	0.00151	mg/L	0.000106	0.00753 mg/L	0.000528	7.01%
Co 228.616†	1295.0	0.03054	mg/L	0.000124	0.1527 mg/L	0.00062	0.41%
Cr 267.716†	326.8	0.04942	mg/L	0.000476	0.2471 mg/L	0.00238	0.96%
Cu 324.752†	10653.4	0.04239	mg/L	0.000302	0.2119 mg/L	0.00151	0.71%
Fe 273.955†	134376.3	85.94	mg/L	0.401	429.7 mg/L	2.01	0.47%
K 766.490†	23050.8	14.27	mg/L	0.034	71.34 mg/L	0.169	0.24%
Mg 279.077†	33806.1	33.33	mg/L	0.109	166.6 mg/L	0.55	0.33%
Mn 257.610†	125537.9	2.580	mg/L	0.0131	12.90 mg/L	0.066	0.51%
Mo 202.031†	46.4	0.00188	mg/L	0.000212	0.00938 mg/L	0.001060	11.31%
Na 589.592†	7869.0	0.6552	mg/L	0.00149	3.276 mg/L	0.0074	0.23%
Na 330.237†	15.0	0.4893	mg/L	0.05689	2.446 mg/L	0.2845	11.63%
Ni 231.604†	111.1	0.02779	mg/L	0.001127	0.1389 mg/L	0.00564	4.06%
Pb 220.353†	463.9	0.06192	mg/L	0.000857	0.3096 mg/L	0.00428	1.38%
Sb 206.836†	13.1	0.00366	mg/L	0.002265	0.01831 mg/L	0.011326	61.85%
Se 196.026†	9.0	-0.00195	mg/L	0.003473	-0.00976 mg/L	0.017365	177.90%
Si 288.158†	2583.4	1.470	mg/L	0.0067	7.350 mg/L	0.0335	0.46%
Sn 189.927†	-33.7	-0.00507	mg/L	0.001267	-0.02537 mg/L	0.006334	24.96%
Sr 421.552†	92901.5	0.1015	mg/L	0.00033	0.5074 mg/L	0.00167	0.33%
Ti 334.903†	4719.0	0.2063	mg/L	0.00110	1.031 mg/L	0.0055	0.53%
Tl 190.801†	-17.5	0.00318	mg/L	0.001217	0.01589 mg/L	0.006084	38.29%
V 292.402†	17021.0	0.1214	mg/L	0.00066	0.6072 mg/L	0.00332	0.55%
Zn 206.200†	968.6	0.2326	mg/L	0.00218	1.163 mg/L	0.0109	0.94%

Sequence No.: 58  
Sample ID: ~~WE84 D SWC~~ WE83 DSWC  
Analyst: ALA  
Dilution: 2.000000X *AK 2-27-13*

Autosampler Location: 343  
Date Collected: 2/27/2013 12:45:07 PM  
Data Type: Original

Nebulizer Parameters: WE84 D SWC  
Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: WE84 D SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3202490.2	101.3 %		0.71			0.70%
ScR 361.383	348813.8	103.1 %		0.53			0.51%
Ag 328.068†	-463.7	-0.00170 mg/L		0.000230	-0.00340 mg/L	0.000459	13.50%
Al 308.215†	216519.9	159.0 mg/L		0.96	318.1 mg/L	1.91	0.60%
As 188.979†	-290.6	0.03380 mg/L		0.003165	0.06761 mg/L	0.006329	9.36%
B 249.677†	21.8	0.00305 mg/L		0.000218	0.00610 mg/L	0.000436	7.15%
Ba 233.527†	7081.4	1.208 mg/L		0.0064	2.416 mg/L	0.0129	0.53%
Be 313.042†	2382.8	0.00441 mg/L		0.000036	0.00882 mg/L	0.000072	0.81%
Ca 317.933†	398264.5	38.08 mg/L		0.043	76.17 mg/L	0.085	0.11%
Cd 228.802†	85.2	0.00425 mg/L		0.000076	0.00849 mg/L	0.000152	1.80%
Co 228.616†	4036.2	0.08597 mg/L		0.000570	0.1719 mg/L	0.00114	0.66%
Cr 267.716†	1122.8	0.1734 mg/L		0.00024	0.3469 mg/L	0.00047	0.14%
Cu 324.752†	26199.4	0.1024 mg/L		0.00049	0.2049 mg/L	0.00099	0.48%
Fe 273.955†	300408.1	192.1 mg/L		0.93	384.3 mg/L	1.85	0.48%
K 766.490†	57800.3	35.78 mg/L		0.179	71.56 mg/L	0.358	0.50%
Mg 279.077†	50919.6	50.17 mg/L		0.169	100.3 mg/L	0.34	0.34%
Mn 257.610†	174392.4	3.584 mg/L		0.0166	7.168 mg/L	0.0331	0.46%
Mo 202.031†	96.7	0.00392 mg/L		0.000376	0.00784 mg/L	0.000751	9.58%
Na 589.592†	28065.5	2.337 mg/L		0.0044	4.673 mg/L	0.0088	0.19%
Na 330.237†	26.3	2.376 mg/L		0.1712	4.752 mg/L	0.3424	7.21%
Ni 231.604†	484.6	0.1212 mg/L		0.00099	0.2424 mg/L	0.00197	0.81%
Pb 220.353†	498.7	0.08636 mg/L		0.000707	0.1727 mg/L	0.00141	0.82%
Sb 206.836†	11.5	0.00701 mg/L		0.000619	0.01402 mg/L	0.001239	8.84%
Se 196.026†	20.2	-0.00672 mg/L		0.006536	-0.01344 mg/L	0.013071	97.23%
Si 288.158†	5060.7	2.878 mg/L		0.0170	5.756 mg/L	0.0339	0.59%
Sn 189.927†	-57.8	-0.00717 mg/L		0.001208	-0.01435 mg/L	0.002416	16.83%
Sr 421.552†	458422.4	0.5007 mg/L		0.00217	1.001 mg/L	0.0043	0.43%
Ti 334.903†	134211.8	5.897 mg/L		0.0287	11.79 mg/L	0.057	0.49%
Tl 190.801†	-41.0	0.00557 mg/L		0.001749	0.01113 mg/L	0.003497	31.42%
V 292.402†	58784.8	0.4209 mg/L		0.00296	0.8418 mg/L	0.00593	0.70%
Zn 206.200†	2045.0	0.4911 mg/L		0.00354	0.9822 mg/L	0.00708	0.72%

Sequence No.: 59  
 Sample ID: WE83 MB1SPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 344  
 Date Collected: 2/27/2013 12:49:09 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 MB1SPK SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 MB1SPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3251856.7	102.8	%	0.23			0.22%
ScR 361.383	346534.9	102.5	%	0.53			0.52%
Ag 328.068†	117355.2	0.5280	mg/L	0.00324	1.056 mg/L	0.0065	0.61%
Al 308.215†	2805.4	2.053	mg/L	0.0086	4.107 mg/L	0.0172	0.42%
As 188.979†	3542.1	2.032	mg/L	0.0031	4.064 mg/L	0.0062	0.15%
B 249.677†	12.9	0.00076	mg/L	0.000901	0.00152 mg/L	0.001802	118.42%
Ba 233.527†	11881.3	2.074	mg/L	0.0042	4.148 mg/L	0.0084	0.20%
Be 313.042†	250801.3	0.4810	mg/L	0.00519	0.9619 mg/L	0.01039	1.08%
Ca 317.933†	101533.9	9.709	mg/L	0.1112	19.42 mg/L	0.222	1.14%
Cd 228.802†	13757.2	0.5124	mg/L	0.00134	1.025 mg/L	0.0027	0.26%
Co 228.616†	21270.8	0.5082	mg/L	0.00247	1.016 mg/L	0.0049	0.49%
Cr 267.716†	3329.1	0.5121	mg/L	0.00138	1.024 mg/L	0.0028	0.27%
Cu 324.752†	140678.7	0.5069	mg/L	0.00128	1.014 mg/L	0.0026	0.25%
Fe 273.955†	3138.4	2.004	mg/L	0.0179	4.009 mg/L	0.0359	0.90%
K 766.490†	15910.2	9.848	mg/L	0.0723	19.70 mg/L	0.145	0.73%
Mg 279.077†	10405.0	10.27	mg/L	0.0035	20.55 mg/L	0.070	0.34%
Mn 257.610†	24210.1	0.4980	mg/L	0.00310	0.9960 mg/L	0.00619	0.62%
Mo 202.031†	19.2	0.00073	mg/L	0.000087	0.00145 mg/L	0.000174	11.97%
Na 589.592†	120815.9	10.06	mg/L	0.066	20.12 mg/L	0.132	0.66%
Na 330.237†	314.9	10.34	mg/L	0.119	20.69 mg/L	0.238	1.15%
Ni 231.604†	2051.8	0.5122	mg/L	0.00177	1.024 mg/L	0.0035	0.35%
Pb 220.353†	18915.0	2.027	mg/L	0.0032	4.053 mg/L	0.0064	0.16%
Sb 206.836†	21.4	0.00105	mg/L	0.001010	0.00210 mg/L	0.002020	96.37%
Se 196.026†	3420.4	2.004	mg/L	0.0037	4.008 mg/L	0.0074	0.18%
Si 288.158†	0.6	0.00323	mg/L	0.001931	0.00646 mg/L	0.003862	59.80%
Sn 189.927†	-18.8	-0.00291	mg/L	0.000385	-0.00582 mg/L	0.000770	13.22%
Sr 421.552†	455281.3	0.4973	mg/L	0.00399	0.9946 mg/L	0.00798	0.80%
Ti 334.903†	64.7	0.00217	mg/L	0.000436	0.00434 mg/L	0.000873	20.11%
Tl 190.801†	4735.1	2.044	mg/L	0.0072	4.088 mg/L	0.0144	0.35%
V 292.402†	69776.1	0.5157	mg/L	0.00260	1.031 mg/L	0.0052	0.50%
Zn 206.200†	2085.4	0.5005	mg/L	0.00251	1.001 mg/L	0.0050	0.50%

Sequence No.: 60  
 Sample ID: CV 6  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 12:53:10 PM  
 Data Type: Original

Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: CV

Analyte	Mean Corrected			Std.Dev.	Sample		RSD
	Intensity	Conc.	Calib. Units		Conc.	Units	
ScA 357.253	3206309.2	101.4	%	0.32			0.32%
ScR 361.383	341611.1	101.0	%	0.44			0.43%
Ag 328.068†	234217.2	1.054	mg/L	0.0035	1.054	mg/L	0.33%
Al 308.215†	2806.7	2.027	mg/L	0.0131	2.027	mg/L	0.64%
As 188.979†	3450.1	2.010	mg/L	0.0073	2.010	mg/L	0.36%
B 249.677†	6792.9	1.023	mg/L	0.0036	1.023	mg/L	0.36%
Ba 233.527†	5981.1	1.044	mg/L	0.0042	1.044	mg/L	0.40%
Be 313.042†	500231.8	0.9593	mg/L	0.00891	0.9593	mg/L	0.93%
Ca 317.933†	21647.3	2.070	mg/L	0.0096	2.070	mg/L	0.46%
Cd 228.802†	27182.8	1.024	mg/L	0.0020	1.024	mg/L	0.20%
Co 228.616†	42595.3	1.016	mg/L	0.0053	1.016	mg/L	0.52%
Cr 267.716†	6654.3	1.025	mg/L	0.0044	1.025	mg/L	0.43%
Cu 324.752†	286207.0	1.031	mg/L	0.0036	1.031	mg/L	0.35%
Fe 273.955†	3184.8	2.031	mg/L	0.0079	2.031	mg/L	0.39%
K 766.490†	32534.1	20.14	mg/L	0.067	20.14	mg/L	0.33%
Mg 279.077†	2083.2	2.063	mg/L	0.0035	2.063	mg/L	0.17%
Mn 257.610†	46906.3	0.9646	mg/L	0.00516	0.9646	mg/L	0.54%
Mo 202.031†	21986.5	0.9956	mg/L	0.00320	0.9956	mg/L	0.32%
Na 589.592†	623681.7	51.93	mg/L	0.472	51.93	mg/L	0.91%
Na 330.237†	1582.3	52.67	mg/L	0.358	52.67	mg/L	0.68%
Ni 231.604†	4157.9	1.040	mg/L	0.0014	1.040	mg/L	0.14%
Pb 220.353†	19179.6	2.055	mg/L	0.0046	2.055	mg/L	0.23%
Sb 206.836†	7139.0	2.048	mg/L	0.0043	2.048	mg/L	0.21%
Se 196.026†	3373.7	1.976	mg/L	0.0072	1.976	mg/L	0.37%
Si 288.158†	3595.2	2.036	mg/L	0.0117	2.036	mg/L	0.58%
Sn 189.927†	4886.8	0.9717	mg/L	0.00434	0.9717	mg/L	0.45%
Sr 421.552†	921993.2	1.007	mg/L	0.0059	1.007	mg/L	0.58%
Ti 334.903†	22510.6	0.9881	mg/L	0.00375	0.9881	mg/L	0.38%
Tl 190.801†	4677.5	2.015	mg/L	0.0064	2.015	mg/L	0.32%
V 292.402†	140164.6	1.036	mg/L	0.0031	1.036	mg/L	0.30%
Zn 206.200†	4431.6	1.063	mg/L	0.0028	1.063	mg/L	0.27%

Sequence No.: 61  
 Sample ID: CB U  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 2/27/2013 12:57:14 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3244220.3	102.6	%	0.21			0.20%
ScR 361.383	347338.9	102.7	%	0.56			0.54%
Ag 328.068†	37.7	0.00017	mg/L	0.000133	0.00017 mg/L	0.000133	78.34%
Al 308.215†	8.6	0.00628	mg/L	0.001037	0.00628 mg/L	0.001037	16.51%
As 188.979†	3.3	0.00192	mg/L	0.002712	0.00192 mg/L	0.002712	141.41%
B 249.677†	11.4	0.00173	mg/L	0.000469	0.00173 mg/L	0.000469	27.14%
Ba 233.527†	1.9	0.00034	mg/L	0.000391	0.00034 mg/L	0.000391	114.92%
Be 313.042†	12.0	0.00002	mg/L	0.000038	0.00002 mg/L	0.000038	167.61%
Ca 317.933†	3.1	0.00030	mg/L	0.000960	0.00030 mg/L	0.000960	322.69%
Cd 228.802†	4.0	0.00014	mg/L	0.000035	0.00014 mg/L	0.000035	24.16%
Co 228.616†	-0.8	-0.00002	mg/L	0.000055	-0.00002 mg/L	0.000055	279.19%
Cr 267.716†	-2.1	-0.00032	mg/L	0.000845	-0.00032 mg/L	0.000845	266.50%
Cu 324.752†	42.5	0.00015	mg/L	0.000048	0.00015 mg/L	0.000048	31.41%
Fe 273.955†	4.3	0.00274	mg/L	0.001266	0.00274 mg/L	0.001266	46.22%
K 766.490†	-6.6	-0.00408	mg/L	0.028116	-0.00408 mg/L	0.028116	689.13%
Mg 279.077†	-6.1	-0.00602	mg/L	0.000675	-0.00602 mg/L	0.000675	11.21%
Mn 257.610†	-0.4	-0.00001	mg/L	0.000017	-0.00001 mg/L	0.000017	210.99%
Mo 202.031†	34.1	0.00154	mg/L	0.000197	0.00154 mg/L	0.000197	12.78%
Na 589.592†	-35.0	-0.00292	mg/L	0.001303	-0.00292 mg/L	0.001303	44.68%
Na 330.237†	3.8	0.1249	mg/L	0.42764	0.1249 mg/L	0.42764	342.38%
Ni 231.604†	0.2	0.00006	mg/L	0.001036	0.00006 mg/L	0.001036	>999.9%
Pb 220.353†	6.0	0.00065	mg/L	0.000293	0.00065 mg/L	0.000293	45.36%
Sb 206.836†	17.8	0.00511	mg/L	0.000161	0.00511 mg/L	0.000161	3.16%
Se 196.026†	3.0	0.00173	mg/L	0.000952	0.00173 mg/L	0.000952	54.97%
Si 288.158†	-6.1	-0.00345	mg/L	0.002913	-0.00345 mg/L	0.002913	84.55%
Sn 189.927†	2.6	0.00051	mg/L	0.000228	0.00051 mg/L	0.000228	44.30%
Sr 421.552†	-26.2	-0.00003	mg/L	0.000026	-0.00003 mg/L	0.000026	89.60%
Ti 334.903†	3.5	0.00015	mg/L	0.000356	0.00015 mg/L	0.000356	237.37%
Tl 190.801†	2.5	0.00108	mg/L	0.000839	0.00108 mg/L	0.000839	77.64%
V 292.402†	8.4	0.00006	mg/L	0.000175	0.00006 mg/L	0.000175	287.21%
Zn 206.200†	1.9	0.00045	mg/L	0.000566	0.00045 mg/L	0.000566	124.65%



Sequence No.: 62  
 Sample ID: WE83 A-L SWC  
 Analyst: ALA  
 Dilution: 25.000000X

Autosampler Location: 345  
 Date Collected: 2/27/2013 1:01:30 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 A-L SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE83 A-L SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3261965.7	103.2 %		0.56			0.54%
ScR 361.383	349874.8	103.4 %		0.36			0.35%
Ag 328.068†	9.8	0.00008 mg/L		0.000276	0.00191 mg/L	0.006889	361.62%
Al 308.215†	17184.6	12.62 mg/L		0.010	315.6 mg/L	0.24	0.08%
As 188.979†	4.9	0.00682 mg/L		0.001517	0.1704 mg/L	0.03792	22.25%
B 249.677†	8.5	0.00126 mg/L		0.000755	0.03151 mg/L	0.018887	59.94%
Ba 233.527†	413.7	0.06974 mg/L		0.000117	1.744 mg/L	0.0029	0.17%
Be 313.042†	115.6	0.00021 mg/L		0.000006	0.00532 mg/L	0.000139	2.61%
Ca 317.933†	35543.1	3.399 mg/L		0.0198	84.97 mg/L	0.496	0.58%
Cd 228.802†	11.6	0.00043 mg/L		0.000152	0.01073 mg/L	0.003812	35.53%
Co 228.616†	276.0	0.00637 mg/L		0.000093	0.1592 mg/L	0.00233	1.46%
Cr 267.716†	80.2	0.01234 mg/L		0.000936	0.3086 mg/L	0.02340	7.58%
Cu 324.752†	2301.4	0.00907 mg/L		0.000069	0.2268 mg/L	0.00173	0.76%
Fe 273.955†	26410.2	16.89 mg/L		0.075	422.3 mg/L	1.87	0.44%
K 766.490†	4541.9	2.811 mg/L		0.0312	70.28 mg/L	0.781	1.11%
Mg 279.077†	4901.0	4.829 mg/L		0.0244	120.7 mg/L	0.61	0.51%
Mn 257.610†	22854.3	0.4697 mg/L		0.00128	11.74 mg/L	0.032	0.27%
Mo 202.031†	15.4	0.00066 mg/L		0.000300	0.01643 mg/L	0.007488	45.58%
Na 589.592†	3241.3	0.2699 mg/L		0.00401	6.747 mg/L	0.1004	1.49%
Na 330.237†	7.1	0.2591 mg/L		0.23412	6.477 mg/L	5.8531	90.37%
Ni 231.604†	25.9	0.00647 mg/L		0.000823	0.1618 mg/L	0.02057	12.72%
Pb 220.353†	46.1	0.00746 mg/L		0.000837	0.1864 mg/L	0.02092	11.22%
Sb 206.836†	0.6	0.00022 mg/L		0.000855	0.00557 mg/L	0.021369	383.51%
Se 196.026†	9.2	0.00390 mg/L		0.003217	0.09761 mg/L	0.080413	82.38%
Si 288.158†	678.7	0.3858 mg/L		0.00080	9.644 mg/L	0.0199	0.21%
Sn 189.927†	-4.6	-0.00061 mg/L		0.000871	-0.01537 mg/L	0.021781	141.74%
Sr 421.552†	61464.2	0.06714 mg/L		0.000073	1.678 mg/L	0.0018	0.11%
Ti 334.903†	2857.4	0.1254 mg/L		0.00141	3.135 mg/L	0.0353	1.13%
Tl 190.801†	-4.1	0.00029 mg/L		0.000752	0.00726 mg/L	0.018800	258.79%
V 292.402†	4262.7	0.03058 mg/L		0.000250	0.7644 mg/L	0.00624	0.82%
Zn 206.200†	172.4	0.04142 mg/L		0.000675	1.035 mg/L	0.0169	1.63%

Sequence No.: 63  
 Sample ID: WE83 A SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 346  
 Date Collected: 2/27/2013 1:05:32 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 A SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE83 A SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3263051.1	103.2 %		0.37			0.36%
ScR 361.383	355451.0	105.1 %		0.41			0.39%
Ag 328.068†	-150.0	-0.00051 mg/L		0.000100	-0.00254 mg/L	0.000501	19.73%
Al 308.215†	88734.7	65.18 mg/L		0.350	325.9 mg/L	1.75	0.54%
As 188.979†	12.1	0.02735 mg/L		0.002013	0.1368 mg/L	0.01006	7.36%
B 249.677†	7.6	0.00106 mg/L		0.000479	0.00532 mg/L	0.002394	45.04%
Ba 233.527†	2105.6	0.3547 mg/L		0.00141	1.773 mg/L	0.0070	0.40%
Be 313.042†	503.0	0.00092 mg/L		0.000012	0.00460 mg/L	0.000059	1.27%
Ca 317.933†	186130.2	17.80 mg/L		0.216	88.99 mg/L	1.079	1.21%
Cd 228.802†	44.3	0.00166 mg/L		0.000184	0.00828 mg/L	0.000919	11.09%
Co 228.616†	1404.0	0.03240 mg/L		0.000111	0.1620 mg/L	0.00055	0.34%
Cr 267.716†	404.7	0.06244 mg/L		0.000555	0.3122 mg/L	0.00277	0.89%
Cu 324.752†	11987.3	0.04725 mg/L		0.000051	0.2363 mg/L	0.00025	0.11%
Fe 273.955†	137338.7	87.84 mg/L		0.345	439.2 mg/L	1.72	0.39%
K 766.490†	23750.9	14.70 mg/L		0.066	73.51 mg/L	0.329	0.45%
Mg 279.077†	23837.7	23.49 mg/L		0.158	117.4 mg/L	0.79	0.67%
Mn 257.610†	118509.2	2.436 mg/L		0.0095	12.18 mg/L	0.048	0.39%
Mo 202.031†	49.5	0.00203 mg/L		0.000062	0.01014 mg/L	0.000310	3.06%
Na 589.592†	16612.7	1.383 mg/L		0.0120	6.916 mg/L	0.0601	0.87%
Na 330.237†	41.3	1.492 mg/L		0.1582	7.462 mg/L	0.7912	10.60%
Ni 231.604†	114.8	0.02870 mg/L		0.001003	0.1435 mg/L	0.00502	3.50%
Pb 220.353†	214.9	0.03601 mg/L		0.000157	0.1800 mg/L	0.00078	0.43%
Sb 206.836†	6.6	0.00211 mg/L		0.001424	0.01053 mg/L	0.007119	67.63%
Se 196.026†	14.0	0.00059 mg/L		0.004306	0.00296 mg/L	0.021530	726.31%
Si 288.158†	3190.9	1.814 mg/L		0.0086	9.068 mg/L	0.0428	0.47%
Sn 189.927†	-25.8	-0.00352 mg/L		0.000683	-0.01759 mg/L	0.003413	19.41%
Sr 421.552†	314283.8	0.3433 mg/L		0.00129	1.716 mg/L	0.0064	0.37%
Ti 334.903†	14503.7	0.6364 mg/L		0.00386	3.182 mg/L	0.0193	0.61%
Tl 190.801†	-15.7	0.00406 mg/L		0.000477	0.02032 mg/L	0.002383	11.73%
V 292.402†	21872.5	0.1568 mg/L		0.00047	0.7842 mg/L	0.00236	0.30%
Zn 206.200†	851.8	0.2047 mg/L		0.00068	1.023 mg/L	0.0034	0.33%

Sequence No.: 64  
 Sample ID: WE83 ADUP SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 347  
 Date Collected: 2/27/2013 1:09:34 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 ADUP SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE83 ADUP SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3245999.9	102.7	%	0.98			0.96%
ScR 361.383	350045.1	103.5	%	0.27			0.27%
Ag 328.068†	-123.4	-0.00039	mg/L	0.000119	-0.00197 mg/L	0.000596	30.27%
Al 308.215†	85523.2	62.82	mg/L	0.375	314.1 mg/L	1.88	0.60%
As 188.979†	14.3	0.03007	mg/L	0.003109	0.1504 mg/L	0.01554	10.34%
B 249.677†	13.3	0.00193	mg/L	0.001006	0.00963 mg/L	0.005032	52.26%
Ba 233.527†	2195.2	0.3717	mg/L	0.00048	1.859 mg/L	0.0024	0.13%
Be 313.042†	501.7	0.00092	mg/L	0.000004	0.00460 mg/L	0.000019	0.41%
Ca 317.933†	183989.5	17.59	mg/L	0.076	87.97 mg/L	0.379	0.43%
Cd 228.802†	41.6	0.00155	mg/L	0.000040	0.00774 mg/L	0.000198	2.56%
Co 228.616†	1390.0	0.03199	mg/L	0.000157	0.1599 mg/L	0.00078	0.49%
Cr 267.716†	334.7	0.05164	mg/L	0.001447	0.2582 mg/L	0.00724	2.80%
Cu 324.752†	12531.2	0.04875	mg/L	0.000422	0.2438 mg/L	0.00211	0.87%
Fe 273.955†	122498.2	78.35	mg/L	0.592	391.7 mg/L	2.96	0.76%
K 766.490†	22445.0	13.89	mg/L	0.071	69.47 mg/L	0.355	0.51%
Mg 279.077†	20714.7	20.41	mg/L	0.068	102.0 mg/L	0.34	0.33%
Mn 257.610†	117690.5	2.419	mg/L	0.0072	12.09 mg/L	0.036	0.30%
Mo 202.031†	54.2	0.00225	mg/L	0.000131	0.01123 mg/L	0.000653	5.82%
Na 589.592†	16784.6	1.397	mg/L	0.0142	6.987 mg/L	0.0708	1.01%
Na 330.237†	37.8	1.389	mg/L	0.1064	6.947 mg/L	0.5321	7.66%
Ni 231.604†	110.9	0.02773	mg/L	0.000404	0.1386 mg/L	0.00202	1.46%
Pb 220.353†	373.7	0.05287	mg/L	0.000899	0.2644 mg/L	0.00450	1.70%
Sb 206.836†	4.4	0.00160	mg/L	0.001110	0.00801 mg/L	0.005548	69.23%
Se 196.026†	11.2	-0.00074	mg/L	0.002813	-0.00372 mg/L	0.014064	378.55%
Si 288.158†	3411.0	1.938	mg/L	0.0152	9.691 mg/L	0.0758	0.78%
Sn 189.927†	-28.5	-0.00405	mg/L	0.000509	-0.02027 mg/L	0.002544	12.55%
Sr 421.552†	341563.7	0.3731	mg/L	0.00231	1.865 mg/L	0.0116	0.62%
Ti 334.903†	15441.9	0.6777	mg/L	0.00346	3.388 mg/L	0.0173	0.51%
Tl 190.801†	-11.8	0.00455	mg/L	0.003721	0.02275 mg/L	0.018607	81.79%
V 292.402†	20205.8	0.1450	mg/L	0.00108	0.7249 mg/L	0.00540	0.74%
Zn 206.200†	832.0	0.1999	mg/L	0.00083	0.9996 mg/L	0.00417	0.42%

Sequence No.: 65  
 Sample ID: WE83 ASPK SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 348  
 Date Collected: 2/27/2013 1:13:35 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 ASPK SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 ASPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3240127.9	102.5	%	0.04			0.04%
ScR 361.383	352603.5	104.3	%	0.68			0.65%
Ag 328.068†	44279.1	0.1994	mg/L	0.00132	0.9970 mg/L	0.00659	0.66%
Al 308.215†	95679.1	70.28	mg/L	0.453	351.4 mg/L	2.26	0.64%
As 188.979†	1429.9	0.8408	mg/L	0.00404	4.204 mg/L	0.0202	0.48%
B 249.677†	12.7	0.00134	mg/L	0.000445	0.00672 mg/L	0.002223	33.11%
Ba 233.527†	7099.3	1.226	mg/L	0.0054	6.128 mg/L	0.0269	0.44%
Be 313.042†	102081.3	0.1957	mg/L	0.00180	0.9786 mg/L	0.00898	0.92%
Ca 317.933†	237156.8	22.68	mg/L	0.158	113.4 mg/L	0.79	0.70%
Cd 228.802†	5769.5	0.2151	mg/L	0.00028	1.075 mg/L	0.0014	0.13%
Co 228.616†	10205.9	0.2427	mg/L	0.00065	1.213 mg/L	0.0033	0.27%
Cr 267.716†	1665.3	0.2563	mg/L	0.00177	1.281 mg/L	0.0088	0.69%
Cu 324.752†	70909.9	0.2598	mg/L	0.00107	1.299 mg/L	0.0054	0.41%
Fe 273.955†	147456.7	94.31	mg/L	1.098	471.5 mg/L	5.49	1.16%
K 766.490†	32353.2	20.03	mg/L	0.083	100.1 mg/L	0.42	0.42%
Mg 279.077†	29811.9	29.38	mg/L	0.180	146.9 mg/L	0.90	0.61%
Mn 257.610†	135855.3	2.792	mg/L	0.0277	13.96 mg/L	0.139	0.99%
Mo 202.031†	60.0	0.00244	mg/L	0.000025	0.01219 mg/L	0.000126	1.03%
Na 589.592†	66698.0	5.553	mg/L	0.0133	27.77 mg/L	0.067	0.24%
Na 330.237†	166.6	5.606	mg/L	0.1661	28.03 mg/L	0.831	2.96%
Ni 231.604†	929.9	0.2322	mg/L	0.00098	1.161 mg/L	0.0049	0.42%
Pb 220.353†	8170.9	0.8893	mg/L	0.00093	4.446 mg/L	0.0047	0.10%
Sb 206.836†	20.5	0.00422	mg/L	0.000647	0.02112 mg/L	0.003234	15.31%
Se 196.026†	1393.4	0.8083	mg/L	0.00644	4.041 mg/L	0.0322	0.80%
Si 288.158†	2924.3	1.664	mg/L	0.0128	8.319 mg/L	0.0640	0.77%
Sn 189.927†	-34.4	-0.00480	mg/L	0.000720	-0.02401 mg/L	0.003602	15.00%
Sr 421.552†	562936.6	0.6149	mg/L	0.00353	3.075 mg/L	0.0177	0.57%
Ti 334.903†	14653.3	0.6427	mg/L	0.00517	3.213 mg/L	0.0259	0.80%
Tl 190.801†	1838.8	0.8052	mg/L	0.00162	4.026 mg/L	0.0081	0.20%
V 292.402†	50216.8	0.3660	mg/L	0.00206	1.830 mg/L	0.0103	0.56%
Zn 206.200†	1754.9	0.4214	mg/L	0.00313	2.107 mg/L	0.0157	0.74%

Sequence No.: 66  
 Sample ID: ~~WE83 APOST SWC~~ ZZZZZZ  
 Analyst: ALA  
 Dilution: 5.00000X # 2-27-13

Autosampler Location: 349  
 Date Collected: 2/27/2013 1:17:37 PM  
 Data Type: Original

Nebulizer Parameters: WE83 APOST SWC  
 Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: WE83 APOST SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3231242.3	102.2 %		0.19			0.19%
ScR 361.383	344951.0	102.0 %		0.08			0.08%
Ag 328.068†	118078.8	0.5314 mg/L		0.00285	2.657 mg/L	0.0142	0.54%
Al 308.215†	91600.5	67.28 mg/L		0.107	336.4 mg/L	0.54	0.16%
As 188.979†	3602.9	2.087 mg/L		0.0100	10.44 mg/L	0.050	0.48%
B 249.677†	8.5	0.00003 mg/L		0.001018	0.00017 mg/L	0.005091	>999.9%
Ba 233.527†	14094.8	2.448 mg/L		0.0114	12.24 mg/L	0.057	0.46%
Be 313.042†	254077.3	0.4872 mg/L		0.00106	2.436 mg/L	0.0053	0.22%
Ca 317.933†	285802.9	27.33 mg/L		0.068	136.6 mg/L	0.34	0.25%
Cd 228.802†	13918.4	0.5183 mg/L		0.00197	2.592 mg/L	0.0098	0.38%
Co 228.616†	22462.4	0.5355 mg/L		0.00203	2.678 mg/L	0.0102	0.38%
Cr 267.716†	3743.4	0.5758 mg/L		0.00096	2.879 mg/L	0.0048	0.17%
Cu 324.752†	157757.3	0.5724 mg/L		0.00054	2.862 mg/L	0.0027	0.09%
Fe 273.955†	138566.6	88.62 mg/L		0.409	443.1 mg/L	2.05	0.46%
K 766.490†	40611.5	25.14 mg/L		0.071	125.7 mg/L	0.36	0.28%
Mg 279.077†	35827.7	35.32 mg/L		0.031	176.6 mg/L	0.16	0.09%
Mn 257.610†	140884.6	2.896 mg/L		0.0105	14.48 mg/L	0.053	0.36%
Mo 202.031†	69.5	0.00279 mg/L		0.000211	0.01397 mg/L	0.001053	7.54%
Na 589.592†	140314.8	11.68 mg/L		0.060	58.41 mg/L	0.300	0.51%
Na 330.237†	351.4	11.68 mg/L		0.070	58.38 mg/L	0.349	0.60%
Ni 231.604†	2158.8	0.5390 mg/L		0.00308	2.695 mg/L	0.0154	0.57%
Pb 220.353†	18912.3	2.039 mg/L		0.0105	10.20 mg/L	0.053	0.52%
Sb 206.836†	21.6	0.00132 mg/L		0.002473	0.00660 mg/L	0.012366	187.50%
Se 196.026†	3503.9	2.045 mg/L		0.0067	10.23 mg/L	0.033	0.33%
Si 288.158†	3251.1	1.851 mg/L		0.0051	9.254 mg/L	0.0257	0.28%
Sn 189.927†	-42.3	-0.00599 mg/L		0.000268	-0.02994 mg/L	0.001341	4.48%
Sr 421.552†	783358.4	0.8557 mg/L		0.00215	4.278 mg/L	0.0108	0.25%
Ti 334.903†	14594.2	0.6397 mg/L		0.00345	3.199 mg/L	0.0173	0.54%
Tl 190.801†	4640.6	2.014 mg/L		0.0049	10.07 mg/L	0.025	0.24%
V 292.402†	92249.2	0.6770 mg/L		0.00362	3.385 mg/L	0.0181	0.53%
Zn 206.200†	2944.9	0.7070 mg/L		0.00050	3.535 mg/L	0.0025	0.07%

Sequence No.: 67  
 Sample ID: WE83 B-L SWC  
 Analyst: ALA  
 Dilution: 25.000000X

Autosampler Location: 350  
 Date Collected: 2/27/2013 1:21:41 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 B-L SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 B-L SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3235831.9	102.3 %		0.64			0.63%
ScR 361.383	348384.3	103.0 %		0.31			0.30%
Ag 328.068†	28.9	0.00015 mg/L		0.000221	0.00386 mg/L	0.005523	143.23%
Al 308.215†	9824.7	7.216 mg/L		0.0079	180.4 mg/L	0.20	0.11%
As 188.979†	2.2	0.00471 mg/L		0.001509	0.1179 mg/L	0.03773	32.02%
B 249.677†	6.2	0.00092 mg/L		0.000526	0.02296 mg/L	0.013154	57.28%
Ba 233.527†	355.2	0.06042 mg/L		0.001074	1.511 mg/L	0.0268	1.78%
Be 313.042†	70.9	0.00013 mg/L		0.000023	0.00324 mg/L	0.000573	17.67%
Ca 317.933†	28190.8	2.696 mg/L		0.0053	67.39 mg/L	0.132	0.20%
Cd 228.802†	10.8	0.00041 mg/L		0.000083	0.01015 mg/L	0.002078	20.48%
Co 228.616†	211.8	0.00487 mg/L		0.000163	0.1217 mg/L	0.00407	3.34%
Cr 267.716†	51.9	0.00795 mg/L		0.000039	0.1986 mg/L	0.00098	0.49%
Cu 324.752†	2378.4	0.00906 mg/L		0.000132	0.2265 mg/L	0.00329	1.45%
Fe 273.955†	16923.4	10.82 mg/L		0.085	270.6 mg/L	2.12	0.78%
K 766.490†	2574.8	1.594 mg/L		0.0244	39.85 mg/L	0.609	1.53%
Mg 279.077†	3451.8	3.402 mg/L		0.0032	85.05 mg/L	0.080	0.09%
Mn 257.610†	21761.2	0.4473 mg/L		0.00172	11.18 mg/L	0.043	0.38%
Mo 202.031†	2.4	0.00008 mg/L		0.000156	0.00191 mg/L	0.003904	204.44%
Na 589.592†	2664.0	0.2218 mg/L		0.00201	5.545 mg/L	0.0502	0.91%
Na 330.237†	2.0	0.08680 mg/L		0.237717	2.170 mg/L	5.9429	273.86%
Ni 231.604†	22.3	0.00556 mg/L		0.001196	0.1391 mg/L	0.02990	21.49%
Pb 220.353†	9.5	0.00240 mg/L		0.000455	0.05990 mg/L	0.011372	18.99%
Sb 206.836†	-1.9	-0.00049 mg/L		0.001574	-0.01237 mg/L	0.039344	317.98%
Se 196.026†	-0.5	-0.00113 mg/L		0.004294	-0.02832 mg/L	0.107340	378.99%
Si 288.158†	459.6	0.2612 mg/L		0.00480	6.530 mg/L	0.1200	1.84%
Sn 189.927†	-2.5	-0.00026 mg/L		0.000742	-0.00650 mg/L	0.018557	285.35%
Sr 421.552†	19012.0	0.02077 mg/L		0.000077	0.5192 mg/L	0.00193	0.37%
Ti 334.903†	2422.0	0.1063 mg/L		0.00095	2.657 mg/L	0.0237	0.89%
Tl 190.801†	-2.1	0.00041 mg/L		0.001296	0.01016 mg/L	0.032393	318.74%
V 292.402†	2967.5	0.02134 mg/L		0.000076	0.5334 mg/L	0.00190	0.36%
Zn 206.200†	127.3	0.03057 mg/L		0.000218	0.7643 mg/L	0.00544	0.71%

Sequence No.: 72  
 Sample ID: CV 7  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 1:42:01 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3207168.9	101.4 %		0.42			0.41%
ScR 361.383	341968.7	101.1 %		0.19			0.19%
Ag 328.068†	234128.6	1.053 mg/L		0.0040	1.053 mg/L	0.0040	0.38%
Al 308.215†	2817.6	2.035 mg/L		0.0071	2.035 mg/L	0.0071	0.35%
As 188.979†	3476.7	2.026 mg/L		0.0113	2.026 mg/L	0.0113	0.56%
B 249.677†	6818.5	1.027 mg/L		0.0026	1.027 mg/L	0.0026	0.25%
Ba 233.527†	5954.6	1.039 mg/L		0.0009	1.039 mg/L	0.0009	0.09%
Be 313.042†	504041.4	0.9666 mg/L		0.00299	0.9666 mg/L	0.00299	0.31%
Ca 317.933†	21626.1	2.068 mg/L		0.0025	2.068 mg/L	0.0025	0.12%
Cd 228.802†	27320.3	1.029 mg/L		0.0078	1.029 mg/L	0.0078	0.76%
Co 228.616†	42591.5	1.016 mg/L		0.0058	1.016 mg/L	0.0058	0.57%
Cr 267.716†	6665.3	1.027 mg/L		0.0014	1.027 mg/L	0.0014	0.14%
Cu 324.752†	287296.1	1.035 mg/L		0.0051	1.035 mg/L	0.0051	0.49%
Fe 273.955†	3212.8	2.049 mg/L		0.0051	2.049 mg/L	0.0051	0.25%
K 766.490†	32600.1	20.18 mg/L		0.108	20.18 mg/L	0.108	0.53%
Mg 279.077†	2079.9	2.060 mg/L		0.0059	2.060 mg/L	0.0059	0.29%
Mn 257.610†	47481.3	0.9764 mg/L		0.00430	0.9764 mg/L	0.00430	0.44%
Mo 202.031†	22091.1	1.000 mg/L		0.0084	1.000 mg/L	0.0084	0.84%
Na 589.592†	625030.2	52.04 mg/L		0.077	52.04 mg/L	0.077	0.15%
Na 330.237†	1586.7	52.82 mg/L		0.139	52.82 mg/L	0.139	0.26%
Ni 231.604†	4162.0	1.041 mg/L		0.0009	1.041 mg/L	0.0009	0.09%
Pb 220.353†	19262.9	2.064 mg/L		0.0140	2.064 mg/L	0.0140	0.68%
Sb 206.836†	7173.6	2.058 mg/L		0.0137	2.058 mg/L	0.0137	0.67%
Se 196.026†	3393.5	1.988 mg/L		0.0153	1.988 mg/L	0.0153	0.77%
Si 288.158†	3605.3	2.041 mg/L		0.0034	2.041 mg/L	0.0034	0.16%
Sn 189.927†	4932.1	0.9807 mg/L		0.00618	0.9807 mg/L	0.00618	0.63%
Sr 421.552†	928056.3	1.014 mg/L		0.0012	1.014 mg/L	0.0012	0.11%
Ti 334.903†	22636.0	0.9936 mg/L		0.00235	0.9936 mg/L	0.00235	0.24%
Tl 190.801†	4690.5	2.021 mg/L		0.0155	2.021 mg/L	0.0155	0.77%
V 292.402†	140199.1	1.036 mg/L		0.0051	1.036 mg/L	0.0051	0.49%
Zn 206.200†	4427.1	1.062 mg/L		0.0027	1.062 mg/L	0.0027	0.26%

Sequence No.: 68  
 Sample ID: WE83 B SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 351  
 Date Collected: 2/27/2013 1:25:56 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 B SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: WE83 B SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3243404.4	102.6	%	0.43				0.42%
ScR 361.383	349646.7	103.4	%	0.85				0.82%
Ag 328.068†	-125.9	-0.00044	mg/L	0.000160	-0.00222	mg/L	0.000800	36.07%
Al 308.215†	49490.5	36.35	mg/L	0.345	181.8	mg/L	1.73	0.95%
As 188.979†	6.1	0.02071	mg/L	0.002011	0.1035	mg/L	0.01005	9.71%
B 249.677†	17.5	0.00258	mg/L	0.000663	0.01288	mg/L	0.003315	25.73%
Ba 233.527†	1780.9	0.3030	mg/L	0.00198	1.515	mg/L	0.0099	0.65%
Be 313.042†	371.9	0.00068	mg/L	0.000027	0.00341	mg/L	0.000136	3.98%
Ca 317.933†	140703.1	13.45	mg/L	0.071	67.27	mg/L	0.357	0.53%
Cd 228.802†	32.5	0.00123	mg/L	0.000109	0.00614	mg/L	0.000545	8.88%
Co 228.616†	1068.5	0.02457	mg/L	0.000412	0.1228	mg/L	0.00206	1.68%
Cr 267.716†	240.0	0.03668	mg/L	0.000237	0.1834	mg/L	0.00118	0.64%
Cu 324.752†	12212.4	0.04646	mg/L	0.000086	0.2323	mg/L	0.00043	0.18%
Fe 273.955†	84663.4	54.15	mg/L	0.481	270.7	mg/L	2.41	0.89%
K 766.490†	13174.2	8.155	mg/L	0.0920	40.77	mg/L	0.460	1.13%
Mg 279.077†	17367.5	17.12	mg/L	0.109	85.58	mg/L	0.545	0.64%
Mn 257.610†	108888.7	2.238	mg/L	0.0163	11.19	mg/L	0.082	0.73%
Mo 202.031†	37.0	0.00151	mg/L	0.000342	0.00757	mg/L	0.001712	22.60%
Na 589.592†	13749.3	1.145	mg/L	0.0066	5.724	mg/L	0.0330	0.58%
Na 330.237†	31.4	1.148	mg/L	0.2034	5.740	mg/L	1.0170	17.72%
Ni 231.604†	94.8	0.02370	mg/L	0.000463	0.1185	mg/L	0.00231	1.95%
Pb 220.353†	34.9	0.01069	mg/L	0.000301	0.05344	mg/L	0.001507	2.82%
Sb 206.836†	3.0	0.00116	mg/L	0.001852	0.00582	mg/L	0.009258	158.98%
Se 196.026†	1.9	-0.00312	mg/L	0.002820	-0.01562	mg/L	0.014099	90.23%
Si 288.158†	2357.8	1.340	mg/L	0.0233	6.701	mg/L	0.1166	1.74%
Sn 189.927†	-21.5	-0.00305	mg/L	0.000464	-0.01525	mg/L	0.002322	15.23%
Sr 421.552†	97235.8	0.1062	mg/L	0.00088	0.5311	mg/L	0.00438	0.82%
Ti 334.903†	12134.1	0.5325	mg/L	0.00521	2.663	mg/L	0.0260	0.98%
Tl 190.801†	-10.9	0.00188	mg/L	0.002490	0.00940	mg/L	0.012450	132.38%
V 292.402†	15157.3	0.1090	mg/L	0.00065	0.5451	mg/L	0.00323	0.59%
Zn 206.200†	649.3	0.1560	mg/L	0.00196	0.7800	mg/L	0.00979	1.25%



Sequence No.: 69  
 Sample ID: WE83 BDUP SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 352  
 Date Collected: 2/27/2013 1:29:57 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 BDUP SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE83 BDUP SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3230479.1	102.2 %		0.77			0.75%
ScR 361.383	350016.3	103.5 %		0.14			0.14%
Ag 328.068†	-121.7	-0.00041 mg/L		0.000078	-0.00207 mg/L	0.000389	18.78%
Al 308.215†	56496.3	41.50 mg/L		0.010	207.5 mg/L	0.05	0.03%
As 188.979†	5.6	0.02090 mg/L		0.001173	0.1045 mg/L	0.00587	5.61%
B 249.677†	17.5	0.00257 mg/L		0.000750	0.01284 mg/L	0.003749	29.20%
Ba 233.527†	1897.2	0.3222 mg/L		0.00180	1.611 mg/L	0.0090	0.56%
Be 313.042†	411.5	0.00075 mg/L		0.000008	0.00376 mg/L	0.000042	1.11%
Ca 317.933†	147132.4	14.07 mg/L		0.024	70.35 mg/L	0.118	0.17%
Cd 228.802†	39.3	0.00149 mg/L		0.000238	0.00744 mg/L	0.001191	16.01%
Co 228.616†	1148.1	0.02644 mg/L		0.000354	0.1322 mg/L	0.00177	1.34%
Cr 267.716†	282.0	0.04320 mg/L		0.000529	0.2160 mg/L	0.00264	1.22%
Cu 324.752†	12574.0	0.04809 mg/L		0.000718	0.2405 mg/L	0.00359	1.49%
Fe 273.955†	95566.0	61.12 mg/L		0.228	305.6 mg/L	1.14	0.37%
K 766.490†	14965.6	9.264 mg/L		0.0186	46.32 mg/L	0.093	0.20%
Mg 279.077†	19063.8	18.79 mg/L		0.016	93.94 mg/L	0.079	0.08%
Mn 257.610†	111019.1	2.282 mg/L		0.0084	11.41 mg/L	0.042	0.37%
Mo 202.031†	43.1	0.00178 mg/L		0.000100	0.00891 mg/L	0.000500	5.61%
Na 589.592†	14650.0	1.220 mg/L		0.0049	6.099 mg/L	0.0244	0.40%
Na 330.237†	32.6	1.189 mg/L		0.0893	5.944 mg/L	0.4466	7.51%
Ni 231.604†	105.7	0.02645 mg/L		0.001498	0.1322 mg/L	0.00749	5.66%
Pb 220.353†	32.5	0.01146 mg/L		0.000811	0.05730 mg/L	0.004054	7.07%
Sb 206.836†	6.0	0.00203 mg/L		0.000829	0.01015 mg/L	0.004144	40.82%
Se 196.026†	3.4	-0.00289 mg/L		0.005731	-0.01445 mg/L	0.028653	198.23%
Si 288.158†	2184.7	1.242 mg/L		0.0155	6.210 mg/L	0.0776	1.25%
Sn 189.927†	-20.4	-0.00278 mg/L		0.000985	-0.01388 mg/L	0.004925	35.48%
Sr 421.552†	100326.2	0.1096 mg/L		0.00020	0.5479 mg/L	0.00099	0.18%
Ti 334.903†	12477.6	0.5476 mg/L		0.00064	2.738 mg/L	0.0032	0.12%
Tl 190.801†	-13.1	0.00179 mg/L		0.000071	0.00896 mg/L	0.000354	3.95%
V 292.402†	17801.9	0.1282 mg/L		0.00182	0.6408 mg/L	0.00910	1.42%
Zn 206.200†	707.8	0.1700 mg/L		0.00116	0.8500 mg/L	0.00582	0.68%

Sequence No.: 70  
 Sample ID: WE83 BSPK SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 353  
 Date Collected: 2/27/2013 1:33:58 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 BSPK SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE83 BSPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3238303.1	102.4 %		0.14			0.14%
ScR 361.383	348369.6	103.0 %		0.73			0.70%
Ag 328.068†	43517.9	0.1959 mg/L		0.00127	0.9796 mg/L	0.00635	0.65%
Al 308.215†	53638.1	39.40 mg/L		0.264	197.0 mg/L	1.32	0.67%
As 188.979†	1436.9	0.8408 mg/L		0.00233	4.204 mg/L	0.0117	0.28%
B 249.677†	18.0	0.00217 mg/L		0.000541	0.01085 mg/L	0.002707	24.95%
Ba 233.527†	6514.3	1.129 mg/L		0.0145	5.647 mg/L	0.0724	1.28%
Be 313.042†	104618.5	0.2006 mg/L		0.00196	1.003 mg/L	0.0098	0.98%
Ca 317.933†	181704.7	17.38 mg/L		0.172	86.88 mg/L	0.861	0.99%
Cd 228.802†	5804.5	0.2164 mg/L		0.00021	1.082 mg/L	0.0010	0.10%
Co 228.616†	9878.7	0.2351 mg/L		0.00027	1.175 mg/L	0.0013	0.11%
Cr 267.716†	1615.4	0.2481 mg/L		0.00188	1.241 mg/L	0.0094	0.76%
Cu 324.752†	69766.8	0.2538 mg/L		0.00110	1.269 mg/L	0.0055	0.43%
Fe 273.955†	85250.6	54.52 mg/L		0.212	272.6 mg/L	1.06	0.39%
K 766.490†	19708.2	12.20 mg/L		0.099	61.00 mg/L	0.496	0.81%
Mg 279.077†	22910.3	22.59 mg/L		0.194	112.9 mg/L	0.97	0.86%
Mn 257.610†	105409.9	2.167 mg/L		0.0064	10.83 mg/L	0.032	0.30%
Mo 202.031†	50.9	0.00209 mg/L		0.000101	0.01043 mg/L	0.000505	4.84%
Na 589.592†	64158.7	5.342 mg/L		0.0627	26.71 mg/L	0.313	1.17%
Na 330.237†	166.7	5.590 mg/L		0.2270	27.95 mg/L	1.135	4.06%
Ni 231.604†	919.7	0.2296 mg/L		0.00281	1.148 mg/L	0.0140	1.22%
Pb 220.353†	7848.0	0.8484 mg/L		0.00041	4.242 mg/L	0.0020	0.05%
Sb 206.836†	20.6	0.00406 mg/L		0.000189	0.02029 mg/L	0.000945	4.66%
Se 196.026†	1410.5	0.8218 mg/L		0.00334	4.109 mg/L	0.0167	0.41%
Si 288.158†	2269.4	1.291 mg/L		0.0094	6.456 mg/L	0.0469	0.73%
Sn 189.927†	-30.9	-0.00458 mg/L		0.000478	-0.02291 mg/L	0.002390	10.43%
Sr 421.552†	283664.4	0.3099 mg/L		0.00219	1.549 mg/L	0.0109	0.71%
Ti 334.903†	11730.5	0.5145 mg/L		0.00228	2.573 mg/L	0.0114	0.44%
Tl 190.801†	1892.6	0.8235 mg/L		0.00093	4.117 mg/L	0.0047	0.11%
V 292.402†	43101.1	0.3156 mg/L		0.00137	1.578 mg/L	0.0069	0.43%
Zn 206.200†	1486.3	0.3569 mg/L		0.00257	1.784 mg/L	0.0129	0.72%

Sequence No.: 71

Autosampler Location: 354

Sample ID: ~~WE83 BPOST SWC~~ ZZZZZZ

Date Collected: 2/27/2013 1:37:59 PM

Analyst: ALA

Data Type: Original

Dilution: 5.000000X

A 2-27-13

## Nebulizer Parameters: WE83 BPOST SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: WE83 BPOST SWC

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3207345.4	101.4 %	0.41			0.40%
ScR 361.383	345256.5	102.1 %	0.29			0.28%
Ag 328.068†	118625.9	0.5338 mg/L	0.00345	2.669 mg/L	0.0172	0.65%
Al 308.215†	51885.0	38.10 mg/L	0.074	190.5 mg/L	0.37	0.19%
As 188.979†	3604.3	2.084 mg/L	0.0019	10.42 mg/L	0.010	0.09%
B 249.677†	23.8	0.00235 mg/L	0.000323	0.01174 mg/L	0.001614	13.74%
Ba 233.527†	13703.2	2.384 mg/L	0.0200	11.92 mg/L	0.100	0.84%
Be 313.042†	258287.4	0.4953 mg/L	0.00158	2.476 mg/L	0.0079	0.32%
Ca 317.933†	243092.9	23.25 mg/L	0.065	116.2 mg/L	0.33	0.28%
Cd 228.802†	14008.6	0.5217 mg/L	0.00355	2.609 mg/L	0.0178	0.68%
Co 228.616†	22285.9	0.5315 mg/L	0.00326	2.657 mg/L	0.0163	0.61%
Cr 267.716†	3587.0	0.5514 mg/L	0.00193	2.757 mg/L	0.0097	0.35%
Cu 324.752†	157602.4	0.5702 mg/L	0.00272	2.851 mg/L	0.0136	0.48%
Fe 273.955†	85726.1	54.83 mg/L	0.510	274.1 mg/L	2.55	0.93%
K 766.490†	29363.1	18.18 mg/L	0.053	90.88 mg/L	0.264	0.29%
Mg 279.077†	28629.0	28.24 mg/L	0.134	141.2 mg/L	0.67	0.47%
Mn 257.610†	130356.4	2.680 mg/L	0.0188	13.40 mg/L	0.094	0.70%
Mo 202.031†	63.9	0.00259 mg/L	0.000117	0.01297 mg/L	0.000584	4.50%
Na 589.592†	137553.5	11.45 mg/L	0.019	57.26 mg/L	0.095	0.17%
Na 330.237†	348.6	11.56 mg/L	0.139	57.82 mg/L	0.694	1.20%
Ni 231.604†	2138.9	0.5340 mg/L	0.00190	2.670 mg/L	0.0095	0.36%
Pb 220.353†	18830.3	2.024 mg/L	0.0156	10.12 mg/L	0.078	0.77%
Sb 206.836†	21.9	0.00147 mg/L	0.001165	0.00734 mg/L	0.005827	79.37%
Se 196.026†	3502.1	2.048 mg/L	0.0038	10.24 mg/L	0.019	0.18%
Si 288.158†	2304.3	1.313 mg/L	0.0123	6.564 mg/L	0.0617	0.94%
Sn 189.927†	-43.8	-0.00665 mg/L	0.001306	-0.03327 mg/L	0.006528	19.62%
Sr 421.552†	561393.8	0.6132 mg/L	0.00113	3.066 mg/L	0.0057	0.18%
Ti 334.903†	12017.9	0.5267 mg/L	0.00161	2.634 mg/L	0.0081	0.31%
Tl 190.801†	4690.5	2.031 mg/L	0.0076	10.16 mg/L	0.038	0.38%
V 292.402†	85889.1	0.6318 mg/L	0.00450	3.159 mg/L	0.0225	0.71%
Zn 206.200†	2722.1	0.6534 mg/L	0.00338	3.267 mg/L	0.0169	0.52%

Sequence No.: 73  
 Sample ID: CB ✓  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 2/27/2013 1:46:05 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	3266477.8	103.3	%	0.40				0.39%
ScR 361.383	350372.8	103.6	%	0.53				0.51%
Ag 328.068†	49.0	0.00022	mg/L	0.000075	0.00022	mg/L	0.000075	33.91%
Al 308.215†	7.8	0.00574	mg/L	0.006132	0.00574	mg/L	0.006132	106.89%
As 188.979†	3.3	0.00189	mg/L	0.001678	0.00189	mg/L	0.001678	88.57%
B 249.677†	13.4	0.00202	mg/L	0.000884	0.00202	mg/L	0.000884	43.73%
Ba 233.527†	0.8	0.00014	mg/L	0.000697	0.00014	mg/L	0.000697	508.07%
Be 313.042†	7.0	0.00001	mg/L	0.000019	0.00001	mg/L	0.000019	140.63%
Ca 317.933†	4.4	0.00042	mg/L	0.000706	0.00042	mg/L	0.000706	168.61%
Cd 228.802†	2.6	0.00009	mg/L	0.000033	0.00009	mg/L	0.000033	37.35%
Co 228.616†	3.6	0.00009	mg/L	0.000090	0.00009	mg/L	0.000090	104.70%
Cr 267.716†	4.6	0.00071	mg/L	0.000390	0.00071	mg/L	0.000390	54.95%
Cu 324.752†	25.3	0.00009	mg/L	0.000159	0.00009	mg/L	0.000159	175.59%
Fe 273.955†	3.4	0.00220	mg/L	0.000502	0.00220	mg/L	0.000502	22.87%
K 766.490†	-18.5	-0.01145	mg/L	0.037255	-0.01145	mg/L	0.037255	325.40%
Mg 279.077†	-3.0	-0.00295	mg/L	0.003397	-0.00295	mg/L	0.003397	114.99%
Mn 257.610†	-3.2	-0.00007	mg/L	0.000036	-0.00007	mg/L	0.000036	55.95%
Mo 202.031†	32.9	0.00149	mg/L	0.000265	0.00149	mg/L	0.000265	17.81%
Na 589.592†	21.6	0.00180	mg/L	0.004463	0.00180	mg/L	0.004463	247.87%
Na 330.237†	4.3	0.1442	mg/L	0.30156	0.1442	mg/L	0.30156	209.09%
Ni 231.604†	3.1	0.00078	mg/L	0.000368	0.00078	mg/L	0.000368	47.34%
Pb 220.353†	5.2	0.00056	mg/L	0.000332	0.00056	mg/L	0.000332	59.04%
Sb 206.836†	15.2	0.00435	mg/L	0.000947	0.00435	mg/L	0.000947	21.76%
Se 196.026†	4.8	0.00279	mg/L	0.001247	0.00279	mg/L	0.001247	44.64%
Si 288.158†	0.5	0.00028	mg/L	0.002907	0.00028	mg/L	0.002907	>999.9%
Sn 189.927†	4.4	0.00088	mg/L	0.000325	0.00088	mg/L	0.000325	36.71%
Sr 421.552†	1.7	0.00000	mg/L	0.000065	0.00000	mg/L	0.000065	>999.9%
Ti 334.903†	9.0	0.00039	mg/L	0.000774	0.00039	mg/L	0.000774	197.38%
Tl 190.801†	1.2	0.00050	mg/L	0.001156	0.00050	mg/L	0.001156	230.70%
V 292.402†	8.0	0.00006	mg/L	0.000035	0.00006	mg/L	0.000035	55.34%
Zn 206.200†	0.7	0.00017	mg/L	0.000128	0.00017	mg/L	0.000128	74.98%

Sequence No.: 74  
 Sample ID: WE83 E SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 355  
 Date Collected: 2/27/2013 1:50:21 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 E SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 E SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3209294.4	101.5 %		1.34			1.32%
ScR 361.383	351798.3	104.0 %		0.86			0.82%
Ag 328.068†	211.6	0.00134 mg/L		0.000235	0.00269 mg/L	0.000469	17.48%
Al 308.215†	254665.7	187.1 mg/L		0.64	374.1 mg/L	1.28	0.34%
As 188.979†	2943.3	1.693 mg/L		0.0227	3.386 mg/L	0.0453	1.34%
B 249.677†	38.4	0.00565 mg/L		0.001176	0.01130 mg/L	0.002352	20.82%
Ba 233.527†	6787.6	1.159 mg/L		0.0166	2.319 mg/L	0.0333	1.43%
Be 313.042†	2622.1	0.00497 mg/L		0.000028	0.00995 mg/L	0.000057	0.57%
Ca 317.933†	513959.2	49.15 mg/L		0.164	98.29 mg/L	0.327	0.33%
Cd 228.802†	323.7	0.00289 mg/L		0.000203	0.00578 mg/L	0.000407	7.04%
Co 228.616†	2461.5	0.05827 mg/L		0.000688	0.1165 mg/L	0.00138	1.18%
Cr 267.716†	604.2	0.09325 mg/L		0.001242	0.1865 mg/L	0.00248	1.33%
Cu 324.752†	16936.4	0.06930 mg/L		0.001335	0.1386 mg/L	0.00267	1.93%
Fe 273.955†	272710.0	174.4 mg/L		0.92	348.8 mg/L	1.84	0.53%
K 766.490†	58269.8	36.07 mg/L		0.188	72.14 mg/L	0.376	0.52%
Mg 279.077†	46853.9	46.16 mg/L		0.247	92.32 mg/L	0.495	0.54%
Mn 257.610†	164363.5	3.378 mg/L		0.0114	6.755 mg/L	0.0229	0.34%
Mo 202.031†	100.7	0.00398 mg/L		0.000433	0.00795 mg/L	0.000865	10.88%
Na 589.592†	19348.9	1.611 mg/L		0.0075	3.222 mg/L	0.0150	0.47%
Na 330.237†	47.4	1.505 mg/L		0.1418	3.009 mg/L	0.2836	9.42%
Ni 231.604†	221.0	0.05528 mg/L		0.000578	0.1106 mg/L	0.00116	1.05%
Pb 220.353†	414.1	0.08573 mg/L		0.000182	0.1715 mg/L	0.00036	0.21%
Sb 206.836†	45.8	0.01285 mg/L		0.000736	0.02570 mg/L	0.001473	5.73%
Se 196.026†	25.2	-0.00691 mg/L		0.003238	-0.01382 mg/L	0.006475	46.86%
Si 288.158†	6951.2	3.950 mg/L		0.0300	7.901 mg/L	0.0601	0.76%
Sn 189.927†	-67.2	-0.00917 mg/L		0.000979	-0.01834 mg/L	0.001957	10.67%
Sr 421.552†	497476.9	0.5434 mg/L		0.00146	1.087 mg/L	0.0029	0.27%
Ti 334.903†	5550.1	0.2410 mg/L		0.00174	0.4820 mg/L	0.00348	0.72%
Tl 190.801†	-42.3	0.00363 mg/L		0.002919	0.00725 mg/L	0.005838	80.49%
V 292.402†	31116.7	0.2210 mg/L		0.00391	0.4421 mg/L	0.00781	1.77%
Zn 206.200†	1997.9	0.4800 mg/L		0.00345	0.9599 mg/L	0.00691	0.72%

Sequence No.: 75  
 Sample ID: WE83 F SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 356  
 Date Collected: 2/27/2013 1:54:24 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 F SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: WE83 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3265039.1	103.3 %	0.24			0.23%
ScR 361.383	352391.5	104.2 %	0.61			0.59%
Ag 328.068†	-78.6	-0.00023 mg/L	0.000166	-0.00114 mg/L	0.000832	73.11%
Al 308.215†	58997.8	43.34 mg/L	0.331	216.7 mg/L	1.65	0.76%
As 188.979†	56.5	0.04404 mg/L	0.002214	0.2202 mg/L	0.01107	5.03%
B 249.677†	38.5	0.00576 mg/L	0.000986	0.02878 mg/L	0.004932	17.14%
Ba 233.527†	1827.0	0.3123 mg/L	0.00418	1.561 mg/L	0.0209	1.34%
Be 313.042†	309.6	0.00057 mg/L	0.000011	0.00286 mg/L	0.000056	1.97%
Cd 217.933†	163555.7	15.64 mg/L	0.193	78.20 mg/L	0.967	1.24%
Ca 228.802†	35.0	0.00116 mg/L	0.000113	0.00582 mg/L	0.000565	9.72%
Co 228.616†	775.5	0.01784 mg/L	0.000113	0.08919 mg/L	0.000565	0.63%
Cr 267.716†	282.3	0.04327 mg/L	0.000160	0.2164 mg/L	0.00080	0.37%
Cu 324.752†	8780.0	0.03373 mg/L	0.000114	0.1686 mg/L	0.00057	0.34%
Fe 273.955†	71500.8	45.73 mg/L	0.511	228.7 mg/L	2.56	1.12%
K 766.490†	21696.6	13.43 mg/L	0.003	67.15 mg/L	0.016	0.02%
Mg 279.077†	14288.8	14.08 mg/L	0.119	70.41 mg/L	0.593	0.84%
Mn 257.610†	69150.7	1.421 mg/L	0.0145	7.106 mg/L	0.0724	1.02%
Mo 202.031†	55.0	0.00230 mg/L	0.000118	0.01151 mg/L	0.000588	5.11%
Na 589.592†	11276.7	0.9389 mg/L	0.00470	4.694 mg/L	0.0235	0.50%
Na 330.237†	28.1	0.9918 mg/L	0.21756	4.959 mg/L	1.0878	21.94%
Ni 231.604†	84.5	0.02113 mg/L	0.000604	0.1056 mg/L	0.00302	2.86%
Pb 220.353†	593.5	0.07289 mg/L	0.000583	0.3644 mg/L	0.00292	0.80%
Sb 206.836†	3.7	0.00101 mg/L	0.002725	0.00504 mg/L	0.013625	270.58%
Se 196.026†	5.8	-0.00166 mg/L	0.001561	-0.00829 mg/L	0.007807	94.21%
Si 288.158†	3347.7	1.902 mg/L	0.0130	9.508 mg/L	0.0650	0.68%
Sn 189.927†	-23.8	-0.00335 mg/L	0.000867	-0.01676 mg/L	0.004337	25.87%
Sr 421.552†	231309.8	0.2527 mg/L	0.00165	1.263 mg/L	0.0082	0.65%
Ti 334.903†	8589.5	0.3766 mg/L	0.00488	1.883 mg/L	0.0244	1.30%
Tl 190.801†	-2.3	0.00467 mg/L	0.000930	0.02336 mg/L	0.004651	19.91%
V 292.402†	10581.8	0.07577 mg/L	0.000412	0.3789 mg/L	0.00206	0.54%
Zn 206.200†	690.1	0.1659 mg/L	0.00212	0.8294 mg/L	0.01061	1.28%

Sequence No.: 76  
 Sample ID: WE83 G SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 357  
 Date Collected: 2/27/2013 1:58:25 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 G SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE83 G SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3231547.7	102.2 %		0.56			0.55%
ScR 361.383	352146.8	104.1 %		0.41			0.39%
Ag 328.068†	-189.6	-0.00058 mg/L		0.000240	-0.00292 mg/L	0.001202	41.21%
Al 308.215†	113895.1	83.66 mg/L		0.070	418.3 mg/L	0.35	0.08%
As 188.979†	48.4	0.04738 mg/L		0.001877	0.2369 mg/L	0.00939	3.96%
B 249.677†	20.0	0.00291 mg/L		0.001102	0.01455 mg/L	0.005510	37.86%
Ba 233.527†	1755.3	0.2940 mg/L		0.00239	1.470 mg/L	0.0119	0.81%
Be 313.042†	702.2	0.00130 mg/L		0.000035	0.00648 mg/L	0.000176	2.71%
Ca 317.933†	340080.0	32.52 mg/L		0.102	162.6 mg/L	0.51	0.31%
Cd 228.802†	46.9	0.00164 mg/L		0.000044	0.00820 mg/L	0.000221	2.70%
Co 228.616†	1775.1	0.04125 mg/L		0.000139	0.2062 mg/L	0.00070	0.34%
Cr 267.716†	377.2	0.05753 mg/L		0.000956	0.2877 mg/L	0.00478	1.66%
Cu 324.752†	13625.3	0.05297 mg/L		0.000463	0.2649 mg/L	0.00231	0.87%
Fe 273.955†	132295.8	84.61 mg/L		0.582	423.1 mg/L	2.91	0.69%
K 766.490†	15072.7	9.330 mg/L		0.0113	46.65 mg/L	0.056	0.12%
Mg 279.077†	27554.4	27.16 mg/L		0.051	135.8 mg/L	0.26	0.19%
Mn 257.610†	129515.9	2.662 mg/L		0.0114	13.31 mg/L	0.057	0.43%
Mo 202.031†	65.3	0.00257 mg/L		0.000151	0.01286 mg/L	0.000754	5.86%
Na 589.592†	26762.5	2.228 mg/L		0.0029	11.14 mg/L	0.015	0.13%
Na 330.237†	64.1	2.247 mg/L		0.1466	11.23 mg/L	0.733	6.52%
Ni 231.604†	131.8	0.03298 mg/L		0.001294	0.1649 mg/L	0.00647	3.92%
Pb 220.353†	181.9	0.03764 mg/L		0.000527	0.1882 mg/L	0.00263	1.40%
Sb 206.836†	12.1	0.00381 mg/L		0.003895	0.01905 mg/L	0.019474	102.23%
Se 196.026†	6.8	-0.00574 mg/L		0.004536	-0.02870 mg/L	0.022679	79.02%
Si 288.158†	1538.7	0.8764 mg/L		0.00550	4.382 mg/L	0.0275	0.63%
Sn 189.927†	-46.5	-0.00638 mg/L		0.000363	-0.03188 mg/L	0.001814	5.69%
Sr 421.552†	584295.8	0.6382 mg/L		0.00021	3.191 mg/L	0.0011	0.03%
Ti 334.903†	14875.9	0.6519 mg/L		0.00079	3.260 mg/L	0.0039	0.12%
Tl 190.801†	-12.7	0.00480 mg/L		0.001178	0.02400 mg/L	0.005890	24.54%
V 292.402†	25062.0	0.1805 mg/L		0.00232	0.9024 mg/L	0.01162	1.29%
Zn 206.200†	981.1	0.2355 mg/L		0.00011	1.178 mg/L	0.0005	0.05%

Sequence No.: 77  
 Sample ID: WE83 H SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 358  
 Date Collected: 2/27/2013 2:02:26 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 H SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 H SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3294777.4	104.2 %		0.30			0.29%
ScR 361.383	353837.4	104.6 %		0.30			0.28%
Ag 328.068†	-88.2	-0.00023 mg/L		0.000225	-0.00113 mg/L	0.001124	99.03%
Al 308.215†	62066.6	45.59 mg/L		0.054	228.0 mg/L	0.27	0.12%
As 188.979†	3.2	0.01709 mg/L		0.000654	0.08543 mg/L	0.003269	3.83%
B 249.677†	11.9	0.00173 mg/L		0.000339	0.00865 mg/L	0.001696	19.60%
Ba 233.527†	2244.8	0.3837 mg/L		0.00150	1.918 mg/L	0.0075	0.39%
Be 313.042†	277.0	0.00050 mg/L		0.000024	0.00252 mg/L	0.000118	4.70%
Ca 317.933†	224874.7	21.50 mg/L		0.113	107.5 mg/L	0.57	0.53%
Cd 228.802†	28.4	0.00111 mg/L		0.000180	0.00555 mg/L	0.000901	16.24%
Co 228.616†	962.7	0.02208 mg/L		0.000118	0.1104 mg/L	0.00059	0.53%
Cr 267.716†	696.4	0.1071 mg/L		0.00158	0.5357 mg/L	0.00792	1.48%
Cu 324.752†	9476.7	0.03672 mg/L		0.000307	0.1836 mg/L	0.00153	0.83%
Fe 273.955†	87902.0	56.22 mg/L		0.450	281.1 mg/L	2.25	0.80%
K 766.490†	13022.4	8.061 mg/L		0.0092	40.30 mg/L	0.046	0.11%
Mg 279.077†	16676.3	16.43 mg/L		0.049	82.16 mg/L	0.246	0.30%
Mn 257.610†	83405.1	1.714 mg/L		0.0127	8.571 mg/L	0.0633	0.74%
Mo 202.031†	73.9	0.00309 mg/L		0.000128	0.01545 mg/L	0.000640	4.14%
Na 589.592†	31214.2	2.599 mg/L		0.0161	12.99 mg/L	0.080	0.62%
Na 330.237†	79.2	2.726 mg/L		0.2332	13.63 mg/L	1.166	8.55%
Ni 231.604†	206.4	0.05163 mg/L		0.000131	0.2581 mg/L	0.00066	0.25%
Pb 220.353†	106.2	0.02085 mg/L		0.000210	0.1042 mg/L	0.00105	1.01%
Sb 206.836†	5.1	0.00070 mg/L		0.002818	0.00348 mg/L	0.014091	405.30%
Se 196.026†	5.6	-0.00203 mg/L		0.004133	-0.01013 mg/L	0.020665	203.98%
Si 288.158†	1843.1	1.048 mg/L		0.0028	5.240 mg/L	0.0140	0.27%
Sn 189.927†	-29.0	-0.00387 mg/L		0.000327	-0.01933 mg/L	0.001634	8.45%
Sr 421.552†	202955.1	0.2217 mg/L		0.00055	1.108 mg/L	0.0027	0.25%
Ti 334.903†	11417.0	0.5005 mg/L		0.00123	2.503 mg/L	0.0062	0.25%
Tl 190.801†	-8.2	0.00337 mg/L		0.002438	0.01685 mg/L	0.012191	72.34%
V 292.402†	13023.8	0.09347 mg/L		0.000475	0.4673 mg/L	0.00237	0.51%
Zn 206.200†	728.8	0.1750 mg/L		0.00040	0.8752 mg/L	0.00202	0.23%



Sequence No.: 78  
 Sample ID: WE83 I SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 359  
 Date Collected: 2/27/2013 2:06:27 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 I SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE83 I SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	3224337.7	102.0	%	0.35				0.34%
ScR 361.383	344293.1	101.8	%	0.54				0.53%
Ag 328.068†	-854.8	-0.00296	mg/L	0.000399	-0.00591	mg/L	0.000797	13.48%
Al 308.215†	161069.2	118.3	mg/L	1.16	236.6	mg/L	2.31	0.98%
As 188.979†	97.3	0.07232	mg/L	0.000727	0.1446	mg/L	0.00145	1.01%
B 249.677†	3.2	0.00034	mg/L	0.000812	0.00067	mg/L	0.001624	240.66%
Ba 233.527†	4882.8	0.8234	mg/L	0.00780	1.647	mg/L	0.0156	0.95%
Be 313.042†	2511.0	0.00474	mg/L	0.000039	0.00947	mg/L	0.000077	0.81%
Ca 317.933†	1281734.6	122.6	mg/L	1.03	245.1	mg/L	2.05	0.84%
Cd 228.802†	78.7	0.00271	mg/L	0.000092	0.00542	mg/L	0.000184	3.40%
Co 228.616†	2614.2	0.06098	mg/L	0.000255	0.1220	mg/L	0.00051	0.42%
Cr 267.716†	462.4	0.07086	mg/L	0.001403	0.1417	mg/L	0.00281	1.98%
Cu 324.752†	11517.4	0.05080	mg/L	0.000366	0.1016	mg/L	0.00073	0.72%
Fe 273.955†	309143.8	197.7	mg/L	1.48	395.4	mg/L	2.95	0.75%
K 766.490†	24723.4	15.30	mg/L	0.208	30.61	mg/L	0.415	1.36%
Mg 279.077†	50153.3	49.40	mg/L	0.470	98.79	mg/L	0.939	0.95%
Mn 257.610†	161531.9	3.320	mg/L	0.0285	6.639	mg/L	0.0569	0.86%
Mo 202.031†	109.6	0.00351	mg/L	0.000194	0.00703	mg/L	0.000388	5.52%
Na 589.592†	5763.2	0.4798	mg/L	0.00659	0.9597	mg/L	0.01319	1.37%
Na 330.237†	7.8	0.3286	mg/L	0.04276	0.6572	mg/L	0.08553	13.01%
Ni 231.604†	238.8	0.05972	mg/L	0.001508	0.1194	mg/L	0.00302	2.52%
Pb 220.353†	635.7	0.08958	mg/L	0.001177	0.1792	mg/L	0.00235	1.31%
Sb 206.836†	22.4	0.00710	mg/L	0.002256	0.01421	mg/L	0.004512	31.75%
Se 196.026†	-0.8	-0.01429	mg/L	0.002722	-0.02859	mg/L	0.005444	19.04%
Si 288.158†	6121.4	3.480	mg/L	0.0062	6.960	mg/L	0.0125	0.18%
Sn 189.927†	-80.8	-0.00563	mg/L	0.000846	-0.01126	mg/L	0.001692	15.03%
Sr 421.552†	284179.7	0.3104	mg/L	0.00205	0.6208	mg/L	0.00409	0.66%
Ti 334.903†	18212.5	0.7932	mg/L	0.00683	1.586	mg/L	0.0137	0.86%
Tl 190.801†	-33.7	0.01019	mg/L	0.002464	0.02038	mg/L	0.004929	24.18%
V 292.402†	40726.2	0.2902	mg/L	0.00202	0.5803	mg/L	0.00404	0.70%
Zn 206.200†	2160.0	0.5188	mg/L	0.00280	1.038	mg/L	0.0056	0.54%

Sequence No.: 79  
 Sample ID: WE83 J SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 360  
 Date Collected: 2/27/2013 2:10:44 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 J SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 J SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3289812.5	104.0	%	0.64			0.62%
ScR 361.383	354837.9	104.9	%	0.38			0.36%
Ag 328.068†	-282.7	-0.00089	mg/L	0.000030	-0.00177 mg/L	0.000060	3.37%
Al 308.215†	213582.8	156.9	mg/L	0.25	313.7 mg/L	0.50	0.16%
As 188.979†	-428.0	0.04535	mg/L	0.006810	0.09070 mg/L	0.013620	15.02%
B 249.677†	51.8	0.00757	mg/L	0.001631	0.01514 mg/L	0.003263	21.55%
Ba 233.527†	7591.3	1.295	mg/L	0.0078	2.591 mg/L	0.0155	0.60%
Be 313.042†	1989.5	0.00363	mg/L	0.000025	0.00726 mg/L	0.000051	0.70%
Ca 317.933†	403694.7	38.60	mg/L	0.151	77.21 mg/L	0.302	0.39%
Cd 228.802†	93.3	0.00501	mg/L	0.000135	0.01002 mg/L	0.000269	2.69%
Co 228.616†	4014.3	0.08084	mg/L	0.000440	0.1617 mg/L	0.00088	0.54%
Cr 267.716†	1123.1	0.1747	mg/L	0.00094	0.3494 mg/L	0.00188	0.54%
Cu 324.752†	36280.0	0.1388	mg/L	0.00106	0.2777 mg/L	0.00212	0.76%
Fe 273.955†	317644.9	203.2	mg/L	1.98	406.3 mg/L	3.96	0.98%
K 766.490†	43401.3	26.86	mg/L	0.066	53.73 mg/L	0.133	0.25%
Mg 279.077†	40816.2	40.18	mg/L	0.058	80.37 mg/L	0.117	0.14%
Mn 257.610†	203402.5	4.180	mg/L	0.0320	8.361 mg/L	0.0640	0.77%
Mo 202.031†	104.4	0.00427	mg/L	0.000195	0.00853 mg/L	0.000389	4.56%
Na 589.592†	23489.7	1.956	mg/L	0.0100	3.912 mg/L	0.0201	0.51%
Na 330.237†	-8.9	1.935	mg/L	0.0296	3.869 mg/L	0.0592	1.53%
Ni 231.604†	552.0	0.1380	mg/L	0.00165	0.2761 mg/L	0.00330	1.19%
Pb 220.353†	288.7	0.06265	mg/L	0.000277	0.1253 mg/L	0.00055	0.44%
Sb 206.836†	7.5	0.00782	mg/L	0.002667	0.01564 mg/L	0.005333	34.09%
Se 196.026†	19.0	-0.00719	mg/L	0.002589	-0.01437 mg/L	0.005177	36.03%
Si 288.158†	5461.7	3.104	mg/L	0.0029	6.209 mg/L	0.0059	0.09%
Sn 189.927†	-56.0	-0.00628	mg/L	0.000627	-0.01256 mg/L	0.001253	9.98%
Sr 421.552†	384635.0	0.4201	mg/L	0.00040	0.8403 mg/L	0.00080	0.09%
Ti 334.903†	193637.3	8.509	mg/L	0.0198	17.02 mg/L	0.040	0.23%
Tl 190.801†	-41.9	0.00665	mg/L	0.003433	0.01331 mg/L	0.006865	51.59%
V 292.402†	57380.0	0.4086	mg/L	0.00105	0.8172 mg/L	0.00209	0.26%
Zn 206.200†	1986.4	0.4771	mg/L	0.00126	0.9541 mg/L	0.00253	0.26%

Sequence No.: 80  
 Sample ID: WE79 N SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 361  
 Date Collected: 2/27/2013 2:14:46 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 N SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 N SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3295290.0	104.2 %	%	0.41			0.40%
ScR 361.383	352448.7	104.2 %	%	1.13			1.08%
Ag 328.068†	28879.8	0.1299 mg/L	mg/L	0.00066	0.2598 mg/L	0.00131	0.50%
Al 308.215†	44755.1	32.88 mg/L	mg/L	0.517	65.75 mg/L	1.033	1.57%
As 188.979†	3390.2	1.953 mg/L	mg/L	0.0040	3.906 mg/L	0.0079	0.20%
B 249.677†	22.8	0.00342 mg/L	mg/L	0.000736	0.00684 mg/L	0.001472	21.53%
Ba 233.527†	3520.7	0.5970 mg/L	mg/L	0.00590	1.194 mg/L	0.0118	0.99%
Be 313.042†	333.0	0.00062 mg/L	mg/L	0.000035	0.00125 mg/L	0.000071	5.69%
Ca 317.933†	13442.8	1.285 mg/L	mg/L	0.0196	2.571 mg/L	0.0392	1.53%
Cd 228.802†	336.6	0.00192 mg/L	mg/L	0.000151	0.00385 mg/L	0.000302	7.85%
Co 228.616†	306.5	0.00686 mg/L	mg/L	0.000080	0.01373 mg/L	0.000161	1.17%
Cr 267.716†	188.0	0.03224 mg/L	mg/L	0.001248	0.06449 mg/L	0.002497	3.87%
Cu 324.752†	26058.8	0.09973 mg/L	mg/L	0.000657	0.1995 mg/L	0.00131	0.66%
Fe 273.955†	188642.9	120.7 mg/L	mg/L	1.09	241.3 mg/L	2.18	0.90%
K 766.490†	37011.4	22.91 mg/L	mg/L	0.336	45.82 mg/L	0.673	1.47%
Mg 279.077†	4582.7	4.458 mg/L	mg/L	0.0418	8.915 mg/L	0.0836	0.94%
Mn 257.610†	7456.2	0.1532 mg/L	mg/L	0.00280	0.3065 mg/L	0.00560	1.83%
Mo 202.031†	33.6	0.00151 mg/L	mg/L	0.000125	0.00301 mg/L	0.000251	8.32%
Na 589.592†	22530.7	1.876 mg/L	mg/L	0.0230	3.752 mg/L	0.0460	1.23%
Na 330.237†	49.5	1.684 mg/L	mg/L	0.1047	3.368 mg/L	0.2094	6.22%
Ni 231.604†	54.5	0.01363 mg/L	mg/L	0.000975	0.02727 mg/L	0.001950	7.15%
Pb 220.353†	6100.9	0.6558 mg/L	mg/L	0.00280	1.312 mg/L	0.0056	0.43%
Sb 206.836†	87.4	0.02511 mg/L	mg/L	0.000979	0.05021 mg/L	0.001958	3.90%
Se 196.026†	30.8	0.01426 mg/L	mg/L	0.005151	0.02851 mg/L	0.010302	36.13%
Si 288.158†	3033.9	1.722 mg/L	mg/L	0.0207	3.445 mg/L	0.0413	1.20%
Sn 189.927†	3.7	0.00089 mg/L	mg/L	0.000377	0.00178 mg/L	0.000754	42.43%
Sr 421.552†	352660.4	0.3852 mg/L	mg/L	0.00219	0.7704 mg/L	0.00438	0.57%
Ti 334.903†	5100.9	0.2241 mg/L	mg/L	0.00360	0.4482 mg/L	0.00720	1.61%
Tl 190.801†	-14.5	0.00949 mg/L	mg/L	0.001821	0.01898 mg/L	0.003642	19.19%
V 292.402†	7924.9	0.05229 mg/L	mg/L	0.000548	0.1046 mg/L	0.00110	1.05%
Zn 206.200†	377.4	0.09086 mg/L	mg/L	0.000395	0.1817 mg/L	0.00079	0.43%

Sequence No.: 81  
 Sample ID: WE79 Q SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 362  
 Date Collected: 2/27/2013 2:19:03 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 Q SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 Q SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3269682.1	103.4	%	0.80			0.77%
ScR 361.383	357259.4	105.6	%	0.86			0.82%
Ag 328.068†	2785.8	0.01259	mg/L	0.000271	0.06293 mg/L	0.001355	2.15%
Al 308.215†	85339.6	62.69	mg/L	0.326	313.4 mg/L	1.63	0.52%
As 188.979†	822.0	0.4824	mg/L	0.00401	2.412 mg/L	0.0200	0.83%
B 249.677†	-4.8	-0.00078	mg/L	0.000196	-0.00389 mg/L	0.000978	25.14%
Ba 233.527†	2414.6	0.4052	mg/L	0.00187	2.026 mg/L	0.0094	0.46%
Be 313.042†	1064.5	0.00201	mg/L	0.000022	0.01005 mg/L	0.000112	1.12%
Ca 317.933†	30356.0	2.903	mg/L	0.0134	14.51 mg/L	0.067	0.46%
Cd 228.802†	109.7	0.00155	mg/L	0.000202	0.00777 mg/L	0.001009	12.99%
Co 228.616†	871.0	0.02021	mg/L	0.000225	0.1011 mg/L	0.00113	1.11%
Cr 267.716†	413.1	0.06602	mg/L	0.000389	0.3301 mg/L	0.00195	0.59%
Cu 324.752†	53584.5	0.1984	mg/L	0.00090	0.9919 mg/L	0.00448	0.45%
Fe 273.955†	174135.5	111.4	mg/L	0.45	556.9 mg/L	2.25	0.40%
K 766.490†	18482.6	11.44	mg/L	0.072	57.20 mg/L	0.358	0.63%
Mg 279.077†	10177.5	9.987	mg/L	0.0761	49.93 mg/L	0.380	0.76%
Mn 257.610†	54667.4	1.123	mg/L	0.0039	5.617 mg/L	0.0195	0.35%
Mo 202.031†	50.2	0.00223	mg/L	0.000212	0.01117 mg/L	0.001060	9.48%
Na 589.592†	7681.5	0.6396	mg/L	0.00226	3.198 mg/L	0.0113	0.35%
Na 330.237†	17.4	0.5956	mg/L	0.24201	2.978 mg/L	1.2100	40.63%
Ni 231.604†	126.8	0.03172	mg/L	0.000609	0.1586 mg/L	0.00304	1.92%
Pb 220.353†	339.3	0.04721	mg/L	0.001073	0.2361 mg/L	0.00537	2.27%
Sb 206.836†	28.8	0.00810	mg/L	0.001036	0.04051 mg/L	0.005180	12.79%
Se 196.026†	16.0	0.00211	mg/L	0.004966	0.01055 mg/L	0.024832	235.46%
Si 288.158†	2997.8	1.703	mg/L	0.0161	8.513 mg/L	0.0803	0.94%
Sn 189.927†	-4.2	-0.00052	mg/L	0.000319	-0.00259 mg/L	0.001595	61.49%
Sr 421.552†	178341.2	0.1948	mg/L	0.00080	0.9740 mg/L	0.00402	0.41%
Ti 334.903†	7235.0	0.3178	mg/L	0.00293	1.589 mg/L	0.0147	0.92%
Tl 190.801†	-30.2	0.00113	mg/L	0.001541	0.00566 mg/L	0.007704	136.06%
V 292.402†	16455.5	0.1158	mg/L	0.00006	0.5789 mg/L	0.00032	0.06%
Zn 206.200†	1034.4	0.2484	mg/L	0.00342	1.242 mg/L	0.0171	1.38%

Sequence No.: 82  
 Sample ID: WE79 R SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 363  
 Date Collected: 2/27/2013 2:23:04 PM  
 Data Type: Original

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 Nebulizer Parameters: WE79 R SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

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 Mean Data: WE79 R SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3283508.8	103.8 %		0.74			0.72%
ScR 361.383	353576.8	104.5 %		0.61			0.58%
Ag 328.068†	4596.7	0.02071 mg/L		0.000287	0.1035 mg/L	0.00144	1.39%
Al 308.215†	78239.7	57.47 mg/L		0.247	287.4 mg/L	1.23	0.43%
As 188.979†	3495.3	2.008 mg/L		0.0148	10.04 mg/L	0.074	0.74%
B 249.677†	-34.8	-0.00527 mg/L		0.000315	-0.02636 mg/L	0.001573	5.97%
Ba 233.527†	3782.0	0.6382 mg/L		0.00579	3.191 mg/L	0.0289	0.91%
Be 313.042†	653.1	0.00123 mg/L		0.000021	0.00615 mg/L	0.000106	1.73%
Ca 317.933†	7833.1	0.7490 mg/L		0.00574	3.745 mg/L	0.0287	0.77%
Cd 228.802†	352.5	0.00219 mg/L		0.000193	0.01093 mg/L	0.000966	8.84%
Co 228.616†	400.0	0.00936 mg/L		0.000179	0.04678 mg/L	0.000893	1.91%
Cr 267.716†	255.1	0.04327 mg/L		0.000318	0.2164 mg/L	0.00159	0.73%
Cu 324.752†	69484.8	0.2576 mg/L		0.00248	1.288 mg/L	0.0124	0.96%
Fe 273.955†	235760.2	150.8 mg/L		1.16	753.9 mg/L	5.80	0.77%
K 766.490†	21134.0	13.08 mg/L		0.049	65.41 mg/L	0.247	0.38%
Mg 279.077†	6987.9	6.816 mg/L		0.0300	34.08 mg/L	0.150	0.44%
Mn 257.610†	19160.3	0.3936 mg/L		0.00290	1.968 mg/L	0.0145	0.74%
Mo 202.031†	36.2	0.00163 mg/L		0.000281	0.00814 mg/L	0.001407	17.28%
Na 589.592†	16107.0	1.341 mg/L		0.0144	6.705 mg/L	0.0722	1.08%
Na 330.237†	40.5	1.333 mg/L		0.2160	6.664 mg/L	1.0798	16.20%
Ni 231.604†	44.2	0.01106 mg/L		0.000830	0.05532 mg/L	0.004152	7.50%
Pb 220.353†	926.1	0.1064 mg/L		0.00142	0.5321 mg/L	0.00711	1.34%
Sb 206.836†	60.2	0.01719 mg/L		0.001564	0.08594 mg/L	0.007820	9.10%
Se 196.026†	27.8	0.00960 mg/L		0.001871	0.04802 mg/L	0.009356	19.48%
Si 288.158†	1453.7	0.8259 mg/L		0.01066	4.129 mg/L	0.0533	1.29%
Sn 189.927†	1.1	0.00031 mg/L		0.000675	0.00153 mg/L	0.003377	221.20%
Sr 421.552†	111683.8	0.1220 mg/L		0.00052	0.6100 mg/L	0.00258	0.42%
Ti 334.903†	1677.8	0.07369 mg/L		0.001080	0.3685 mg/L	0.00540	1.47%
Tl 190.801†	-33.3	0.00519 mg/L		0.002021	0.02596 mg/L	0.010107	38.93%
V 292.402†	13055.8	0.08870 mg/L		0.000600	0.4435 mg/L	0.00300	0.68%
Zn 206.200†	522.5	0.1255 mg/L		0.00088	0.6274 mg/L	0.00442	0.70%

Sequence No.: 83  
 Sample ID: D1  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 364  
 Date Collected: 2/27/2013 2:27:05 PM  
 Data Type: Original

## Nebulizer Parameters: D1

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: D1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3237330.5	102.4	%	0.15			0.15%
ScR 361.383	349914.2	103.5	%	0.80			0.77%
Ag 328.068†	5.1	0.00002	mg/L	0.000175	0.00002 mg/L	0.000175	769.49%
Al 308.215†	16.0	0.01178	mg/L	0.003311	0.01178 mg/L	0.003311	28.10%
As 188.979†	-0.6	-0.00033	mg/L	0.001797	-0.00033 mg/L	0.001797	538.95%
B 249.677†	-4.0	-0.00060	mg/L	0.001168	-0.00060 mg/L	0.001168	193.27%
Ba 233.527†	2.6	0.00045	mg/L	0.000285	0.00045 mg/L	0.000285	63.75%
Be 313.042†	-3.6	-0.00001	mg/L	0.000036	-0.00001 mg/L	0.000036	530.45%
Ca 317.933†	44.5	0.00426	mg/L	0.000814	0.00426 mg/L	0.000814	19.11%
Cd 228.802†	0.5	0.00002	mg/L	0.000063	0.00002 mg/L	0.000063	283.06%
Co 228.616†	-1.3	-0.00003	mg/L	0.000073	-0.00003 mg/L	0.000073	245.91%
Cr 267.716†	2.6	0.00040	mg/L	0.001031	0.00040 mg/L	0.001031	258.39%
Cu 324.752†	25.2	0.00009	mg/L	0.000100	0.00009 mg/L	0.000100	109.28%
Fe 273.955†	14.9	0.00950	mg/L	0.005257	0.00950 mg/L	0.005257	55.31%
K 766.490†	-28.7	-0.01773	mg/L	0.019505	-0.01773 mg/L	0.019505	109.99%
Mg 279.077†	-4.9	-0.00483	mg/L	0.004168	-0.00483 mg/L	0.004168	86.35%
Mn 257.610†	-0.4	-0.00001	mg/L	0.000088	-0.00001 mg/L	0.000088	>999.9%
Mo 202.031†	-1.7	-0.00008	mg/L	0.000276	-0.00008 mg/L	0.000276	351.19%
Na 589.592†	-23.3	-0.00194	mg/L	0.004742	-0.00194 mg/L	0.004742	244.39%
Na 330.237†	1.6	0.05227	mg/L	0.128610	0.05227 mg/L	0.128610	246.04%
Ni 231.604†	0.3	0.00009	mg/L	0.000599	0.00009 mg/L	0.000599	700.73%
Pb 220.353†	0.2	0.00003	mg/L	0.000302	0.00003 mg/L	0.000302	>999.9%
Sb 206.836†	-1.1	-0.00032	mg/L	0.000499	-0.00032 mg/L	0.000499	158.09%
Se 196.026†	-1.2	-0.00069	mg/L	0.004509	-0.00069 mg/L	0.004509	650.00%
Si 288.158†	1.1	0.00060	mg/L	0.003994	0.00060 mg/L	0.003994	670.21%
Sn 189.927†	0.1	0.00001	mg/L	0.000390	0.00001 mg/L	0.000390	>999.9%
Sr 421.552†	20.1	0.00002	mg/L	0.000018	0.00002 mg/L	0.000018	80.00%
Ti 334.903†	-8.6	-0.00038	mg/L	0.000307	-0.00038 mg/L	0.000307	81.05%
Tl 190.801†	1.4	0.00060	mg/L	0.001446	0.00060 mg/L	0.001446	239.68%
V 292.402†	6.1	0.00005	mg/L	0.000165	0.00005 mg/L	0.000165	357.67%
Zn 206.200†	24.3	0.00584	mg/L	0.000233	0.00584 mg/L	0.000233	3.99%

Sequence No.: 84  
 Sample ID: CV  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 2:31:20 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3231134.6	102.2 %	0.53			0.52%
ScR 361.383	344098.6	101.7 %	0.63			0.62%
Ag 328.068†	232756.9	1.047 mg/L	0.0110	1.047 mg/L	0.0110	1.05%
Al 308.215†	2796.1	2.019 mg/L	0.0005	2.019 mg/L	0.0005	0.03%
As 188.979†	3478.9	2.027 mg/L	0.0101	2.027 mg/L	0.0101	0.50%
B 249.677†	6779.0	1.021 mg/L	0.0039	1.021 mg/L	0.0039	0.39%
Ba 233.527†	5907.3	1.031 mg/L	0.0022	1.031 mg/L	0.0022	0.22%
Be 313.042†	505883.2	0.9701 mg/L	0.00606	0.9701 mg/L	0.00606	0.62%
Ca 317.933†	21497.7	2.056 mg/L	0.0052	2.056 mg/L	0.0052	0.25%
Cd 228.802†	27293.6	1.028 mg/L	0.0112	1.028 mg/L	0.0112	1.09%
Co 228.616†	42302.0	1.009 mg/L	0.0124	1.009 mg/L	0.0124	1.22%
Cr 267.716†	6630.6	1.022 mg/L	0.0038	1.022 mg/L	0.0038	0.37%
Cu 324.752†	285467.4	1.028 mg/L	0.0096	1.028 mg/L	0.0096	0.93%
Fe 273.955†	3197.9	2.040 mg/L	0.0127	2.040 mg/L	0.0127	0.63%
K 766.490†	32529.1	20.14 mg/L	0.111	20.14 mg/L	0.111	0.55%
Mg 279.077†	2062.0	2.042 mg/L	0.0032	2.042 mg/L	0.0032	0.16%
Mn 257.610†	47476.4	0.9763 mg/L	0.00363	0.9763 mg/L	0.00363	0.37%
Mo 202.031†	22075.9	0.9996 mg/L	0.00704	0.9996 mg/L	0.00704	0.70%
Na 589.592†	623688.0	51.93 mg/L	0.417	51.93 mg/L	0.417	0.80%
Na 330.237†	1583.0	52.70 mg/L	0.336	52.70 mg/L	0.336	0.64%
Ni 231.604†	4119.3	1.030 mg/L	0.0042	1.030 mg/L	0.0042	0.41%
Pb 220.353†	19285.5	2.067 mg/L	0.0090	2.067 mg/L	0.0090	0.43%
Sb 206.836†	7166.0	2.056 mg/L	0.0106	2.056 mg/L	0.0106	0.51%
Se 196.026†	3398.1	1.990 mg/L	0.0120	1.990 mg/L	0.0120	0.60%
Si 288.158†	3578.9	2.026 mg/L	0.0075	2.026 mg/L	0.0075	0.37%
Sn 189.927†	4943.9	0.9831 mg/L	0.00688	0.9831 mg/L	0.00688	0.70%
Sr 421.552†	925698.9	1.011 mg/L	0.0051	1.011 mg/L	0.0051	0.50%
Ti 334.903†	22556.5	0.9901 mg/L	0.00415	0.9901 mg/L	0.00415	0.42%
Tl 190.801†	4677.9	2.016 mg/L	0.0074	2.016 mg/L	0.0074	0.37%
V 292.402†	139379.2	1.030 mg/L	0.0123	1.030 mg/L	0.0123	1.20%
Zn 206.200†	4403.6	1.057 mg/L	0.0029	1.057 mg/L	0.0029	0.28%

Sequence No.: 85  
 Sample ID: CB 8  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 2/27/2013 2:35:24 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3246359.4	102.7	%	0.41			0.40%
ScR 361.383	348780.8	103.1	%	0.25			0.24%
Ag 328.068†	-8.6	-0.00004	mg/L	0.000198	-0.00004 mg/L	0.000198	514.60%
Al 308.215†	5.0	0.00361	mg/L	0.003982	0.00361 mg/L	0.003982	110.23%
As 188.979†	-0.9	-0.00051	mg/L	0.001959	-0.00051 mg/L	0.001959	387.28%
B 249.677†	13.1	0.00197	mg/L	0.000069	0.00197 mg/L	0.000069	3.49%
Ba 233.527†	4.3	0.00076	mg/L	0.000337	0.00076 mg/L	0.000337	44.46%
Be 313.042†	6.1	0.00001	mg/L	0.000027	0.00001 mg/L	0.000027	226.69%
Ca 317.933†	-2.7	-0.00026	mg/L	0.000980	-0.00026 mg/L	0.000980	378.45%
Cd 228.802†	2.4	0.00009	mg/L	0.000081	0.00009 mg/L	0.000081	86.09%
Co 228.616†	4.6	0.00011	mg/L	0.000099	0.00011 mg/L	0.000099	90.69%
Cr 267.716†	5.1	0.00079	mg/L	0.000896	0.00079 mg/L	0.000896	113.73%
Cu 324.752†	-43.2	-0.00016	mg/L	0.000096	-0.00016 mg/L	0.000096	61.43%
Fe 273.955†	4.0	0.00257	mg/L	0.001697	0.00257 mg/L	0.001697	65.95%
K 766.490†	-13.4	-0.00829	mg/L	0.008796	-0.00829 mg/L	0.008796	106.06%
Mg 279.077†	-2.0	-0.00193	mg/L	0.001350	-0.00193 mg/L	0.001350	69.83%
Mn 257.610†	-4.0	-0.00008	mg/L	0.000053	-0.00008 mg/L	0.000053	65.07%
Mo 202.031†	33.5	0.00152	mg/L	0.000180	0.00152 mg/L	0.000180	11.86%
Na 589.592†	-8.9	-0.00074	mg/L	0.004328	-0.00074 mg/L	0.004328	583.64%
Na 330.237†	5.6	0.1851	mg/L	0.13199	0.1851 mg/L	0.13199	71.30%
Ni 231.604†	1.7	0.00042	mg/L	0.000255	0.00042 mg/L	0.000255	59.98%
Pb 220.353†	1.2	0.00013	mg/L	0.000597	0.00013 mg/L	0.000597	462.08%
Sb 206.836†	15.5	0.00445	mg/L	0.001193	0.00445 mg/L	0.001193	26.85%
Se 196.026†	1.0	0.00061	mg/L	0.003017	0.00061 mg/L	0.003017	491.59%
Si 288.158†	-2.4	-0.00138	mg/L	0.002476	-0.00138 mg/L	0.002476	179.03%
Sn 189.927†	0.7	0.00015	mg/L	0.000271	0.00015 mg/L	0.000271	185.68%
Sr 421.552†	45.7	0.00005	mg/L	0.000027	0.00005 mg/L	0.000027	53.56%
Ti 334.903†	-1.7	-0.00008	mg/L	0.000664	-0.00008 mg/L	0.000664	867.69%
Tl 190.801†	1.8	0.00077	mg/L	0.000525	0.00077 mg/L	0.000525	68.59%
V 292.402†	30.3	0.00023	mg/L	0.000085	0.00023 mg/L	0.000085	37.46%
Zn 206.200†	-0.1	-0.00001	mg/L	0.000629	-0.00001 mg/L	0.000629	>999.9%



Sequence No.: 86  
 Sample ID: CRI  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 301  
 Date Collected: 2/27/2013 2:39:40 PM  
 Data Type: Original

## Nebulizer Parameters: CRI

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3233613.6	102.3	%	0.84			0.82%
ScR 361.383	349313.9	103.3	%	0.35			0.34%
Ag 328.068†	744.2	0.00335	mg/L	0.000188	0.00335 mg/L	0.000188	5.61%
Al 308.215†	84.7	0.06210	mg/L	0.004430	0.06210 mg/L	0.004430	7.13%
As 188.979†	86.8	0.04997	mg/L	0.000598	0.04997 mg/L	0.000598	1.20%
B 249.677†	145.2	0.02188	mg/L	0.000568	0.02188 mg/L	0.000568	2.60%
Ba 233.527†	16.6	0.00288	mg/L	0.000654	0.00288 mg/L	0.000654	22.68%
Be 313.042†	497.5	0.00095	mg/L	0.000018	0.00095 mg/L	0.000018	1.89%
Ca 317.933†	525.9	0.05029	mg/L	0.000202	0.05029 mg/L	0.000202	0.40%
Cd 228.802†	65.5	0.00222	mg/L	0.000183	0.00222 mg/L	0.000183	8.24%
Co 228.616†	151.0	0.00360	mg/L	0.000149	0.00360 mg/L	0.000149	4.15%
Cr 267.716†	33.7	0.00519	mg/L	0.000492	0.00519 mg/L	0.000492	9.47%
Cu 324.752†	545.5	0.00197	mg/L	0.000220	0.00197 mg/L	0.000220	11.19%
Fe 273.955†	83.3	0.05328	mg/L	0.001709	0.05328 mg/L	0.001709	3.21%
K 766.490†	786.7	0.4870	mg/L	0.01366	0.4870 mg/L	0.01366	2.81%
Mg 279.077†	54.1	0.05341	mg/L	0.005079	0.05341 mg/L	0.005079	9.51%
Mn 257.610†	48.3	0.00100	mg/L	0.000080	0.00100 mg/L	0.000080	8.01%
Mo 202.031†	121.6	0.00551	mg/L	0.000011	0.00551 mg/L	0.000011	0.19%
Na 589.592†	5895.8	0.4909	mg/L	0.00564	0.4909 mg/L	0.00564	1.15%
Na 330.237†	20.5	0.6830	mg/L	0.10677	0.6830 mg/L	0.10677	15.63%
Ni 231.604†	45.6	0.01141	mg/L	0.000560	0.01141 mg/L	0.000560	4.91%
Pb 220.353†	194.5	0.02085	mg/L	0.000720	0.02085 mg/L	0.000720	3.45%
Sb 206.836†	183.4	0.05270	mg/L	0.001201	0.05270 mg/L	0.001201	2.28%
Se 196.026†	87.8	0.05147	mg/L	0.001830	0.05147 mg/L	0.001830	3.56%
Si 288.158†	113.4	0.06429	mg/L	0.003859	0.06429 mg/L	0.003859	6.00%
Sn 189.927†	55.2	0.01099	mg/L	0.000455	0.01099 mg/L	0.000455	4.14%
Sr 421.552†	969.6	0.00106	mg/L	0.000027	0.00106 mg/L	0.000027	2.58%
Ti 334.903†	110.0	0.00482	mg/L	0.000598	0.00482 mg/L	0.000598	12.40%
Tl 190.801†	120.3	0.05203	mg/L	0.000167	0.05203 mg/L	0.000167	0.32%
V 292.402†	425.4	0.00315	mg/L	0.000058	0.00315 mg/L	0.000058	1.83%
Zn 206.200†	40.0	0.00960	mg/L	0.000195	0.00960 mg/L	0.000195	2.03%

Sequence No.: 87  
 Sample ID: ICSA  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 302  
 Date Collected: 2/27/2013 2:43:57 PM  
 Data Type: Original

## Nebulizer Parameters: ICSA

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3172446.7	100.3	%	0.35			0.35%
ScR 361.383	341371.7	100.9	%	0.55			0.55%
Ag 328.068†	-236.5	-0.00041	mg/L	0.000040	-0.00041 mg/L	0.000040	9.65%
Al 308.215†	274277.3	201.5	mg/L	1.40	201.5 mg/L	1.40	0.70%
As 188.979†	53.9	0.02209	mg/L	0.002904	0.02209 mg/L	0.002904	13.15%
B 249.677†	-54.7	-0.00825	mg/L	0.002611	-0.00825 mg/L	0.002611	31.64%
Ba 233.527†	144.1	-0.00367	mg/L	0.000541	-0.00367 mg/L	0.000541	14.75%
Be 313.042†	41.3	0.00008	mg/L	0.000010	0.00008 mg/L	0.000010	12.96%
Ca 317.933†	1048773.8	100.3	mg/L	1.17	100.3 mg/L	1.17	1.17%
Cd 228.802†	59.0	0.00207	mg/L	0.000087	0.00207 mg/L	0.000087	4.18%
Co 228.616†	68.1	0.00161	mg/L	0.000147	0.00161 mg/L	0.000147	9.11%
Cr 267.716†	37.4	0.00085	mg/L	0.000649	0.00085 mg/L	0.000649	75.93%
Cu 324.752†	-2167.1	0.00129	mg/L	0.000112	0.00129 mg/L	0.000112	8.74%
Fe 273.955†	306769.2	196.2	mg/L	1.18	196.2 mg/L	1.18	0.60%
K 766.490†	32.3	0.01997	mg/L	0.007077	0.01997 mg/L	0.007077	35.44%
Mg 279.077†	104881.4	103.4	mg/L	0.61	103.4 mg/L	0.61	0.59%
Mn 257.610†	66.9	-0.00002	mg/L	0.000121	-0.00002 mg/L	0.000121	487.26%
Mo 202.031†	91.7	0.00297	mg/L	0.000356	0.00297 mg/L	0.000356	11.97%
Na 589.592†	151.5	0.01261	mg/L	0.002958	0.01261 mg/L	0.002958	23.45%
Na 330.237†	-5.9	-0.1930	mg/L	0.07051	-0.1930 mg/L	0.07051	36.54%
Ni 231.604†	3.1	0.00078	mg/L	0.001193	0.00078 mg/L	0.001193	153.80%
Pb 220.353†	-507.1	-0.01027	mg/L	0.000172	-0.01027 mg/L	0.000172	1.68%
Sb 206.836†	29.8	0.00841	mg/L	0.001356	0.00841 mg/L	0.001356	16.13%
Se 196.026†	20.0	-0.01147	mg/L	0.008849	-0.01147 mg/L	0.008849	77.16%
Si 288.158†	-27.2	-0.00368	mg/L	0.001676	-0.00368 mg/L	0.001676	45.50%
Sn 189.927†	-81.1	-0.00770	mg/L	0.000625	-0.00770 mg/L	0.000625	8.11%
Sr 421.552†	3752.2	0.00410	mg/L	0.000020	0.00410 mg/L	0.000020	0.50%
Ti 334.903†	216.1	0.00353	mg/L	0.000132	0.00353 mg/L	0.000132	3.73%
Tl 190.801†	-45.1	0.00648	mg/L	0.003528	0.00648 mg/L	0.003528	54.40%
V 292.402†	1289.9	-0.00033	mg/L	0.000182	-0.00033 mg/L	0.000182	54.64%
Zn 206.200†	1.2	0.00029	mg/L	0.000268	0.00029 mg/L	0.000268	91.44%

Sequence No.: 88  
 Sample ID: ICSAB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 303  
 Date Collected: 2/27/2013 2:48:13 PM  
 Data Type: Original

## Nebulizer Parameters: ICSAB

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	3144440.7	99.45 %		0.466			0.47%
ScR 361.383	341118.9	100.9 %		0.32			0.31%
Ag 328.068†	238384.1	1.073 mg/L		0.0021	1.073 mg/L	0.0021	0.20%
Al 308.215†	272633.7	200.3 mg/L		0.13	200.3 mg/L	0.13	0.06%
As 188.979†	1816.7	1.033 mg/L		0.0081	1.033 mg/L	0.0081	0.78%
B 249.677†	-49.2	-0.00970 mg/L		0.000578	-0.00970 mg/L	0.000578	5.96%
Ba 233.527†	5994.1	1.018 mg/L		0.0046	1.018 mg/L	0.0046	0.45%
Be 313.042†	515010.0	0.9876 mg/L		0.00214	0.9876 mg/L	0.00214	0.22%
Ca 317.933†	1046511.7	100.1 mg/L		0.21	100.1 mg/L	0.21	0.21%
Cd 228.802†	27395.0	1.037 mg/L		0.0045	1.037 mg/L	0.0045	0.43%
Co 228.616†	40881.0	0.9770 mg/L		0.00539	0.9770 mg/L	0.00539	0.55%
Cr 267.716†	6652.1	1.021 mg/L		0.0006	1.021 mg/L	0.0006	0.06%
Cu 324.752†	291142.9	1.058 mg/L		0.0052	1.058 mg/L	0.0052	0.49%
Fe 273.955†	306953.8	196.3 mg/L		0.80	196.3 mg/L	0.80	0.41%
K 766.490†	-34.8	-0.02153 mg/L		0.020955	-0.02153 mg/L	0.020955	97.32%
Mg 279.077†	101494.4	100.1 mg/L		0.13	100.1 mg/L	0.13	0.13%
Mn 257.610†	47031.7	0.9656 mg/L		0.00294	0.9656 mg/L	0.00294	0.30%
Mo 202.031†	109.8	0.00374 mg/L		0.000482	0.00374 mg/L	0.000482	12.88%
Na 589.592†	184.4	0.01535 mg/L		0.003680	0.01535 mg/L	0.003680	23.98%
Na 330.237†	10.1	0.04948 mg/L		0.144434	0.04948 mg/L	0.144434	291.93%
Ni 231.604†	3981.8	0.9958 mg/L		0.00368	0.9958 mg/L	0.00368	0.37%
Pb 220.353†	8774.8	0.9841 mg/L		0.00795	0.9841 mg/L	0.00795	0.81%
Sb 206.836†	3568.5	1.015 mg/L		0.0036	1.015 mg/L	0.0036	0.35%
Se 196.026†	1734.9	0.9927 mg/L		0.00537	0.9927 mg/L	0.00537	0.54%
Si 288.158†	-33.6	-0.00423 mg/L		0.002455	-0.00423 mg/L	0.002455	58.09%
Sn 189.927†	-88.3	-0.00862 mg/L		0.000418	-0.00862 mg/L	0.000418	4.84%
Sr 421.552†	3774.7	0.00412 mg/L		0.000016	0.00412 mg/L	0.000016	0.39%
Ti 334.903†	215.4	0.00332 mg/L		0.000482	0.00332 mg/L	0.000482	14.52%
Tl 190.801†	2190.5	0.9639 mg/L		0.00316	0.9639 mg/L	0.00316	0.33%
V 292.402†	138447.7	1.014 mg/L		0.0043	1.014 mg/L	0.0043	0.42%
Zn 206.200†	4080.8	0.9792 mg/L		0.00357	0.9792 mg/L	0.00357	0.37%

Sequence No.: 88  
 Sample ID: ICSAB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 303  
 Date Collected: 2/27/2013 2:48:13 PM  
 Data Type: Original

## Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: ICSAB

Analyte	Mean Corrected			Std.Dev.	Sample			RSD
	Intensity	Conc.	Calib. Units		Conc.	Units	Std.Dev.	
ScA 357.253	3144440.7	99.45	%	0.466				0.47%
ScR 361.383	341118.9	100.9	%	0.32				0.31%
Ag 328.068†	238384.1	1.073	mg/L	0.0021	1.073	mg/L	0.0021	0.20%
Al 308.215†	272633.7	200.3	mg/L	0.13	200.3	mg/L	0.13	0.06%
As 188.979†	1816.7	1.033	mg/L	0.0081	1.033	mg/L	0.0081	0.78%
B 249.677†	-49.2	-0.00970	mg/L	0.000578	-0.00970	mg/L	0.000578	5.96%
Ba 233.527†	5994.1	1.018	mg/L	0.0046	1.018	mg/L	0.0046	0.45%
Be 313.042†	515010.0	0.9876	mg/L	0.00214	0.9876	mg/L	0.00214	0.22%
Ca 317.933†	1046511.7	100.1	mg/L	0.21	100.1	mg/L	0.21	0.21%
Cd 228.802†	27395.0	1.037	mg/L	0.0045	1.037	mg/L	0.0045	0.43%
Co 228.616†	40881.0	0.9770	mg/L	0.00539	0.9770	mg/L	0.00539	0.55%
Cr 267.716†	6652.1	1.021	mg/L	0.0006	1.021	mg/L	0.0006	0.06%
Cu 324.752†	291142.9	1.058	mg/L	0.0052	1.058	mg/L	0.0052	0.49%
Fe 273.955†	306953.8	196.3	mg/L	0.80	196.3	mg/L	0.80	0.41%
K 766.490†	-34.8	-0.02153	mg/L	0.020955	-0.02153	mg/L	0.020955	97.32%
Mg 279.077†	101494.4	100.1	mg/L	0.13	100.1	mg/L	0.13	0.13%
Mn 257.610†	47031.7	0.9656	mg/L	0.00294	0.9656	mg/L	0.00294	0.30%
Mo 202.031†	109.8	0.00374	mg/L	0.000482	0.00374	mg/L	0.000482	12.88%
Na 589.592†	184.4	0.01535	mg/L	0.003680	0.01535	mg/L	0.003680	23.98%
Na 330.237†	10.1	0.04948	mg/L	0.144434	0.04948	mg/L	0.144434	291.93%
Ni 231.604†	3981.8	0.9958	mg/L	0.00368	0.9958	mg/L	0.00368	0.37%
Pb 220.353†	8774.8	0.9841	mg/L	0.00795	0.9841	mg/L	0.00795	0.81%
Sb 206.836†	3568.5	1.015	mg/L	0.0036	1.015	mg/L	0.0036	0.35%
Se 196.026†	1734.9	0.9927	mg/L	0.00537	0.9927	mg/L	0.00537	0.54%
Si 288.158†	-33.6	-0.00423	mg/L	0.002455	-0.00423	mg/L	0.002455	58.09%
Sn 189.927†	-88.3	-0.00862	mg/L	0.000418	-0.00862	mg/L	0.000418	4.84%
Sr 421.552†	3774.7	0.00412	mg/L	0.000016	0.00412	mg/L	0.000016	0.39%
Ti 334.903†	215.4	0.00332	mg/L	0.000482	0.00332	mg/L	0.000482	14.52%
Tl 190.801†	2190.5	0.9639	mg/L	0.00316	0.9639	mg/L	0.00316	0.33%
V 292.402†	138447.7	1.014	mg/L	0.0043	1.014	mg/L	0.0043	0.42%
Zn 206.200†	4080.8	0.9792	mg/L	0.00357	0.9792	mg/L	0.00357	0.37%

Sequence No.: 89  
 Sample ID: CV 9  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 2:52:17 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3266037.6	103.3	%	0.08			0.07%
ScR 361.383	342938.4	101.4	%	0.21			0.20%
Ag 328.068†	231204.4	1.040	mg/L	0.0018	1.040 mg/L	0.0018	0.17%
Al 308.215†	2813.8	2.032	mg/L	0.0054	2.032 mg/L	0.0054	0.26%
As 188.979†	3463.1	2.018	mg/L	0.0060	2.018 mg/L	0.0060	0.30%
B 249.677†	6832.2	1.029	mg/L	0.0041	1.029 mg/L	0.0041	0.40%
Ba 233.527†	5970.3	1.042	mg/L	0.0074	1.042 mg/L	0.0074	0.71%
Be 313.042†	507512.7	0.9732	mg/L	0.00527	0.9732 mg/L	0.00527	0.54%
Ca 317.933†	21756.8	2.080	mg/L	0.0064	2.080 mg/L	0.0064	0.31%
Cd 228.802†	27127.9	1.022	mg/L	0.0011	1.022 mg/L	0.0011	0.11%
Co 228.616†	42311.0	1.010	mg/L	0.0026	1.010 mg/L	0.0026	0.26%
Cr 267.716†	6701.3	1.033	mg/L	0.0045	1.033 mg/L	0.0045	0.44%
Cu 324.752†	284425.8	1.024	mg/L	0.0013	1.024 mg/L	0.0013	0.13%
Fe 273.955†	3241.5	2.067	mg/L	0.0081	2.067 mg/L	0.0081	0.39%
K 766.490†	32821.7	20.32	mg/L	0.011	20.32 mg/L	0.011	0.05%
Mg 279.077†	2097.3	2.077	mg/L	0.0075	2.077 mg/L	0.0075	0.36%
Mn 257.610†	47882.5	0.9847	mg/L	0.00649	0.9847 mg/L	0.00649	0.66%
Mo 202.031†	21993.6	0.9959	mg/L	0.00391	0.9959 mg/L	0.00391	0.39%
Na 589.592†	625832.7	52.11	mg/L	0.270	52.11 mg/L	0.270	0.52%
Na 330.237†	1589.6	52.92	mg/L	0.187	52.92 mg/L	0.187	0.35%
Ni 231.604†	4175.0	1.044	mg/L	0.0028	1.044 mg/L	0.0028	0.26%
Pb 220.353†	19205.8	2.058	mg/L	0.0061	2.058 mg/L	0.0061	0.30%
Sb 206.836†	7146.0	2.050	mg/L	0.0084	2.050 mg/L	0.0084	0.41%
Se 196.026†	3383.6	1.982	mg/L	0.0069	1.982 mg/L	0.0069	0.35%
Si 288.158†	3609.9	2.044	mg/L	0.0085	2.044 mg/L	0.0085	0.41%
Sn 189.927†	4922.6	0.9788	mg/L	0.00774	0.9788 mg/L	0.00774	0.79%
Sr 421.552†	931366.4	1.017	mg/L	0.0009	1.017 mg/L	0.0009	0.09%
Ti 334.903†	22713.7	0.9970	mg/L	0.00115	0.9970 mg/L	0.00115	0.12%
Tl 190.801†	4660.8	2.008	mg/L	0.0057	2.008 mg/L	0.0057	0.28%
V 292.402†	138839.2	1.026	mg/L	0.0026	1.026 mg/L	0.0026	0.25%
Zn 206.200†	4452.4	1.068	mg/L	0.0013	1.068 mg/L	0.0013	0.12%

Sequence No.: 90  
 Sample ID: CB Q  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 2/27/2013 2:56:21 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3196156.8	101.1 %		0.50			0.49%
ScR 361.383	342659.1	101.3 %		0.22			0.22%
Ag 328.068†	48.8	0.00022 mg/L		0.000312	0.00022 mg/L	0.000312	142.13%
Al 308.215†	18.5	0.01355 mg/L		0.005301	0.01355 mg/L	0.005301	39.13%
As 188.979†	1.7	0.00093 mg/L		0.000876	0.00093 mg/L	0.000876	93.78%
B 249.677†	12.1	0.00182 mg/L		0.001320	0.00182 mg/L	0.001320	72.36%
Ba 233.527†	3.8	0.00067 mg/L		0.000433	0.00067 mg/L	0.000433	65.03%
Be 313.042†	11.5	0.00002 mg/L		0.000047	0.00002 mg/L	0.000047	212.56%
Ca 317.933†	15.7	0.00150 mg/L		0.000769	0.00150 mg/L	0.000769	51.14%
Cd 228.802†	3.6	0.00013 mg/L		0.000243	0.00013 mg/L	0.000243	184.25%
Co 228.616†	3.9	0.00009 mg/L		0.000071	0.00009 mg/L	0.000071	75.26%
Cr 267.716†	-0.5	-0.00008 mg/L		0.000689	-0.00008 mg/L	0.000689	838.72%
Cu 324.752†	70.6	0.00025 mg/L		0.000141	0.00025 mg/L	0.000141	55.33%
Fe 273.955†	6.4	0.00412 mg/L		0.000899	0.00412 mg/L	0.000899	21.83%
K 766.490†	-16.0	-0.00990 mg/L		0.005120	-0.00990 mg/L	0.005120	51.70%
Mg 279.077†	-1.5	-0.00150 mg/L		0.001685	-0.00150 mg/L	0.001685	112.54%
Mn 257.610†	5.8	0.00012 mg/L		0.000072	0.00012 mg/L	0.000072	60.08%
Mo 202.031†	34.5	0.00156 mg/L		0.000277	0.00156 mg/L	0.000277	17.77%
Na 589.592†	-48.1	-0.00400 mg/L		0.001159	-0.00400 mg/L	0.001159	28.95%
Na 330.237†	8.2	0.2734 mg/L		0.21094	0.2734 mg/L	0.21094	77.16%
Ni 231.604†	-0.4	-0.00009 mg/L		0.001253	-0.00009 mg/L	0.001253	>999.9%
Pb 220.353†	1.2	0.00013 mg/L		0.000306	0.00013 mg/L	0.000306	231.05%
Sb 206.836†	27.9	0.00803 mg/L		0.000373	0.00803 mg/L	0.000373	4.65%
Se 196.026†	-1.5	-0.00089 mg/L		0.001265	-0.00089 mg/L	0.001265	141.59%
Si 288.158†	-0.6	-0.00035 mg/L		0.005437	-0.00035 mg/L	0.005437	>999.9%
Sn 189.927†	3.1	0.00062 mg/L		0.000566	0.00062 mg/L	0.000566	92.06%
Sr 421.552†	-10.6	-0.00001 mg/L		0.000045	-0.00001 mg/L	0.000045	391.38%
Ti 334.903†	-7.0	-0.00031 mg/L		0.000242	-0.00031 mg/L	0.000242	78.70%
Tl 190.801†	3.8	0.00165 mg/L		0.001159	0.00165 mg/L	0.001159	70.29%
V 292.402†	9.9	0.00007 mg/L		0.000166	0.00007 mg/L	0.000166	225.89%
Zn 206.200†	0.6	0.00013 mg/L		0.000341	0.00013 mg/L	0.000341	259.59%

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA

Analysis Date: 2-28-13

MSI	Analyst BA 3-1-13	Peer # 3113	Comment
<b>Logbook:</b>			
Analyst, Date, Method info	✓	/	
Sample ID's	✓	/	
Standard/QC solution ID's recorded	✓	/	
Prep codes	✓	/	
Dilution factors	✓	/	
Crossouts/Corrections/Deletions	✓	/	
<b>Calibration:</b>			
Blank & Standard intensities	✓	/	
Standard deviations	✓	/	
Curve fit	✓	/	
<b>Calibration Verification:</b>			
ICV/CCV	✓	/	
ICB/CCB	✓	/	
<b>Samples:</b>			
RSD's & SD's	✓	/	
Internal Standards	✓	/	See log
Carry-over	✓	/	
<b>Method QC:</b>			
CRI/CRA	✓	/	
ICSA/ICSAB	✓	/	See log
Post Spikes/Serial Dilutions	✓	/	↓ (WETA)
Analytic Spikes	—		
<b>Matrix QC:</b>			
SRM/LCS	✓	/	
Matrix Spikes	✓	/	WETA, WE80
Matrix Duplicates	✓	/	WE80
Method Blanks	✓	/	
<b>Data Distribution:</b>			
Requested elements/isotope identified	✓	/	
Correct samples identified for distribution	✓	/	
Raw data match distributed data	✓	/	
Data filename correct	✓	/	
Necessary Analysts Notes and CAF's	✓	/	CAF - WETA, WE80



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 1 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	STD 0			ISTDs higher than usual (expected)
	✓	0			
	✓	1			
	✓	2			
	✓	↓ 3			
		STD 0			3009-6
		1			3016-4
		2			↓ -5
		3			3019-1
		↓ 4			3016-6
		Rinse sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low Check			
		ICSA			
		ICSA B			<sup>62</sup> Ni ↑
		LR200			
		LR300			
		CCV2			
		CCB2			
		WE79 MBI	SWN	20	
		↓ B	↓	↓	





# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 2 of 6

All corrections made by analyst unless otherwise noted. BA 2-28-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE79 C	SWN	20	
		D		↓	
		A-L		100	✓ $C = 710\%$ $V = 10\%$ (CAF)
		A		20	✗
		ADUP			✓
		ASPK			✓ Sb ↓ (CAF) As STL
		APOST			✓ 0.06 mL ICPMS Spk #1 2999-12 0.06 mL ICPMS Spk #2 2950-7 SbOK
		↓ MBISPK	↓	↓	✓
		CCV3			
		CCB3			
		WE79 MB2	SWN	20	
		E			
		F			
		G			
		H			
		I			
		J			
		K			
		L			
		↓ MB2SPK	↓	↓	✓
		CCV4			
		CCB4			
		WE79 M	SWN	20	
		↓ N	↓	↓	



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 3 of 6

All corrections made by analyst unless otherwise noted. BA 2-28-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE79 O	SWN	20	
		↓ P	↓	↓	
		↓ Q	↓	↓	
		↓ R	↓	↓	
		↓ S	↓	50 20	As = LR As
		↓ T	↓	↓	
		↓ U	↓	↓	
		CCV5			
		CCB5			
		WE80 MBI	SWN	20	
		WE79 V	↓	↓	
		↓ X	↓	↓	No As
		↓ X	↓	50	As
		WE80 A-L		100	
		↓ A	↓	20	
		↓ ADVP	↓	↓	V, Cr > 20% } (CAF)
		↓ ASPK	↓	↓	As, Sb ↓
		↓ APOST	↓	↓	0.06 ml ICPMS Spk #1 2994-12
		↓ MBISPK	↓	↓	0.06 ml ICPMS Spk #2 2996-7 As, Sb OK
		CCV6			
		CCB6			
		WE80 MB2	SWN	20	
		WE79 W	↓	↓	
		WE80 B	↓	↓	



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 4 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE80 C	SWN	20	
		↓ D	↓	↓	
		↓ E	↓	↓	
		↓ F	↓	↓	
		↓ G	↓	↓	
		↓ H	↓	↓	
		↓ MB2SPK	↓	↓	✓
		CCV7			
		CCB7			End WET9
		WE80 I	SWN	20	
		↓ J	↓	↓	
		↓ K	↓	↓	
		↓ L	↓	↓	
		↓ M	↓	↓	
		↓ N	↓	↓	
		↓ O	↓	↓	
		↓ P	↓	↓	
		↓ Q	↓	↓	
		↓ R	↓	↓	
		CCV8			
		CCB8			
		WE80 S	SWN	20	
		↓ T	↓	↓	
		↓ U	↓	↓	

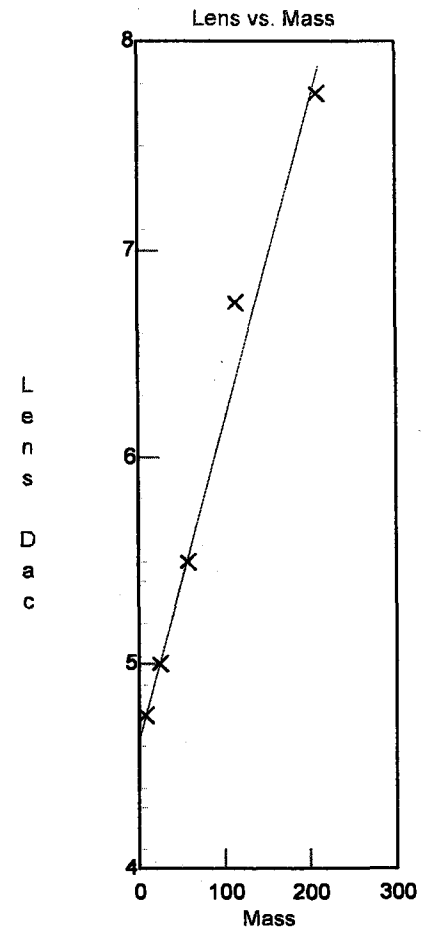
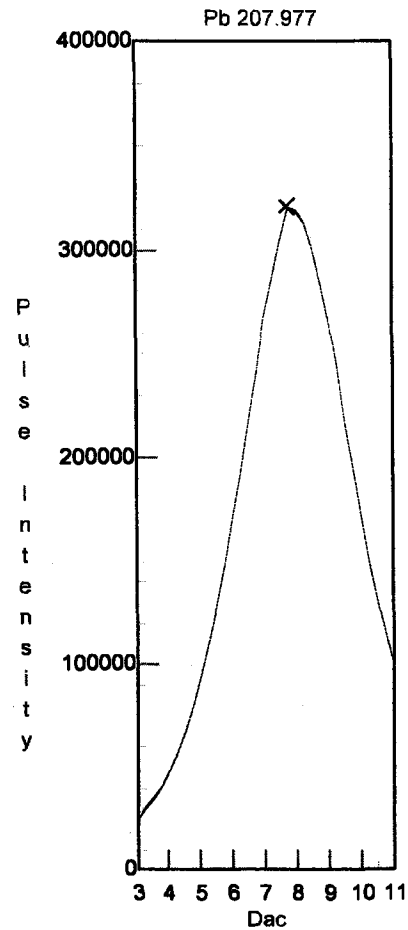
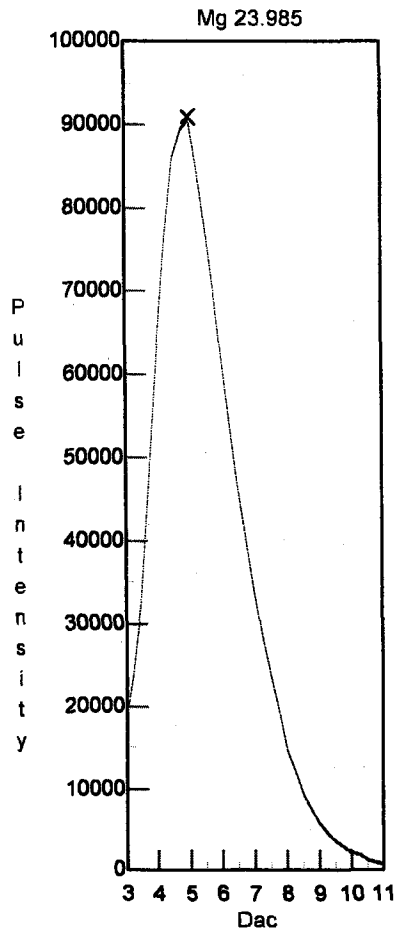
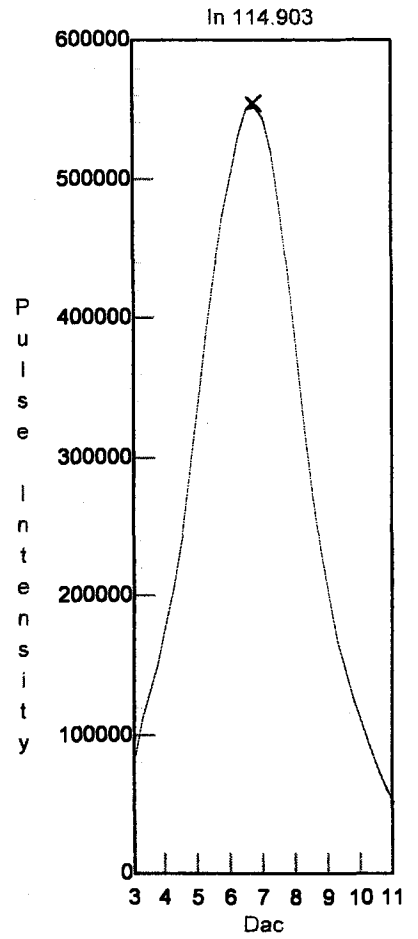
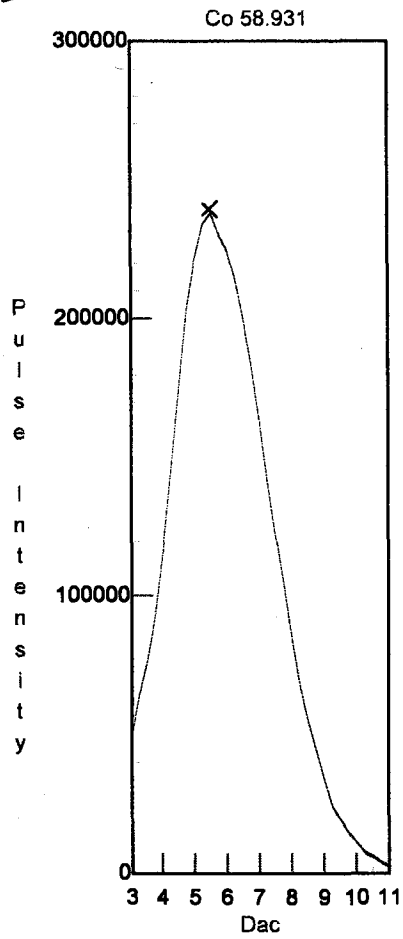
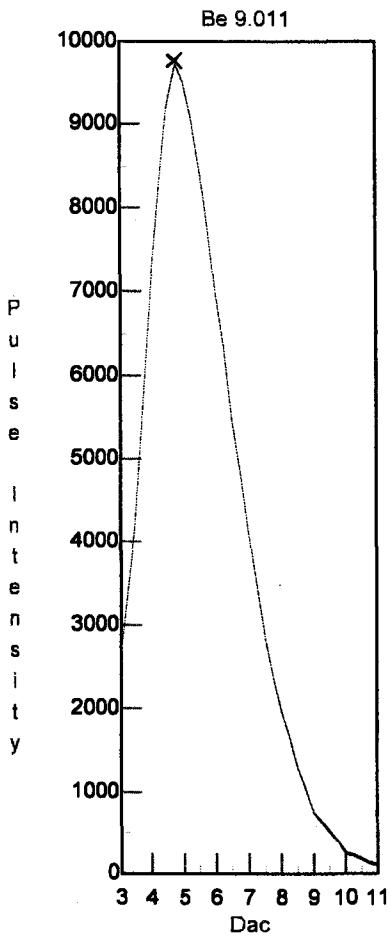
# Instrument Tuning Report

File Name: Default.tun

File Path: C:\Elandata\Tuning\Default.tun

Analyte	Exact Mass	Meas. Mass ✓	Mass DAC	Res. DAC	Meas. Pk. Width ✓	Custom Res.
Be	9.012	9.026	2032	2152	0.681	
Mg	23.985	24.029	5668	2262	0.681	
Co	58.933	58.979	14162	2530	0.670	
In	114.904	114.928	27797	2970	0.686	
Pb	207.977	207.976	50439	3725	0.678	

2-28-13



# Daily Performance Report

Sample ID: Sample

Sample Date/Time: Thursday, February 28, 2013 08:31:51

Sample Description:

Sample File: 1119.sam

Method File: C:\Elandata\Method\aridailyperf.mth

Dataset File: C:\Elandata\Dataset\daily performance\Sample.1410

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\Default.dac

Number of Replicates: 5

Neb 0.91

Dual Detector Mode: Dual

Discrim 18

## Summary

Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Mg	24	37443.191-	268.758	0.718
In	115	295012.843-	3474.846	1.178
Pb	208	166796.113✓	1475.478	0.885
[> Ba	138	214941.579	971.579	0.452
[ Ba++	69	0.014✓	0.000	2.038
[> Ce	140	262413.981	1804.338	0.688
[ CeO	156	0.028✓	0.001	3.440
Bkgd	220	7.251✓	4.627	63.816

Mg, In w/in PE specs.

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:06:31

Del

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L				835189	1
Be	9		ug/L				20	19
C	13		mg/L				6181	1
Cl	37		mg/L				1350033	0
> Sc	45		ug/L				411364	0
V	51		ug/L				2732	7
V-1	51		ug/L				1737	4
Cr	52		ug/L				8424	0
Cr	53		ug/L				633	11
Mn	55		ug/L				365	6
Co	59		ug/L				59	14
> Ge	72		ug/L				374428	0
Ni	60		ug/L				50	10
Ni	62		ug/L				105	7
Cu	63		ug/L				195	1
Cu	65		ug/L				117	1
Zn	66		ug/L				394	4
Zn	67		ug/L				132	13
Zn	68		ug/L				5631	0
As	75		ug/L				116	13
As-1	75		ug/L				7608	0
Se	82		ug/L				-6	113
Se	78		ug/L				7976	0
Mo	98		ug/L				254	6
Y	89		ug/L				464015	1
Kr	83		ug/L				208	2
> In	115		ug/L				513209	0
Ag	107		ug/L				49	23
Cd	111		ug/L				296	6
Cd	114		ug/L				39	11
Sb	121		ug/L				23	29
Sb	123		ug/L				18	26
Ba	135		ug/L				31	24
Ba	137		ug/L				44	14
> Tb	159		ug/L				620456	0
Tl	205		ug/L				354	3
Pb	208		ug/L				1450	5
Bi	209		ug/L				532846	0
Th	232		ug/L				1511	19
U	238		ug/L				3140	23

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:22:22 *Del*

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L				834409	2
[ ] Be	9		ug/L				21	8
[ ] C	13		mg/L				6116	1
[ ] Cl	37		mg/L				1351308	0
[>] Sc	45		ug/L				414160	0
[ ] V	51		ug/L				2774	1
[ ] V-1	51		ug/L				1921	6
[ ] Cr	52		ug/L				8655	0
[ ] Cr	53		ug/L				705	3
[ ] Mn	55		ug/L				335	4
[ ] Co	59		ug/L				58	16
[>] Ge	72		ug/L				377048	0
[ ] Ni	60		ug/L				43	17
[ ] Ni	62		ug/L				88	12
[ ] Cu	63		ug/L				214	4
[ ] Cu	65		ug/L				96	5
[ ] Zn	66		ug/L				440	1
[ ] Zn	67		ug/L				133	1
[ ] Zn	68		ug/L				5580	1
[ ] As	75		ug/L				133	16
[ ] As-1	75		ug/L				7638	0
[ ] Se	82		ug/L				5	140
[ ] Se	78		ug/L				7975	0
[ ] Mo	98		ug/L				127	0
[ ] Y	89		ug/L				466348	0
[ ] Kr	83		ug/L				190	0
[>] In	115		ug/L				516852	0
[ ] Ag	107		ug/L				50	11
[ ] Cd	111		ug/L				314	5
[ ] Cd	114		ug/L				33	13
[ ] Sb	121		ug/L				28	6
[ ] Sb	123		ug/L				23	14
[ ] Ba	135		ug/L				25	15
[ ] Ba	137		ug/L				35	18
[>] Tb	159		ug/L				615206	0
[ ] Tl	205		ug/L				235	6
[ ] Pb	208		ug/L				1052	4
[ ] Bi	209		ug/L				532859	0
[ ] Th	232		ug/L				868	4
[ ] U	238		ug/L				1186	14



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:28:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*Del*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			834409	811825	0
[ Be	9	10.000	ug/L	0.159	1	21	7749	0
C	13		mg/L			6116	4733	0
Cl	37		mg/L			1351308	1367348	0
[> Sc	45		ug/L			414160	411253	1
V	51	10.000	ug/L	0.195	1	2774	173995	0
V-1	51	10.000	ug/L	0.214	2	1921	175888	0
Cr	52	10.000	ug/L	0.134	1	8655	159031	0
Cr	53	10.000	ug/L	0.177	1	705	18576	0
Mn	55	10.000	ug/L	0.208	2	335	264041	0
Co	59	10.000	ug/L	0.160	1	58	186415	0
[> Ge	72		ug/L			377048	368562	0
Ni	60	10.000	ug/L	0.074	0	43	38980	0
Ni	62	10.000	ug/L	0.303	3	88	5765	2
Cu	63	10.000	ug/L	0.034	0	214	80439	0
Cu	65	10.000	ug/L	0.074	0	96	36952	0
Zn	66	10.000	ug/L	0.158	1	440	24684	1
Zn	67	10.000	ug/L	0.105	1	133	4283	1
Zn	68	10.000	ug/L	0.176	1	5580	22150	1
As	75	10.000	ug/L	0.132	1	133	22694	1
As-1	75	10.000	ug/L	0.096	0	7638	29172	0
Se	82	10.000	ug/L	0.080	0	5	3319	0
Se	78	10.000	ug/L	0.046	0	7975	15395	0
Mo	98	10.000	ug/L	0.048	0	127	90487	0
Y	89		ug/L			466348	452852	0
Kr	83		ug/L			190	201	4
[> In	115		ug/L			516852	502710	0
Ag	107	10.000	ug/L	0.120	1	50	165599	0
Cd	111	10.000	ug/L	0.048	0	314	41419	0
Cd	114	10.000	ug/L	0.083	0	33	93960	0
Sb	121	10.000	ug/L	0.039	0	28	111104	0
Sb	123	10.000	ug/L	0.057	0	23	83722	0
Ba	135	10.000	ug/L	0.051	0	25	32166	0
Ba	137	10.000	ug/L	0.150	1	35	55608	1
[> Tb	159		ug/L			615206	607939	0
Tl	205	10.000	ug/L	0.137	1	235	459759	1
Pb	208	10.000	ug/L	0.081	0	1052	621807	0
Bi	209		ug/L			532859	517318	0
Th	232	10.000	ug/L	0.038	0	868	715581	0
U	238	10.000	ug/L	0.105	1	1186	784959	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:34:39

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

DeJ

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			834409	810691	0
[	Be	9	ug/L	0.076	0	21	15296	0
	C	13	mg/L			6116	4833	3
	Cl	37	mg/L			1351308	1352336	0
[>	Sc	45	ug/L			414160	403931	0
[	V	51	ug/L	0.212	1	2774	345307	0
	V-1	51	ug/L	0.239	1	1921	349051	0
	Cr	52	ug/L	0.289	1	8655	309547	0
	Cr	53	ug/L	0.356	1	705	36176	1
	Mn	55	ug/L	0.345	1	335	519201	1
[	Co	59	ug/L	0.291	1	58	365436	0
[>	Ge	72	ug/L			377048	364917	0
[	Ni	60	ug/L	0.378	1	43	75331	1
	Ni	62	ug/L	0.334	1	88	11019	1
	Cu	63	ug/L	0.293	1	214	157738	0
	Cu	65	ug/L	0.251	1	96	72266	0
	Zn	66	ug/L	0.148	0	440	48040	0
	Zn	67	ug/L	0.051	0	133	8441	0
	Zn	68	ug/L	0.120	0	5580	38767	0
	As	75	ug/L	0.228	1	133	45151	0
	As-1	75	ug/L	0.235	1	7638	50850	0
	Se	82	ug/L	0.293	1	5	6551	0
	Se	78	ug/L	0.299	1	7975	22838	0
[	Mo	98	ug/L	0.233	1	127	179443	0
	Y	89	ug/L			466348	450902	0
	Kr	83	ug/L			190	206	4
[>	In	115	ug/L			516852	504144	0
[	Ag	107	ug/L	0.256	1	50	327825	0
	Cd	111	ug/L	0.239	1	314	81736	0
	Cd	114	ug/L	0.189	0	33	186557	0
	Sb	121	ug/L	0.219	1	28	221312	0
	Sb	123	ug/L	0.197	0	23	165779	0
	Ba	135	ug/L	0.189	0	25	63139	0
[	Ba	137	ug/L	0.170	0	35	109327	0
[>	Tb	159	ug/L			615206	600273	0
[	Tl	205	ug/L	0.067	0	235	910473	0
	Pb	208	ug/L	0.256	1	1052	1231571	0
	Bi	209	ug/L			532859	510212	0
	Th	232	ug/L	0.197	0	868	1435022	0
[	U	238	ug/L	0.233	1	1186	1567753	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:40:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Del

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			834409	408112	0
[ Be	9	54.407	ug/L	0.566	1	21	37492	0
C	13		mg/L			6116	2522	1
Cl	37		mg/L			1351308	1362130	0
[> Sc	45		ug/L			414160	204459	0
V	51	54.480	ug/L	0.731	1	2774	854098	0
V-1	51	54.485	ug/L	0.716	1	1921	866261	0
Cr	52	54.455	ug/L	0.663	1	8655	749952	0
Cr	53	54.470	ug/L	0.572	1	705	88634	0
Mn	55	54.435	ug/L	0.503	0	335	1284375	1
[ Co	59	54.446	ug/L	0.270	0	58	906917	1
[> Ge	72		ug/L			377048	183051	0
Ni	60	54.401	ug/L	0.255	0	43	184393	0
Ni	62	54.410	ug/L	0.879	1	88	26888	1
Cu	63	54.342	ug/L	0.621	1	214	380259	1
Cu	65	54.364	ug/L	0.394	0	96	175060	0
Zn	66	54.394	ug/L	0.389	0	440	116286	0
Zn	67	54.462	ug/L	0.234	0	133	20525	0
Zn	68	54.575	ug/L	0.556	1	5580	86744	0
As	75	54.413	ug/L	0.327	0	133	109876	0
As-1	75	54.565	ug/L	0.415	0	7638	112894	0
Se	82	54.406	ug/L	0.212	0	5	15978	0
Se	78	54.840	ug/L	0.209	0	7975	44139	0
[ Mo	98	54.588	ug/L	0.550	1	127	453521	0
Y	89		ug/L			466348	227930	0
Kr	83		ug/L			190	217	4
[> In	115		ug/L			516852	254383	0
Ag	107	54.433	ug/L	0.539	0	50	810823	1
Cd	111	54.457	ug/L	0.044	0	314	202508	0
Cd	114	54.471	ug/L	0.148	0	33	464594	0
Sb	121	54.474	ug/L	0.391	0	28	551084	0
Sb	123	54.452	ug/L	0.324	0	23	411507	0
Ba	135	54.478	ug/L	0.546	1	25	157789	0
[ Ba	137	54.464	ug/L	0.484	0	35	272396	0
[> Tb	159		ug/L			615206	306137	0
Tl	205	54.387	ug/L	0.128	0	235	2247937	0
Pb	208	54.377	ug/L	0.173	0	1052	3032815	0
Bi	209		ug/L			532859	258227	1
Th	232	54.438	ug/L	0.754	1	868	3568582	0
[ U	238	54.344	ug/L	0.318	0	1186	3829971	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:53:46

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L				803723	0
[ Be	9		ug/L				23	25
C	13		mg/L				6243	1
Cl	37		mg/L				1387303	0
[> Sc	45		ug/L				409578	1
V	51		ug/L				2772	2
V-1	51		ug/L				1649	2
Cr	52		ug/L				8617	1
Cr	53		ug/L				614	4
Mn	55		ug/L				377	2
[ Co	59		ug/L				55	22
[> Ge	72		ug/L				372563	0
Ni	60		ug/L				49	6
Ni	62		ug/L				97	14
Cu	63		ug/L				233	9
Cu	65		ug/L				114	3
Zn	66		ug/L				375	3
Zn	67		ug/L				141	7
Zn	68		ug/L				5524	2
As	75		ug/L				145	23
As-1	75		ug/L				7671	0
Se	82		ug/L				0	4202
Se	78		ug/L				7997	0
[ Mo	98		ug/L				87	9
Y	89		ug/L				461134	0
Kr	83		ug/L				197	4
[> In	115		ug/L				515607	1
Ag	107		ug/L				75	7
Cd	111		ug/L				330	7
Cd	114		ug/L				32	31
Sb	121		ug/L				198	6
Sb	123		ug/L				157	7
Ba	135		ug/L				24	16
Ba	137		ug/L				36	10
[> Tb	159		ug/L				612197	1
Tl	205		ug/L				250	6
Pb	208		ug/L				1016	2
Bi	209		ug/L				532877	1
Th	232		ug/L				1565	6
[ U	238		ug/L				1000	9

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:59:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	787425	2
[	Be	9	ug/L	0.236	2	23	7555	0
	C	13	mg/L			6243	6337	2
	Cl	37	mg/L			1387303	1395809	0
[>	Sc	45	ug/L			409578	408662	0
	V	51	ug/L	0.106	1	2772	174285	0
	V-1	51	ug/L	0.133	1	1649	175375	0
	Cr	52	ug/L	0.055	0	8617	158394	1
	Cr	53	ug/L	0.093	0	614	18247	1
	Mn	55	ug/L	0.081	0	377	261887	1
[	Co	59	ug/L	0.041	0	55	186342	0
[>	Ge	72	ug/L			372563	371131	0
	Ni	60	ug/L	0.088	0	49	38708	1
	Ni	62	ug/L	0.126	1	97	5638	2
	Cu	63	ug/L	0.078	0	233	80115	1
	Cu	65	ug/L	0.079	0	114	37007	0
	Zn	66	ug/L	0.060	0	375	24594	0
	Zn	67	ug/L	0.205	2	141	4327	2
	Zn	68	ug/L	0.135	1	5524	22403	1
	As	75	ug/L	0.031	0	145	22729	0
	As-1	75	ug/L	0.044	0	7671	29317	0
	Se	82	ug/L	0.106	1	0	3296	0
	Se	78	ug/L	0.194	1	7997	15445	0
[	Mo	98	ug/L	0.165	1	87	90903	0
	Y	89	ug/L			461134	453754	0
	Kr	83	ug/L			197	201	3
[>	In	115	ug/L			515607	507203	0
	Ag	107	ug/L	0.045	0	75	165997	0
	Cd	111	ug/L	0.190	1	330	41512	1
	Cd	114	ug/L	0.105	1	32	94641	0
	Sb	121	ug/L	0.141	1	198	111727	0
	Sb	123	ug/L	0.145	1	157	84206	0
	Ba	135	ug/L	0.199	1	24	31709	1
[	Ba	137	ug/L	0.136	1	36	55086	0
[>	Tb	159	ug/L			612197	608460	0
	Tl	205	ug/L	0.111	1	250	463851	1
	Pb	208	ug/L	0.072	0	1016	625133	0
	Bi	209	ug/L			532877	520667	0
	Th	232	ug/L	0.095	0	1565	718829	0
[	U	238	ug/L	0.099	0	1000	781400	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:06:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	775816	0
[	Be	9	ug/L	0.412	2	23	15273	1
	C	13	mg/L			6243	4663	3
	Cl	37	mg/L			1387303	1382267	1
[>	Sc	45	ug/L			409578	403599	0
[	V	51	ug/L	0.161	0	2772	342959	0
	V-1	51	ug/L	0.154	0	1649	345867	0
	Cr	52	ug/L	0.021	0	8617	310075	0
	Cr	53	ug/L	0.024	0	614	35968	0
	Mn	55	ug/L	0.250	1	377	516939	1
[	Co	59	ug/L	0.257	1	55	368640	0
[>	Ge	72	ug/L			372563	366032	0
[	Ni	60	ug/L	0.246	1	49	75730	1
	Ni	62	ug/L	0.015	0	97	10995	0
	Cu	63	ug/L	0.048	0	233	156707	0
	Cu	65	ug/L	0.051	0	114	72354	0
	Zn	66	ug/L	0.231	1	375	48547	1
	Zn	67	ug/L	0.120	0	141	8543	0
	Zn	68	ug/L	0.107	0	5524	39202	0
	As	75	ug/L	0.108	0	145	45209	0
	As-1	75	ug/L	0.190	0	7671	50807	0
	Se	82	ug/L	0.055	0	0	6555	0
	Se	78	ug/L	0.220	1	7997	22749	0
[	Mo	98	ug/L	0.099	0	87	180694	0
	Y	89	ug/L			461134	452360	0
	Kr	83	ug/L			197	205	1
[>	In	115	ug/L			515607	502148	0
[	Ag	107	ug/L	0.082	0	75	326523	0
	Cd	111	ug/L	0.177	0	330	81568	1
	Cd	114	ug/L	0.094	0	32	186739	0
	Sb	121	ug/L	0.150	0	198	223399	0
	Sb	123	ug/L	0.169	0	157	166839	0
	Ba	135	ug/L	0.273	1	24	62913	0
[	Ba	137	ug/L	0.095	0	36	108536	0
[>	Tb	159	ug/L			612197	603343	0
[	Tl	205	ug/L	0.260	1	250	911986	0
	Pb	208	ug/L	0.146	0	1016	1232978	0
	Bi	209	ug/L			532877	513800	0
	Th	232	ug/L	0.128	0	1565	1432181	0
[	U	238	ug/L	0.115	0	1000	1544581	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:12:11

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	799906	1
[	Be	9	49.669	ug/L	1.055	2	23	37618	0
	C	13		mg/L			6243	2342	2
	Cl	37		mg/L			1387303	1371003	0
[>	Sc	45		ug/L			409578	416446	0
[	V	51	49.621	ug/L	0.458	0	2772	841265	0
	V-1	51	49.671	ug/L	0.452	0	1649	855232	0
	Cr	52	49.485	ug/L	0.419	0	8617	738192	0
	Cr	53	49.651	ug/L	0.613	1	614	87882	0
	Mn	55	49.621	ug/L	0.669	1	377	1274417	0
[	Co	59	49.569	ug/L	0.734	1	55	903430	0
[>	Ge	72		ug/L			372563	372655	0
[	Ni	60	49.660	ug/L	0.452	0	49	185349	1
	Ni	62	49.691	ug/L	0.644	1	97	26857	0
	Cu	63	49.498	ug/L	0.445	0	233	376156	0
	Cu	65	49.563	ug/L	0.188	0	114	175011	1
	Zn	66	49.518	ug/L	0.018	0	375	116041	0
	Zn	67	49.479	ug/L	0.396	0	141	20191	1
	Zn	68	49.467	ug/L	0.344	0	5524	86064	1
	As	75	49.641	ug/L	0.345	0	145	109830	0
	As-1	75	49.625	ug/L	0.418	0	7671	112770	0
	Se	82	49.572	ug/L	0.608	1	0	15837	0
	Se	78	49.515	ug/L	0.566	1	7997	43730	0
[	Mo	98	49.880	ug/L	0.843	1	87	452489	0
	Y	89		ug/L			461134	462877	0
	Kr	83		ug/L			197	228	3
[>	In	115		ug/L			515607	513822	0
[	Ag	107	49.656	ug/L	0.616	1	75	802886	0
	Cd	111	49.631	ug/L	0.226	0	330	199441	0
	Cd	114	49.610	ug/L	0.083	0	32	456432	0
	Sb	121	49.621	ug/L	0.350	0	198	545036	0
	Sb	123	49.690	ug/L	0.088	0	157	411068	0
	Ba	135	49.742	ug/L	0.465	0	24	155990	0
[	Ba	137	49.738	ug/L	0.303	0	36	269335	0
[>	Tb	159		ug/L			612197	620995	0
[	Tl	205	49.664	ug/L	0.144	0	250	2258760	0
	Pb	208	49.560	ug/L	0.148	0	1016	3013666	0
	Bi	209		ug/L			532877	517774	0
	Th	232	49.861	ug/L	0.038	0	1565	3618391	0
[	U	238	49.763	ug/L	0.205	0	1000	3864616	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:18:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	725707	2
[	Be	9	ug/L	1.927	1	23	71571	1
	C	13	mg/L			6243	4717	1
	Cl	37	mg/L			1387303	1353854	0
[>	Sc	45	ug/L			409578	388974	0
	V	51	ug/L	0.536	0	2772	1663651	0
	V-1	51	ug/L	0.725	0	1649	1688577	0
	Cr	52	ug/L	0.665	0	8617	1441463	0
	Cr	53	ug/L	0.707	0	614	170856	0
	Mn	55	ug/L	0.970	0	377	2453060	0
[	Co	59	ug/L	0.121	0	55	1756939	0
[>	Ge	72	ug/L			372563	352045	0
	Ni	60	ug/L	0.398	0	49	355268	0
	Ni	62	ug/L	0.430	0	97	51984	0
	Cu	63	ug/L	0.428	0	233	721423	0
	Cu	65	ug/L	1.163	1	114	335409	1
	Zn	66	ug/L	0.994	0	375	223786	0
	Zn	67	ug/L	1.172	1	141	39526	1
	Zn	68	ug/L	0.619	0	5524	161580	0
	As	75	ug/L	0.548	0	145	214090	0
	As-1	75	ug/L	0.838	0	7671	212891	0
	Se	82	ug/L	0.022	0	0	30680	0
	Se	78	ug/L	0.996	0	7997	77338	0
[	Mo	98	ug/L	0.587	0	87	921198	0
	Y	89	ug/L			461134	439671	0
	Kr	83	ug/L			197	242	5
[>	In	115	ug/L			515607	486305	1
	Ag	107	ug/L	1.192	1	75	1560447	0
	Cd	111	ug/L	0.182	0	330	393332	0
	Cd	114	ug/L	0.348	0	32	890454	0
	Sb	121	ug/L	0.855	0	198	1076058	0
	Sb	123	ug/L	1.011	1	157	806524	0
	Ba	135	ug/L	1.420	1	24	304335	0
[	Ba	137	ug/L	1.467	1	36	529212	0
[>	Tb	159	ug/L			612197	593548	0
	Tl	205	ug/L	0.615	0	250	4444971	0
	Pb	208	ug/L	1.196	1	1016	5955080	0
	Bi	209	ug/L			532877	487266	1
	Th	232	ug/L	0.757	0	1565	7169116	0
[	U	238	ug/L	1.102	1	1000	7712569	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:24:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	745553	0
[	Be	9	0.008	ug/L	0.014	187	23	27	37
	C	13		mg/L			6243	6191	1
	Cl	37		mg/L			1387303	1383915	0
[>	Sc	45		ug/L			409578	404954	1
[	V	51	0.001	ug/L	0.004	370	2772	2758	2
	V-1	51	0.003	ug/L	0.003	94	1649	1691	3
	Cr	52	-0.004	ug/L	0.003	77	8617	8458	1
	Cr	53	0.004	ug/L	0.007	168	614	614	1
	Mn	55	0.007	ug/L	0.003	49	377	550	16
[	Co	59	0.003	ug/L	0.002	69	55	115	36
[>	Ge	72		ug/L			372563	369955	0
[	Ni	60	0.003	ug/L	0.001	30	49	61	6
	Ni	62	0.009	ug/L	0.024	265	97	101	13
	Cu	63	0.011	ug/L	0.004	33	233	315	9
	Cu	65	0.009	ug/L	0.004	48	114	144	11
	Zn	66	0.018	ug/L	0.001	5	375	413	0
	Zn	67	-0.049	ug/L	0.019	37	141	120	5
	Zn	68	-0.035	ug/L	0.026	72	5524	5427	0
	As	75	0.005	ug/L	0.017	351	145	155	24
	As-1	75	-0.045	ug/L	0.043	95	7671	7520	0
	Se	82	-0.001	ug/L	0.022	1598	0	0	734
[	Se	78	-0.121	ug/L	0.121	99	7997	7852	0
[	Mo	98	0.016	ug/L	0.005	33	87	238	22
	Y	89		ug/L			461134	459175	0
	Kr	83		ug/L			197	203	2
[>	In	115		ug/L			515607	510759	0
[	Ag	107	0.012	ug/L	0.005	40	75	278	30
	Cd	111	0.008	ug/L	0.002	20	330	361	2
	Cd	114	0.002	ug/L	0.003	119	32	53	46
	Sb	121	0.109	ug/L	0.033	30	198	1416	26
	Sb	123	0.112	ug/L	0.037	32	157	1101	28
	Ba	135	0.007	ug/L	0.004	53	24	47	26
[	Ba	137	0.006	ug/L	0.003	49	36	67	23
[>	Tb	159		ug/L			612197	608395	0
[	Tl	205	0.011	ug/L	0.004	40	250	731	27
	Pb	208	0.005	ug/L	0.004	77	1016	1326	18
	Bi	209		ug/L			532877	528776	0
	Th	232	0.052	ug/L	0.017	32	1565	5325	23
[	U	238	0.000	ug/L	0.003	3095	1000	1002	23

## Quantitative Analysis - Calibration Report

Sample Date/Time: Thursday, February 28, 2013 10:18:20

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	0.9998	0.0010	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	0.9997	0.0422	10	20	50	100	
V-1	51	0.9998	0.0429	10	20	50	100	
Cr	52	0.9998	0.0365	10	20	50	100	
Cr	53	0.9999	0.0043	10	20	50	100	
Mn	55	0.9999	0.0627	10	20	50	100	
Co	59	0.9999	0.0448	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0101	10	20	50	100	
Ni	62	0.9999	0.0015	10	20	50	100	
Cu	63	0.9999	0.0205	10	20	50	100	
Cu	65	1.0000	0.0095	10	20	50	100	
Zn	66	0.9999	0.0063	10	20	50	100	
Zn	67	0.9999	0.0011	10	20	50	100	
Zn	68	0.9999	0.0044	10	20	50	100	
As	75	0.9999	0.0060	10	20	50	100	
As-1	75	0.9999	0.0058	10	20	50	100	
Se	82	0.9999	0.0009	10	20	50	100	
Se	78	0.9999	0.0020	10	20	50	100	
Mo	98	0.9996	0.0257	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	0.9999	0.0319	10	20	50	100	
Cd	111	0.9999	0.0080	10	20	50	100	
Cd	114	0.9999	0.0182	10	20	50	100	
Sb	121	0.9999	0.0220	10	20	50	100	
Sb	123	0.9999	0.0165	10	20	50	100	
Ba	135	0.9999	0.0062	10	20	50	100	
Ba	137	0.9999	0.0108	10	20	50	100	
Tb	159							
Tl	205	0.9999	0.0745	10	20	50	100	
Pb	208	0.9999	0.0998	10	20	50	100	
Bi	209							
Th	232	0.9999	0.1199	10	20	50	100	
U	238	0.9999	0.1288	10	20	50	100	

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:31:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	761365 ✓	3
[ Be	9	50.963	ug/L	1.317	2	23	37908	0
C	13		mg/L			6243	11955	4
Cl	37		mg/L			1387303	1391231	0
[> Sc	45		ug/L			409578	413228 ✓	1
V	51	50.528	ug/L	0.379	0	2772	884103	0
V-1	51	50.535	ug/L	0.415	0	1649	897128	0
Cr	52	50.336	ug/L	0.606	1	8617	768093	0
Cr	53	50.365	ug/L	0.776	1	614	90959	0
Mn	55	50.996	ug/L	0.527	1	377	1322242	0
Co	59	50.475	ug/L	0.646	1	55	935284	0
[> Ge	72		ug/L			372563	375534 ✓	0
Ni	60	50.163	ug/L	0.546	1	49	189795	1
Ni	62	50.218	ug/L	0.301	0	97	27770	0
Cu	63	50.988	ug/L	0.284	0	233	392034	0
Cu	65	49.965	ug/L	0.276	0	114	178589	0
Zn	66	49.036	ug/L	0.166	0	375	116919	0
Zn	67	49.666	ug/L	0.231	0	141	20876	0
Zn	68	48.651	ug/L	0.312	0	5524	86410	0
As	75	51.820	ug/L	0.196	0	145	117750	0
As-1	75	50.496	ug/L	0.126	0	7671	117812	0
Se	82	78.050	ug/L	0.130	0	0	25448	0
Se	78	77.255	ug/L	0.187	0	7997	65263	0
Mo	98	49.443	ug/L	0.185	0	87	478094	0
Y	89		ug/L			461134	470246	1
Kr	83		ug/L			197	225	0
[> In	115		ug/L			515607	520381 ✓	1
Ag	107	51.078	ug/L	1.413	2	75	848923	1
Cd	111	50.143	ug/L	0.624	1	330	209534	0
Cd	114	50.653	ug/L	0.366	0	32	480165	1
Sb	121	50.155	ug/L	0.684	1	198	573012	0
Sb	123	50.129	ug/L	0.502	1	157	429759	1
Ba	135	49.200	ug/L	1.054	2	24	159294	0
Ba	137	49.545	ug/L	1.288	2	36	278482	0
[> Tb	159		ug/L			612197	629667 ✓	0
Tl	205	50.642	ug/L	0.493	0	250	2375889	0
Pb	208	50.318	ug/L	0.478	0	1016	3161532	0
Bi	209		ug/L			532877	525622	1
Th	232	50.380	ug/L	0.228	0	1565	3803488	0
U	238	51.203	ug/L	0.442	0	1000	4153338	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:37:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	748617 ✓	1
[ Be	9	0.004	ug/L	0.004	83	23	25	10
C	13		mg/L			6243	6278	1
Cl	37		mg/L			1387303	1413313	0
[> Sc	45		ug/L			409578	406799 ✓	0
V	51	0.005	ug/L	0.003	61	2772	2845	1
V-1	51	0.007	ug/L	0.004	49	1649	1764	3
Cr	52	-0.011	ug/L	0.014	126	8617	8393	2
Cr	53	-0.004	ug/L	0.007	148	614	602	2
Mn	55	0.002	ug/L	0.001	43	377	430	5
Co	59	0.001	ug/L	0.001	43	55	76	12
[> Ge	72		ug/L			372563	371234 ✓	0
Ni	60	0.004	ug/L	0.002	54	49	64	12
Ni	62	-0.001	ug/L	0.036	3774	97	96	20
Cu	63	0.006	ug/L	0.001	20	233	275	2
Cu	65	0.002	ug/L	0.002	107	114	120	5
Zn	66	0.015	ug/L	0.008	53	375	409	4
Zn	67	-0.040	ug/L	0.049	121	141	124	16
Zn	68	-0.133	ug/L	0.058	43	5524	5286	2
As	75	0.005	ug/L	0.010	208	145	156	15
As-1	75	-0.040	ug/L	0.013	33	7671	7558	0
Se	82	-0.034	ug/L	0.015	44	0	-11	42
Se	78	-0.150	ug/L	0.047	31	7997	7858	0
[ Mo	98	0.005	ug/L	0.004	71	87	135	25
Y	89		ug/L			461134	462158	0
Kr	83		ug/L			197	202	4
[> In	115		ug/L			515607	513404 ✓	0
Ag	107	0.008	ug/L	0.002	22	75	200	13
Cd	111	0.004	ug/L	0.005	134	330	344	5
Cd	114	-0.000	ug/L	0.001	235	32	30	19
Sb	121	0.020	ug/L	0.007	36	198	427	19
Sb	123	0.017	ug/L	0.006	34	157	300	16
Ba	135	0.003	ug/L	0.001	31	24	32	7
[ Ba	137	0.004	ug/L	0.004	104	36	56	36
[> Tb	159		ug/L			612197	612322 ✓	0
Tl	205	0.001	ug/L	0.001	129	250	281	14
Pb	208	-0.003	ug/L	0.002	67	1016	823	15
Bi	209		ug/L			532877	529663	0
Th	232	0.024	ug/L	0.010	41	1565	3332	21
[ U	238	-0.006	ug/L	0.001	19	1000	494	19

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:43:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	768542✓	0
[	Be	9	48.940	ug/L	0.792	1	23	36767	1
	C	13		mg/L			6243	2535	2
	Cl	37		mg/L			1387303	1382663	0
[>	Sc	45		ug/L			409578	413851✓	0
	V	51	48.353	ug/L	0.213	0	2772	847493	0
	V-1	51	48.405	ug/L	0.410	0	1649	860758	0
	Cr	52	48.314	ug/L	0.374	0	8617	738779	0
	Cr	53	48.481	ug/L	0.634	1	614	87724	1
	Mn	55	48.900	ug/L	0.222	0	377	1269945	0
[	Co	59	48.911	ug/L	0.489	0	55	907786	1
[>	Ge	72		ug/L			372563	374562✓	0
	Ni	60	49.021	ug/L	0.282	0	49	184994	0
	Ni	62	49.284	ug/L	0.391	0	97	27185	0
	Cu	63	49.644	ug/L	0.190	0	233	380724	0
	Cu	65	49.241	ug/L	0.249	0	114	175545	0
	Zn	66	49.478	ug/L	0.635	1	375	117659	0
	Zn	67	49.590	ug/L	0.423	0	141	20790	0
	Zn	68	48.877	ug/L	0.184	0	5524	86561	0
	As	75	48.567	ug/L	0.203	0	145	110082	0
	As-1	75	48.319	ug/L	0.250	0	7671	112772	0
	Se	82	48.980	ug/L	0.410	0	0	15927	0
	Se	78	48.271	ug/L	0.583	1	7997	43687	0
[	Mo	98	47.766	ug/L	0.230	0	87	460690	0
	Y	89		ug/L			461134	465904	1
	Kr	83		ug/L			197	218	2
[>	In	115		ug/L			515607	520080✓	0
	Ag	107	48.984	ug/L	0.250	0	75	813894	0
	Cd	111	49.115	ug/L	0.308	0	330	205159	0
	Cd	114	48.835	ug/L	0.293	0	32	462704	0
	Sb	121	48.305	ug/L	0.437	0	198	551646	0
	Sb	123	48.136	ug/L	0.630	1	157	412474	1
	Ba	135	47.929	ug/L	0.189	0	24	155127	0
[	Ba	137	47.861	ug/L	0.213	0	36	268941	0
[>	Tb	159		ug/L			612197	624951✓	0
	Tl	205	49.526	ug/L	0.159	0	250	2306220	0
	Pb	208	49.170	ug/L	0.256	0	1016	3066428	0
	Bi	209		ug/L			532877	527189	0
	Th	232	49.627	ug/L	0.204	0	1565	3718643	0
[	U	238	49.226	ug/L	0.759	1	1000	3963085	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:49:42

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	731468 ✓	1
[ Be	9	0.013	ug/L	0.007	54	23	30	16
C	13		mg/L			6243	6023	1
Cl	37		mg/L			1387303	1391085	0
[> Sc	45		ug/L			409578	406549 ✓	0
V	51	-0.001	ug/L	0.007	780	2772	2736	4
V-1	51	0.006	ug/L	0.007	128	1649	1735	7
Cr	52	-0.015	ug/L	0.005	32	8617	8328	1
Cr	53	0.006	ug/L	0.005	84	614	620	1
Mn	55	0.002	ug/L	0.000	27	377	421	3
Co	59	0.002	ug/L	0.001	42	55	84	14
[> Ge	72		ug/L			372563	367891 ✓	0
Ni	60	0.003	ug/L	0.002	72	49	58	11
Ni	62	0.005	ug/L	0.026	551	97	98	13
Cu	63	0.007	ug/L	0.001	8	233	282	0
Cu	65	0.001	ug/L	0.002	382	114	115	6
Zn	66	0.020	ug/L	0.008	41	375	416	4
Zn	67	-0.019	ug/L	0.040	213	141	131	12
Zn	68	-0.080	ug/L	0.050	62	5524	5325	1
As	75	0.015	ug/L	0.012	83	145	175	14
As-1	75	-0.015	ug/L	0.019	122	7671	7541	0
Se	82	0.034	ug/L	0.002	6	0	10	5
Se	78	-0.055	ug/L	0.044	79	7997	7856	0
Mo	98	0.005	ug/L	0.004	78	87	133	27
Y	89		ug/L			461134	462055	1
Kr	83		ug/L			197	193	2
[> In	115		ug/L			515607	507772 ✓	0
Ag	107	0.007	ug/L	0.001	19	75	180	11
Cd	111	0.006	ug/L	0.004	60	330	351	4
Cd	114	0.000	ug/L	0.000	109	32	36	11
Sb	121	0.060	ug/L	0.016	27	198	866	21
Sb	123	0.060	ug/L	0.015	25	157	655	19
Ba	135	0.002	ug/L	0.003	136	24	32	33
Ba	137	0.002	ug/L	0.002	114	36	45	22
[> Tb	159		ug/L			612197	604503 ✓	0
Tl	205	0.001	ug/L	0.002	229	250	285	30
Pb	208	-0.004	ug/L	0.002	41	1016	749	14
Bi	209		ug/L			532877	531281	0
Th	232	0.020	ug/L	0.007	37	1565	2979	18
[ U	238	-0.008	ug/L	0.001	12	1000	379	19

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:55:10

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	727330 ✓	0
[ Be	9	0.228 ✓	ug/L	0.019	8	23	182	6
C	13		mg/L			6243	5521	1
Cl	37		mg/L			1387303	1410923	0
> Sc	45		ug/L			409578	401487 ✓	0
V	51	0.194 ✓	ug/L	0.008	4	2772	6005	1
V-1	51	0.212 ✓	ug/L	0.002	0	1649	5269	0
Cr	52	0.490 ✓	ug/L	0.011	2	8617	15627	1
Cr	53	0.532 ✓	ug/L	0.030	5	614	1530	3
Mn	55	0.523 ✓	ug/L	0.012	2	377	13541	1
Co	59	0.213 ✓	ug/L	0.002	1	55	3889	1
> Ge	72		ug/L			372563	366889 ✓	0
Ni	60	0.524 ✓	ug/L	0.016	3	49	1984	3
Ni	62	0.538 ✓	ug/L	0.030	5	97	385	4
Cu	63	0.564 ✓	ug/L	0.007	1	233	4460	1
Cu	65	0.559 ✓	ug/L	0.006	1	114	2062	0
Zn	66	4.309 ✓	ug/L	0.091	2	375	10374	1
Zn	67	3.694 ✓	ug/L	0.132	3	141	1645	3
Zn	68	4.151 ✓	ug/L	0.065	1	5524	12179	1
As	75	0.244 ✓	ug/L	0.008	3	145	684	2
As-1	75	0.220 ✓	ug/L	0.017	7	7671	8023	0
Se	82	0.559 ✓	ug/L	0.052	9	0	177	9
Se	78	0.540 ✓	ug/L	0.058	10	7997	8265	0
Mo	98	0.199 ✓	ug/L	0.006	2	87	1963	2
Y	89		ug/L			461134	458945	0
Kr	83		ug/L			197	197	4
> In	115		ug/L			515607	506212 ✓	0
Ag	107	0.231 ✓	ug/L	0.008	3	75	3816	3
Cd	111	0.109 ✓	ug/L	0.008	7	330	765	4
Cd	114	0.108 ✓	ug/L	0.002	1	32	1027	0
Sb	121	0.217 ✓	ug/L	0.003	1	198	2610	0
Sb	123	0.218 ✓	ug/L	0.005	2	157	1968	2
Ba	135	0.495 ✓	ug/L	0.016	3	24	1582	3
Ba	137	0.495 ✓	ug/L	0.010	1	36	2740	1
> Tb	159		ug/L			612197	598660 ✓	0
Tl	205	0.210 ✓	ug/L	0.003	1	250	9592	1
Pb	208	0.102 ✓	ug/L	0.003	2	1016	7073	2
Bi	209		ug/L			532877	524595	0
Th	232	0.202 ✓	ug/L	0.001	0	1565	16008	0
U	238	0.193 ✓	ug/L	0.001	0	1000	15829	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:00:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	757697 ✓	0
[ Be	9	0.005	ug/L	0.007	148	23	25	19
C	13		mg/L			6243	17119	1
Cl	37		mg/L			1387303	3063857	1
[> Sc	45		ug/L			409578	380690 ✓	1
V	51	0.022	ug/L	0.020	92	2772	2925	10
V-1	51	0.906	ug/L	0.012	1	1649	16322	1
Cr	52	0.466	ug/L	0.015	3	8617	14493	1
Cr	53	3.237	ug/L	0.047	1	614	5922	2
Mn	55	0.097	ug/L	0.005	4	377	2666	3
[ Co	59	0.034	ug/L	0.002	6	55	630	4
[> Ge	72		ug/L			372563	341454 ✓	0
Ni	60	0.965	ug/L	0.018	1	49	3363	2
Ni	62	5.902	ug/L	0.148	2	97	3045	1
Cu	63	0.646	ug/L	0.011	1	233	4726	1
Cu	65	0.959	ug/L	0.008	0	114	3220	0
Zn	66	1.870	ug/L	0.063	3	375	4386	3
Zn	67	1.421	ug/L	0.090	6	141	668	5
Zn	68	0.593	ug/L	0.115	19	5524	5958	2
As	75	0.125	ug/L	0.016	13	145	391	8
As-1	75	0.039	ug/L	0.023	58	7671	7108	0
Se	82	-0.074	ug/L	0.021	27	0	-22	27
Se	78	0.009	ug/L	0.004	38	7997	7335	0
[ Mo	98	410.739	ug/L	1.588	0	87	3610658	0
Y	89		ug/L			461134	421041	1
Kr	83		ug/L			197	276	0
[> In	115		ug/L			515607	463853 ✓	1
Ag	107	0.026	ug/L	0.002	9	75	446	8
Cd	111	0.101	ug/L	0.006	5	330	673	1
Cd	114	0.932	ug/L	0.034	3	32	7905	2
Sb	121	0.066	ug/L	0.002	3	198	845	2
Sb	123	0.066	ug/L	0.007	9	157	646	7
Ba	135	0.062	ug/L	0.002	3	24	200	3
[ Ba	137	0.051	ug/L	0.004	7	36	286	7
[> Tb	159		ug/L			612197	570401 ✓	0
Tl	205	0.029	ug/L	0.002	5	250	1484	3
Pb	208	0.034	ug/L	0.001	3	1016	2862	2
Bi	209		ug/L			532877	449562	0
Th	232	0.044	ug/L	0.008	17	1565	4446	11
[ U	238	-0.009	ug/L	0.001	8	1000	287	18



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:06:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	776333✓	0
[ Be	9	0.005	ug/L	0.002	36	23	26	5
C	13		mg/L			6243	17195	0
Cl	37		mg/L			1387303	2985961	0
[> Sc	45		ug/L			409578	378189✓	0
V	51	-0.324	ug/L	0.093	28	2772	-2610	57
V-1	51	0.910	ug/L	0.031	3	1649	16275	2
Cr	52	20.624	ug/L	0.236	1	8617	292738	0
Cr	53	23.482	ug/L	0.264	1	614	39119	0
Mn	55	20.429	ug/L	0.192	0	377	485016	1
[ Co	59	20.104	ug/L	0.199	0	55	340988	0
[> Ge	72		ug/L			372563	339873✓	0
Ni	60	20.415	ug/L	0.106	0	49	69934	0
Ni	62	25.292	ug/L	0.183	0	97	12702	0
Cu	63	20.009	ug/L	0.264	1	233	139360	1
Cu	65	20.198	ug/L	0.250	1	114	65401	1
Zn	66	20.802	ug/L	0.194	0	375	45086	1
Zn	67	17.491	ug/L	0.200	1	141	6737	1
Zn	68	19.175	ug/L	0.127	0	5524	33875	0
As	75	18.890	ug/L	0.060	0	145	38931	0
As-1	75	19.544	ug/L	0.086	0	7671	45556	0
Se	82	-0.077	ug/L	0.059	77	0	-23	75
Se	78	-0.122	ug/L	0.124	101	7997	7213	0
[ Mo	98	406.190	ug/L	0.417	0	87	3554100	0
Y	89		ug/L			461134	415983	0
Kr	83		ug/L			197	264	5
[> In	115		ug/L			515607	466346✓	0
Ag	107	19.684	ug/L	0.160	0	75	293307	0
Cd	111	20.205	ug/L	0.129	0	330	75854	1
Cd	114	21.078	ug/L	0.056	0	32	179095	0
Sb	121	0.059	ug/L	0.001	1	198	782	1
Sb	123	0.060	ug/L	0.005	8	157	601	7
Ba	135	0.051	ug/L	0.006	11	24	169	9
[ Ba	137	0.046	ug/L	0.003	6	36	263	5
[> Tb	159		ug/L			612197	575893✓	0
Tl	205	0.030	ug/L	0.003	9	250	1504	6
Pb	208	0.042	ug/L	0.002	3	1016	3342	1
Bi	209		ug/L			532877	451256	0
Th	232	0.020	ug/L	0.000	0	1565	2849	0
[ U	238	-0.004	ug/L	0.001	40	1000	672	15

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:12:33

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	737456 ✓	1
[ Be	9	191.973	ug/L	2.132	1	23	138321	1
C	13		mg/L			6243	5110	1
Cl	37		mg/L			1387303	1294068	0
[> Sc	45		ug/L			409578	377493 ✓	0
V	51	200.189	ug/L	1.664	0	2772	3192473	0
V-1	51	200.332	ug/L	1.228	0	1649	3244612	0
Cr	52	200.161	ug/L	1.830	0	8617	2766838	0
Cr	53	200.613	ug/L	0.628	0	614	329326	0
Mn	55	200.812	ug/L	1.437	0	377	4755896	1
Co	59	199.571	ug/L	0.449	0	55	3378427	0
[> Ge	72		ug/L			372563	340991 ✓	0
Ni	60	194.164	ug/L	1.564	0	49	666929	0
Ni	62	193.937	ug/L	1.538	0	97	97129	0
Cu	63	190.834	ug/L	1.347	0	233	1331728	0
Cu	65	190.486	ug/L	0.953	0	114	617931	0
Zn	66	191.775	ug/L	1.789	0	375	414197	0
Zn	67	192.055	ug/L	2.329	1	141	72932	1
Zn	68	191.168	ug/L	1.435	0	5524	293495	0
As	75	197.557	ug/L	0.763	0	145	407243	0
As-1	75	197.972	ug/L	0.949	0	7671	398897	0
Se	82	190.221	ug/L	0.200	0	0	56316	0
Se	78	190.581	ug/L	0.714	0	7997	135451	0
[ Mo	98	207.961	ug/L	1.845	0	87	1825660	0
Y	89		ug/L			461134	422852	0
Kr	83		ug/L			197	292	2
[> In	115		ug/L			515607	469590 ✓	0
Ag	107	197.877	ug/L	3.941	1	75	2968210	1
Cd	111	201.087	ug/L	1.800	0	330	757487	1
Cd	114	202.340	ug/L	2.811	1	32	1730810	0
Sb	121	209.840	ug/L	1.812	0	198	2163076	0
Sb	123	206.376	ug/L	1.984	0	157	1596232	0
Ba	135	202.375	ug/L	0.933	0	24	591347	0
[ Ba	137	202.246	ug/L	1.207	0	36	1025999	0
[> Tb	159		ug/L			612197	578202 ✓	0
Tl	205	200.793	ug/L	1.494	0	250	8649888	0
Pb	208	201.489	ug/L	0.921	0	1016	11622680	0
Bi	209		ug/L			532877	449088	0
Th	232	206.747	ug/L	2.565	1	1565	14328415	1
[ U	238	205.004	ug/L	2.011	0	1000	15267432	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:18:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	673332 ✓	2
[ Be	9	294.825	ug/L	2.103	0	23	193936	1
C	13		mg/L			6243	4850	2
Cl	37		mg/L			1387303	1300108	1
[> Sc	45		ug/L			409578	374410 ✓	0
V	51	305.450	ug/L	3.863	1	2772	4829785	0
V-1	51	305.054	ug/L	3.544	1	1649	4899384	0
Cr	52	304.094	ug/L	3.273	1	8617	4164967	0
Cr	53	302.908	ug/L	2.291	0	614	492898	0
Mn	55	305.008	ug/L	1.989	0	377	7164249	0
[ Co	59	303.580	ug/L	1.169	0	55	5097082	0
[> Ge	72		ug/L			372563	342706 ✓	0
Ni	60	287.503	ug/L	1.774	0	49	992470	0
Ni	62	286.695	ug/L	1.401	0	97	144263	0
Cu	63	280.116	ug/L	2.547	0	233	1964482	0
Cu	65	280.112	ug/L	1.323	0	114	913188	0
Zn	66	278.787	ug/L	1.524	0	375	604986	0
Zn	67	279.998	ug/L	1.924	0	141	106804	0
Zn	68	276.083	ug/L	0.126	0	5524	423736	0
As	75	287.089	ug/L	1.098	0	145	594713	0
As-1	75	289.319	ug/L	1.226	0	7671	582624	0
Se	82	269.810	ug/L	0.671	0	0	80281	0
Se	78	274.304	ug/L	1.122	0	7997	192703	0
[ Mo	98	326.588	ug/L	1.630	0	87	2881455	0
Y	89		ug/L			461134	415061	0
Kr	83		ug/L			197	338	2
[> In	115		ug/L			515607	463783 ✓	0
Ag	107	300.993	ug/L	1.693	0	75	4459472	0
Cd	111	300.664	ug/L	2.183	0	330	1118405	0
Cd	114	307.173	ug/L	0.429	0	32	2595246	0
Sb	121	313.382	ug/L	2.784	0	198	3190379	0
Sb	123	313.520	ug/L	2.584	0	157	2394910	0
Ba	135	300.080	ug/L	4.257	1	24	865952	0
[ Ba	137	300.036	ug/L	2.595	0	36	1503251	0
[> Tb	159		ug/L			612197	568923 ✓	0
Tl	205	305.257	ug/L	3.660	1	250	12938517	0
Pb	208	302.262	ug/L	2.482	0	1016	17155251	0
Bi	209		ug/L			532877	424358	0
Th	232	308.889	ug/L	1.397	0	1565	21063351	0
[ U	238	311.572	ug/L	3.889	1	1000	22830141	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: **CCV2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, February 28, 2013 11:25:07**

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	730764 ✓	1
[ Be	9	50.171	ug/L	1.088	2	23	35831	0
C	13		mg/L			6243	2598	4
Cl	37		mg/L			1387303	1376812	0
[> Sc	45		ug/L			409578	411995 ✓	0
V	51	48.223	ug/L	0.812	1	2772	841472	2
V-1	51	48.365	ug/L	0.638	1	1649	856198	1
Cr	52	48.554	ug/L	0.285	0	8617	739087	1
Cr	53	48.984	ug/L	0.457	0	614	88226	0
Mn	55	49.530	ug/L	0.840	1	377	1280475	1
[ Co	59	49.011	ug/L	0.481	0	55	905535	0
[> Ge	72		ug/L			372563	380974 ✓	0
Ni	60	48.484	ug/L	0.173	0	49	186101	0
Ni	62	48.389	ug/L	0.504	1	97	27150	0
Cu	63	48.884	ug/L	0.102	0	233	381315	0
Cu	65	48.764	ug/L	0.266	0	114	176822	0
Zn	66	49.048	ug/L	0.378	0	375	118640	0
Zn	67	48.869	ug/L	0.912	1	141	20841	1
Zn	68	48.517	ug/L	0.653	1	5524	87436	1
As	75	48.207	ug/L	0.387	0	145	111136	0
As-1	75	47.968	ug/L	0.522	1	7671	113924	0
Se	82	48.596	ug/L	0.085	0	0	16073	0
Se	78	47.870	ug/L	0.495	1	7997	44134	0
[ Mo	98	47.457	ug/L	0.741	1	87	465530	1
Y	89		ug/L			461134	475335	0
Kr	83		ug/L			197	210	3
[> In	115		ug/L			515607	527281 ✓	1
Ag	107	48.524	ug/L	0.262	0	75	817414	1
Cd	111	48.713	ug/L	0.336	0	330	206291	0
Cd	114	48.709	ug/L	0.193	0	32	467893	0
Sb	121	48.017	ug/L	0.291	0	198	555937	0
Sb	123	48.305	ug/L	0.521	1	157	419636	0
Ba	135	47.663	ug/L	0.334	0	24	156399	0
[ Ba	137	47.668	ug/L	0.521	1	36	271556	1
[> Tb	159		ug/L			612197	624495 ✓	0
Tl	205	51.352	ug/L	0.215	0	250	2389559	1
Pb	208	49.860	ug/L	0.322	0	1016	3107136	0
Bi	209		ug/L			532877	528560	0
Th	232	50.858	ug/L	0.315	0	1565	3808044	0
[ U	238	50.643	ug/L	0.209	0	1000	4074282	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:31:26

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			803723	726462 ✓	1
[ Be	9	0.005	ug/L	0.008	160	23	24	23
C	13		mg/L			6243	5792	3
Cl	37		mg/L			1387303	1409217	0
[>] Sc	45		ug/L			409578	410526 ✓	0
V	51	-0.006	ug/L	0.005	86	2772	2683	3
V-1	51	0.033	ug/L	0.003	9	1649	2238	2
Cr	52	-0.026	ug/L	0.013	48	8617	8245	2
Cr	53	0.097	ug/L	0.017	17	614	789	2
Mn	55	0.006	ug/L	0.002	35	377	535	9
[ Co	59	0.003	ug/L	0.001	27	55	108	13
[>] Ge	72		ug/L			372563	372572 ✓	0
Ni	60	0.001	ug/L	0.002	160	49	54	16
Ni	62	0.013	ug/L	0.018	142	97	104	9
Cu	63	0.017	ug/L	0.002	11	233	365	4
Cu	65	0.006	ug/L	0.002	36	114	135	5
Zn	66	0.010	ug/L	0.003	32	375	398	2
Zn	67	-0.020	ug/L	0.024	120	141	132	7
Zn	68	-0.051	ug/L	0.089	175	5524	5440	2
As	75	-0.000	ug/L	0.006	1346	145	144	9
As-1	75	-0.006	ug/L	0.028	496	7671	7658	0
Se	82	-0.040	ug/L	0.030	75	0	-13	73
Se	78	-0.054	ug/L	0.075	139	7997	7957	0
[ Mo	98	0.017	ug/L	0.005	28	87	248	19
Y	89		ug/L			461134	465436	1
Kr	83		ug/L			197	198	4
[>] In	115		ug/L			515607	518360 ✓	1
Ag	107	0.013	ug/L	0.003	20	75	294	16
Cd	111	0.009	ug/L	0.002	24	330	369	3
Cd	114	0.002	ug/L	0.001	68	32	52	24
Sb	121	0.089	ug/L	0.023	26	198	1211	22
Sb	123	0.086	ug/L	0.026	30	157	894	26
Ba	135	0.005	ug/L	0.002	38	24	40	15
[ Ba	137	0.004	ug/L	0.002	37	36	60	15
[>] Tb	159		ug/L			612197	612044 ✓	0
Tl	205	0.008	ug/L	0.002	30	250	602	17
Pb	208	-0.000	ug/L	0.002	15650	1016	1015	9
Bi	209		ug/L			532877	534530	1
Th	232	0.037	ug/L	0.011	30	1565	4286	19
[ U	238	-0.004	ug/L	0.001	27	1000	648	15

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 MB1 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:41:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	784355✓	1
[ Be	9	0.012	ug/L	0.007	62	23	31	16
C	13		mg/L			6243	5465	1
Cl	37		mg/L			1387303	1403938	0
[> Sc	45		ug/L			409578	429960✓	0
V	51	✓ -0.006	ug/L	0.007	110	2772	2794	5
V-1	51	0.027	ug/L	0.004	15	1649	2236	3
Cr	52	✓ -0.030	ug/L	0.007	24	8617	8578	1
Cr	53	0.078	ug/L	0.021	26	614	790	4
Mn	55	0.013	ug/L	0.000	1	377	758	1
[ Co	59	0.000	ug/L	0.001	173	55	67	23
[> Ge	72		ug/L			372563	390572✓	0
Ni	60	0.002	ug/L	0.002	110	49	60	15
Ni	62	0.034	ug/L	0.023	69	97	121	11
Cu	63	0.014	ug/L	0.002	11	233	359	4
Cu	65	0.010	ug/L	0.006	57	114	155	12
Zn	66	0.250	ug/L	0.009	3	375	1010	2
Zn	67	0.204	ug/L	0.015	7	141	236	2
Zn	68	0.021	ug/L	0.020	97	5524	5827	0
As	75	✓ 0.002	ug/L	0.026	1282	145	157	38
As-1	75	-0.143	ug/L	0.070	49	7671	7716	1
Se	82	✓ -0.005	ug/L	0.021	380	0	-2	299
Se	78	-0.457	ug/L	0.141	30	7997	8031	0
[ Mo	98	0.001	ug/L	0.001	48	87	104	6
Y	89		ug/L			461134	493967	0
Kr	83		ug/L			197	199	1
[> In	115		ug/L			515607	539487✓	0
[ Ag	107	✓ 0.006	ug/L	0.001	17	75	190	10
Cd	111	0.002	ug/L	0.002	154	330	352	3
Cd	114	-0.001	ug/L	0.000	46	32	27	12
Sb	121	✓ 0.013	ug/L	0.002	15	198	363	6
Sb	123	0.010	ug/L	0.003	26	157	255	9
Ba	135	0.013	ug/L	0.002	12	24	70	7
[ Ba	137	0.013	ug/L	0.002	18	36	115	12
[> Tb	159		ug/L			612197	642736✓	0
Tl	205	-0.000	ug/L	0.000	67	250	241	6
Pb	208	✓ -0.001	ug/L	0.000	54	1016	1008	2
Bi	209		ug/L			532877	560986	0
Th	232	0.007	ug/L	0.002	33	1565	2188	8
[ U	238	-0.009	ug/L	0.000	2	1000	304	7

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 B SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:47:02

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	793717✓	0
[ Be	9	0.691	ug/L	0.046	6	23	559	6
C	13		mg/L			6243	8991	0
Cl	37		mg/L			1387303	1384524	0
[> Sc	45		ug/L			409578	489296✓	0
V	51	22.886	ug/L	0.201	0	2772	475965	0
V-1	51	22.751	ug/L	0.218	0	1649	479325	0
Cr	52	9.608	ug/L	0.091	0	8617	181938	0
Cr	53	9.840	ug/L	0.179	1	614	21633	0
Mn	55	433.270	ug/L	5.544	1	377	13298679	0
Co	59	8.659	ug/L	0.061	0	55	190057	0
[> Ge	72		ug/L			372563	389714✓	0
Ni	60	11.016	ug/L	0.134	1	49	43295	1
Ni	62	11.162	ug/L	0.060	0	97	6484	0
Cu	63	14.952	ug/L	0.117	0	233	119476	0
Cu	65	14.939	ug/L	0.076	0	114	55495	0
Zn	66	61.884	ug/L	0.313	0	375	153016	0
Zn	67	59.401	ug/L	0.196	0	141	25883	1
Zn	68	63.209	ug/L	0.461	0	5524	114772	0
As	75	47.591	ug/L	0.267	0	145	112234	0
As-1	75	49.165	ug/L	0.340	0	7671	119244	0
Se	82	✓ 0.252	ug/L	0.030	12	0	84	11
Se	78	-0.567	ug/L	0.177	31	7997	7929	0
[ Mo	98	0.143	ug/L	0.004	2	87	1525	3
Y	89		ug/L			461134	908380	0
Kr	83		ug/L			197	287	4
[> In	115		ug/L			515607	538739✓	0
Ag	107	0.863	ug/L	0.011	1	75	14928	1
Cd	111	0.476	ug/L	0.031	6	330	2404	6
Cd	114	0.110	ug/L	0.005	4	32	1113	4
Sb	121	✓ 0.018	ug/L	0.001	5	198	416	2
Sb	123	0.017	ug/L	0.003	15	157	315	7
Ba	135	111.884	ug/L	0.305	0	24	375087	0
[ Ba	137	111.053	ug/L	0.267	0	36	646378	1
[> Tb	159		ug/L			612197	650782✓	0
Tl	205	0.197	ug/L	0.002	1	250	9803	1
Pb	208	10.894	ug/L	0.082	0	1016	708291	0
Bi	209		ug/L			532877	531560	0
Th	232	2.210	ug/L	0.018	0	1565	174003	0
[ U	238	0.393	ug/L	0.003	0	1000	34009	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 C SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:52:59

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	768082 ✓	2
[ Be	9	0.211	ug/L	0.015	7	23	180	5
C	13		mg/L			6243	9229	1
Cl	37		mg/L			1387303	1429448	0
[> Sc	45		ug/L			409578	445168 ✓	0
V	51	10.559	ug/L	0.087	0	2772	201435	1
V-1	51	10.523	ug/L	0.109	1	1649	202698	1
Cr	52	6.956	ug/L	0.017	0	8617	122430	1
Cr	53	7.021	ug/L	0.098	1	614	14238	2
Mn	55	130.278	ug/L	1.105	0	377	3638848	1
[ Co	59	1.149	ug/L	0.019	1	55	23000	2
[> Ge	72		ug/L			372563	390082 ✓	1
Ni	60	1.907	ug/L	0.027	1	49	7546	2
Ni	62	1.998	ug/L	0.014	0	97	1245	2
Cu	63	21.485	ug/L	0.170	0	233	171739	2
Cu	65	21.677	ug/L	0.111	0	114	80550	1
Zn	66	17.999	ug/L	0.146	0	375	44825	1
Zn	67	19.227	ug/L	0.256	1	141	8484	0
Zn	68	19.204	ug/L	0.218	1	5524	38926	0
As	75	177.610	ug/L	0.868	0	145	418825	1
As-1	75	184.520	ug/L	0.932	0	7671	425838	1
Se	82	1.039	ug/L	0.028	2	0	351	1
Se	78	u 0.106	ug/L	0.093	87	7997	8453	0
[ Mo	98	0.098	ug/L	0.002	2	87	1076	0
Y	89		ug/L			461134	617571	1
Kr	83		ug/L			197	226	3
[> In	115		ug/L			515607	535410 ✓	1
Ag	107	8.294	ug/L	0.025	0	75	141946	2
Cd	111	0.127	ug/L	0.006	4	330	889	4
Cd	114	0.009	ug/L	0.001	17	32	119	12
Sb	121	u 0.027	ug/L	0.001	4	198	527	3
Sb	123	0.024	ug/L	0.001	4	157	375	4
Ba	135	69.889	ug/L	1.151	1	24	232816	0
[ Ba	137	69.488	ug/L	0.925	1	36	401902	0
[> Tb	159		ug/L			612197	646057 ✓	0
Tl	205	0.377	ug/L	0.003	0	250	18392	0
Pb	208	13.181	ug/L	0.076	0	1016	850554	0
Bi	209		ug/L			532877	539909	0
Th	232	2.116	ug/L	0.033	1	1565	165482	1
[ U	238	0.255	ug/L	0.001	0	1000	22286	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 D SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:58:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	739326✓	1
[ Be	9	0.687	ug/L	0.055	7	23	517	7
C	13		mg/L			6243	7595	1
Cl	37		mg/L			1387303	1429856	0
[> Sc	45		ug/L			409578	463000✓	0
V	51	22.021	ug/L	0.114	0	2772	433505	0
V-1	51	21.873	ug/L	0.094	0	1649	436164	0
Cr	52	11.911	ug/L	0.086	0	8617	211103	0
Cr	53	11.945	ug/L	0.066	0	614	24705	0
Mn	55	583.613	ug/L	4.524	0	377	16951380	0
[ Co	59	2.977	ug/L	0.024	0	55	61864	0
[> Ge	72		ug/L			372563	385293✓	0
Ni	60	5.025	ug/L	0.045	0	49	19554	1
Ni	62	5.206	ug/L	0.081	1	97	3043	0
Cu	63	33.621	ug/L	0.117	0	233	265307	0
Cu	65	33.879	ug/L	0.180	0	114	124279	1
Zn	66	43.126	ug/L	0.216	0	375	105543	0
Zn	67	43.335	ug/L	0.475	1	141	18706	0
Zn	68	44.551	ug/L	0.392	0	5524	81662	0
As	75	191.114	ug/L	0.501	0	145	445146	0
As-1	75	198.603	ug/L	0.529	0	7671	452129	0
Se	82	✓ 0.437	ug/L	0.024	5	0	145	5
Se	78	-0.329	ug/L	0.031	9	7997	8020	0
[ Mo	98	0.122	ug/L	0.006	4	87	1297	4
Y	89		ug/L			461134	833252	0
Kr	83		ug/L			197	273	5
[> In	115		ug/L			515607	519628✓	0
Ag	107	1.202	ug/L	0.014	1	75	20029	1
Cd	111	0.190	ug/L	0.000	0	330	1126	0
Cd	114	0.029	ug/L	0.001	2	32	306	1
Sb	121	✓ 0.004	ug/L	0.001	16	198	245	3
Sb	123	0.002	ug/L	0.003	132	157	175	12
Ba	135	101.550	ug/L	0.897	0	24	328355	0
[ Ba	137	100.827	ug/L	1.675	1	36	565994	1
[> Tb	159		ug/L			612197	644060✓	0
Tl	205	0.254	ug/L	0.003	1	250	12440	1
Pb	208	14.240	ug/L	0.107	0	1016	915954	0
Bi	209		ug/L			532877	523329	1
Th	232	2.811	ug/L	0.021	0	1565	218612	0
[ U	238	0.410	ug/L	0.003	0	1000	35078	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 A-L SWN

Sample Dil Factor: 100

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:04:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	743016 ✓	1
[	Be	9	0.136	ug/L	0.010	7	23	120	7
	C	13		mg/L			6243	5325	0
	Cl	37		mg/L			1387303	1493244	0
[>	Sc	45		ug/L			409578	430254 ✓	0
[	V	51	4.236	ug/L	0.025	0	2772	79850	0
	V-1	51	4.261	ug/L	0.034	0	1649	80354	0
	Cr	52	2.638	ug/L	0.025	0	8617	50501	1
	Cr	53	2.796	ug/L	0.052	1	614	5867	1
	Mn	55	152.675	ug/L	0.388	0	377	4121257	0
[	Co	59	0.638	ug/L	0.011	1	55	12368	1
[>	Ge	72		ug/L			372563	385797 ✓	0
	Ni	60	1.078	ug/L	0.026	2	49	4240	2
	Ni	62	1.131	ug/L	0.038	3	97	740	3
	Cu	63	7.854	ug/L	0.087	1	233	62241	0
	Cu	65	7.823	ug/L	0.065	0	114	28827	0
	Zn	66	6.991	ug/L	0.077	1	375	17458	1
	Zn	67	6.957	ug/L	0.036	0	141	3130	0
	Zn	68	7.113	ug/L	0.032	0	5524	17863	0
	As	75	33.007	ug/L	0.181	0	145	77106	0
	As-1	75	34.290	ug/L	0.208	0	7671	84737	0
	Se	82	✓ 0.123	ug/L	0.035	28	0	40	28
	Se	78	-0.028	ug/L	0.113	401	7997	8260	1
[	Mo	98	0.023	ug/L	0.000	0	87	316	0
	Y	89		ug/L			461134	533181	0
	Kr	83		ug/L			197	218	4
[>	In	115		ug/L			515607	522175 ✓	1
[	Ag	107	0.303	ug/L	0.006	2	75	5131	2
	Cd	111	0.044	ug/L	0.008	18	330	518	5
	Cd	114	0.003	ug/L	0.002	71	32	60	33
	Sb	121	✓ -0.001	ug/L	0.001	86	198	186	6
	Sb	123	-0.003	ug/L	0.002	69	157	132	15
	Ba	135	13.463	ug/L	0.008	0	24	43767	1
[	Ba	137	13.422	ug/L	0.235	1	36	75741	0
[>	Tb	159		ug/L			612197	630314 ✓	1
	Tl	205	0.049	ug/L	0.002	3	250	2550	2
	Pb	208	2.660	ug/L	0.032	1	1016	168260	0
	Bi	209		ug/L			532877	542068	0
	Th	232	0.513	ug/L	0.008	1	1565	40355	0
[	U	238	0.064	ug/L	0.002	3	1000	6199	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 A SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:10:54

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	764520 ✓	0
[ Be	9	0.611	ug/L	0.025	4	23	478	4
C	13		mg/L			6243	8073	1
Cl	37		mg/L			1387303	1469070	1
[> Sc	45		ug/L			409578	466562 ✓	0
V	51	19.138	ug/L	0.039	0	2772	380062	0
V-1	51	19.110	ug/L	0.064	0	1649	384230	0
Cr	52	11.910	ug/L	0.133	1	8617	212694	0
Cr	53	12.179	ug/L	0.072	0	614	25367	0
Mn	55	683.863	ug/L	3.785	0	377	20016927	1
[ Co	59	2.878	ug/L	0.002	0	55	60268	0
[> Ge	72		ug/L			372563	393001 ✓	0
Ni	60	5.171	ug/L	0.046	0	49	20523	1
Ni	62	5.251	ug/L	0.176	3	97	3130	3
Cu	63	36.544	ug/L	0.190	0	233	294115	0
Cu	65	36.555	ug/L	0.441	1	114	136771	1
Zn	66	31.817	ug/L	0.227	0	375	79530	1
Zn	67	32.908	ug/L	0.351	1	141	14526	1
Zn	68	32.665	ug/L	0.290	0	5524	62630	0
As	75	155.390	ug/L	1.214	0	145	369205	0
As-1	75	161.430	ug/L	1.265	0	7671	376369	0
Se	82	u 0.499	ug/L	0.030	6	0	169	5
Se	78	-0.266	ug/L	0.040	15	7997	8229	0
[ Mo	98	0.121	ug/L	0.005	3	87	1321	3
Y	89		ug/L			461134	739049	0
Kr	83		ug/L			197	260	1
[> In	115		ug/L			515607	523678 ✓	0
Ag	107	1.435	ug/L	0.013	0	75	24082	0
Cd	111	0.153	ug/L	0.015	9	330	979	5
Cd	114	0.019	ug/L	0.001	4	32	210	3
Sb	121	u 0.001	ug/L	0.001	73	198	217	6
Sb	123	0.001	ug/L	0.005	410	157	170	23
Ba	135	65.439	ug/L	0.211	0	24	213253	0
[ Ba	137	65.047	ug/L	0.436	0	36	368036	1
[> Tb	159		ug/L			612197	643684 ✓	0
Tl	205	0.244	ug/L	0.003	1	250	11943	1
Pb	208	12.503	ug/L	0.113	0	1016	803944	0
Bi	209		ug/L			532877	526853	0
Th	232	2.437	ug/L	0.007	0	1565	189686	0
[ U	238	0.337	ug/L	0.003	0	1000	28961	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 ADUP SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:16:52

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	756694 ✓	1
[ Be	9	0.651	ug/L	0.037	5	23	503	6
C	13		mg/L			6243	8941	0
Cl	37		mg/L			1387303	1481597	0
[> Sc	45		ug/L			409578	461462 ✓	0
V	51	20.978	ug/L	0.161	0	2772	411752	1
V-1	51	20.886	ug/L	0.127	0	1649	415179	0
Cr	52	12.617	ug/L	0.181	1	8617	222294	1
Cr	53	12.740	ug/L	0.192	1	614	26215	1
Mn	55	730.127	ug/L	9.202	1	377	21136868	1
[ Co	59	2.996	ug/L	0.024	0	55	62070	1
[> Ge	72		ug/L			372563	388756 ✓	0
Ni	60	5.126	ug/L	0.046	0	49	20124	1
Ni	62	5.434	ug/L	0.189	3	97	3201	3
Cu	63	37.350	ug/L	0.066	0	233	297347	0
Cu	65	37.100	ug/L	0.460	1	114	137307	1
Zn	66	32.597	ug/L	0.442	1	375	80591	1
Zn	67	33.728	ug/L	0.450	1	141	14724	1
Zn	68	33.577	ug/L	0.556	1	5524	63524	1
As	75	166.111	ug/L	1.743	1	145	390409	1
As-1	75	172.598	ug/L	1.804	1	7671	397512	1
Se	82	u 0.471	ug/L	0.043	9	0	158	9
Se	78	-0.235	ug/L	0.075	31	7997	8164	0
[ Mo	98	0.074	ug/L	0.002	2	87	831	2
Y	89		ug/L			461134	750869	1
Kr	83		ug/L			197	269	1
[> In	115		ug/L			515607	516747 ✓	0
Ag	107	1.406	ug/L	0.023	1	75	23281	2
Cd	111	0.176	ug/L	0.011	6	330	1059	3
Cd	114	0.018	ug/L	0.002	8	32	205	7
Sb	121	u 0.000	ug/L	0.001	1693	198	199	6
Sb	123	-0.002	ug/L	0.004	185	157	139	25
Ba	135	69.482	ug/L	0.282	0	24	223438	0
Ba	137	69.422	ug/L	0.514	0	36	387594	1
[> Tb	159		ug/L			612197	641217 ✓	0
Tl	205	0.247	ug/L	0.004	1	250	12055	1
Pb	208	12.805	ug/L	0.100	0	1016	820158	1
Bi	209		ug/L			532877	522873	0
Th	232	2.634	ug/L	0.021	0	1565	204091	1
[ U	238	0.358	ug/L	0.002	0	1000	30626	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 ASPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:22:51

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	750988 ✓	2
[ Be	9	23.876	ug/L	0.459	1	23	17533	0
C	13		mg/L			6243	5658	1
Cl	37		mg/L			1387303	1486555	0
[> Sc	45		ug/L			409578	470463 ✓	0
V	51	43.016	ug/L	0.108	0	2772	857448	1
V-1	51	42.927	ug/L	0.091	0	1649	867979	0
Cr	52	34.731	ug/L	0.069	0	8617	606519	1
Cr	53	34.862	ug/L	0.469	1	614	71904	0
Mn	55	723.509	ug/L	2.277	0	377	21353417	0
[ Co	59	24.605	ug/L	0.129	0	55	519171	1
[> Ge	72		ug/L			372563	382671 ✓	0
Ni	60	29.365	ug/L	0.363	1	49	113241	1
Ni	62	29.271	ug/L	0.529	1	97	16535	1
Cu	63	62.259	ug/L	0.100	0	233	487744	0
Cu	65	62.494	ug/L	0.341	0	114	227587	0
Zn	66	109.642	ug/L	0.214	0	375	265916	0
Zn	67	102.396	ug/L	0.943	0	141	43703	0
Zn	68	109.140	ug/L	0.204	0	5524	190473	0
As	75	181.624	ug/L	0.486	0	145	420170	0
As-1	75	186.641	ug/L	0.715	0	7671	422476	0
Se	82	69.075	ug/L	0.300	0	0	22949	1
Se	78	70.354	ug/L	0.654	0	7997	61294	0
[ Mo	98	18.711	ug/L	0.095	0	87	184418	0
Y	89		ug/L			461134	771698	0
Kr	83		ug/L			197	280	0
[> In	115		ug/L			515607	509120 ✓	0
Ag	107	25.042	ug/L	0.179	0	75	407353	0
Cd	111	25.045	ug/L	0.109	0	330	102569	0
Cd	114	25.135	ug/L	0.166	0	32	233151	1
Sb	121	u 0.038	ug/L	0.002	6	198	618	4
Sb	123	0.038	ug/L	0.003	8	157	474	5
Ba	135	111.268	ug/L	1.475	1	24	352498	0
[ Ba	137	110.742	ug/L	1.371	1	36	609104	0
[> Tb	159		ug/L			612197	637571 ✓	1
Tl	205	22.887	ug/L	0.265	1	250	1087333	0
Pb	208	38.016	ug/L	0.203	0	1016	2418892	0
Bi	209		ug/L			532877	515438	0
Th	232	27.491	ug/L	0.281	1	1565	2102153	0
[ U	238	24.477	ug/L	0.505	2	1000	2011335	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 APOST SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:28:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	749142✓	2
[ Be	9	23.374	ug/L	0.523	2	23	17123	0
C	13		mg/L			6243	8356	2
Cl	37		mg/L			1387303	1487953	0
> Sc	45		ug/L			409578	450454✓	0
V	51	40.976	ug/L	0.482	1	2772	782198	1
V-1	51	40.890	ug/L	0.484	1	1649	791733	1
Cr	52	34.333	ug/L	0.354	1	8617	574168	1
Cr	53	34.392	ug/L	0.366	1	614	67930	1
Mn	55	703.410	ug/L	3.891	0	377	19877274	0
Co	59	25.045	ug/L	0.176	0	55	505960	0
> Ge	72		ug/L			372563	381912✓	0
Ni	60	28.785	ug/L	0.037	0	49	110781	0
Ni	62	28.839	ug/L	0.141	0	97	16261	0
Cu	63	60.010	ug/L	0.317	0	233	469193	0
Cu	65	59.946	ug/L	0.431	0	114	217879	0
Zn	66	109.337	ug/L	0.366	0	375	264650	0
Zn	67	102.739	ug/L	0.290	0	141	43764	0
Zn	68	109.831	ug/L	0.361	0	5524	191265	0
As	75	180.548	ug/L	1.124	0	145	416856	0
As-1	75	185.092	ug/L	1.016	0	7671	418212	0
Se	82	73.891	ug/L	0.253	0	0	24500	0
Se	78	74.471	ug/L	0.492	0	7997	64274	0
Mo	98	22.733	ug/L	0.163	0	87	223602	0
Y	89		ug/L			461134	713849	0
Kr	83		ug/L			197	275	2
> In	115		ug/L			515607	508376✓	1
Ag	107	26.357	ug/L	0.513	1	75	428041	0
Cd	111	24.938	ug/L	0.224	0	330	101978	0
Cd	114	24.753	ug/L	0.253	1	32	229251	0
Sb	121	23.702	ug/L	0.291	1	198	264655	0
Sb	123	23.701	ug/L	0.487	2	157	198567	0
Ba	135	91.051	ug/L	1.264	1	24	288001	0
Ba	137	90.702	ug/L	1.837	2	36	498067	0
> Tb	159		ug/L			612197	634804✓	0
Tl	205	24.731	ug/L	0.148	0	250	1169892	0
Pb	208	37.159	ug/L	0.179	0	1016	2354182	0
Bi	209		ug/L			532877	516345	0
Th	232	25.626	ug/L	0.280	1	1565	1951226	0
U	238	23.807	ug/L	0.305	1	1000	1947426	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: **WE79 MB1SPK SWN**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, February 28, 2013 12:34:46**

Number of Replicates: **3**

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	751523 ✓	0
[ Be	9	23.877	ug/L	0.308	1	23	17551	0
C	13		mg/L			6243	4922	1
Cl	37		mg/L			1387303	1560478	0
[> Sc	45		ug/L			409578	420551 ✓	0
V	51	24.702	ug/L	0.300	1	2772	441350	0
V-1	51	24.766	ug/L	0.196	0	1649	448339	0
Cr	52	25.346	ug/L	0.352	1	8617	398028	0
Cr	53	25.513	ug/L	0.188	0	614	47212	1
Mn	55	25.839	ug/L	0.005	0	377	682084	0
[ Co	59	25.291	ug/L	0.079	0	55	477024	0
[> Ge	72		ug/L			372563	380329 ✓	0
Ni	60	25.771	ug/L	0.343	1	49	98773	1
Ni	62	25.557	ug/L	0.265	1	97	14362	1
Cu	63	26.824	ug/L	0.120	0	233	208991	0
Cu	65	26.904	ug/L	0.298	1	114	97439	0
Zn	66	79.817	ug/L	0.269	0	375	192500	0
Zn	67	72.135	ug/L	0.575	0	141	30642	0
Zn	68	78.389	ug/L	0.465	0	5524	137556	0
As	75	28.166	ug/L	0.170	0	145	64884	0
As-1	75	25.773	ug/L	0.233	0	7671	64731	0
Se	82	80.034	ug/L	0.232	0	0	26427	0
Se	78	79.160	ug/L	0.548	0	7997	67524	0
[ Mo	98	24.152	ug/L	0.312	1	87	236557	1
Y	89		ug/L			461134	483944	0
Kr	83		ug/L			197	220	0
[> In	115		ug/L			515607	518149 ✓	1
Ag	107	26.253	ug/L	0.082	0	75	434624	1
Cd	111	24.911	ug/L	0.351	1	330	103821	0
Cd	114	25.111	ug/L	0.305	1	32	237024	0
Sb	121	25.356	ug/L	0.368	1	198	288547	0
Sb	123	25.412	ug/L	0.508	2	157	216980	0
Ba	135	25.700	ug/L	0.507	1	24	82867	0
[ Ba	137	25.555	ug/L	0.784	3	36	143037	1
[> Tb	159		ug/L			612197	631132 ✓	0
Tl	205	25.657	ug/L	0.244	0	250	1206637	0
Pb	208	26.127	ug/L	0.232	0	1016	1645950	0
Bi	209		ug/L			532877	545593	0
Th	232	24.573	ug/L	0.388	1	1565	1860203	0
[ U	238	24.985	ug/L	0.808	3	1000	2031854	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:40:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	743493 ✓	0
[	Be	9	48.233	ug/L	0.343	0	23	35056	1
	C	13		mg/L			6243	2876	0
	Cl	37		mg/L			1387303	1550168	0
[>	Sc	45		ug/L			409578	422079 ✓	1
	V	51	47.936	ug/L	0.257	0	2772	856876	0
	V-1	51	47.915	ug/L	0.306	0	1649	868971	0
	Cr	52	48.303	ug/L	0.618	1	8617	753232	0
	Cr	53	48.221	ug/L	0.661	1	614	88983	0
	Mn	55	49.216	ug/L	0.475	0	377	1303479	0
[	Co	59	48.691	ug/L	0.405	0	55	921605	0
[>	Ge	72		ug/L			372563	387804 ✓	0
	Ni	60	47.947	ug/L	0.350	0	49	187338	0
	Ni	62	47.851	ug/L	0.827	1	97	27330	1
	Cu	63	48.521	ug/L	0.298	0	233	385261	0
	Cu	65	48.478	ug/L	0.193	0	114	178937	0
	Zn	66	48.826	ug/L	0.079	0	375	120223	0
	Zn	67	49.515	ug/L	0.213	0	141	21494	0
	Zn	68	48.528	ug/L	0.182	0	5524	89022	0
	As	75	48.502	ug/L	0.133	0	145	113821	0
	As-1	75	48.412	ug/L	0.349	0	7671	116966	0
	Se	82	49.022	ug/L	0.329	0	0	16505	1
	Se	78	48.790	ug/L	0.555	1	7997	45629	0
[	Mo	98	46.776	ug/L	0.480	1	87	467085	1
	Y	89		ug/L			461134	478403	1
	Kr	83		ug/L			197	226	6
[>	In	115		ug/L			515607	520485 ✓	1
	Ag	107	49.203	ug/L	0.772	1	75	818076	0
	Cd	111	48.797	ug/L	0.354	0	330	203993	1
	Cd	114	48.954	ug/L	0.591	1	32	464153	0
	Sb	121	48.552	ug/L	0.223	0	198	554915	1
	Sb	123	48.539	ug/L	0.197	0	157	416245	0
	Ba	135	49.036	ug/L	0.663	1	24	158815	0
[	Ba	137	48.885	ug/L	0.552	1	36	274883	0
[>	Tb	159		ug/L			612197	633873 ✓	0
	Tl	205	49.798	ug/L	0.281	0	250	2351991	0
	Pb	208	48.701	ug/L	0.513	1	1016	3080404	0
	Bi	209		ug/L			532877	521345	0
	Th	232	49.336	ug/L	0.065	0	1565	3749687	0
[	U	238	48.949	ug/L	0.411	0	1000	3997039	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:47:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	741309✓	0
[ Be	9	0.009	ug/L	0.006	70	23	27	15
C	13		mg/L			6243	5812	1
Cl	37		mg/L			1387303	1586149	0
[> Sc	45		ug/L			409578	413824✓	1
V	51	0.016	ug/L	0.004	22	2772	3079	3
V-1	51	0.050	ug/L	0.005	9	1649	2556	3
Cr	52	0.020	ug/L	0.006	28	8617	9002	1
Cr	53	0.128	ug/L	0.020	15	614	850	3
Mn	55	0.009	ug/L	0.003	28	377	620	9
Co	59	0.001	ug/L	0.001	73	55	79	20
[> Ge	72		ug/L			372563	390187✓	0
Ni	60	-0.001	ug/L	0.003	499	49	48	27
Ni	62	0.039	ug/L	0.005	12	97	124	2
Cu	63	0.007	ug/L	0.003	45	233	301	8
Cu	65	0.001	ug/L	0.003	220	114	124	7
Zn	66	0.016	ug/L	0.010	62	375	432	5
Zn	67	0.034	ug/L	0.024	71	141	162	6
Zn	68	0.091	ug/L	0.065	71	5524	5943	1
As	75	-0.014	ug/L	0.008	59	145	120	16
As-1	75	0.131	ug/L	0.008	5	7671	8330	0
Se	82	-0.048	ug/L	0.082	170	0	-16	164
Se	78	0.403	ug/L	0.022	5	7997	8685	0
[ Mo	98	0.003	ug/L	0.004	123	87	123	31
Y	89		ug/L			461134	479926	1
Kr	83		ug/L			197	215	8
[> In	115		ug/L			515607	518596✓	1
Ag	107	0.008	ug/L	0.002	28	75	210	18
Cd	111	0.022	ug/L	0.004	19	330	422	4
Cd	114	0.001	ug/L	0.001	159	32	39	25
Sb	121	0.060	ug/L	0.018	29	198	881	23
Sb	123	0.059	ug/L	0.021	35	157	662	28
Ba	135	0.003	ug/L	0.001	47	24	34	14
[ Ba	137	0.004	ug/L	0.002	56	36	58	21
[> Tb	159		ug/L			612197	621168✓	1
Tl	205	0.002	ug/L	0.001	77	250	326	18
Pb	208	-0.004	ug/L	0.001	27	1016	813	8
Bi	209		ug/L			532877	532735	0
Th	232	0.019	ug/L	0.007	35	1565	3027	17
[ U	238	-0.007	ug/L	0.001	13	1000	424	19

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 MB2 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:52:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	779083 ✓	0
[ Be	9	0.007	ug/L	0.009	124	23	27	22
C	13		mg/L			6243	6467	0
Cl	37		mg/L			1387303	1598547	1
> Sc	45		ug/L			409578	439085 ✓	0
V	51	U 0.023	ug/L	0.007	32	2772	3392	3
V-1	51	0.057	ug/L	0.001	0	1649	2836	0
Cr	52	U 0.087	ug/L	0.009	10	8617	10636	1
Cr	53	0.191	ug/L	0.014	7	614	1023	3
Mn	55	0.038	ug/L	0.003	6	377	1464	5
Co	59	0.001	ug/L	0.001	70	55	79	17
> Ge	72		ug/L			372563	402289 ✓	0
Ni	60	0.006	ug/L	0.003	42	49	77	13
Ni	62	0.036	ug/L	0.020	55	97	126	8
Cu	63	0.123	ug/L	0.005	4	233	1263	3
Cu	65	0.120	ug/L	0.004	3	114	583	3
Zn	66	0.554	ug/L	0.034	6	375	1815	4
Zn	67	0.489	ug/L	0.020	4	141	371	2
Zn	68	0.503	ug/L	0.171	34	5524	6859	4
As	75	U -0.007	ug/L	0.012	162	145	139	19
As-1	75	0.067	ug/L	0.030	44	7671	8438	0
Se	82	U 0.005	ug/L	0.029	544	0	1	727
Se	78	0.188	ug/L	0.058	30	7997	8784	0
[ Mo	98	0.013	ug/L	0.002	17	87	228	9
Y	89		ug/L			461134	504163	0
Kr	83		ug/L			197	201	2
> In	115		ug/L			515607	537967 ✓	0
Ag	107	U 0.005	ug/L	0.001	20	75	166	11
Cd	111	0.025	ug/L	0.002	7	330	451	1
Cd	114	0.000	ug/L	0.001	939	32	35	17
Sb	121	U 0.016	ug/L	0.005	33	198	397	16
Sb	123	0.012	ug/L	0.005	42	157	268	16
Ba	135	0.053	ug/L	0.001	1	24	202	1
[ Ba	137	0.047	ug/L	0.002	4	36	312	4
> Tb	159		ug/L			612197	647099 ✓	0
Tl	205	0.003	ug/L	0.000	13	250	425	5
Pb	208	U 0.002	ug/L	0.000	14	1016	1189	1
Bi	209		ug/L			532877	549955	1
Th	232	0.010	ug/L	0.003	26	1565	2406	8
[ U	238	-0.008	ug/L	0.000	0	1000	411	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 E SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:58:28

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	774286 ✓	1
[ Be	9	0.476	ug/L	0.052	10	23	382	10
C	13		mg/L			6243	8552	0
Cl	37		mg/L			1387303	1524974	0
[> Sc	45		ug/L			409578	464238 ✓	1
V	51	18.305	ug/L	0.013	0	2772	361849	1
V-1	51	18.208	ug/L	0.039	0	1649	364377	1
Cr	52	10.778	ug/L	0.089	0	8617	192472	2
Cr	53	10.846	ug/L	0.172	1	614	22558	3
Mn	55	668.287	ug/L	7.844	1	377	19465147	2
Co	59	2.470	ug/L	0.028	1	55	51492	2
[> Ge	72		ug/L			372563	390866 ✓	2
Ni	60	4.472	ug/L	0.022	0	49	17655	2
Ni	62	4.560	ug/L	0.053	1	97	2716	1
Cu	63	27.217	ug/L	0.114	0	233	217929	3
Cu	65	27.153	ug/L	0.248	0	114	101075	3
Zn	66	26.412	ug/L	0.089	0	375	65722	2
Zn	67	28.208	ug/L	0.208	0	141	12406	3
Zn	68	27.425	ug/L	0.239	0	5524	53221	2
As	75	118.557	ug/L	1.071	0	145	280161	2
As-1	75	123.176	ug/L	1.122	0	7671	287492	2
Se	82	0.453	ug/L	0.017	3	0	153	1
Se	78	-0.067	ug/L	0.081	120	7997	8337	2
[ Mo	98	0.065	ug/L	0.004	5	87	750	5
Y	89		ug/L			461134	769934	2
Kr	83		ug/L			197	253	5
[> In	115		ug/L			515607	523370 ✓	2
Ag	107	0.909	ug/L	0.005	0	75	15271	2
Cd	111	0.153	ug/L	0.008	5	330	978	2
Cd	114	0.011	ug/L	0.001	12	32	137	10
Sb	121	0.009	ug/L	0.004	39	198	306	15
Sb	123	0.010	ug/L	0.002	18	157	249	7
Ba	135	70.734	ug/L	0.371	0	24	230358	1
[ Ba	137	70.134	ug/L	0.770	1	36	396534	2
[> Tb	159		ug/L			612197	643700 ✓	0
Tl	205	0.220	ug/L	0.003	1	250	10809	1
Pb	208	9.728	ug/L	0.042	0	1016	625762	0
Bi	209		ug/L			532877	517258	1
Th	232	2.559	ug/L	0.019	0	1565	199073	0
[ U	238	0.417	ug/L	0.003	0	1000	35623	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 F SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:04:25

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			803723	755174 ✓	0
[ Be	9	0.671	ug/L	0.019	2	23	516	2
C	13		mg/L			6243	8650	0
Cl	37		mg/L			1387303	1512917	0
[>] Sc	45		ug/L			409578	458862 ✓	1
V	51	18.568	ug/L	0.115	0	2772	362754	1
V-1	51	18.516	ug/L	0.107	0	1649	366196	1
Cr	52	11.668	ug/L	0.105	0	8617	205142	0
Cr	53	11.844	ug/L	0.073	0	614	24281	0
Mn	55	715.272	ug/L	7.721	1	377	20588776	0
[ Co	59	2.723	ug/L	0.031	1	55	56081	0
[>] Ge	72		ug/L			372563	382193 ✓	0
Ni	60	4.973	ug/L	0.039	0	49	19193	0
Ni	62	5.051	ug/L	0.074	1	97	2932	1
Cu	63	34.581	ug/L	0.233	0	233	270666	0
Cu	65	34.824	ug/L	0.051	0	114	126713	1
Zn	66	30.705	ug/L	0.338	1	375	74647	0
Zn	67	31.423	ug/L	0.375	1	141	13496	1
Zn	68	31.431	ug/L	0.125	0	5524	58820	0
As	75	114.104	ug/L	0.756	0	145	263686	0
As-1	75	118.550	ug/L	0.809	0	7671	270877	0
Se	82	✓ 0.345	ug/L	0.019	5	0	114	4
Se	78	-0.083	ug/L	0.097	117	7997	8141	0
[ Mo	98	0.057	ug/L	0.001	1	87	646	2
Y	89		ug/L			461134	727872	0
Kr	83		ug/L			197	271	3
[>] In	115		ug/L			515607	510112 ✓	0
Ag	107	1.157	ug/L	0.011	0	75	18932	0
Cd	111	0.181	ug/L	0.021	11	330	1068	7
Cd	114	0.016	ug/L	0.001	5	32	184	4
Sb	121	✓ 0.002	ug/L	0.001	66	198	216	6
Sb	123	0.000	ug/L	0.001	179	157	160	4
Ba	135	66.808	ug/L	0.251	0	24	212077	0
[ Ba	137	66.493	ug/L	0.439	0	36	366469	0
[>] Tb	159		ug/L			612197	633250 ✓	1
Tl	205	0.229	ug/L	0.002	1	250	11069	2
Pb	208	12.116	ug/L	0.179	1	1016	766348	0
Bi	209		ug/L			532877	515599	0
Th	232	2.478	ug/L	0.051	2	1565	189620	0
[ U	238	0.331	ug/L	0.006	1	1000	28002	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 G SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:10:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	757407 ✓	1
[ Be	9	0.418	ug/L	0.007	1	23	331	1
C	13		mg/L			6243	9374	0
Cl	37		mg/L			1387303	1531410	0
[> Sc	45		ug/L			409578	451313 ✓	0
V	51	18.768	ug/L	0.251	1	2772	360570	0
V-1	51	18.659	ug/L	0.225	1	1649	362933	0
Cr	52	10.340	ug/L	0.159	1	8617	179873	0
Cr	53	10.415	ug/L	0.087	0	614	21081	0
Mn	55	403.056	ug/L	1.975	0	377	11411587	0
Co	59	4.577	ug/L	0.024	0	55	92694	0
[> Ge	72		ug/L			372563	375441 ✓	0
Ni	60	7.350	ug/L	0.075	1	49	27847	1
Ni	62	7.478	ug/L	0.140	1	97	4217	1
Cu	63	24.616	ug/L	0.265	1	233	189347	1
Cu	65	24.861	ug/L	0.126	0	114	88893	0
Zn	66	41.782	ug/L	0.331	0	375	99654	0
Zn	67	41.289	ug/L	0.260	0	141	17375	1
Zn	68	42.987	ug/L	0.147	0	5524	76980	0
As	75	117.806	ug/L	0.102	0	145	267438	0
As-1	75	122.445	ug/L	0.127	0	7671	274592	0
Se	82	0.622	ug/L	0.051	8	0	202	7
Se	78	0.336	ug/L	0.058	17	7997	8308	0
[ Mo	98	0.125	ug/L	0.005	3	87	1293	3
Y	89		ug/L			461134	701589	0
Kr	83		ug/L			197	263	4
[> In	115		ug/L			515607	506840 ✓	2
Ag	107	2.030	ug/L	0.007	0	75	32950	2
Cd	111	0.376	ug/L	0.011	2	330	1853	3
Cd	114	0.072	ug/L	0.001	1	32	694	3
Sb	121	✓ 0.009	ug/L	0.001	16	198	291	3
Sb	123	0.007	ug/L	0.005	79	157	211	22
Ba	135	86.101	ug/L	1.887	2	24	271490	1
[ Ba	137	86.068	ug/L	2.296	2	36	471121	0
[> Tb	159		ug/L			612197	623675 ✓	0
Tl	205	0.207	ug/L	0.002	0	250	9889	0
Pb	208	10.301	ug/L	0.030	0	1016	641900	0
Bi	209		ug/L			532877	509057	0
Th	232	2.082	ug/L	0.016	0	1565	157225	0
[ U	238	0.368	ug/L	0.002	0	1000	30544	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 H SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:16:18

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	761007 ✓	0
[ Be	9	0.564	ug/L	0.008	1	23	441	1
C	13		mg/L			6243	9030	0
Cl	37		mg/L			1387303	1535922	0
[> Sc	45		ug/L			409578	465141 ✓	0
V	51	20.655	ug/L	0.180	0	2772	408694	0
V-1	51	20.524	ug/L	0.172	0	1649	411256	0
Cr	52	10.227	ug/L	0.073	0	8617	183466	0
Cr	53	10.327	ug/L	0.075	0	614	21551	0
Mn	55	431.128	ug/L	2.304	0	377	12580312	0
Co	59	6.468	ug/L	0.077	1	55	134976	1
[> Ge	72		ug/L			372563	377884 ✓	0
Ni	60	11.988	ug/L	0.122	1	49	45677	1
Ni	62	12.014	ug/L	0.237	1	97	6759	1
Cu	63	21.064	ug/L	0.174	0	233	163102	0
Cu	65	21.042	ug/L	0.290	1	114	75743	0
Zn	66	53.266	ug/L	0.476	0	375	127762	0
Zn	67	52.685	ug/L	0.184	0	141	22275	0
Zn	68	54.760	ug/L	0.072	0	5524	97165	0
As	75	62.584	ug/L	0.216	0	145	143068	0
As-1	75	64.974	ug/L	0.241	0	7671	150307	0
Se	82	✓ 0.342	ug/L	0.078	22	0	111	22
Se	78	0.111	ug/L	0.072	64	7997	8194	0
Mo	98	0.142	ug/L	0.003	2	87	1468	2
Y	89		ug/L			461134	820709	0
Kr	83		ug/L			197	275	4
[> In	115		ug/L			515607	509513 ✓	1
Ag	107	2.126	ug/L	0.033	1	75	34681	1
Cd	111	0.565	ug/L	0.011	2	330	2636	2
Cd	114	0.100	ug/L	0.005	5	32	961	4
Sb	121	✓ 0.003	ug/L	0.001	25	198	234	3
Sb	123	0.004	ug/L	0.002	38	157	189	7
Ba	135	103.820	ug/L	1.361	1	24	329142	0
[ Ba	137	104.003	ug/L	1.724	1	36	572442	0
[> Tb	159		ug/L			612197	636567 ✓	0
Tl	205	0.193	ug/L	0.001	0	250	9399	0
Pb	208	10.323	ug/L	0.009	0	1016	656574	0
Bi	209		ug/L			532877	510239	1
Th	232	2.147	ug/L	0.034	1	1565	165420	1
[ U	238	0.386	ug/L	0.005	1	1000	32692	0

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 I SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:22:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	765519 ✓	1
[ Be	9	0.556	ug/L	0.027	4	23	437	3
C	13		mg/L			6243	9023	1
Cl	37		mg/L			1387303	1540262	0
> Sc	45		ug/L			409578	467687 ✓	0
V	51	23.319	ug/L	0.270	1	2772	463537	1
V-1	51	23.141	ug/L	0.264	1	1649	466024	1
Cr	52	10.294	ug/L	0.062	0	8617	185633	0
Cr	53	10.378	ug/L	0.108	1	614	21771	1
Mn	55	379.780	ug/L	3.872	1	377	11143161	1
[ Co	59	6.476	ug/L	0.051	0	55	135889	1
> Ge	72		ug/L			372563	376657 ✓	0
Ni	60	9.298	ug/L	0.047	0	49	35325	0
Ni	62	9.756	ug/L	0.083	0	97	5490	1
Cu	63	18.250	ug/L	0.051	0	233	140893	0
Cu	65	18.250	ug/L	0.038	0	114	65500	0
Zn	66	55.079	ug/L	0.145	0	375	131672	0
Zn	67	53.672	ug/L	0.626	1	141	22615	0
Zn	68	56.820	ug/L	0.602	1	5524	100280	0
As	75	51.060	ug/L	0.453	0	145	116372	0
As-1	75	52.968	ug/L	0.500	0	7671	123566	0
Se	82	✓ 0.254	ug/L	0.016	6	0	82	5
Se	78	-0.015	ug/L	0.158	1081	7997	8073	0
[ Mo	98	0.143	ug/L	0.001	0	87	1475	0
Y	89		ug/L			461134	754943	0
Kr	83		ug/L			197	274	1
> In	115		ug/L			515607	508346 ✓	1
Ag	107	1.305	ug/L	0.009	0	75	21261	1
Cd	111	0.663	ug/L	0.025	3	330	3028	2
Cd	114	0.135	ug/L	0.004	2	32	1278	3
Sb	121	✓ 0.009	ug/L	0.002	19	198	300	6
Sb	123	0.010	ug/L	0.002	21	157	241	9
Ba	135	104.558	ug/L	1.177	1	24	330719	0
[ Ba	137	105.063	ug/L	1.181	1	36	576955	0
> Tb	159		ug/L			612197	624852 ✓	1
Tl	205	0.172	ug/L	0.003	1	250	8249	0
Pb	208	14.105	ug/L	0.209	1	1016	880140	0
Bi	209		ug/L			532877	513430	0
Th	232	2.027	ug/L	0.036	1	1565	153367	0
[ U	238	0.390	ug/L	0.007	1	1000	32405	0

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 J SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:28:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	763333 ✓	1
[ Be	9	0.039	ug/L	0.015	38	23	51	21
C	13		mg/L			6243	7469	1
Cl	37		mg/L			1387303	1571366	0
[> Sc	45		ug/L			409578	444574 ✓	0
V	51	3.597	ug/L	0.043	1	2772	70511	0
V-1	51	3.615	ug/L	0.040	1	1649	70700	0
Cr	52	1.446	ug/L	0.025	1	8617	32821	0
Cr	53	1.607	ug/L	0.014	0	614	3769	0
Mn	55	2.774	ug/L	0.041	1	377	77782	0
[ Co	59	0.092	ug/L	0.005	5	55	1901	5
[> Ge	72		ug/L			372563	382636 ✓	0
Ni	60	0.224	ug/L	0.010	4	49	915	4
Ni	62	0.293	ug/L	0.038	13	97	264	8
Cu	63	7.682	ug/L	0.046	0	233	60384	0
Cu	65	7.703	ug/L	0.068	0	114	28151	0
Zn	66	2.223	ug/L	0.072	3	375	5767	2
Zn	67	4.162	ug/L	0.176	4	141	1915	4
Zn	68	3.448	ug/L	0.055	1	5524	11512	0
As	75	75.305	ug/L	0.285	0	145	174284	0
As-1	75	78.278	ug/L	0.310	0	7671	181748	0
Se	82	1.165	ug/L	0.037	3	0	386	3
Se	78	0.994	ug/L	0.091	9	7997	8963	0
[ Mo	98	0.239	ug/L	0.012	4	87	2447	4
Y	89		ug/L			461134	482129	0
Kr	83		ug/L			197	214	4
[> In	115		ug/L			515607	515074 ✓	0
[ Ag	107	11.737	ug/L	0.083	0	75	193197	0
Cd	111	0.050	ug/L	0.005	9	330	534	2
Cd	114	0.003	ug/L	0.001	18	32	65	9
Sb	121	0.109	ug/L	0.039	35	198	1429	31
Sb	123	0.083	ug/L	0.007	7	157	858	7
Ba	135	53.127	ug/L	0.452	0	24	170287	0
[ Ba	137	53.725	ug/L	1.053	1	36	298965	1
[> Tb	159		ug/L			612197	623977 ✓	0
Tl	205	0.304	ug/L	0.003	1	250	14405	0
Pb	208	4.253	ug/L	0.028	0	1016	265765	0
Bi	209		ug/L			532877	541200	0
Th	232	0.371	ug/L	0.003	0	1565	29369	0
[ U	238	0.008	ug/L	0.001	9	1000	1666	3



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 K SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:34:14

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	727435 ✓	1
[ Be	9	0.039	ug/L	0.005	13	23	48	6
C	13		mg/L			6243	7619	2
Cl	37		mg/L			1387303	1600797	0
[> Sc	45		ug/L			409578	404126 ✓	0
V	51	1.262	ug/L	0.015	1	2772	24261	1
V-1	51	1.295	ug/L	0.011	0	1649	24075	0
Cr	52	1.213	ug/L	0.017	1	8617	26397	1
Cr	53	1.321	ug/L	0.047	3	614	2923	2
Mn	55	2.628	ug/L	0.023	0	377	67008	0
[ Co	59	0.178	ug/L	0.003	1	55	3289	1
[> Ge	72		ug/L			372563	368935 ✓	0
Ni	60	0.327	ug/L	0.014	4	49	1265	3
Ni	62	0.360	ug/L	0.028	7	97	290	5
Cu	63	1.751	ug/L	0.015	0	233	13447	0
Cu	65	1.807	ug/L	0.033	1	114	6455	2
Zn	66	4.302	ug/L	0.034	0	375	10414	0
Zn	67	5.327	ug/L	0.170	3	141	2324	3
Zn	68	5.478	ug/L	0.015	0	5524	14414	1
As	75	136.149	ug/L	0.950	0	145	303690	0
As-1	75	141.885	ug/L	0.993	0	7671	311457	0
Se	82	1.217	ug/L	0.024	2	0	389	1
Se	78	1.798	ug/L	0.120	6	7997	9227	0
[ Mo	98	0.092	ug/L	0.005	5	87	959	6
Y	89		ug/L			461134	476531	0
Kr	83		ug/L			197	196	2
[> In	115		ug/L			515607	489463 ✓	0
Ag	107	11.775	ug/L	0.172	1	75	184194	1
Cd	111	0.071	ug/L	0.021	29	330	593	14
Cd	114	0.006	ug/L	0.001	10	32	84	6
Sb	121	0.052	ug/L	0.003	6	198	750	4
Sb	123	0.050	ug/L	0.001	1	157	550	1
Ba	135	46.257	ug/L	0.337	0	24	140901	0
[ Ba	137	46.499	ug/L	0.197	0	36	245905	0
[> Tb	159		ug/L			612197	596454 ✓	0
Tl	205	0.302	ug/L	0.005	1	250	13650	0
Pb	208	10.829	ug/L	0.167	1	1016	645238	0
Bi	209		ug/L			532877	513194	0
Th	232	0.293	ug/L	0.005	1	1565	22475	0
[ U	238	0.017	ug/L	0.000	1	1000	2256	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 L SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:40:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	716660 ✓	2
[ Be	9	0.067	ug/L	0.001	0	23	67	2
C	13		mg/L			6243	7546	1
Cl	37		mg/L			1387303	1590909	0
> Sc	45		ug/L			409578	413231 ✓	0
V	51	7.015	ug/L	0.047	0	2772	125150	0
V-1	51	6.998	ug/L	0.018	0	1649	125683	0
Cr	52	3.264	ug/L	0.040	1	8617	57940	0
Cr	53	3.399	ug/L	0.066	1	614	6717	2
Mn	55	19.412	ug/L	0.190	0	377	503574	0
[ Co	59	0.690	ug/L	0.013	1	55	12834	1
> Ge	72		ug/L			372563	372380 ✓	0
Ni	60	1.406	ug/L	0.023	1	49	5322	1
Ni	62	1.569	ug/L	0.034	2	97	954	1
Cu	63	7.670	ug/L	0.076	0	233	58674	0
Cu	65	7.696	ug/L	0.016	0	114	27373	0
Zn	66	8.682	ug/L	0.048	0	375	20834	0
Zn	67	9.782	ug/L	0.100	1	141	4190	1
Zn	68	9.665	ug/L	0.071	0	5524	21447	1
As	75	187.038	ug/L	0.677	0	145	421052	0
As-1	75	194.734	ug/L	0.732	0	7671	428611	0
Se	82	1.265	ug/L	0.063	4	0	408	5
Se	78	1.530	ug/L	0.053	3	7997	9116	0
[ Mo	98	0.101	ug/L	0.001	1	87	1051	0
Y	89		ug/L			461134	479244	0
Kr	83		ug/L			197	215	1
> In	115		ug/L			515607	492159 ✓	0
Ag	107	7.435	ug/L	0.117	1	75	116961	0
Cd	111	0.146	ug/L	0.010	6	330	891	3
Cd	114	0.005	ug/L	0.001	12	32	72	7
Sb	121	u 0.041	ug/L	0.004	9	198	632	5
Sb	123	0.038	ug/L	0.004	11	157	460	7
Ba	135	46.065	ug/L	0.179	0	24	141091	1
[ Ba	137	45.993	ug/L	0.503	1	36	244557	0
> Tb	159		ug/L			612197	599651 ✓	1
Tl	205	0.446	ug/L	0.005	1	250	20159	0
Pb	208	18.979	ug/L	0.246	1	1016	1136242	0
Bi	209		ug/L			532877	509518	0
Th	232	0.670	ug/L	0.006	0	1565	49711	0
[ U	238	0.078	ug/L	0.001	1	1000	6976	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 MB2SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:46:12

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	713563 ✓	1
[ Be	9	24.400	ug/L	0.499	2	23	17028	1
C	13		mg/L			6243	5069	0
Cl	37		mg/L			1387303	1631841	0
> Sc	45		ug/L			409578	403097 ✓	0
V	51	24.372	ug/L	0.117	0	2772	417425	0
V-1	51	24.515	ug/L	0.101	0	1649	425398	0
Cr	52	24.989	ug/L	0.335	1	8617	376259	0
Cr	53	25.409	ug/L	0.259	1	614	45067	0
Mn	55	25.787	ug/L	0.178	0	377	652437	0
[ Co	59	25.132	ug/L	0.291	1	55	454341	1
> Ge	72		ug/L			372563	370078 ✓	0
Ni	60	25.214	ug/L	0.143	0	49	94034	0
Ni	62	25.291	ug/L	0.253	0	97	13831	1
Cu	63	26.443	ug/L	0.152	0	233	200463	0
Cu	65	26.466	ug/L	0.333	1	114	93271	0
Zn	66	79.256	ug/L	1.001	1	375	185986	0
Zn	67	71.201	ug/L	0.899	1	141	29432	1
Zn	68	78.301	ug/L	0.110	0	5524	133709	0
As	75	27.521	ug/L	0.481	1	145	61692	1
As-1	75	25.751	ug/L	0.336	1	7671	62937	0
Se	82	78.146	ug/L	1.026	1	0	25107	0
Se	78	78.973	ug/L	1.031	1	7997	65564	0
[ Mo	98	23.501	ug/L	0.308	1	87	223973	0
Y	89		ug/L			461134	453710	0
Kr	83		ug/L			197	220	7
> In	115		ug/L			515607	492350 ✓	0
Ag	107	25.790	ug/L	0.087	0	75	405702	1
Cd	111	24.858	ug/L	0.251	1	330	98449	0
Cd	114	25.174	ug/L	0.018	0	32	225820	0
Sb	121	25.398	ug/L	0.202	0	198	274659	0
Sb	123	25.570	ug/L	0.203	0	157	207495	0
Ba	135	25.466	ug/L	0.270	1	24	78036	0
[ Ba	137	25.554	ug/L	0.313	1	36	135946	0
> Tb	159		ug/L			612197	593813 ✓	0
Tl	205	25.495	ug/L	0.178	0	250	1128129	0
Pb	208	25.922	ug/L	0.244	0	1016	1536504	0
Bi	209		ug/L			532877	514496	0
Th	232	24.636	ug/L	0.360	1	1565	1754690	0
[ U	238	24.260	ug/L	0.272	1	1000	1856287	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:52:12

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	711210 ✓	1
[	Be	9	49.539	ug/L	0.799	1	23	34436	0
	C	13		mg/L			6243	3271	2
	Cl	37		mg/L			1387303	1622856	0
[>	Sc	45		ug/L			409578	404159 ✓	1
	V	51	48.782	ug/L	0.679	1	2772	834862	0
	V-1	51	48.718	ug/L	0.758	1	1649	845893	0
	Cr	52	48.902	ug/L	0.291	0	8617	730121	1
	Cr	53	48.694	ug/L	0.609	1	614	86031	0
	Mn	55	49.817	ug/L	0.760	1	377	1263230	0
[	Co	59	48.582	ug/L	0.696	1	55	880433	0
[>	Ge	72		ug/L			372563	374362 ✓	0
	Ni	60	48.098	ug/L	0.437	0	49	181418	1
	Ni	62	47.863	ug/L	0.679	1	97	26390	1
	Cu	63	48.924	ug/L	0.130	0	233	374999	0
	Cu	65	48.587	ug/L	0.509	1	114	173127	1
	Zn	66	49.199	ug/L	0.086	0	375	116938	0
	Zn	67	49.373	ug/L	0.513	1	141	20689	1
	Zn	68	49.112	ug/L	0.143	0	5524	86904	0
	As	75	48.864	ug/L	0.333	0	145	110695	0
	As-1	75	49.116	ug/L	0.244	0	7671	114445	0
	Se	82	49.014	ug/L	0.496	1	0	15930	1
	Se	78	49.789	ug/L	0.217	0	7997	44785	0
[	Mo	98	46.285	ug/L	0.271	0	87	446152	0
	Y	89		ug/L			461134	456678	1
	Kr	83		ug/L			197	232	3
[>	In	115		ug/L			515607	490499 ✓	1
	Ag	107	50.005	ug/L	0.438	0	75	783526	1
	Cd	111	50.009	ug/L	0.865	1	330	196966	0
	Cd	114	50.157	ug/L	0.585	1	32	448149	1
	Sb	121	50.060	ug/L	0.929	1	198	539054	0
	Sb	123	50.059	ug/L	0.914	1	157	404469	0
	Ba	135	50.084	ug/L	1.284	2	24	152832	0
[	Ba	137	49.839	ug/L	1.100	2	36	264058	0
[>	Tb	159		ug/L			612197	596269 ✓	0
	Tl	205	51.132	ug/L	0.308	0	250	2271772	0
	Pb	208	49.258	ug/L	0.137	0	1016	2930969	0
	Bi	209		ug/L			532877	488760	0
	Th	232	50.171	ug/L	0.200	0	1565	3586902	0
[	U	238	49.604	ug/L	0.256	0	1000	3810393	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:58:30

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			803723	711916✓	0
[ ] Be	9	0.012	ug/L	0.003	24	23	28	7
[ ] C	13		mg/L			6243	6437	0
[ ] Cl	37		mg/L			1387303	1636584	0
[>] Sc	45		ug/L			409578	406026✓	0
[ ] V	51	0.016	ug/L	0.006	34	2772	3020	3
[ ] V-1	51	0.036	ug/L	0.004	12	1649	2267	3
[ ] Cr	52	0.026	ug/L	0.011	42	8617	8924	2
[ ] Cr	53	0.090	ug/L	0.018	20	614	767	3
[ ] Mn	55	0.005	ug/L	0.000	3	377	505	0
[ ] Co	59	0.001	ug/L	0.001	136	55	68	26
[>] Ge	72		ug/L			372563	370257✓	0
[ ] Ni	60	0.000	ug/L	0.002	864	49	49	12
[ ] Ni	62	0.046	ug/L	0.018	39	97	121	8
[ ] Cu	63	0.005	ug/L	0.001	15	233	268	2
[ ] Cu	65	0.004	ug/L	0.001	16	114	127	2
[ ] Zn	66	-0.005	ug/L	0.011	246	375	362	6
[ ] Zn	67	-0.007	ug/L	0.041	588	141	137	11
[ ] Zn	68	0.230	ug/L	0.082	35	5524	5866	2
[ ] As	75	0.027	ug/L	0.015	54	145	204	15
[ ] As-1	75	0.349	ug/L	0.020	5	7671	8374	0
[ ] Se	82	0.060	ug/L	0.034	56	0	18	57
[ ] Se	78	1.038	ug/L	0.050	4	7997	8705	0
[ ] Mo	98	0.001	ug/L	0.003	519	87	93	32
[ ] Y	89		ug/L			461134	452688	1
[ ] Kr	83		ug/L			197	203	4
[>] In	115		ug/L			515607	490519✓	0
[ ] Ag	107	0.003	ug/L	0.001	19	75	124	8
[ ] Cd	111	0.019	ug/L	0.004	23	330	389	4
[ ] Cd	114	-0.001	ug/L	0.001	62	32	24	18
[ ] Sb	121	0.058	ug/L	0.017	30	198	810	23
[ ] Sb	123	0.055	ug/L	0.016	29	157	591	22
[ ] Ba	135	0.002	ug/L	0.002	99	24	29	21
[ ] Ba	137	0.002	ug/L	0.001	57	36	43	11
[>] Tb	159		ug/L			612197	589548✓	1
[ ] Tl	205	-0.000	ug/L	0.001	6350	250	240	26
[ ] Pb	208	-0.006	ug/L	0.001	20	1016	617	11
[ ] Bi	209		ug/L			532877	507792	0
[ ] Th	232	0.006	ug/L	0.007	115	1565	1924	24
[ ] U	238	-0.009	ug/L	0.001	9	1000	296	21

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 M SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:03:57

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	743956 ✓	1
[ Be	9	0.063	ug/L	0.021	33	23	67	22
C	13		mg/L			6243	7354	0
Cl	37		mg/L			1387303	1632453	0
[> Sc	45		ug/L			409578	421989 ✓	0
V	51	4.176	ug/L	0.042	1	2772	77233	0
V-1	51	4.168	ug/L	0.036	0	1649	77127	0
Cr	52	1.981	ug/L	0.015	0	8617	39402	0
Cr	53	2.066	ug/L	0.011	0	614	4418	0
Mn	55	17.602	ug/L	0.171	0	377	466350	0
[ Co	59	0.525	ug/L	0.005	0	55	9999	1
[> Ge	72		ug/L			372563	383471 ✓	0
Ni	60	0.701	ug/L	0.020	2	49	2758	2
Ni	62	0.815	ug/L	0.040	4	97	558	4
Cu	63	11.418	ug/L	0.041	0	233	89833	0
Cu	65	11.331	ug/L	0.122	1	114	41446	0
Zn	66	6.260	ug/L	0.086	1	375	15579	1
Zn	67	7.622	ug/L	0.200	2	141	3394	2
Zn	68	7.629	ug/L	0.055	0	5524	18630	0
As	75	177.293	ug/L	0.479	0	145	411012	0
As-1	75	184.628	ug/L	0.506	0	7671	418883	0
Se	82	2.018	ug/L	0.015	0	0	671	1
Se	78	2.472	ug/L	0.030	1	7997	10100	0
[ Mo	98	0.142	ug/L	0.004	2	87	1492	2
Y	89		ug/L			461134	501831	0
Kr	83		ug/L			197	217	1
[> In	115		ug/L			515607	507358 ✓	0
Ag	107	15.749	ug/L	0.142	0	75	255319	0
Cd	111	0.066	ug/L	0.013	19	330	595	8
Cd	114	0.008	ug/L	0.003	43	32	102	29
Sb	121	0.099	ug/L	0.005	5	198	1292	4
Sb	123	0.106	ug/L	0.014	13	157	1044	11
Ba	135	53.307	ug/L	0.119	0	24	168312	0
[ Ba	137	53.208	ug/L	0.388	0	36	291672	0
[> Tb	159		ug/L			612197	613336 ✓	0
Tl	205	0.562	ug/L	0.006	1	250	25953	1
Pb	208	16.841	ug/L	0.127	0	1016	1031370	0
Bi	209		ug/L			532877	519094	1
Th	232	0.809	ug/L	0.012	1	1565	61063	1
[ U	238	0.065	ug/L	0.001	1	1000	6134	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 N SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:09:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	740175 ✓	1
[ Be	9	0.077	ug/L	0.020	26	23	77	18
C	13		mg/L			6243	7966	1
Cl	37		mg/L			1387303	1618277	0
> Sc	45		ug/L			409578	411571 ✓	1
V	51	4.678	ug/L	0.058	1	2772	84046	1
V-1	51	4.678	ug/L	0.062	1	1649	84220	1
Cr	52	2.450	ug/L	0.033	1	8617	45474	2
Cr	53	2.562	ug/L	0.079	3	614	5194	1
Mn	55	14.241	ug/L	0.074	0	377	368058	0
Co	59	0.490	ug/L	0.006	1	55	9090	1
> Ge	72		ug/L			372563	376514 ✓	0
Ni	60	1.028	ug/L	0.044	4	49	3947	4
Ni	62	1.192	ug/L	0.059	4	97	756	3
Cu	63	9.151	ug/L	0.045	0	233	70736	0
Cu	65	9.154	ug/L	0.040	0	114	32901	1
Zn	66	8.758	ug/L	0.085	0	375	21250	1
Zn	67	9.834	ug/L	0.126	1	141	4258	1
Zn	68	9.807	ug/L	0.042	0	5524	21921	1
As	75	171.555	ug/L	1.014	0	145	390497	0
As-1	75	178.646	ug/L	1.056	0	7671	398207	0
Se	82	1.367	ug/L	0.024	1	0	446	1
Se	78	1.702	ug/L	0.087	5	7997	9346	1
Mo	98	0.142	ug/L	0.002	1	87	1460	2
Y	89		ug/L			461134	498703	0
Kr	83		ug/L			197	208	2
> In	115		ug/L			515607	502444 ✓	0
Ag	107	12.024	ug/L	0.044	0	75	193059	0
Cd	111	0.133	ug/L	0.015	11	330	858	6
Cd	114	0.012	ug/L	0.001	7	32	144	6
Sb	121	u 0.073	ug/L	0.003	4	198	998	4
Sb	123	0.073	ug/L	0.008	11	157	758	9
Ba	135	54.973	ug/L	0.478	0	24	171884	0
Ba	137	55.096	ug/L	0.258	0	36	299092	0
> Tb	159		ug/L			612197	603954 ✓	0
Tl	205	0.416	ug/L	0.001	0	250	18966	0
Pb	208	55.272	ug/L	0.391	0	1016	3331041	0
Bi	209		ug/L			532877	514906	0
Th	232	0.737	ug/L	0.004	0	1565	54888	0
U	238	0.072	ug/L	0.002	2	1000	6570	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 O SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:15:53

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	750903 ✓	1
[ Be	9	0.038	ug/L	0.005	13	23	49	8
C	13		mg/L			6243	7778	2
Cl	37		mg/L			1387303	1597024	0
[> Sc	45		ug/L			409578	414490 ✓	0
V	51	1.923	ug/L	0.005	0	2772	36454	0
V-1	51	1.933	ug/L	0.010	0	1649	36030	1
Cr	52	1.417	ug/L	0.033	2	8617	30161	1
Cr	53	1.473	ug/L	0.011	0	614	3272	0
Mn	55	2.543	ug/L	0.032	1	377	66498	0
[ Co	59	0.063	ug/L	0.004	5	55	1236	5
[> Ge	72		ug/L			372563	373102 ✓	0
Ni	60	0.192	ug/L	0.003	1	49	769	2
Ni	62	0.325	ug/L	0.009	2	97	275	2
Cu	63	6.235	ug/L	0.090	1	233	47834	0
Cu	65	6.225	ug/L	0.036	0	114	22206	1
Zn	66	2.088	ug/L	0.018	0	375	5306	0
Zn	67	3.284	ug/L	0.073	2	141	1503	2
Zn	68	3.107	ug/L	0.075	2	5524	10661	0
As	75	88.583	ug/L	0.480	0	145	199879	0
As-1	75	92.366	ug/L	0.518	0	7671	207732	0
Se	82	1.102	ug/L	0.021	1	0	356	1
Se	78	1.667	ug/L	0.152	9	7997	9234	0
[ Mo	98	0.122	ug/L	0.003	2	87	1258	2
Y	89		ug/L			461134	480475	0
Kr	83		ug/L			197	198	2
[> In	115		ug/L			515607	496745 ✓	0
Ag	107	13.207	ug/L	0.042	0	75	209640	0
Cd	111	0.060	ug/L	0.013	21	330	556	10
Cd	114	0.004	ug/L	0.001	35	32	63	18
Sb	121	0.101	ug/L	0.001	1	198	1292	1
Sb	123	0.104	ug/L	0.001	0	157	1003	1
Ba	135	39.090	ug/L	0.634	1	24	120838	1
[ Ba	137	39.257	ug/L	0.717	1	36	210678	0
[> Tb	159		ug/L			612197	600895 ✓	0
Tl	205	0.361	ug/L	0.002	0	250	16416	0
Pb	208	10.334	ug/L	0.041	0	1016	620451	0
Bi	209		ug/L			532877	517868	0
Th	232	0.812	ug/L	0.006	0	1565	60045	0
[ U	238	0.037	ug/L	0.000	0	1000	3849	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 P SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:21:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	745130✓	0
[ Be	9	0.076	ug/L	0.004	5	23	76	4
C	13		mg/L			6243	7681	1
Cl	37		mg/L			1387303	1578264	0
[> Sc	45		ug/L			409578	409731✓	1
V	51	1.069	ug/L	0.009	0	2772	21263	0
V-1	51	1.078	ug/L	0.016	1	1649	20583	0
Cr	52	1.054	ug/L	0.021	1	8617	24392	0
Cr	53	1.082	ug/L	0.046	4	614	2538	2
Mn	55	3.300	ug/L	0.039	1	377	85197	0
Co	59	0.115	ug/L	0.003	2	55	2177	1
[> Ge	72		ug/L			372563	368319✓	0
Ni	60	0.174	ug/L	0.006	3	49	695	2
Ni	62	0.228	ug/L	0.041	17	97	219	9
Cu	63	2.640	ug/L	0.035	1	233	20125	0
Cu	65	2.633	ug/L	0.029	1	114	9339	0
Zn	66	2.662	ug/L	0.042	1	375	6575	1
Zn	67	3.329	ug/L	0.048	1	141	1502	1
Zn	68	3.478	ug/L	0.133	3	5524	11128	1
As	75	151.916	ug/L	0.310	0	145	338288	0
As-1	75	158.282	ug/L	0.362	0	7671	346002	0
Se	82	3.228	ug/L	0.067	2	0	1031	2
Se	78	4.021	ug/L	0.059	1	7997	10826	0
[ Mo	98	0.051	ug/L	0.002	4	87	573	3
Y	89		ug/L			461134	524997	0
Kr	83		ug/L			197	204	2
[> In	115		ug/L			515607	503300✓	0
Ag	107	16.901	ug/L	0.090	0	75	271812	0
Cd	111	0.073	ug/L	0.004	6	330	615	3
Cd	114	0.001	ug/L	0.001	75	32	41	17
Sb	121	0.077	ug/L	0.004	5	198	1039	4
Sb	123	0.076	ug/L	0.003	3	157	782	2
Ba	135	30.675	ug/L	0.317	1	24	96089	1
[ Ba	137	30.269	ug/L	0.241	0	36	164609	0
[> Tb	159		ug/L			612197	604621✓	0
Tl	205	0.647	ug/L	0.003	0	250	29409	1
Pb	208	21.497	ug/L	0.084	0	1016	1297551	0
Bi	209		ug/L			532877	514446	1
Th	232	1.432	ug/L	0.012	0	1565	105275	0
[ U	238	0.083	ug/L	0.001	0	1000	7487	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 Q SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:27:47

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	736107 ✓	1
[ Be	9	0.443	ug/L	0.021	4	23	339	4
C	13		mg/L			6243	8184	0
Cl	37		mg/L			1387303	1522827	0
> Sc	45		ug/L			409578	448869 ✓	0
V	51	24.439	ug/L	0.303	1	2772	466082	1
V-1	51	24.245	ug/L	0.261	1	1649	468505	1
Cr	52	12.554	ug/L	0.084	0	8617	215201	0
Cr	53	12.531	ug/L	0.107	0	614	25092	1
Mn	55	253.614	ug/L	0.630	0	377	7141951	0
[ Co	59	3.615	ug/L	0.051	1	55	72821	1
> Ge	72		ug/L			372563	364521 ✓	1
Ni	60	7.643	ug/L	0.033	0	49	28110	1
Ni	62	7.881	ug/L	0.089	1	97	4310	2
Cu	63	42.054	ug/L	0.140	0	233	313892	0
Cu	65	42.257	ug/L	0.262	0	114	146632	1
Zn	66	58.744	ug/L	0.346	0	375	135889	1
Zn	67	56.764	ug/L	0.412	0	141	23141	1
Zn	68	60.037	ug/L	0.074	0	5524	102241	1
As	75	101.511	ug/L	0.505	0	145	223764	1
As-1	75	105.593	ug/L	0.509	0	7671	230944	1
Se	82	0.576	ug/L	0.065	11	0	181	12
Se	78	0.608	ug/L	0.012	1	7997	8261	1
[ Mo	98	0.300	ug/L	0.004	1	87	2905	2
Y	89		ug/L			461134	618255	1
Kr	83		ug/L			197	254	0
> In	115		ug/L			515607	486823 ✓	1
Ag	107	2.923	ug/L	0.017	0	75	45537	1
Cd	111	0.448	ug/L	0.016	3	330	2061	2
Cd	114	0.060	ug/L	0.002	3	32	561	3
Sb	121	✓ 0.006	ug/L	0.001	10	198	256	3
Sb	123	0.003	ug/L	0.002	58	157	175	8
Ba	135	96.692	ug/L	0.385	0	24	292910	0
[ Ba	137	96.473	ug/L	0.478	0	36	507404	1
> Tb	159		ug/L			612197	597097 ✓	0
Tl	205	0.342	ug/L	0.002	0	250	15443	1
Pb	208	11.102	ug/L	0.113	1	1016	662250	0
Bi	209		ug/L			532877	487544	0
Th	232	2.228	ug/L	0.012	0	1565	160985	0
[ U	238	0.470	ug/L	0.007	1	1000	37097	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 R SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:33:43

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

No As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	732402 ✓	0
[ Be	9	0.317	ug/L	0.008	2	23	248	1
C	13		mg/L			6243	8417	0
Cl	37		mg/L			1387303	1517329	0
[> Sc	45		ug/L			409578	434197 ✓	0
V	51	18.451	ug/L	0.008	0	2772	341115	0
V-1	51	18.295	ug/L	0.038	0	1649	342412	0
Cr	52	9.083	ug/L	0.049	0	8617	153133	0
Cr	53	9.055	ug/L	0.164	1	614	17718	1
Mn	55	86.089	ug/L	0.403	0	377	2345356	0
[ Co	59	1.574	ug/L	0.016	1	55	30701	0
[> Ge	72		ug/L			372563	361788 ✓	0
Ni	60	2.946	ug/L	0.016	0	49	10782	0
Ni	62	3.057	ug/L	0.083	2	97	1717	2
Cu	63	55.701	ug/L	0.414	0	233	412572	0
Cu	65	55.776	ug/L	0.493	0	114	192046	0
Zn	66	28.307	ug/L	0.157	0	375	65176	0
Zn	67	31.719	ug/L	0.128	0	141	12894	0
Zn	68	31.385	ug/L	0.260	0	5524	55607	0
As	75	421.539	ug/L	0.433	0	145	921793	0
As-1	75	438.695	ug/L	0.458	0	7671	928786	0
Se	82	2.360	ug/L	0.019	0	0	740	0
Se	78	2.354	ug/L	0.063	2	7997	9445	0
[ Mo	98	0.416	ug/L	0.015	3	87	3957	3
Y	89		ug/L			461134	521611	0
Kr	83		ug/L			197	235	0
[> In	115		ug/L			515607	481665 ✓	0
Ag	107	4.936	ug/L	0.031	0	75	76020	0
Cd	111	0.180	ug/L	0.013	7	330	1004	4
Cd	114	0.025	ug/L	0.001	5	32	253	4
Sb	121	0.010	ug/L	0.002	18	198	286	6
Sb	123	0.008	ug/L	0.003	38	157	212	11
Ba	135	154.561	ug/L	0.517	0	24	463253	0
[ Ba	137	153.933	ug/L	2.308	1	36	801005	1
[> Tb	159		ug/L			612197	589004 ✓	0
Tl	205	0.502	ug/L	0.008	1	250	22260	1
Pb	208	24.168	ug/L	0.310	1	1016	1420985	0
Bi	209		ug/L			532877	485678	0
Th	232	2.636	ug/L	0.017	0	1565	187592	1
[ U	238	0.374	ug/L	0.003	0	1000	29364	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 R SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:39:39

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

AS

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			803723	741352 ✓	1
[ Be	9	0.121	ug/L	0.009	7	23	108	5
C	13		mg/L			6243	6261	0
Cl	37		mg/L			1387303	1546642	0
[>] Sc	45		ug/L			409578	410825 ✓	0
V	51	7.990	ug/L	0.112	1	2772	141334	1
V-1	51	7.968	ug/L	0.108	1	1649	142027	0
Cr	52	3.857	ug/L	0.018	0	8617	66498	0
Cr	53	3.992	ug/L	0.024	0	614	7736	0
Mn	55	36.594	ug/L	0.422	1	377	943453	0
Co	59	0.681	ug/L	0.004	0	55	12610	0
[>] Ge	72		ug/L			372563	359503 ✓	1
Ni	60	1.217	ug/L	0.029	2	49	4454	1
Ni	62	1.332	ug/L	0.028	2	97	796	0
Cu	63	23.415	ug/L	0.340	1	233	172449	0
Cu	65	23.380	ug/L	0.186	0	114	80053	0
Zn	66	11.995	ug/L	0.247	2	375	27648	1
Zn	67	13.463	ug/L	0.168	1	141	5516	0
Zn	68	13.284	ug/L	0.205	1	5524	26458	0
As	75	175.235	ug/L	2.041	1	145	380816	0
As-1	75	182.471	ug/L	2.165	1	7671	388163	0
Se	82	1.051	ug/L	0.034	3	0	327	1
Se	78	1.347	ug/L	0.179	13	7997	8670	0
[ Mo	98	0.163	ug/L	0.006	3	87	1595	3
Y	89		ug/L			461134	477703	1
Kr	83		ug/L			197	204	1
[>] In	115		ug/L			515607	480946 ✓	0
Ag	107	2.032	ug/L	0.033	1	75	31289	2
Cd	111	0.087	ug/L	0.016	18	330	642	9
Cd	114	0.009	ug/L	0.002	16	32	113	11
Sb	121	-0.004	ug/L	0.001	40	198	146	11
Sb	123	-0.005	ug/L	0.001	18	157	110	6
Ba	135	63.177	ug/L	0.392	0	24	189083	0
[ Ba	137	62.894	ug/L	0.601	0	36	326804	0
[>] Tb	159		ug/L			612197	588275 ✓	0
Tl	205	0.201	ug/L	0.003	1	250	9037	1
Pb	208	9.923	ug/L	0.028	0	1016	583284	0
Bi	209		ug/L			532877	494524	1
Th	232	1.079	ug/L	0.004	0	1565	77576	0
[ U	238	0.145	ug/L	0.000	0	1000	11941	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 S SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:45:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	756855 ✓	1
[ Be	9	0.067	ug/L	0.013	19	23	71	12
C	13		mg/L			6243	9376	1
Cl	37		mg/L			1387303	1580590	0
[> Sc	45		ug/L			409578	401780 ✓	1
V	51	1.713	ug/L	0.054	3	2772	31752	1
V-1	51	1.738	ug/L	0.044	2	1649	31554	0
Cr	52	1.741	ug/L	0.045	2	8617	33982	0
Cr	53	1.820	ug/L	0.017	0	614	3776	1
Mn	55	6.993	ug/L	0.164	2	377	176589	0
[ Co	59	0.170	ug/L	0.006	3	55	3114	2
[> Ge	72		ug/L			372563	358698 ✓	0
Ni	60	0.378	ug/L	0.018	4	49	1413	5
Ni	62	0.455	ug/L	0.035	7	97	332	5
Cu	63	3.347	ug/L	0.028	0	233	24794	1
Cu	65	3.340	ug/L	0.041	1	114	11504	1
Zn	66	3.675	ug/L	0.082	2	375	8704	2
Zn	67	4.602	ug/L	0.079	1	141	1971	2
Zn	68	4.734	ug/L	0.139	2	5524	12832	1
As	75	117.285	ug/L	0.420	0	145	254379	0
As-1	75	122.182	ug/L	0.476	0	7671	261793	0
Se	82	2.158	ug/L	0.101	4	0	671	5
Se	78	2.687	ug/L	0.111	4	7997	9599	0
[ Mo	98	0.077	ug/L	0.004	4	87	795	4
Y	89		ug/L			461134	494886	0
Kr	83		ug/L			197	199	2
[> In	115		ug/L			515607	488670 ✓	0
Ag	107	13.846	ug/L	0.145	1	75	216211	0
Cd	111	0.086	ug/L	0.002	2	330	651	2
Cd	114	0.006	ug/L	0.001	9	32	88	5
Sb	121	0.081	ug/L	0.008	10	198	1054	7
Sb	123	0.073	ug/L	0.006	8	157	737	7
Ba	135	40.271	ug/L	0.439	1	24	122469	0
Ba	137	40.416	ug/L	0.450	1	36	213386	0
[> Tb	159		ug/L			612197	594482 ✓	0
Ti	205	0.518	ug/L	0.004	0	250	23167	0
Pb	208	16.871	ug/L	0.155	0	1016	1001506	0
Bi	209		ug/L			532877	503944	1
Th	232	0.817	ug/L	0.007	0	1565	59742	0
[ U	238	0.054	ug/L	0.001	1	1000	5143	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 T SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:51:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	746463 ✓	0
[ Be	9	0.051	ug/L	0.008	16	23	58	11
C	13		mg/L			6243	7891	0
Cl	37		mg/L			1387303	1565861	0
> Sc	45		ug/L			409578	396381 ✓	0
V	51	3.398	ug/L	0.012	0	2772	59534	0
V-1	51	3.396	ug/L	0.015	0	1649	59315	0
Cr	52	1.707	ug/L	0.020	1	8617	33043	0
Cr	53	1.784	ug/L	0.065	3	614	3664	3
Mn	55	6.981	ug/L	0.092	1	377	173943	1
Co	59	0.264	ug/L	0.001	0	55	4751	0
> Ge	72		ug/L			372563	360257 ✓	0
Ni	60	0.529	ug/L	0.019	3	49	1965	2
Ni	62	0.617	ug/L	0.071	11	97	420	8
Cu	63	4.331	ug/L	0.005	0	233	32148	0
Cu	65	4.370	ug/L	0.024	0	114	15083	0
Zn	66	4.184	ug/L	0.061	1	375	9902	1
Zn	67	5.346	ug/L	0.302	5	141	2277	5
Zn	68	4.991	ug/L	0.122	2	5524	13298	1
As	75	192.881	ug/L	0.566	0	145	420067	0
As-1	75	200.843	ug/L	0.568	0	7671	427434	0
Se	82	1.273	ug/L	0.049	3	0	397	3
Se	78	1.579	ug/L	0.041	2	7997	8855	0
Mo	98	0.111	ug/L	0.004	3	87	1110	3
Y	89		ug/L			461134	462260	0
Kr	83		ug/L			197	199	4
> In	115		ug/L			515607	486732 ✓	1
Ag	107	8.483	ug/L	0.099	1	75	131959	0
Cd	111	0.092	ug/L	0.015	16	330	672	8
Cd	114	0.002	ug/L	0.001	27	32	51	11
Sb	121	0.045	ug/L	0.002	4	198	662	2
Sb	123	0.045	ug/L	0.001	1	157	510	1
Ba	135	38.972	ug/L	0.684	1	24	118039	0
Ba	137	38.886	ug/L	0.675	1	36	204483	0
> Tb	159		ug/L			612197	593360 ✓	0
Tl	205	0.413	ug/L	0.006	1	250	18478	1
Pb	208	12.162	ug/L	0.154	1	1016	720800	0
Bi	209		ug/L			532877	495640	0
Th	232	0.450	ug/L	0.008	1	1565	33535	0
U	238	0.033	ug/L	0.001	2	1000	3473	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 U SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:57:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	738590 ✓	1
[ Be	9	0.698	ug/L	0.042	6	23	525	7
C	13		mg/L			6243	8950	0
Cl	37		mg/L			1387303	1528558	0
[> Sc	45		ug/L			409578	443818 ✓	1
V	51	26.039	ug/L	0.040	0	2772	490820	1
V-1	51	25.871	ug/L	0.036	0	1649	494189	1
Cr	52	11.691	ug/L	0.024	0	8617	198787	1
Cr	53	11.873	ug/L	0.072	0	614	23540	0
Mn	55	460.848	ug/L	2.858	0	377	12831721	1
[ Co	59	8.836	ug/L	0.032	0	55	175920	1
[> Ge	72		ug/L			372563	353967 ✓	0
Ni	60	11.926	ug/L	0.139	1	49	42567	1
Ni	62	13.877	ug/L	0.104	0	97	7300	0
Cu	63	24.300	ug/L	0.355	1	233	176226	1
Cu	65	24.258	ug/L	0.256	1	114	81784	1
Zn	66	67.339	ug/L	0.527	0	375	151208	1
Zn	67	64.930	ug/L	0.121	0	141	25684	0
Zn	68	68.000	ug/L	0.391	0	5524	111752	0
As	75	23.284	ug/L	0.216	0	145	49946	1
As-1	75	24.225	ug/L	0.221	0	7671	57065	1
Se	82	0.086	ug/L	0.027	30	0	26	31
Se	78	0.398	ug/L	0.007	1	7997	7875	0
[ Mo	98	0.172	ug/L	0.005	2	87	1647	3
Y	89		ug/L			461134	791218	1
Kr	83		ug/L			197	282	0
[> In	115		ug/L			515607	476947 ✓	1
Ag	107	0.572	ug/L	0.010	1	75	8781	0
Cd	111	1.045	ug/L	0.038	3	330	4301	3
Cd	114	0.172	ug/L	0.010	5	32	1521	4
Sb	121	0.008	ug/L	0.002	25	198	271	7
Sb	123	0.007	ug/L	0.001	19	157	203	6
Ba	135	126.844	ug/L	0.697	0	24	376466	1
Ba	137	127.302	ug/L	1.597	1	36	655924	1
[> Tb	159		ug/L			612197	597813 ✓	0
Tl	205	0.192	ug/L	0.004	2	250	8809	1
Pb	208	12.860	ug/L	0.066	0	1016	767880	0
Bi	209		ug/L			532877	483511	0
Th	232	2.208	ug/L	0.039	1	1565	159740	1
[ U	238	0.492	ug/L	0.002	0	1000	38874	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:03:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	723295 ✓	1
[	Be	9	48.434	ug/L	1.113	2	23	34236	0
	C	13		mg/L			6243	3360	0
	Cl	37		mg/L			1387303	1587585	0
[>	Sc	45		ug/L			409578	391353 ✓	0
	V	51	48.307	ug/L	0.408	0	2772	800685	1
	V-1	51	48.286	ug/L	0.384	0	1649	811974	1
	Cr	52	48.736	ug/L	0.130	0	8617	704647	0
	Cr	53	48.647	ug/L	0.174	0	614	83235	0
	Mn	55	49.590	ug/L	0.235	0	377	1217854	1
[	Co	59	48.114	ug/L	0.391	0	55	844448	1
[>	Ge	72		ug/L			372563	356950 ✓	0
	Ni	60	48.020	ug/L	0.113	0	49	172701	1
	Ni	62	47.690	ug/L	0.583	1	97	25071	0
	Cu	63	48.747	ug/L	0.183	0	233	356267	0
	Cu	65	48.511	ug/L	0.339	0	114	164816	1
	Zn	66	49.602	ug/L	0.172	0	375	112410	0
	Zn	67	50.315	ug/L	0.356	0	141	20100	0
	Zn	68	49.259	ug/L	0.582	1	5524	83090	0
	As	75	49.275	ug/L	0.106	0	145	106433	0
	As-1	75	49.430	ug/L	0.116	0	7671	109771	0
	Se	82	49.845	ug/L	0.114	0	0	15447	0
	Se	78	50.398	ug/L	0.179	0	7997	43130	0
[	Mo	98	46.541	ug/L	0.248	0	87	427761	0
	Y	89		ug/L			461134	438784	0
	Kr	83		ug/L			197	226	7
[>	In	115		ug/L			515607	471666 ✓	0
	Ag	107	49.628	ug/L	0.850	1	75	747844	1
	Cd	111	49.994	ug/L	0.236	0	330	189387	0
	Cd	114	50.294	ug/L	0.263	0	32	432168	0
	Sb	121	50.206	ug/L	0.431	0	198	520002	1
	Sb	123	50.028	ug/L	0.454	0	157	388798	1
	Ba	135	50.358	ug/L	0.438	0	24	147814	0
[	Ba	137	50.792	ug/L	0.044	0	36	258842	0
[>	Tb	159		ug/L			612197	580720 ✓	0
	Tl	205	51.398	ug/L	0.863	1	250	2223887	1
	Pb	208	49.725	ug/L	0.556	1	1016	2881485	0
	Bi	209		ug/L			532877	485164	0
	Th	232	50.960	ug/L	0.820	1	1565	3548046	1
[	U	238	50.332	ug/L	0.150	0	1000	3765499	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:09:53

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	716920 ✓	1
[ Be	9	0.019	ug/L	0.010	52	23	33	19
C	13		mg/L			6243	6261	3
Cl	37		mg/L			1387303	1606651	0
> Sc	45		ug/L			409578	393084 ✓	0
V	51	0.012	ug/L	0.009	77	2772	2862	5
V-1	51	0.033	ug/L	0.001	3	1649	2137	1
Cr	52	0.012	ug/L	0.010	80	8617	8443	1
Cr	53	0.077	ug/L	0.022	28	614	722	5
Mn	55	0.008	ug/L	0.000	5	377	564	2
[ Co	59	0.001	ug/L	0.000	37	55	68	8
> Ge	72		ug/L			372563	357001 ✓	0
Ni	60	-0.002	ug/L	0.001	54	49	40	9
NI	62	0.044	ug/L	0.029	65	97	116	13
Cu	63	0.003	ug/L	0.003	94	233	247	8
Cu	65	0.003	ug/L	0.001	44	114	118	3
Zn	66	-0.000	ug/L	0.012	5338	375	359	6
Zn	67	0.017	ug/L	0.007	41	141	142	1
Zn	68	0.127	ug/L	0.086	68	5524	5493	2
As	75	0.007	ug/L	0.021	286	145	155	28
As-1	75	0.297	ug/L	0.038	12	7671	7966	0
Se	82	0.002	ug/L	0.024	1278	0	0	5706
Se	78	0.894	ug/L	0.060	6	7997	8292	0
[ Mo	98	-0.001	ug/L	0.003	670	87	79	38
Y	89		ug/L			461134	441458	0
Kr	83		ug/L			197	200	2
> In	115		ug/L			515607	474661 ✓	1
Ag	107	0.003	ug/L	0.001	32	75	122	13
Cd	111	0.025	ug/L	0.002	7	330	399	2
Cd	114	-0.001	ug/L	0.001	113	32	24	26
Sb	121	0.050	ug/L	0.019	37	198	704	27
Sb	123	0.051	ug/L	0.014	27	157	542	19
Ba	135	0.003	ug/L	0.001	23	24	30	4
[ Ba	137	0.003	ug/L	0.001	41	36	46	10
> Tb	159		ug/L			612197	570238 ✓	0
Ti	205	-0.001	ug/L	0.001	278	250	210	28
Pb	208	-0.006	ug/L	0.001	14	1016	595	7
Bi	209		ug/L			532877	497303	1
Th	232	0.002	ug/L	0.006	393	1565	1558	25
[ U	238	-0.009	ug/L	0.001	10	1000	265	25

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 MB1 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:17:01

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	747484 ✓	2
[ Be	9	0.015	ug/L	0.013	89	23	32	31
C	13		mg/L			6243	5267	1
Cl	37		mg/L			1387303	1615542	1
> Sc	45		ug/L			409578	405350 ✓	0
V	51	✓ 0.002	ug/L	0.008	317	2772	2785	4
V-1	51	0.028	ug/L	0.005	18	1649	2127	4
Cr	52	✓ 0.004	ug/L	0.009	248	8617	8582	0
Cr	53	0.086	ug/L	0.002	2	614	759	1
Mn	55	0.034	ug/L	0.001	1	377	1230	1
[ Co	59	0.001	ug/L	0.000	27	55	67	4
> Ge	72		ug/L			372563	368789 ✓	0
NI	60	0.002	ug/L	0.001	36	49	55	3
NI	62	0.087	ug/L	0.036	41	97	143	13
Cu	63	0.017	ug/L	0.002	12	233	362	4
Cu	65	0.013	ug/L	0.004	29	114	159	8
Zn	66	0.194	ug/L	0.018	9	375	824	5
Zn	67	0.147	ug/L	0.034	22	141	200	7
Zn	68	0.306	ug/L	0.041	13	5524	5967	1
As	75	✓ 0.009	ug/L	0.016	173	145	164	21
As-1	75	0.219	ug/L	0.046	21	7671	8062	1
Se	82	✓ -0.004	ug/L	0.034	829	0	-1	624
Se	78	0.636	ug/L	0.114	17	7997	8379	1
[ Mo	98	-0.003	ug/L	0.001	27	87	53	16
Y	89		ug/L			461134	460437	0
Kr	83		ug/L			197	202	1
> In	115		ug/L			515607	494401 ✓	1
Ag	107	✓ 0.001	ug/L	0.000	57	75	80	4
Cd	111	0.026	ug/L	0.006	22	330	418	4
Cd	114	-0.001	ug/L	0.001	44	32	21	20
Sb	121	✓ 0.005	ug/L	0.002	41	198	247	8
Sb	123	0.003	ug/L	0.004	122	157	178	17
Ba	135	0.003	ug/L	0.001	41	24	33	13
[ Ba	137	0.003	ug/L	0.001	31	36	52	11
> Tb	159		ug/L			612197	596776 ✓	0
Tl	205	-0.003	ug/L	0.000	5	250	110	6
Pb	208	✓ -0.006	ug/L	0.000	5	1016	647	2
Bi	209		ug/L			532877	509541	1
Th	232	-0.010	ug/L	0.001	12	1565	819	10
[ U	238	-0.010	ug/L	0.000	4	1000	217	15

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 V SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:23:00

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	751486 ✓	1
[ Be	9	0.668	ug/L	0.018	2	23	512	1
C	13		mg/L			6243	7841	2
Cl	37		mg/L			1387303	1555682	0
> Sc	45		ug/L			409578	449572 ✓	0
V	51	23.454	ug/L	0.191	0	2772	448118	0
V-1	51	23.252	ug/L	0.177	0	1649	450092	0
Cr	52	12.444	ug/L	0.095	0	8617	213728	1
Cr	53	12.352	ug/L	0.049	0	614	24782	0
Mn	55	558.347	ug/L	4.074	0	377	15747249	0
[ Co	59	8.911	ug/L	0.067	0	55	179711	0
> Ge	72		ug/L			372563	366866 ✓	0
Ni	60	12.727	ug/L	0.121	0	49	47080	1
Ni	62	15.375	ug/L	0.214	1	97	8372	1
Cu	63	20.206	ug/L	0.205	1	233	151905	0
Cu	65	20.261	ug/L	0.224	1	114	70813	1
Zn	66	68.506	ug/L	0.408	0	375	159421	0
Zn	67	64.203	ug/L	0.452	0	141	26323	0
Zn	68	69.003	ug/L	0.598	0	5524	117450	0
As	75	21.153	ug/L	0.120	0	145	47041	0
As-1	75	21.950	ug/L	0.112	0	7671	54300	0
Se	82	0.107	ug/L	0.017	15	0	33	15
Se	78	0.192	ug/L	0.121	62	7997	8014	1
[ Mo	98	0.254	ug/L	0.007	2	87	2480	2
Y	89		ug/L			461134	833760	0
Kr	83		ug/L			197	274	2
> In	115		ug/L			515607	490946 ✓	0
Ag	107	0.749	ug/L	0.002	0	75	11819	0
Cd	111	1.140	ug/L	0.050	4	330	4804	4
Cd	114	0.301	ug/L	0.005	1	32	2727	1
Sb	121	0.021	ug/L	0.002	8	198	414	4
Sb	123	0.021	ug/L	0.007	32	157	316	16
Ba	135	108.253	ug/L	0.170	0	24	330717	0
[ Ba	137	108.938	ug/L	1.073	0	36	577817	1
> Tb	159		ug/L			612197	604827 ✓	0
Tl	205	0.163	ug/L	0.004	2	250	7573	2
Pb	208	18.588	ug/L	0.187	1	1016	1122484	0
Bi	209		ug/L			532877	494724	0
Th	232	2.195	ug/L	0.015	0	1565	160677	0
[ U	238	0.463	ug/L	0.002	0	1000	37027	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 X SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:28:59

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

No As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	747892 ✓	1
[ Be	9	0.084	ug/L	0.013	15	23	82	10
C	13		mg/L			6243	6723	0
Cl	37		mg/L			1387303	1587029	0
[> Sc	45		ug/L			409578	407410 ✓	0
V	51	2.743	ug/L	0.009	0	2772	49924	0
V-1	51	2.756	ug/L	0.012	0	1649	49792	0
Cr	52	2.219	ug/L	0.014	0	8617	41583	0
Cr	53	2.287	ug/L	0.053	2	614	4656	1
Mn	55	13.191	ug/L	0.064	0	377	337509	0
Co	59	0.303	ug/L	0.010	3	55	5593	3
[> Ge	72		ug/L			372563	360722 ✓	0
Ni	60	0.732	ug/L	0.014	1	49	2708	2
Ni	62	0.727	ug/L	0.045	6	97	478	4
Cu	63	4.312	ug/L	0.051	1	233	32055	1
Cu	65	4.337	ug/L	0.073	1	114	14991	1
Zn	66	4.495	ug/L	0.046	1	375	10624	0
Zn	67	7.013	ug/L	0.098	1	141	2949	1
Zn	68	6.641	ug/L	0.039	0	5524	15948	0
As	75	395.264	ug/L	0.177	0	145	861803	0
As-1	75	411.458	ug/L	0.199	0	7671	869019	0
Se	82	2.692	ug/L	0.065	2	0	842	2
Se	78	3.022	ug/L	0.016	0	7997	9892	0
[ Mo	98	0.098	ug/L	0.004	3	87	993	3
Y	89		ug/L			461134	482534	0
Kr	83		ug/L			197	221	2
[> In	115		ug/L			515607	481236 ✓	1
Ag	107	8.785	ug/L	0.107	1	75	135109	0
Cd	111	0.135	ug/L	0.018	13	330	827	8
Cd	114	0.003	ug/L	0.000	7	32	59	2
Sb	121	✓ 0.030	ug/L	0.003	8	198	504	4
Sb	123	0.030	ug/L	0.002	6	157	387	3
Ba	135	88.788	ug/L	0.876	0	24	265864	0
[ Ba	137	89.037	ug/L	2.018	2	36	462827	0
[> Tb	159		ug/L			612197	586060 ✓	0
Tl	205	0.203	ug/L	0.001	0	250	9098	0
Pb	208	6.593	ug/L	0.045	0	1016	386434	0
Bi	209		ug/L			532877	491295	0
Th	232	0.778	ug/L	0.006	0	1565	56111	0
[ U	238	0.095	ug/L	0.001	0	1000	8095	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 X SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:34:58

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	729047	1
[ Be	9	0.043	ug/L	0.017	40	23	51	24
C	13		mg/L			6243	5593	2
Cl	37		mg/L			1387303	1603862	0
[> Sc	45		ug/L			409578	395858	1
V	51	1.053	ug/L	0.009	0	2772	20269	1
V-1	51	1.077	ug/L	0.012	1	1649	19872	1
Cr	52	0.850	ug/L	0.008	0	8617	20617	0
Cr	53	0.936	ug/L	0.023	2	614	2202	0
Mn	55	5.118	ug/L	0.037	0	377	127454	0
[ Co	59	0.114	ug/L	0.007	5	55	2076	5
[> Ge	72		ug/L			372563	356595	0
Ni	60	0.285	ug/L	0.014	4	49	1069	5
Ni	62	0.323	ug/L	0.054	16	97	261	10
Cu	63	1.672	ug/L	0.045	2	233	12422	2
Cu	65	1.662	ug/L	0.055	3	114	5746	2
Zn	66	1.859	ug/L	0.026	1	375	4553	0
Zn	67	2.759	ug/L	0.135	4	141	1228	4
Zn	68	2.689	ug/L	0.065	2	5524	9530	0
As	75	152.475	ug/L	0.942	0	145	328717	0
As-1	75	158.867	ug/L	0.976	0	7671	336193	0
Se	82	1.071	ug/L	0.079	7	0	331	7
Se	78	1.648	ug/L	0.027	1	7997	8813	0
[ Mo	98	0.035	ug/L	0.004	11	87	401	8
Y	89		ug/L			461134	449891	1
Kr	83		ug/L			197	206	4
[> In	115		ug/L			515607	472392	1
Ag	107	3.385	ug/L	0.035	1	75	51145	0
Cd	111	0.053	ug/L	0.005	9	330	502	4
Cd	114	0.001	ug/L	0.000	44	32	37	6
Sb	121	0.005	ug/L	0.001	15	198	229	4
Sb	123	0.004	ug/L	0.003	76	157	175	13
Ba	135	33.633	ug/L	0.601	1	24	98869	0
[ Ba	137	33.576	ug/L	0.832	2	36	171350	1
[> Tb	159		ug/L			612197	566682	0
Tl	205	0.075	ug/L	0.001	1	250	3413	1
Pb	208	2.554	ug/L	0.016	0	1016	145350	1
Bi	209		ug/L			532877	492756	0
Th	232	0.291	ug/L	0.002	0	1565	21222	1
[ U	238	0.030	ug/L	0.000	1	1000	3116	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 A-L SWN

Sample Dil Factor: 100

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:40:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	716245 ✓	1
[ Be	9	0.029	ug/L	0.018	64	23	40	30
C	13		mg/L			6243	5359	1
Cl	37		mg/L			1387303	1617535	0
> Sc	45		ug/L			409578	386755 ✓	0
V	51	✓ 0.362	ug/L	0.009	2	2772	8520	1
V-1	51	0.394	ug/L	0.001	0	1649	8091	0
Cr	52	✓ 0.342	ug/L	0.004	1	8617	12963	0
Cr	53	0.445	ug/L	0.029	6	614	1327	3
Mn	55	2.507	ug/L	0.038	1	377	61179	1
[ Co	59	0.049	ug/L	0.002	3	55	899	3
> Ge	72		ug/L			372563	354651 ✓	0
Ni	60	0.122	ug/L	0.006	4	49	481	4
Ni	62	0.172	ug/L	0.016	9	97	181	4
Cu	63	0.405	ug/L	0.012	2	233	3160	2
Cu	65	0.409	ug/L	0.015	3	114	1490	3
Zn	66	0.593	ug/L	0.007	1	375	1689	0
Zn	67	0.693	ug/L	0.035	5	141	407	3
Zn	68	0.774	ug/L	0.036	4	5524	6472	0
As	75	20.463	ug/L	0.200	0	145	43995	0
As-1	75	21.560	ug/L	0.172	0	7671	51688	0
Se	82	✓ 0.119	ug/L	0.016	13	0	36	13
Se	78	0.914	ug/L	0.156	17	7997	8252	1
[ Mo	98	0.008	ug/L	0.002	21	87	153	9
Y	89		ug/L			461134	443038	0
Kr	83		ug/L			197	194	4
> In	115		ug/L			515607	467723 ✓	0
Ag	107	0.735	ug/L	0.012	1	75	11049	1
Cd	111	0.036	ug/L	0.009	24	330	435	7
Cd	114	0.000	ug/L	0.000	245	32	31	11
Sb	121	✓ -0.006	ug/L	0.000	7	198	113	4
Sb	123	-0.009	ug/L	0.001	9	157	73	8
Ba	135	3.630	ug/L	0.034	0	24	10586	1
[ Ba	137	3.706	ug/L	0.015	0	36	18760	0
> Tb	159		ug/L			612197	565300 ✓	0
Tl	205	0.011	ug/L	0.000	1	250	683	1
Pb	208	1.021	ug/L	0.009	0	1016	58509	0
Bi	209		ug/L			532877	486831	0
Th	232	0.073	ug/L	0.002	2	1565	6364	1
[ U	238	0.001	ug/L	0.000	28	1000	992	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 A SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:46:52

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	750610 ✓	1
[ Be	9	0.084	ug/L	0.010	11	23	83	9
C	13		mg/L			6243	6771	1
Cl	37		mg/L			1387303	1599469	0
> Sc	45		ug/L			409578	404272 ✓	0
V	51	1.732	ug/L	0.028	1	2772	32296	2
V-1	51	1.746	ug/L	0.012	0	1649	31904	1
Cr	52	1.635	ug/L	0.011	0	8617	32634	1
Cr	53	1.684	ug/L	0.092	5	614	3562	4
Mn	55	11.459	ug/L	0.082	0	377	290992	0
[ Co	59	0.224	ug/L	0.005	2	55	4120	3
> Ge	72		ug/L			372563	359206 ✓	0
Ni	60	0.575	ug/L	0.006	1	49	2129	0
Ni	62	0.642	ug/L	0.011	1	97	432	1
Cu	63	1.935	ug/L	0.013	0	233	14450	0
Cu	65	1.934	ug/L	0.008	0	114	6717	0
Zn	66	2.339	ug/L	0.031	1	375	5679	1
Zn	67	2.756	ug/L	0.115	4	141	1236	3
Zn	68	2.812	ug/L	0.069	2	5524	9795	0
As	75	98.390	ug/L	0.450	0	145	213725	0
As-1	75	102.585	ug/L	0.464	0	7671	221304	0
Se	82	u 0.420	ug/L	0.027	6	0	130	6
Se	78	1.014	ug/L	0.049	4	7997	8428	0
[ Mo	98	0.063	ug/L	0.006	9	87	664	8
Y	89		ug/L			461134	489836	0
Kr	83		ug/L			197	215	1
> In	115		ug/L			515607	479958 ✓	0
Ag	107	3.557	ug/L	0.086	2	75	54609	1
Cd	111	0.069	ug/L	0.008	11	330	571	4
Cd	114	0.004	ug/L	0.001	13	32	64	6
Sb	121	u 0.010	ug/L	0.002	17	198	291	6
Sb	123	0.006	ug/L	0.006	109	157	194	26
Ba	135	17.481	ug/L	0.138	0	24	52227	0
[ Ba	137	17.529	ug/L	0.163	0	36	90921	1
> Tb	159		ug/L			612197	583184 ✓	0
Tl	205	0.070	ug/L	0.002	3	250	3260	2
Pb	208	4.847	ug/L	0.014	0	1016	282978	0
Bi	209		ug/L			532877	500360	0
Th	232	0.416	ug/L	0.007	1	1565	30600	0
[ U	238	0.046	ug/L	0.001	2	1000	4417	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 ADUP SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:52:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	763528 ✓	0
[ Be	9	0.083	ug/L	0.021	25	23	84	17
C	13		mg/L			6243	8953	3
Cl	37		mg/L			1387303	1586538	0
[> Sc	45		ug/L			409578	412355 ✓	0
V	51	2.197	ug/L	0.029	1	2772	41026	1
V-1	51	2.200	ug/L	0.010	0	1649	40571	0
Cr	52	2.139	ug/L	0.017	0	8617	40876	0
Cr	53	2.153	ug/L	0.041	1	614	4473	1
Mn	55	14.144	ug/L	0.128	0	377	366259	0
[ Co	59	0.277	ug/L	0.006	2	55	5172	1
[> Ge	72		ug/L			372563	363041 ✓	0
Ni	60	0.696	ug/L	0.022	3	49	2592	2
Ni	62	0.779	ug/L	0.045	5	97	509	4
Cu	63	2.149	ug/L	0.046	2	233	16187	1
Cu	65	2.131	ug/L	0.030	1	114	7470	0
Zn	66	3.227	ug/L	0.055	1	375	7779	1
Zn	67	3.779	ug/L	0.120	3	141	1662	2
Zn	68	3.691	ug/L	0.047	1	5524	11312	0
As	75	91.937	ug/L	0.698	0	145	201853	1
As-1	75	95.836	ug/L	0.747	0	7671	209448	1
Se	82	✓ 0.407	ug/L	0.055	13	0	127	13
Se	78	0.895	ug/L	0.127	14	7997	8433	0
[ Mo	98	0.055	ug/L	0.006	10	87	600	9
Y	89		ug/L			461134	499997	0
Kr	83		ug/L			197	213	2
[> In	115		ug/L			515607	484340 ✓	0
Ag	107	3.278	ug/L	0.038	1	75	50792	1
Cd	111	0.094	ug/L	0.001	1	330	676	0
Cd	114	0.006	ug/L	0.001	14	32	79	8
Sb	121	✓ 0.001	ug/L	0.002	251	198	194	9
Sb	123	-0.004	ug/L	0.002	54	157	119	12
Ba	135	18.971	ug/L	0.140	0	24	57196	0
[ Ba	137	19.039	ug/L	0.066	0	36	99652	0
[> Tb	159		ug/L			612197	584442 ✓	0
Tl	205	0.091	ug/L	0.002	2	250	4179	1
Pb	208	5.010	ug/L	0.055	1	1016	293017	0
Bi	209		ug/L			532877	500473	0
Th	232	0.436	ug/L	0.005	1	1565	32027	0
[ U	238	0.053	ug/L	0.001	2	1000	4968	3



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 ASPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:58:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	743360 ✓	2
[ Be	9	24.234	ug/L	0.567	2	23	17615	0
C	13		mg/L			6243	6656	1
Cl	37		mg/L			1387303	1587391	0
[> Sc	45		ug/L			409578	403961 ✓	0
V	51	24.306	ug/L	0.285	1	2772	417182	1
V-1	51	24.370	ug/L	0.181	0	1649	423805	0
Cr	52	26.386	ug/L	0.255	0	8617	397669	0
Cr	53	26.486	ug/L	0.180	0	614	47054	0
Mn	55	39.542	ug/L	0.390	0	377	1002408	0
[ Co	59	24.501	ug/L	0.059	0	55	443886	0
[> Ge	72		ug/L			372563	355945 ✓	0
Ni	60	25.923	ug/L	0.478	1	49	92979	1
Ni	62	25.745	ug/L	0.298	1	97	13539	0
Cu	63	27.519	ug/L	0.064	0	233	200654	0
Cu	65	27.523	ug/L	0.230	0	114	93293	1
Zn	66	81.528	ug/L	0.396	0	375	184009	0
Zn	67	73.219	ug/L	0.452	0	141	29106	0
Zn	68	79.649	ug/L	0.510	0	5524	130720	0
As	75	116.289	ug/L	0.363	0	145	250282	0
As-1	75	118.044	ug/L	0.303	0	7671	251235	0
Se	82	77.944	ug/L	0.798	1	0	24086	0
Se	78	78.456	ug/L	0.760	0	7997	62699	0
[ Mo	98	15.049	ug/L	0.050	0	87	137983	0
Y	89		ug/L			461134	492451	1
Kr	83		ug/L			197	228	4
[> In	115		ug/L			515607	478831 ✓	0
Ag	107	29.150	ug/L	0.134	0	75	445953	0
Cd	111	24.981	ug/L	0.186	0	330	96223	0
Cd	114	24.962	ug/L	0.104	0	32	217765	0
Sb	121	0.167	ug/L	0.002	0	198	1939	0
Sb	123	0.164	ug/L	0.009	5	157	1436	4
Ba	135	44.497	ug/L	0.550	1	24	132592	0
Ba	137	44.530	ug/L	0.183	0	36	230379	0
[> Tb	159		ug/L			612197	579377 ✓	0
Tl	205	23.717	ug/L	0.158	0	250	1024008	0
Pb	208	30.280	ug/L	0.215	0	1016	1751064	0
Bi	209		ug/L			532877	492804	0
Th	232	24.924	ug/L	0.119	0	1565	1732163	0
[ U	238	24.450	ug/L	0.230	0	1000	1825370	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 I SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:39:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	785063 ✓	0
[ Be	9	0.367	ug/L	0.007	1	23	304	1
C	13		mg/L			6243	6438	2
Cl	37		mg/L			1387303	1487960	0
[> Sc	45		ug/L			409578	422246 ✓	0
V	51	18.576	ug/L	0.127	0	2772	333958	1
V-1	51	18.358	ug/L	0.135	0	1649	334124	1
Cr	52	5.676	ug/L	0.034	0	8617	96387	0
Cr	53	5.625	ug/L	0.067	1	614	10944	1
Mn	55	195.514	ug/L	1.039	0	377	5179412	1
[ Co	59	3.955	ug/L	0.007	0	55	74951	0
[> Ge	72		ug/L			372563	350866 ✓	0
Ni	60	4.876	ug/L	0.084	1	49	17278	1
Ni	62	4.636	ug/L	0.035	0	97	2478	1
Cu	63	6.056	ug/L	0.028	0	233	43697	0
Cu	65	6.050	ug/L	0.062	1	114	20298	1
Zn	66	34.968	ug/L	0.096	0	375	78001	1
Zn	67	35.921	ug/L	0.570	1	141	14142	0
Zn	68	36.689	ug/L	0.070	0	5524	62163	0
As	75	72.097	ug/L	0.278	0	145	153009	0
As-1	75	75.043	ug/L	0.325	0	7671	160068	0
Se	82	✓ 0.347	ug/L	0.087	25	0	105	25
Se	78	0.629	ug/L	0.067	10	7997	7966	1
[ Mo	98	0.162	ug/L	0.004	2	87	1547	3
Y	89		ug/L			461134	613654	0
Kr	83		ug/L			197	262	3
[> In	115		ug/L			515607	467808 ✓	1
Ag	107	1.336	ug/L	0.039	2	75	20021	1
Cd	111	0.145	ug/L	0.020	13	330	844	8
Cd	114	0.026	ug/L	0.002	6	32	255	5
Sb	121	✓ 0.019	ug/L	0.003	13	198	374	6
Sb	123	0.018	ug/L	0.003	16	157	279	6
Ba	135	112.018	ug/L	1.071	0	24	326065	0
[ Ba	137	111.505	ug/L	1.781	1	36	563494	1
[> Tb	159		ug/L			612197	567946 ✓	1
Tl	205	0.139	ug/L	0.002	1	250	6103	0
Pb	208	5.765	ug/L	0.074	1	1016	327538	0
Bi	209		ug/L			532877	466333	0
Th	232	1.482	ug/L	0.010	0	1565	102354	0
[ U	238	0.263	ug/L	0.007	2	1000	20130	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 APOST SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:04:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	769875 ✓	1
[ Be	9	23.799	ug/L	0.194	0	23	17921	0
C	13		mg/L			6243	7198	2
Cl	37		mg/L			1387303	1590145	0
> Sc	45		ug/L			409578	412639 ✓	0
V	51	25.424	ug/L	0.057	0	2772	445630	0
V-1	51	25.472	ug/L	0.056	0	1649	452403	0
Cr	52	25.675	ug/L	0.211	0	8617	395505	0
Cr	53	25.813	ug/L	0.201	0	614	46858	0
Mn	55	36.245	ug/L	0.116	0	377	938626	1
Co	59	24.340	ug/L	0.392	1	55	450411	0
> Ge	72		ug/L			372563	363700 ✓	0
Ni	60	25.640	ug/L	0.076	0	49	93976	0
Ni	62	25.799	ug/L	0.115	0	97	13863	1
Cu	63	27.780	ug/L	0.066	0	233	206964	0
Cu	65	27.779	ug/L	0.461	1	114	96207	1
Zn	66	84.048	ug/L	0.243	0	375	193822	0
Zn	67	75.065	ug/L	0.804	1	141	30486	0
Zn	68	82.927	ug/L	0.331	0	5524	138846	0
As	75	126.518	ug/L	0.771	0	145	278216	0
As-1	75	128.445	ug/L	0.797	0	7671	278664	0
Se	82	81.340	ug/L	0.534	0	0	25684	0
Se	78	81.521	ug/L	0.558	0	7997	66263	0
Mo	98	23.300	ug/L	0.190	0	87	218235	0
Y	89		ug/L			461134	492452	0
Kr	83		ug/L			197	231	3
> In	115		ug/L			515607	483983 ✓	0
Ag	107	28.953	ug/L	0.133	0	75	447707	0
Cd	111	25.318	ug/L	0.190	0	330	98567	0
Cd	114	25.290	ug/L	0.098	0	32	223008	0
Sb	121	25.303	ug/L	0.163	0	198	268994	0
Sb	123	25.284	ug/L	0.044	0	157	201690	0
Ba	135	43.049	ug/L	0.091	0	24	129664	0
Ba	137	42.822	ug/L	0.671	1	36	223929	1
> Tb	159		ug/L			612197	581455 ✓	0
Ti	205	25.529	ug/L	0.427	1	250	1106073	0
Pb	208	30.740	ug/L	0.224	0	1016	1783962	0
Bi	209		ug/L			532877	502553	2
Th	232	25.046	ug/L	0.155	0	1565	1746883	0
U	238	24.520	ug/L	0.123	0	1000	1837245	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 MB1SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:10:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	766971	0
[	Be	9	ug/L	0.123	0	23	17131	1
	C	13	mg/L			6243	5555	1
	Cl	37	mg/L			1387303	1593615	0
[>	Sc	45	ug/L			409578	398908	0
[	V	51	ug/L	0.063	0	2772	401830	0
	V-1	51	ug/L	0.223	0	1649	406869	0
	Cr	52	ug/L	0.158	0	8617	361196	0
	Cr	53	ug/L	0.660	2	614	42426	1
	Mn	55	ug/L	0.409	1	377	627917	0
[	Co	59	ug/L	0.308	1	55	429088	0
[>	Ge	72	ug/L			372563	364499	0
[	Ni	60	ug/L	0.087	0	49	89129	0
	Ni	62	ug/L	0.420	1	97	13039	1
	Cu	63	ug/L	0.153	0	233	189801	0
	Cu	65	ug/L	0.095	0	114	87411	0
	Zn	66	ug/L	0.631	0	375	177232	0
	Zn	67	ug/L	0.491	0	141	27882	0
	Zn	68	ug/L	0.364	0	5524	126107	0
	As	75	ug/L	0.160	0	145	58657	0
	As-1	75	ug/L	0.133	0	7671	59818	0
	Se	82	ug/L	0.612	0	0	24004	0
	Se	78	ug/L	0.414	0	7997	62679	0
[	Mo	98	ug/L	0.226	1	87	211743	1
	Y	89	ug/L			461134	446116	0
	Kr	83	ug/L			197	220	3
[>	In	115	ug/L			515607	486882	0
[	Ag	107	ug/L	0.407	1	75	388874	1
	Cd	111	ug/L	0.149	0	330	93405	0
	Cd	114	ug/L	0.328	1	32	212539	1
	Sb	121	ug/L	0.069	0	198	263142	0
	Sb	123	ug/L	0.157	0	157	197715	0
	Ba	135	ug/L	0.379	1	24	73941	1
[	Ba	137	ug/L	0.494	2	36	128906	1
[>	Tb	159	ug/L			612197	586076	0
[	Tl	205	ug/L	0.048	0	250	1066414	0
	Pb	208	ug/L	0.292	1	1016	1460703	1
	Bi	209	ug/L			532877	504691	0
	Th	232	ug/L	0.052	0	1565	1659813	0
[	U	238	ug/L	0.016	0	1000	1784173	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:16:37

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	739974 ✓	1
[ Be	9	48.241	ug/L	0.874	1	23	34891	0
C	13		mg/L			6243	3538	2
Cl	37		mg/L			1387303	1581506	0
> Sc	45		ug/L			409578	393949 ✓	0
V	51	48.085	ug/L	0.349	0	2772	802284	0
V-1	51	48.195	ug/L	0.346	0	1649	815806	0
Cr	52	48.651	ug/L	0.257	0	8617	708082	0
Cr	53	48.968	ug/L	0.066	0	614	84337	0
Mn	55	50.022	ug/L	0.305	0	377	1236562	0
[ Co	59	48.041	ug/L	0.428	0	55	848725	0
> Ge	72		ug/L			372563	357190 ✓	0
Ni	60	48.390	ug/L	0.711	1	49	174140	1
Ni	62	47.943	ug/L	0.507	1	97	25222	1
Cu	63	48.801	ug/L	0.389	0	233	356895	0
Cu	65	48.817	ug/L	0.161	0	114	165964	0
Zn	66	49.682	ug/L	0.458	0	375	112664	0
Zn	67	50.236	ug/L	0.285	0	141	20083	1
Zn	68	49.717	ug/L	0.469	0	5524	83871	0
As	75	49.126	ug/L	0.260	0	145	106180	0
As-1	75	49.374	ug/L	0.185	0	7671	109730	0
Se	82	49.747	ug/L	0.724	1	0	15426	1
Se	78	50.632	ug/L	0.410	0	7997	43324	0
[ Mo	98	46.664	ug/L	0.418	0	87	429168	0
Y	89		ug/L			461134	437120	0
Kr	83		ug/L			197	239	2
> In	115		ug/L			515607	473184 ✓	0
Ag	107	49.139	ug/L	0.816	1	75	742785	0
Cd	111	50.125	ug/L	0.580	1	330	190480	0
Cd	114	50.571	ug/L	0.490	0	32	435920	0
Sb	121	50.283	ug/L	0.555	1	198	522420	0
Sb	123	50.555	ug/L	0.155	0	157	394136	0
Ba	135	50.279	ug/L	0.888	1	24	148043	0
[ Ba	137	50.089	ug/L	0.748	1	36	256061	0
> Tb	159		ug/L			612197	575119 ✓	1
Tl	205	51.033	ug/L	0.292	0	250	2186832	0
Pb	208	49.246	ug/L	0.596	1	1016	2826047	0
Bi	209		ug/L			532877	473835	0
Th	232	50.873	ug/L	0.628	1	1565	3507839	1
[ U	238	50.200	ug/L	0.575	1	1000	3719117	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:22:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	749944 ✓	1
[	Be	9	ug/L	0.008	37	23	37	14
	C	13	mg/L			6243	6249	1
	Cl	37	mg/L			1387303	1604350	0
[>	Sc	45	ug/L			409578	389012 ✓	0
	V	51	ug/L	0.002	29	2772	2756	1
	V-1	51	ug/L	0.006	35	1649	1834	5
	Cr	52	ug/L	0.010	51	8617	8468	1
	Cr	53	ug/L	0.017	37	614	662	4
	Mn	55	ug/L	0.001	17	377	479	4
	Co	59	ug/L	0.001	53	55	80	18
[>	Ge	72	ug/L			372563	356226 ✓	0
	Ni	60	ug/L	0.001	77	49	42	8
	Ni	62	ug/L	0.012	29	97	113	5
	Cu	63	ug/L	0.003	73	233	255	8
	Cu	65	ug/L	0.003	384	114	107	8
	Zn	66	ug/L	0.004	312	375	356	2
	Zn	67	ug/L	0.011	47	141	125	3
	Zn	68	ug/L	0.042	43	5524	5432	0
	As	75	ug/L	0.010	107	145	158	12
	As-1	75	ug/L	0.050	16	7671	7954	0
	Se	82	ug/L	0.032	2619	0	0	10150
	Se	78	ug/L	0.124	13	7997	8282	0
[	Mo	98	ug/L	0.003	130	87	106	27
	Y	89	ug/L			461134	438553	1
	Kr	83	ug/L			197	202	6
[>	In	115	ug/L			515607	468807 ✓	0
	Ag	107	ug/L	0.002	57	75	119	24
	Cd	111	ug/L	0.002	14	330	355	2
	Cd	114	ug/L	0.001	148	32	25	28
	Sb	121	ug/L	0.024	39	198	795	30
	Sb	123	ug/L	0.024	37	157	647	28
	Ba	135	ug/L	0.002	337	24	24	25
	Ba	137	ug/L	0.001	86	36	41	17
[>	Tb	159	ug/L			612197	565258 ✓	0
	Tl	205	ug/L	0.001	3881	250	232	26
	Pb	208	ug/L	0.001	14	1016	583	8
	Bi	209	ug/L			532877	488186	0
	Th	232	ug/L	0.009	90	1565	2133	29
[	U	238	ug/L	0.001	7	1000	227	22

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 MB2 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:28:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	777256 ✓	0
[ Be	9	0.023	ug/L	0.010	44	23	40	20
C	13		mg/L			6243	5870	0
Cl	37		mg/L			1387303	1595777	0
[> Sc	45		ug/L			409578	404667 ✓	0
V	51	u 0.014	ug/L	0.003	19	2772	2970	1
V-1	51	0.018	ug/L	0.003	19	1649	1937	3
Cr	52	u 0.012	ug/L	0.009	75	8617	8695	1
Cr	53	0.026	ug/L	0.002	7	614	652	0
Mn	55	0.016	ug/L	0.001	3	377	789	1
[ Co	59	0.003	ug/L	0.000	3	55	107	1
[> Ge	72		ug/L			372563	362258 ✓	0
Ni	60	0.005	ug/L	0.002	31	49	66	8
Ni	62	0.054	ug/L	0.027	48	97	123	11
Cu	63	0.018	ug/L	0.001	5	233	364	2
Cu	65	0.019	ug/L	0.004	22	114	175	8
Zn	66	0.208	ug/L	0.005	2	375	842	1
Zn	67	0.202	ug/L	0.033	16	141	218	6
Zn	68	0.241	ug/L	0.043	17	5524	5758	1
As	75	u 0.021	ug/L	0.021	98	145	188	24
As-1	75	0.249	ug/L	0.005	2	7671	7982	0
Se	82	u -0.008	ug/L	0.068	815	0	-3	687
Se	78	0.728	ug/L	0.013	1	7997	8295	0
[ Mo	98	-0.003	ug/L	0.000	15	87	56	8
Y	89		ug/L			461134	452102	0
Kr	83		ug/L			197	211	3
[> In	115		ug/L			515607	483947 ✓	1
Ag	107	u 0.004	ug/L	0.001	26	75	125	10
Cd	111	0.021	ug/L	0.002	10	330	390	0
Cd	114	0.000	ug/L	0.000	165	32	32	6
Sb	121	u 0.016	ug/L	0.004	24	198	354	10
Sb	123	0.015	ug/L	0.003	20	157	266	7
Ba	135	0.019	ug/L	0.002	11	24	81	6
[ Ba	137	0.019	ug/L	0.003	17	36	135	12
[> Tb	159		ug/L			612197	582560 ✓	0
Tl	205	0.004	ug/L	0.001	15	250	424	6
Pb	208	u -0.002	ug/L	0.001	36	1016	865	3
Bi	209		ug/L			532877	499888	1
Th	232	0.006	ug/L	0.003	47	1565	1906	9
[ U	238	-0.009	ug/L	0.000	3	1000	265	8

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 W SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:34:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	788643 ✓	2
[ Be	9	0.680	ug/L	0.064	9	23	545	7
C	13		mg/L			6243	7257	1
Cl	37		mg/L			1387303	1507620	0
[> Sc	45		ug/L			409578	457780 ✓	0
V	51	25.346	ug/L	0.235	0	2772	492866	0
V-1	51	25.171	ug/L	0.239	0	1649	495991	0
Cr	52	12.619	ug/L	0.116	0	8617	220559	0
Cr	53	12.698	ug/L	0.272	2	614	25922	2
Mn	55	465.145	ug/L	4.820	1	377	13358212	0
[ Co	59	8.126	ug/L	0.076	0	55	166873	1
[> Ge	72		ug/L			372563	361435 ✓	0
Ni	60	12.446	ug/L	0.155	1	49	45354	0
Ni	62	16.598	ug/L	0.267	1	97	8896	0
Cu	63	19.751	ug/L	0.163	0	233	146294	0
Cu	65	19.967	ug/L	0.100	0	114	68752	0
Zn	66	68.947	ug/L	0.772	1	375	158069	1
Zn	67	65.298	ug/L	0.617	0	141	26372	0
Zn	68	69.543	ug/L	0.754	1	5524	116571	0
As	75	13.594	ug/L	0.151	1	145	29831	0
As-1	75	14.068	ug/L	0.147	1	7671	36956	0
Se	82	u 0.035	ug/L	0.028	80	0	10	84
Se	78	0.138	ug/L	0.040	29	7997	7857	0
[ Mo	98	0.143	ug/L	0.005	3	87	1420	3
Y	89		ug/L			461134	789081	0
Kr	83		ug/L			197	288	4
[> In	115		ug/L			515607	478462 ✓	0
Ag	107	0.540	ug/L	0.010	1	75	8323	1
Cd	111	1.228	ug/L	0.058	4	330	5019	3
Cd	114	0.210	ug/L	0.003	1	32	1860	0
Sb	121	u 0.016	ug/L	0.001	5	198	354	2
Sb	123	0.014	ug/L	0.002	14	157	254	5
Ba	135	120.757	ug/L	1.637	1	24	359521	1
[ Ba	137	121.259	ug/L	1.393	1	36	626796	1
[> Tb	159		ug/L			612197	593864 ✓	1
Tl	205	0.175	ug/L	0.003	1	250	7972	1
Pb	208	7.523	ug/L	0.114	1	1016	446656	1
Bi	209		ug/L			532877	481963	1
Th	232	2.194	ug/L	0.017	0	1565	157696	1
[ U	238	0.536	ug/L	0.003	0	1000	41964	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 B SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:40:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	750451 ✓	1
[ Be	9	0.093	ug/L	0.013	13	23	90	11
C	13		mg/L			6243	8028	1
Cl	37		mg/L			1387303	1560901	0
[> Sc	45		ug/L			409578	385011 ✓	1
V	51	2.983	ug/L	0.031	1	2772	51082	2
V-1	51	2.961	ug/L	0.028	0	1649	50442	2
Cr	52	2.255	ug/L	0.015	0	8617	39805	1
Cr	53	2.223	ug/L	0.013	0	614	4293	1
Mn	55	18.371	ug/L	0.227	1	377	444077	2
[ Co	59	0.264	ug/L	0.006	2	55	4617	0
[> Ge	72		ug/L			372563	346963 ✓	0
Ni	60	0.499	ug/L	0.019	3	49	1790	2
Ni	62	0.520	ug/L	0.019	3	97	355	3
Cu	63	3.402	ug/L	0.091	2	233	24366	2
Cu	65	3.423	ug/L	0.038	1	114	11404	1
Zn	66	3.563	ug/L	0.088	2	375	8171	2
Zn	67	6.841	ug/L	0.058	0	141	2770	0
Zn	68	6.315	ug/L	0.158	2	5524	14839	1
As	75	102.638	ug/L	1.308	1	145	215339	1
As-1	75	107.035	ug/L	1.377	1	7671	222716	1
Se	82	1.347	ug/L	0.061	4	0	405	3
Se	78	2.131	ug/L	0.134	6	7997	8905	0
[ Mo	98	0.067	ug/L	0.002	2	87	684	2
Y	89		ug/L			461134	454249	0
Kr	83		ug/L			197	206	3
[> In	115		ug/L			515607	462682 ✓	1
Ag	107	6.296	ug/L	0.029	0	75	93129	1
Cd	111	0.079	ug/L	0.006	7	330	590	4
Cd	114	0.006	ug/L	0.001	20	32	81	12
Sb	121	0.015	ug/L	0.002	10	198	335	5
Sb	123	0.016	ug/L	0.002	9	157	262	3
Ba	135	108.961	ug/L	0.567	0	24	313724	1
Ba	137	109.435	ug/L	1.292	1	36	547014	1
[> Tb	159		ug/L			612197	563165 ✓	0
Ti	205	0.214	ug/L	0.002	1	250	9216	1
Pb	208	10.743	ug/L	0.059	0	1016	604452	0
Bi	209		ug/L			532877	476676	0
Th	232	1.161	ug/L	0.013	1	1565	79797	1
[ U	238	0.053	ug/L	0.001	1	1000	4790	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 C SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:46:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	771890 ✓	1
[ Be	9	0.178	ug/L	0.015	8	23	156	7
C	13		mg/L			6243	7503	1
Cl	37		mg/L			1387303	1550806	0
[> Sc	45		ug/L			409578	405594 ✓	0
V	51	8.259	ug/L	0.063	0	2772	144144	0
V-1	51	8.216	ug/L	0.064	0	1649	144533	0
Cr	52	3.636	ug/L	0.024	0	8617	62377	1
Cr	53	3.728	ug/L	0.035	0	614	7173	1
Mn	55	91.207	ug/L	0.328	0	377	2321020	0
[ Co	59	1.567	ug/L	0.015	0	55	28555	0
[> Ge	72		ug/L			372563	350602 ✓	1
Ni	60	2.261	ug/L	0.015	0	49	8030	1
Ni	62	2.286	ug/L	0.104	4	97	1267	3
Cu	63	5.546	ug/L	0.022	0	233	40004	0
Cu	65	5.549	ug/L	0.043	0	114	18610	0
Zn	66	14.937	ug/L	0.173	1	375	33496	1
Zn	67	15.594	ug/L	0.469	3	141	6209	2
Zn	68	15.990	ug/L	0.178	1	5524	30003	0
As	75	56.478	ug/L	0.554	0	145	119793	0
As-1	75	58.853	ug/L	0.617	1	7671	126990	0
Se	82	0.657	ug/L	0.057	8	0	199	9
Se	78	1.070	ug/L	0.118	11	7997	8265	0
[ Mo	98	0.082	ug/L	0.004	4	87	818	4
Y	89		ug/L			461134	525939	0
Kr	83		ug/L			197	231	4
[> In	115		ug/L			515607	475366 ✓	0
Ag	107	4.665	ug/L	0.071	1	75	70908	1
Cd	111	0.173	ug/L	0.014	8	330	963	5
Cd	114	0.021	ug/L	0.001	6	32	214	5
Sb	121	0.014	ug/L	0.002	13	198	325	5
Sb	123	0.013	ug/L	0.001	8	157	249	3
Ba	135	55.758	ug/L	0.267	0	24	164945	0
[ Ba	137	55.936	ug/L	0.252	0	36	287288	0
[> Tl	159		ug/L			612197	570870 ✓	1
Tl	205	0.168	ug/L	0.003	1	250	7382	0
Pb	208	10.184	ug/L	0.091	0	1016	580859	0
Bi	209		ug/L			532877	482572	1
Th	232	1.030	ug/L	0.022	2	1565	71912	0
[ U	238	0.152	ug/L	0.005	3	1000	12103	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 D SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:52:21

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	762620 ✓	1
[ Be	9	0.128	ug/L	0.025	19	23	117	14
C	13		mg/L			6243	6611	3
Cl	37		mg/L			1387303	1541811	0
> Sc	45		ug/L			409578	397527 ✓	0
V	51	2.892	ug/L	0.011	0	2772	51211	0
V-1	51	2.892	ug/L	0.019	0	1649	50900	0
Cr	52	2.273	ug/L	0.031	1	8617	41353	0
Cr	53	2.305	ug/L	0.080	3	614	4573	2
Mn	55	25.053	ug/L	0.097	0	377	625120	0
[ Co	59	0.488	ug/L	0.006	1	55	8761	1
> Ge	72		ug/L			372563	348891 ✓	0
Ni	60	0.984	ug/L	0.015	1	49	3504	0
Ni	62	0.983	ug/L	0.056	5	97	593	3
Cu	63	4.368	ug/L	0.024	0	233	31403	0
Cu	65	4.295	ug/L	0.072	1	114	14361	1
Zn	66	4.632	ug/L	0.057	1	375	10578	0
Zn	67	5.349	ug/L	0.054	1	141	2206	0
Zn	68	5.223	ug/L	0.025	0	5524	13236	1
As	75	81.665	ug/L	0.135	0	145	172324	1
As-1	75	85.184	ug/L	0.151	0	7671	179708	0
Se	82	0.608	ug/L	0.062	10	0	183	10
Se	78	1.267	ug/L	0.018	1	7997	8360	0
[ Mo	98	0.065	ug/L	0.005	8	87	669	6
Y	89		ug/L			461134	473838	1
Kr	83		ug/L			197	211	4
> In	115		ug/L			515607	469964 ✓	0
Ag	107	5.362	ug/L	0.055	1	75	80575	1
Cd	111	0.093	ug/L	0.001	1	330	651	0
Cd	114	0.008	ug/L	0.001	16	32	97	11
Sb	121	0.012	ug/L	0.002	19	198	300	7
Sb	123	0.010	ug/L	0.001	12	157	217	4
Ba	135	27.514	ug/L	0.268	0	24	80476	0
Ba	137	27.535	ug/L	0.361	1	36	139820	0
> Tb	159		ug/L			612197	568650 ✓	0
Tl	205	0.125	ug/L	0.003	2	250	5509	2
Pb	208	2.689	ug/L	0.026	0	1016	153493	0
Bi	209		ug/L			532877	484244	1
Th	232	0.655	ug/L	0.011	1	1565	46115	1
[ U	238	0.080	ug/L	0.002	2	1000	6797	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 E SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:58:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	762642 ✓	1
[ Be	9	0.083	ug/L	0.033	39	23	84	28
C	13		mg/L			6243	6392	0
Cl	37		mg/L			1387303	1578239	0
[> Sc	45		ug/L			409578	384595 ✓	0
V	51	1.429	ug/L	0.020	1	2772	25806	0
V-1	51	1.437	ug/L	0.009	0	1649	25252	0
Cr	52	1.309	ug/L	0.022	1	8617	26476	0
Cr	53	1.340	ug/L	0.015	1	614	2814	1
Mn	55	9.642	ug/L	0.138	1	377	232976	0
Co	59	0.150	ug/L	0.004	2	55	2640	2
[> Ge	72		ug/L			372563	350099 ✓	0
Ni	60	0.501	ug/L	0.011	2	49	1813	2
Ni	62	0.489	ug/L	0.031	6	97	342	4
Cu	63	1.879	ug/L	0.042	2	233	13681	2
Cu	65	1.885	ug/L	0.022	1	114	6384	1
Zn	66	2.376	ug/L	0.047	1	375	5616	2
Zn	67	2.790	ug/L	0.108	3	141	1218	4
Zn	68	2.796	ug/L	0.099	3	5524	9522	1
As	75	78.462	ug/L	0.423	0	145	166141	0
As-1	75	81.821	ug/L	0.454	0	7671	173492	0
Se	82	1.164	ug/L	0.024	2	0	353	1
Se	78	1.785	ug/L	0.032	1	7997	8747	0
[ Mo	98	0.049	ug/L	0.004	8	87	520	6
Y	89		ug/L			461134	452304	1
Kr	83		ug/L			197	206	2
[> In	115		ug/L			515607	466552 ✓	2
Ag	107	10.126	ug/L	0.251	2	75	150929	0
Cd	111	0.078	ug/L	0.014	18	330	589	10
Cd	114	0.009	ug/L	0.002	20	32	105	12
Sb	121	0.056	ug/L	0.005	9	198	754	7
Sb	123	0.050	ug/L	0.001	2	157	530	2
Ba	135	18.083	ug/L	0.523	2	24	52492	0
[ Ba	137	18.185	ug/L	0.401	2	36	91653	0
[> Tb	159		ug/L			612197	565063 ✓	0
Tl	205	0.163	ug/L	0.004	2	250	7097	1
Pb	208	6.818	ug/L	0.029	0	1016	385255	0
Bi	209		ug/L			532877	482543	0
Th	232	0.414	ug/L	0.001	0	1565	29491	0
[ U	238	0.031	ug/L	0.001	2	1000	3204	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 F SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:04:17

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	720090 ✓	1
[ Be	9	0.069	ug/L	0.016	23	23	69	17
C	13		mg/L			6243	7487	2
Cl	37		mg/L			1387303	1563146	0
> Sc	45		ug/L			409578	365028 ✓	0
V	51	1.939	ug/L	0.009	0	2772	32349	0
V-1	51	1.933	ug/L	0.009	0	1649	31725	0
Cr	52	1.573	ug/L	0.026	1	8617	28644	0
Cr	53	1.571	ug/L	0.027	1	614	3037	1
Mn	55	10.161	ug/L	0.066	0	377	233021	1
[ Co	59	0.165	ug/L	0.005	2	55	2753	2
> Ge	72		ug/L			372563	330492 ✓	0
Ni	60	0.575	ug/L	0.021	3	49	1956	3
Ni	62	0.686	ug/L	0.049	7	97	418	5
Cu	63	2.665	ug/L	0.033	1	233	18226	1
Cu	65	2.733	ug/L	0.009	0	114	8691	0
Zn	66	2.657	ug/L	0.071	2	375	5889	2
Zn	67	4.294	ug/L	0.150	3	141	1702	3
Zn	68	4.093	ug/L	0.077	1	5524	10886	1
As	75	163.986	ug/L	1.067	0	145	327651	0
As-1	75	170.871	ug/L	1.097	0	7671	334618	0
Se	82	1.906	ug/L	0.021	1	0	546	0
Se	78	2.692	ug/L	0.064	2	7997	8848	0
Mo	98	0.147	ug/L	0.004	3	87	1325	3
Y	89		ug/L			461134	435461	1
Kr	83		ug/L			197	204	2
> In	115		ug/L			515607	441231 ✓	0
Ag	107	15.362	ug/L	0.204	1	75	216591	1
Cd	111	0.084	ug/L	0.008	9	330	580	4
Cd	114	0.006	ug/L	0.002	29	32	76	18
Sb	121	0.011	ug/L	0.002	17	198	276	6
Sb	123	0.013	ug/L	0.004	33	157	231	13
Ba	135	57.631	ug/L	0.635	1	24	158248	1
Ba	137	57.962	ug/L	0.300	0	36	276317	0
> Tb	159		ug/L			612197	537216 ✓	1
Tl	205	0.354	ug/L	0.006	1	250	14387	1
Pb	208	13.499	ug/L	0.129	0	1016	724264	0
Bi	209		ug/L			532877	456831	0
Th	232	0.493	ug/L	0.010	2	1565	33119	0
[ U	238	0.034	ug/L	0.001	2	1000	3260	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 G SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:10:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	746986 ✓	0
[ Be	9	0.074	ug/L	0.003	3	23	75	3
C	13		mg/L			6243	6704	2
Cl	37		mg/L			1387303	1564925	0
[> Sc	45		ug/L			409578	391735 ✓	1
V	51	2.079	ug/L	0.012	0	2772	37036	0
V-1	51	2.096	ug/L	0.017	0	1649	36784	1
Cr	52	2.570	ug/L	0.009	0	8617	45004	1
Cr	53	2.597	ug/L	0.063	2	614	5004	3
Mn	55	12.663	ug/L	0.122	0	377	311523	0
Co	59	0.184	ug/L	0.004	2	55	3292	0
[> Ge	72		ug/L			372563	347819 ✓	0
Ni	60	0.405	ug/L	0.015	3	49	1465	4
Ni	62	0.419	ug/L	0.011	2	97	304	1
Cu	63	2.853	ug/L	0.027	0	233	20524	0
Cu	65	2.874	ug/L	0.059	2	114	9614	1
Zn	66	2.366	ug/L	0.024	1	375	5558	1
Zn	67	3.094	ug/L	0.073	2	141	1328	2
Zn	68	2.839	ug/L	0.070	2	5524	9526	1
As	75	164.970	ug/L	0.728	0	145	346897	0
As-1	75	171.935	ug/L	0.732	0	7671	354311	0
Se	82	0.764	ug/L	0.054	7	0	230	6
Se	78	1.534	ug/L	0.052	3	7997	8517	0
[ Mo	98	0.092	ug/L	0.006	6	87	902	6
Y	89		ug/L			461134	471104	0
Kr	83		ug/L			197	215	2
[> In	115		ug/L			515607	467100 ✓	1
Ag	107	15.436	ug/L	0.144	0	75	230391	0
Cd	111	0.082	ug/L	0.012	14	330	607	7
Cd	114	0.001	ug/L	0.002	122	32	41	35
Sb	121	0.046	ug/L	0.003	6	198	654	3
Sb	123	0.050	ug/L	0.003	6	157	531	5
Ba	135	19.391	ug/L	0.291	1	24	56374	0
Ba	137	19.425	ug/L	0.210	1	36	98044	0
[> Tb	159		ug/L			612197	559382 ✓	0
Tl	205	0.270	ug/L	0.006	2	250	11492	2
Pb	208	5.633	ug/L	0.066	1	1016	315235	0
Bi	209		ug/L			532877	476170	0
Th	232	0.558	ug/L	0.011	1	1565	38860	1
[ U	238	0.070	ug/L	0.002	2	1000	5964	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 H SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:16:09

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	751052 ✓	0
[	Be	9	0.150	ug/L	0.004	2	23	132	1
	C	13		mg/L			6243	7055	2
	Cl	37		mg/L			1387303	1544554	0
[>	Sc	45		ug/L			409578	396797 ✓	0
	V	51	4.654	ug/L	0.048	1	2772	80641	0
	V-1	51	4.629	ug/L	0.069	1	1649	80356	0
	Cr	52	3.174	ug/L	0.012	0	8617	54337	0
	Cr	53	3.166	ug/L	0.082	2	614	6048	1
	Mn	55	49.045	ug/L	0.710	1	377	1221131	0
[	Co	59	0.960	ug/L	0.006	0	55	17137	1
[>	Ge	72		ug/L			372563	348288 ✓	0
	Ni	60	1.255	ug/L	0.015	1	49	4447	1
	Ni	62	1.223	ug/L	0.092	7	97	715	5
	Cu	63	3.897	ug/L	0.022	0	233	27993	1
	Cu	65	3.886	ug/L	0.029	0	114	12979	1
	Zn	66	8.877	ug/L	0.100	1	375	19916	1
	Zn	67	10.704	ug/L	0.144	1	141	4276	1
	Zn	68	10.781	ug/L	0.173	1	5524	21779	1
	As	75	101.292	ug/L	0.209	0	145	213336	0
	As-1	75	105.643	ug/L	0.212	0	7671	220760	0
	Se	82	1.186	ug/L	0.070	5	0	358	6
	Se	78	2.045	ug/L	0.072	3	7997	8880	0
[	Mo	98	0.035	ug/L	0.003	8	87	396	6
	Y	89		ug/L			461134	499455	0
	Kr	83		ug/L			197	226	6
[>	In	115		ug/L			515607	467318 ✓	0
	Ag	107	7.707	ug/L	0.099	1	75	115121	1
	Cd	111	0.090	ug/L	0.002	2	330	637	1
	Cd	114	0.010	ug/L	0.001	7	32	113	5
	Sb	121	0.009 ✓	ug/L	0.001	13	198	275	3
	Sb	123	0.011	ug/L	0.002	13	157	226	4
	Ba	135	83.051	ug/L	0.314	0	24	241517	0
[	Ba	137	83.185	ug/L	0.687	0	36	419979	0
[>	Tb	159		ug/L			612197	566631 ✓	0
	Tl	205	0.086	ug/L	0.001	0	250	3872	0
	Pb	208	2.842	ug/L	0.029	1	1016	161595	0
	Bi	209		ug/L			532877	477798	0
	Th	232	0.708	ug/L	0.004	0	1565	49521	0
[	U	238	0.076	ug/L	0.002	2	1000	6486	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 MB2SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:22:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	747728 ✓	2
[	Be	9	23.321	ug/L	0.343	1	23	17053	0
	C	13		mg/L			6243	5107	1
	Cl	37		mg/L			1387303	1572853	0
[>	Sc	45		ug/L			409578	382500 ✓	0
	V	51	24.537	ug/L	0.127	0	2772	398753	0
	V-1	51	24.568	ug/L	0.152	0	1649	404522	0
	Cr	52	25.162	ug/L	0.350	1	8617	359440	0
	Cr	53	25.228	ug/L	0.430	1	614	42461	1
	Mn	55	25.899	ug/L	0.468	1	377	621785	1
[	Co	59	25.010	ug/L	0.079	0	55	429048	1
[>	Ge	72		ug/L			372563	343106 ✓	0
	Ni	60	25.326	ug/L	0.137	0	49	87570	0
	Ni	62	25.129	ug/L	0.423	1	97	12741	2
	Cu	63	26.779	ug/L	0.140	0	233	188216	0
	Cu	65	26.492	ug/L	0.155	0	114	86560	0
	Zn	66	81.563	ug/L	0.959	1	375	177449	1
	Zn	67	72.035	ug/L	0.510	0	141	27605	0
	Zn	68	78.914	ug/L	0.567	0	5524	124890	0
	As	75	27.939	ug/L	0.163	0	145	58064	0
	As-1	75	26.300	ug/L	0.528	2	7671	59443	1
	Se	82	79.769	ug/L	0.521	0	0	23762	1
	Se	78	81.176	ug/L	0.850	1	7997	62277	0
[	Mo	98	23.757	ug/L	0.053	0	87	209923	0
	Y	89		ug/L			461134	423349	1
	Kr	83		ug/L			197	218	4
[>	In	115		ug/L			515607	460791 ✓	0
	Ag	107	25.865	ug/L	0.152	0	75	380790	0
	Cd	111	24.913	ug/L	0.210	0	330	92344	0
	Cd	114	25.343	ug/L	0.108	0	32	212767	1
	Sb	121	25.633	ug/L	0.176	0	198	259441	0
	Sb	123	25.646	ug/L	0.153	0	157	194774	0
	Ba	135	25.540	ug/L	0.196	0	24	73249	0
[	Ba	137	25.500	ug/L	0.340	1	36	126965	0
[>	Tb	159		ug/L			612197	547287 ✓	1
	Tl	205	25.989	ug/L	0.286	1	250	1059848	0
	Pb	208	26.394	ug/L	0.317	1	1016	1441809	0
	Bi	209		ug/L			532877	473964	1
	Th	232	25.060	ug/L	0.258	1	1565	1645045	0
[	U	238	24.972	ug/L	0.173	0	1000	1761036	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:28:02

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	759180 ✓	1
[	Be	9	46.820	ug/L	0.440	23	34744	0
	C	13		mg/L		6243	3655	2
	Cl	37		mg/L		1387303	1564689	0
[>	Sc	45		ug/L		409578	386800 ✓	0
	V	51	48.860	ug/L	0.734	2772	800337	1
	V-1	51	48.777	ug/L	0.704	1649	810631	1
	Cr	52	49.106	ug/L	0.366	8617	701655	0
	Cr	53	48.833	ug/L	0.325	614	82579	0
	Mn	55	50.124	ug/L	0.660	377	1216583	0
[	Co	59	48.731	ug/L	0.226	55	845309	0
[>	Ge	72		ug/L		372563	355381 ✓	0
	Ni	60	48.622	ug/L	0.269	49	174091	0
	Ni	62	48.431	ug/L	0.156	97	25349	1
	Cu	63	48.636	ug/L	0.566	233	353876	0
	Cu	65	48.504	ug/L	0.464	114	164058	0
	Zn	66	49.442	ug/L	0.286	375	111555	0
	Zn	67	49.757	ug/L	0.308	141	19792	1
	Zn	68	49.474	ug/L	0.429	5524	83063	0
	As	75	48.987	ug/L	0.143	145	105346	0
	As-1	75	49.181	ug/L	0.222	7671	108775	0
	Se	82	49.811	ug/L	0.440	0	15368	0
	Se	78	50.541	ug/L	0.681	7997	43040	0
[	Mo	98	46.322	ug/L	0.559	87	423858	0
	Y	89		ug/L		461134	434159	0
	Kr	83		ug/L		197	233	3
[>	In	115		ug/L		515607	468522 ✓	1
	Ag	107	49.210	ug/L	1.000	75	736481	0
	Cd	111	50.040	ug/L	1.058	330	188270	1
	Cd	114	49.958	ug/L	0.802	32	426371	0
	Sb	121	50.241	ug/L	0.704	198	516821	0
	Sb	123	50.191	ug/L	1.061	157	387390	1
	Ba	135	50.456	ug/L	0.765	24	147111	1
[	Ba	137	50.348	ug/L	0.323	36	254859	0
[>	Tb	159		ug/L		612197	566313 ✓	0
	Tl	205	51.535	ug/L	0.700	250	2174623	1
	Pb	208	49.492	ug/L	0.358	1016	2796874	0
	Bi	209		ug/L		532877	467720	1
	Th	232	51.255	ug/L	0.764	1565	3480114	1
[	U	238	50.390	ug/L	0.798	1000	3676163	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:34:21

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	761124 ✓	1
[ Be	9	0.017	ug/L	0.001	8	23	34	2
C	13		mg/L			6243	6179	1
Cl	37		mg/L			1387303	1571344	0
> Sc	45		ug/L			409578	388138 ✓	0
V	51	0.016	ug/L	0.002	11	2772	2892	0
V-1	51	0.010	ug/L	0.004	45	1649	1722	3
Cr	52	0.026	ug/L	0.006	21	8617	8527	0
Cr	53	0.004	ug/L	0.012	297	614	589	2
Mn	55	0.005	ug/L	0.002	43	377	469	10
[ Co	59	0.001	ug/L	0.000	31	55	76	9
> Ge	72		ug/L			372563	353459 ✓	0
Ni	60	0.000	ug/L	0.003	1015	49	47	18
Ni	62	0.051	ug/L	0.012	22	97	118	4
Cu	63	0.002	ug/L	0.003	152	233	238	10
Cu	65	-0.000	ug/L	0.003	807	114	107	8
Zn	66	0.005	ug/L	0.011	198	375	368	6
Zn	67	0.030	ug/L	0.045	149	141	145	11
Zn	68	0.191	ug/L	0.085	44	5524	5538	1
As	75	0.017	ug/L	0.006	36	145	173	7
As-1	75	0.333	ug/L	0.016	4	7671	7961	0
Se	82	-0.037	ug/L	0.023	62	0	-11	60
Se	78	0.986	ug/L	0.040	4	7997	8274	0
[ Mo	98	0.000	ug/L	0.002	11291	87	83	20
Y	89		ug/L			461134	434876	0
Kr	83		ug/L			197	214	5
> In	115		ug/L			515607	467701 ✓	1
Ag	107	0.003	ug/L	0.002	56	75	110	21
Cd	111	0.009	ug/L	0.003	38	330	332	5
Cd	114	-0.000	ug/L	0.000	404	32	29	12
Sb	121	0.061	ug/L	0.024	39	198	805	29
Sb	123	0.063	ug/L	0.028	44	157	625	33
Ba	135	0.004	ug/L	0.006	155	24	33	50
[ Ba	137	0.003	ug/L	0.001	25	36	46	5
> Tb	159		ug/L			612197	563587 ✓	0
Tl	205	-0.000	ug/L	0.001	1795	250	228	17
Pb	208	-0.006	ug/L	0.001	17	1016	580	10
Bi	209		ug/L			532877	485790	0
Th	232	0.008	ug/L	0.007	94	1565	1960	25
[ U	238	-0.010	ug/L	0.000	4	1000	189	17

**Metals Data Review Checklist**

Method: ICP ICP-MS GFA CVA

Analysis Date: 2-27-13

	Analyst	Peer	Comment
	2-27 DM	M 227	
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	
Internal Standards	-	-	
Carry-over	-	✓	
CRI/CRA	✓	✓	
ICSA/ICSAB	-	-	
Post Spikes/Serial Dilutions	-	-	
Analytic Spikes	-	-	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	WETA ASPK LOW FOR
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	✓	✓	SK CAF

### Mercury Analysis Log

Analyst: DM  
Instrument: CETA-2

Date: 2-27-13  
Page: 1 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	TMM	IX		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			8.03	%R=100 ✓
ICB			-0.04	✓
CCV			4.12	%R=103 ✓
CCB			-0.01	✓
CRA			0.10	✓
WETO MB			-0.01	✓
" MBK			2.05	%R=103 ✓
" A				Prep - 4x DIL.
CCV			4.14	%R=104 ✓
CCB	↓		-0.01	✓
STD 0.0	SMM			
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			7.81	Eq: n CLP %R=96 ✓
ICB			-0.04	✓
CCV			3.96	%R=99 ✓
CCB			-0.00	✓
CRA	↓	↓	0.11	✓
WES3 MBI	SMM	IX	0.01	✓

Chemical/Reagent ID:  
10% SnCl<sub>2</sub>: MP2442

14% NH<sub>2</sub>OH/NaCl: MP2436

Standard ID:  
Standard: 3016-11 (TMM)  
3016-12 (SMM)

ICV/CCV: 59-6

### Mercury Analysis Log

Analyst: DM  
Instrument: CETAC

Date: 2-27-13  
Page: 2 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
NE83 MBSPK	SMM	1X	1.97	%R=99 ✓
" A			0.16	
" ADUP			0.23	✓
" ASPK			1.22	%R=106 ✓
" B			0.24	
" EDUP			0.21	✓
" BEPK			1.32	%R=108 ✓
" C				
CC12			3.99	%R=100 ✓
CC82			-0.01	✓
NE83 D				
" E				
" F				
" G				
" H				
" I				
" J				
WE79 MB1			0.00	✓
" MBEPK			2.04	%R=102 ✓
" A			3.22	
CC13			4.02	%R=101 ✓
CC83			-0.01	✓
WE79 ADUP			2.75	RPO=15.7 ✓
" ASPK			3.82	%R=60 LOW X
" B				
" C				
" D				
" E				
" F	Y	Y		
" G	SMM	1X		

Chemical/Reagent ID:  
10% SnCl<sub>2</sub>: MP2442  
Standard ID:  
Standard: 3016-D

14% NH<sub>2</sub>OH/NaCl: MP2436  
ICV/CCV: 59-L

### Mercury Analysis Log

Analyst: DM  
 Instrument: CETAL

Date: 2-27-13  
 Page: 3 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WE79 H	SMM	1X		
" I				
CCV4			4.05	%R=101 ✓
CCB4			-0.02	✓
WE79 J				
" K				
" L				
" M				
" N				
" O			10.04	DEL RR 1/2 *227 High X
" P				
" Q				
CCV5			3.96	%R=99 ✓
CCB5			-0.02	✓
WE79 T				
" MB2			0.00	✓
" MB23PK			2.04	%R=102 ✓
" U				
" V				
" W				
" X			10.90	DEL RR 1/2 *227 High X
CCV6			3.99	%R=100 ✓
CCB6			-0.00	✓
WE79 A			3.20	DEL CONFIRMS PREVIOUS *227
" ACP			2.69	RPD=17.3 ✓
" APK		↓	3.74	↓ %R=54 LOW X
" P	↓	2X		
" X	SMM	2X		

Chemical/Reagent ID:  
 10% SnCl<sub>2</sub>: MP2442  
 Standard ID:  
 Standard: 301L-12

14% NH<sub>2</sub>OH/NaCl: MP2436  
 ICV/CCV: 59-6

### Mercury Analysis Log

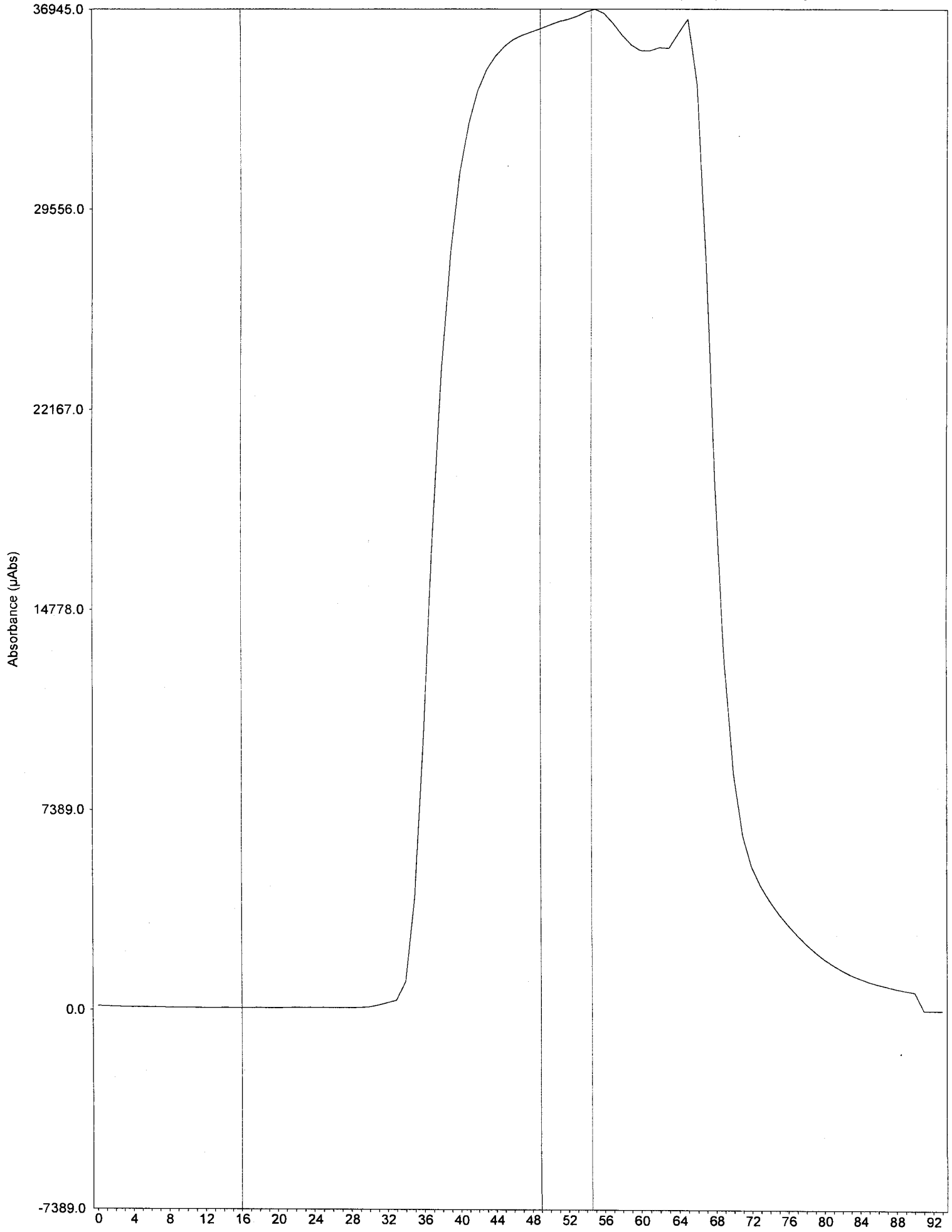
Analyst: DM  
 Instrument: CETAC

Date: 2-27-13  
 Page: 4 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments	
CCV7	5mm	1x	3.98	%R=100	✓
CCB7			-0.01		✓
WE80 MBI			-0.00		✓
" MBSPK			2.10	%R=105	✓
" A			1.17		
" ADUP			1.08	RFD=8.00	✓
" ASPK			2.22	%R=105	✓
" B					
" C					
" D					
" E			10.59	DEL RR-1/2 #227-13 High	X
" F					
CCV8			3.85	%R=96	✓
CCB8			-0.03		✓
WE80 G					
" H					
" I					
" J					
" K					
" L					
" M					
" N					
" O					
" P					
CCV9			3.91	%R=98	✓
CCB9			-0.01		✓
WE80 Q					
" R					
" S					
" T	5mm	1x			

Chemical/Reagent ID:  
 10% SnCl<sub>2</sub>: MP2442  
 Standard ID:  
 Standard: 3016-12

14% NH<sub>2</sub>OH/NaCl: MP2436  
 ICV/CCV: 59-L





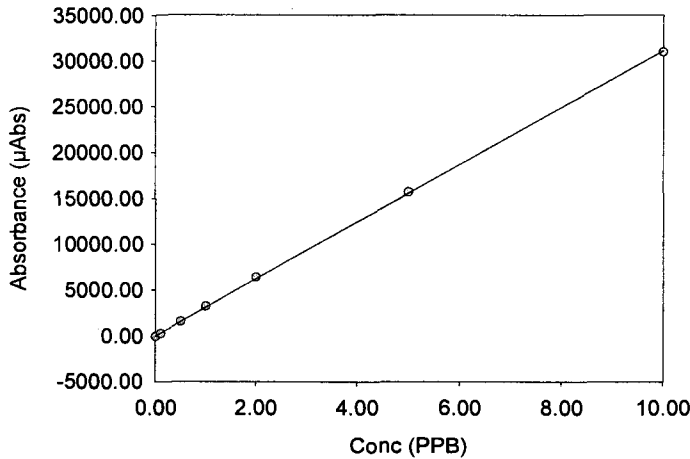
Analyst  
Date Started  
Worksheet  
Comment

Wednesday, February 27, 2013, 10:03:33  
ARI 10ppb CALIB

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	27-Feb-2013, 10:03	0.00	28.00	-36.40	1.00	
Standard #1	27-Feb-2013, 10:05	0.10	6.79	280.00	1.00	
Standard #2	27-Feb-2013, 10:06	0.50	0.82	1580.00	1.00	
Standard #3	27-Feb-2013, 10:08	1.00	0.36	3240.00	1.00	
Standard #4	27-Feb-2013, 10:09	2.00	0.39	6410.00	1.00	
Standard #5	27-Feb-2013, 10:11	5.00	2.64	15700.00	1.00	
Standard #6	27-Feb-2013, 10:13	10.00	0.24	31100.00	1.00	

SMM

Calibration Data



Int. 0.000  
Slope 3117.860  
Correlation 0.99995

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	27-Feb-2013, 10:16	7.81	0.60	24400.00	1.00	
ICB	27-Feb-2013, 10:18	-0.04	2.51	-111.00	1.00	

Begin CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 10:19	3.96	0.96	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 10:21	-0.00	35.70	-15.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	27-Feb-2013, 10:23	0.11	0.89	333.00	1.00	
WE83 MB1 SMM	27-Feb-2013, 10:24	0.01	21.50	17.90	1.00	
WE83 MB1SPK SMM	27-Feb-2013, 10:26	1.97	0.89	6160.00	1.00	
WE83 A SMM	27-Feb-2013, 10:27	0.16	0.43	506.00	1.00	
WE83 ADUP SMM	27-Feb-2013, 10:29	0.23	1.21	728.00	1.00	
WE83 ASPK SMM	27-Feb-2013, 10:31	1.22	0.25	3790.00	1.00	
WE83 B SMM	27-Feb-2013, 10:32	0.24	0.22	755.00	1.00	
WE83 BDUP SMM	27-Feb-2013, 10:34	0.21	1.26	643.00	1.00	
WE83 BSPK SMM	27-Feb-2013, 10:35	1.32	0.78	4110.00	1.00	
WE83 C SMM	27-Feb-2013, 10:37	0.19	1.46	595.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 10:39	3.99	0.45	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 10:40	-0.01	32.00	-33.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE83 D SMM	27-Feb-2013, 10:42	0.11	1.21	341.00	1.00	
WE83 E SMM	27-Feb-2013, 10:44	0.31	1.04	975.00	1.00	
WE83 F SMM	27-Feb-2013, 10:45	0.15	2.44	471.00	1.00	
WE83 G SMM	27-Feb-2013, 10:47	0.18	0.29	555.00	1.00	

Analyst  
 Date Started Wednesday, February 27, 2013, 10:48:51  
 Worksheet ARI 10ppb CALIB  
 Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE83 H SMM	27-Feb-2013, 10:48	0.09	1.30	275.00	1.00	
WE83 I SMM	27-Feb-2013, 10:50	0.08	0.60	259.00	1.00	
WE83 J SMM	27-Feb-2013, 10:52	0.17	2.79	539.00	1.00	
WE79 MB1 SMM	27-Feb-2013, 10:53	0.00	85.10	6.15	1.00	
WE79 MB1SPK SMM	27-Feb-2013, 10:55	2.04	0.78	6360.00	1.00	
WE79 A SMM	27-Feb-2013, 10:56	3.22	0.35	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 10:58	4.02	0.23	12500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 11:00	-0.01	27.90	-44.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE79 ADUP SMM	27-Feb-2013, 11:01	2.75	1.32	8570.00	1.00	
WE79 ASPK SMM	27-Feb-2013, 11:03	3.82	0.15	11900.00	1.00	- Low %R
WE79 B SMM	27-Feb-2013, 11:05	3.17	0.56	9890.00	1.00	
WE79 C SMM	27-Feb-2013, 11:06	5.98	0.34	18700.00	1.00	
WE79 D SMM	27-Feb-2013, 11:08	2.36	0.14	7350.00	1.00	
WE79 E SMM	27-Feb-2013, 11:09	3.23	0.42	10100.00	1.00	
WE79 F SMM	27-Feb-2013, 11:11	3.60	0.71	11200.00	1.00	
WE79 G SMM	27-Feb-2013, 11:13	2.22	0.34	6910.00	1.00	
WE79 H SMM	27-Feb-2013, 11:14	2.22	0.19	6920.00	1.00	
WE79 I SMM	27-Feb-2013, 11:16	1.72	0.39	5370.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 11:18	4.05	0.30	12600.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 11:19	-0.02	11.10	-52.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE79 J SMM	27-Feb-2013, 11:21	3.15	0.69	9820.00	1.00	
WE79 K SMM	27-Feb-2013, 11:23	1.87	0.24	5830.00	1.00	
WE79 L SMM	27-Feb-2013, 11:24	2.83	1.12	8810.00	1.00	
WE79 M SMM	27-Feb-2013, 11:26	5.23	0.36	16300.00	1.00	
WE79 N SMM	27-Feb-2013, 11:27	2.62	0.58	8180.00	1.00	
WE79 O SMM	27-Feb-2013, 11:29	4.04	0.27	12600.00	1.00	
WE79 P SMM	27-Feb-2013, 11:31	10.00	0.55	31300.00	1.00	O
WE79 Q SMM	27-Feb-2013, 11:32	5.86	0.43	18300.00	1.00	
WE79 R SMM	27-Feb-2013, 11:34	6.67	0.36	20800.00	1.00	
WE79 S SMM	27-Feb-2013, 11:36	7.85	0.28	24500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 11:37	3.96	0.22	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 11:39	-0.02	11.90	-65.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE79 T SMM	27-Feb-2013, 11:40	1.92	0.40	6000.00	1.00	
WE79 MB2 SMM	27-Feb-2013, 11:42	0.00	943.00	0.40	1.00	
WE79 MB2SPK SMM	27-Feb-2013, 11:44	2.04	0.09	6350.00	1.00	
WE79 U SMM	27-Feb-2013, 11:45	2.10	0.72	6530.00	1.00	
WE79 V SMM	27-Feb-2013, 11:47	0.90	0.44	2810.00	1.00	
WE79 W SMM	27-Feb-2013, 11:49	0.48	0.48	1490.00	1.00	
WE79 X SMM	27-Feb-2013, 11:50	10.90	0.24	34000.00	1.00	O

Analyst  
 Date Started Wednesday, February 27, 2013, 11:53:34  
 Worksheet ARI 10ppb CALIB  
 Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 11:53	3.99	1.18	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 11:55	-0.00	64.10	-5.87	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE79 A SMM	27-Feb-2013, 12:00	3.20	0.30	9980.00	1.00	
WE79 ADUP SMM	27-Feb-2013, 12:02	2.69	0.93	8380.00	1.00	
WE79 ASPK SMM	27-Feb-2013, 12:03	3.74	0.56	11700.00	1.00	- Low %R
WE79 P SMM	27-Feb-2013, 12:05	5.02	0.91	15700.00	2.00	
WE79 X SMM	27-Feb-2013, 12:06	5.39	0.20	16800.00	2.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 12:08	3.98	1.12	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 12:10	-0.01	7.47	-32.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE80 MB1 SMM	27-Feb-2013, 12:12	-0.00	108.00	-13.60	1.00	
WE80 MB1SPK SMM	27-Feb-2013, 12:13	2.10	1.55	6560.00	1.00	
WE80 A SMM	27-Feb-2013, 12:15	1.17	0.73	3660.00	1.00	
WE80 ADUP SMM	27-Feb-2013, 12:16	1.08	0.56	3370.00	1.00	
WE80 ASPK SMM	27-Feb-2013, 12:18	2.22	0.37	6910.00	1.00	
WE80 B SMM	27-Feb-2013, 12:20	0.66	0.39	2050.00	1.00	
WE80 C SMM	27-Feb-2013, 12:21	2.14	0.18	6660.00	1.00	
WE80 D SMM	27-Feb-2013, 12:23	8.45	0.56	26300.00	1.00	
WE80 E SMM	27-Feb-2013, 12:24	10.60	0.56	33000.00	1.00	O
WE80 F SMM	27-Feb-2013, 12:27	7.37	0.34	23000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 12:29	3.85	0.41	12000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 12:31	0.00	1.85	-80.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE80 G SMM	27-Feb-2013, 12:32	5.23	0.37	16300.00	1.00	
WE80 H SMM	27-Feb-2013, 12:34	2.38	0.55	7410.00	1.00	
WE80 I SMM	27-Feb-2013, 12:35	1.22	0.48	3820.00	1.00	
WE80 J SMM	27-Feb-2013, 12:37	1.65	0.93	5150.00	1.00	
WE80 K SMM	27-Feb-2013, 12:39	1.18	0.80	3670.00	1.00	
WE80 L SMM	27-Feb-2013, 12:40	1.28	0.65	3990.00	1.00	
WE80 M SMM	27-Feb-2013, 12:42	0.55	1.18	1710.00	1.00	
WE80 N SMM	27-Feb-2013, 12:43	0.38	0.72	1180.00	1.00	
WE80 O SMM	27-Feb-2013, 12:45	0.92	0.74	2860.00	1.00	
WE80 P SMM	27-Feb-2013, 12:47	0.55	1.18	1710.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 12:48	3.91	0.32	12200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 12:50	-0.01	30.20	-19.50	1.00	

Analyst  
Date Created: Thursday, July 13, 2000  
Worksheet: ARI 10ppb CALIB  
Comment

Sip Duration (Sec.): 30  
Rinse Duration (Sec.): 60  
Read Delay: 49  
Integration Time/Replicate: 1.40  
# of Replicates: 4  
# of Repeats: 1  
Baseline Correction Enabled: True  
Baseline Point 1 Start Time: 10  
Baseline Point 1 End Time: 16  
2-Point Baseline Corr. Enabled: False  
Baseline Point 2 Start Time:  
Baseline Point 2 End Time:

Gas Flow (ml/min): 180

Calibration Algorithm: Linear, Zero Intercept  
Recalibration Frequency: 0  
Reslope Frequency: 0  
Reslope Standard: 5  
Calibration Standard #1 Conc.: 0.10 PPB  
Calibration Standard #2 Conc.: 0.50 PPB  
Calibration Standard #3 Conc.: 1.00 PPB  
Calibration Standard #4 Conc.: 2.00 PPB  
Calibration Standard #5 Conc.: 5.00 PPB  
Calibration Standard #6 Conc.: 10.00 PPB

QC Enabled: True  
QC-RSD Enabled: True  
Limit Condition & Error Action: If %RSD > 5.0%, if  $\mu$ Abs. > 1500, Flag and Continue

QC-Std Enabled: True  
Limit Condition & Error Action: If outside 80% .. 120%, Stop

QC-Blank Enabled: True  
Limit Condition & Error Action: If outside -100 .. 100, Stop



# Mercury Standard Prep Log

Digstd 20.0mL

Prep Code: TNM  
Analyst: DM  
Bath Temp: 95°C

Instrument: CETAC  
Date: 2-25-13  
End Time: 1215

Start Time: 1015

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	-	0.00	100.0	0.0	1
STD1	3016-11	0.01		0.1	1
STD2		0.05		0.5	1
STD3		0.10		1.0	1
STD4		0.20		2.0	1
STD5		0.50		5.0	1
STD6		1.00		10.0	1
CRA	↓	0.01		0.1	1
ICB/CCB	-	0.00		0.0	1
ICV/LCS	59-6	0.16	↓	8.0	1
CCV	↓	0.08	100.0	4.0	1

Chemical/Reagent ID:

HNO<sub>3</sub>: J8022      H<sub>2</sub>SO<sub>4</sub>: J767      HCl: -  
5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418      5% KMnO<sub>4</sub>: MP2425

Prep Code: 3MM  
Analyst: DM  
Bath Temp: 95°C

Instrument: CETAC  
Date: 2-25-13  
End Time: 120

Start Time: 1059

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	-	0.00	50.0	0.0	3
STD1	3016-12	0.01		0.1	2
STD2		0.05		0.5	2
STD3		0.10		1.0	2
STD4		0.20		2.0	2
STD5		0.50		5.0	2
STD6		1.00		10.0	2
CRA	↓	0.01		0.1	1
ICB/CCB	-	0.00		0.0	3
ICV/LCS	59-6	0.06	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:

HNO<sub>3</sub>: J8022      H<sub>2</sub>SO<sub>4</sub>: J767      HCl: -  
5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418      5% KMnO<sub>4</sub>: MP2425



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 02-26-13

Bath Temp: 90°C

Start Time: 1502

End Time: 1532

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WE79 A	1	-	0.512	50.0	03-08 1	YES	
" ADUP	1	-	0.509		1		
" ASPK	1	-	0.513		1		
" B	1	-	0.562		1		
" C	1	-	0.581		1		
" D	1	-	0.543		1		
" E	1	-	0.541		1		
" F	1	-	0.712		1		
" G	1	-	0.580		1		
" H	1	-	0.591		1		
" I	1	-	0.582		1		
" J	1	-	0.632		1		
" K	1	-	0.533		1		
" L	1	-	0.659		1		
" M	1	-	0.643		1		
" N	1	-	0.547		1		
" O	1	-	0.609		1		
" P	1	-	0.578		1		
" Q	1	-	0.714		1		
" R	1	-	0.587		1		
" S	1	-	0.710		1		
" T	1	-	0.654		1		
" MBI	-	-	-	↓	1		
" MBISPK	-	-	-	50.0	1	↓	
					NB		
					02-26-13		

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022  
5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418

H<sub>2</sub>SO<sub>4</sub>: I7677  
5% KMnO<sub>4</sub>: MP2425

HCl: ---  
Digest Tube Lot: MFO6LKK01



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 02-26-13

Bath Temp: 90°C

Start Time: 1502

End Time: 1532

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WE79 U	1	—	0.724	50.0	03-08, 1	YES	
" V	1	—	0.593	↓	1	↓	
" W	1	—	0.657	↓	1	↓	
" X	1	—	0.549	↓	1	↓	
" MB2	—	—	—	↓	1	↓	
" MB2SPK	—	—	—	50.0	1	↓	
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: absolute; top: 50%; left: 50%;"></div>							

NB  
02-26-13

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022  
5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418

H<sub>2</sub>SO<sub>4</sub>: I7677  
5% KMnO<sub>4</sub>: MP2425

HCl: —  
Digest Tube Lot: MF06LKK01

General Chemistry Raw Data  
Analyst Notes and Raw Data

ARI Job ID: WE79



W  
3-1-17

**Soil - pH**

meter: Orion Model 115

Date: 2/28/2013

Analyst: KE 11:15

**Conductivity Calibration**

Potassium Chloride standard ARI ID = N/A

**pH Calibration** Temperature (°C)

pH Buffers 2, 4, 7, 10, 12

Conductivity = 1413  $\mu$ S/cm

Cal Temp N/A

Input Value  $\mu$ S/cm

**Verification Buffer**

Source FISHER# pH 7.00

**Conductivity Verification Standard**

Source:

Record Certified Values

$\mu$ S/cm = 1000

TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity		Notes & Flags
					(mS/cm)	( $\mu$ S/cm)	
pH 7 Buffer			21.2	6.97			OK@ 99.6%
WE79 J1	20	25	21.2	3.53			
WE79 X1	20	25	21.1	5.13			
WE79 X1 dup	20	25	21.2	5.14			pH RPD =0.19%
WE82 C1	20	25	21.2	4.36			
WF00 A1	10	25	21.2	10.69			
WF00 A1 dup	10	25	21.1	10.73			pH RPD =0.37%
WE58 C1	20	25	21.1	7.34			
WE58 C1 dup	20	25	21.1	7.35			pH RPD =0.14%
WE58 D1	20	35	21.2	7.21			
WE58 E1	20	25	21.1	7.46			
pH 7 Buffer			21.3	7.00			OK@ 100%
WE58 F1	20	25	21.3	6.97			
pH 7 Buffer			21.3	7.02			OK@ 100.3%

02-28-13 (W)

**Soil - pH**

meter: Orion Model 115

Date: 2-28-13

Analyst: (W) #11.15

**Conductivity Calibration**

Potassium Chloride standard ARI ID = N/A

pH Calibration Temperature (°C) 20.7  
pH Buffers 2, 4, 7, 10, 12

Conductivity = 1413  $\mu$ S/cm

Cal Temp N/A

Input Value  $\mu$ S/cm

Verification Buffer pH 7.00  
Source FISHER#

**Conductivity Verification Standard**

Source: NA

Record Certified Values

$\mu$ S/cm = 1000

TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity		Notes & Flags
					(mS/cm)	( $\mu$ S/cm)	
pH 7 Buffer			21.2	6.97			
WE79 J <sup>1</sup>	20	25	21.2	3.53			
X <sup>1</sup>	20	25	21.1	5.13			
X <sup>1</sup>	20	25	21.2	5.14			
WE92 C <sup>1</sup>	20	25	21.2	4.36			
WF00 A <sup>1</sup>	10	25	21.2	10.69			
nA <sup>1</sup>	10	25	21.1	10.73			
WE58 C <sup>1</sup>	20	25	21.1	7.34			
MC <sup>1</sup>	20	25	21.1	7.35			
D <sup>1</sup>	20	1-25 25	21.2	7.21			
E <sup>1</sup>	20	25	21.1	7.46			
pH 7 Buffer			21.3	7.00			
WE58 F	20	25	21.3	6.97			
pH 7 Buffer			21.3	7.02			
pH 7 Buffer							
pH 7 Buffer							

02-28-13 (W)



# pH Logbook

Meter ID: Accumet AR60

## Calibration

Date:	2-28-13	Buffer	Source	Lot #	pH	Temp.
Time:	10:50	2.00	Ricca	1207705	2.00	20.3
Analyst:	GA	4.00	Fisher	115547	4.00	20.9
		7.00	Ricca	1207882	7.02	20.3
		10.00	Fisher	126248	10.06	20.3
		12.00	Ricca	1207132	11.99	20.2
		Verification	Fisher	124864	7.01	20.7

## Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temperature
GA	11:05	ICV	7.01	7.00			20.7
		WF46A3	6.04	6.03			22.3
		CCV	7.02	7.01			20.9
GA	14:45	CCV	6.97	6.97	SOIL		21.2
		WE79J1	3.53	3.53			21.2
		X1	5.12	5.13			21.1
		npX1	5.14	5.14			21.2
		WE82C1	4.35	4.36			21.2
		WF00A1	10.69	10.69			21.2
		npA1	10.72	10.73			21.1
		WE58C1	7.32	7.34			21.1
		COX1C1	7.35	7.35			21.1
		DS	7.21	7.21			21.2
		ES	7.46	7.46			21.1
		F1	6.97	6.97			21.3
		CCV	7.02	7.02			21.3
		CCV	6.98	6.98			21.1
		WF58A4	6.47	6.47			18.6
		TAMdep	6.48	6.49			18.6
B4	6.71	6.72			18.5		
CCV	7.00	7.00			20.8		
		CCV					


② CCV 6.99 - 7.00 21.3

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Project: 17917-00 Saddle Rock

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\_\_\_\_\_  
Signature

March-04-2013  
Date



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

March 6, 2013

Steve Hughes  
Hart Crowser, Inc.  
1700 Westlake Avenue N. Suite 200  
Seattle, WA 98109-3256

**RE: Client Project: Upper Columbia 17917-00**  
**ARI Job No. WE80**

Dear Steve:

Please find enclosed the chain of custody documentation and data package for samples from the project referenced above

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Kelly Bottem  
Client Services Manager  
kellyb@arilabs.com  
206/695-6211

Enclosures

cc: eFile WE80

KFB/kfb

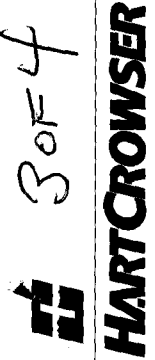
**Chain of Custody Documentation**

**ARI Job ID: WE80**

# Sample Custody Record

Samples Shipped to: ARI

JOB 17914-00 LAB NUMBER \_\_\_\_\_  
 PROJECT NAME SADDLE ROCK  
 HART CROWSER CONTACT S. HUGHES  
R. MCGRAWIS, A. CONERO  
 SAMPLED BY: AJ SF, NG



Hart Crowser, Inc.  
 1700 Westlake Avenue North, Suite 200  
 Seattle, Washington 98109-6212  
 Office: 206.324.9530 • Fax 206.328.5581

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS										NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS	
						1	2	3	4	5	6	7	8	9	10			11
	SR03-002		2/20/13	1007	S	X	X	X	X	X	X	X	X	X	X	X	1	
	SR03-003		"	1031	"	X	X	X	X	X	X	X	X	X	X	X	1	
	SR03-004		"	1127	"	X	X	X	X	X	X	X	X	X	X	X	1	
	SR03-005		"	1157	"	X	X	X	X	X	X	X	X	X	X	X	1	
	SR03-006		"	1327	"	X	X	X	X	X	X	X	X	X	X	X	1	
	SR03-007		"	1300	"	X	X	X	X	X	X	X	X	X	X	X	1	
	SR03-008		"	1227	"	X	X	X	X	X	X	X	X	X	X	X	1	
	SR03-009		"	1059	"	X	X	X	X	X	X	X	X	X	X	X	1	
	SR03-010		"	1047	"	X	X	X	X	X	X	X	X	X	X	X	1	
	SR03-011		"	1117	"	X	X	X	X	X	X	X	X	X	X	X	1	
	SR03-001		"	1137	"	X	X	X	X	X	X	X	X	X	X	X	1	
	SR03-002		"	1246	"	X	X	X	X	X	X	X	X	X	X	X	1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE	SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:	TOTAL NUMBER OF CONTAINERS
<u>[Signature]</u>	2/25/13	<u>[Signature]</u>	2/25/13	Level III DATA PACKAGE	12
PRINT NAME <u>Time Conero</u>	TIME	PRINT NAME <u>Rich Huber</u>	TIME		
PRINT NAME <u>R. McGrawis</u>	1156	PRINT NAME <u>ARI</u>	1310		
COMPANY <u>Hart Crowser</u>		COMPANY			
RELINQUISHED BY	DATE	RECEIVED BY	DATE	COOLER NO.:	STORAGE LOCATION:
SIGNATURE	TIME	SIGNATURE	TIME		
PRINT NAME	TIME	PRINT NAME	TIME		
COMPANY		COMPANY			

METALS  
 TOTAL SOLIDS

SAMPLE RECEIPT INFORMATION  
 CUSTODY SEALS:  YES  NO  N/A  
 GOOD CONDITION  YES  NO  
 TEMPERATURE \_\_\_\_\_  
 SHIPMENT METHOD:  HAND  COURIER  OVERNIGHT

TURNAROUND TIME:  
 24 HOURS  1 WEEK  STANDARD  
 48 HOURS  72 HOURS  OTHER \_\_\_\_\_

See Lab Work Order No. \_\_\_\_\_  
 for Other Contract Requirements

# Sample Custody Record

Samples Shipped to: ART

4 of 4



**HART CROWSER**

Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

JOB <u>17917-00</u> LAB NUMBER		REQUESTED ANALYSIS				OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS	
PROJECT NAME <u>SADDLE ROCK</u>		NO. OF CONTAINERS				<u>WCSO</u>	
HART CROWSER CONTACT <u>S. HUGHES</u>		METALS					
CONTACT <u>R. McGraw, A. Conroy</u>		TOMX Solids					
SAMPLED BY: <u>AJ, SF, NG</u>							
LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:	
	SR03-C03		2/20/13	1343	S	LEVEL III DATA PACKAGE	
	SR04-001		2/21/13	1005	"		
	SR04-002		"	1015	"		
	SR04-003		"	1025	"		
	SR04-005		"	1105	"		
	SR04-006		"	1030	"		
	SR04-004		"	1048	"		
	SR04-001		"	1158	"		
	SR04-C02		"	1221	"		
	SR04-003		"	1238	"		
RELINQUISHED BY	DATE	RECEIVED BY	DATE	TOTAL NUMBER OF CONTAINERS			
<u>[Signature]</u>	2/21/13	<u>[Signature]</u>	2/25/13	SAMPLE RECEIPT INFORMATION			
SIGNATURE	TIME	SIGNATURE	TIME	CUSTODY SEALS:			
<u>[Signature]</u>	1056	<u>[Signature]</u>	1316	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input type="checkbox"/> GOOD CONDITION <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO TEMPERATURE _____ SHIPMENT METHOD: <input type="checkbox"/> HAND <input type="checkbox"/> OVERNIGHT <input type="checkbox"/> COURIER <input type="checkbox"/>			
PRINT NAME	COMPANY	PRINT NAME	COMPANY	TURNAROUND TIME:			
<u>[Signature]</u>		<u>[Signature]</u>		<input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK <input type="checkbox"/> 48 HOURS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> 72 HOURS <input type="checkbox"/> OTHER _____			
RELINQUISHED BY	DATE	RECEIVED BY	DATE	COOLER NO.: _____ STORAGE LOCATION: _____			
SIGNATURE	TIME	SIGNATURE	TIME	See Lab Work Order No. _____			
PRINT NAME	COMPANY	PRINT NAME	COMPANY	for Other Contract Requirements			
COMPANY		COMPANY					





# Cooler Receipt Form

ARI Client: Hart Crouser

Project Name: Saddle Rock

COC No(s): \_\_\_\_\_  NA

Delivered by: Fed-Ex UPS  Courier  Hand Delivered  Other: \_\_\_\_\_

Assigned ARI Job No: WES0

Tracking No: \_\_\_\_\_ NA

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler?  YES  NO

Were custody papers included with the cooler?  YES  NO

Were custody papers properly filled out (ink, signed, etc.)  YES  NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 5.1 1.9 4.9

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90877952

Cooler Accepted by: [Signature] Date: 2/25/13 Time: 1310

*Complete custody forms and attach all shipping documents*

**Log-in Phase:**

Was a temperature blank included in the cooler?  YES  NO

What kind of packing material was used? ... Bubble Wrap  Wet Ice  Gel Packs  Baggies  Foam Block  Paper Other: \_\_\_\_\_

Was sufficient ice used (if appropriate)?  NA  YES  NO

Were all bottles sealed in individual plastic bags?  YES  NO

Did all bottles arrive in good condition (unbroken)?  YES  NO

Were all bottle labels complete and legible?  YES  NO

Did the number of containers listed on COC match with the number of containers received?  YES  NO

Did all bottle labels and tags agree with custody papers?  YES  NO

Were all bottles used correct for the requested analyses?  YES  NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...  NA  YES  NO

Were all VOC vials free of air bubbles?  NA  YES  NO

Was sufficient amount of sample sent in each bottle?  YES  NO

Date VOC Trip Blank was made at ARI:  NA

Was Sample Split by ARI:  NA  YES Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by: JM Date: 2/25/13 Time: 1349

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

By: \_\_\_\_\_ Date: \_\_\_\_\_

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WE80



**Case Narrative**

**Project: 17917-00**

**ARI Job No.: WE80**

**March 6, 2013**

**Sample Receipt:**

Please find enclosed the original chain of custody (COC) record and analytical results for the project referenced above. Analytical Resources, Inc. accepted twenty two soil samples in good condition on February 25, 2013. The samples were received with cooler temperatures between 4.9 and 5.1°C. Please see the Cooler Receipt Form for further details.

**Total Metals by 200.8, 6010C and 7471A**

The samples were digested on 2/27/13 and analyzed between 2/27/13 and 2/28/13 within the method recommended holding time.

***Initial calibration (s):*** All analytes were within method acceptance criteria.

***Continuing calibration (s):*** All analytes were within method acceptance criteria.

***Samples:*** No anomalies were encountered for these samples.

***Method Blank:*** The method blanks were free of contamination.

***LCS:*** Is in control.

***Matrix spike/Sample Duplicate/RPD:*** The matrix spike in association with sample SR03-D02 is out of control low for antimony and arsenic. All other QC is in control and no further corrective action was taken.

# Sample ID Cross Reference Report



ARI Job No: WE80  
Client: Hart Crowser, Inc.  
Project Event: 17917-00  
Project Name: Saddle Rock

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. SR03-D02	WE80A	13-3557	Soil	02/20/13 10:07	02/25/13 13:10
2. SR03-D03	WE80B	13-3558	Soil	02/20/13 10:31	02/25/13 13:10
3. SR03-D04	WE80C	13-3559	Soil	02/20/13 11:27	02/25/13 13:10
4. SR03-D05	WE80D	13-3560	Soil	02/20/13 11:57	02/25/13 13:10
5. SR03-D06	WE80E	13-3561	Soil	02/20/13 13:27	02/25/13 13:10
6. SR03-D07	WE80F	13-3562	Soil	02/20/13 13:00	02/25/13 13:10
7. SR03-D08	WE80G	13-3563	Soil	02/20/13 12:27	02/25/13 13:10
8. SR03-D09	WE80H	13-3564	Soil	02/20/13 10:59	02/25/13 13:10
9. SR03-D10	WE80I	13-3565	Soil	02/20/13 10:47	02/25/13 13:10
10. SR03-D11	WE80J	13-3566	Soil	02/20/13 11:17	02/25/13 13:10
11. SR03-C01	WE80K	13-3567	Soil	02/20/13 11:37	02/25/13 13:10
12. SR03-C02	WE80L	13-3568	Soil	02/20/13 12:40	02/25/13 13:10
13. SR03-C03	WE80M	13-3569	Soil	02/20/13 13:43	02/25/13 13:10
14. SR04-D01	WE80N	13-3570	Soil	02/21/13 10:05	02/25/13 13:10
15. SR04-D02	WE80O	13-3571	Soil	02/21/13 10:15	02/25/13 13:10
16. SR04-D03	WE80P	13-3572	Soil	02/21/13 10:25	02/25/13 13:10
17. SR04-D05	WE80Q	13-3573	Soil	02/21/13 11:05	02/25/13 13:10
18. SR04-D06	WE80R	13-3574	Soil	02/21/13 10:30	02/25/13 13:10
19. SR04-D04	WE80S	13-3575	Soil	02/21/13 10:48	02/25/13 13:10
20. SR04-C01	WE80T	13-3576	Soil	02/21/13 11:58	02/25/13 13:10
21. SR04-C02	WE80U	13-3577	Soil	02/21/13 12:21	02/25/13 13:10
22. SR04-C03	WE80V	13-3578	Soil	02/21/13 12:38	02/25/13 13:10



## Data Reporting Qualifiers

Effective 2/14/2011

### Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- \* Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but  $\geq$  the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is  $\leq 5$  times the Reporting Limit and the replicate control limit defaults to  $\pm 1$  RL instead of the normal 20% RPD

### Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- \* Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria ( $< 20\%$  RSD,  $< 20\%$  Drift or minimum RRF).



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
- NA The flagged analyte was not analyzed for
- NR Spiked compound recovery is not reported due to chromatographic interference
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
- EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria"  
**(Dioxin/Furan analysis only)**
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by  $\geq 40\%$  RPD with no obvious chromatographic interference
- X Analyte signal includes interference from polychlorinated diphenyl ethers.  
**(Dioxin/Furan analysis only)**
- Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**



### **Geotechnical Data**

- A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
- F Samples were frozen prior to particle size determination
- SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
- SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
- W Weight of sample in some pipette aliquots was below the level required for accurate weighting



<b>Quality Control Parameters for Mercury Analysis using CVAA EPA Methods 7470A or 245.1 for Aqueous Samples EPA Methods 7471B or 245.5 for Solid Samples</b>						
	<b>Aqueous Samples<sup>2</sup></b>			<b>Spike Recovery</b>		<b>RPD<sup>5</sup></b>
	<b>DL<sup>1</sup> µg/L</b>	<b>LOD<sup>1</sup> µg/L</b>	<b>LOQ<sup>1</sup> µg/L</b>	<b>Matrix Spike</b>	<b>LCS</b>	
<b>Mercury</b>	0.0069	0.05	<b>0.10<sup>2</sup></b>	75 – 125	80 – 120	≤ 20
<b>Mercury (low level)</b>	0.0026	0.01	<b>0.02<sup>2</sup></b>	75 – 125	80 – 120	≤ 20
	<b>Soil / Sediment Samples</b>			<b>Spike Recovery</b>		<b>RPD<sup>5</sup></b>
	<b>DL<sup>1</sup> mg/kg</b>	<b>LOD<sup>1</sup> mg/kg</b>	<b>LOQ<sup>1</sup> mg/kg</b>	<b>Matrix Spike</b>	<b>LCS</b>	
<b>Mercury</b>	0.0021	0.0125	0.025 <sup>3</sup>	75 – 125	80 – 120	≤ 20
	<b>Tissue Samples</b>			<b>Spike Recovery</b>		<b>RPD<sup>5</sup></b>
	<b>DL<sup>1</sup> mg/kg</b>	<b>LOD<sup>1</sup> mg/kg</b>	<b>LOQ<sup>1</sup> mg/kg</b>	<b>Matrix Spike</b>	<b>LCS</b>	
<b>Mercury</b>	0.0021	0.0125	0.005 <sup>4</sup>	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S

(2) 20 mL sample with 20 mL final volume

(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.

(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.

(5) Relative Percent Difference between analytes in replicate analyzes. If C<sub>o</sub> and C<sub>D</sub> are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_o - C_D|}{\frac{C_o + C_D}{2}} \times 100$$





**Quality Control Parameters for Metals Analysis ICP-MS EPA  
Methods 200.8 or 6020A**

Analyte	Mass	Aqueous Samples <sup>2</sup>			Spike Recovery		RPD <sup>3</sup>	Solids <sup>2</sup>
		DL <sup>1</sup> µg/L	LOD <sup>1</sup> µg/L	LOQ <sup>1</sup> µg/L	Matrix Spike	LCS		LOQ <sup>1</sup> mg/kg
Aluminum	27	1.601	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Antimony	121	0.010	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
	123	0.011	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Arsenic #1	75	0.048	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Arsenic #2	75	0.092	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Barium	135	0.020	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	137	0.019	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Beryllium	9	0.021	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Cadmium	111	0.010	0.05	0.1	75 – 125	80 – 120	≤ 20	0.1
	114	0.005	0.05	0.1	75 – 125	80 – 120	≤ 20	0.1
Calcium	43	3.983	25	50.0	75 – 125	80 – 120	≤ 20	50.0
Chromium	52	0.045	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	53	0.118	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Cobalt	59	0.011	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Copper	63	0.158	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	65	0.236	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Iron	54	5.753	10	20.0	75 – 125	80 – 120	≤ 20	20.0
	57	3.876	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Lead	208	0.046	0.05	0.1	75 – 125	80 – 120	≤ 20	0.1
Magnesium	24	0.297	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Manganese	55	0.022	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Molybdenum	98	0.013	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Nickel	60	0.079	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	62	0.089	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Potassium	39	2.944	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Selenium	82	0.127	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	78	0.324	0.25	2.0	75 – 125	80 – 120	≤ 20	2.0
Silver	107	0.008	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Sodium	23	2.833	50	100.0	75 – 125	80 – 120	≤ 20	100.0
Thorium <sup>4</sup>	232	0.013	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Thallium	205	0.004	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Uranium <sup>4</sup>	238	0.003	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Vanadium	51	0.043	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Zinc	66	0.497	2	4.0	75 – 125	80 – 120	≤ 20	4.0
	67	0.531	2	4.0	75 – 125	80 – 120	≤ 20	4.0
	68	0.524	2	4.0	75 – 125	80 – 120	≤ 20	4.0

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S  
 (2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.

(3) Relative Percent Difference in replicate analyzes.  $RPD = \frac{|C_o - C_D|}{\frac{C_o + C_D}{2}} \times 100$  where C<sub>o</sub>=Original, C<sub>D</sub>=Duplicate

(4) ARI has no accreditation for these elements.



### Quality Control Parameters for Metals Analysis-ICP-OES EPA Methods 200.7 and 6010C

Analyte	Aqueous Samples <sup>2</sup>			Spike Recovery		RPD <sup>5</sup>	Solids <sup>3</sup>	Tissue <sup>4</sup>
	DL <sup>1</sup> µg/L	LOD <sup>1</sup> µg/L	LOQ <sup>1</sup> µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Antimony	6.28	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Arsenic	3.33	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Barium	1.33	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Beryllium	0.16	0.5	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Boron	7.39	10	20	75 – 125	80 – 120	≤ 20	2.0	0.4
Cadmium	0.18	0.5	2.0	75 – 125	80 – 120	≤ 20	0.2	0.04
Calcium	11.27	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Chromium	1.24	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.1
Cobalt	0.27	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Copper	0.92	1.0	2.0	75 – 125	80 – 120	≤ 20	0.2	0.04
Iron	7.50	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Lead	1.55	10	20	75 – 125	80 – 120	≤ 20	2.0	0.4
Magnesium	9.61	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Manganese	0.28	0.5	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Molybdenum	0.79	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.1
Nickel	3.86	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2
Potassium	65.70	250	500	75 – 125	80 – 120	≤ 20	50	10
Selenium	4.99	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Silicon	8.17	30	60	75 – 125	80 – 120	≤ 20	(6)	(6)
Silver	0.43	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Sodium	11.35	250	500	75 – 125	80 – 120	≤ 20	50	10
Strontium	0.09	1.0	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Thallium	3.10	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Tin	1.41	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2
Titanium	2.11	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.01
Vanadium	0.27	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Zinc	1.45	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S

(2) 50 mL sample and 50 mL final volume

(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.

(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.

(5) Relative Percent Difference between analytes in replicate analyzes. If C<sub>O</sub> and C<sub>D</sub> are the concentrations of the

original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} \times 100$$

(6) ARI does not analyze for Silicon in solids or tissue samples

**Metals Analysis  
Report and Summary QC Forms**

**ARI Job ID: WE80**

# Cover Page

## INORGANIC ANALYSIS DATA PACKAGE



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

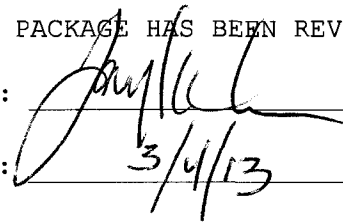
SDG: WE80

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SR03-D02	WE80A	13-3557	
SR03-D02D	WE80ADUP	13-3557	
SR03-D02S	WE80ASPK	13-3557	
SR03-D03	WE80B	13-3558	
PBS	WE80MB1	13-3558	
LCSS	WE80MB1SPK	13-3558	
SR03-D04	WE80C	13-3559	
SR03-D05	WE80D	13-3560	
SR03-D06	WE80E	13-3561	
SR03-D07	WE80F	13-3562	
SR03-D08	WE80G	13-3563	
SR03-D09	WE80H	13-3564	
SR03-D10	WE80I	13-3565	
SR03-D11	WE80J	13-3566	
SR03-C01	WE80K	13-3567	
SR03-C02	WE80L	13-3568	
SR03-C03	WE80M	13-3569	
SR04-D01	WE80N	13-3570	
SR04-D02	WE80O	13-3571	
SR04-D03	WE80P	13-3572	
SR04-D05	WE80Q	13-3573	

Were ICP interelement corrections applied ?                      Yes/No    YES  
Were ICP background corrections applied ?                      Yes/No    YES  
If yes - were raw data generated before  
application of background corrections ?                      Yes/No    NO

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature:                       Name: Jay Kuhn  
Date: 3/4/13                      Title: Inorganics Director

# Cover Page

## INORGANIC ANALYSIS DATA PACKAGE



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

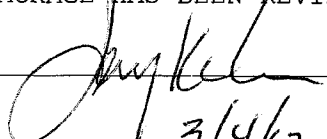
SDG: WE80

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SR04-D06	WE80R	13-3574	
SR04-D04	WE80S	13-3575	
SR04-C01	WE80T	13-3576	
PBS	WE80MB2	13-3577	
LCSS	WE80MB2SPK	13-3577	
SR04-C02	WE80U	13-3577	
SR04-C03	WE80V	13-3578	

Were ICP interelement corrections applied ?                      Yes/No    YES  
Were ICP background corrections applied ?                      Yes/No    YES  
If yes - were raw data generated before  
application of background corrections ?                      Yes/No    NO

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature:                       Name: Jay Kuhn  
Date: 3/4/13                      Title: Inorganics Director

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1


Sample ID: SR03-D02

SAMPLE

Lab Sample ID: WE80A

LIMS ID: 13-3557

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 92.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.6	5	3,390	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.092	0.2	104	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.061	0.3	17.2	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.040	0.5	1.7	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.77	5	2,330	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.050	0.1	5.1	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.041	0.1	10.7	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.008	0.095	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0085	0.2	3.8	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.018	0.2	1.8	


Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**  
**TOTAL METALS**  
Page 1 of 1

Sample ID: SR03-D02  
DUPLICATE

Lab Sample ID: WE80A  
LIMS ID: 13-3557  
Matrix: Soil  
Data Release Authorized:   
Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: 02/20/13  
Date Received: 02/25/13

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	3,390	4,010	16.8%	+/- 20%	
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	104	97.2	6.8%	+/- 20%	
Barium	6010C	17.2	18.7	8.4%	+/- 20%	
Chromium	200.8	1.7	2.3	30.0%	+/- 0.5	L*
Iron	6010C	2,330	2,360	1.3%	+/- 20%	
Lead	200.8	5.1	5.3	3.8%	+/- 20%	
Manganese	6010C	10.7	12.7	17.1%	+/- 20%	
Mercury	7471A	0.095	0.087	8.8%	+/- 20%	
Selenium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Silver	200.8	3.8	3.5	8.2%	+/- 20%	
Vanadium	200.8	1.8	2.3	24.4%	+/- 20%	*

Reported in mg/kg-dry

\*-Control Limit Not Met  
L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1


Sample ID: SR03-D02

**MATRIX SPIKE**

Lab Sample ID: WE80A

LIMS ID: 13-3557

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	3,390	4,440	204	515%	H
Antimony	200.8	0.2 U	0.2 U	26.5	0.8%	N
Arsenic	200.8	104	123	26.5	71.7%	N
Barium	6010C	17.2	227	204	103%	
Chromium	200.8	1.7	27.9	26.5	98.9%	
Iron	6010C	2,330	2,670	204	167%	H
Lead	200.8	5.1	32.1	26.5	102%	
Manganese	6010C	10.7	62.3	51.0	101%	
Mercury	7471A	0.095	0.179	0.0806	104%	
Selenium	200.8	0.5 U	82.5	84.7	97.4%	
Silver	200.8	3.8	30.9	26.5	102%	
Vanadium	200.8	1.8	25.7	26.5	90.2%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR03-D03  
SAMPLE

Lab Sample ID: WE80B

LIMS ID: 13-3558

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 92.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.7	5	3,270	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.090	0.2	106	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.062	0.3	116	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.039	0.5	2.3	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.77	5	10,100	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.049	0.1	11.1	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.041	0.1	16.9	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.009	0.057	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.10	0.5	1.4	
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0083	0.2	6.5	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.018	0.2	3.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR03-D04  
SAMPLE

Lab Sample ID: WE80C

LIMS ID: 13-3559

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 93.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.6	5	5,670	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.088	0.2	57.0	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.061	0.3	56.9	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.038	0.5	3.7	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.77	5	9,130	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.047	0.1	10.3	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.041	0.1	84.7	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.008	0.169	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.10	0.5	0.7	
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0081	0.2	4.7	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.017	0.2	8.3	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

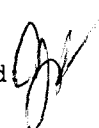
Page 1 of 1

Sample ID: SR03-D05  
SAMPLE

Lab Sample ID: WE80D

LIMS ID: 13-3560

Matrix: Soil

Data Release Authorized 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 91.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.6	5	4,310	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.094	0.2	88.3	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.061	0.3	36.6	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.041	0.5	2.5	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.76	5	5,360	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.051	0.1	2.9	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.040	0.1	32.9	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.008	0.676	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	0.7	
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0087	0.2	5.8	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.018	0.2	3.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR03-D06  
SAMPLE

Lab Sample ID: WE80E

LIMS ID: 13-3561

Matrix: Soil

Data Release Authorized 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 89.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.7	5	2,800	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.093	0.2	83.9	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.063	0.3	19.2	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.041	0.5	1.4	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.79	5	3,250	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.050	0.1	7.3	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.042	0.1	9.9	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0009	0.02	0.93	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	1.2	
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0086	0.2	10.8	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.018	0.2	1.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR03-D07  
SAMPLE

Lab Sample ID: WE80F

LIMS ID: 13-3562

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 91.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.7	5	2,630	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.093	0.2	174	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.063	0.3	50.7	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.040	0.5	1.7	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.79	5	10,900	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.050	0.1	14.4	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.042	0.1	10.1	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.008	0.565	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	2.0	
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0085	0.2	16.3	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.018	0.2	2.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR03-D08  
SAMPLE

Lab Sample ID: WE80G

LIMS ID: 13-3563

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 82.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	4.1	6	4,550	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.11	0.2	200	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.069	0.3	21.9	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.046	0.6	3.1	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.87	6	3,320	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.057	0.1	6.8	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.046	0.1	13.0	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.61	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.12	0.6	0.9	
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0097	0.2	18.7	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.021	0.2	2.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR03-D09  
SAMPLE

Lab Sample ID: WE80H

LIMS ID: 13-3564

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 91.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.6	5	4,290	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.093	0.2	108	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.061	0.3	85.2	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.040	0.5	3.4	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.77	5	4,200	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.050	0.1	3.0	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.041	0.1	46.6	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.008	0.199	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	1.3	
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0085	0.2	8.2	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.018	0.2	4.9	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR03-D10  
SAMPLE

Lab Sample ID: WE80I

LIMS ID: 13-3565

Matrix: Soil

Data Release Authorized 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 86.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.8	5	16,100	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.096	0.2	79.2	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.065	0.3	142	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.042	0.5	6.2	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.81	5	21,200	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.052	0.1	6.3	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.043	0.1	249	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.13	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0088	0.2	1.5	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	20.4	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit




**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR03-D11  
SAMPLE

Lab Sample ID: WE80J  
LIMS ID: 13-3566  
Matrix: Soil  
Data Release Authorized   
Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: 02/20/13  
Date Received: 02/25/13

Percent Total Solids: 85.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.8	5	15,600	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.095	0.2	77.1	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.064	0.3	134	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.041	0.5	5.9	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.80	5	18,900	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.051	0.1	6.4	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.043	0.1	238	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.008	0.139	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0087	0.2	1.3	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	20.7	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


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Sample ID: SR03-C01  
SAMPLE

Lab Sample ID: WE80K

LIMS ID: 13-3567

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 88.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	4.0	6	12,100	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.090	0.2	71.5	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.068	0.3	116	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.039	0.5	10.8	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.84	6	16,500	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.049	0.1	10.5	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.045	0.1	303	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.009	0.108	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0083	0.2	4.7	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.018	0.2	22.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR03-C02  
SAMPLE

Lab Sample ID: WE80L

LIMS ID: 13-3568

Matrix: Soil

Data Release Authorized:

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 84.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	4.0	6	14,500	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.095	0.2	42.4	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.068	0.3	125	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.041	0.5	11.1	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.85	6	21,100	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.051	0.1	9.9	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.045	0.1	482	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.009	0.118	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0087	0.2	2.9	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	24.0	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR03-C03  
SAMPLE

Lab Sample ID: WE80M

LIMS ID: 13-3569

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 81.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	4.1	6	19,100	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.11	0.2	23.7	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.069	0.3	205	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.047	0.6	15.8	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.86	6	21,200	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.058	0.1	10.9	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.046	0.1	507	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.06	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0098	0.2	1.4	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.021	0.2	29.8	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

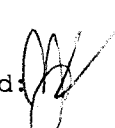
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR04-D01  
SAMPLE

Lab Sample ID: WE80N  
LIMS ID: 13-3570  
Matrix: Soil  
Data Release Authorized:   
Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: 02/21/13  
Date Received: 02/25/13

Percent Total Solids: 90.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.9	6	7,900	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.095	0.2	106	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.066	0.3	43.0	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.042	0.5	4.9	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.83	6	24,900	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.052	0.1	13.2	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.044	0.1	163	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.04	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0088	0.2	1.4	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	17.2	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR04-D02  
SAMPLE

Lab Sample ID: WE800  
LIMS ID: 13-3571  
Matrix: Soil  
Data Release Authorized  
Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: 02/21/13  
Date Received: 02/25/13

Percent Total Solids: 90.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	9.4	10	7,550	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.089	0.2	124	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.16	0.8	51.7	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.039	0.5	5.2	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	2.0	10	29,400	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.048	0.1	18.6	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.11	0.3	185	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.008	0.078	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0082	0.2	9.6	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.017	0.2	16.2	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR04-D03  
SAMPLE

Lab Sample ID: WE80P

LIMS ID: 13-3572

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 91.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	9.0	10	9,330	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.088	0.2	134	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.15	0.8	71.2	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.039	0.5	6.4	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	1.9	10	29,100	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.048	0.1	12.5	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.10	0.3	200	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.05	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0081	0.2	1.8	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.017	0.2	18.0	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL


RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR04-D05  
SAMPLE

Lab Sample ID: WE80Q  
LIMS ID: 13-3573  
Matrix: Soil  
Data Release Authorized:   
Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: 02/21/13  
Date Received: 02/25/13

Percent Total Solids: 89.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.8	5	8,350	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.097	0.2	54.8	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.063	0.3	56.1	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.042	0.6	6.9	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.79	5	18,800	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.052	0.1	12.6	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.042	0.1	187	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.008	0.025	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0089	0.2	1.8	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	19.9	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit




**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR04-D06  
SAMPLE

Lab Sample ID: WE80R  
LIMS ID: 13-3574  
Matrix: Soil  
Data Release Authorized:   
Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: 02/21/13  
Date Received: 02/25/13

Percent Total Solids: 91.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	9.3	10	8,560	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.088	0.2	130	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.16	0.8	69.5	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.038	0.5	6.4	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	2.0	10	28,400	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.047	0.1	12.2	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.11	0.3	192	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.008	0.050	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0081	0.2	1.6	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.017	0.2	17.9	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

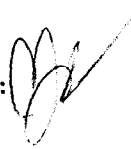
Page 1 of 1

Sample ID: SR04-D04  
SAMPLE

Lab Sample ID: WE80S

LIMS ID: 13-3575

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 90.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.7	5	8,810	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.089	0.2	69.9	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.062	0.3	70.0	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.039	0.5	6.9	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.77	5	22,600	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.048	0.1	12.3	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.041	0.1	238	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.009	0.038	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0082	0.2	1.8	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.017	0.2	19.2	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL


RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR04-C01  
SAMPLE

Lab Sample ID: WE80T  
LIMS ID: 13-3576  
Matrix: Soil  
Data Release Authorized:   
Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: 02/21/13  
Date Received: 02/25/13

Percent Total Solids: 85.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.8	5	11,000	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.094	0.2	102	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.065	0.3	68.1	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.041	0.5	6.1	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.81	5	21,400	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.051	0.1	8.4	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.043	0.1	251	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.008	0.030	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0087	0.2	1.2	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.018	0.2	16.7	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR04-C02  
SAMPLE

Lab Sample ID: WE80U

LIMS ID: 13-3577

Matrix: Soil

Data Release Authorized

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 84.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.9	5	12,300	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.095	0.2	69.1	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.066	0.3	107	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.041	0.5	8.6	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.82	5	21,000	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.051	0.1	12.2	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.044	0.1	337	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0004	0.008	0.026	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0087	0.2	0.7	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	20.8	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR04-C03  
SAMPLE

Lab Sample ID: WE80V

LIMS ID: 13-3578

Matrix: Soil

Data Release Authorized: 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 85.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.9	5	13,900	
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.10	0.2	61.3	
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.066	0.3	107	
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.044	0.6	8.2	
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.82	5	21,400	
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.054	0.1	10.7	
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.044	0.1	343	
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.009	0.020	
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0092	0.2	0.5	
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.019	0.2	20.8	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

**Sample ID: METHOD BLANK**

Page 1 of 1

Lab Sample ID: WE80MB


QC Report No: WE80-Hart Crowser, Inc.

LIMS ID: 13-3558

Project: Saddle Rock

Matrix: Soil

17917-00

Data Release Authorized 

Date Sampled: NA

Reported: 03/01/13

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.6	5	5	U
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.75	5	5	U
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.01	U
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.017	0.2	0.2	U

Reported in mg/kg (ppm).

U-Analyte undetected at given RL

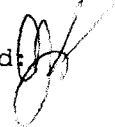
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**Sample ID: LAB CONTROL**

**TOTAL METALS**

Page 1 of 1

Lab Sample ID: WE80LCS  
 LIMS ID: 13-3558  
 Matrix: Soil  
 Data Release Authorized:   
 Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.  
 Project: Saddle Rock  
 17917-00  
 Date Sampled: NA  
 Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Aluminum	6010C	205	200	102%	
Antimony	200.8	24.6	25.0	98.4%	
Arsenic	200.8	26.6	25.0	106%	
Barium	6010C	205	200	102%	
Chromium	200.8	24.2	25.0	96.8%	
Iron	6010C	199	200	99.5%	
Lead	200.8	25.0	25.0	100%	
Manganese	6010C	49.5	50.0	99.0%	
Mercury	7471A	0.21	0.20	105%	
Selenium	200.8	75.8	80.0	94.8%	
Silver	200.8	25.0	25.0	100%	
Vanadium	200.8	23.7	25.0	94.8%	

Reported in mg/kg-dry

N-Control limit not met  
 NA-Not Applicable, Analyte Not Spiked  
 Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

**Sample ID: METHOD BLANK**

Page 1 of 1

Lab Sample ID: WE80MB


QC Report No: WE80-Hart Crowser, Inc.

LIMS ID: 13-3577

Project: Saddle Rock

Matrix: Soil

17917-00

Data Release Authorized: 

Date Sampled: NA

Reported: 03/01/13

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	02/28/13	7429-90-5	Aluminum	3.6	5	5	U
3050B	02/27/13	200.8	02/28/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	02/27/13	6010C	02/28/13	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	02/27/13	200.8	02/28/13	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	02/27/13	6010C	02/28/13	7439-89-6	Iron	0.75	5	5	U
3050B	02/27/13	200.8	02/28/13	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	02/27/13	6010C	02/28/13	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	02/27/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.01	U
3050B	02/27/13	200.8	02/28/13	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	02/27/13	200.8	02/28/13	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	02/27/13	200.8	02/28/13	7440-62-2	Vanadium	0.017	0.2	0.2	U

Reported in mg/kg (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

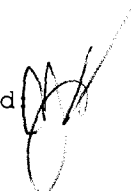
Page 1 of 1

**Sample ID: LAB CONTROL**

Lab Sample ID: WE80LCS

LIMS ID: 13-3577

Matrix: Soil

Data Release Authorized 

Reported: 03/01/13

QC Report No: WE80-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Aluminum	6010C	205	200	102%	
Antimony	200.8	25.6	25.0	102%	
Arsenic	200.8	27.9	25.0	112%	
Barium	6010C	209	200	104%	
Chromium	200.8	25.2	25.0	101%	
Iron	6010C	200	200	100%	
Lead	200.8	26.4	25.0	106%	
Manganese	6010C	49.8	50.0	99.6%	
Mercury	7471A	0.19	0.20	95.0%	
Selenium	200.8	79.8	80.0	99.8%	
Silver	200.8	25.9	25.0	104%	
Vanadium	200.8	24.5	25.0	98.0%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80



UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP022872	2000.0	2030.84	101.5	2000.0	2033.76	101.7	2027.46	101.4	2033.32	101.7	2029.92	101.5	2023.53	101.2
Antimony	SB	PMS	MS022882	50.0	50.16	100.3	50.0	48.31	96.6	48.02	96.0	48.55	97.1	50.06	100.1	50.21	100.4
Arsenic	AS	PMS	MS022882	50.0	51.82	103.6	50.0	48.57	97.1	48.21	96.4	48.50	97.0	48.86	97.7	49.28	98.6
Barium	BA	ICP	IP022872	1000.0	1034.12	103.4	1000.0	1032.90	103.3	1043.53	104.4	1048.18	104.8	1060.44	106.0	1057.58	105.8
Chromium	CR	PMS	MS022882	50.0	50.34	100.7	50.0	48.31	96.6	48.55	97.1	48.30	96.6	48.90	97.8	48.74	97.5
Iron	FE	ICP	IP022872	2000.0	2063.61	103.2	2000.0	2079.23	104.0	2032.43	101.6	2031.13	101.6	2046.29	102.3	2035.42	101.8
Lead	PB	PMS	MS022882	50.0	50.32	100.6	50.0	49.17	98.3	49.86	99.7	48.70	97.4	49.26	98.5	49.73	99.5
Manganese	MN	ICP	IP022872	1000.0	981.31	98.1	1000.0	982.88	98.3	972.73	97.3	968.67	96.9	973.06	97.3	976.08	97.6
Mercury	HG	CVA	HG022702	8.0	7.81	97.6	4.0	3.96	99.0	3.99	99.8	4.02	100.5	4.05	101.3	3.96	99.0
Selenium	SE	PMS	MS022882	80.0	78.05	97.6	50.0	48.98	98.0	48.60	97.2	49.02	98.0	49.01	98.0	49.85	99.7
Silver	AG	PMS	MS022882	50.0	51.08	102.2	50.0	48.98	98.0	48.52	97.0	49.20	98.4	50.01	100.0	49.63	99.3
Vanadium	V	PMS	MS022882	50.0	50.53	101.1	50.0	48.35	96.7	48.22	96.4	47.94	95.9	48.78	97.6	48.31	96.6

Control Limits: Mercury 80-120; Other Metals 90-110

WE80 : 00046

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80



UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Aluminum	AL	ICP	IP022872	2000.0												
Antimony	SB	PMS	MS022882	50.0	50.28	100.6	50.24	100.5	50.42	100.8	50.19	100.4				
Arsenic	AS	PMS	MS022882	50.0	49.13	98.3	48.99	98.0	49.17	98.3	49.09	98.2				
Barium	BA	ICP	IP022872	1000.0												
Chromium	CR	PMS	MS022882	50.0	48.65	97.3	49.11	98.2	48.62	97.2	48.70	97.4				
Iron	FE	ICP	IP022872	2000.0												
Lead	PB	PMS	MS022882	50.0	49.25	98.5	49.49	99.0	49.60	99.2	50.13	100.3				
Manganese	MN	ICP	IP022872	1000.0												
Mercury	HG	CVA	HG022702	4.0	3.99	99.8	3.98	99.5	3.85	96.3	3.91	97.8	3.88	97.0	3.87	96.8
Selenium	SE	PMS	MS022882	50.0	49.75	99.5	49.81	99.6	50.25	100.5	49.91	99.8				
Silver	AG	PMS	MS022882	50.0	49.14	98.3	49.21	98.4	49.31	98.6	49.00	98.0				
Vanadium	V	PMS	MS022882	50.0	48.09	96.2	48.86	97.7	48.52	97.0	48.33	96.7				

Control Limits: Mercury 80-120; Other Metals 90-110

11 0000 000000

# Calibration Verification



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV12 %R	CCV13 %R	CCV14 %R	CCV15 %R	CCV16 %R	CCV17 %R
Aluminum	AL	ICP	IP022872	2000.0						
Antimony	SB	PMS	MS022882	50.0						
Arsenic	AS	PMS	MS022882	50.0						
Barium	BA	ICP	IP022872	1000.0						
Chromium	CR	PMS	MS022882	50.0						
Iron	FE	ICP	IP022872	2000.0						
Lead	PB	PMS	MS022882	50.0						
Manganese	MN	ICP	IP022872	1000.0						
Mercury	HG	CVA	HG022702	4.0	3.90	97.5				
Selenium	SE	PMS	MS022882	50.0						
Silver	AG	PMS	MS022882	50.0						
Vanadium	V	PMS	MS022882	50.0						

Control Limits: Mercury 80-120; Other Metals 90-110

WE80 : 0004

# CRDL Standard

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80



UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Aluminum	AL	ICP	IP022872	50.0		56.62	113.2	53.10	106.2								
Antimony	SB	PMS	MS022882	0.2		0.22	110.0										
Arsenic	AS	PMS	MS022882	0.2		0.24	120.0										
Barium	BA	ICP	IP022872	3.0		2.65	88.3	2.27	75.7								
Chromium	CR	PMS	MS022882	0.5		0.49	98.0										
Iron	FE	ICP	IP022872	50.0		52.25	104.5	50.76	101.5								
Lead	PB	PMS	MS022882	0.1		0.10	100.0										
Manganese	MN	ICP	IP022872	1.0		1.08	108.0	0.94	94.0								
Mercury	HG	CVA	HG022702	0.1		0.11	110.0										
Selenium	SE	PMS	MS022882	0.5		0.56	112.0										
Silver	AG	PMS	MS022882	0.2		0.23	115.0										
Vanadium	V	PMS	MS022882	0.2		0.19	95.0										

Control Limits: no control limits have been established by the EPA at this time.

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80



UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Aluminum	AL	ICP	IP022872	200.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Antimony	SB	PMS	MS022882	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS022882	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Barium	BA	ICP	IP022872	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Chromium	CR	PMS	MS022882	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Iron	FE	ICP	IP022872	100.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Lead	PB	PMS	MS022882	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Manganese	MN	ICP	IP022872	15.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Mercury	HG	CVA	HG022702	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Selenium	SE	PMS	MS022882	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Silver	AG	PMS	MS022882	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Vanadium	V	PMS	MS022882	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

WE 80 : 00050

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80



UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	CCB7	CCB8	CCB9	CCB10	CCB11	C
Aluminum	AL	ICP	IP022872	200.0	50.0							
Antimony	SB	PMS	MS022882	60.0	0.2	0.2	0.2	0.2	0.2			U
Arsenic	AS	PMS	MS022882	10.0	0.2	0.2	0.2	0.2	0.2			U
Barium	BA	ICP	IP022872	200.0	3.0							
Chromium	CR	PMS	MS022882	10.0	0.5	0.5	0.5	0.5	0.5			U
Iron	FE	ICP	IP022872	100.0	50.0							
Lead	PB	PMS	MS022882	3.0	0.1	0.1	0.1	0.1	0.1			U
Manganese	MN	ICP	IP022872	15.0	1.0							
Mercury	HG	CVA	HG022702	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	U
Selenium	SE	PMS	MS022882	5.0	0.5	0.5	0.5	0.5	0.5			U
Silver	AG	PMS	MS022882	10.0	0.2	0.2	0.2	0.2	0.2			U
Vanadium	V	PMS	MS022882	50.0	0.2	0.2	0.2	0.2	0.2			U

WE80 : 00051

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80



UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB12	CCB13	CCB14	CCB15	CCB16	CCB17	C
Aluminum	AL	ICP	IP022872	200.0	50.0							
Antimony	SB	PMS	MS022882	60.0	0.2							
Arsenic	AS	PMS	MS022882	10.0	0.2							
Barium	BA	ICP	IP022872	200.0	3.0							
Chromium	CR	PMS	MS022882	10.0	0.5							
Iron	FE	ICP	IP022872	100.0	50.0							
Lead	PB	PMS	MS022882	3.0	0.1							
Manganese	MN	ICP	IP022872	15.0	1.0							
Mercury	HG	CVA	HG022702	0.2	0.1	0.1						U
Selenium	SE	PMS	MS022882	5.0	0.5							
Silver	AG	PMS	MS022882	10.0	0.2							
Vanadium	V	PMS	MS022882	50.0	0.2							

WE80 : 00052



# ICP Interference Check Sample

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80



ICS SOURCE: I.V.

RUNID: IP022872

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSA1 %R	ICSA2	ICSA2 %R	ICSA3	ICSA3 %R	ICSA4	ICSA4 %R
Aluminum	200000	200000	20338.8	205088.7	199030.5	200583.4	100.3	200583.4	100.3	200583.4
Antimony	1000	1000	6.0	1019.2	3.0	1006.5	100.7	1006.5	100.7	1006.5
Arsenic	1000	1000	21.0	1054.4	21.3	1041.2	104.1	1041.2	104.1	1041.2
Barium	1000	1000	-3.4	1031.3	-4.0	1043.3	104.3	1043.3	104.3	1043.3
Beryllium	1000	1000	0.1	1021.2	0.1	978.5	97.9	978.5	97.9	978.5
Boron	1000	1000	-6.1	-10.8	-11.8	-11.7		-11.7		-11.7
Cadmium	1000	1000	2.7	1048.7	2.6	1022.5	102.3	1022.5	102.3	1022.5
Calcium	100000	100000	100387.9	101208.0	99425.3	99454.7	99.5	99454.7	99.5	99454.7
Chromium	1000	1000	-0.3	1032.0	-0.1	1027.0	102.7	1027.0	102.7	1027.0
Cobalt	1000	1000	1.7	975.9	1.7	965.3	96.5	965.3	96.5	965.3
Copper	1000	1000	1.3	1069.3	1.5	1053.8	105.4	1053.8	105.4	1053.8
Iron	200000	200000	197289.1	200338.2	191057.6	191640.0	95.8	191640.0	95.8	191640.0
Lead	1000	1000	-11.6	999.5	-11.7	989.1	98.9	989.1	98.9	989.1
Magnesium	100000	100000	105370.4	101388.2	103549.9	100118.4	100.1	100118.4	100.1	100118.4
Manganese	1000	1000	-0.1	977.7	0.0	949.5	95.0	949.5	95.0	949.5
Molybdenum	1000	1000	3.5	3.6	3.0	2.8		2.8		2.8
Nickel	1000	1000	0.2	981.0	0.7	987.5	98.8	987.5	98.8	987.5
Potassium	1000	1000	23.5	25.4	23.1	-22.7		-22.7		-22.7
Selenium	1000	1000	-14.7	1008.0	-7.8	999.6	100.0	999.6	100.0	999.6
Silicon	1000	1000	-8.4	-3.9	-6.5	-6.1		-6.1		-6.1
Silver	1000	1000	-0.6	1086.3	-0.5	1084.3	108.4	1084.3	108.4	1084.3
Sodium	1000	1000	12.9	21.6	11.4	14.8		14.8		14.8
Strontium	1000	1000	4.1	4.1	4.1	4.0		4.0		4.0
Thallium	1000	1000	4.7	967.2	6.2	967.1	96.7	967.1	96.7	967.1
Tin	1000	1000	-9.7	-8.5	-8.9	-10.5		-10.5		-10.5
Titanium	1000	1000	4.8	4.6	4.3	4.2		4.2		4.2
Vanadium	1000	1000	0.0	1014.7	-1.7	1009.4	100.9	1009.4	100.9	1009.4
Zinc	1000	1000	-0.9	976.4	-0.2	970.8	97.1	970.8	97.1	970.8

# ICP Interference Check Sample

ANALYTICAL  
RESOURCES  
INCORPORATED

CLIENT: Hart Crowser, Inc.

ICS SOURCE: I.V.

PROJECT: Saddle Rock

RUNID: MS022882

SDG: WE80

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1	0.1						
Arsenic		20	0.1	18.9	94.5						
Barium			0.1	0.1	0.1						
Cadmium		20	0.1	20.2	101.0						
Chromium		20	0.5	20.6	103.0						
Cobalt		20	0.0	20.1	100.5						
Copper		20	0.6	20.0	100.0						
Manganese		20	0.1	20.4	102.0						
Molybdenum	400	400	410.7	406.2	101.6						
Nickel		20	1.0	20.4	102.0						
Selenium			-0.1	-0.1							
Silver		20	0.0	19.7	98.5						
Vanadium			0.0	-0.3							
Zinc		20	1.9	20.8	104.0						

MS022882

# Post Digest Spike Sample Recovery



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: PMS

SDG: WE80

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT C	SAMPLE RESULT C	SPIKE ADDED	MATRIX	%R
Antimony	SR03-D02A	WE80APOST	MS022882	506.06 B	1000.00 U	500	Soil	101.2
Arsenic	SR03-D02A	WE80APOST	MS022882	2530.36	1967.80	500	Soil	112.5

# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: ICP

SDG: WE80

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFER- ENCE	Q
Aluminum	SR03-D02L	WE80A-L	Soil	IP022872	33111.70		34110.60		3.0	
Barium	SR03-D02L	WE80A-L	Soil	IP022872	168.14	B	169.10	B	0.6	
Iron	SR03-D02L	WE80A-L	Soil	IP022872	22810.36		23522.45		3.1	
Manganese	SR03-D02L	WE80A-L	Soil	IP022872	104.66		110.70		5.8	

# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: PMS

SDG: WE80

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL	SERIAL	% DIFFER-	
					SAMPLE	DILUTION	ENCE	Q
					RESULT	RESULT		
					(I)	(S)		
Antimony	SR03-D02L	WE80A-L	Soil	MS022882	0.01 U	-0.05 B		
Arsenic	SR03-D02L	WE80A-L	Soil	MS022882	98.39	102.30	4.0	
Chromium	SR03-D02L	WE80A-L	Soil	MS022882	1.64 B	1.70 B	3.7	
Lead	SR03-D02L	WE80A-L	Soil	MS022882	4.85	5.10 B	5.2	
Selenium	SR03-D02L	WE80A-L	Soil	MS022882	0.42 U	0.60 B		
Silver	SR03-D02L	WE80A-L	Soil	MS022882	3.56 B	3.70 B	3.9	
Vanadium	SR03-D02L	WE80A-L	Soil	MS022882	1.73 B	1.80 B	4.0	

# IDLs and ICP Linear Ranges



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENGTH (nm)	GFA BACK- GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Aluminum	AL	ICP	OPTIMA ICP 2	308.22		200	50.0	4/1/2012	250000.0	1/22/2013
Antimony	SB	PMS	PE ELAN 6000 MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Barium	BA	ICP	OPTIMA ICP 2	455.50		200	3.0	4/1/2012	100000.0	1/22/2013
Chromium	CR	PMS	PE ELAN 6000 MS	0.00		10	0.5	4/1/2012		
Iron	FE	ICP	OPTIMA ICP 2	259.94		100	50.0	4/1/2012	250000.0	1/22/2013
Lead	PB	PMS	PE ELAN 6000 MS	0.00		3	0.1	4/1/2012		
Manganese	MN	ICP	OPTIMA ICP 2	257.61		15	1.0	4/1/2012	30000.0	1/22/2013
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Selenium	SE	PMS	PE ELAN 6000 MS	0.00		5	0.5	4/1/2012		
Silver	AG	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Vanadium	V	PMS	PE ELAN 6000 MS	0.00		50	0.2	4/1/2012		

# ICP Interelement Correction Factors



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80

IEC DATE: 1/22/2013

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Antimony	206.84	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	13.7020120	0.000000	0.000000
Arsenic	188.98	0.000000	0.000000	0.000000	0.000000	0.0911890	0.000000	-1.1057220	1.4447090	0.000000	0.000000
Barium	233.53	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1795110	0.000000	0.000000	0.1469350
Beryllium	313.04	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Cadmium	228.80	0.000000	5.5964570	0.000000	0.000000	0.000000	0.000000	0.1385480	0.000000	0.000000	0.000000
Calcium	317.93	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Chromium	267.72	0.000000	0.000000	0.0295099	0.000000	0.1250000	0.000000	0.000000	0.000000	0.000000	0.000000
Cobalt	228.62	0.000000	0.000000	0.1133150	0.000000	0.000000	0.000000	0.000000	-0.0333930	0.000000	-0.0309050
Copper	324.75	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1698980	-0.0211960	0.000000	0.000000
Iron	273.96	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.7025530	0.000000	0.000000
Lead	220.35	-0.2707930	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-1.8104440	1.2410760	0.0536970
Magnesium	279.08	0.000000	0.000000	0.000000	0.000000	0.1060020	0.000000	-1.4277330	-1.1381670	0.000000	0.5549620
Manganese	257.61	0.0049690	0.000000	0.000000	0.000000	0.0038740	0.000000	0.0125790	0.000000	0.000000	0.000000
Molybdenum	202.03	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.0509920	0.000000	0.000000
Nickel	231.60	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Potassium	766.49	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Selenium	196.03	0.1149780	0.000000	0.000000	0.000000	0.000000	0.000000	0.4775670	0.000000	0.000000	0.000000
Silicon	288.16	0.000000	0.000000	0.000000	0.000000	0.000000	-3.2795240	0.000000	0.000000	0.000000	0.000000
Silver	328.07	0.000000	0.000000	0.000000	0.000000	0.000000	-0.0054570	0.000000	0.000000	0.000000	0.000000
Sodium	589.59	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Thallium	190.80	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.9747620	0.3985520	0.000000	-0.1326730
Tin	189.93	0.000000	0.000000	0.000000	0.000000	-0.0837380	0.000000	0.000000	0.000000	0.000000	0.000000
Titanium	334.90	0.000000	0.000000	0.000000	0.000000	0.0594390	0.000000	0.000000	0.1892210	0.000000	0.000000
Vanadium	292.40	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-4.3335490	0.000000	0.0501910
Zinc	206.20	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1801790	0.000000	0.000000

WE 80 : 000000

# ICP Interelement Correction Factors



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80

IEC DATE: 1/22/2013

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	17.5877940	0.0000000	0.0000000	0.0000000	2.0603180	0.0000000	14.5677200	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.7545320	0.0000000	-3.8306350	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.3991370	0.0000000	0.0000000	0.0000000	-34.6204750	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1174000	0.0000000	0.0000000	0.0000000	0.0000000	0.2171460	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0100680	0.0000000	0.2372710	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9200350	0.0000000	0.0000000	0.0000000	0.0000000	0.0629730	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0938730	0.0834700	0.0738780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1425980	0.1557020	0.0000000	0.0000000	1.7571760	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0053240	0.0000000	0.3083290	0.0000000	0.0000000	0.0000000	0.1931400	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	6.3157650	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-4.9970650	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.1877320	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.4494500	0.0000000	0.4360770	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	-0.1122540	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5722860	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.3208460	0.0000000
Thallium	190.80	0.0000000	0.0000000	-1.6204090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5136310	-0.1873890	0.0000000	3.6226430	0.0000000
Titanium	334.90	0.0000000	0.0000000	1.0549050	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1522160	-0.5618640	0.0000000	0.0000000	0.0000000	0.5717940	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2590480	0.0000000	-0.0606610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

WE 80 : 00000



# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: ICP

PROJECT: Saddle Rock

ARI PREP CODE: SWC

SDG: WE80

PREPDATE: 2/27/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR03-D02	WE80A	1.062	0.0	50.0
SR03-D02D	WE80ADUP	1.065	0.0	50.0
SR03-D02S	WE80ASPK	1.065	0.0	50.0
SR03-D03	WE80B	1.054	0.0	50.0
SR03-D04	WE80C	1.049	0.0	50.0
SR03-D05	WE80D	1.081	0.0	50.0
SR03-D06	WE80E	1.069	0.0	50.0
SR03-D07	WE80F	1.049	0.0	50.0
SR03-D08	WE80G	1.053	0.0	50.0
SR03-D09	WE80H	1.066	0.0	50.0
SR03-D10	WE80I	1.076	0.0	50.0
SR03-D11	WE80J	1.096	0.0	50.0
SR03-C01	WE80K	1.006	0.0	50.0
SR03-C02	WE80L	1.042	0.0	50.0
SR03-C03	WE80M	1.075	0.0	50.0
PBS	WE80MB1	1.000	0.0	50.0
LCSS	WE80MB1SPK	1.000	0.0	50.0
PBS	WE80MB2	1.000	0.0	50.0
LCSS	WE80MB2SPK	1.000	0.0	50.0
SR04-D01	WE80N	1.005	0.0	50.0
SR04-D02	WE80O	1.045	0.0	50.0
SR04-D03	WE80P	1.076	0.0	50.0
SR04-D05	WE80Q	1.062	0.0	50.0
SR04-D06	WE80R	1.038	0.0	50.0
SR04-D04	WE80S	1.078	0.0	50.0
SR04-C01	WE80T	1.085	0.0	50.0
SR04-C02	WE80U	1.081	0.0	50.0
SR04-C03	WE80V	1.069	0.0	50.0

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: PMS

PROJECT: Saddle Rock

ARI PREP CODE: SWN

SDG: WE80

PREPDATE: 2/27/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR03-D02	WE80A	1.026	0.0	50.0
SR03-D02D	WE80ADUP	1.028	0.0	50.0
SR03-D02S	WE80ASPK	1.026	0.0	50.0
SR03-D03	WE80B	1.047	0.0	50.0
SR03-D04	WE80C	1.064	0.0	50.0
SR03-D05	WE80D	1.008	0.0	50.0
SR03-D06	WE80E	1.048	0.0	50.0
SR03-D07	WE80F	1.033	0.0	50.0
SR03-D08	WE80G	1.005	0.0	50.0
SR03-D09	WE80H	1.026	0.0	50.0
SR03-D10	WE80I	1.055	0.0	50.0
SR03-D11	WE80J	1.070	0.0	50.0
SR03-C01	WE80K	1.096	0.0	50.0
SR03-C02	WE80L	1.080	0.0	50.0
SR03-C03	WE80M	1.003	0.0	50.0
PBS	WE80MB1	1.000	0.0	50.0
LCSS	WE80MB1SPK	1.000	0.0	50.0
PBS	WE80MB2	1.000	0.0	50.0
LCSS	WE80MB2SPK	1.000	0.0	50.0
SR04-D01	WE80N	1.013	0.0	50.0
SR04-D02	WE80O	1.079	0.0	50.0
SR04-D03	WE80P	1.076	0.0	50.0
SR04-D05	WE80Q	1.007	0.0	50.0
SR04-D06	WE80R	1.083	0.0	50.0
SR04-D04	WE80S	1.087	0.0	50.0
SR04-C01	WE80T	1.076	0.0	50.0
SR04-C02	WE80U	1.091	0.0	50.0
SR04-C03	WE80V	1.023	0.0	50.0

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: CVA

PROJECT: Saddle Rock

ARI PREP CODE: SMM

SDG: WE80

PREPDATE: 2/27/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR03-D02	WE80A	0.670	0.0	50.0
SR03-D02D	WE80ADUP	0.673	0.0	50.0
SR03-D02S	WE80ASPK	0.674	0.0	50.0
SR03-D03	WE80B	0.629	0.0	50.0
SR03-D04	WE80C	0.681	0.0	50.0
SR03-D05	WE80D	0.682	0.0	50.0
SR03-D06	WE80E	0.640	0.0	50.0
SR03-D07	WE80F	0.717	0.0	50.0
SR03-D08	WE80G	0.524	0.0	50.0
SR03-D09	WE80H	0.653	0.0	50.0
SR03-D10	WE80I	0.543	0.0	50.0
SR03-D11	WE80J	0.693	0.0	50.0
SR03-C01	WE80K	0.618	0.0	50.0
SR03-C02	WE80L	0.637	0.0	50.0
SR03-C03	WE80M	0.574	0.0	50.0
PBS	WE80MB1	0.500	0.0	50.0
LCSW	WE80MB1SPK	0.500	0.0	50.0
PBS	WE80MB2	0.500	0.0	50.0
LCSW	WE80MB2SPK	0.500	0.0	50.0
SR04-D01	WE80N	0.581	0.0	50.0
SR04-D02	WE80O	0.649	0.0	50.0
SR04-D03	WE80P	0.566	0.0	50.0
SR04-D05	WE80Q	0.703	0.0	50.0
SR04-D06	WE80R	0.694	0.0	50.0
SR04-D04	WE80S	0.649	0.0	50.0
SR04-C01	WE80T	0.721	0.0	50.0
SR04-C02	WE80U	0.725	0.0	50.0
SR04-C03	WE80V	0.659	0.0	50.0

# Analysis Run Log

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80

INSTRUMENT ID: OPTIMA ICP 2

RUNID: IP022872 METHOD: ICP

START DATE: 2/28/2013

END DATE: 2/28/2013



CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	U	V	ZN			
S0		1.00	09021	X					X																								X		
S2		1.00	09063	X					X																								X		
S3		1.00	09082																																
S4		1.00	09105																																
S5		1.00	09130	X																															
ICV		1.00	09154	X					X																										X
ICB		1.00	09195	X					X																										X
CRI		1.00	09240	X					X																										X
ICSA		1.00	09282	X					X																										X
ICSAB		1.00	09324	X					X																										X
CCV		1.00	09364	X					X																										X
CCB		1.00	09404	X					X																										X
PBS		2.00	09450	X					X																										X
SR03-D02L		10.00	09492	X					X																										X
SR03-D02		2.00	09533	X					X																										X
SR03-D02D		2.00	09573	X					X																										X
SR03-D02S		2.00	10013	X					X																										X
ZZZZZ		2.00	10054																																
SR03-D03		2.00	10094	X					X																										X
SR03-D04		2.00	10135	X					X																										X
SR03-D05		2.00	10175	X					X																										X
LCSS		2.00	10220	X					X																										X
CCV		1.00	10260	X					X																										X
CCB		1.00	10300	X					X																										X
PBS		2.00	10405	X					X																										X
SR03-D06		2.00	10450	X					X																										X
SR03-D07		2.00	10492	X					X																										X
SR03-D08		2.00	10532	X					X																										X
SR03-D09		2.00	10572	X					X																										X
SR03-D10		2.00	11012	X					X																										X
SR03-D11		2.00	11054	X					X																										X
SR03-C01		2.00	11095	X					X																										X
SR03-C02		2.00	11140	X					X																										X
LCSS		2.00	11180	X					X																										X
CCV		1.00	11220	X					X																										X

WE80 : 00001

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE80



INSTRUMENT ID: OPTIMA ICP 2  
 RUNID: IP022872 METHOD: ICP  
 START DATE: 2/28/2013  
 END DATE: 2/28/2013

CLIENT ID	ARI ID	DIL. TIME	%R	%A	%S	%B	%C	%D	%E	%F	%G	%H	%I	%J	%K	%L	%M	%N	%O	%P	%Q	%R	%S	%T	%U	%V	%Zn	
CCB	CCB3	1.00 11260		X																								
SR03-C03	WE80M	2.00 11302		X																								
SR04-D01	WE80N	2.00 11342		X																								
SR04-D02	WE80O	2.00 11383		X																								
SR04-D03	WE80P	2.00 11423																										
SR04-D05	WE80Q	2.00 11463		X																								
SR04-D06	WE80R	2.00 11503		X																								
SR04-D04	WE80S	2.00 11543		X																								
SR04-C01	WE80T	2.00 11583		X																								
SR04-C02	WE80U	2.00 12024		X																								
SR04-C03	WE80V	2.00 12064		X																								
CCV	CCV4	1.00 12104		X																								
CCB	CCB4	1.00 12144		X																								
SR04-D02	WE80O	5.00 12190		X																								
SR04-D03	WE80P	5.00 12230		X																								
SR04-D06	WE80R	5.00 12270		X																								
ZZZZZ	D1	1.00 12311																										
CRI	CRI	1.00 12352		X																								
ICSA	ICSAF	1.00 12394		X																								
ICSAB	ICSABF	1.00 12435		X																								
CCV	CCV5	1.00 12480		X																								
CCB	CCB5	1.00 12521		X																								

WE80 : 00000

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE80



INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS022882  
 METHOD: PMS

START DATE: 2/28/2013  
 END DATE: 2/28/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0		1.00	09530																													X	
S1		1.00	09590		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
S2		1.00	10060		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
S3		1.00	10120		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
S4		1.00	10180		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ZZZZZ	Rinse Sampl	1.00	10240																														
ICV	MICV	1.00	10310		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICB	ICB	1.00	10370		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCV	MCCV1	1.00	10430		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB	CCB1	1.00	10490		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CRI	MCRI	1.00	10550		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICSA	ICSAI	1.00	11000		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICSAB	ICSABI	1.00	11060		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ZZZZZ	LR200	1.00	11120																														
ZZZZZ	LR300	1.00	11180																														
CCV	MCCV2	1.00	11250		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB	CCB2	1.00	11310		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ZZZZZ	WE79MB1	20.00	11410																														
ZZZZZ	WE79B	20.00	11470																														
ZZZZZ	WE79C	20.00	11520																														
ZZZZZ	WE79D	20.00	11580																														
ZZZZZ	WE79A-L	100.00	12040																														
ZZZZZ	WE79A	20.00	12100																														
ZZZZZ	WE79ADDP	20.00	12160																														
ZZZZZ	WE79ASPK	20.00	12220																														
ZZZZZ	WE79APOST	20.00	12280																														
ZZZZZ	WE79MB1SPK	20.00	12340																														
CCV	MCCV3	1.00	12400		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB	CCB3	1.00	12470		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ZZZZZ	WE79MB2	20.00	12520																														
ZZZZZ	WE79E	20.00	12580																														
ZZZZZ	WE79F	20.00	13040																														
ZZZZZ	WE79G	20.00	13100																														
ZZZZZ	WE79H	20.00	13160																														
ZZZZZ	WE79I	20.00	13220																														

WE80 : 000000

# Analysis Run Log

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE80

INSTRUMENT ID: PE EIAN 6000 MS

START DATE: 2/28/2013

RUNID: MS022882 METHOD: PMS

END DATE: 2/28/2013



CLIENT ID	ARI ID	DIL. TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN					
ZZZZZZ	WE79J	20.00 13280																																			
ZZZZZZ	WE79K	20.00 13340																																			
ZZZZZZ	WE79L	20.00 13400																																			
ZZZZZZ	WE79MB2SPK	20.00 13460																																			
CCV	MCCV4	1.00 13520	X																																X		
CCB	CCB4	1.00 13580	X																																	X	
ZZZZZZ	WE79M	20.00 14030																																			
ZZZZZZ	WE79N	20.00 14090																																			
ZZZZZZ	WE79O	20.00 14150																																			
ZZZZZZ	WE79P	20.00 14210																																			
ZZZZZZ	WE79Q	20.00 14270																																			
ZZZZZZ	WE79R	20.00 14330																																			
ZZZZZZ	WE79R	50.00 14390																																			
ZZZZZZ	WE79S	20.00 14450																																			
ZZZZZZ	WE79T	20.00 14510																																			
ZZZZZZ	WE79U	20.00 14570																																			
CCV	MCCV5	1.00 15030	X																																		X
CCB	CCB5	1.00 15090	X																																		X
PBS	WE80MB1	20.00 15170	X																																		X
ZZZZZZ	WE79V	20.00 15230																																			
ZZZZZZ	WE79X	20.00 15280																																			
ZZZZZZ	WE79X	50.00 15340																																			
SR03-D02L	WE80A-L	100.00 15400	X																																		X
SR03-D02	WE80A	20.00 15460	X																																		X
SR03-D02D	WE80ADDP	20.00 15520	X																																		X
SR03-D02S	WE80ASPK	20.00 15580	X																																		X
SR03-D02A	WE80APOST	20.00 16040	X																																		X
LCSS	WE80MB1SPK	20.00 16100	X																																		X
CCV	MCCV6	1.00 16160	X																																		X
CCB	CCB6	1.00 16220	X																																		X
PBS	WE80MB2	20.00 16280	X																																		X
ZZZZZZ	WE79W	20.00 16340																																			
SR03-D03	WE80B	20.00 16400	X																																		X
SR03-D04	WE80C	20.00 16460	X																																		X
SR03-D05	WE80D	20.00 16520	X																																		X

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE80



INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS022882 METHOD: PMS  
 START DATE: 2/28/2013  
 END DATE: 2/28/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SR03-D06	WE80E	20.00	16580	X																												X	
SR03-D07	WE80F	20.00	17040	X																												X	
SR03-D08	WE80G	20.00	17100	X																												X	
SR03-D09	WE80H	20.00	17160	X																												X	
LCSS	WE80MB2SPK	20.00	17220	X																												X	
CCV	MCCV7	1.00	17280	X																												X	
CCB	CCB7	1.00	17340	X																												X	
SR03-D10	WE80I	20.00	17390	X																												X	
SR03-D11	WE80J	20.00	17450	X																												X	
SR03-C01	WE80K	20.00	17510	X																												X	
SR03-C02	WE80L	20.00	17570	X																												X	
SR03-C03	WE80M	20.00	18030	X																												X	
SR04-D01	WE80N	20.00	18090	X																												X	
SR04-D02	WE80O	20.00	18150	X																												X	
SR04-D03	WE80P	20.00	18210	X																												X	
SR04-D05	WE80Q	20.00	18270	X																												X	
SR04-D06	WE80R	20.00	18330	X																												X	
CCV	MCCV8	1.00	18390	X																												X	
CCB	CCB8	1.00	18450	X																												X	
SR04-D04	WE80S	20.00	18510	X																												X	
SR04-C01	WE80T	20.00	18570	X																												X	
SR04-C02	WE80U	20.00	19030	X																												X	
SR04-C03	WE80V	20.00	19090	X																												X	
CCV	MCCV9	1.00	19150	X																												X	
CCB	CCB9	1.00	19210	X																												X	

WE80 : MS022882



# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE80



INSTRUMENT ID: CETAC MERCURY  
 RUNID: HG022702 METHOD: CVA

START DATE: 2/27/2013  
 END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN				
S0	S0	1.00	10033														X																				
S0.1	S0.1	1.00	10050														X																				
S0.5	S0.5	1.00	10064														X																				
S1	S1	1.00	10082														X																				
S2	S2	1.00	10095														X																				
S5	S5	1.00	10113														X																				
S10	S10	1.00	10131														X																				
ICV	AICV	1.00	10163														X																				
ICB	ICB	1.00	10180														X																				
CCV	ACCV1	1.00	10194														X																				
CCB	CCB1	1.00	10212														X																				
CRA	CRA	1.00	10230														X																				
ZZZZZ	WE83MB1	1.00	10243														X																				
ZZZZZ	WE83MB1SPK	1.00	10261														X																				
ZZZZZ	WE83A	1.00	10274														X																				
ZZZZZ	WE83ADUP	1.00	10292														X																				
ZZZZZ	WE83ASP	1.00	10310														X																				
ZZZZZ	WE83B	1.00	10323														X																				
ZZZZZ	WE83BDUP	1.00	10341														X																				
ZZZZZ	WE83BSPK	1.00	10355														X																				
ZZZZZ	WE83C	1.00	10373														X																				
CCV	ACCV2	1.00	10391														X																				
CCB	CCB2	1.00	10405														X																				
ZZZZZ	WE83D	1.00	10422														X																				
ZZZZZ	WE83E	1.00	10440														X																				
ZZZZZ	WE83F	1.00	10453														X																				
ZZZZZ	WE83G	1.00	10471														X																				
ZZZZZ	WE83H	1.00	10485														X																				
ZZZZZ	WE83I	1.00	10502														X																				
ZZZZZ	WE83J	1.00	10520														X																				
ZZZZZ	WE79MB1	1.00	10534														X																				
ZZZZZ	WE79MB1SPK	1.00	10551														X																				
ZZZZZ	WE79A	1.00	10565														X																				
CCV	ACCV3	1.00	10583														X																				
CCB	CCB3	1.00	11001														X																				

WE80 : 00000

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE80



INSTRUMENT ID: CETAC MERCURY  
 RUNID: HG022702  
 METHOD: CVA

START DATE: 2/27/2013  
 END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN		
ZZZZZZ	WE79ADUP	1.00	11015																																
ZZZZZZ	WE79ASPK	1.00	11033																																
ZZZZZZ	WE79B	1.00	11051																																
ZZZZZZ	WE79C	1.00	11064																																
ZZZZZZ	WE79D	1.00	11082																																
ZZZZZZ	WE79E	1.00	11095																																
ZZZZZZ	WE79F	1.00	11113																																
ZZZZZZ	WE79G	1.00	11131																																
ZZZZZZ	WE79H	1.00	11144																																
ZZZZZZ	WE79I	1.00	11162																																
CCV	ACCV4	1.00	11180																																
CCB	CCB4	1.00	11194																																
ZZZZZZ	WE79J	1.00	11212																																
ZZZZZZ	WE79K	1.00	11230																																
ZZZZZZ	WE79L	1.00	11244																																
ZZZZZZ	WE79M	1.00	11262																																
ZZZZZZ	WE79N	1.00	11275																																
ZZZZZZ	WE79O	1.00	11293																																
ZZZZZZ	WE79P	1.00	11311																																
ZZZZZZ	WE79Q	1.00	11324																																
ZZZZZZ	WE79R	1.00	11342																																
ZZZZZZ	WE79S	1.00	11360																																
CCV	ACCV5	1.00	11374																																
CCB	CCB5	1.00	11392																																
ZZZZZZ	WE79T	1.00	11405																																
ZZZZZZ	WE79MB2	1.00	11423																																
ZZZZZZ	WE79MB2SPK	1.00	11441																																
ZZZZZZ	WE79U	1.00	11455																																
ZZZZZZ	WE79V	1.00	11473																																
ZZZZZZ	WE79W	1.00	11491																																
ZZZZZZ	WE79X	1.00	11505																																
CCV	ACCV6	1.00	11533																																
CCB	CCB6	1.00	11551																																
ZZZZZZ	WE79A	1.00	12003																																
ZZZZZZ	WE79ADUP	1.00	12020																																

WE80 : 00070

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE80



INSTRUMENT ID: CETAC MERCURY  
 RUNID: HG022702  
 METHOD: CVA

START DATE: 2/27/2013  
 END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN	
ZZZZZ	WE79ASPK		1.00 12034																															
ZZZZZ	WE79P		2.00 12051																															
ZZZZZ	WE79X		2.00 12065																															
CCV	ACCV7		1.00 12083																															
CCB	CCB7		1.00 12101																															
PBW	WE80MB1		1.00 12120																															
LCSW	WE80MB1SPK		1.00 12134																															
SR03-D02	WE80A		1.00 12151																															
SR03-D02D	WE80ADUP		1.00 12165																															
SR03-D02S	WE80ASPK		1.00 12182																															
SR03-D03	WE80B		1.00 12200																															
SR03-D04	WE80C		1.00 12214																															
SR03-D05	WE80D		1.00 12231																															
SR03-D06	WE80E		1.00 12245																															
SR03-D07	WE80F		1.00 12274																															
CCV	ACCV8		1.00 12292																															
CCB	CCB8		1.00 12310																															
SR03-D08	WE80G		1.00 12324																															
SR03-D09	WE80H		1.00 12342																															
SR03-D10	WE80I		1.00 12355																															
SR03-D11	WE80J		1.00 12373																															
SR03-C01	WE80K		1.00 12390																															
SR03-C02	WE80L		1.00 12404																															
SR03-C03	WE80M		1.00 12422																															
SR04-D01	WE80N		1.00 12435																															
SR04-D02	WE80O		1.00 12453																															
SR04-D03	WE80P		1.00 12471																															
CCV	ACCV9		1.00 12485																															
CCB	CCB9		1.00 12503																															
SR04-D05	WE80Q		1.00 12521																															
SR04-D06	WE80R		1.00 12534																															
SR04-D04	WE80S		1.00 12552																															
SR04-C01	WE80T		1.00 12570																															
PBW	WE80MB2		1.00 12584																															
LCSW	WE80MB2SPK		1.00 13001																															

WE80 : 022702

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE80



INSTRUMENT ID: CETAC MERCURY  
 RUNID: HG022702 METHOD: CVA  
 START DATE: 2/27/2013  
 END DATE: 2/27/2013


CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN		
SR04-C02	WE80U	1.00	13015														X																		
SR04-C03	WE80V	1.00	13032														X																		
CCV	ACCV10	1.00	13050														X																		
CCB	CCB10	1.00	13064														X																		
ZZZZZ	WE77MB	1.00	13082																																
ZZZZZ	WE77MBSFK	1.00	13100																																
ZZZZZ	WE77MBSPD	1.00	13114																																
ZZZZZ	WE77A	1.00	13131																																
CCV	ACCV11	1.00	13145														X																		
CCB	CCB11	1.00	13163														X																		
SR03-D06	WE80E	2.00	13183														X																		
CCV	ACCV12	1.00	13200														X																		
CCB	CCB12	1.00	13214														X																		

WE80 : 00072

Total Solids

ARI Job ID: WE80

Solids Data Entry Report  
Date: 02/27/13

Checked by:   
Data Analyst: DM

Date: 3/19/13

Solids Determination performed on 02/26/13 by NB

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
WE80	A	SR03-D02	0.974	10.750	9.973	92.05
WE80	B	SR03-D03	0.979	10.899	10.126	92.21
WE80	C	SR03-D04	1.000	10.067	9.445	93.14
WE80	D	SR03-D05	0.997	10.003	9.256	91.71
WE80	E	SR03-D06	0.984	10.683	9.634	89.18
WE80	F	SR03-D07	0.981	10.554	9.693	91.01
WE80	G	SR03-D08	1.001	10.176	8.541	82.18
WE80	H	SR03-D09	0.988	10.371	9.583	91.60
WE80	I	SR03-D10	0.995	10.947	9.578	86.24
WE80	J	SR03-D11	1.008	10.749	9.362	85.76
WE80	K	SR03-C01	0.988	10.220	9.136	88.26
WE80	L	SR03-C02	0.985	10.550	9.101	84.85
WE80	M	SR03-C03	0.986	10.829	8.974	81.15
WE80	N	SR04-D01	0.978	10.804	9.827	90.06
WE80	O	SR04-D02	0.997	10.209	9.364	90.83
WE80	P	SR04-D03	1.006	10.235	9.461	91.61
WE80	Q	SR04-D05	1.006	10.723	9.666	89.12
WE80	R	SR04-D06	0.988	10.589	9.782	91.59
WE80	S	SR04-D04	0.993	10.965	9.985	90.17
WE80	T	SR04-C01	1.021	10.214	8.899	85.70
WE80	U	SR04-C02	0.988	10.584	9.067	84.19
WE80	V	SR04-C03	0.975	10.421	9.037	85.35

WE80: 00074 <sup>AN</sup> 3/19/13



# Total Solids Bench Sheet

Laboratory Section METALS

Oven Identification: 07

Balance ID: B116132369

Samples in Oven: Date: 02-26-13 Time: 2021 Temp: 108°C Analyst: NB

Removed from Oven: Date: 2-27-13 Time: 1030 Temp: 100°C Analyst: DM

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs <sup>1</sup>
WE80 A	0.974	10.750	9.973	—	✓
" B	0.979	10.899	10.126	—	✓
" C	1.000	10.067	9.445	—	✓
" D	0.997	10.003	9.256	—	✓
" E	0.984	10.683	9.694	—	✓
" F	0.981	10.554	9.693	—	✓
" G	1.001	10.176	8.541	—	✓
" H	0.988	10.371	9.583	—	✓
" I	0.995	10.947	9.578	—	✓
" J	1.008	10.749	9.362	—	✓
" K	0.988	10.220	9.136	—	✓
" L	0.985	10.550	9.101	—	✓
" M	0.986	10.829	8.974	—	✓
" N	0.978	10.804	9.827	—	✓
" O	0.997	10.209	9.364	—	✓
" P	1.006	10.235	9.461	—	✓
" Q	1.006	10.723	9.666	—	✓
" R	0.988	10.589	9.782	—	✓
" S	0.993	10.965	9.985	—	✓
" T	1.021	10.214	8.899	—	✓
" U	0.988	10.584	9.067	—	✓
" V	0.975	10.421	9.037	—	✓
		NB 02-26-13			

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2<sup>nd</sup> bench sheet for additional weightings.

**Metals Raw Data  
Preparation Bench Sheets and Notes**

**ARI Job ID: WE80**





Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# SPIKING LOG

Analyst: DM      Sample ID WES0 ASPK, MBSPK  
Date: 2-27-13      MBSPK

Final Volume 50  
Final Volume (Hg): 50

	Precode:	ICP Routine	SWL	ICP		GFA
				No	GFA	
S	3001-10	1.0				
T			50	200	200	
O			200	200	200	2.0
C			50	50	50	
K			1000	1000	1000	2.0
C			50	50	50	
O			50	50	50	
N			200	200	200	
C			1000	1000	1000	
E			1000	1000	1000	
N			50	50	50	
T			1000	1000	1000	
R			50	50	50	10
A			200	200	200	10
T			50	50	50	
I			200	200	200	10
O			50	50	50	
N			50	50	50	
Zn			50	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25 ✓		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25 ✓		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo			
Na			500
Ni	25		
Pb	25 ✓		
Sb			
Se	80 ✓		
Tl	25		
U	25		
V	25 ✓		
Zn	80		

Element	Precode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	SMM	CVA	1.0	0.05	2001-13
Hg MBSPK	↓	CVA	1.0	0.1	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Precode	Analysis	Stock Conc.	Stock Added	Std. No.



# Digestion Log

Analyst: NB Date: 2-27-13 Time: 0700  
Matrix: SOIL Block ID: #2/#5 Block Temp: 94°C/90°C Thermometer: MPSL/MP40

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SWC</u>		Prep Code: <u>SWN</u>		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
WE80 A	1	-	1.062	50.0	1.026	50.0	
" ADUP	1	-	1.065		1.028		
" ASPK	1	-	1.065		1.026		
" B	1	-	1.054		1.047		
" C	1	-	1.049		1.064		
" D	1	-	1.081		1.008		
" E	1	-	1.069		1.048		
" F	1	-	1.049		1.033		
" G	1	-	1.053		1.005		
" H	1	-	1.066		1.026		
" I	1	-	1.076		1.055		
" J	1	-	1.096		1.070		
" K	1	-	1.006		1.096		
" L	1	-	1.042		1.080		
" M	1	-	1.075		1.003		
" MBI	-	-	-		-		
" MBSPK	-	-	-		-		
" N	1	-	1.005		1.013		
" O	1	-	1.045		1.079		
" P	1	-	1.076		1.076		
" Q	1	-	1.042*		1.007		1.062 *NB 2-26-13
" R	1	-	1.065*		1.083		1.038 *NB 2-26-13
" S	1	-	1.078	↓	1.087	↓	
" T	1	-	1.085	50.0	1.076	50.0	
			NB 02-26-13				

Chemical/Reagent ID:

HNO<sub>3</sub>: MP2444/J8022 HCl: I7971 H<sub>2</sub>O<sub>2</sub>: I7845 Tube Lot #: 1208059



# Digestion Log

Analyst: NB Date: 2-27-13 Time: 0700  
Matrix: SOIL Block ID: #2/#5 Block Temp: 94°C/90°C Thermometer: MP56/MP40

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SWC</u>		Prep Code: <u>SWN</u>		Comments
			Initial Wt (g) <del>Vol (mL)</del>	Final Vol (mL)	Initial Wt (g) <del>Vol (mL)</del>	Final Vol (mL)	
WE80 U	1	—	1.081	50.0	1.091	50.0	
" V	1	—	1.069	↓	1.023	↓	
" MB2	—	—	—	↓	—	↓	
" MB2SPK	—	—	—	50.0	—	50.0	
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); opacity: 0.5;"></div>							
NB 02-27-13							

Chemical/Reagent ID:  
HNO<sub>3</sub>: MP2444/I8022 HCl: I7971 H<sub>2</sub>O<sub>2</sub>: I7845 Tube Lot #: 1208059



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 2-27-13

Bath Temp: 95°C

Start Time: 0730

End Time: 0900

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WE80 A	1	-	0.670	50.0	03-08 1	YES	
" ADAP	1	-	0.673		1		
" ASPK	1	-	0.674		1		
" B	1	-	0.629		1		
" C	1	-	0.681		1		
" D	1	-	0.682		1		
" E	1	-	0.640		1		
" F	1	-	0.717		1		
" G	1	-	0.524		1		
" H	1	-	0.653		1		
" I	1	-	0.543		1		
" J	1	-	0.693		1		
" K	1	-	0.618		1		
" L	1	-	0.637		1		
" M	1	-	0.574		1		
" MBI	-	-	-		1		
" MBISPK	-	-	-		1		
" N	1	-	0.581		1		
" O	1	-	0.649		1		
" P	1	-	0.566		1		
" Q	1	-	0.703		1		
" R	1	-	0.694		1		
" S	1	-	0.649	↓	1	↓	
" T	1	-	0.721	50.0	1	(Y)	
			NB 62-26-13				

Chemical/Reagent ID:

HNO<sub>3</sub>: J8002

H<sub>2</sub>SO<sub>4</sub>: J7671

HCl: -

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418

5% KMnO<sub>4</sub>: MP 2425

Digest Tube Lot: MFO6LKK01



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 2-27-13

Bath Temp: 95°C

Start Time: 0730

End Time: 0800

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WE80 U	1	—	0.725	50.0	03-08 1	YES	
" V	1	—	0.659	↓	1	↓	
" MB2	—	—	—	↓	1	↓	
" MB25PK	—	—	—	50.0	1	↓	
<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%);">           NB 02-26-13         </div> </div>							

Chemical/Reagent ID:

HNO<sub>3</sub>: I6022

H<sub>2</sub>SO<sub>4</sub>: I767

HCl: —

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418

5% KMnO<sub>4</sub>: MP2425

Digest Tube Lot: MFO6LKK01

**Metals Raw Data  
Run Logs, Calibrations, and Raw Data**

**ARI Job ID: WE80**



# Corrective Actions Inorganic Analyses

Criteria Flagged:	ARI Job No.:	<u>WE80</u>
Unacceptable Blank: <input type="checkbox"/>	Date of Event:	<u>2-28-13</u>
Unacceptable Duplicate: <input checked="" type="checkbox"/>	Client ID:	<u>Hart Crowder</u>
Unacceptable Spike: <input checked="" type="checkbox"/>	Method/Element:	<u>ICPMS</u>
Unacceptable Reference: <input type="checkbox"/>	Prep Code:	<u>SWN</u>

**Details of Problem/Recommended Corrective Action:**

ADUP: V, Cr > 20% (numbers attached)

ASPK: As, Sb ↓ (APOST in control)

**Samples Affected:**

**Corrective Action Taken:**

*[Signature]* 3/4/13

**Analyst Initials:** BA      **Supervisor:** \_\_\_\_\_

**Date:** 3-1-13      **Date:** \_\_\_\_\_

WE80 : 00003

**Metals Data Review Checklist**

Method: ICP ICP-MS GFA CVA

Analysis Date: 2-28-13

	Analyst <i>JA 3-1</i>	Peer <i>ED 3-1-13</i>	Comment
<b>Logbook:</b>			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
<b>Calibration:</b>			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
<b>Calibration Verification:</b>			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
<b>Samples:</b>			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
<b>Method QC:</b>			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	✓	✓	
<b>Matrix QC:</b>			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
<b>Data Distribution:</b>			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	





IEC Date: 1-22-13

Analysis Date: 2-28-13

Analyst: MT

LR Date: 1-22-13

Page: 1 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			3016-3 Wrong ICP Table
		2			-7
		3			-8
		4			-9
		5			-10
		ICV			3004-11
		ICB			
		STD 0			3016-3
		2			-7
		3			-8
		4			-9
		5			-10
		ICV			3004-11
		ICB			
		CR1			
		ICSA			
		ICSA B			
		CCV1			
		CCB1			
		WB20 MD1	SWC	2	
		A-L		10	
		A		2	
		ADwp			✓
		Aspk			✓ Al Fe SW



IEC Date:                      Analysis Date: 2-28-13 Analyst: HA  
LR Date:                      Page: 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
222		222222	SWC	Z	
		WE80 B			
		↓ C			
		↓ D			
		MB15pk			✓
		CCWZ			
		CCBZ			
		WE80 MAZ	SWC	Z	
		↓ E			
		↓ F			
		↓ G			
		↓ H			
		↓ I			
		↓ J			
		↓ K			
		↓ L			
		↓ MB25pk			✓
		CCW3			
		CCB3			
		WE80 M	SWC	Z	
		↓ N			
✓		↓ O			run 1/5 (Fe)
✓		↓ P			
		↓ Q			



IEC Date:       

Analysis Date: 2-28-13

Analyst: MA

LR Date:       

Page: 3 of 5

All corrections made by analyst unless otherwise noted.

MA 2-28-13

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
	✓	WE80 R	SWC	2	RL 1/5 (Fe)
		↓ S	↓	↓	
		↓ T	↓	↓	
		↓ U	↓	↓	
		↓ V	↓	↓	
		CCW4			
		CCB4			
		WE80 O	SWC	5	
		↓ P	↓	↓	
		↓ R	↓	↓	
		DI			✓ c.o. check
		CR1			
		ICSA			
		ICSA10			
		CCV5			
		CCP5			cond pkg
		WE78 MB	SWC	2	
		WF37 MB	TWC		
		↓ ADup	↓		✓
		↓ ADup	↓		
		↓ ASPL	↓		✓
	✓	WE78 ADup	SWC	5	RL 1/2
DIL		↓ ADup	↓	2	✓
*		↓ A	↓	↓	

MA 3-1-13

=====  
Analysis Begun

Start Time: 2/28/2013 9:02:16 AM

Plasma On Time: 2/28/2013 7:25:29 AM

Logged In Analyst: Metals

Technique: ICP Continuous

Spectrometer: Optima 7300 DV, S/N 077C8121202

Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\0228.sif

Batch ID:

Results Data Set: I2130228

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

=====  
Method Loaded

Method Name: 7300bcESI2FAST

Method Last Saved: 2/28/2013 8:57:23 AM

IEC File: 012213.iec

MSF File:

Method Description: 12Axial Elements

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

=====  
Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank 1

Date Collected: 2/28/2013 9:02:18 AM

Data Type: Original

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Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

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Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
ScA 357.253	3066311.4	11987.58	0.39%	100.0	%
ScR 361.383	325995.7	909.20	0.28%	100.0	%
Ag 328.068†	-79.3	17.66	22.26%	[0.00]	mg/L
Al 308.215†	212.6	5.74	2.70%	[0.00]	mg/L
As 188.979†	-18.1	2.87	15.83%	[0.00]	mg/L
B 249.677†	-29.6	9.70	32.78%	[0.00]	mg/L

Ba 233.527†	55.0	3.38	6.15%	[0.00]	mg/L
Be 313.042†	712.4	18.94	2.66%	[0.00]	mg/L
Ca 317.933†	156.7	7.58	4.84%	[0.00]	mg/L
Cd 228.802†	268.6	1.23	0.46%	[0.00]	mg/L
Co 228.616†	-149.1	3.28	2.20%	[0.00]	mg/L
Cr 267.716†	-187.6	3.83	2.04%	[0.00]	mg/L
Cu 324.752†	3334.4	27.74	0.83%	[0.00]	mg/L
Fe 273.955†	13.0	1.54	11.89%	[0.00]	mg/L
K 766.490†	369.9	10.98	2.97%	[0.00]	mg/L
Mg 279.077†	82.3	5.67	6.89%	[0.00]	mg/L
Mn 257.610†	259.8	8.10	3.12%	[0.00]	mg/L
Mo 202.031†	103.1	2.41	2.34%	[0.00]	mg/L
Na 589.592†	-537.0	47.00	8.75%	[0.00]	mg/L
Na 330.237†	-98.7	9.48	9.61%	[0.00]	mg/L
Ni 231.604†	11.5	6.61	57.35%	[0.00]	mg/L
Pb 220.353†	-38.2	6.44	16.85%	[0.00]	mg/L
Sb 206.836†	61.1	1.24	2.03%	[0.00]	mg/L
Se 196.026†	-52.4	7.88	15.05%	[0.00]	mg/L
Si 288.158†	50.3	7.17	14.24%	[0.00]	mg/L
Sn 189.927†	-8.7	1.18	13.55%	[0.00]	mg/L
Sr 421.552†	424.3	41.79	9.85%	[0.00]	mg/L
Ti 334.903†	-78.4	7.81	9.96%	[0.00]	mg/L
Tl 190.801†	-41.9	5.67	13.55%	[0.00]	mg/L
V 292.402†	95.6	27.42	28.69%	[0.00]	mg/L
Zn 206.200†	-15.2	0.74	4.88%	[0.00]	mg/L

Sequence No.: 2  
Sample ID: STD2

Autosampler Location: 2  
Date Collected: 2/28/2013 9:06:33 AM  
Data Type: Original

## Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

## Mean Data: STD2

Analyte	Mean Corrected			RSD	Conc.	Calib Units
	Intensity	Std.Dev.				
ScA 357.253	3063806.8	13329.19	0.44%		99.92	%
ScR 361.383	324681.7	1822.48	0.56%		99.60	%
Ba 233.527†	58797.8	188.90	0.32%		[10]	mg/L
Cd 228.802†	264901.5	2525.52	0.95%		[10]	mg/L
Co 228.616†	427981.4	1197.90	0.28%		[10]	mg/L
Cr 267.716†	65666.1	105.48	0.16%		[10]	mg/L
Cu 324.752†	2832396.0	11513.88	0.41%		[10]	mg/L
Mn 257.610†	492003.9	1078.23	0.22%		[10]	mg/L
V 292.402†	1394220.7	10238.00	0.73%		[10]	mg/L

Sequence No.: 3  
Sample ID: STD3

Autosampler Location: 3  
Date Collected: 2/28/2013 9:08:20 AM  
Data Type: Original

## Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: STD3

Analyte	Mean Corrected			RSD	Conc.	Calib Units
	Intensity	Std.Dev.				
ScA 357.253	3051114.4	10940.89	0.36%		99.50	%
ScR 361.383	321122.5	926.02	0.29%		98.51	%
Ag 328.068†	226241.2	611.60	0.27%		[1.0]	mg/L
As 188.979†	17443.9	32.28	0.19%		[10]	mg/L
B 249.677†	68340.7	329.31	0.48%		[10]	mg/L
Be 313.042†	2610564.1	4131.74	0.16%		[5.0]	mg/L
Na 589.592†	626895.4	1108.31	0.18%		[50]	mg/L
Ni 231.604†	41348.3	261.99	0.63%		[10]	mg/L

Pb 220.353†	93689.6	184.68	0.20%	[10] mg/L
Se 196.026†	17224.6	16.05	0.09%	[10] mg/L
Sr 421.552†	4699693.6	18953.29	0.40%	[5] mg/L
Tl 190.801†	23421.8	99.24	0.42%	[10] mg/L
Zn 206.200†	42736.8	146.39	0.34%	[10] mg/L

Sequence No.: 4  
Sample ID: STD4

Autosampler Location: 4  
Date Collected: 2/28/2013 9:10:54 AM  
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
ScA 357.253	3098371.3	1900.34	0.06%	101.0 %
ScR 361.383	328664.9	2322.79	0.71%	100.8 %
Mo 202.031†	224491.6	741.85	0.33%	[10] mg/L
Sb 206.836†	35444.1	70.85	0.20%	[10] mg/L
Si 288.158†	17680.3	249.13	1.41%	[10] mg/L
Sn 189.927†	51029.8	42.75	0.08%	[10] mg/L
Ti 334.903†	229542.7	1146.09	0.50%	[10] mg/L

Sequence No.: 5  
Sample ID: STD5

Autosampler Location: 5  
Date Collected: 2/28/2013 9:13:09 AM  
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
ScA 357.253	2890710.8	2582.06	0.09%	94.27 %
ScR 361.383	322803.1	80.19	0.02%	99.02 %
Al 308.215†	41430.2	299.35	0.72%	[30] mg/L
Ca 317.933†	317527.8	217.49	0.07%	[30] mg/L
Fe 273.955†	156583.4	581.14	0.37%	[100] mg/L
K 766.490†	166092.9	780.71	0.47%	[100] mg/L
Mg 279.077†	30864.7	124.42	0.40%	[30] mg/L
Na 330.237†	3039.4	6.36	0.21%	[100] mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	226200	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1381	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1744	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	6834	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	5880	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	522100	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	10580	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	26490	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	42800	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	6567	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	283200	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1566	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1661	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1029	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	49200	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	22450	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	12540	0.00000	1.000000	

Na 330.237	1	Lin Thru 0	0.0	30.39	0.00000	1.000000
Ni 231.604	1	Lin Thru 0	0.0	4135	0.00000	1.000000
Pb 220.353	1	Lin Thru 0	0.0	9369	0.00000	1.000000
Sb 206.836	1	Lin Thru 0	0.0	3544	0.00000	1.000000
Se 196.026	1	Lin Thru 0	0.0	1722	0.00000	1.000000
Si 288.158	1	Lin Thru 0	0.0	1768	0.00000	1.000000
Sn 189.927	1	Lin Thru 0	0.0	5103	0.00000	1.000000
Sr 421.552	1	Lin Thru 0	0.0	939900	0.00000	1.000000
Ti 334.903	1	Lin Thru 0	0.0	22950	0.00000	1.000000
Tl 190.801	1	Lin Thru 0	0.0	2342	0.00000	1.000000
V 292.402	1	Lin Thru 0	0.0	139400	0.00000	1.000000
Zn 206.200	1	Lin Thru 0	0.0	4274	0.00000	1.000000

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Analysis Begun

Start Time: 2/28/2013 9:15:47 AM

Plasma On Time: 2/28/2013 7:25:29 AM

Logged In Analyst: Metals

Technique: ICP Continuous

Spectrometer: Optima 7300 DV, S/N 077C8121202

Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\0228.sif

Batch ID:

Results Data Set: I2130228

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

=====  
Sequence No.: 1

Autosampler Location: 7

Sample ID: CV

Date Collected: 2/28/2013 9:15:49 AM

Analyst: MLA

Data Type: Original

Dilution: 1.000000X

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Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

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Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3045525.0	99.32 %	0.386			0.39%
ScR 361.383	318239.6	97.62 %	0.413			0.42%
Ag 328.068†	238459.2	1.054 mg/L	0.0063	1.054 mg/L	0.0063	0.60%
Al 308.215†	2852.3	2.031 mg/L	0.0063	2.031 mg/L	0.0063	0.31%
As 188.979†	3509.7	2.043 mg/L	0.0051	2.043 mg/L	0.0051	0.25%
B 249.677†	6959.2	1.017 mg/L	0.0010	1.017 mg/L	0.0010	0.10%
Ba 233.527†	6083.1	1.034 mg/L	0.0025	1.034 mg/L	0.0025	0.25%
Be 313.042†	514919.8	0.9860 mg/L	0.00680	0.9860 mg/L	0.00680	0.69%
Ca 317.933†	21739.6	2.054 mg/L	0.0073	2.054 mg/L	0.0073	0.35%
Cd 228.802†	27663.3	1.034 mg/L	0.0049	1.034 mg/L	0.0049	0.48%
Co 228.616†	42994.1	1.003 mg/L	0.0019	1.003 mg/L	0.0019	0.19%
Cr 267.716†	6756.3	1.028 mg/L	0.0016	1.028 mg/L	0.0016	0.16%
Cu 324.752†	292941.4	1.034 mg/L	0.0026	1.034 mg/L	0.0026	0.25%
Fe 273.955†	3240.3	2.064 mg/L	0.0027	2.064 mg/L	0.0027	0.13%
K 766.490†	33275.1	20.03 mg/L	0.027	20.03 mg/L	0.027	0.13%
Mg 279.077†	2102.8	2.050 mg/L	0.0049	2.050 mg/L	0.0049	0.24%
Mn 257.610†	48263.4	0.9813 mg/L	0.00659	0.9813 mg/L	0.00659	0.67%
Mo 202.031†	22428.9	0.9990 mg/L	0.00036	0.9990 mg/L	0.00036	0.04%
Na 589.592†	639880.0	51.04 mg/L	0.123	51.04 mg/L	0.123	0.24%
Na 330.237†	1623.6	53.39 mg/L	0.333	53.39 mg/L	0.333	0.62%
Ni 231.604†	4178.7	1.011 mg/L	0.0019	1.011 mg/L	0.0019	0.19%
Pb 220.353†	19463.0	2.078 mg/L	0.0019	2.078 mg/L	0.0019	0.09%
Sb 206.836†	7283.0	2.053 mg/L	0.0029	2.053 mg/L	0.0029	0.14%
Se 196.026†	3454.0	2.004 mg/L	0.0046	2.004 mg/L	0.0046	0.23%
Si 288.158†	3654.9	2.062 mg/L	0.0115	2.062 mg/L	0.0115	0.56%
Sn 189.927†	4998.2	0.9809 mg/L	0.00314	0.9809 mg/L	0.00314	0.32%
Sr 421.552†	947761.3	1.008 mg/L	0.0022	1.008 mg/L	0.0022	0.22%
Ti 334.903†	23084.5	1.004 mg/L	0.0038	1.004 mg/L	0.0038	0.37%
Tl 190.801†	4717.0	2.006 mg/L	0.0029	2.006 mg/L	0.0029	0.15%
V 292.402†	142781.5	1.029 mg/L	0.0046	1.029 mg/L	0.0046	0.45%
Zn 206.200†	4475.1	1.048 mg/L	0.0021	1.048 mg/L	0.0021	0.20%



Sequence No.: 2  
Sample ID: CB  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 1  
Date Collected: 2/28/2013 9:19:52 AM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3089753.0	100.8 %		0.04			0.04%
ScR 361.383	329629.7	101.1 %		0.25			0.25%
Ag 328.068†	-16.7	-0.00007 mg/L		0.000101	-0.00007 mg/L	0.000101	137.27%
Al 308.215†	-1.2	-0.00093 mg/L		0.005463	-0.00093 mg/L	0.005463	589.45%
As 188.979†	1.6	0.00093 mg/L		0.001497	0.00093 mg/L	0.001497	161.42%
B 249.677†	17.4	0.00255 mg/L		0.000042	0.00255 mg/L	0.000042	1.66%
Ba 233.527†	-5.2	-0.00088 mg/L		0.000834	-0.00088 mg/L	0.000834	94.40%
Be 313.042†	-12.9	-0.00002 mg/L		0.000040	-0.00002 mg/L	0.000040	163.49%
Ca 317.933†	-52.1	-0.00492 mg/L		0.000724	-0.00492 mg/L	0.000724	14.70%
Cd 228.802†	6.1	0.00022 mg/L		0.000067	0.00022 mg/L	0.000067	29.93%
Co 228.616†	3.6	0.00008 mg/L		0.000107	0.00008 mg/L	0.000107	128.89%
Cr 267.716†	10.0	0.00152 mg/L		0.000910	0.00152 mg/L	0.000910	59.84%
Cu 324.752†	-51.3	-0.00018 mg/L		0.000200	-0.00018 mg/L	0.000200	110.24%
Fe 273.955†	2.3	0.00147 mg/L		0.000703	0.00147 mg/L	0.000703	47.95%
K 766.490†	12.7	0.00763 mg/L		0.012150	0.00763 mg/L	0.012150	159.18%
Mg 279.077†	-5.1	-0.00492 mg/L		0.001988	-0.00492 mg/L	0.001988	40.37%
Mn 257.610†	-5.4	-0.00011 mg/L		0.000098	-0.00011 mg/L	0.000098	89.41%
Mo 202.031†	54.5	0.00243 mg/L		0.000041	0.00243 mg/L	0.000041	1.71%
Na 589.592†	-17.9	-0.00143 mg/L		0.005002	-0.00143 mg/L	0.005002	350.79%
Na 330.237†	-7.4	-0.2445 mg/L		0.40281	-0.2445 mg/L	0.40281	164.73%
Ni 231.604†	0.2	0.00004 mg/L		0.001487	0.00004 mg/L	0.001487	>999.9%
Pb 220.353†	2.9	0.00032 mg/L		0.000143	0.00032 mg/L	0.000143	45.29%
Sb 206.836†	16.6	0.00466 mg/L		0.002664	0.00466 mg/L	0.002664	57.14%
Se 196.026†	1.1	0.00065 mg/L		0.002345	0.00065 mg/L	0.002345	362.40%
Si 288.158†	-0.8	-0.00043 mg/L		0.005165	-0.00043 mg/L	0.005165	>999.9%
Sn 189.927†	1.0	0.00019 mg/L		0.000444	0.00019 mg/L	0.000444	231.80%
Sr 421.552†	-36.9	-0.00004 mg/L		0.000021	-0.00004 mg/L	0.000021	53.89%
Ti 334.903†	17.3	0.00075 mg/L		0.000930	0.00075 mg/L	0.000930	123.96%
Tl 190.801†	-0.6	-0.00027 mg/L		0.001521	-0.00027 mg/L	0.001521	567.86%
V 292.402†	0.4	0.00001 mg/L		0.000143	0.00001 mg/L	0.000143	>999.9%
Zn 206.200†	-0.2	-0.00004 mg/L		0.000102	-0.00004 mg/L	0.000102	275.49%

Sequence No.: 3  
 Sample ID: CRI  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 301  
 Date Collected: 2/28/2013 9:24:08 AM  
 Data Type: Original

## Nebulizer Parameters: CRI

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3063928.1	99.92 %	%	0.143			0.14%
ScR 361.383	326330.3	100.1 %	%	0.33			0.33%
Ag 328.068†	713.1	0.00315 mg/L	mg/L	0.000237	0.00315 mg/L	0.000237	7.52%
Al 308.215†	78.4	0.05662 mg/L	mg/L	0.004910	0.05662 mg/L	0.004910	8.67%
As 188.979†	91.0	0.05238 mg/L	mg/L	0.000747	0.05238 mg/L	0.000747	1.43%
B 249.677†	136.8	0.02001 mg/L	mg/L	0.000530	0.02001 mg/L	0.000530	2.65%
Ba 233.527†	15.7	0.00265 mg/L	mg/L	0.000361	0.00265 mg/L	0.000361	13.61%
Be 313.042†	499.2	0.00096 mg/L	mg/L	0.000037	0.00096 mg/L	0.000037	3.88%
Ca 317.933†	468.4	0.04425 mg/L	mg/L	0.000415	0.04425 mg/L	0.000415	0.94%
Cd 228.802†	65.7	0.00220 mg/L	mg/L	0.000097	0.00220 mg/L	0.000097	4.40%
Co 228.616†	152.4	0.00355 mg/L	mg/L	0.000192	0.00355 mg/L	0.000192	5.40%
Cr 267.716†	41.2	0.00627 mg/L	mg/L	0.000357	0.00627 mg/L	0.000357	5.69%
Cu 324.752†	554.9	0.00196 mg/L	mg/L	0.000133	0.00196 mg/L	0.000133	6.80%
Fe 273.955†	81.8	0.05225 mg/L	mg/L	0.001571	0.05225 mg/L	0.001571	3.01%
K 766.490†	849.2	0.5113 mg/L	mg/L	0.01958	0.5113 mg/L	0.01958	3.83%
Mg 279.077†	58.9	0.05721 mg/L	mg/L	0.004502	0.05721 mg/L	0.004502	7.87%
Mn 257.610†	53.1	0.00108 mg/L	mg/L	0.000080	0.00108 mg/L	0.000080	7.40%
Mo 202.031†	110.0	0.00490 mg/L	mg/L	0.000321	0.00490 mg/L	0.000321	6.55%
Na 589.592†	6116.9	0.4879 mg/L	mg/L	0.00173	0.4879 mg/L	0.00173	0.35%
Na 330.237†	7.1	0.2316 mg/L	mg/L	0.15152	0.2316 mg/L	0.15152	65.41%
Ni 231.604†	44.8	0.01083 mg/L	mg/L	0.000429	0.01083 mg/L	0.000429	3.96%
Pb 220.353†	203.4	0.02173 mg/L	mg/L	0.000678	0.02173 mg/L	0.000678	3.12%
Sb 206.836†	184.6	0.05209 mg/L	mg/L	0.000425	0.05209 mg/L	0.000425	0.82%
Se 196.026†	86.5	0.05019 mg/L	mg/L	0.002333	0.05019 mg/L	0.002333	4.65%
Si 288.158†	118.7	0.06706 mg/L	mg/L	0.005970	0.06706 mg/L	0.005970	8.90%
Sn 189.927†	51.5	0.01012 mg/L	mg/L	0.001021	0.01012 mg/L	0.001021	10.09%
Sr 421.552†	936.3	0.00100 mg/L	mg/L	0.000012	0.00100 mg/L	0.000012	1.20%
Ti 334.903†	146.3	0.00636 mg/L	mg/L	0.000812	0.00636 mg/L	0.000812	12.75%
Tl 190.801†	114.8	0.04898 mg/L	mg/L	0.001223	0.04898 mg/L	0.001223	2.50%
V 292.402†	447.1	0.00323 mg/L	mg/L	0.000081	0.00323 mg/L	0.000081	2.50%
Zn 206.200†	42.3	0.00991 mg/L	mg/L	0.000128	0.00991 mg/L	0.000128	1.29%

Sequence No.: 4  
 Sample ID: ICSA  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 302  
 Date Collected: 2/28/2013 9:28:25 AM  
 Data Type: Original

## Nebulizer Parameters: ICSA

Analyte Back Pressure Flow  
 All 217.0 kPa 0.75 L/min

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2894813.8	94.41	%	0.258			0.27%
ScR 361.383	314468.3	96.46	%	0.406			0.42%
Ag 328.068†	-286.4	-0.00061	mg/L	0.000053	-0.00061 mg/L	0.000053	8.66%
Al 308.215†	280812.5	203.3	mg/L	0.48	203.3 mg/L	0.48	0.23%
As 188.979†	51.9	0.02097	mg/L	0.001545	0.02097 mg/L	0.001545	7.37%
B 249.677†	-41.7	-0.00609	mg/L	0.001648	-0.00609 mg/L	0.001648	27.05%
Ba 233.527†	150.7	-0.00336	mg/L	0.001795	-0.00336 mg/L	0.001795	53.48%
Be 313.042†	47.1	0.00009	mg/L	0.000003	0.00009 mg/L	0.000003	3.04%
Ca 317.933†	1062531.7	100.4	mg/L	0.64	100.4 mg/L	0.64	0.63%
Cd 228.802†	75.8	0.00269	mg/L	0.000125	0.00269 mg/L	0.000125	4.62%
Co 228.616†	75.6	0.00175	mg/L	0.000428	0.00175 mg/L	0.000428	24.54%
Cr 267.716†	31.1	-0.00033	mg/L	0.000920	-0.00033 mg/L	0.000920	282.76%
Cu 324.752†	-2209.0	0.00134	mg/L	0.000051	0.00134 mg/L	0.000051	3.86%
Fe 273.955†	308922.1	197.3	mg/L	2.06	197.3 mg/L	2.06	1.04%
K 766.490†	39.0	0.02350	mg/L	0.023351	0.02350 mg/L	0.023351	99.37%
Mg 279.077†	108531.0	105.4	mg/L	0.57	105.4 mg/L	0.57	0.54%
Mn 257.610†	66.3	-0.00006	mg/L	0.000170	-0.00006 mg/L	0.000170	277.35%
Mo 202.031†	104.7	0.00348	mg/L	0.000486	0.00348 mg/L	0.000486	13.96%
Na 589.592†	161.9	0.01291	mg/L	0.001563	0.01291 mg/L	0.001563	12.11%
Na 330.237†	-6.0	-0.1942	mg/L	0.07446	-0.1942 mg/L	0.07446	38.34%
Ni 231.604†	0.8	0.00020	mg/L	0.001204	0.00020 mg/L	0.001204	607.58%
Pb 220.353†	-525.1	-0.01156	mg/L	0.001594	-0.01156 mg/L	0.001594	13.79%
Sb 206.836†	21.7	0.00596	mg/L	0.001270	0.00596 mg/L	0.001270	21.31%
Se 196.026†	14.9	-0.01472	mg/L	0.001370	-0.01472 mg/L	0.001370	9.31%
Si 288.158†	-36.1	-0.00843	mg/L	0.002685	-0.00843 mg/L	0.002685	31.87%
Sn 189.927†	-92.3	-0.00967	mg/L	0.001556	-0.00967 mg/L	0.001556	16.10%
Sr 421.552†	3884.4	0.00413	mg/L <i>conv</i>	0.000012	0.00413 mg/L	0.000012	0.29%
Ti 334.903†	246.3	0.00476	mg/L	0.000391	0.00476 mg/L	0.000391	8.22%
Tl 190.801†	-50.1	0.00474	mg/L	0.000769	0.00474 mg/L	0.000769	16.23%
V 292.402†	1380.4	0.00002	mg/L	0.000163	0.00002 mg/L	0.000163	>999.9%
Zn 206.200†	-3.8	-0.00090	mg/L	0.001052	-0.00090 mg/L	0.001052	117.31%

Sequence No.: 5  
 Sample ID: ICSAB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 303  
 Date Collected: 2/28/2013 9:32:42 AM  
 Data Type: Original

## Nebulizer Parameters: ICSAB

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2955069.6	96.37	%	0.065			0.07%
ScR 361.383	316555.1	97.10	%	0.714			0.74%
Ag 328.068†	245543.8	1.086	mg/L	0.0043	1.086 mg/L	0.0043	0.39%
Al 308.215†	283249.5	205.1	mg/L	0.21	205.1 mg/L	0.21	0.10%
As 188.979†	1855.5	1.054	mg/L	0.0111	1.054 mg/L	0.0111	1.05%
B 249.677†	-58.1	-0.01077	mg/L	0.000815	-0.01077 mg/L	0.000815	7.56%
Ba 233.527†	6237.6	1.031	mg/L	0.0052	1.031 mg/L	0.0052	0.51%
Be 313.042†	533304.2	1.021	mg/L	0.0017	1.021 mg/L	0.0017	0.17%
Ca 317.933†	1071212.1	101.2	mg/L	0.37	101.2 mg/L	0.37	0.37%
Cd 228.802†	27920.0	1.049	mg/L	0.0064	1.049 mg/L	0.0064	0.61%
Co 228.616†	41779.4	0.9759	mg/L	0.00352	0.9759 mg/L	0.00352	0.36%
Cr 267.716†	6809.6	1.032	mg/L	0.0060	1.032 mg/L	0.0060	0.58%
Cu 324.752†	300174.2	1.069	mg/L	0.0035	1.069 mg/L	0.0035	0.33%
Fe 273.955†	313705.3	200.3	mg/L	2.24	200.3 mg/L	2.24	1.12%
K 766.490†	42.1	0.02536	mg/L	0.010685	0.02536 mg/L	0.010685	42.13%
Mg 279.077†	104433.2	101.4	mg/L	0.25	101.4 mg/L	0.25	0.25%
Mn 257.610†	48166.7	0.9777	mg/L	0.00916	0.9777 mg/L	0.00916	0.94%
Mo 202.031†	109.6	0.00364	mg/L	0.000847	0.00364 mg/L	0.000847	23.29%
Na 589.592†	271.0	0.02162	mg/L	0.001379	0.02162 mg/L	0.001379	6.38%
Na 330.237†	2.5	-0.2039	mg/L	0.22014	-0.2039 mg/L	0.22014	107.96%
Ni 231.604†	4056.3	0.9810	mg/L	0.00696	0.9810 mg/L	0.00696	0.71%
Pb 220.353†	8939.3	0.9995	mg/L	0.00208	0.9995 mg/L	0.00208	0.21%
Sb 206.836†	3649.4	1.019	mg/L	0.0070	1.019 mg/L	0.0070	0.68%
Se 196.026†	1778.6	1.008	mg/L	0.0078	1.008 mg/L	0.0078	0.77%
Si 288.158†	-33.5	-0.00395	mg/L	0.003547	-0.00395 mg/L	0.003547	89.91%
Sn 189.927†	-89.1	-0.00846	mg/L	0.000823	-0.00846 mg/L	0.000823	9.72%
Sr 421.552†	3823.7	0.00407	mg/L	0.000053	0.00407 mg/L	0.000053	1.31%
Ti 334.903†	247.3	0.00456	mg/L	0.000680	0.00456 mg/L	0.000680	14.93%
Tl 190.801†	2226.4	0.9672	mg/L	0.00175	0.9672 mg/L	0.00175	0.18%
V 292.402†	142220.2	1.015	mg/L	0.0054	1.015 mg/L	0.0054	0.54%
Zn 206.200†	4171.8	0.9764	mg/L	0.00534	0.9764 mg/L	0.00534	0.55%

Sequence No.: 6  
 Sample ID: CV 1  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/28/2013 9:36:44 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3042022.9	99.21 %	0.302			0.30%
ScR 361.383	319965.3	98.15 %	0.280			0.29%
Ag 328.068†	237664.2	1.051 mg/L	0.0114	1.051 mg/L	0.0114	1.09%
Al 308.215†	2856.2	2.034 mg/L	0.0150	2.034 mg/L	0.0150	0.74%
As 188.979†	3511.9	2.044 mg/L	0.0078	2.044 mg/L	0.0078	0.38%
B 249.677†	6943.2	1.015 mg/L	0.0067	1.015 mg/L	0.0067	0.66%
Ba 233.527†	6076.0	1.033 mg/L	0.0057	1.033 mg/L	0.0057	0.55%
Be 313.042†	510807.9	0.9781 mg/L	0.00651	0.9781 mg/L	0.00651	0.67%
Ca 317.933†	21823.4	2.062 mg/L	0.0054	2.062 mg/L	0.0054	0.26%
Cd 228.802†	27612.8	1.032 mg/L	0.0068	1.032 mg/L	0.0068	0.66%
Co 228.616†	42760.7	0.9973 mg/L	0.00631	0.9973 mg/L	0.00631	0.63%
Cr 267.716†	6792.4	1.034 mg/L	0.0045	1.034 mg/L	0.0045	0.44%
Cu 324.752†	291995.8	1.031 mg/L	0.0050	1.031 mg/L	0.0050	0.49%
Fe 273.955†	3264.7	2.079 mg/L	0.0080	2.079 mg/L	0.0080	0.38%
K 766.490†	33277.0	20.04 mg/L	0.141	20.04 mg/L	0.141	0.71%
Mg 279.077†	2114.2	2.061 mg/L	0.0111	2.061 mg/L	0.0111	0.54%
Mn 257.610†	48340.3	0.9829 mg/L	0.00080	0.9829 mg/L	0.00080	0.08%
Mo 202.031†	22370.3	0.9964 mg/L	0.00388	0.9964 mg/L	0.00388	0.39%
Na 589.592†	640238.2	51.06 mg/L	0.161	51.06 mg/L	0.161	0.31%
Na 330.237†	1621.6	53.32 mg/L	0.295	53.32 mg/L	0.295	0.55%
Ni 231.604†	4216.9	1.020 mg/L	0.0052	1.020 mg/L	0.0052	0.51%
Pb 220.353†	19460.3	2.078 mg/L	0.0077	2.078 mg/L	0.0077	0.37%
Sb 206.836†	7306.0	2.059 mg/L	0.0073	2.059 mg/L	0.0073	0.35%
Se 196.026†	3469.1	2.013 mg/L	0.0007	2.013 mg/L	0.0007	0.04%
Si 288.158†	3652.5	2.061 mg/L	0.0187	2.061 mg/L	0.0187	0.91%
Sn 189.927†	4990.8	0.9794 mg/L	0.00219	0.9794 mg/L	0.00219	0.22%
Sr 421.552†	945272.7	1.006 mg/L	0.0031	1.006 mg/L	0.0031	0.31%
Ti 334.903†	23045.2	1.003 mg/L	0.0012	1.003 mg/L	0.0012	0.12%
Tl 190.801†	4726.2	2.010 mg/L	0.0065	2.010 mg/L	0.0065	0.33%
V 292.402†	142203.9	1.024 mg/L	0.0084	1.024 mg/L	0.0084	0.82%
Zn 206.200†	4502.6	1.054 mg/L	0.0044	1.054 mg/L	0.0044	0.42%

Sequence No.: 7  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 2/28/2013 9:40:49 AM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3052525.1	99.55 %	%	0.734			0.74%
ScR 361.383	324811.1	99.64 %	%	0.328			0.33%
Ag 328.068†	31.3	0.00014 mg/L	mg/L	0.000084	0.00014 mg/L	0.000084	60.36%
Al 308.215†	7.1	0.00511 mg/L	mg/L	0.000846	0.00511 mg/L	0.000846	16.57%
As 188.979†	1.1	0.00065 mg/L	mg/L	0.001335	0.00065 mg/L	0.001335	205.99%
B 249.677†	1.2	0.00018 mg/L	mg/L	0.000879	0.00018 mg/L	0.000879	497.54%
Ba 233.527†	-7.1	-0.00121 mg/L	mg/L	0.000189	-0.00121 mg/L	0.000189	15.65%
Be 313.042†	3.4	0.00001 mg/L	mg/L	0.000051	0.00001 mg/L	0.000051	783.29%
Ca 317.933†	-47.0	-0.00444 mg/L	mg/L	0.001419	-0.00444 mg/L	0.001419	31.97%
Cd 228.802†	5.8	0.00022 mg/L	mg/L	0.000113	0.00022 mg/L	0.000113	52.04%
Co 228.616†	2.2	0.00005 mg/L	mg/L	0.000149	0.00005 mg/L	0.000149	292.53%
Cr 267.716†	3.4	0.00052 mg/L	mg/L	0.000135	0.00052 mg/L	0.000135	25.95%
Cu 324.752†	19.3	0.00007 mg/L	mg/L	0.000190	0.00007 mg/L	0.000190	279.93%
Fe 273.955†	2.9	0.00183 mg/L	mg/L	0.000599	0.00183 mg/L	0.000599	32.64%
K 766.490†	32.1	0.01930 mg/L	mg/L	0.021348	0.01930 mg/L	0.021348	110.59%
Mg 279.077†	-1.8	-0.00170 mg/L	mg/L	0.003405	-0.00170 mg/L	0.003405	200.47%
Mn 257.610†	2.2	0.00005 mg/L	mg/L	0.000041	0.00005 mg/L	0.000041	89.89%
Mo 202.031†	25.1	0.00112 mg/L	mg/L	0.000308	0.00112 mg/L	0.000308	27.54%
Na 589.592†	-8.9	-0.00071 mg/L	mg/L	0.001574	-0.00071 mg/L	0.001574	220.68%
Na 330.237†	-6.0	-0.1979 mg/L	mg/L	0.20425	-0.1979 mg/L	0.20425	103.21%
Ni 231.604†	3.3	0.00081 mg/L	mg/L	0.001268	0.00081 mg/L	0.001268	156.57%
Pb 220.353†	8.6	0.00092 mg/L	mg/L	0.000401	0.00092 mg/L	0.000401	43.68%
Sb 206.836†	20.5	0.00578 mg/L	mg/L	0.001619	0.00578 mg/L	0.001619	28.03%
Se 196.026†	-0.3	-0.00017 mg/L	mg/L	0.002173	-0.00017 mg/L	0.002173	>999.9%
Si 288.158†	2.6	0.00147 mg/L	mg/L	0.002972	0.00147 mg/L	0.002972	202.52%
Sn 189.927†	1.9	0.00037 mg/L	mg/L	0.000312	0.00037 mg/L	0.000312	83.49%
Sr 421.552†	-11.0	-0.00001 mg/L	mg/L	0.000019	-0.00001 mg/L	0.000019	160.47%
Ti 334.903†	24.2	0.00105 mg/L	mg/L	0.000923	0.00105 mg/L	0.000923	87.57%
Tl 190.801†	3.1	0.00133 mg/L	mg/L	0.002022	0.00133 mg/L	0.002022	152.55%
V 292.402†	12.7	0.00009 mg/L	mg/L	0.000161	0.00009 mg/L	0.000161	173.32%
Zn 206.200†	-1.0	-0.00023 mg/L	mg/L	0.000760	-0.00023 mg/L	0.000760	332.62%

Sequence No.: 8  
 Sample ID: WE80 MB1 SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 304  
 Date Collected: 2/28/2013 9:45:05 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 MB1 SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: WE80 MB1 SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3086832.2	100.7 %		0.20			0.20%
ScR 361.383	329997.3	101.2 %		0.54			0.54%
Ag 328.068†	4.1	0.00002 mg/L		0.000078	0.00004 mg/L	0.000156	429.02%
Al 308.215†	3.4	0.00245 mg/L		0.004629	0.00491 mg/L	0.009258	188.59%
As 188.979†	3.2	0.00189 mg/L		0.000939	0.00378 mg/L	0.001878	49.69%
B 249.677†	2.0	0.00030 mg/L		0.000665	0.00059 mg/L	0.001330	223.93%
Ba 233.527†	-7.3	-0.00124 mg/L		0.001183	-0.00247 mg/L	0.002367	95.71%
Be 313.042†	-17.4	-0.00003 mg/L		0.000017	-0.00007 mg/L	0.000035	52.01%
Ca 317.933†	-34.6	-0.00327 mg/L		0.000767	-0.00653 mg/L	0.001535	23.51%
Cd 228.802†	2.2	0.00007 mg/L		0.000123	0.00015 mg/L	0.000246	165.03%
Co 228.616†	0.3	0.00001 mg/L		0.000058	0.00001 mg/L	0.000116	>999.9%
Cr 267.716†	10.3	0.00156 mg/L		0.000500	0.00313 mg/L	0.000999	31.95%
Cu 324.752†	41.4	0.00015 mg/L		0.000069	0.00029 mg/L	0.000139	47.38%
Fe 273.955†	5.4	0.00343 mg/L		0.003362	0.00685 mg/L	0.006724	98.10%
K 766.490†	24.5	0.01474 mg/L		0.015486	0.02947 mg/L	0.030972	105.08%
Mg 279.077†	0.9	0.00084 mg/L		0.007514	0.00168 mg/L	0.015029	894.87%
Mn 257.610†	-7.7	-0.00016 mg/L		0.000129	-0.00031 mg/L	0.000258	82.14%
Mo 202.031†	-6.0	-0.00027 mg/L		0.000132	-0.00054 mg/L	0.000265	49.42%
Na 589.592†	47.6	0.00380 mg/L		0.002298	0.00760 mg/L	0.004596	60.49%
Na 330.237†	3.1	0.1024 mg/L		0.27870	0.2048 mg/L	0.55740	272.23%
Ni 231.604†	0.4	0.00011 mg/L		0.001566	0.00021 mg/L	0.003131	>999.9%
Pb 220.353†	7.4	0.00079 mg/L		0.000643	0.00158 mg/L	0.001285	81.41%
Sb 206.836†	5.4	0.00149 mg/L		0.000053	0.00299 mg/L	0.000105	3.53%
Se 196.026†	-0.5	-0.00026 mg/L		0.000948	-0.00053 mg/L	0.001896	359.15%
Si 288.158†	5.9	0.00332 mg/L		0.002034	0.00664 mg/L	0.004068	61.28%
Sn 189.927†	1.4	0.00028 mg/L		0.000207	0.00055 mg/L	0.000414	74.67%
Sr 421.552†	-61.5	-0.00007 mg/L		0.000021	-0.00013 mg/L	0.000041	31.40%
Ti 334.903†	30.6	0.00133 mg/L		0.000659	0.00267 mg/L	0.001317	49.36%
Tl 190.801†	2.0	0.00084 mg/L		0.001235	0.00169 mg/L	0.002470	146.31%
V 292.402†	18.4	0.00014 mg/L		0.000079	0.00027 mg/L	0.000158	57.41%
Zn 206.200†	2.1	0.00050 mg/L		0.000305	0.00100 mg/L	0.000611	61.11%

Sequence No.: 9  
 Sample ID: WE80 A-L SWC  
 Analyst: ALA  
 Dilution: 10.000000X

Autosampler Location: 305  
 Date Collected: 2/28/2013 9:49:22 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 A-L SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE80 A-L SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3084389.6	100.6 %		0.24			0.24%
ScR 361.383	327741.4	100.5 %		0.71			0.70%
Ag 328.068†	1624.5	0.00719 mg/L		0.000039	0.07194 mg/L	0.000387	0.54%
Al 308.215†	9421.5	6.822 mg/L		0.0420	68.22 mg/L	0.420	0.62%
As 188.979†	349.2	0.2004 mg/L		0.00294	2.004 mg/L	0.0294	1.47%
B 249.677†	-6.8	-0.00099 mg/L		0.000391	-0.00993 mg/L	0.003914	39.40%
Ba 233.527†	202.9	0.03382 mg/L		0.000343	0.3382 mg/L	0.00343	1.01%
Be 313.042†	47.5	0.00009 mg/L		0.000010	0.00090 mg/L	0.000097	10.75%
Ca 317.933†	20541.8	1.941 mg/L		0.0215	19.41 mg/L	0.215	1.11%
Cd 228.802†	36.1	0.00025 mg/L		0.000089	0.00245 mg/L	0.000895	36.45%
Co 228.616†	25.3	0.00057 mg/L		0.000024	0.00568 mg/L	0.000238	4.19%
Cr 267.716†	61.9	0.00943 mg/L		0.001012	0.09427 mg/L	0.010124	10.74%
Cu 324.752†	1142.1	0.00425 mg/L		0.000113	0.04255 mg/L	0.001133	2.66%
Fe 273.955†	7366.5	4.704 mg/L		0.0652	47.04 mg/L	0.652	1.39%
K 766.490†	4243.9	2.555 mg/L		0.0159	25.55 mg/L	0.159	0.62%
Mg 279.077†	1349.7	1.309 mg/L		0.0150	13.09 mg/L	0.150	1.15%
Mn 257.610†	1091.5	0.02214 mg/L		0.000212	0.2214 mg/L	0.00212	0.96%
Mo 202.031†	2.5	0.00009 mg/L		0.000124	0.00090 mg/L	0.001237	137.45%
Na 589.592†	650.3	0.05187 mg/L		0.002547	0.5187 mg/L	0.02547	4.91%
Na 330.237†	8.5	0.2816 mg/L		0.43991	2.816 mg/L	4.3991	156.20%
Ni 231.604†	9.1	0.00221 mg/L		0.001214	0.02206 mg/L	0.012137	55.03%
Pb 220.353†	59.4	0.00794 mg/L		0.000479	0.07943 mg/L	0.004788	6.03%
Sb 206.836†	6.8	0.00182 mg/L		0.001869	0.01820 mg/L	0.018688	102.67%
Se 196.026†	-1.5	-0.00168 mg/L		0.000490	-0.01682 mg/L	0.004899	29.13%
Si 288.158†	662.1	0.3747 mg/L		0.00594	3.747 mg/L	0.0594	1.59%
Sn 189.927†	-2.9	-0.00039 mg/L		0.000148	-0.00394 mg/L	0.001483	37.64%
Sr 421.552†	25112.6	0.02672 mg/L		0.000097	0.2672 mg/L	0.00097	0.36%
Ti 334.903†	232.6	0.01002 mg/L		0.001507	0.1002 mg/L	0.01507	15.04%
Tl 190.801†	1.8	0.00135 mg/L		0.000378	0.01351 mg/L	0.003779	27.98%
V 292.402†	578.4	0.00395 mg/L		0.000117	0.03951 mg/L	0.001171	2.96%
Zn 206.200†	25.2	0.00596 mg/L		0.000391	0.05959 mg/L	0.003909	6.56%



Sequence No.: 10  
 Sample ID: WE80 A SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 306  
 Date Collected: 2/28/2013 9:53:37 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 A SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: WE80 A SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3110907.2	101.5 %		0.47			0.47%
ScR 361.383	331377.0	101.7 %		0.90			0.89%
Ag 328.068†	8253.9	0.03655 mg/L		0.000258	0.07310 mg/L	0.000515	0.70%
Al 308.215†	45728.1	33.11 mg/L		0.107	66.22 mg/L	0.213	0.32%
As 188.979†	1761.0	1.010 mg/L		0.0088	2.020 mg/L	0.0175	0.87%
B 249.677†	14.2	0.00206 mg/L		0.001179	0.00413 mg/L	0.002357	57.14%
Ba 233.527†	1008.4	0.1681 mg/L		0.00181	0.3363 mg/L	0.00362	1.08%
Be 313.042†	388.9	0.00074 mg/L		0.000026	0.00148 mg/L	0.000052	3.53%
Ca 317.933†	98846.0	9.339 mg/L		0.0137	18.68 mg/L	0.027	0.15%
Cd 228.802†	169.1	0.00074 mg/L		0.000138	0.00148 mg/L	0.000276	18.67%
Co 228.616†	109.8	0.00246 mg/L		0.000087	0.00493 mg/L	0.000173	3.51%
Cr 267.716†	275.3	0.04192 mg/L		0.000322	0.08383 mg/L	0.000645	0.77%
Cu 324.752†	5671.0	0.02110 mg/L		0.000068	0.04220 mg/L	0.000136	0.32%
Fe 273.955†	35717.4	22.81 mg/L		0.073	45.62 mg/L	0.146	0.32%
K 766.490†	20771.8	12.51 mg/L		0.010	25.01 mg/L	0.020	0.08%
Mg 279.077†	6282.9	6.093 mg/L		0.0047	12.19 mg/L	0.009	0.08%
Mn 257.610†	5158.9	0.1047 mg/L		0.00017	0.2093 mg/L	0.00033	0.16%
Mo 202.031†	52.5	0.00223 mg/L		0.000187	0.00445 mg/L	0.000374	8.40%
Na 589.592†	3114.2	0.2484 mg/L		0.00213	0.4968 mg/L	0.00425	0.86%
Na 330.237†	2.0	0.07065 mg/L		0.090970	0.1413 mg/L	0.18194	128.76%
Ni 231.604†	25.0	0.00604 mg/L		0.000185	0.01209 mg/L	0.000369	3.06%
Pb 220.353†	286.5	0.03837 mg/L		0.000334	0.07674 mg/L	0.000667	0.87%
Sb 206.836†	38.2	0.01030 mg/L		0.001266	0.02060 mg/L	0.002533	12.30%
Se 196.026†	7.1	0.00028 mg/L		0.002332	0.00056 mg/L	0.004663	836.79%
Si 288.158†	3190.6	1.805 mg/L		0.0283	3.611 mg/L	0.0567	1.57%
Sn 189.927†	-17.3	-0.00260 mg/L		0.000108	-0.00519 mg/L	0.000215	4.15%
Sr 421.552†	123740.7	0.1316 mg/L		0.00035	0.2633 mg/L	0.00069	0.26%
Ti 334.903†	1089.4	0.04689 mg/L		0.000466	0.09379 mg/L	0.000931	0.99%
Tl 190.801†	2.9	0.00415 mg/L		0.001326	0.00829 mg/L	0.002653	32.00%
V 292.402†	2916.8	0.01995 mg/L		0.000243	0.03990 mg/L	0.000485	1.22%
Zn 206.200†	117.8	0.02789 mg/L		0.000810	0.05578 mg/L	0.001620	2.91%

Sequence No.: 11  
 Sample ID: WE80 ADUP SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 307  
 Date Collected: 2/28/2013 9:57:38 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 ADUP SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE80 ADUP SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3097287.4	101.0	%	0.18			0.18%
ScR 361.383	330190.7	101.3	%	0.43			0.42%
Ag 328.068†	8311.6	0.03681	mg/L	0.000463	0.07361 mg/L	0.000926	1.26%
Al 308.215†	54264.5	39.29	mg/L	0.115	78.59 mg/L	0.230	0.29%
As 188.979†	1718.7	0.9864	mg/L	0.00269	1.973 mg/L	0.0054	0.27%
B 249.677†	12.7	0.00185	mg/L	0.000683	0.00370 mg/L	0.001366	36.87%
Ba 233.527†	1100.8	0.1838	mg/L	0.00189	0.3676 mg/L	0.00378	1.03%
Be 313.042†	449.7	0.00085	mg/L	0.000011	0.00171 mg/L	0.000022	1.27%
Ca 317.933†	98717.3	9.327	mg/L	0.0209	18.65 mg/L	0.042	0.22%
Cd 228.802†	170.7	0.00093	mg/L	0.000141	0.00187 mg/L	0.000282	15.07%
Co 228.616†	128.2	0.00288	mg/L	0.000106	0.00575 mg/L	0.000212	3.68%
Cr 267.716†	206.3	0.03134	mg/L	0.001290	0.06267 mg/L	0.002581	4.12%
Cu 324.752†	5402.9	0.02017	mg/L	0.000233	0.04033 mg/L	0.000467	1.16%
Fe 273.955†	36264.9	23.16	mg/L	0.168	46.32 mg/L	0.335	0.72%
K 766.490†	25148.0	15.14	mg/L	0.086	30.28 mg/L	0.172	0.57%
Mg 279.077†	7277.1	7.059	mg/L	0.0079	14.12 mg/L	0.016	0.11%
Mn 257.610†	6154.1	0.1249	mg/L	0.00065	0.2497 mg/L	0.00129	0.52%
Mo 202.031†	50.3	0.00213	mg/L	0.000119	0.00426 mg/L	0.000238	5.60%
Na 589.592†	3601.4	0.2872	mg/L	0.00286	0.5745 mg/L	0.00571	0.99%
Na 330.237†	-0.5	-0.01162	mg/L	0.385317	-0.02323 mg/L	0.770633	>999.9%
Ni 231.604†	28.5	0.00689	mg/L	0.000416	0.01379 mg/L	0.000831	6.03%
Pb 220.353†	340.3	0.04575	mg/L	0.000872	0.09151 mg/L	0.001745	1.91%
Sb 206.836†	41.6	0.01142	mg/L	0.002890	0.02284 mg/L	0.005781	25.31%
Se 196.026†	7.3	-0.00030	mg/L	0.003456	-0.00060 mg/L	0.006912	>999.9%
Si 288.158†	3226.6	1.826	mg/L	0.0341	3.652 mg/L	0.0683	1.87%
Sn 189.927†	-16.1	-0.00236	mg/L	0.000439	-0.00471 mg/L	0.000878	18.63%
Sr 421.552†	127210.7	0.1353	mg/L	0.00060	0.2707 mg/L	0.00120	0.44%
Ti 334.903†	1308.6	0.05644	mg/L	0.001023	0.1129 mg/L	0.00205	1.81%
Tl 190.801†	-2.6	0.00186	mg/L	0.001617	0.00372 mg/L	0.003234	87.00%
V 292.402†	3545.0	0.02439	mg/L	0.000262	0.04878 mg/L	0.000525	1.08%
Zn 206.200†	142.8	0.03373	mg/L	0.000309	0.06745 mg/L	0.000618	0.92%

Sequence No.: 12  
 Sample ID: WE80 ASPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 308  
 Date Collected: 2/28/2013 10:01:39 AM  
 Data Type: Original

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 Nebulizer Parameters: WE80 ASPK SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min  
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Mean Data: WE80 ASPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3045231.0	99.31 %	%	0.367			0.37%
ScR 361.383	328063.8	100.6 %	%	0.50			0.50%
Ag 328.068†	131105.3	0.5798 mg/L	mg/L	0.00095	1.160 mg/L	0.0019	0.16%
Al 308.215†	60131.5	43.53 mg/L	mg/L	0.124	87.07 mg/L	0.248	0.28%
As 188.979†	5452.8	3.126 mg/L	mg/L	0.0156	6.252 mg/L	0.0313	0.50%
B 249.677†	29.9	0.00319 mg/L	mg/L	0.000937	0.00638 mg/L	0.001874	29.37%
Ba 233.527†	13123.6	2.228 mg/L	mg/L	0.0072	4.456 mg/L	0.0144	0.32%
Be 313.042†	257806.0	0.4937 mg/L	mg/L	0.00278	0.9873 mg/L	0.00555	0.56%
Ca 317.933†	203153.1	19.19 mg/L	mg/L	0.058	38.39 mg/L	0.116	0.30%
Cd 228.802†	14271.6	0.5216 mg/L	mg/L	0.00098	1.043 mg/L	0.0020	0.19%
Co 228.616†	21697.1	0.5066 mg/L	mg/L	0.00071	1.013 mg/L	0.0014	0.14%
Cr 267.716†	3530.2	0.5363 mg/L	mg/L	0.00094	1.073 mg/L	0.0019	0.17%
Cu 324.752†	154235.4	0.5458 mg/L	mg/L	0.00072	1.092 mg/L	0.0014	0.13%
Fe 273.955†	41005.7	26.19 mg/L	mg/L	0.054	52.37 mg/L	0.109	0.21%
K 766.490†	39758.6	23.94 mg/L	mg/L	0.062	47.88 mg/L	0.123	0.26%
Mg 279.077†	18240.5	17.71 mg/L	mg/L	0.006	35.43 mg/L	0.013	0.04%
Mn 257.610†	30064.9	0.6112 mg/L	mg/L	0.00134	1.222 mg/L	0.0027	0.22%
Mo 202.031†	82.8	0.00344 mg/L	mg/L	0.000249	0.00687 mg/L	0.000497	7.24%
Na 589.592†	128014.6	10.21 mg/L	mg/L	0.026	20.42 mg/L	0.052	0.25%
Na 330.237†	318.1	10.33 mg/L	mg/L	0.183	20.66 mg/L	0.367	1.78%
Ni 231.604†	2078.3	0.5018 mg/L	mg/L	0.00126	1.004 mg/L	0.0025	0.25%
Pb 220.353†	19481.6	2.090 mg/L	mg/L	0.0017	4.180 mg/L	0.0033	0.08%
Sb 206.836†	52.8	0.00937 mg/L	mg/L	0.002218	0.01873 mg/L	0.004436	23.68%
Se 196.026†	3533.1	2.046 mg/L	mg/L	0.0080	4.091 mg/L	0.0159	0.39%
Si 288.158†	3312.2	1.877 mg/L	mg/L	0.0056	3.754 mg/L	0.0112	0.30%
Sn 189.927†	-40.0	-0.00621 mg/L	mg/L	0.000575	-0.01242 mg/L	0.001150	9.26%
Sr 421.552†	595278.3	0.6333 mg/L	mg/L	0.00117	1.267 mg/L	0.0023	0.18%
Ti 334.903†	1233.2	0.05248 mg/L	mg/L	0.001333	0.1050 mg/L	0.00267	2.54%
Tl 190.801†	4721.3	2.014 mg/L	mg/L	0.0054	4.028 mg/L	0.0107	0.27%
V 292.402†	67534.7	0.4855 mg/L	mg/L	0.00086	0.9709 mg/L	0.00171	0.18%
Zn 206.200†	2214.6	0.5187 mg/L	mg/L	0.00102	1.037 mg/L	0.0020	0.20%

Sequence No.: 13  
Sample ID: ~~WE80 APOST SWC~~ ZZZZZZ  
Analyst: ALA  
Dilution: 2.000000X

Autosampler Location: 309  
Date Collected: 2/28/2013 10:05:41 AM  
Data Type: Original

Nebulizer Parameters: WE80 APOST SWC

Analyte Back Pressure Flow  
All 217.0 kPa 0.75 L/min

Mean Data: WE80 APOST SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3039214.3	99.12 %	0.765			0.77%
ScR 361.383	324925.3	99.67 %	0.519			0.52%
Ag 328.068+	128921.7	0.5701 mg/L	0.00213	1.140 mg/L	0.0043	0.37%
Al 308.215+	48749.0	35.29 mg/L	0.254	70.58 mg/L	0.508	0.72%
As 188.979+	5367.3	3.077 mg/L	0.0193	6.153 mg/L	0.0386	0.63%
B 249.677+	15.7	0.00111 mg/L	0.000832	0.00221 mg/L	0.001664	75.19%
Ba 233.527+	13097.2	2.224 mg/L	0.0226	4.448 mg/L	0.0453	1.02%
Be 313.042+	259734.3	0.4973 mg/L	0.00595	0.9947 mg/L	0.01191	1.20%
Ca 317.933+	203532.0	19.23 mg/L	0.046	38.46 mg/L	0.092	0.24%
Cd 228.802+	14247.8	0.5210 mg/L	0.00157	1.042 mg/L	0.0031	0.30%
Co 228.616+	21680.7	0.5062 mg/L	0.00244	1.012 mg/L	0.0049	0.48%
Cr 267.716+	3628.4	0.5513 mg/L	0.00228	1.103 mg/L	0.0046	0.41%
Cu 324.752+	154301.9	0.5460 mg/L	0.00431	1.092 mg/L	0.0086	0.79%
Fe 273.955+	38443.6	24.55 mg/L	0.083	49.10 mg/L	0.165	0.34%
K 766.490+	37220.3	22.41 mg/L	0.012	44.82 mg/L	0.024	0.05%
Mg 279.077+	17158.0	16.66 mg/L	0.081	33.33 mg/L	0.161	0.48%
Mn 257.610+	29015.4	0.5899 mg/L	0.00108	1.180 mg/L	0.0022	0.18%
Mo 202.031+	65.9	0.00268 mg/L	0.000181	0.00537 mg/L	0.000362	6.74%
Na 589.592+	128655.6	10.26 mg/L	0.048	20.52 mg/L	0.096	0.47%
Na 330.237+	322.8	10.48 mg/L	0.080	20.96 mg/L	0.160	0.76%
Ni 231.604+	2086.2	0.5037 mg/L	0.00153	1.007 mg/L	0.0031	0.30%
Pb 220.353+	19326.0	2.071 mg/L	0.0081	4.143 mg/L	0.0161	0.39%
Sb 206.836+	60.2	0.01143 mg/L	0.001427	0.02286 mg/L	0.002855	12.49%
Se 196.026+	3581.0	2.074 mg/L	0.0141	4.149 mg/L	0.0283	0.68%
Si 288.158+	3181.1	1.803 mg/L	0.0242	3.606 mg/L	0.0483	1.34%
Sn 189.927+	-37.1	-0.00564 mg/L	0.000724	-0.01128 mg/L	0.001447	12.83%
Sr 421.552+	593311.3	0.6312 mg/L	0.00317	1.262 mg/L	0.0063	0.50%
Ti 334.903+	1161.2	0.04934 mg/L	0.001497	0.09867 mg/L	0.002994	3.03%
Tl 190.801+	4770.0	2.035 mg/L	0.0135	4.069 mg/L	0.0270	0.66%
V 292.402+	74432.5	0.5351 mg/L	0.00126	1.070 mg/L	0.0025	0.23%
Zn 206.200+	2216.5	0.5192 mg/L	0.00173	1.038 mg/L	0.0035	0.33%

Sequence No.: 14  
 Sample ID: WE80 B SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 310  
 Date Collected: 2/28/2013 10:09:42 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 B SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE80 B SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3060079.7	99.80	%	0.136			0.14%
ScR 361.383	326142.8	100.0	%	0.77			0.77%
Ag 328.068†	15438.2	0.06829	mg/L	0.000525	0.1366 mg/L	0.00105	0.77%
Al 308.215†	43881.2	31.77	mg/L	0.246	63.55 mg/L	0.492	0.77%
As 188.979†	2115.2	1.217	mg/L	0.0078	2.435 mg/L	0.0155	0.64%
B 249.677†	1.7	0.00024	mg/L	0.000653	0.00049 mg/L	0.001306	268.87%
Ba 233.527†	6713.2	1.127	mg/L	0.0074	2.255 mg/L	0.0148	0.65%
Be 313.042†	456.1	0.00086	mg/L	0.000007	0.00173 mg/L	0.000013	0.78%
Ca 317.933†	67930.9	6.418	mg/L	0.0423	12.84 mg/L	0.085	0.66%
Cd 228.802†	230.9	0.00193	mg/L	0.000177	0.00386 mg/L	0.000353	9.15%
Co 228.616†	161.8	0.00338	mg/L	0.000325	0.00675 mg/L	0.000649	9.61%
Cr 267.716†	195.9	0.03232	mg/L	0.002266	0.06465 mg/L	0.004532	7.01%
Cu 324.752†	8656.2	0.03534	mg/L	0.000289	0.07067 mg/L	0.000578	0.82%
Fe 273.955†	153840.6	98.25	mg/L	0.055	196.5 mg/L	0.11	0.06%
K 766.490†	43157.5	25.98	mg/L	0.186	51.97 mg/L	0.373	0.72%
Mg 279.077†	4801.7	4.612	mg/L	0.0290	9.224 mg/L	0.0581	0.63%
Mn 257.610†	8110.7	0.1647	mg/L	0.00127	0.3294 mg/L	0.00254	0.77%
Mo 202.031†	15.3	0.00060	mg/L	0.000148	0.00121 mg/L	0.000295	24.45%
Na 589.592†	6726.1	0.5365	mg/L	0.00644	1.073 mg/L	0.0129	1.20%
Na 330.237†	2.6	0.1166	mg/L	0.15821	0.2333 mg/L	0.31643	135.65%
Ni 231.604†	14.3	0.00348	mg/L	0.000643	0.00695 mg/L	0.001287	18.50%
Pb 220.353†	1005.1	0.1106	mg/L	0.00061	0.2212 mg/L	0.00122	0.55%
Sb 206.836†	90.4	0.02535	mg/L	0.003415	0.05071 mg/L	0.006831	13.47%
Se 196.026†	26.6	0.01177	mg/L	0.001189	0.02354 mg/L	0.002378	10.10%
Si 288.158†	3432.2	1.942	mg/L	0.0156	3.884 mg/L	0.0312	0.80%
Sn 189.927†	-10.3	-0.00145	mg/L	0.000881	-0.00289 mg/L	0.001762	60.95%
Sr 421.552†	379512.7	0.4038	mg/L	0.00088	0.8075 mg/L	0.00177	0.22%
Ti 334.903†	3610.4	0.1569	mg/L	0.00598	0.3138 mg/L	0.01196	3.81%
Tl 190.801†	-21.2	0.00380	mg/L	0.001446	0.00761 mg/L	0.002893	38.02%
V 292.402†	5300.6	0.03315	mg/L	0.000197	0.06630 mg/L	0.000394	0.59%
Zn 206.200†	169.0	0.03987	mg/L	0.000475	0.07975 mg/L	0.000950	1.19%

Sequence No.: 15  
Sample ID: WE80 C SWC  
Analyst: ALA  
Dilution: 2.000000X

Autosampler Location: 311  
Date Collected: 2/28/2013 10:13:58 AM  
Data Type: Original

Nebulizer Parameters: WE80 C SWC  
Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: WE80 C SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3056141.0	99.67 %		0.073			0.07%
ScR 361.383	326742.3	100.2 %		0.10			0.10%
Ag 328.068†	10875.4	0.04821 mg/L		0.000177	0.09642 mg/L	0.000354	0.37%
Al 308.215†	76530.4	55.41 mg/L		0.044	110.8 mg/L	0.09	0.08%
As 188.979†	1069.6	0.6249 mg/L		0.00387	1.250 mg/L	0.0077	0.62%
B 249.677†	17.3	0.00248 mg/L		0.000990	0.00497 mg/L	0.001979	39.83%
Ba 233.527†	3347.3	0.5562 mg/L		0.00388	1.112 mg/L	0.0078	0.70%
Be 313.042†	969.6	0.00183 mg/L		0.000023	0.00366 mg/L	0.000046	1.25%
Ca 317.933†	178339.4	16.85 mg/L		0.051	33.70 mg/L	0.102	0.30%
Cd 228.802†	142.1	0.00194 mg/L		0.000123	0.00388 mg/L	0.000246	6.34%
Co 228.616†	778.4	0.01745 mg/L		0.000105	0.03489 mg/L	0.000210	0.60%
Cr 267.716†	274.4	0.04294 mg/L		0.000644	0.08588 mg/L	0.001288	1.50%
Cu 324.752†	14906.9	0.05687 mg/L		0.000173	0.1137 mg/L	0.00035	0.30%
Fe 273.955†	139715.2	89.23 mg/L		0.512	178.5 mg/L	1.02	0.57%
K 766.490†	31651.1	19.06 mg/L		0.122	38.11 mg/L	0.245	0.64%
Mg 279.077†	14197.7	13.75 mg/L		0.013	27.50 mg/L	0.025	0.09%
Mn 257.610†	40710.8	0.8271 mg/L		0.00368	1.654 mg/L	0.0074	0.44%
Mo 202.031†	54.8	0.00224 mg/L		0.000066	0.00448 mg/L	0.000131	2.92%
Na 589.592†	9944.9	0.7932 mg/L		0.00288	1.586 mg/L	0.0058	0.36%
Na 330.237†	12.7	0.4821 mg/L		0.25650	0.9642 mg/L	0.51300	53.20%
Ni 231.604†	83.9	0.02031 mg/L		0.000505	0.04062 mg/L	0.001009	2.49%
Pb 220.353†	971.4	0.1139 mg/L		0.00076	0.2278 mg/L	0.00153	0.67%
Sb 206.836†	98.1	0.02772 mg/L		0.002730	0.05544 mg/L	0.005459	9.85%
Se 196.026†	15.6	0.00261 mg/L		0.001327	0.00522 mg/L	0.002654	50.87%
Si 288.158†	3846.9	2.177 mg/L		0.0127	4.355 mg/L	0.0254	0.58%
Sn 189.927†	-32.8	-0.00492 mg/L		0.000991	-0.00985 mg/L	0.001983	20.14%
Sr 421.552†	233059.9	0.2480 mg/L		0.00004	0.4959 mg/L	0.00008	0.02%
Ti 334.903†	8814.7	0.3830 mg/L		0.00198	0.7660 mg/L	0.00396	0.52%
Tl 190.801†	-16.9	0.00418 mg/L		0.000284	0.00837 mg/L	0.000568	6.79%
V 292.402†	13056.3	0.08926 mg/L		0.000181	0.1785 mg/L	0.00036	0.20%
Zn 206.200†	615.8	0.1445 mg/L		0.00079	0.2889 mg/L	0.00157	0.54%

Sequence No.: 16  
 Sample ID: WE80 D SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 312  
 Date Collected: 2/28/2013 10:17:59 AM  
 Data Type: Original

Nebulizer Parameters: WE80 D SWC  
 Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

Mean Data: WE80 D SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3034072.4	98.95 %		0.186			0.19%
ScR 361.383	326277.9	100.1 %		0.14			0.14%
Ag 328.068†	14500.3	0.06424 mg/L		0.000242	0.1285 mg/L	0.00048	0.38%
Al 308.215†	59049.5	42.76 mg/L		0.086	85.51 mg/L	0.171	0.20%
As 188.979†	1463.3	0.8403 mg/L		0.00454	1.681 mg/L	0.0091	0.54%
B 249.677†	10.1	0.00145 mg/L		0.000828	0.00291 mg/L	0.001655	56.93%
Ba 233.527†	2180.6	0.3630 mg/L		0.00249	0.7261 mg/L	0.00497	0.69%
Be 313.042†	695.3	0.00132 mg/L		0.000038	0.00264 mg/L	0.000076	2.86%
Ca 317.933†	228326.9	21.57 mg/L		0.084	43.14 mg/L	0.169	0.39%
Cd 228.802†	159.3	0.00133 mg/L		0.000306	0.00265 mg/L	0.000612	23.06%
Co 228.616†	322.1	0.00731 mg/L		0.000022	0.01462 mg/L	0.000044	0.30%
Cr 267.716†	260.3	0.04018 mg/L		0.001248	0.08036 mg/L	0.002495	3.11%
Cu 324.752†	11646.2	0.04367 mg/L		0.000097	0.08734 mg/L	0.000193	0.22%
Fe 273.955†	83235.3	53.16 mg/L		0.220	106.3 mg/L	0.44	0.41%
K 766.490†	28819.8	17.35 mg/L		0.041	34.70 mg/L	0.082	0.24%
Mg 279.077†	8756.1	8.479 mg/L		0.0418	16.96 mg/L	0.084	0.49%
Mn 257.610†	16059.5	0.3261 mg/L		0.00104	0.6522 mg/L	0.00207	0.32%
Mo 202.031†	59.3	0.00239 mg/L		0.000144	0.00477 mg/L	0.000288	6.04%
Na 589.592†	5442.2	0.4341 mg/L		0.00085	0.8681 mg/L	0.00170	0.20%
Na 330.237†	1.2	0.04991 mg/L		0.151605	0.09983 mg/L	0.303209	303.73%
Ni 231.604†	51.6	0.01250 mg/L		0.000760	0.02500 mg/L	0.001521	6.08%
Pb 220.353†	217.1	0.03191 mg/L		0.001112	0.06383 mg/L	0.002224	3.48%
Sb 206.836†	71.1	0.01970 mg/L		0.002905	0.03940 mg/L	0.005809	14.74%
Se 196.026†	12.9	0.00254 mg/L		0.002392	0.00509 mg/L	0.004783	94.02%
Si 288.158†	2786.8	1.577 mg/L		0.0014	3.155 mg/L	0.0029	0.09%
Sn 189.927†	-36.1	-0.00523 mg/L		0.000914	-0.01047 mg/L	0.001829	17.47%
Sr 421.552†	172111.8	0.1831 mg/L		0.00033	0.3662 mg/L	0.00065	0.18%
Ti 334.903†	2287.0	0.09834 mg/L		0.000224	0.1967 mg/L	0.00045	0.23%
Tl 190.801†	-6.9	0.00388 mg/L		0.001360	0.00777 mg/L	0.002721	35.03%
V 292.402†	5863.5	0.03955 mg/L		0.000077	0.07911 mg/L	0.000154	0.19%
Zn 206.200†	256.1	0.06020 mg/L		0.000604	0.1204 mg/L	0.00121	1.00%

Sequence No.: 17  
 Sample ID: WE80 MB1SPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 313  
 Date Collected: 2/28/2013 10:22:00 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 MB1SPK SWC

Analyte Back Pressure Flow  
 All 217.0 kPa 0.75 L/min

## Mean Data: WE80 MB1SPK SWC

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
ScA 357.253	3078344.9		100.4 %	0.50			0.49%
ScR 361.383	327966.3		100.6 %	0.33			0.33%
Ag 328.068†	120355.8		0.5322 mg/L	0.00234	1.064 mg/L	0.0047	0.44%
Al 308.215†	2838.4		2.048 mg/L	0.0194	4.096 mg/L	0.0387	0.95%
As 188.979†	3553.7		2.036 mg/L	0.0079	4.072 mg/L	0.0159	0.39%
B 249.677†	4.9		-0.00045 mg/L	0.001457	-0.00091 mg/L	0.002914	321.43%
Ba 233.527†	12065.7		2.052 mg/L	0.0101	4.103 mg/L	0.0201	0.49%
Be 313.042†	251047.0		0.4807 mg/L	0.00309	0.9614 mg/L	0.00617	0.64%
Ca 317.933†	101198.5		9.561 mg/L	0.0250	19.12 mg/L	0.050	0.26%
Cd 228.802†	13849.5		0.5118 mg/L	0.00273	1.024 mg/L	0.0055	0.53%
Co 228.616†	21480.8		0.5016 mg/L	0.00291	1.003 mg/L	0.0058	0.58%
Cr 267.716†	3340.8		0.5075 mg/L	0.00318	1.015 mg/L	0.0064	0.63%
Cu 324.752†	143549.6		0.5070 mg/L	0.00360	1.014 mg/L	0.0072	0.71%
Fe 273.955†	3114.2		1.986 mg/L	0.0092	3.972 mg/L	0.0184	0.46%
K 766.490†	16143.2		9.719 mg/L	0.0088	19.44 mg/L	0.018	0.09%
Mg 279.077†	10400.6		10.11 mg/L	0.041	20.22 mg/L	0.083	0.41%
Mn 257.610†	24337.3		0.4950 mg/L	0.00201	0.9900 mg/L	0.00402	0.41%
Mo 202.031†	8.1		0.00022 mg/L	0.000151	0.00045 mg/L	0.000303	67.50%
Na 589.592†	124310.8		9.915 mg/L	0.0230	19.83 mg/L	0.046	0.23%
Na 330.237†	316.1		10.26 mg/L	0.154	20.51 mg/L	0.307	1.50%
Ni 231.604†	2048.8		0.4946 mg/L	0.00569	0.9892 mg/L	0.01139	1.15%
Pb 220.353†	18949.2		2.023 mg/L	0.0123	4.047 mg/L	0.0246	0.61%
Sb 206.836†	11.3		-0.00185 mg/L	0.002604	-0.00370 mg/L	0.005208	140.57%
Se 196.026†	3460.5		2.008 mg/L	0.0055	4.017 mg/L	0.0110	0.27%
Si 288.158†	-8.9		-0.00217 mg/L	0.005855	-0.00435 mg/L	0.011711	269.26%
Sn 189.927†	-20.9		-0.00330 mg/L	0.000903	-0.00659 mg/L	0.001807	27.41%
Sr 421.552†	463275.7		0.4929 mg/L	0.00066	0.9858 mg/L	0.00133	0.13%
Ti 334.903†	45.8		0.00133 mg/L	0.000376	0.00266 mg/L	0.000751	28.25%
Tl 190.801†	4771.4		2.032 mg/L	0.0124	4.065 mg/L	0.0248	0.61%
V 292.402†	71101.1		0.5121 mg/L	0.00208	1.024 mg/L	0.0042	0.41%
Zn 206.200†	2078.3		0.4865 mg/L	0.00090	0.9730 mg/L	0.00179	0.18%



Sequence No.: 18  
 Sample ID: CV-2  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/28/2013 10:26:01 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3045871.8	99.33 %	0.091			0.09%
ScR 361.383	322154.0	98.82 %	0.318			0.32%
Ag 328.068†	240152.4	1.062 mg/L	0.0049	1.062 mg/L	0.0049	0.46%
Al 308.215†	2847.6	2.027 mg/L	0.0083	2.027 mg/L	0.0083	0.41%
As 188.979†	3487.5	2.030 mg/L	0.0059	2.030 mg/L	0.0059	0.29%
B 249.677†	6912.6	1.010 mg/L	0.0041	1.010 mg/L	0.0041	0.41%
Ba 233.527†	6138.4	1.044 mg/L	0.0008	1.044 mg/L	0.0008	0.08%
Be 313.042†	508041.0	0.9728 mg/L	0.00537	0.9728 mg/L	0.00537	0.55%
Ca 317.933†	21642.0	2.045 mg/L	0.0123	2.045 mg/L	0.0123	0.60%
Cd 228.802†	27517.1	1.028 mg/L	0.0028	1.028 mg/L	0.0028	0.27%
Co 228.616†	43117.9	1.006 mg/L	0.0054	1.006 mg/L	0.0054	0.54%
Cr 267.716†	6755.1	1.028 mg/L	0.0062	1.028 mg/L	0.0062	0.61%
Cu 324.752†	293593.1	1.036 mg/L	0.0034	1.036 mg/L	0.0034	0.33%
Fe 273.955†	3191.5	2.032 mg/L	0.0157	2.032 mg/L	0.0157	0.77%
K 766.490†	33132.2	19.95 mg/L	0.040	19.95 mg/L	0.040	0.20%
Mg 279.077†	2100.4	2.048 mg/L	0.0121	2.048 mg/L	0.0121	0.59%
Mn 257.610†	47841.0	0.9727 mg/L	0.00311	0.9727 mg/L	0.00311	0.32%
Mo 202.031†	22285.5	0.9926 mg/L	0.00141	0.9926 mg/L	0.00141	0.14%
Na 589.592†	645574.6	51.49 mg/L	0.336	51.49 mg/L	0.336	0.65%
Na 330.237†	1607.9	52.87 mg/L	0.102	52.87 mg/L	0.102	0.19%
Ni 231.604†	4203.9	1.017 mg/L	0.0057	1.017 mg/L	0.0057	0.56%
Pb 220.353†	19395.5	2.071 mg/L	0.0043	2.071 mg/L	0.0043	0.21%
Sb 206.836†	7250.5	2.044 mg/L	0.0055	2.044 mg/L	0.0055	0.27%
Se 196.026†	3420.6	1.985 mg/L	0.0091	1.985 mg/L	0.0091	0.46%
Si 288.158†	3631.1	2.049 mg/L	0.0103	2.049 mg/L	0.0103	0.50%
Sn 189.927†	4942.6	0.9700 mg/L	0.00316	0.9700 mg/L	0.00316	0.33%
Sr 421.552†	945453.4	1.006 mg/L	0.0039	1.006 mg/L	0.0039	0.39%
Ti 334.903†	22959.2	0.9989 mg/L	0.00401	0.9989 mg/L	0.00401	0.40%
Tl 190.801†	4736.1	2.014 mg/L	0.0025	2.014 mg/L	0.0025	0.12%
V 292.402†	143384.6	1.033 mg/L	0.0032	1.033 mg/L	0.0032	0.31%
Zn 206.200†	4465.4	1.045 mg/L	0.0048	1.045 mg/L	0.0048	0.46%

Sequence No.: 19  
 Sample ID: CB ✓  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 2/28/2013 10:30:05 AM  
 Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3092229.4	100.8	%	0.37			0.37%
ScR 361.383	326761.8	100.2	%	0.58			0.58%
Ag 328.068†	-2.9	-0.00001	mg/L	0.000257	-0.00001 mg/L	0.000257	>999.9%
Al 308.215†	2.2	0.00158	mg/L	0.004203	0.00158 mg/L	0.004203	266.12%
As 188.979†	-0.1	-0.00002	mg/L	0.003304	-0.00002 mg/L	0.003304	>999.9%
B 249.677†	-1.7	-0.00025	mg/L	0.000192	-0.00025 mg/L	0.000192	77.56%
Ba 233.527†	-5.8	-0.00098	mg/L	0.000570	-0.00098 mg/L	0.000570	57.87%
Be 313.042†	21.0	0.00004	mg/L	0.000015	0.00004 mg/L	0.000015	36.65%
Ca 317.933†	-37.9	-0.00358	mg/L	0.001036	-0.00358 mg/L	0.001036	28.94%
Cd 228.802†	6.7	0.00025	mg/L	0.000116	0.00025 mg/L	0.000116	45.86%
Co 228.616†	-1.2	-0.00003	mg/L	0.000188	-0.00003 mg/L	0.000188	654.22%
Cr 267.716†	0.2	0.00003	mg/L	0.000332	0.00003 mg/L	0.000332	>999.9%
Cu 324.752†	87.1	0.00031	mg/L	0.000125	0.00031 mg/L	0.000125	40.71%
Fe 273.955†	4.2	0.00266	mg/L	0.001090	0.00266 mg/L	0.001090	40.92%
K 766.490†	27.3	0.01645	mg/L	0.010029	0.01645 mg/L	0.010029	60.97%
Mg 279.077†	-1.6	-0.00159	mg/L	0.007773	-0.00159 mg/L	0.007773	488.39%
Mn 257.610†	-4.4	-0.00009	mg/L	0.000076	-0.00009 mg/L	0.000076	84.97%
Mo 202.031†	28.8	0.00128	mg/L	0.000310	0.00128 mg/L	0.000310	24.20%
Na 589.592†	1.9	0.00016	mg/L	0.001801	0.00016 mg/L	0.001801	>999.9%
Na 330.237†	-7.9	-0.2582	mg/L	0.31020	-0.2582 mg/L	0.31020	120.13%
Ni 231.604†	1.1	0.00027	mg/L	0.000860	0.00027 mg/L	0.000860	322.25%
Pb 220.353†	5.7	0.00061	mg/L	0.001223	0.00061 mg/L	0.001223	201.63%
Sb 206.836†	12.3	0.00348	mg/L	0.001321	0.00348 mg/L	0.001321	37.91%
Se 196.026†	3.3	0.00193	mg/L	0.002015	0.00193 mg/L	0.002015	104.26%
Si 288.158†	1.0	0.00058	mg/L	0.003588	0.00058 mg/L	0.003588	613.50%
Sn 189.927†	3.8	0.00075	mg/L	0.000105	0.00075 mg/L	0.000105	13.97%
Sr 421.552†	-42.4	-0.00005	mg/L	0.000020	-0.00005 mg/L	0.000020	43.62%
Ti 334.903†	11.1	0.00048	mg/L	0.000032	0.00048 mg/L	0.000032	6.55%
Tl 190.801†	3.1	0.00133	mg/L	0.001722	0.00133 mg/L	0.001722	129.39%
V 292.402†	3.6	0.00003	mg/L	0.000148	0.00003 mg/L	0.000148	558.91%
Zn 206.200†	-0.7	-0.00017	mg/L	0.000394	-0.00017 mg/L	0.000394	226.58%

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Analysis Begun

Start Time: 2/28/2013 10:40:49 AM  
 Logged In Analyst: Metals  
 Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 2/28/2013 7:25:29 AM  
 Technique: ICP Continuous  
 Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\0228.sif

Batch ID:

Results Data Set: I2130228

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

=====  
 Sequence No.: 1

Sample ID: WE80 MB2 SWC

Analyst: ALA

Dilution: 2.000000X

Autosampler Location: 314

Date Collected: 2/28/2013 10:40:50 AM

Data Type: Original

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 Nebulizer Parameters: WE80 MB2 SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

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 Mean Data: WE80 MB2 SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
ScA 357.253	3120640.9	101.8	%	0.52			0.51%
ScR 361.383	334102.3	102.5	%	0.21			0.20%
Ag 328.068†	-15.7	-0.00007	mg/L	0.000268	-0.00014 mg/L	0.000537	387.91%
Al 308.215†	22.8	0.01654	mg/L	0.004556	0.03307 mg/L	0.009112	27.55%
As 188.979†	-1.5	-0.00079	mg/L	0.001610	-0.00159 mg/L	0.003220	202.69%
B 249.677†	-5.9	-0.00087	mg/L	0.000407	-0.00174 mg/L	0.000813	46.74%
Ba 233.527†	-4.1	-0.00070	mg/L	0.000800	-0.00141 mg/L	0.001600	113.58%
Be 313.042†	-11.0	-0.00002	mg/L	0.000018	-0.00004 mg/L	0.000036	85.11%
Ca 317.933†	264.1	0.02495	mg/L	0.000196	0.04990 mg/L	0.000392	0.79%
Cd 228.802†	5.2	0.00020	mg/L	0.000120	0.00040 mg/L	0.000239	59.16%
Co 228.616†	-1.1	-0.00003	mg/L	0.000066	-0.00006 mg/L	0.000132	238.10%
Cr 267.716†	8.7	0.00133	mg/L	0.000415	0.00265 mg/L	0.000829	31.25%
Cu 324.752†	69.0	0.00024	mg/L	0.000128	0.00049 mg/L	0.000257	52.74%
Fe 273.955†	4.2	0.00271	mg/L	0.001765	0.00541 mg/L	0.003530	65.21%
K 766.490†	42.0	0.02528	mg/L	0.012055	0.05057 mg/L	0.024109	47.68%
Mg 279.077†	4.7	0.00457	mg/L	0.003503	0.00914 mg/L	0.007006	76.67%
Mn 257.610†	-6.1	-0.00012	mg/L	0.000018	-0.00025 mg/L	0.000036	14.34%
Mo 202.031†	-14.3	-0.00064	mg/L	0.000207	-0.00128 mg/L	0.000415	32.45%
Na 589.592†	71.4	0.00569	mg/L	0.000668	0.01139 mg/L	0.001336	11.73%
Na 330.237†	-1.1	-0.03625	mg/L	0.421404	-0.07251 mg/L	0.842809	>999.9%
Ni 231.604†	2.0	0.00048	mg/L	0.000837	0.00096 mg/L	0.001675	173.69%
Pb 220.353†	0.6	0.00007	mg/L	0.000229	0.00015 mg/L	0.000459	307.35%
Sb 206.836†	-6.8	-0.00193	mg/L	0.000224	-0.00386 mg/L	0.000447	11.60%
Se 196.026†	-2.5	-0.00146	mg/L	0.001698	-0.00292 mg/L	0.003395	116.43%
Si 288.158†	0.5	0.00028	mg/L	0.002160	0.00055 mg/L	0.004320	782.69%
Sn 189.927†	-0.8	-0.00015	mg/L	0.000467	-0.00030 mg/L	0.000934	311.01%
Sr 421.552†	-56.5	-0.00006	mg/L	0.000020	-0.00012 mg/L	0.000041	33.83%
Ti 334.903†	27.3	0.00119	mg/L	0.000531	0.00237 mg/L	0.001062	44.75%
Tl 190.801†	1.6	0.00069	mg/L	0.001989	0.00139 mg/L	0.003979	286.67%
V 292.402†	7.2	0.00006	mg/L	0.000228	0.00011 mg/L	0.000455	406.00%
Zn 206.200†	19.7	0.00461	mg/L	0.000273	0.00923 mg/L	0.000547	5.92%

Sequence No.: 2  
Sample ID: WE80 E SWC  
Analyst: ALA  
Dilution: 2.000000X

Autosampler Location: 315  
Date Collected: 2/28/2013 10:45:07 AM  
Data Type: Original

Nebulizer Parameters: WE80 E SWC  
Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: WE80 E SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3116650.2	101.6 %		0.37			0.36%
ScR 361.383	334586.5	102.6 %		0.35			0.34%
Ag 328.068†	20509.1	0.09068 mg/L		0.000962	0.1814 mg/L	0.00192	1.06%
Al 308.215†	36929.4	26.74 mg/L		0.136	53.48 mg/L	0.271	0.51%
As 188.979†	1621.2	0.9305 mg/L		0.00114	1.861 mg/L	0.0023	0.12%
B 249.677†	25.0	0.00364 mg/L		0.000369	0.00729 mg/L	0.000738	10.12%
Ba 233.527†	1101.5	0.1828 mg/L		0.00075	0.3656 mg/L	0.00151	0.41%
Be 313.042†	426.6	0.00081 mg/L		0.000000	0.00162 mg/L	0.000001	0.04%
Ca 317.933†	41009.0	3.875 mg/L		0.0227	7.749 mg/L	0.0455	0.59%
Cd 228.802†	164.5	0.00101 mg/L		0.000150	0.00203 mg/L	0.000301	14.85%
Co 228.616†	89.1	0.00198 mg/L		0.000094	0.00397 mg/L	0.000188	4.74%
Cr 267.716†	139.6	0.02184 mg/L		0.000617	0.04368 mg/L	0.001235	2.83%
Cu 324.752†	5061.5	0.01937 mg/L		0.000249	0.03873 mg/L	0.000498	1.29%
Fe 273.955†	48453.2	30.94 mg/L		0.119	61.89 mg/L	0.238	0.38%
K 766.490†	31644.1	19.05 mg/L		0.218	38.10 mg/L	0.436	1.14%
Mg 279.077†	3451.6	3.337 mg/L		0.0288	6.675 mg/L	0.0576	0.86%
Mn 257.610†	4638.8	0.09415 mg/L		0.000239	0.1883 mg/L	0.00048	0.25%
Mo 202.031†	21.2	0.00090 mg/L		0.000129	0.00179 mg/L	0.000259	14.44%
Na 589.592†	2048.6	0.1634 mg/L		0.00199	0.3268 mg/L	0.00399	1.22%
Na 330.237†	1.8	0.06382 mg/L		0.488795	0.1276 mg/L	0.97759	765.90%
Ni 231.604†	18.6	0.00452 mg/L		0.001609	0.00904 mg/L	0.003219	35.62%
Pb 220.353†	582.0	0.06772 mg/L		0.000731	0.1354 mg/L	0.00146	1.08%
Sb 206.836†	166.7	0.04686 mg/L		0.001091	0.09371 mg/L	0.002182	2.33%
Se 196.026†	24.3	0.01105 mg/L		0.001793	0.02210 mg/L	0.003586	16.23%
Si 288.158†	2241.5	1.268 mg/L		0.0076	2.536 mg/L	0.0152	0.60%
Sn 189.927†	-0.2	0.00031 mg/L		0.000820	0.00062 mg/L	0.001640	263.74%
Sr 421.552†	50478.1	0.05370 mg/L		0.000369	0.1074 mg/L	0.00074	0.69%
Ti 334.903†	997.5	0.04322 mg/L		0.001010	0.08644 mg/L	0.002020	2.34%
Tl 190.801†	0.3	0.00415 mg/L		0.000632	0.00831 mg/L	0.001264	15.22%
V 292.402†	2572.5	0.01698 mg/L		0.000073	0.03396 mg/L	0.000146	0.43%
Zn 206.200†	120.2	0.02835 mg/L		0.000465	0.05671 mg/L	0.000931	1.64%

Sequence No.: 3  
 Sample ID: WE80 F SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 316  
 Date Collected: 2/28/2013 10:49:22 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 F SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE80 F SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3104891.4	101.3 %		0.38			0.38%
ScR 361.383	332229.7	101.9 %		0.48			0.47%
Ag 328.068†	32653.4	0.1444 mg/L		0.00122	0.2887 mg/L	0.00243	0.84%
Al 308.215†	34715.0	25.14 mg/L		0.221	50.27 mg/L	0.442	0.88%
As 188.979†	2808.4	1.612 mg/L		0.0035	3.223 mg/L	0.0070	0.22%
B 249.677†	1.4	0.00020 mg/L		0.000651	0.00040 mg/L	0.001301	323.73%
Ba 233.527†	2934.0	0.4837 mg/L		0.00250	0.9673 mg/L	0.00500	0.52%
Be 313.042†	324.0	0.00061 mg/L		0.000039	0.00123 mg/L	0.000078	6.32%
Ca 317.933†	43813.2	4.139 mg/L		0.0447	8.279 mg/L	0.0895	1.08%
Cd 228.802†	285.1	0.00176 mg/L		0.000094	0.00351 mg/L	0.000189	5.38%
Co 228.616†	128.1	0.00283 mg/L		0.000261	0.00566 mg/L	0.000522	9.22%
Cr 267.716†	104.2	0.01869 mg/L		0.001009	0.03738 mg/L	0.002017	5.40%
Cu 324.752†	5994.0	0.02626 mg/L		0.000399	0.05252 mg/L	0.000797	1.52%
Fe 273.955†	163345.5	104.3 mg/L		0.61	208.6 mg/L	1.22	0.59%
K 766.490†	49815.1	29.99 mg/L		0.240	59.98 mg/L	0.479	0.80%
Mg 279.077†	3677.2	3.516 mg/L		0.0361	7.032 mg/L	0.0723	1.03%
Mn 257.610†	4728.2	0.09598 mg/L		0.000876	0.1920 mg/L	0.00175	0.91%
Mo 202.031†	31.3	0.00134 mg/L		0.000276	0.00269 mg/L	0.000553	20.58%
Na 589.592†	11538.6	0.9203 mg/L		0.00849	1.841 mg/L	0.0170	0.92%
Na 330.237†	19.2	0.6411 mg/L		0.05185	1.282 mg/L	0.1037	8.09%
Ni 231.604†	26.6	0.00644 mg/L		0.000834	0.01289 mg/L	0.001669	12.95%
Pb 220.353†	968.5	0.1046 mg/L		0.00115	0.2092 mg/L	0.00230	1.10%
Sb 206.836†	101.6	0.02860 mg/L		0.001519	0.05719 mg/L	0.003038	5.31%
Se 196.026†	25.8	0.01206 mg/L		0.002207	0.02412 mg/L	0.004413	18.30%
Si 288.158†	2785.2	1.576 mg/L		0.0207	3.151 mg/L	0.0414	1.32%
Sn 189.927†	-6.8	-0.00096 mg/L		0.000026	-0.00192 mg/L	0.000052	2.70%
Sr 421.552†	128226.6	0.1364 mg/L		0.00118	0.2728 mg/L	0.00236	0.87%
Ti 334.903†	1375.2	0.05966 mg/L		0.001192	0.1193 mg/L	0.00238	2.00%
Tl 190.801†	-17.9	0.00608 mg/L		0.001832	0.01217 mg/L	0.003665	30.11%
V 292.402†	3738.7	0.02163 mg/L		0.000054	0.04326 mg/L	0.000109	0.25%
Zn 206.200†	126.0	0.02976 mg/L		0.000421	0.05953 mg/L	0.000842	1.41%

Sequence No.: 4  
 Sample ID: WE80 G SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 317  
 Date Collected: 2/28/2013 10:53:23 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 G SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE80 G SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3097642.8	101.0 %	0.19			0.19%
ScR 361.383	331925.9	101.8 %	0.63			0.62%
Ag 328.068†	31007.4	0.1371 mg/L	0.00145	0.2742 mg/L	0.00291	1.06%
Al 308.215†	54359.7	39.36 mg/L	0.194	78.72 mg/L	0.388	0.49%
As 188.979†	3213.2	1.842 mg/L	0.0080	3.685 mg/L	0.0160	0.43%
B 249.677†	17.8	0.00260 mg/L	0.000290	0.00521 mg/L	0.000581	11.15%
Ba 233.527†	1139.2	0.1895 mg/L	0.00089	0.3791 mg/L	0.00178	0.47%
Be 313.042†	372.7	0.00071 mg/L	0.000030	0.00141 mg/L	0.000059	4.20%
Ca 317.933†	93821.2	8.864 mg/L	0.0428	17.73 mg/L	0.086	0.48%
Cd 228.802†	305.7	0.00123 mg/L	0.000272	0.00246 mg/L	0.000544	22.07%
Co 228.616†	99.6	0.00225 mg/L	0.000134	0.00450 mg/L	0.000268	5.96%
Cr 267.716†	158.2	0.02429 mg/L	0.000127	0.04859 mg/L	0.000254	0.52%
Cu 324.752†	8035.5	0.02974 mg/L	0.000225	0.05949 mg/L	0.000449	0.76%
Fe 273.955†	44930.5	28.69 mg/L	0.091	57.39 mg/L	0.182	0.32%
K 766.490†	30572.2	18.41 mg/L	0.150	36.81 mg/L	0.300	0.81%
Mg 279.077†	6077.0	5.890 mg/L	0.0288	11.78 mg/L	0.058	0.49%
Mn 257.610†	5550.1	0.1126 mg/L	0.00027	0.2252 mg/L	0.00054	0.24%
Mo 202.031†	54.8	0.00234 mg/L	0.000110	0.00467 mg/L	0.000219	4.69%
Na 589.592†	4323.8	0.3449 mg/L	0.00051	0.6897 mg/L	0.00102	0.15%
Na 330.237†	2.4	0.07812 mg/L	0.230685	0.1562 mg/L	0.46137	295.29%
Ni 231.604†	14.0	0.00342 mg/L	0.000792	0.00683 mg/L	0.001583	23.18%
Pb 220.353†	368.8	0.04849 mg/L	0.000242	0.09698 mg/L	0.000483	0.50%
Sb 206.836†	227.0	0.06382 mg/L	0.001030	0.1276 mg/L	0.00206	1.61%
Se 196.026†	21.8	0.00811 mg/L	0.001332	0.01622 mg/L	0.002664	16.42%
Si 288.158†	3474.8	1.966 mg/L	0.0104	3.932 mg/L	0.0207	0.53%
Sn 189.927†	-15.2	-0.00220 mg/L	0.000362	-0.00441 mg/L	0.000725	16.43%
Sr 421.552†	106457.8	0.1133 mg/L	0.00051	0.2265 mg/L	0.00102	0.45%
Ti 334.903†	747.7	0.03204 mg/L	0.000480	0.06408 mg/L	0.000960	1.50%
Tl 190.801†	2.9	0.00495 mg/L	0.002563	0.00991 mg/L	0.005125	51.72%
V 292.402†	3561.1	0.02421 mg/L	0.000177	0.04841 mg/L	0.000355	0.73%
Zn 206.200†	125.5	0.02971 mg/L	0.001329	0.05942 mg/L	0.002658	4.47%

Sequence No.: 5  
 Sample ID: WE80 H SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 318  
 Date Collected: 2/28/2013 10:57:24 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 H SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE80 H SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3065629.2	99.98 %		0.124			0.12%
ScR 361.383	330996.8	101.5 %		0.31			0.30%
Ag 328.068†	14154.4	0.06278 mg/L		0.000176	0.1256 mg/L	0.00035	0.28%
Al 308.215†	57849.7	41.89 mg/L		0.222	83.78 mg/L	0.445	0.53%
As 188.979†	2122.4	1.218 mg/L		0.0029	2.436 mg/L	0.0058	0.24%
B 249.677†	16.3	0.00236 mg/L		0.000392	0.00472 mg/L	0.000784	16.63%
Ba 233.527†	4928.2	0.8321 mg/L		0.00630	1.664 mg/L	0.0126	0.76%
Be 313.042†	742.0	0.00141 mg/L		0.000026	0.00282 mg/L	0.000051	1.82%
Ca 317.933†	324341.1	30.64 mg/L		0.116	61.29 mg/L	0.232	0.38%
Cd 228.802†	216.3	0.00136 mg/L		0.000296	0.00273 mg/L	0.000591	21.70%
Co 228.616†	434.8	0.00986 mg/L		0.000222	0.01972 mg/L	0.000443	2.25%
Cr 267.716†	425.2	0.06478 mg/L		0.000448	0.1296 mg/L	0.00090	0.69%
Cu 324.752†	11635.0	0.04303 mg/L		0.000230	0.08606 mg/L	0.000460	0.53%
Fe 273.955†	64193.5	41.00 mg/L		0.130	81.99 mg/L	0.261	0.32%
K 766.490†	26348.6	15.86 mg/L		0.141	31.73 mg/L	0.283	0.89%
Mg 279.077†	8717.9	8.448 mg/L		0.0467	16.90 mg/L	0.093	0.55%
Mn 257.610†	22399.8	0.4550 mg/L		0.00088	0.9099 mg/L	0.00176	0.19%
Mo 202.031†	66.8	0.00261 mg/L		0.000249	0.00522 mg/L	0.000498	9.54%
Na 589.592†	4257.0	0.3395 mg/L		0.00435	0.6791 mg/L	0.00870	1.28%
Na 330.237†	0.8	0.03498 mg/L		0.143023	0.06996 mg/L	0.286046	408.87%
Ni 231.604†	45.1	0.01093 mg/L		0.000406	0.02186 mg/L	0.000811	3.71%
Pb 220.353†	134.0	0.02351 mg/L		0.000746	0.04703 mg/L	0.001493	3.17%
Sb 206.836†	81.9	0.02245 mg/L		0.001494	0.04490 mg/L	0.002988	6.65%
Se 196.026†	22.6	0.00827 mg/L		0.002989	0.01653 mg/L	0.005979	36.16%
Si 288.158†	2567.4	1.453 mg/L		0.0019	2.906 mg/L	0.0039	0.13%
Sn 189.927†	-44.1	-0.00604 mg/L		0.000734	-0.01209 mg/L	0.001468	12.15%
Sr 421.552†	201793.4	0.2147 mg/L		0.00115	0.4294 mg/L	0.00230	0.54%
Ti 334.903†	2669.1	0.1144 mg/L		0.00066	0.2289 mg/L	0.00132	0.58%
Tl 190.801†	-2.3	0.00421 mg/L		0.002078	0.00842 mg/L	0.004155	49.36%
V 292.402†	7058.6	0.04886 mg/L		0.000155	0.09771 mg/L	0.000311	0.32%
Zn 206.200†	344.8	0.08094 mg/L		0.000648	0.1619 mg/L	0.00130	0.80%

Sequence No.: 6  
 Sample ID: WE80 I SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 319  
 Date Collected: 2/28/2013 11:01:25 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 I SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE80 I SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3058789.2	99.75 %		0.309			0.31%
ScR 361.383	324684.1	99.60 %		0.626			0.63%
Ag 328.068†	3370.1	0.01545 mg/L		0.000127	0.03089 mg/L	0.000253	0.82%
Al 308.215†	206272.6	149.4 mg/L		1.80	298.7 mg/L	3.59	1.20%
As 188.979†	1801.0	1.049 mg/L		0.0053	2.098 mg/L	0.0105	0.50%
B 249.677†	-28.8	-0.00433 mg/L		0.000972	-0.00866 mg/L	0.001945	22.46%
Ba 233.527†	7903.0	1.315 mg/L		0.0043	2.630 mg/L	0.0085	0.32%
Be 313.042†	2348.0	0.00443 mg/L		0.000040	0.00887 mg/L	0.000080	0.90%
Ca 317.933†	774914.2	73.21 mg/L		0.306	146.4 mg/L	0.61	0.42%
Cd 228.802†	234.5	0.00310 mg/L		0.000125	0.00620 mg/L	0.000249	4.03%
Co 228.616†	2208.4	0.05025 mg/L		0.000252	0.1005 mg/L	0.00050	0.50%
Cr 267.716†	445.1	0.06865 mg/L		0.000626	0.1373 mg/L	0.00125	0.91%
Cu 324.752†	18008.5	0.07288 mg/L		0.000080	0.1458 mg/L	0.00016	0.11%
Fe 273.955†	307507.2	196.4 mg/L		1.55	392.8 mg/L	3.11	0.79%
K 766.490†	40560.5	24.42 mg/L		0.197	48.84 mg/L	0.393	0.81%
Mg 279.077†	44025.2	42.68 mg/L		0.500	85.35 mg/L	1.000	1.17%
Mn 257.610†	113802.9	2.312 mg/L		0.0274	4.624 mg/L	0.0549	1.19%
Mo 202.031†	125.6	0.00473 mg/L		0.000244	0.00946 mg/L	0.000488	5.16%
Na 589.592†	77273.3	6.163 mg/L		0.0659	12.33 mg/L	0.132	1.07%
Na 330.237†	180.5	6.008 mg/L		0.2037	12.02 mg/L	0.407	3.39%
Ni 231.604†	206.6	0.04998 mg/L		0.001539	0.09996 mg/L	0.003077	3.08%
Pb 220.353†	239.8	0.05554 mg/L		0.001125	0.1111 mg/L	0.00225	2.03%
Sb 206.836†	46.5	0.01353 mg/L		0.001541	0.02706 mg/L	0.003081	11.39%
Se 196.026†	15.3	-0.00848 mg/L		0.002094	-0.01696 mg/L	0.004187	24.70%
Si 288.158†	2804.4	1.591 mg/L		0.0133	3.182 mg/L	0.0265	0.83%
Sn 189.927†	-74.7	-0.00838 mg/L		0.001038	-0.01676 mg/L	0.002075	12.38%
Sr 421.552†	1053455.5	1.121 mg/L		0.0044	2.242 mg/L	0.0087	0.39%
Ti 334.903†	15547.1	0.6729 mg/L		0.00853	1.346 mg/L	0.0171	1.27%
Tl 190.801†	-36.0	0.00949 mg/L		0.001443	0.01898 mg/L	0.002886	15.21%
V 292.402†	33688.3	0.2320 mg/L		0.00085	0.4641 mg/L	0.00169	0.36%
Zn 206.200†	1708.8	0.4001 mg/L		0.00372	0.8003 mg/L	0.00745	0.93%



Sequence No.: 7  
 Sample ID: WE80 J SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 320  
 Date Collected: 2/28/2013 11:05:42 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 J SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE80 J SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3031263.3	98.86 %		0.491			0.50%
ScR 361.383	323652.8	99.28 %		0.262			0.26%
Ag 328.068†	3396.7	0.01565 mg/L		0.000074	0.03130 mg/L	0.000149	0.48%
Al 308.215†	202603.3	146.7 mg/L		0.32	293.4 mg/L	0.65	0.22%
As 188.979†	1509.3	0.8838 mg/L		0.00412	1.768 mg/L	0.0082	0.47%
B 249.677†	-18.5	-0.00282 mg/L		0.000481	-0.00563 mg/L	0.000961	17.06%
Ba 233.527†	7573.8	1.262 mg/L		0.0031	2.524 mg/L	0.0062	0.25%
Be 313.042†	2231.3	0.00421 mg/L		0.000013	0.00842 mg/L	0.000027	0.32%
Ca 317.933†	922945.9	87.20 mg/L		0.488	174.4 mg/L	0.98	0.56%
Cd 228.802†	203.6	0.00286 mg/L		0.000072	0.00573 mg/L	0.000144	2.52%
Co 228.616†	2017.8	0.04565 mg/L		0.000261	0.09130 mg/L	0.000522	0.57%
Cr 267.716†	422.1	0.06460 mg/L		0.000882	0.1292 mg/L	0.00176	1.37%
Cu 324.752†	16683.8	0.06730 mg/L		0.000324	0.1346 mg/L	0.00065	0.48%
Fe 273.955†	278714.9	178.0 mg/L		1.06	356.0 mg/L	2.12	0.60%
K 766.490†	38201.0	23.00 mg/L		0.130	46.00 mg/L	0.260	0.56%
Mg 279.077†	41960.3	40.68 mg/L		0.112	81.35 mg/L	0.224	0.28%
Mn 257.610†	110186.4	2.238 mg/L		0.0075	4.477 mg/L	0.0149	0.33%
Mo 202.031†	134.3	0.00495 mg/L		0.000249	0.00991 mg/L	0.000497	5.02%
Na 589.592†	72739.1	5.802 mg/L		0.0195	11.60 mg/L	0.039	0.34%
Na 330.237†	167.6	5.619 mg/L		0.1011	11.24 mg/L	0.202	1.80%
Ni 231.604†	192.2	0.04651 mg/L		0.001152	0.09301 mg/L	0.002305	2.48%
Pb 220.353†	190.6	0.05056 mg/L		0.000771	0.1011 mg/L	0.00154	1.52%
Sb 206.836†	46.6	0.01362 mg/L		0.001526	0.02724 mg/L	0.003051	11.20%
Se 196.026†	20.8	-0.00496 mg/L		0.002344	-0.00993 mg/L	0.004687	47.23%
Si 288.158†	3387.7	1.921 mg/L		0.0043	3.842 mg/L	0.0085	0.22%
Sn 189.927†	-83.7	-0.00895 mg/L		0.001803	-0.01789 mg/L	0.003606	20.15%
Sr 421.552†	906851.3	0.9648 mg/L		0.00231	1.930 mg/L	0.0046	0.24%
Ti 334.903†	17627.7	0.7627 mg/L		0.00093	1.525 mg/L	0.0019	0.12%
Tl 190.801†	-27.9	0.01058 mg/L		0.001983	0.02117 mg/L	0.003966	18.73%
V 292.402†	31980.9	0.2206 mg/L		0.00136	0.4413 mg/L	0.00272	0.62%
Zn 206.200†	1586.1	0.3715 mg/L		0.00020	0.7429 mg/L	0.00040	0.05%

Sequence No.: 8  
 Sample ID: WE80 K SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 321  
 Date Collected: 2/28/2013 11:09:59 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 K SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE80 K SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3074447.0	100.3	%	0.32			0.32%
ScR 361.383	328957.2	100.9	%	0.38			0.38%
Ag 328.068†	10179.2	0.04524	mg/L	0.000011	0.09048 mg/L	0.000021	0.02%
Al 308.215†	148043.6	107.2	mg/L	0.46	214.4 mg/L	0.92	0.43%
As 188.979†	1162.5	0.7162	mg/L	0.00367	1.432 mg/L	0.0073	0.51%
B 249.677†	-3.4	-0.00064	mg/L	0.000985	-0.00128 mg/L	0.001969	153.67%
Ba 233.527†	6169.6	1.028	mg/L	0.0036	2.055 mg/L	0.0072	0.35%
Be 313.042†	1543.8	0.00289	mg/L	0.000030	0.00577 mg/L	0.000060	1.05%
Ca 317.933†	285736.5	27.00	mg/L	0.059	53.99 mg/L	0.119	0.22%
Cd 228.802†	178.6	0.00305	mg/L	0.000128	0.00611 mg/L	0.000256	4.20%
Co 228.616†	2652.2	0.05919	mg/L	0.000246	0.1184 mg/L	0.00049	0.42%
Cr 267.716†	675.6	0.1044	mg/L	0.00263	0.2088 mg/L	0.00525	2.51%
Cu 324.752†	25925.2	0.09832	mg/L	0.000363	0.1966 mg/L	0.00073	0.37%
Fe 273.955†	229423.8	146.5	mg/L	0.63	293.0 mg/L	1.26	0.43%
K 766.490†	41593.0	25.04	mg/L	0.097	50.08 mg/L	0.194	0.39%
Mg 279.077†	26196.2	25.38	mg/L	0.092	50.76 mg/L	0.185	0.36%
Mn 257.610†	132213.4	2.687	mg/L	0.0081	5.373 mg/L	0.0163	0.30%
Mo 202.031†	87.4	0.00357	mg/L	0.000056	0.00714 mg/L	0.000113	1.58%
Na 589.592†	26697.4	2.129	mg/L	0.0088	4.259 mg/L	0.0175	0.41%
Na 330.237†	44.9	1.810	mg/L	0.3371	3.619 mg/L	0.6742	18.63%
Ni 231.604†	288.5	0.06979	mg/L	0.000829	0.1396 mg/L	0.00166	1.19%
Pb 220.353†	576.9	0.08281	mg/L	0.000431	0.1656 mg/L	0.00086	0.52%
Sb 206.836†	49.0	0.01438	mg/L	0.003275	0.02876 mg/L	0.006551	22.78%
Se 196.026†	9.4	-0.00702	mg/L	0.003287	-0.01404 mg/L	0.006575	46.84%
Si 288.158†	4883.1	2.765	mg/L	0.0210	5.530 mg/L	0.0420	0.76%
Sn 189.927†	-44.2	-0.00610	mg/L	0.001041	-0.01220 mg/L	0.002082	17.06%
Sr 421.552†	541936.3	0.5766	mg/L	0.00156	1.153 mg/L	0.0031	0.27%
Ti 334.903†	34705.9	1.510	mg/L	0.0064	3.021 mg/L	0.0128	0.42%
Tl 190.801†	-32.1	0.00451	mg/L	0.004418	0.00902 mg/L	0.008836	97.95%
V 292.402†	32275.3	0.2241	mg/L	0.00058	0.4483 mg/L	0.00116	0.26%
Zn 206.200†	1283.8	0.3009	mg/L	0.00266	0.6018 mg/L	0.00532	0.88%

Sequence No.: 9  
 Sample ID: WE80 L SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 322  
 Date Collected: 2/28/2013 11:14:01 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 L SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE80 L SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3079261.1	100.4	%	0.65			0.65%
ScR 361.383	328775.9	100.9	%	0.72			0.71%
Ag 328.068†	5713.3	0.02561	mg/L	0.000126	0.05123	0.000251	0.49%
Al 308.215†	177226.1	128.3	mg/L	0.80	256.6	1.61	0.63%
As 188.979†	651.7	0.4401	mg/L	0.00168	0.8802	0.00336	0.38%
B 249.677†	10.2	0.00132	mg/L	0.001471	0.00265	0.002942	111.02%
Ba 233.527†	6635.0	1.101	mg/L	0.0125	2.202	0.0250	1.13%
Be 313.042†	2040.1	0.00382	mg/L	0.000020	0.00764	0.000040	0.52%
Ca 317.933†	439051.3	41.48	mg/L	0.128	82.96	0.256	0.31%
Cd 228.802†	153.7	0.00377	mg/L	0.000176	0.00754	0.000352	4.67%
Co 228.616†	2933.5	0.06483	mg/L	0.000200	0.1297	0.00040	0.31%
Cr 267.716†	840.5	0.1294	mg/L	0.00121	0.2587	0.00242	0.94%
Cu 324.752†	29896.9	0.1142	mg/L	0.00093	0.2283	0.00185	0.81%
Fe 273.955†	292153.2	186.6	mg/L	0.65	373.2	1.31	0.35%
K 766.490†	45428.1	27.35	mg/L	0.255	54.70	0.510	0.93%
Mg 279.077†	37488.3	36.33	mg/L	0.245	72.66	0.490	0.67%
Mn 257.610†	209747.8	4.262	mg/L	0.0073	8.525	0.0146	0.17%
Mo 202.031†	98.4	0.00389	mg/L	0.000146	0.00778	0.000292	3.75%
Na 589.592†	24393.2	1.946	mg/L	0.0089	3.891	0.0179	0.46%
Na 330.237†	40.5	1.770	mg/L	0.1149	3.540	0.2298	6.49%
Ni 231.604†	376.5	0.09107	mg/L	0.002482	0.1821	0.00496	2.72%
Pb 220.353†	531.3	0.08154	mg/L	0.000567	0.1631	0.00113	0.69%
Sb 206.836†	47.0	0.01408	mg/L	0.001000	0.02817	0.001999	7.10%
Se 196.026†	16.2	-0.00553	mg/L	0.003477	-0.01106	0.006953	62.88%
Si 288.158†	4227.4	2.395	mg/L	0.0127	4.790	0.0254	0.53%
Sn 189.927†	-57.4	-0.00739	mg/L	0.000795	-0.01478	0.001590	10.76%
Sr 421.552†	554237.3	0.5897	mg/L	0.00313	1.179	0.0063	0.53%
Ti 334.903†	46684.3	2.031	mg/L	0.0077	4.063	0.0154	0.38%
Tl 190.801†	-43.7	0.00460	mg/L	0.001919	0.00921	0.003838	41.67%
V 292.402†	40071.9	0.2781	mg/L	0.00269	0.5562	0.00537	0.97%
Zn 206.200†	1857.5	0.4351	mg/L	0.00294	0.8701	0.00588	0.68%

Sequence No.: 10  
 Sample ID: WE80 MB2SPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 323  
 Date Collected: 2/28/2013 11:18:03 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 MB2SPK SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE80 MB2SPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3075960.6	100.3 %	0.08			0.08%
ScR 361.383	328056.1	100.6 %	0.77			0.77%
Ag 328.068†	120691.5	0.5337 mg/L	0.00067	1.067 mg/L	0.0013	0.12%
Al 308.215†	2837.6	2.047 mg/L	0.0147	4.095 mg/L	0.0295	0.72%
As 188.979†	3564.4	2.042 mg/L	0.0019	4.085 mg/L	0.0037	0.09%
B 249.677†	-1.3	-0.00137 mg/L	0.000700	-0.00273 mg/L	0.001399	51.18%
Ba 233.527†	12266.2	2.086 mg/L	0.0134	4.172 mg/L	0.0267	0.64%
Be 313.042†	254733.4	0.4878 mg/L	0.00406	0.9755 mg/L	0.00812	0.83%
Ca 317.933†	102772.5	9.710 mg/L	0.0251	19.42 mg/L	0.050	0.26%
Cd 228.802†	13895.6	0.5135 mg/L	0.00422	1.027 mg/L	0.0084	0.82%
Co 228.616†	21631.3	0.5051 mg/L	0.00109	1.010 mg/L	0.0022	0.22%
Cr 267.716†	3383.2	0.5140 mg/L	0.00340	1.028 mg/L	0.0068	0.66%
Cu 324.752†	144118.3	0.5090 mg/L	0.00058	1.018 mg/L	0.0012	0.11%
Fe 273.955†	3133.8	1.999 mg/L	0.0105	3.997 mg/L	0.0211	0.53%
K 766.490†	16154.4	9.726 mg/L	0.0704	19.45 mg/L	0.141	0.72%
Mg 279.077†	10527.6	10.23 mg/L	0.048	20.46 mg/L	0.096	0.47%
Mn 257.610†	24499.4	0.4983 mg/L	0.00291	0.9966 mg/L	0.00581	0.58%
Mo 202.031†	15.4	0.00054 mg/L	0.000313	0.00109 mg/L	0.000626	57.56%
Na 589.592†	124398.1	9.922 mg/L	0.0351	19.84 mg/L	0.070	0.35%
Na 330.237†	314.2	10.19 mg/L	0.196	20.38 mg/L	0.391	1.92%
Ni 231.604†	2088.7	0.5043 mg/L	0.00152	1.009 mg/L	0.0030	0.30%
Pb 220.353†	19109.5	2.040 mg/L	0.0108	4.081 mg/L	0.0216	0.53%
Sb 206.836†	10.3	-0.00222 mg/L	0.001545	-0.00444 mg/L	0.003090	69.65%
Se 196.026†	3473.5	2.016 mg/L	0.0040	4.032 mg/L	0.0079	0.20%
Si 288.158†	2.5	0.00430 mg/L	0.001338	0.00861 mg/L	0.002677	31.09%
Sn 189.927†	-22.1	-0.00351 mg/L	0.001057	-0.00703 mg/L	0.002114	30.08%
Sr 421.552†	464873.3	0.4946 mg/L	0.00267	0.9892 mg/L	0.00534	0.54%
Ti 334.903†	50.9	0.00154 mg/L	0.000408	0.00308 mg/L	0.000817	26.52%
Tl 190.801†	4795.5	2.043 mg/L	0.0074	4.085 mg/L	0.0148	0.36%
V 292.402†	71219.5	0.5130 mg/L	0.00089	1.026 mg/L	0.0018	0.17%
Zn 206.200†	2125.9	0.4977 mg/L	0.00318	0.9953 mg/L	0.00636	0.64%

Sequence No.: 11  
 Sample ID: CV 3  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/28/2013 11:22:04 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3049273.4	99.44 %		0.408			0.41%
ScR 361.383	321138.0	98.51 %		0.114			0.12%
Ag 328.068†	241295.7	1.067 mg/L		0.0072	1.067 mg/L	0.0072	0.67%
Al 308.215†	2855.9	2.033 mg/L		0.0093	2.033 mg/L	0.0093	0.46%
As 188.979†	3509.6	2.043 mg/L		0.0033	2.043 mg/L	0.0033	0.16%
B 249.677†	6932.1	1.013 mg/L		0.0071	1.013 mg/L	0.0071	0.70%
Ba 233.527†	6165.8	1.048 mg/L		0.0035	1.048 mg/L	0.0035	0.34%
Be 313.042†	508268.5	0.9732 mg/L		0.00681	0.9732 mg/L	0.00681	0.70%
Ca 317.933†	21734.2	2.053 mg/L		0.0084	2.053 mg/L	0.0084	0.41%
Cd 228.802†	27444.9	1.026 mg/L		0.0086	1.026 mg/L	0.0086	0.84%
Co 228.616†	43343.5	1.011 mg/L		0.0047	1.011 mg/L	0.0047	0.47%
Cr 267.716†	6767.9	1.030 mg/L		0.0058	1.030 mg/L	0.0058	0.56%
Cu 324.752†	294100.0	1.038 mg/L		0.0048	1.038 mg/L	0.0048	0.46%
Fe 273.955†	3189.5	2.031 mg/L		0.0174	2.031 mg/L	0.0174	0.85%
K 766.490†	33550.2	20.20 mg/L		0.127	20.20 mg/L	0.127	0.63%
Mg 279.077†	2109.5	2.057 mg/L		0.0094	2.057 mg/L	0.0094	0.46%
Mn 257.610†	47641.2	0.9687 mg/L		0.00030	0.9687 mg/L	0.00030	0.03%
Mo 202.031†	22365.1	0.9962 mg/L		0.00196	0.9962 mg/L	0.00196	0.20%
Na 589.592†	647329.9	51.63 mg/L		0.105	51.63 mg/L	0.105	0.20%
Na 330.237†	1615.2	53.11 mg/L		0.225	53.11 mg/L	0.225	0.42%
Ni 231.604†	4220.2	1.021 mg/L		0.0037	1.021 mg/L	0.0037	0.37%
Pb 220.353†	19488.4	2.081 mg/L		0.0038	2.081 mg/L	0.0038	0.18%
Sb 206.836†	7284.2	2.053 mg/L		0.0049	2.053 mg/L	0.0049	0.24%
Se 196.026†	3436.5	1.994 mg/L		0.0067	1.994 mg/L	0.0067	0.34%
Si 288.158†	3644.0	2.056 mg/L		0.0229	2.056 mg/L	0.0229	1.11%
Sn 189.927†	4939.3	0.9693 mg/L		0.00181	0.9693 mg/L	0.00181	0.19%
Sr 421.552†	947957.2	1.009 mg/L		0.0034	1.009 mg/L	0.0034	0.34%
Ti 334.903†	23024.8	1.002 mg/L		0.0030	1.002 mg/L	0.0030	0.30%
Tl 190.801†	4780.3	2.033 mg/L		0.0092	2.033 mg/L	0.0092	0.45%
V 292.402†	144060.8	1.038 mg/L		0.0065	1.038 mg/L	0.0065	0.62%
Zn 206.200†	4479.3	1.049 mg/L		0.0031	1.049 mg/L	0.0031	0.29%

Sequence No.: 12  
Sample ID: CB  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 1  
Date Collected: 2/28/2013 11:26:08 AM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	3067820.1	100.0	%	0.45				0.45%
ScR 361.383	326524.1	100.2	%	0.37				0.37%
Ag 328.068†	23.3	0.00010	mg/L	0.000131	0.00010	mg/L	0.000131	127.02%
Al 308.215†	9.5	0.00689	mg/L	0.006440	0.00689	mg/L	0.006440	93.43%
As 188.979†	0.7	0.00045	mg/L	0.002422	0.00045	mg/L	0.002422	539.14%
B 249.677†	-0.4	-0.00005	mg/L	0.000482	-0.00005	mg/L	0.000482	919.35%
Ba 233.527†	-0.9	-0.00016	mg/L	0.000194	-0.00016	mg/L	0.000194	120.47%
Be 313.042†	-9.5	-0.00002	mg/L	0.000012	-0.00002	mg/L	0.000012	66.32%
Ca 317.933†	-40.3	-0.00381	mg/L	0.000827	-0.00381	mg/L	0.000827	21.69%
Cd 228.802†	8.5	0.00032	mg/L	0.000113	0.00032	mg/L	0.000113	35.21%
Co 228.616†	-1.2	-0.00003	mg/L	0.000145	-0.00003	mg/L	0.000145	505.88%
Cr 267.716†	2.7	0.00041	mg/L	0.000192	0.00041	mg/L	0.000192	47.36%
Cu 324.752†	120.5	0.00043	mg/L	0.000150	0.00043	mg/L	0.000150	35.21%
Fe 273.955†	6.4	0.00407	mg/L	0.000363	0.00407	mg/L	0.000363	8.93%
K 766.490†	15.7	0.00945	mg/L	0.025702	0.00945	mg/L	0.025702	272.11%
Mg 279.077†	-0.5	-0.00047	mg/L	0.005349	-0.00047	mg/L	0.005349	>999.9%
Mn 257.610†	2.0	0.00004	mg/L	0.000051	0.00004	mg/L	0.000051	124.24%
Mo 202.031†	22.3	0.00099	mg/L	0.000325	0.00099	mg/L	0.000325	32.73%
Na 589.592†	-6.4	-0.00051	mg/L	0.004985	-0.00051	mg/L	0.004985	976.20%
Na 330.237†	-10.5	-0.3445	mg/L	0.44318	-0.3445	mg/L	0.44318	128.66%
Ni 231.604†	5.4	0.00131	mg/L	0.001006	0.00131	mg/L	0.001006	76.90%
Pb 220.353†	11.0	0.00117	mg/L	0.000677	0.00117	mg/L	0.000677	57.68%
Sb 206.836†	11.4	0.00323	mg/L	0.001520	0.00323	mg/L	0.001520	47.08%
Se 196.026†	2.3	0.00133	mg/L	0.001349	0.00133	mg/L	0.001349	101.22%
Si 288.158†	0.2	0.00010	mg/L	0.001642	0.00010	mg/L	0.001642	>999.9%
Sn 189.927†	1.6	0.00032	mg/L	0.000223	0.00032	mg/L	0.000223	68.86%
Sr 421.552†	-21.1	-0.00002	mg/L	0.000024	-0.00002	mg/L	0.000024	107.35%
Ti 334.903†	17.4	0.00076	mg/L	0.000666	0.00076	mg/L	0.000666	88.21%
Tl 190.801†	1.4	0.00060	mg/L	0.002637	0.00060	mg/L	0.002637	437.23%
V 292.402†	5.3	0.00004	mg/L	0.000069	0.00004	mg/L	0.000069	175.82%
Zn 206.200†	-1.7	-0.00040	mg/L	0.000419	-0.00040	mg/L	0.000419	104.35%

Sequence No.: 13  
 Sample ID: WE80 M SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 324  
 Date Collected: 2/28/2013 11:30:24 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 M SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE80 M SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3063443.2	99.91	%	0.370			0.37%
ScR 361.383	330653.0	101.4	%	0.96			0.95%
Ag 328.068†	1352.0	0.00639	mg/L	0.000183	0.01277 mg/L	0.000366	2.87%
Al 308.215†	229527.5	166.2	mg/L	0.92	332.4 mg/L	1.85	0.56%
As 188.979†	252.6	0.2556	mg/L	0.00287	0.5112 mg/L	0.00574	1.12%
B 249.677†	60.0	0.00859	mg/L	0.000650	0.01717 mg/L	0.001299	7.57%
Ba 233.527†	10690.0	1.791	mg/L	0.0174	3.582 mg/L	0.0348	0.97%
Be 313.042†	2065.1	0.00384	mg/L	0.000067	0.00768 mg/L	0.000134	1.74%
Ca 317.933†	494891.1	46.76	mg/L	0.301	93.51 mg/L	0.601	0.64%
Cd 228.802†	134.1	0.00432	mg/L	0.000192	0.00864 mg/L	0.000385	4.46%
Co 228.616†	3257.6	0.07005	mg/L	0.000528	0.1401 mg/L	0.00106	0.75%
Cr 267.716†	1030.9	0.1579	mg/L	0.00243	0.3158 mg/L	0.00486	1.54%
Cu 324.752†	34939.0	0.1316	mg/L	0.00086	0.2632 mg/L	0.00172	0.65%
Fe 273.955†	290179.8	185.3	mg/L	2.29	370.6 mg/L	4.58	1.24%
K 766.490†	61902.8	37.27	mg/L	0.254	74.54 mg/L	0.508	0.68%
Mg 279.077†	41172.7	39.91	mg/L	0.333	79.82 mg/L	0.666	0.83%
Mn 257.610†	217757.4	4.425	mg/L	0.0377	8.850 mg/L	0.0753	0.85%
Mo 202.031†	104.5	0.00410	mg/L	0.000324	0.00819 mg/L	0.000649	7.91%
Na 589.592†	33919.9	2.705	mg/L	0.0071	5.411 mg/L	0.0142	0.26%
Na 330.237†	55.9	2.618	mg/L	0.2255	5.237 mg/L	0.4509	8.61%
Ni 231.604†	434.1	0.1050	mg/L	0.00133	0.2100 mg/L	0.00266	1.27%
Pb 220.353†	395.6	0.07741	mg/L	0.000069	0.1548 mg/L	0.00014	0.09%
Sb 206.836†	28.0	0.00947	mg/L	0.000627	0.01895 mg/L	0.001255	6.62%
Se 196.026†	21.5	-0.00687	mg/L	0.004924	-0.01374 mg/L	0.009849	71.67%
Si 288.158†	3539.5	2.007	mg/L	0.0158	4.013 mg/L	0.0315	0.79%
Sn 189.927†	-62.4	-0.00769	mg/L	0.000400	-0.01538 mg/L	0.000800	5.20%
Sr 421.552†	943632.2	1.004	mg/L	0.0049	2.008 mg/L	0.0099	0.49%
Ti 334.903†	76365.4	3.324	mg/L	0.0184	6.648 mg/L	0.0369	0.55%
Tl 190.801†	-41.7	0.00504	mg/L	0.001302	0.01007 mg/L	0.002604	25.85%
V 292.402†	46786.6	0.3257	mg/L	0.00143	0.6515 mg/L	0.00286	0.44%
Zn 206.200†	2136.2	0.5002	mg/L	0.00582	1.000 mg/L	0.0116	1.16%

Sequence No.: 14  
 Sample ID: WE80 N SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 325  
 Date Collected: 2/28/2013 11:34:28 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 N SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE80 N SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	3077902.8	100.4	%	0.72				0.72%
ScR 361.383	330388.5	101.3	%	0.57				0.56%
Ag 328.068†	4554.5	0.02024	mg/L	0.000110	0.04049	mg/L	0.000220	0.54%
Al 308.215†	98800.9	71.53	mg/L	0.216	143.1	mg/L	0.43	0.30%
As 188.979†	1443.4	1.030	mg/L	0.0086	2.060	mg/L	0.0172	0.83%
B 249.677†	-42.3	-0.00629	mg/L	0.000786	-0.01257	mg/L	0.001573	12.51%
Ba 233.527†	2481.7	0.3890	mg/L	0.00138	0.7779	mg/L	0.00277	0.36%
Be 313.042†	1318.3	0.00242	mg/L	0.000019	0.00484	mg/L	0.000039	0.80%
Ca 317.933†	83015.4	7.843	mg/L	0.0401	15.69	mg/L	0.080	0.51%
Cd 228.802†	248.6	0.00476	mg/L	0.000070	0.00951	mg/L	0.000139	1.46%
Co 228.616†	1910.0	0.03425	mg/L	0.000221	0.06851	mg/L	0.000443	0.65%
Cr 267.716†	308.4	0.05026	mg/L	0.000807	0.1005	mg/L	0.00161	1.61%
Cu 324.752†	26940.7	0.1049	mg/L	0.00093	0.2097	mg/L	0.00185	0.88%
Fe 273.955†	352327.2	225.0	mg/L	1.39	450.0	mg/L	2.79	0.62%
K 766.490†	17655.5	10.63	mg/L	0.029	21.26	mg/L	0.057	0.27%
Mg 279.077†	36969.1	35.81	mg/L	0.184	71.62	mg/L	0.369	0.51%
Mn 257.610†	72478.1	1.473	mg/L	0.0097	2.946	mg/L	0.0194	0.66%
Mo 202.031†	1.5	-0.00003	mg/L	0.000114	-0.00005	mg/L	0.000228	437.08%
Na 589.592†	11758.1	0.9378	mg/L	0.00291	1.876	mg/L	0.0058	0.31%
Na 330.237†	-21.4	0.8418	mg/L	0.36438	1.684	mg/L	0.7288	43.28%
Ni 231.604†	92.2	0.02232	mg/L	0.000929	0.04465	mg/L	0.001858	4.16%
Pb 220.353†	1024.2	0.1166	mg/L	0.00067	0.2331	mg/L	0.00134	0.57%
Sb 206.836†	34.5	0.01430	mg/L	0.001063	0.02859	mg/L	0.002126	7.43%
Se 196.026†	16.2	0.00104	mg/L	0.002484	0.00209	mg/L	0.004968	237.77%
Si 288.158†	2592.5	1.470	mg/L	0.0071	2.941	mg/L	0.0142	0.48%
Sn 189.927†	-22.7	-0.00269	mg/L	0.001372	-0.00537	mg/L	0.002744	51.11%
Sr 421.552†	361089.6	0.3842	mg/L	0.00116	0.7683	mg/L	0.00232	0.30%
Ti 334.903†	134856.2	5.875	mg/L	0.0269	11.75	mg/L	0.054	0.46%
Tl 190.801†	-65.6	0.00085	mg/L	0.001947	0.00171	mg/L	0.003895	228.18%
V 292.402†	27152.2	0.1805	mg/L	0.00152	0.3610	mg/L	0.00304	0.84%
Zn 206.200†	1315.0	0.3080	mg/L	0.00226	0.6159	mg/L	0.00451	0.73%



Sequence No.: 15  
 Sample ID: WE80 O SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 326  
 Date Collected: 2/28/2013 11:38:30 AM  
 Data Type: Original

*DL*

## Nebulizer Parameters: WE80 O SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE80 O SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3073717.1	100.2 %		0.47			0.47%
ScR 361.383	330115.9	101.3 %		0.68			0.67%
Ag 328.068†	31151.3	0.1378 mg/L		0.00154	0.2756 mg/L	0.00308	1.12%
Al 308.215†	96011.6	69.51 mg/L		0.352	139.0 mg/L	0.70	0.51%
As 188.979†	2413.7	1.567 mg/L		0.0063	3.134 mg/L	0.0126	0.40%
B 249.677†	-56.7	-0.00841 mg/L		0.001347	-0.01682 mg/L	0.002695	16.02%
Ba 233.527†	2981.2	0.4675 mg/L		0.00621	0.9351 mg/L	0.01243	1.33%
Be 313.042†	1298.8	0.00239 mg/L		0.000054	0.00477 mg/L	0.000107	2.25%
Ca 317.933†	87593.6	8.276 mg/L		0.0595	16.55 mg/L	0.119	0.72%
Cd 228.802†	343.9	0.00524 mg/L		0.000176	0.01048 mg/L	0.000351	3.35%
Co 228.616†	2131.3	0.04041 mg/L		0.000196	0.08082 mg/L	0.000392	0.48%
Cr 267.716†	359.8	0.05917 mg/L		0.002184	0.1183 mg/L	0.00437	3.69%
Cu 324.752†	72136.4	0.2667 mg/L		0.00158	0.5333 mg/L	0.00315	0.59%
Fe 273.955†	420251.8	268.4 mg/L		2.53	536.8 mg/L	5.06	0.94%
K 766.490†	21120.8	12.72 mg/L		0.110	25.43 mg/L	0.220	0.86%
Mg 279.077†	39550.2	38.29 mg/L		0.316	76.59 mg/L	0.631	0.82%
Mn 257.610†	82945.7	1.686 mg/L		0.0114	3.371 mg/L	0.0227	0.67%
Mo 202.031†	-3.2	-0.00024 mg/L		0.000090	-0.00049 mg/L	0.000179	36.77%
Na 589.592†	19130.4	1.526 mg/L		0.0061	3.052 mg/L	0.0123	0.40%
Na 330.237†	-3.2	1.294 mg/L		0.0812	2.588 mg/L	0.1624	6.28%
Ni 231.604†	98.4	0.02382 mg/L		0.000695	0.04763 mg/L	0.001391	2.92%
Pb 220.353†	2027.4	0.2206 mg/L		0.00149	0.4412 mg/L	0.00298	0.67%
Sb 206.836†	39.5	0.01518 mg/L		0.001508	0.03036 mg/L	0.003016	9.94%
Se 196.026†	21.0	0.00408 mg/L		0.004016	0.00816 mg/L	0.008032	98.46%
Si 288.158†	3388.0	1.921 mg/L		0.0136	3.841 mg/L	0.0271	0.71%
Sn 189.927†	-18.9	-0.00201 mg/L		0.000876	-0.00402 mg/L	0.001751	43.58%
Sr 421.552†	589630.6	0.6273 mg/L		0.00274	1.255 mg/L	0.0055	0.44%
Ti 334.903†	121895.5	5.310 mg/L		0.0310	10.62 mg/L	0.062	0.58%
Tl 190.801†	-76.1	0.00207 mg/L		0.002005	0.00414 mg/L	0.004011	96.78%
V 292.402†	27520.7	0.1814 mg/L		0.00068	0.3628 mg/L	0.00136	0.38%
Zn 206.200†	1173.6	0.2750 mg/L		0.00404	0.5499 mg/L	0.00807	1.47%

Sequence No.: 16  
 Sample ID: WE80 P SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 327  
 Date Collected: 2/28/2013 11:42:32 AM  
 Data Type: Original

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 Nebulizer Parameters: WE80 P SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

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 Mean Data: WE80 P SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3085232.9	100.6 %		0.15			0.14%
ScR 361.383	329991.1	101.2 %		0.51			0.51%
Ag 328.068†	3159.4	0.01414 mg/L		0.000113	0.02828 mg/L	0.000227	0.80%
Al 308.215†	125469.8	90.84 mg/L		0.091	181.7 mg/L	0.18	0.10%
As 188.979†	2459.5	1.628 mg/L		0.0072	3.257 mg/L	0.0145	0.45%
B 249.677†	-95.1	-0.01405 mg/L		0.003240	-0.02811 mg/L	0.006480	23.05%
Ba 233.527†	4238.4	0.6798 mg/L		0.00687	1.360 mg/L	0.0137	1.01%
Be 313.042†	1400.6	0.00257 mg/L		0.000015	0.00514 mg/L	0.000030	0.58%
Ca 317.933†	176871.5	16.71 mg/L		0.043	33.42 mg/L	0.086	0.26%
Cd 228.802†	354.9	0.00552 mg/L		0.000083	0.01104 mg/L	0.000166	1.51%
Co 228.616†	2449.9	0.04600 mg/L		0.000268	0.09199 mg/L	0.000535	0.58%
Cr 267.716†	462.8	0.07494 mg/L		0.001465	0.1499 mg/L	0.00293	1.95%
Cu 324.752†	28065.6	0.1114 mg/L		0.00013	0.2227 mg/L	0.00027	0.12%
Fe 273.955†	436817.3	279.0 mg/L		0.97	557.9 mg/L	1.94	0.35%
K 766.490†	22840.5	13.75 mg/L		0.029	27.50 mg/L	0.058	0.21%
Mg 279.077†	40818.7	39.52 mg/L		0.091	79.04 mg/L	0.181	0.23%
Mn 257.610†	94399.8	1.918 mg/L		0.0070	3.836 mg/L	0.0140	0.37%
Mo 202.031†	30.5	0.00116 mg/L		0.000140	0.00232 mg/L	0.000279	12.05%
Na 589.592†	19726.5	1.573 mg/L		0.0011	3.147 mg/L	0.0021	0.07%
Na 330.237†	-9.6	1.360 mg/L		0.1825	2.721 mg/L	0.3650	13.42%
Ni 231.604†	148.1	0.03584 mg/L		0.000959	0.07169 mg/L	0.001918	2.68%
Pb 220.353†	958.1	0.1119 mg/L		0.00176	0.2238 mg/L	0.00352	1.57%
Sb 206.836†	51.1	0.01909 mg/L		0.001674	0.03817 mg/L	0.003347	8.77%
Se 196.026†	10.0	-0.00476 mg/L		0.005595	-0.00953 mg/L	0.011190	117.42%
Si 288.158†	3148.4	1.785 mg/L		0.0085	3.571 mg/L	0.0169	0.47%
Sn 189.927†	-32.9	-0.00386 mg/L		0.002143	-0.00771 mg/L	0.004286	55.55%
Sr 421.552†	498051.9	0.5299 mg/L		0.00087	1.060 mg/L	0.0017	0.16%
Ti 334.903†	145791.2	6.350 mg/L		0.0102	12.70 mg/L	0.020	0.16%
Tl 190.801†	-65.4	0.00796 mg/L		0.001097	0.01593 mg/L	0.002194	13.78%
V 292.402†	29604.1	0.1953 mg/L		0.00061	0.3906 mg/L	0.00122	0.31%
Zn 206.200†	1353.3	0.3170 mg/L		0.00322	0.6339 mg/L	0.00644	1.02%

Sequence No.: 17  
 Sample ID: WE80 Q SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 328  
 Date Collected: 2/28/2013 11:46:34 AM  
 Data Type: Original

## Nebulizer Parameters: WE80 Q SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE80 Q SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3084665.9	100.6 %	0.18			0.18%
ScR 361.383	329802.9	101.2 %	0.51			0.50%
Ag 328.068†	3076.2	0.01378 mg/L	0.000326	0.02755 mg/L	0.000652	2.37%
Al 308.215†	109173.8	79.04 mg/L	0.049	158.1 mg/L	0.10	0.06%
As 188.979†	690.9	0.5982 mg/L	0.00235	1.196 mg/L	0.0047	0.39%
B 249.677†	-17.7	-0.00271 mg/L	0.001942	-0.00542 mg/L	0.003883	71.62%
Ba 233.527†	3274.0	0.5306 mg/L	0.00330	1.061 mg/L	0.0066	0.62%
Be 313.042†	1131.7	0.00206 mg/L	0.000024	0.00412 mg/L	0.000048	1.17%
Ca 317.933†	186225.1	17.59 mg/L	0.050	35.19 mg/L	0.099	0.28%
Cd 228.802†	164.6	0.00401 mg/L	0.000037	0.00803 mg/L	0.000073	0.91%
Co 228.616†	2263.4	0.04248 mg/L	0.000261	0.08495 mg/L	0.000522	0.61%
Cr 267.716†	465.5	0.07231 mg/L	0.001413	0.1446 mg/L	0.00283	1.95%
Cu 324.752†	32405.5	0.1218 mg/L	0.00050	0.2436 mg/L	0.00100	0.41%
Fe 273.955†	278627.0	177.9 mg/L	0.29	355.9 mg/L	0.58	0.16%
K 766.490†	19886.8	11.97 mg/L	0.078	23.95 mg/L	0.155	0.65%
Mg 279.077†	39875.2	38.66 mg/L	0.048	77.32 mg/L	0.096	0.12%
Mn 257.610†	87001.0	1.768 mg/L	0.0037	3.536 mg/L	0.0074	0.21%
Mo 202.031†	34.0	0.00130 mg/L	0.000168	0.00261 mg/L	0.000336	12.90%
Na 589.592†	9884.2	0.7883 mg/L	0.00598	1.577 mg/L	0.0120	0.76%
Na 330.237†	-26.6	0.6813 mg/L	0.14307	1.363 mg/L	0.2861	21.00%
Ni 231.604†	171.2	0.04142 mg/L	0.000200	0.08285 mg/L	0.000401	0.48%
Pb 220.353†	856.3	0.1032 mg/L	0.00087	0.2065 mg/L	0.00173	0.84%
Sb 206.836†	17.8	0.00930 mg/L	0.002204	0.01860 mg/L	0.004407	23.69%
Se 196.026†	14.2	-0.00098 mg/L	0.001316	-0.00196 mg/L	0.002632	134.29%
Si 288.158†	2975.9	1.688 mg/L	0.0075	3.375 mg/L	0.0150	0.44%
Sn 189.927†	-32.5	-0.00380 mg/L	0.000816	-0.00759 mg/L	0.001633	21.51%
Sr 421.552†	257085.6	0.2735 mg/L	0.00030	0.5470 mg/L	0.00059	0.11%
Ti 334.903†	135082.6	5.884 mg/L	0.0032	11.77 mg/L	0.006	0.05%
Tl 190.801†	-43.1	0.00411 mg/L	0.002575	0.00821 mg/L	0.005151	62.73%
V 292.402†	29110.3	0.1971 mg/L	0.00143	0.3941 mg/L	0.00285	0.72%
Zn 206.200†	1210.0	0.2834 mg/L	0.00200	0.5669 mg/L	0.00399	0.70%

Sequence No.: 18  
 Sample ID: WE80 R SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 329  
 Date Collected: 2/28/2013 11:50:35 AM  
 Data Type: Original

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 Nebulizer Parameters: WE80 R SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

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 Mean Data: WE80 R SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	3081167.4	100.5	%	0.35			0.35%
ScR 361.383	329834.8	101.2	%	0.38			0.37%
Ag 328.068†	3010.4	0.01348	mg/L	0.000130	0.02696	mg/L	0.000259 0.96%
Al 308.215†	109900.7	79.56	mg/L	0.191	159.1	mg/L	0.38 0.24%
As 188.975†	2028.0	1.371	mg/L	0.0065	2.741	mg/L	0.0129 0.47%
B 249.677†	-71.1	-0.01053	mg/L	0.000766	-0.02106	mg/L	0.001531 7.27%
Ba 233.527†	3976.9	0.6383	mg/L	0.00114	1.277	mg/L	0.0023 0.18%
Be 313.042†	1245.3	0.00228	mg/L	0.000007	0.00455	mg/L	0.000015 0.32%
Ca 317.933†	175094.8	16.54	mg/L	0.020	33.09	mg/L	0.039 0.12%
Cd 228.802†	310.0	0.00520	mg/L	0.000162	0.01041	mg/L	0.000324 3.11%
Co 228.616†	2303.2	0.04310	mg/L	0.000227	0.08620	mg/L	0.000454 0.53%
Cr 267.716†	423.0	0.06832	mg/L	0.000457	0.1366	mg/L	0.00091 0.67%
Cu 324.752†	26370.5	0.1045	mg/L	0.00044	0.2089	mg/L	0.00089 0.42%
Fe 273.955†	405614.2	259.0	mg/L	1.71	518.1	mg/L	3.43 0.66%
K 766.490†	19726.9	11.88	mg/L	0.030	23.75	mg/L	0.060 0.25%
Mg 279.077†	40360.7	39.08	mg/L	0.066	78.17	mg/L	0.132 0.17%
Mn 257.610†	86915.3	1.766	mg/L	0.0063	3.532	mg/L	0.0126 0.36%
Mo 202.031†	36.6	0.00143	mg/L	0.000151	0.00286	mg/L	0.000301 10.52%
Na 589.592†	17811.5	1.421	mg/L	0.0055	2.841	mg/L	0.0110 0.39%
Na 330.237†	-8.7	1.314	mg/L	0.1257	2.628	mg/L	0.2514 9.57%
Ni 231.604†	134.3	0.03249	mg/L	0.000070	0.06498	mg/L	0.000140 0.22%
Pb 220.353†	903.9	0.1041	mg/L	0.00100	0.2082	mg/L	0.00200 0.96%
Sb 206.836†	48.3	0.01810	mg/L	0.000482	0.03620	mg/L	0.000964 2.66%
Se 196.026†	16.4	0.00025	mg/L	0.002263	0.00050	mg/L	0.004527 896.65%
Si 288.158†	2715.3	1.540	mg/L	0.0070	3.081	mg/L	0.0141 0.46%
Sn 189.927†	-28.7	-0.00309	mg/L	0.000707	-0.00618	mg/L	0.001413 22.86%
Sr 421.552†	467294.6	0.4972	mg/L	0.00097	0.9943	mg/L	0.00193 0.19%
Ti 334.903†	138931.1	6.052	mg/L	0.0092	12.10	mg/L	0.018 0.15%
Tl 190.801†	-64.0	0.00596	mg/L	0.001402	0.01191	mg/L	0.002804 23.54%
V 292.402†	28285.2	0.1870	mg/L	0.00097	0.3739	mg/L	0.00193 0.52%
Zn 206.200†	1265.3	0.2963	mg/L	0.00142	0.5927	mg/L	0.00284 0.48%

Sequence No.: 19  
 Sample ID: WE80 S SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 330  
 Date Collected: 2/28/2013 11:54:37 AM  
 Data Type: Original

Nebulizer Parameters: WE80 S SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

Mean Data: WE80 S SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	3098001.3	101.0	%	0.12			0.12%
ScR 361.383	331142.3	101.6	%	0.55			0.54%
Ag 328.068†	3698.6	0.01654	mg/L	0.000154	0.03309	mg/L	0.000309 0.93%
Al 308.215†	118274.0	85.63	mg/L	0.571	171.3	mg/L	1.14 0.67%
As 188.979†	1071.0	0.8403	mg/L	0.00301	1.681	mg/L	0.0060 0.36%
B 249.677†	-45.1	-0.00673	mg/L	0.000583	-0.01347	mg/L	0.001166 8.66%
Ba 233.527†	4193.1	0.6808	mg/L	0.00487	1.362	mg/L	0.0097 0.71%
Be 313.042†	1346.1	0.00246	mg/L	0.000007	0.00492	mg/L	0.000013 0.27%
Ca 317.933†	207272.4	19.58	mg/L	0.191	39.17	mg/L	0.382 0.98%
Cd 228.802†	216.8	0.00477	mg/L	0.000263	0.00954	mg/L	0.000526 5.52%
Co 228.616†	2546.7	0.04784	mg/L	0.000157	0.09568	mg/L	0.000314 0.33%
Cr 267.716†	462.4	0.07288	mg/L	0.001270	0.1458	mg/L	0.00254 1.74%
Cu 324.752†	32380.9	0.1236	mg/L	0.00070	0.2473	mg/L	0.00141 0.57%
Fe 273.955†	343710.5	219.5	mg/L	2.12	439.0	mg/L	4.24 0.97%
K 766.490†	20188.5	12.15	mg/L	0.090	24.31	mg/L	0.179 0.74%
Mg 279.077†	41812.0	40.52	mg/L	0.402	81.03	mg/L	0.805 0.99%
Mn 257.610†	113724.9	2.311	mg/L	0.0216	4.622	mg/L	0.0432 0.93%
Mo 202.031†	37.0	0.00141	mg/L	0.000385	0.00283	mg/L	0.000769 27.19%
Na 589.592†	13231.2	1.055	mg/L	0.0069	2.111	mg/L	0.0138 0.65%
Na 330.237†	-25.9	0.8913	mg/L	0.45992	1.783	mg/L	0.9198 51.60%
Ni 231.604†	183.4	0.04438	mg/L	0.000571	0.08876	mg/L	0.001143 1.29%
Pb 220.353†	871.2	0.1044	mg/L	0.00031	0.2088	mg/L	0.00062 0.30%
Sb 206.836†	26.4	0.01230	mg/L	0.001951	0.02460	mg/L	0.003902 15.86%
Se 196.026†	20.2	0.00173	mg/L	0.002877	0.00345	mg/L	0.005755 166.63%
Si 288.158†	4249.9	2.408	mg/L	0.0027	4.817	mg/L	0.0054 0.11%
Sn 189.927†	-34.3	-0.00383	mg/L	0.000508	-0.00767	mg/L	0.001015 13.24%
Sr 421.552†	322155.0	0.3427	mg/L	0.00233	0.6855	mg/L	0.00467 0.68%
Ti 334.903†	151282.7	6.589	mg/L	0.0533	13.18	mg/L	0.107 0.81%
Tl 190.801†	-54.4	0.00474	mg/L	0.003695	0.00948	mg/L	0.007390 77.97%
V 292.402†	30581.5	0.2052	mg/L	0.00074	0.4104	mg/L	0.00148 0.36%
Zn 206.200†	1333.6	0.3125	mg/L	0.00231	0.6249	mg/L	0.00461 0.74%

Sequence No.: 20  
 Sample ID: WE80 T SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 331  
 Date Collected: 2/28/2013 11:58:39 AM  
 Data Type: Original

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 Nebulizer Parameters: WE80 T SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min  
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Mean Data: WE80 T SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3065930.6	99.99 %	%	0.473			0.47%
ScR 361.383	328818.3	100.9 %	%	0.88			0.87%
Ag 328.068†	752.1	0.00379	mg/L	0.000211	0.00757 mg/L	0.000422	5.57%
Al 308.215†	140760.8	101.9	mg/L	0.46	203.8 mg/L	0.91	0.45%
As 188.979†	2081.8	1.240	mg/L	0.0076	2.480 mg/L	0.0152	0.61%
B 249.677†	-50.2	-0.00747	mg/L	0.000577	-0.01494 mg/L	0.001153	7.72%
Ba 233.527†	3897.8	0.6337	mg/L	0.00859	1.267 mg/L	0.0172	1.36%
Be 313.042†	1798.9	0.00338	mg/L	0.000046	0.00677 mg/L	0.000092	1.36%
Ca 317.933†	650690.3	61.48	mg/L	0.459	123.0 mg/L	0.92	0.75%
Cd 228.802†	273.4	0.00366	mg/L	0.000187	0.00732 mg/L	0.000374	5.10%
Co 228.616†	2458.0	0.05471	mg/L	0.000415	0.1094 mg/L	0.00083	0.76%
Cr 267.716†	433.6	0.06656	mg/L	0.001716	0.1331 mg/L	0.00343	2.58%
Cu 324.752†	11318.2	0.04919	mg/L	0.000397	0.09837 mg/L	0.000795	0.81%
Fe 273.955†	311112.2	198.7	mg/L	1.83	397.4 mg/L	3.66	0.92%
K 766.490†	20571.3	12.39	mg/L	0.024	24.77 mg/L	0.048	0.19%
Mg 279.077†	50354.5	48.83	mg/L	0.278	97.65 mg/L	0.555	0.57%
Mn 257.610†	114769.1	2.332	mg/L	0.0194	4.664 mg/L	0.0388	0.83%
Mo 202.031†	65.5	0.00219	mg/L	0.000124	0.00438 mg/L	0.000248	5.67%
Na 589.592†	9800.4	0.7817	mg/L	0.00585	1.563 mg/L	0.0117	0.75%
Na 330.237†	3.1	0.3945	mg/L	0.19726	0.7891 mg/L	0.39452	50.00%
Ni 231.604†	174.8	0.04230	mg/L	0.002134	0.08460 mg/L	0.004267	5.04%
Pb 220.353†	524.0	0.07293	mg/L	0.000966	0.1459 mg/L	0.00193	1.32%
Sb 206.836†	35.0	0.01078	mg/L	0.002352	0.02156 mg/L	0.004705	21.82%
Se 196.026†	11.6	-0.00515	mg/L	0.005653	-0.01029 mg/L	0.011305	109.83%
Si 288.158†	3027.7	1.718	mg/L	0.0177	3.436 mg/L	0.0353	1.03%
Sn 189.927†	-77.9	-0.00983	mg/L	0.001619	-0.01965 mg/L	0.003237	16.47%
Sr 421.552†	446914.5	0.4755	mg/L	0.00211	0.9509 mg/L	0.00422	0.44%
Ti 334.903†	34584.0	1.503	mg/L	0.0053	3.006 mg/L	0.0106	0.35%
Tl 190.801†	-38.9	0.00867	mg/L	0.002589	0.01735 mg/L	0.005177	29.84%
V 292.402†	27964.6	0.1904	mg/L	0.00082	0.3808 mg/L	0.00165	0.43%
Zn 206.200†	1820.4	0.4263	mg/L	0.00392	0.8525 mg/L	0.00784	0.92%

Sequence No.: 21  
 Sample ID: WE80 U SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 332  
 Date Collected: 2/28/2013 12:02:41 PM  
 Data Type: Original

## Nebulizer Parameters: WE80 U SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE80 U SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3069292.0	100.1	%	0.58			0.58%
ScR 361.383	330874.2	101.5	%	0.62			0.62%
Ag 328.068†	964.5	0.00459	mg/L	0.000200	0.00918 mg/L	0.000400	4.36%
Al 308.215†	154589.2	111.9	mg/L	0.41	223.9 mg/L	0.82	0.37%
As 188.979†	1203.8	0.7657	mg/L	0.00704	1.531 mg/L	0.0141	0.92%
B 249.677†	-15.7	-0.00245	mg/L	0.000762	-0.00489 mg/L	0.001525	31.17%
Ba 233.527†	5868.4	0.9699	mg/L	0.00495	1.940 mg/L	0.0099	0.51%
Be 313.042†	1969.6	0.00369	mg/L	0.000060	0.00738 mg/L	0.000120	1.62%
Ca 317.933†	405779.4	38.34	mg/L	0.061	76.68 mg/L	0.122	0.16%
Cd 228.802†	204.3	0.00389	mg/L	0.000316	0.00778 mg/L	0.000632	8.13%
Co 228.616†	2676.2	0.05839	mg/L	0.000600	0.1168 mg/L	0.00120	1.03%
Cr 267.716†	624.8	0.09679	mg/L	0.000837	0.1936 mg/L	0.00167	0.86%
Cu 324.752†	27913.8	0.1073	mg/L	0.00146	0.2146 mg/L	0.00292	1.36%
Fe 273.955†	299062.3	191.0	mg/L	0.68	382.0 mg/L	1.35	0.35%
K 766.490†	41690.9	25.10	mg/L	0.172	50.20 mg/L	0.345	0.69%
Mg 279.077†	37850.5	36.68	mg/L	0.181	73.36 mg/L	0.362	0.49%
Mn 257.610†	150711.1	3.063	mg/L	0.0055	6.125 mg/L	0.0111	0.18%
Mo 202.031†	73.7	0.00283	mg/L	0.000340	0.00565 mg/L	0.000680	12.03%
Na 589.592†	14365.1	1.146	mg/L	0.0026	2.291 mg/L	0.0051	0.22%
Na 330.237†	14.1	0.9609	mg/L	0.22883	1.922 mg/L	0.4577	23.81%
Ni 231.604†	273.0	0.06605	mg/L	0.000239	0.1321 mg/L	0.00048	0.36%
Pb 220.353†	706.2	0.09548	mg/L	0.001484	0.1910 mg/L	0.00297	1.55%
Sb 206.836†	27.1	0.00898	mg/L	0.002721	0.01796 mg/L	0.005442	30.29%
Se 196.026†	10.2	-0.00714	mg/L	0.002963	-0.01428 mg/L	0.005926	41.50%
Si 288.158†	5179.2	2.934	mg/L	0.0143	5.867 mg/L	0.0287	0.49%
Sn 189.927†	-55.3	-0.00719	mg/L	0.000930	-0.01438 mg/L	0.001860	12.93%
Sr 421.552†	449515.7	0.4782	mg/L	0.00161	0.9565 mg/L	0.00322	0.34%
Ti 334.903†	52519.2	2.286	mg/L	0.0062	4.571 mg/L	0.0123	0.27%
Tl 190.801†	-43.9	0.00528	mg/L	0.001803	0.01056 mg/L	0.003606	34.15%
V 292.402†	35014.6	0.2411	mg/L	0.00334	0.4823 mg/L	0.00669	1.39%
Zn 206.200†	2034.5	0.4766	mg/L	0.00330	0.9532 mg/L	0.00660	0.69%

Sequence No.: 22  
 Sample ID: WE80 V SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 333  
 Date Collected: 2/28/2013 12:06:43 PM  
 Data Type: Original

## Nebulizer Parameters: WE80 V SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE80 V SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3096261.6	101.0	%	0.49			0.49%
ScR 361.383	330259.2	101.3	%	0.60			0.59%
Ag 328.068†	753.5	0.00376	mg/L	0.000143	0.00751 mg/L	0.000285	3.80%
Al 308.215†	175329.3	126.9	mg/L	0.43	253.9 mg/L	0.86	0.34%
As 188.979†	1007.0	0.6421	mg/L	0.00433	1.284 mg/L	0.0087	0.67%
B 249.677†	-18.8	-0.00291	mg/L	0.000160	-0.00582 mg/L	0.000321	5.52%
Ba 233.527†	5898.3	0.9744	mg/L	0.00550	1.949 mg/L	0.0110	0.56%
Be 313.042†	2206.4	0.00414	mg/L	0.000029	0.00828 mg/L	0.000058	0.70%
Ca 317.933†	554039.9	52.35	mg/L	0.059	104.7 mg/L	0.12	0.11%
Cd 228.802†	182.0	0.00368	mg/L	0.000090	0.00735 mg/L	0.000181	2.45%
Co 228.616†	2898.9	0.06408	mg/L	0.000409	0.1282 mg/L	0.00082	0.64%
Cr 267.716†	645.8	0.09962	mg/L	0.001166	0.1992 mg/L	0.00233	1.17%
Cu 324.752†	27904.4	0.1075	mg/L	0.00118	0.2151 mg/L	0.00236	1.10%
Fe 273.955†	305874.9	195.3	mg/L	0.96	390.7 mg/L	1.93	0.49%
K 766.490†	37607.0	22.64	mg/L	0.187	45.28 mg/L	0.373	0.82%
Mg 279.077†	41167.6	39.90	mg/L	0.134	79.80 mg/L	0.269	0.34%
Mn 257.610†	154216.9	3.134	mg/L	0.0150	6.267 mg/L	0.0300	0.48%
Mo 202.031†	73.2	0.00264	mg/L	0.000173	0.00528 mg/L	0.000346	6.55%
Na 589.592†	14134.3	1.127	mg/L	0.0033	2.255 mg/L	0.0067	0.30%
Na 330.237†	19.3	1.042	mg/L	0.1815	2.085 mg/L	0.3629	17.41%
Ni 231.604†	284.5	0.06882	mg/L	0.000929	0.1376 mg/L	0.00186	1.35%
Pb 220.353†	530.6	0.08057	mg/L	0.000422	0.1611 mg/L	0.00084	0.52%
Sb 206.836†	26.2	0.00853	mg/L	0.002037	0.01706 mg/L	0.004074	23.88%
Se 196.026†	11.9	-0.00790	mg/L	0.001910	-0.01580 mg/L	0.003820	24.19%
Si 288.158†	3556.4	2.016	mg/L	0.0078	4.032 mg/L	0.0155	0.39%
Sn 189.927†	-68.7	-0.00870	mg/L	0.000550	-0.01741 mg/L	0.001100	6.32%
Sr 421.552†	426165.1	0.4534	mg/L	0.00152	0.9068 mg/L	0.00304	0.34%
Ti 334.903†	46224.2	2.011	mg/L	0.0080	4.021 mg/L	0.0160	0.40%
Tl 190.801†	-42.0	0.00657	mg/L	0.001087	0.01313 mg/L	0.002175	16.56%
V 292.402†	37971.0	0.2623	mg/L	0.00242	0.5246 mg/L	0.00485	0.92%
Zn 206.200†	2234.2	0.5231	mg/L	0.00317	1.046 mg/L	0.0063	0.61%



Sequence No.: 23  
 Sample ID: CV  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/28/2013 12:10:45 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3100095.5	101.1 %	0.32			0.32%
ScR 361.383	325512.1	99.85 %	0.629			0.63%
Ag 328.068†	238134.5	1.053 mg/L	0.0086	1.053 mg/L	0.0086	0.82%
Al 308.215†	2850.9	2.030 mg/L	0.0142	2.030 mg/L	0.0142	0.70%
As 188.979†	3504.6	2.040 mg/L	0.0101	2.040 mg/L	0.0101	0.49%
B 249.677†	6924.1	1.012 mg/L	0.0096	1.012 mg/L	0.0096	0.95%
Ba 233.527†	6237.9	1.060 mg/L	0.0084	1.060 mg/L	0.0084	0.79%
Be 313.042†	508535.1	0.9737 mg/L	0.00416	0.9737 mg/L	0.00416	0.43%
Ca 317.933†	21888.1	2.068 mg/L	0.0155	2.068 mg/L	0.0155	0.75%
Cd 228.802†	27248.4	1.018 mg/L	0.0099	1.018 mg/L	0.0099	0.98%
Co 228.616†	43152.0	1.006 mg/L	0.0099	1.006 mg/L	0.0099	0.99%
Cr 267.716†	6826.5	1.039 mg/L	0.0080	1.039 mg/L	0.0080	0.77%
Cu 324.752†	290192.3	1.024 mg/L	0.0084	1.024 mg/L	0.0084	0.82%
Fe 273.955†	3213.1	2.046 mg/L	0.0146	2.046 mg/L	0.0146	0.71%
K 766.490†	33555.9	20.20 mg/L	0.138	20.20 mg/L	0.138	0.68%
Mg 279.077†	2119.4	2.066 mg/L	0.0091	2.066 mg/L	0.0091	0.44%
Mn 257.610†	47857.3	0.9731 mg/L	0.00717	0.9731 mg/L	0.00717	0.74%
Mo 202.031†	22251.4	0.9911 mg/L	0.00382	0.9911 mg/L	0.00382	0.39%
Na 589.592†	644083.3	51.37 mg/L	0.401	51.37 mg/L	0.401	0.78%
Na 330.237†	1603.5	52.72 mg/L	0.632	52.72 mg/L	0.632	1.20%
Ni 231.604†	4265.1	1.032 mg/L	0.0101	1.032 mg/L	0.0101	0.98%
Pb 220.353†	19479.3	2.080 mg/L	0.0091	2.080 mg/L	0.0091	0.44%
Sb 206.836†	7250.7	2.043 mg/L	0.0047	2.043 mg/L	0.0047	0.23%
Se 196.026†	3434.8	1.993 mg/L	0.0107	1.993 mg/L	0.0107	0.54%
Si 288.158†	3649.3	2.059 mg/L	0.0244	2.059 mg/L	0.0244	1.18%
Sn 189.927†	4947.8	0.9710 mg/L	0.00551	0.9710 mg/L	0.00551	0.57%
Sr 421.552†	944978.1	1.005 mg/L	0.0062	1.005 mg/L	0.0062	0.62%
Ti 334.903†	23049.9	1.003 mg/L	0.0056	1.003 mg/L	0.0056	0.56%
Tl 190.801†	4756.6	2.023 mg/L	0.0041	2.023 mg/L	0.0041	0.20%
V 292.402†	142646.3	1.028 mg/L	0.0098	1.028 mg/L	0.0098	0.95%
Zn 206.200†	4547.9	1.065 mg/L	0.0085	1.065 mg/L	0.0085	0.80%

Sequence No.: 24  
Sample ID: CB  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 1  
Date Collected: 2/28/2013 12:14:49 PM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3111034.5	101.5	%	0.23			0.23%
ScR 361.383	331603.0	101.7	%	0.87			0.86%
Ag 328.068†	-0.4	-0.00000	mg/L	0.000109	-0.00000	0.000109	>999.9%
Al 308.215†	6.5	0.00469	mg/L	0.004425	0.00469	0.004425	94.45%
As 188.979†	0.4	0.00020	mg/L	0.000648	0.00020	0.000648	322.63%
B 249.677†	0.4	0.00005	mg/L	0.000571	0.00005	0.000571	>999.9%
Ba 233.527†	-8.6	-0.00146	mg/L	0.000806	-0.00146	0.000806	54.99%
Be 313.042†	4.1	0.00001	mg/L	0.000038	0.00001	0.000038	487.38%
Ca 317.933†	-23.4	-0.00221	mg/L	0.001078	-0.00221	0.001078	48.72%
Cd 228.802†	9.9	0.00037	mg/L	0.000130	0.00037	0.000130	34.71%
Co 228.616†	8.4	0.00020	mg/L	0.000142	0.00020	0.000142	72.45%
Cr 267.716†	8.6	0.00131	mg/L	0.000766	0.00131	0.000766	58.44%
Cu 324.752†	144.5	0.00051	mg/L	0.000147	0.00051	0.000147	28.86%
Fe 273.955†	3.4	0.00220	mg/L	0.000306	0.00220	0.000306	13.93%
K 766.490†	14.7	0.00888	mg/L	0.010502	0.00888	0.010502	118.31%
Mg 279.077†	-0.5	-0.00051	mg/L	0.001517	-0.00051	0.001517	295.68%
Mn 257.610†	-3.2	-0.00006	mg/L	0.000097	-0.00006	0.000097	150.71%
Mo 202.031†	26.8	0.00120	mg/L	0.000224	0.00120	0.000224	18.75%
Na 589.592†	-42.1	-0.00336	mg/L	0.002944	-0.00336	0.002944	87.60%
Na 330.237†	-19.1	-0.6273	mg/L	0.27961	-0.6273	0.27961	44.57%
Ni 231.604†	3.3	0.00081	mg/L	0.001136	0.00081	0.001136	140.79%
Pb 220.353†	4.0	0.00043	mg/L	0.001006	0.00043	0.001006	235.65%
Sb 206.836†	13.1	0.00369	mg/L	0.001187	0.00369	0.001187	32.17%
Se 196.026†	2.7	0.00156	mg/L	0.002429	0.00156	0.002429	156.15%
Si 288.158†	-0.1	-0.00003	mg/L	0.004873	-0.00003	0.004873	>999.9%
Sn 189.927†	2.0	0.00039	mg/L	0.000577	0.00039	0.000577	146.50%
Sr 421.552†	-22.6	-0.00002	mg/L	0.000034	-0.00002	0.000034	142.16%
Ti 334.903†	3.0	0.00013	mg/L	0.000991	0.00013	0.000991	772.89%
Tl 190.801†	-1.6	-0.00070	mg/L	0.001667	-0.00070	0.001667	239.57%
V 292.402†	-6.0	-0.00004	mg/L	0.000109	-0.00004	0.000109	295.85%
Zn 206.200†	-3.6	-0.00083	mg/L	0.000108	-0.00083	0.000108	13.01%

Sequence No.: 25  
 Sample ID: WE80 O SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 334  
 Date Collected: 2/28/2013 12:19:05 PM  
 Data Type: Original

## Nebulizer Parameters: WE80 O SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: WE80 O SWC

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
ScA 357.253	3089487.8	100.8 %		0.47			0.47%
ScR 361.383	331011.9	101.5 %		0.60			0.59%
Ag 328.068†	13599.6	0.06016 mg/L		0.000266	0.3008 mg/L	0.00133	0.44%
Al 308.215†	39612.2	28.68 mg/L		0.170	143.4 mg/L	0.85	0.59%
As 188.979†	989.5	0.6432 mg/L		0.00404	3.216 mg/L	0.0202	0.63%
B 249.677†	-28.9	-0.00428 mg/L		0.000424	-0.02140 mg/L	0.002121	9.91%
Ba 233.527†	1250.5	0.1962 mg/L		0.00253	0.9812 mg/L	0.01266	1.29%
Be 313.042†	550.7	0.00101 mg/L		0.000029	0.00507 mg/L	0.000146	2.89%
Ca 317.933†	36530.2	3.451 mg/L		0.0131	17.26 mg/L	0.066	0.38%
Cd 228.802†	145.8	0.00233 mg/L		0.000075	0.01166 mg/L	0.000376	3.22%
Co 228.616†	886.8	0.01682 mg/L		0.000261	0.08411 mg/L	0.001306	1.55%
Cr 267.716†	151.5	0.02490 mg/L		0.000527	0.1245 mg/L	0.00264	2.12%
Cu 324.752†	29465.0	0.1090 mg/L		0.00043	0.5451 mg/L	0.00217	0.40%
Fe 273.955†	174970.9	111.7 mg/L		0.86	558.7 mg/L	4.32	0.77%
K 766.490†	8636.0	5.199 mg/L		0.0152	26.00 mg/L	0.076	0.29%
Mg 279.077†	16379.1	15.86 mg/L		0.059	79.29 mg/L	0.297	0.38%
Mn 257.610†	34503.8	0.7012 mg/L		0.00502	3.506 mg/L	0.0251	0.72%
Mo 202.031†	-4.2	-0.00023 mg/L		0.000195	-0.00114 mg/L	0.000973	85.08%
Na 589.592†	7872.0	0.6279 mg/L		0.00245	3.139 mg/L	0.0123	0.39%
Na 330.237†	-2.9	0.4843 mg/L		0.09913	2.421 mg/L	0.4957	20.47%
Ni 231.604†	44.0	0.01064 mg/L		0.000581	0.05322 mg/L	0.002904	5.46%
Pb 220.353†	851.7	0.09258 mg/L		0.000481	0.4629 mg/L	0.00241	0.52%
Sb 206.836†	13.6	0.00550 mg/L		0.001496	0.02751 mg/L	0.007482	27.20%
Se 196.026†	5.0	-0.00047 mg/L		0.003444	-0.00236 mg/L	0.017218	730.87%
Si 288.158†	1388.0	0.7869 mg/L		0.00670	3.934 mg/L	0.0335	0.85%
Sn 189.927†	-11.0	-0.00146 mg/L		0.000417	-0.00728 mg/L	0.002084	28.64%
Sr 421.552†	244600.5	0.2602 mg/L		0.00107	1.301 mg/L	0.0053	0.41%
Ti 334.903†	50612.9	2.205 mg/L		0.0099	11.02 mg/L	0.050	0.45%
Tl 190.801†	-32.9	0.00034 mg/L		0.002888	0.00168 mg/L	0.014442	860.27%
V 292.402†	11408.0	0.07516 mg/L		0.000536	0.3758 mg/L	0.00268	0.71%
Zn 206.200†	491.1	0.1151 mg/L		0.00030	0.5753 mg/L	0.00151	0.26%

Sequence No.: 26  
Sample ID: WE80 P SWC  
Analyst: ALA  
Dilution: 5.000000X

Autosampler Location: 335  
Date Collected: 2/28/2013 12:23:08 PM  
Data Type: Original

Nebulizer Parameters: WE80 P SWC

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: WE80 P SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3091050.0	100.8	%	0.53			0.52%
ScR 361.383	332290.6	101.9	%	0.86			0.85%
Ag 328.068†	1374.5	0.00615	mg/L	0.000057	0.03074 mg/L	0.000287	0.93%
Al 308.215†	50817.6	36.79	mg/L	0.095	184.0 mg/L	0.47	0.26%
As 188.979†	1002.0	0.6635	mg/L	0.00017	3.318 mg/L	0.0009	0.03%
B 249.677†	-38.1	-0.00563	mg/L	0.000429	-0.02813 mg/L	0.002146	7.63%
Ba 233.527†	1750.2	0.2808	mg/L	0.00274	1.404 mg/L	0.0137	0.97%
Be 313.042†	585.4	0.00107	mg/L	0.000017	0.00537 mg/L	0.000084	1.57%
Ca 317.933†	72081.1	6.810	mg/L	0.0100	34.05 mg/L	0.050	0.15%
Cd 228.802†	147.2	0.00235	mg/L	0.000195	0.01174 mg/L	0.000973	8.29%
Co 228.616†	1017.6	0.01919	mg/L	0.000134	0.09594 mg/L	0.000671	0.70%
Cr 267.716†	202.3	0.03266	mg/L	0.001248	0.1633 mg/L	0.00624	3.82%
Cu 324.752†	11322.2	0.04504	mg/L	0.000359	0.2252 mg/L	0.00179	0.80%
Fe 273.955†	179871.1	114.9	mg/L	0.29	574.4 mg/L	1.45	0.25%
K 766.490†	9225.2	5.554	mg/L	0.0199	27.77 mg/L	0.100	0.36%
Mg 279.077†	16620.1	16.09	mg/L	0.049	80.45 mg/L	0.244	0.30%
Mn 257.610†	38769.5	0.7878	mg/L	0.00146	3.939 mg/L	0.0073	0.19%
Mo 202.031†	8.4	0.00029	mg/L	0.000184	0.00146 mg/L	0.000921	63.01%
Na 589.592†	7997.4	0.6379	mg/L	0.00296	3.189 mg/L	0.0148	0.46%
Na 330.237†	-12.2	0.2818	mg/L	0.19071	1.409 mg/L	0.9535	67.68%
Ni 231.604†	62.6	0.01515	mg/L	0.000923	0.07575 mg/L	0.004613	6.09%
Pb 220.353†	400.3	0.04653	mg/L	0.000383	0.2326 mg/L	0.00191	0.82%
Sb 206.836†	12.7	0.00547	mg/L	0.000963	0.02733 mg/L	0.004814	17.61%
Se 196.026†	9.3	0.00113	mg/L	0.005520	0.00563 mg/L	0.027598	490.42%
Si 288.158†	1263.3	0.7164	mg/L	0.00933	3.582 mg/L	0.0466	1.30%
Sn 189.927†	-14.3	-0.00175	mg/L	0.000388	-0.00873 mg/L	0.001941	22.22%
Sr 421.552†	203556.4	0.2166	mg/L	0.00053	1.083 mg/L	0.0026	0.24%
Ti 334.903†	59500.1	2.592	mg/L	0.0064	12.96 mg/L	0.032	0.25%
Tl 190.801†	-36.3	-0.00073	mg/L	0.001584	-0.00363 mg/L	0.007918	218.25%
V 292.402†	12689.7	0.08402	mg/L	0.000495	0.4201 mg/L	0.00248	0.59%
Zn 206.200†	558.9	0.1309	mg/L	0.00153	0.6545 mg/L	0.00765	1.17%

Sequence No.: 27  
 Sample ID: WE80 R SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 336  
 Date Collected: 2/28/2013 12:27:09 PM  
 Data Type: Original

## Nebulizer Parameters: WE80 R SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE80 R SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3107542.1	101.3	%	0.66			0.65%
ScR 361.383	331145.7	101.6	%	0.43			0.42%
Ag 328.068†	1272.4	0.00569	mg/L	0.000164	0.02847	0.000822	2.89%
Al 308.215†	44975.9	32.56	mg/L	0.079	162.8	0.40	0.24%
As 188.979†	814.1	0.5524	mg/L	0.00544	2.762	0.0272	0.99%
B 249.677†	-27.1	-0.00402	mg/L	0.000512	-0.02010	0.002560	12.74%
Ba 233.527†	1648.0	0.2644	mg/L	0.00124	1.322	0.0062	0.47%
Be 313.042†	525.5	0.00096	mg/L	0.000000	0.00481	0.000002	0.04%
Ca 317.933†	72164.6	6.818	mg/L	0.0018	34.09	0.009	0.03%
Cd 228.802†	127.8	0.00222	mg/L	0.000225	0.01110	0.001125	10.14%
Co 228.616†	946.0	0.01769	mg/L	0.000261	0.08843	0.001303	1.47%
Cr 267.716†	179.6	0.02900	mg/L	0.001188	0.1450	0.00594	4.10%
Cu 324.752†	10557.2	0.04202	mg/L	0.000620	0.2101	0.00310	1.47%
Fe 273.955†	169085.1	108.0	mg/L	0.41	539.9	2.04	0.38%
K 766.490†	7987.5	4.809	mg/L	0.0216	24.05	0.108	0.45%
Mg 279.077†	16621.5	16.10	mg/L	0.046	80.48	0.230	0.29%
Mn 257.610†	36002.4	0.7316	mg/L	0.00273	3.658	0.0136	0.37%
Mo 202.031†	5.6	0.00017	mg/L	0.000213	0.00084	0.001066	126.75%
Na 589.592†	7361.1	0.5871	mg/L	0.00283	2.936	0.0141	0.48%
Na 330.237†	-8.1	0.3927	mg/L	0.02894	1.963	0.1447	7.37%
Ni 231.604†	63.6	0.01538	mg/L	0.001200	0.07689	0.006000	7.80%
Pb 220.353†	363.0	0.04177	mg/L	0.000673	0.2089	0.00336	1.61%
Sb 206.836†	12.5	0.00534	mg/L	0.001223	0.02671	0.006113	22.89%
Se 196.026†	11.9	0.00309	mg/L	0.003208	0.01543	0.016039	103.94%
Si 288.158†	1106.4	0.6276	mg/L	0.00822	3.138	0.0411	1.31%
Sn 189.927†	-13.1	-0.00154	mg/L	0.001586	-0.00768	0.007929	103.20%
Sr 421.552†	192430.7	0.2047	mg/L	0.00054	1.024	0.0027	0.26%
Ti 334.903†	57268.0	2.494	mg/L	0.0066	12.47	0.033	0.26%
Tl 190.801†	-23.8	0.00372	mg/L	0.001219	0.01862	0.006095	32.72%
V 292.402†	11503.1	0.07589	mg/L	0.000823	0.3794	0.00412	1.09%
Zn 206.200†	533.9	0.1250	mg/L	0.00160	0.6252	0.00799	1.28%

Sequence No.: 28  
 Sample ID: D1  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 337  
 Date Collected: 2/28/2013 12:31:10 PM  
 Data Type: Original

Nebulizer Parameters: D1

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

Mean Data: D1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3120288.6	101.8 %		0.25			0.24%
ScR 361.383	333034.6	102.2 %		0.59			0.57%
Ag 328.068†	27.6	0.00012 mg/L		0.000117	0.00012 mg/L	0.000117	95.95%
Al 308.215†	6.6	0.00478 mg/L		0.002054	0.00478 mg/L	0.002054	43.01%
As 188.979†	-3.3	-0.00182 mg/L		0.001592	-0.00182 mg/L	0.001592	87.57%
B 249.677†	-9.0	-0.00132 mg/L		0.000574	-0.00132 mg/L	0.000574	43.44%
Ba 233.527†	-2.1	-0.00036 mg/L		0.000590	-0.00036 mg/L	0.000590	163.08%
Be 313.042†	0.4	0.00000 mg/L		0.000014	0.00000 mg/L	0.000014	>999.9%
Ca 317.933†	-50.2	-0.00474 mg/L		0.000238	-0.00474 mg/L	0.000238	5.02%
Cd 228.802†	5.7	0.00023 mg/L		0.000031	0.00023 mg/L	0.000031	13.78%
Co 228.616†	-3.8	-0.00009 mg/L		0.000127	-0.00009 mg/L	0.000127	136.93%
Cr 267.716†	9.1	0.00138 mg/L		0.000253	0.00138 mg/L	0.000253	18.29%
Cu 324.752†	140.8	0.00050 mg/L		0.000154	0.00050 mg/L	0.000154	31.01%
Fe 273.955†	8.6	0.00546 mg/L		0.001954	0.00546 mg/L	0.001954	35.78%
K 766.490†	25.9	0.01560 mg/L		0.017495	0.01560 mg/L	0.017495	112.16%
Mg 279.077†	-2.9	-0.00285 mg/L		0.005042	-0.00285 mg/L	0.005042	176.73%
Mn 257.610†	-3.9	-0.00008 mg/L		0.000060	-0.00008 mg/L	0.000060	75.24%
Mo 202.031†	-11.3	-0.00050 mg/L		0.000122	-0.00050 mg/L	0.000122	24.21%
Na 589.592†	-17.1	-0.00136 mg/L		0.002278	-0.00136 mg/L	0.002278	167.41%
Na 330.237†	2.5	0.08188 mg/L		0.294280	0.08188 mg/L	0.294280	359.39%
Ni 231.604†	1.5	0.00036 mg/L		0.000354	0.00036 mg/L	0.000354	98.40%
Pb 220.353†	2.4	0.00026 mg/L		0.000203	0.00026 mg/L	0.000203	79.63%
Sb 206.836†	-3.2	-0.00093 mg/L		0.000910	-0.00093 mg/L	0.000910	98.07%
Se 196.026†	4.2	0.00241 mg/L		0.002795	0.00241 mg/L	0.002795	115.77%
Si 288.158†	-3.2	-0.00178 mg/L		0.003472	-0.00178 mg/L	0.003472	194.61%
Sn 189.927†	0.3	0.00005 mg/L		0.000349	0.00005 mg/L	0.000349	693.56%
Sr 421.552†	-57.1	-0.00006 mg/L		0.000056	-0.00006 mg/L	0.000056	92.23%
Ti 334.903†	40.0	0.00174 mg/L		0.001400	0.00174 mg/L	0.001400	80.21%
Tl 190.801†	-1.0	-0.00044 mg/L		0.000877	-0.00044 mg/L	0.000877	197.16%
V 292.402†	9.0	0.00007 mg/L		0.000183	0.00007 mg/L	0.000183	265.22%
Zn 206.200†	-1.8	-0.00043 mg/L		0.000478	-0.00043 mg/L	0.000478	112.50%

Sequence No.: 29  
 Sample ID: CRI  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 301  
 Date Collected: 2/28/2013 12:35:25 PM  
 Data Type: Original

## Nebulizer Parameters: CRI

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3154544.7	102.9 %		0.47			0.46%
ScR 361.383	333968.4	102.4 %		0.23			0.23%
Ag 328.068†	689.4	0.00305 mg/L		0.000262	0.00305 mg/L	0.000262	8.59%
Al 308.215†	73.5	0.05310 mg/L		0.005047	0.05310 mg/L	0.005047	9.50%
As 188.979†	86.4	0.04971 mg/L		0.001009	0.04971 mg/L	0.001009	2.03%
B 249.677†	127.4	0.01864 mg/L		0.000947	0.01864 mg/L	0.000947	5.08%
Ba 233.527†	13.4	0.00227 mg/L		0.000282	0.00227 mg/L	0.000282	12.42%
Be 313.042†	471.7	0.00090 mg/L		0.000027	0.00090 mg/L	0.000027	3.01%
Ca 317.933†	454.3	0.04292 mg/L		0.000709	0.04292 mg/L	0.000709	1.65%
Cd 228.802†	71.2	0.00242 mg/L		0.000048	0.00242 mg/L	0.000048	2.00%
Co 228.616†	153.0	0.00356 mg/L		0.000146	0.00356 mg/L	0.000146	4.10%
Cr 267.716†	43.1	0.00656 mg/L		0.000179	0.00656 mg/L	0.000179	2.73%
Cu 324.752†	659.0	0.00233 mg/L		0.000163	0.00233 mg/L	0.000163	7.00%
Fe 273.955†	79.5	0.05076 mg/L		0.001431	0.05076 mg/L	0.001431	2.82%
K 766.490†	823.6	0.4958 mg/L		0.01586	0.4958 mg/L	0.01586	3.20%
Mg 279.077†	51.3	0.04983 mg/L		0.008841	0.04983 mg/L	0.008841	17.74%
Mn 257.610†	46.2	0.00094 mg/L		0.000080	0.00094 mg/L	0.000080	8.49%
Mo 202.031†	98.3	0.00438 mg/L		0.000162	0.00438 mg/L	0.000162	3.71%
Na 589.592†	6128.6	0.4888 mg/L		0.00227	0.4888 mg/L	0.00227	0.47%
Na 330.237†	18.9	0.6193 mg/L		0.41188	0.6193 mg/L	0.41188	66.51%
Ni 231.604†	41.7	0.01009 mg/L		0.000440	0.01009 mg/L	0.000440	4.36%
Pb 220.353†	198.2	0.02118 mg/L		0.000578	0.02118 mg/L	0.000578	2.73%
Sb 206.836†	169.4	0.04780 mg/L		0.000871	0.04780 mg/L	0.000871	1.82%
Se 196.026†	88.6	0.05141 mg/L		0.001076	0.05141 mg/L	0.001076	2.09%
Si 288.158†	109.6	0.06193 mg/L		0.002636	0.06193 mg/L	0.002636	4.26%
Sn 189.927†	50.1	0.00985 mg/L		0.000887	0.00985 mg/L	0.000887	9.00%
Sr 421.552†	915.4	0.00097 mg/L		0.000007	0.00097 mg/L	0.000007	0.71%
Ti 334.903†	132.9	0.00578 mg/L		0.000836	0.00578 mg/L	0.000836	14.46%
Tl 190.801†	115.1	0.04910 mg/L		0.000895	0.04910 mg/L	0.000895	1.82%
V 292.402†	412.2	0.00298 mg/L		0.000200	0.00298 mg/L	0.000200	6.71%
Zn 206.200†	44.2	0.01035 mg/L		0.000551	0.01035 mg/L	0.000551	5.32%

Sequence No.: 30  
Sample ID: ICSEA  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 302  
Date Collected: 2/28/2013 12:39:42 PM  
Data Type: Original

Nebulizer Parameters: ICSEA

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: ICSEA

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3055822.5	99.66 %	%	0.439			0.44%
ScR 361.383	326138.8	100.0 %	%	0.12			0.12%
Ag 328.068†	-267.2	-0.00054 mg/L	mg/L	0.000134	-0.00054 mg/L	0.000134	25.06%
Al 308.215†	274862.6	199.0 mg/L	mg/L	1.30	199.0 mg/L	1.30	0.65%
As 188.979†	52.3	0.02125 mg/L	mg/L	0.002342	0.02125 mg/L	0.002342	11.02%
B 249.677†	-80.6	-0.01179 mg/L	mg/L	0.002024	-0.01179 mg/L	0.002024	17.16%
Ba 233.527†	141.3	-0.00404 mg/L	mg/L	0.001212	-0.00404 mg/L	0.001212	30.02%
Be 313.042†	36.1	0.00007 mg/L	mg/L	0.000006	0.00007 mg/L	0.000006	8.54%
Ca 317.933†	1052343.5	99.43 mg/L	mg/L	0.492	99.43 mg/L	0.492	0.49%
Cd 228.802†	73.3	0.00260 mg/L	mg/L	0.000309	0.00260 mg/L	0.000309	11.90%
Co 228.616†	74.1	0.00171 mg/L	mg/L	0.000154	0.00171 mg/L	0.000154	9.03%
Cr 267.716†	32.9	-0.00006 mg/L	mg/L	0.000450	-0.00006 mg/L	0.000450	736.95%
Cu 324.752†	-2067.6	0.00154 mg/L	mg/L	0.000093	0.00154 mg/L	0.000093	6.04%
Fe 273.955†	299164.5	191.1 mg/L	mg/L	0.28	191.1 mg/L	0.28	0.15%
K 766.490†	38.4	0.02310 mg/L	mg/L	0.009438	0.02310 mg/L	0.009438	40.86%
Mg 279.077†	106654.4	103.5 mg/L	mg/L	0.19	103.5 mg/L	0.19	0.19%
Mn 257.610†	69.4	0.00003 mg/L	mg/L	0.000128	0.00003 mg/L	0.000128	511.34%
Mo 202.031†	92.6	0.00295 mg/L	mg/L	0.000083	0.00295 mg/L	0.000083	2.81%
Na 589.592†	143.2	0.01142 mg/L	mg/L	0.001059	0.01142 mg/L	0.001059	9.27%
Na 330.237†	-5.7	-0.1852 mg/L	mg/L	0.19952	-0.1852 mg/L	0.19952	107.74%
Ni 231.604†	2.8	0.00069 mg/L	mg/L	0.001262	0.00069 mg/L	0.001262	182.55%
Pb 220.353†	-519.0	-0.01175 mg/L	mg/L	0.000155	-0.01175 mg/L	0.000155	1.32%
Sb 206.836†	11.2	0.00301 mg/L	mg/L	0.001800	0.00301 mg/L	0.001800	59.77%
Se 196.026†	25.9	-0.00784 mg/L	mg/L	0.008402	-0.00784 mg/L	0.008402	107.18%
Si 288.158†	-32.4	-0.00650 mg/L	mg/L	0.003226	-0.00650 mg/L	0.003226	49.61%
Sn 189.927†	-87.7	-0.00885 mg/L	mg/L	0.000372	-0.00885 mg/L	0.000372	4.20%
Sr 421.552†	3813.2	0.00406 mg/L	mg/L <i>Conc</i>	0.000054	0.00406 mg/L	0.000054	1.33%
Ti 334.903†	235.0	0.00432 mg/L	mg/L	0.000903	0.00432 mg/L	0.000903	20.90%
Tl 190.801†	-44.7	0.00625 mg/L	mg/L	0.002070	0.00625 mg/L	0.002070	33.14%
V 292.402†	1101.9	-0.00167 mg/L	mg/L	0.000260	-0.00167 mg/L	0.000260	15.58%
Zn 206.200†	-0.8	-0.00019 mg/L	mg/L	0.000653	-0.00019 mg/L	0.000653	334.76%



Sequence No.: 31  
 Sample ID: ICSAB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 303  
 Date Collected: 2/28/2013 12:43:59 PM  
 Data Type: Original

## Nebulizer Parameters: ICSAB

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3027436.0	98.73 %		0.096			0.10%
ScR 361.383	323586.2	99.26 %		0.468			0.47%
Ag 328.068†	245084.4	1.084 mg/L		0.0082	1.084 mg/L	0.0082	0.76%
Al 308.215†	277027.5	200.6 mg/L		0.80	200.6 mg/L	0.80	0.40%
As 188.979†	1832.3	1.041 mg/L		0.0014	1.041 mg/L	0.0014	0.13%
B 249.677†	-64.2	-0.01165 mg/L		0.001314	-0.01165 mg/L	0.001314	11.28%
Ba 233.527†	6301.0	1.043 mg/L		0.0073	1.043 mg/L	0.0073	0.70%
Be 313.042†	511019.2	0.9785 mg/L		0.00496	0.9785 mg/L	0.00496	0.51%
Ca 317.933†	1052654.0	99.45 mg/L		0.426	99.45 mg/L	0.426	0.43%
Cd 228.802†	27222.1	1.022 mg/L		0.0022	1.022 mg/L	0.0022	0.21%
Co 228.616†	41324.9	0.9653 mg/L		0.00556	0.9653 mg/L	0.00556	0.58%
Cr 267.716†	6777.4	1.027 mg/L		0.0048	1.027 mg/L	0.0048	0.47%
Cu 324.752†	295908.6	1.054 mg/L		0.0072	1.054 mg/L	0.0072	0.68%
Fe 273.955†	300085.3	191.6 mg/L		0.95	191.6 mg/L	0.95	0.49%
K 766.490†	-37.6	-0.02265 mg/L		0.026875	-0.02265 mg/L	0.026875	118.63%
Mg 279.077†	103121.7	100.1 mg/L		0.29	100.1 mg/L	0.29	0.29%
Mn 257.610†	46776.3	0.9495 mg/L		0.00260	0.9495 mg/L	0.00260	0.27%
Mo 202.031†	89.6	0.00277 mg/L		0.000292	0.00277 mg/L	0.000292	10.58%
Na 589.592†	185.6	0.01480 mg/L		0.001525	0.01480 mg/L	0.001525	10.30%
Na 330.237†	5.5	-0.1058 mg/L		0.03805	-0.1058 mg/L	0.03805	35.95%
Ni 231.604†	4083.1	0.9875 mg/L		0.00452	0.9875 mg/L	0.00452	0.46%
Pb 220.353†	8849.1	0.9891 mg/L		0.00227	0.9891 mg/L	0.00227	0.23%
Sb 206.836†	3604.1	1.006 mg/L		0.0015	1.006 mg/L	0.0015	0.15%
Se 196.026†	1763.4	0.9996 mg/L		0.00021	0.9996 mg/L	0.00021	0.02%
Si 288.158†	-37.0	-0.00614 mg/L		0.001712	-0.00614 mg/L	0.001712	27.89%
Sn 189.927†	-98.6	-0.01047 mg/L		0.000998	-0.01047 mg/L	0.000998	9.53%
Sr 421.552†	3744.8	0.00398 mg/L		0.000040	0.00398 mg/L	0.000040	1.00%
Ti 334.903†	236.6	0.00420 mg/L		0.000092	0.00420 mg/L	0.000092	2.19%
Tl 190.801†	2228.8	0.9671 mg/L		0.00249	0.9671 mg/L	0.00249	0.26%
V 292.402†	141430.7	1.009 mg/L		0.0074	1.009 mg/L	0.0074	0.74%
Zn 206.200†	4147.7	0.9708 mg/L		0.00515	0.9708 mg/L	0.00515	0.53%

User canceled analysis.

=====  
Analysis Begun

Start Time: 2/28/2013 12:48:04 PM  
Logged In Analyst: Metals  
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 2/28/2013 7:25:29 AM  
Technique: ICP Continuous  
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\0228.sif

Batch ID:

Results Data Set: I2130228

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

=====  
Sequence No.: 34  
Sample ID: CV 5  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 7  
Date Collected: 2/28/2013 12:48:06 PM  
Data Type: Original

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Nebulizer Parameters: CV

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

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Mean Data: CV

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3084872.2	100.6	%	0.33				0.32%
ScR 361.383	327188.1	100.4	%	0.42				0.42%
Ag 328.068†	242241.4	1.071	mg/L	0.0092	1.071	mg/L	0.0092	0.86%
Al 308.215†	2842.6	2.024	mg/L	0.0047	2.024	mg/L	0.0047	0.23%
As 188.979†	3527.8	2.053	mg/L	0.0196	2.053	mg/L	0.0196	0.96%
B 249.677†	6934.8	1.014	mg/L	0.0015	1.014	mg/L	0.0015	0.15%
Ba 233.527†	6221.1	1.058	mg/L	0.0018	1.058	mg/L	0.0018	0.17%
Be 313.042†	510260.6	0.9770	mg/L	0.00558	0.9770	mg/L	0.00558	0.57%
Ca 317.933†	21868.7	2.066	mg/L	0.0105	2.066	mg/L	0.0105	0.51%
Cd 228.802†	27579.4	1.031	mg/L	0.0061	1.031	mg/L	0.0061	0.59%
Co 228.616†	43511.9	1.015	mg/L	0.0062	1.015	mg/L	0.0062	0.62%
Cr 267.716†	6811.6	1.037	mg/L	0.0033	1.037	mg/L	0.0033	0.32%
Cu 324.752†	294594.1	1.040	mg/L	0.0069	1.040	mg/L	0.0069	0.66%
Fe 273.955†	3196.3	2.035	mg/L	0.0125	2.035	mg/L	0.0125	0.62%
K 766.490†	33591.9	20.22	mg/L	0.084	20.22	mg/L	0.084	0.42%
Mg 279.077†	2122.6	2.069	mg/L	0.0116	2.069	mg/L	0.0116	0.56%
Mn 257.610†	48005.9	0.9761	mg/L	0.00478	0.9761	mg/L	0.00478	0.49%
Mo 202.031†	22446.2	0.9998	mg/L	0.00814	0.9998	mg/L	0.00814	0.81%
Na 589.592†	645864.8	51.51	mg/L	0.052	51.51	mg/L	0.052	0.10%
Na 330.237†	1603.1	52.71	mg/L	0.354	52.71	mg/L	0.354	0.67%
Ni 231.604†	4270.5	1.033	mg/L	0.0018	1.033	mg/L	0.0018	0.18%
Pb 220.353†	19614.3	2.095	mg/L	0.0137	2.095	mg/L	0.0137	0.65%
Sb 206.836†	7329.1	2.066	mg/L	0.0122	2.066	mg/L	0.0122	0.59%
Se 196.026†	3459.2	2.007	mg/L	0.0204	2.007	mg/L	0.0204	1.01%
Si 288.158†	3638.9	2.053	mg/L	0.0007	2.053	mg/L	0.0007	0.04%
Sn 189.927†	4974.0	0.9761	mg/L	0.00818	0.9761	mg/L	0.00818	0.84%
Sr 421.552†	948198.3	1.009	mg/L	0.0024	1.009	mg/L	0.0024	0.24%
Ti 334.903†	23057.0	1.003	mg/L	0.0051	1.003	mg/L	0.0051	0.50%
Tl 190.801†	4794.2	2.039	mg/L	0.0167	2.039	mg/L	0.0167	0.82%
V 292.402†	144907.0	1.044	mg/L	0.0084	1.044	mg/L	0.0084	0.81%
Zn 206.200†	4537.4	1.062	mg/L	0.0047	1.062	mg/L	0.0047	0.44%

Sequence No.: 35  
Sample ID: CB  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 1  
Date Collected: 2/28/2013 12:52:11 PM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3160686.4	103.1	%	0.68			0.66%
ScR 361.383	334430.6	102.6	%	0.49			0.48%
Ag 328.068†	31.8	0.00014	mg/L	0.000206	0.00014 mg/L	0.000206	146.45%
Al 308.215†	2.7	0.00194	mg/L	0.006368	0.00194 mg/L	0.006368	328.95%
As 188.979†	1.3	0.00075	mg/L	0.000665	0.00075 mg/L	0.000665	88.18%
B 249.677†	3.9	0.00057	mg/L	0.000957	0.00057 mg/L	0.000957	168.67%
Ba 233.527†	-4.4	-0.00075	mg/L	0.000337	-0.00075 mg/L	0.000337	44.62%
Be 313.042†	-17.3	-0.00003	mg/L	0.000040	-0.00003 mg/L	0.000040	121.97%
Ca 317.933†	-36.1	-0.00341	mg/L	0.000168	-0.00341 mg/L	0.000168	4.92%
Cd 228.802†	9.2	0.00034	mg/L	0.000174	0.00034 mg/L	0.000174	50.71%
Co 228.616†	0.7	0.00002	mg/L	0.000093	0.00002 mg/L	0.000093	611.61%
Cr 267.716†	9.0	0.00137	mg/L	0.000305	0.00137 mg/L	0.000305	22.25%
Cu 324.752†	113.9	0.00040	mg/L	0.000287	0.00040 mg/L	0.000287	71.35%
Fe 273.955†	4.0	0.00256	mg/L	0.000639	0.00256 mg/L	0.000639	24.94%
K 766.490†	61.0	0.03670	mg/L	0.033911	0.03670 mg/L	0.033911	92.41%
Mg 279.077†	-1.4	-0.00135	mg/L	0.004317	-0.00135 mg/L	0.004317	320.48%
Mn 257.610†	-3.7	-0.00008	mg/L	0.000048	-0.00008 mg/L	0.000048	63.13%
Mo 202.031†	24.1	0.00107	mg/L	0.000325	0.00107 mg/L	0.000325	30.33%
Na 589.592†	-30.1	-0.00240	mg/L	0.000633	-0.00240 mg/L	0.000633	26.38%
Na 330.237†	-15.3	-0.5035	mg/L	0.14997	-0.5035 mg/L	0.14997	29.79%
Ni 231.604†	-1.4	-0.00033	mg/L	0.001150	-0.00033 mg/L	0.001150	347.68%
Pb 220.353†	4.6	0.00050	mg/L	0.000336	0.00050 mg/L	0.000336	67.47%
Sb 206.836†	13.6	0.00381	mg/L	0.002040	0.00381 mg/L	0.002040	53.54%
Se 196.026†	4.0	0.00231	mg/L	0.001615	0.00231 mg/L	0.001615	69.94%
Si 288.158†	1.6	0.00092	mg/L	0.000894	0.00092 mg/L	0.000894	97.20%
Sn 189.927†	3.0	0.00059	mg/L	0.000835	0.00059 mg/L	0.000835	141.27%
Sr 421.552†	-36.9	-0.00004	mg/L	0.000008	-0.00004 mg/L	0.000008	19.29%
Ti 334.903†	10.5	0.00046	mg/L	0.000738	0.00046 mg/L	0.000738	161.52%
Tl 190.801†	-2.4	-0.00101	mg/L	0.001568	-0.00101 mg/L	0.001568	154.92%
V 292.402†	6.1	0.00005	mg/L	0.000094	0.00005 mg/L	0.000094	188.35%
Zn 206.200†	-2.0	-0.00046	mg/L	0.000660	-0.00046 mg/L	0.000660	144.36%

*and plg*

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA

Analysis Date: 2-28-13

msi	Analyst BA 3-1-13	Peer # 3113	Comment
<b>Logbook:</b>			
Analyst, Date, Method info	✓	/	
Sample ID's	✓	/	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	/	
Dilution factors	✓	/	
Crossouts/Corrections/Deletions	✓	/	
<b>Calibration:</b>			
Blank & Standard intensities	✓	/	
Standard deviations	✓	/	
Curve fit	✓	/	
<b>Calibration Verification:</b>			
ICV/CCV	✓	/	
ICB/CCB	✓	/	
<b>Samples:</b>			
RSD's & SD's	✓	/	
Internal Standards	✓	✓	See log
Carry-over	✓	/	
<b>Method QC:</b>			
CRI/CRA	✓	/	
ICSA/ICSAB	✓	/	See log
Post Spikes/Serial Dilutions	✓	/	↓ (WETA)
Analytic Spikes	—		
<b>Matrix QC:</b>			
SRM/LCS	✓	/	
Matrix Spikes	✓	/	WETA, WE80
Matrix Duplicates	✓	/	WE80
Method Blanks	✓	/	
<b>Data Distribution:</b>			
Requested elements/isotope identified	✓	/	
Correct samples identified for distribution	✓	/	
Raw data match distributed data	✓	/	
Data filename correct	✓	/	
Necessary Analysts Notes and CAF's	✓	/	CAF - WETA, WE80



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 1 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	STD 0			ISTDs higher than usually (expected)
	✓	0			
	✓	1			
	✓	2			
	✓	↓ 3			
		STD 0			3009-6
		1			3016-4
		2			↓ -5
		3			3019-1
		↓ 4			3016-6
		Biose sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low Check			
		ICSA			
		ICSA B			<sup>62</sup> Ni ↑
		LR200			
		LR300			
		CCV2			
		CCB2			
		WE79 MBI	SWN	20	
		↓ B	↓	↓	



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 2 of 6

All corrections made by analyst unless otherwise noted. BA 2-28-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE79 C	SWN	20	
		D		↓	
		A-L		100	✓ C <sub>2</sub> > 10% V <sub>2</sub> 10% (CAF)
		A		20	✗
		ADUP			✓
		ASPK			✓ (CAF) Sb ↓ As STL
		APOST			✓ 0.06 mL ICPMS Spt #1 20149-12 0.06 mL ICPMS Spt #2 20150-7 SbOK
		↓ MBISPK	↓	↓	✓
		CCV3			
		CCB3			
		WE79 MB2	SWN	20	
		E			
		F			
		G			
		H			
		I			
		J			
		K			
		L			
		↓ MB2SPK	↓	↓	✓
		CCV4			
		CCB4			
		WE79 M	SWN	20	
		↓ N	↓	↓	



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 3 of 6

All corrections made by analyst unless otherwise noted. BA 2-28-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE79 O	SWN	20	
		P			
		Q			
		R			
		S		50	As = LR
		T		20	As
		U			
		CCV5			
		CCB5			
		WE80 MBI	SWN	20	
		WE79 V			
		X			No As
		X		50	As
		WE80 A-L		100	
		A		20	
		ADVP			V, Cr > 20%
		ASPK			As, Sb
		APOST			0.06 mL ICPMS spk #1 29991-12
		MBISPK			0.06 mL ICPMS spk #2 29956-7 As, Sb OK
		CCV6			
		CCB6			
		WE80 MB2	SWN	20	
		WE79 W			
		WE80 B			



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Analytical Chemists and Consultants

# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 4 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE80 C	SWN	20	
		D			
		E			
		F			
		G			
		H			
		↓ MB2SPK	↓	↓	✓
		CCV7			
		CCB7			End WET9
		WE80 I	SWN	20	
		J			
		K			
		L			
		M			
		N			
		O			
		P			
		Q			
		↓ R	↓	↓	
		CCV8			
		CCB8			
		WE80 S	SWN	20	
		T			
		↓ U	↓	↓	





# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 5 of 6

All corrections made by analyst unless otherwise noted. ~~BA~~ 3-1-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE80 Y	SWN	20	
		CCV9			
		CCB9			End WE80
		STD 0			
		CCV10			
		CCB10			
		WE83 C	SWN	20	Cr
		D			
		E			
		F			
		G			
222	✓	<del>222222</del>			
	✓	<del>A</del>		100	
	✓	A		20	Sc ↑
	✓	ADUP			
	✓	ASPK			
222	✓	<del>222222</del>			
		<del>APOST</del>			0.06 mL ICPMS Spk #1 2999-12
		CCV11			
		CCB11			
Diln		WE83 H	SWN	20	Cr
		I			
		J			
		B-L		100	
		B		20	
		BDUP			

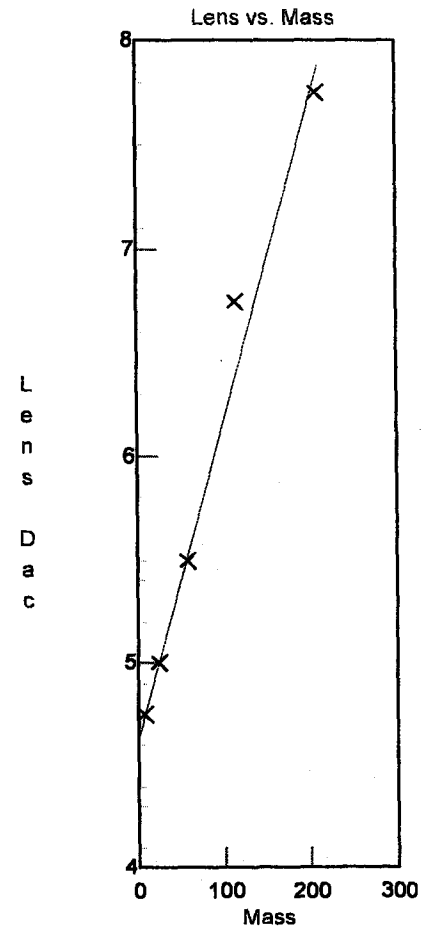
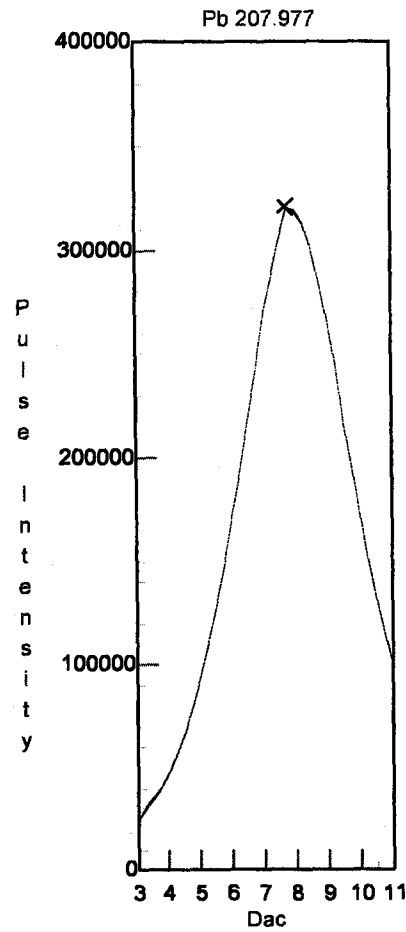
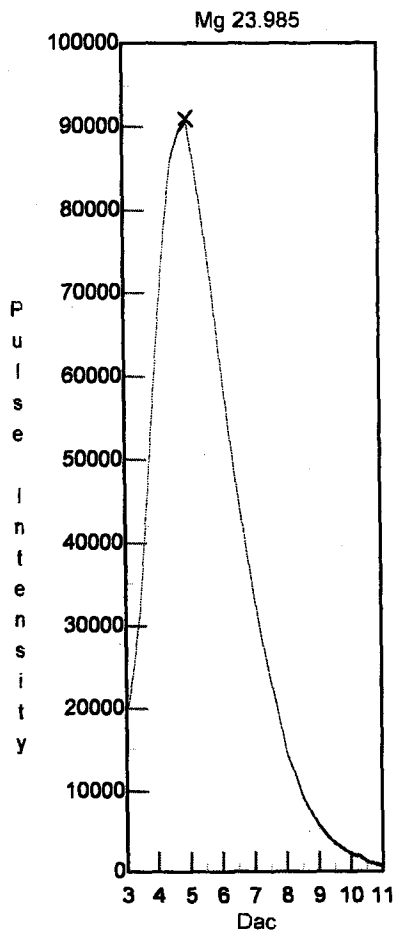
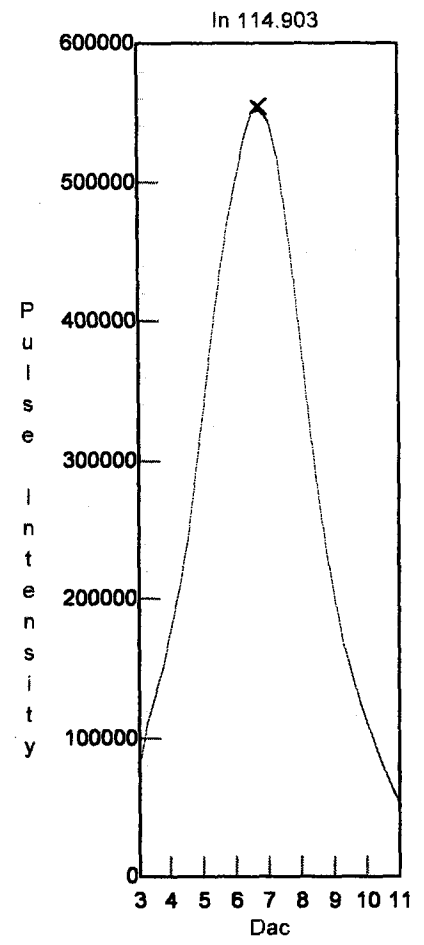
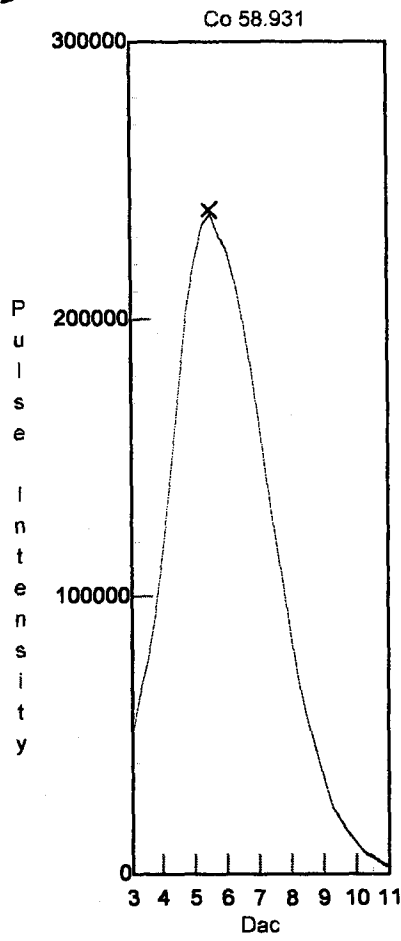
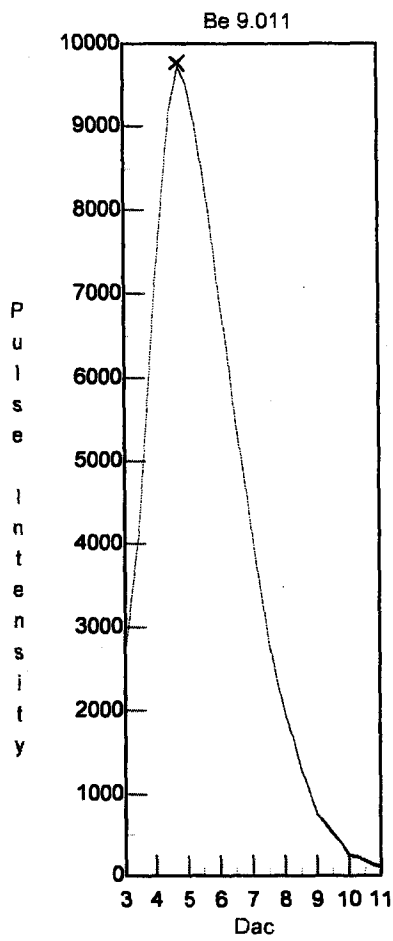
*[Handwritten signature]*  
2/24/13

# Instrument Tuning Report

File Name: Default.tun  
File Path: C:\Elandata\Tuning\Default.tun

Analyte	Exact Mass	Meas. Mass ✓	Mass DAC	Res. DAC	Meas. Pk. Width ✓	Custom Res.
Be	9.012	9.026	2032	2152	0.681	
Mg	23.985	24.029	5668	2262	0.681	
Co	58.933	58.979	14162	2530	0.670	
In	114.904	114.928	27797	2970	0.686	
Pb	207.977	207.976	50439	3725	0.678	

2-28-13



# Daily Performance Report

Sample ID: Sample

Sample Date/Time: Thursday, February 28, 2013 08:31:51

Sample Description:

Sample File: 1119.sam

Method File: C:\Elandata\Method\aridailyperf.mth

Dataset File: C:\Elandata\Dataset\daily performance\Sample.1410

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\Default.dac

Number of Replicates: 5

Dual Detector Mode: Dual

neb 0.91

Discrim 18

## Summary

Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Mg	24	37443.191-	268.758	0.718
In	115	295012.843-	3474.846	1.178
Pb	208	166796.113✓	1475.478	0.885
[> Ba	138	214941.579	971.579	0.452
[ Ba++	69	0.014✓	0.000	2.038
[> Ce	140	262413.981	1804.338	0.688
[ CeO	156	0.028✓	0.001	3.440
Bkgd	220	7.251✓	4.627	63.816

Mg, In w/in PE specs.

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:06:31

Dad

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L				835189	1
[ Be	9		ug/L				20	19
C	13		mg/L				6181	1
Cl	37		mg/L				1350033	0
> Sc	45		ug/L				411364	0
V	51		ug/L				2732	7
V-1	51		ug/L				1737	4
Cr	52		ug/L				8424	0
Cr	53		ug/L				633	11
Mn	55		ug/L				365	6
[ Co	59		ug/L				59	14
> Ge	72		ug/L				374428	0
Ni	60		ug/L				50	10
Ni	62		ug/L				105	7
Cu	63		ug/L				195	1
Cu	65		ug/L				117	1
Zn	66		ug/L				394	4
Zn	67		ug/L				132	13
Zn	68		ug/L				5631	0
As	75		ug/L				116	13
As-1	75		ug/L				7608	0
Se	82		ug/L				-6	113
Se	78		ug/L				7976	0
[ Mo	98		ug/L				254	6
Y	89		ug/L				464015	1
Kr	83		ug/L				208	2
> In	115		ug/L				513209	0
Ag	107		ug/L				49	23
Cd	111		ug/L				296	6
Cd	114		ug/L				39	11
Sb	121		ug/L				23	29
Sb	123		ug/L				18	26
[ Ba	135		ug/L				31	24
[ Ba	137		ug/L				44	14
> Tb	159		ug/L				620456	0
Tl	205		ug/L				354	3
Pb	208		ug/L				1450	5
Bi	209		ug/L				532846	0
Th	232		ug/L				1511	19
[ U	238		ug/L				3140	23

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:22:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Del

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L				834409	2
[ Be	9		ug/L				21	8
C	13		mg/L				6116	1
Cl	37		mg/L				1351308	0
[> Sc	45		ug/L				414160	0
V	51		ug/L				2774	1
V-1	51		ug/L				1921	6
Cr	52		ug/L				8655	0
Cr	53		ug/L				705	3
Mn	55		ug/L				335	4
[ Co	59		ug/L				58	16
[> Ge	72		ug/L				377048	0
Ni	60		ug/L				43	17
Ni	62		ug/L				88	12
Cu	63		ug/L				214	4
Cu	65		ug/L				96	5
Zn	66		ug/L				440	1
Zn	67		ug/L				133	1
Zn	68		ug/L				5580	1
As	75		ug/L				133	16
As-1	75		ug/L				7638	0
Se	82		ug/L				5	140
Se	78		ug/L				7975	0
[ Mo	98		ug/L				127	0
Y	89		ug/L				466348	0
Kr	83		ug/L				190	0
[> In	115		ug/L				516852	0
Ag	107		ug/L				50	11
Cd	111		ug/L				314	5
Cd	114		ug/L				33	13
Sb	121		ug/L				28	6
Sb	123		ug/L				23	14
Ba	135		ug/L				25	15
[ Ba	137		ug/L				35	18
[> Tb	159		ug/L				615206	0
Tl	205		ug/L				235	6
Pb	208		ug/L				1052	4
Bi	209		ug/L				532859	0
Th	232		ug/L				868	4
[ U	238		ug/L				1186	14

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:28:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*Del*

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			834409	811825	0
[	Be	9	10.000	ug/L	0.159	1	21	7749	0
	C	13		mg/L			6116	4733	0
	Cl	37		mg/L			1351308	1367348	0
[>	Sc	45		ug/L			414160	411253	1
	V	51	10.000	ug/L	0.195	1	2774	173995	0
	V-1	51	10.000	ug/L	0.214	2	1921	175888	0
	Cr	52	10.000	ug/L	0.134	1	8655	159031	0
	Cr	53	10.000	ug/L	0.177	1	705	18576	0
	Mn	55	10.000	ug/L	0.208	2	335	264041	0
[	Co	59	10.000	ug/L	0.160	1	58	186415	0
[>	Ge	72		ug/L			377048	368562	0
	Ni	60	10.000	ug/L	0.074	0	43	38980	0
	Ni	62	10.000	ug/L	0.303	3	88	5765	2
	Cu	63	10.000	ug/L	0.034	0	214	80439	0
	Cu	65	10.000	ug/L	0.074	0	96	36952	0
	Zn	66	10.000	ug/L	0.158	1	440	24684	1
	Zn	67	10.000	ug/L	0.105	1	133	4283	1
	Zn	68	10.000	ug/L	0.176	1	5580	22150	1
	As	75	10.000	ug/L	0.132	1	133	22694	1
	As-1	75	10.000	ug/L	0.096	0	7638	29172	0
	Se	82	10.000	ug/L	0.080	0	5	3319	0
	Se	78	10.000	ug/L	0.046	0	7975	15395	0
[	Mo	98	10.000	ug/L	0.048	0	127	90487	0
	Y	89		ug/L			466348	452852	0
	Kr	83		ug/L			190	201	4
[>	In	115		ug/L			516852	502710	0
	Ag	107	10.000	ug/L	0.120	1	50	165599	0
	Cd	111	10.000	ug/L	0.048	0	314	41419	0
	Cd	114	10.000	ug/L	0.083	0	33	93960	0
	Sb	121	10.000	ug/L	0.039	0	28	111104	0
	Sb	123	10.000	ug/L	0.057	0	23	83722	0
	Ba	135	10.000	ug/L	0.051	0	25	32166	0
[	Ba	137	10.000	ug/L	0.150	1	35	55608	1
[>	Tb	159		ug/L			615206	607939	0
	Tl	205	10.000	ug/L	0.137	1	235	459759	1
	Pb	208	10.000	ug/L	0.081	0	1052	621807	0
	Bi	209		ug/L			532859	517318	0
	Th	232	10.000	ug/L	0.038	0	868	715581	0
[	U	238	10.000	ug/L	0.105	1	1186	784959	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:34:39

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

D2

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			834409	810691	0
[ Be	9	19.958	ug/L	0.076	0	21	15296	0
C	13		mg/L			6116	4833	3
Cl	37		mg/L			1351308	1352336	0
> Sc	45		ug/L			414160	403931	0
V	51	20.072	ug/L	0.212	1	2774	345307	0
V-1	51	20.062	ug/L	0.239	1	1921	349051	0
Cr	52	20.074	ug/L	0.289	1	8655	309547	0
Cr	53	20.042	ug/L	0.356	1	705	36176	1
Mn	55	20.006	ug/L	0.345	1	335	519201	1
[ Co	59	19.992	ug/L	0.291	1	58	365436	0
> Ge	72		ug/L			377048	364917	0
Ni	60	19.904	ug/L	0.378	1	43	75331	1
Ni	62	19.887	ug/L	0.334	1	88	11019	1
Cu	63	19.966	ug/L	0.293	1	214	157738	0
Cu	65	19.955	ug/L	0.251	1	96	72266	0
Zn	66	19.965	ug/L	0.148	0	440	48040	0
Zn	67	20.043	ug/L	0.051	0	133	8441	0
Zn	68	20.037	ug/L	0.120	0	5580	38767	0
As	75	20.031	ug/L	0.228	1	133	45151	0
As-1	75	20.044	ug/L	0.235	1	7638	50850	0
Se	82	19.990	ug/L	0.293	1	5	6551	0
Se	78	20.019	ug/L	0.299	1	7975	22838	0
[ Mo	98	20.009	ug/L	0.233	1	127	179443	0
Y	89		ug/L			466348	450902	0
Kr	83		ug/L			190	206	4
> In	115		ug/L			516852	504144	0
Ag	107	19.948	ug/L	0.256	1	50	327825	0
Cd	111	19.950	ug/L	0.239	1	314	81736	0
Cd	114	19.960	ug/L	0.189	0	33	186557	0
Sb	121	19.973	ug/L	0.219	1	28	221312	0
Sb	123	19.949	ug/L	0.197	0	23	165779	0
Ba	135	19.915	ug/L	0.189	0	25	63139	0
[ Ba	137	19.921	ug/L	0.170	0	35	109327	0
> Tb	159		ug/L			615206	600273	0
Tl	205	20.012	ug/L	0.067	0	235	910473	0
Pb	208	20.015	ug/L	0.256	1	1052	1231571	0
Bi	209		ug/L			532859	510212	0
Th	232	20.064	ug/L	0.197	0	868	1435022	0
[ U	238	20.048	ug/L	0.233	1	1186	1567753	0



# ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:40:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Del

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			834409	408112	0
[ Be	9	54.407	ug/L	0.566	1	21	37492	0
[ C	13		mg/L			6116	2522	1
[ Cl	37		mg/L			1351308	1362130	0
[> Sc	45		ug/L			414160	204459	0
[ V	51	54.480	ug/L	0.731	1	2774	854098	0
[ V-1	51	54.485	ug/L	0.716	1	1921	866261	0
[ Cr	52	54.455	ug/L	0.663	1	8655	749952	0
[ Cr	53	54.470	ug/L	0.572	1	705	88634	0
[ Mn	55	54.435	ug/L	0.503	0	335	1284375	1
[ Co	59	54.446	ug/L	0.270	0	58	906917	1
[> Ge	72		ug/L			377048	183051	0
[ Ni	60	54.401	ug/L	0.255	0	43	184393	0
[ Ni	62	54.410	ug/L	0.879	1	88	26888	1
[ Cu	63	54.342	ug/L	0.621	1	214	380259	1
[ Cu	65	54.364	ug/L	0.394	0	96	175060	0
[ Zn	66	54.394	ug/L	0.389	0	440	116286	0
[ Zn	67	54.462	ug/L	0.234	0	133	20525	0
[ Zn	68	54.575	ug/L	0.556	1	5580	86744	0
[ As	75	54.413	ug/L	0.327	0	133	109876	0
[ As-1	75	54.565	ug/L	0.415	0	7638	112894	0
[ Se	82	54.406	ug/L	0.212	0	5	15978	0
[ Se	78	54.840	ug/L	0.209	0	7975	44139	0
[ Mo	98	54.588	ug/L	0.550	1	127	453521	0
[ Y	89		ug/L			466348	227930	0
[ Kr	83		ug/L			190	217	4
[> In	115		ug/L			516852	254383	0
[ Ag	107	54.433	ug/L	0.539	0	50	810823	1
[ Cd	111	54.457	ug/L	0.044	0	314	202508	0
[ Cd	114	54.471	ug/L	0.148	0	33	464594	0
[ Sb	121	54.474	ug/L	0.391	0	28	551084	0
[ Sb	123	54.452	ug/L	0.324	0	23	411507	0
[ Ba	135	54.478	ug/L	0.546	1	25	157789	0
[ Ba	137	54.464	ug/L	0.484	0	35	272396	0
[> Tb	159		ug/L			615206	306137	0
[ Tl	205	54.387	ug/L	0.128	0	235	2247937	0
[ Pb	208	54.377	ug/L	0.173	0	1052	3032815	0
[ Bi	209		ug/L			532859	258227	1
[ Th	232	54.438	ug/L	0.754	1	868	3568582	0
[ U	238	54.344	ug/L	0.318	0	1186	3829971	0

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:53:46

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L				803723	0
[ Be	9		ug/L				23	25
C	13		mg/L				6243	1
Cl	37		mg/L				1387303	0
[> Sc	45		ug/L				409578	1
V	51		ug/L				2772	2
V-1	51		ug/L				1649	2
Cr	52		ug/L				8617	1
Cr	53		ug/L				614	4
Mn	55		ug/L				377	2
[ Co	59		ug/L				55	22
[> Ge	72		ug/L				372563	0
Ni	60		ug/L				49	6
Ni	62		ug/L				97	14
Cu	63		ug/L				233	9
Cu	65		ug/L				114	3
Zn	66		ug/L				375	3
Zn	67		ug/L				141	7
Zn	68		ug/L				5524	2
As	75		ug/L				145	23
As-1	75		ug/L				7671	0
Se	82		ug/L				0	4202
Se	78		ug/L				7997	0
[ Mo	98		ug/L				87	9
Y	89		ug/L				461134	0
Kr	83		ug/L				197	4
[> In	115		ug/L				515607	1
Ag	107		ug/L				75	7
Cd	111		ug/L				330	7
Cd	114		ug/L				32	31
Sb	121		ug/L				198	6
Sb	123		ug/L				157	7
Ba	135		ug/L				24	16
[ Ba	137		ug/L				36	10
[> Tb	159		ug/L				612197	1
Tl	205		ug/L				250	6
Pb	208		ug/L				1016	2
Bi	209		ug/L				532877	1
Th	232		ug/L				1565	6
[ U	238		ug/L				1000	9

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:59:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	787425	2
[ Be	9	10.000	ug/L	0.236	2	23	7555	0
C	13		mg/L			6243	6337	2
Cl	37		mg/L			1387303	1395809	0
[> Sc	45		ug/L			409578	408662	0
V	51	10.000	ug/L	0.106	1	2772	174285	0
V-1	51	10.000	ug/L	0.133	1	1649	175375	0
Cr	52	10.000	ug/L	0.055	0	8617	158394	1
Cr	53	10.000	ug/L	0.093	0	614	18247	1
Mn	55	10.000	ug/L	0.081	0	377	261887	1
[ Co	59	10.000	ug/L	0.041	0	55	186342	0
[> Ge	72		ug/L			372563	371131	0
Ni	60	10.000	ug/L	0.088	0	49	38708	1
Ni	62	10.000	ug/L	0.126	1	97	5638	2
Cu	63	10.000	ug/L	0.078	0	233	80115	1
Cu	65	10.000	ug/L	0.079	0	114	37007	0
Zn	66	10.000	ug/L	0.060	0	375	24594	0
Zn	67	10.000	ug/L	0.205	2	141	4327	2
Zn	68	10.000	ug/L	0.135	1	5524	22403	1
As	75	10.000	ug/L	0.031	0	145	22729	0
As-1	75	10.000	ug/L	0.044	0	7671	29317	0
Se	82	10.000	ug/L	0.106	1	0	3296	0
Se	78	10.000	ug/L	0.194	1	7997	15445	0
[ Mo	98	10.000	ug/L	0.165	1	87	90903	0
Y	89		ug/L			461134	453754	0
Kr	83		ug/L			197	201	3
[> In	115		ug/L			515607	507203	0
Ag	107	10.000	ug/L	0.045	0	75	165997	0
Cd	111	10.000	ug/L	0.190	1	330	41512	1
Cd	114	10.000	ug/L	0.105	1	32	94641	0
Sb	121	10.000	ug/L	0.141	1	198	111727	0
Sb	123	10.000	ug/L	0.145	1	157	84206	0
Ba	135	10.000	ug/L	0.199	1	24	31709	1
[ Ba	137	10.000	ug/L	0.136	1	36	55086	0
[> Tb	159		ug/L			612197	608460	0
Tl	205	10.000	ug/L	0.111	1	250	463851	1
Pb	208	10.000	ug/L	0.072	0	1016	625133	0
Bi	209		ug/L			532877	520667	0
Th	232	10.000	ug/L	0.095	0	1565	718829	0
[ U	238	10.000	ug/L	0.099	0	1000	781400	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:06:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	775816	0
[ Be	9	20.107	ug/L	0.412	2	23	15273	1
C	13		mg/L			6243	4663	3
Cl	37		mg/L			1387303	1382267	1
[> Sc	45		ug/L			409578	403599	0
V	51	20.017	ug/L	0.161	0	2772	342959	0
V-1	51	20.012	ug/L	0.154	0	1649	345867	0
Cr	52	20.076	ug/L	0.021	0	8617	310075	0
Cr	53	20.060	ug/L	0.024	0	614	35968	0
Mn	55	20.000	ug/L	0.250	1	377	516939	1
[ Co	59	20.007	ug/L	0.257	1	55	368640	0
[> Ge	72		ug/L			372563	366032	0
Ni	60	19.970	ug/L	0.246	1	49	75730	1
Ni	62	19.989	ug/L	0.015	0	97	10995	0
Cu	63	19.972	ug/L	0.048	0	233	156707	0
Cu	65	19.970	ug/L	0.051	0	114	72354	0
Zn	66	20.033	ug/L	0.231	1	375	48547	1
Zn	67	20.070	ug/L	0.120	0	141	8543	0
Zn	68	20.052	ug/L	0.107	0	5524	39202	0
As	75	20.046	ug/L	0.108	0	145	45209	0
As-1	75	20.048	ug/L	0.190	0	7671	50807	0
Se	82	20.032	ug/L	0.055	0	0	6555	0
Se	78	20.037	ug/L	0.220	1	7997	22749	0
[ Mo	98	20.032	ug/L	0.099	0	87	180694	0
Y	89		ug/L			461134	452360	0
Kr	83		ug/L			197	205	1
[> In	115		ug/L			515607	502148	0
Ag	107	19.974	ug/L	0.082	0	75	326523	0
Cd	111	19.985	ug/L	0.177	0	330	81568	1
Cd	114	19.986	ug/L	0.094	0	32	186739	0
Sb	121	20.042	ug/L	0.150	0	198	223399	0
Sb	123	20.006	ug/L	0.169	0	157	166839	0
Ba	135	20.010	ug/L	0.273	1	24	62913	0
[ Ba	137	19.981	ug/L	0.095	0	36	108536	0
[> Tb	159		ug/L			612197	603343	0
Tl	205	19.967	ug/L	0.260	1	250	911986	0
Pb	208	19.981	ug/L	0.146	0	1016	1232978	0
Bi	209		ug/L			532877	513800	0
Th	232	20.023	ug/L	0.128	0	1565	1432181	0
[ U	238	19.989	ug/L	0.115	0	1000	1544581	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:12:11

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	799906	1
[ Be	9	49.669	ug/L	1.055	2	23	37618	0
C	13		mg/L			6243	2342	2
Cl	37		mg/L			1387303	1371003	0
[> Sc	45		ug/L			409578	416446	0
V	51	49.621	ug/L	0.458	0	2772	841265	0
V-1	51	49.671	ug/L	0.452	0	1649	855232	0
Cr	52	49.485	ug/L	0.419	0	8617	738192	0
Cr	53	49.651	ug/L	0.613	1	614	87882	0
Mn	55	49.621	ug/L	0.669	1	377	1274417	0
[ Co	59	49.569	ug/L	0.734	1	55	903430	0
[> Ge	72		ug/L			372563	372655	0
Ni	60	49.660	ug/L	0.452	0	49	185349	1
Ni	62	49.691	ug/L	0.644	1	97	26857	0
Cu	63	49.498	ug/L	0.445	0	233	376156	0
Cu	65	49.563	ug/L	0.188	0	114	175011	1
Zn	66	49.518	ug/L	0.018	0	375	116041	0
Zn	67	49.479	ug/L	0.396	0	141	20191	1
Zn	68	49.467	ug/L	0.344	0	5524	86064	1
As	75	49.641	ug/L	0.345	0	145	109830	0
As-1	75	49.625	ug/L	0.418	0	7671	112770	0
Se	82	49.572	ug/L	0.608	1	0	15837	0
Se	78	49.515	ug/L	0.566	1	7997	43730	0
[ Mo	98	49.880	ug/L	0.843	1	87	452489	0
Y	89		ug/L			461134	462877	0
Kr	83		ug/L			197	228	3
[> In	115		ug/L			515607	513822	0
Ag	107	49.656	ug/L	0.616	1	75	802886	0
Cd	111	49.631	ug/L	0.226	0	330	199441	0
Cd	114	49.610	ug/L	0.083	0	32	456432	0
Sb	121	49.621	ug/L	0.350	0	198	545036	0
Sb	123	49.690	ug/L	0.088	0	157	411068	0
Ba	135	49.742	ug/L	0.465	0	24	155990	0
[ Ba	137	49.738	ug/L	0.303	0	36	269335	0
[> Tb	159		ug/L			612197	620995	0
Tl	205	49.664	ug/L	0.144	0	250	2258760	0
Pb	208	49.560	ug/L	0.148	0	1016	3013666	0
Bi	209		ug/L			532877	517774	0
Th	232	49.861	ug/L	0.038	0	1565	3618391	0
[ U	238	49.763	ug/L	0.205	0	1000	3864616	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:18:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	725707	2
[ Be	9	100.936	ug/L	1.927	1	23	71571	1
C	13		mg/L			6243	4717	1
Cl	37		mg/L			1387303	1353854	0
[> Sc	45		ug/L			409578	388974	0
V	51	101.163	ug/L	0.536	0	2772	1663651	0
V-1	51	101.133	ug/L	0.725	0	1649	1688577	0
Cr	52	100.917	ug/L	0.665	0	8617	1441463	0
Cr	53	100.836	ug/L	0.707	0	614	170856	0
Mn	55	100.515	ug/L	0.970	0	377	2453060	0
[ Co	59	100.722	ug/L	0.121	0	55	1756939	0
[> Ge	72		ug/L			372563	352045	0
Ni	60	100.177	ug/L	0.398	0	49	355268	0
Ni	62	100.453	ug/L	0.430	0	97	51984	0
Cu	63	100.119	ug/L	0.428	0	233	721423	0
Cu	65	100.134	ug/L	1.163	1	114	335409	1
Zn	66	100.287	ug/L	0.994	0	375	223786	0
Zn	67	100.655	ug/L	1.172	1	141	39526	1
Zn	68	100.378	ug/L	0.619	0	5524	161580	0
As	75	100.565	ug/L	0.548	0	145	214090	0
As-1	75	100.628	ug/L	0.838	0	7671	212891	0
Se	82	100.375	ug/L	0.022	0	0	30680	0
Se	78	100.534	ug/L	0.996	0	7997	77338	0
[ Mo	98	101.636	ug/L	0.587	0	87	921198	0
Y	89		ug/L			461134	439671	0
Kr	83		ug/L			197	242	5
[> In	115		ug/L			515607	486305	1
Ag	107	100.450	ug/L	1.192	1	75	1560447	0
Cd	111	100.789	ug/L	0.182	0	330	393332	0
Cd	114	100.514	ug/L	0.348	0	32	890454	0
Sb	121	100.794	ug/L	0.855	0	198	1076058	0
Sb	123	100.885	ug/L	1.011	1	157	806524	0
Ba	135	100.578	ug/L	1.420	1	24	304335	0
[ Ba	137	100.738	ug/L	1.467	1	36	529212	0
[> Tb	159		ug/L			612197	593548	0
Tl	205	100.513	ug/L	0.615	0	250	4444971	0
Pb	208	100.562	ug/L	1.196	1	1016	5955080	0
Bi	209		ug/L			532877	487266	1
Th	232	100.762	ug/L	0.757	0	1565	7169116	0
[ U	238	100.878	ug/L	1.102	1	1000	7712569	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:24:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	745553	0
[ Be	9	0.008	ug/L	0.014	187	23	27	37
C	13		mg/L			6243	6191	1
Cl	37		mg/L			1387303	1383915	0
[> Sc	45		ug/L			409578	404954	1
V	51	0.001	ug/L	0.004	370	2772	2758	2
V-1	51	0.003	ug/L	0.003	94	1649	1691	3
Cr	52	-0.004	ug/L	0.003	77	8617	8458	1
Cr	53	0.004	ug/L	0.007	168	614	614	1
Mn	55	0.007	ug/L	0.003	49	377	550	16
[ Co	59	0.003	ug/L	0.002	69	55	115	36
[> Ge	72		ug/L			372563	369955	0
Ni	60	0.003	ug/L	0.001	30	49	61	6
Ni	62	0.009	ug/L	0.024	265	97	101	13
Cu	63	0.011	ug/L	0.004	33	233	315	9
Cu	65	0.009	ug/L	0.004	48	114	144	11
Zn	66	0.018	ug/L	0.001	5	375	413	0
Zn	67	-0.049	ug/L	0.019	37	141	120	5
Zn	68	-0.035	ug/L	0.026	72	5524	5427	0
As	75	0.005	ug/L	0.017	351	145	155	24
As-1	75	-0.045	ug/L	0.043	95	7671	7520	0
Se	82	-0.001	ug/L	0.022	1598	0	0	734
Se	78	-0.121	ug/L	0.121	99	7997	7852	0
[ Mo	98	0.016	ug/L	0.005	33	87	238	22
Y	89		ug/L			461134	459175	0
Kr	83		ug/L			197	203	2
[> In	115		ug/L			515607	510759	0
Ag	107	0.012	ug/L	0.005	40	75	278	30
Cd	111	0.008	ug/L	0.002	20	330	361	2
Cd	114	0.002	ug/L	0.003	119	32	53	46
Sb	121	0.109	ug/L	0.033	30	198	1416	26
Sb	123	0.112	ug/L	0.037	32	157	1101	28
Ba	135	0.007	ug/L	0.004	53	24	47	26
[ Ba	137	0.006	ug/L	0.003	49	36	67	23
[> Tb	159		ug/L			612197	608395	0
Tl	205	0.011	ug/L	0.004	40	250	731	27
Pb	208	0.005	ug/L	0.004	77	1016	1326	18
Bi	209		ug/L			532877	528776	0
Th	232	0.052	ug/L	0.017	32	1565	5325	23
[ U	238	0.000	ug/L	0.003	3095	1000	1002	23

## Quantitative Analysis - Calibration Report

Sample Date/Time: Thursday, February 28, 2013 10:18:20

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	0.9998	0.0010	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	0.9997	0.0422	10	20	50	100	
V-1	51	0.9998	0.0429	10	20	50	100	
Cr	52	0.9998	0.0365	10	20	50	100	
Cr	53	0.9999	0.0043	10	20	50	100	
Mn	55	0.9999	0.0627	10	20	50	100	
Co	59	0.9999	0.0448	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0101	10	20	50	100	
Ni	62	0.9999	0.0015	10	20	50	100	
Cu	63	0.9999	0.0205	10	20	50	100	
Cu	65	1.0000	0.0095	10	20	50	100	
Zn	66	0.9999	0.0063	10	20	50	100	
Zn	67	0.9999	0.0011	10	20	50	100	
Zn	68	0.9999	0.0044	10	20	50	100	
As	75	0.9999	0.0060	10	20	50	100	
As-1	75	0.9999	0.0058	10	20	50	100	
Se	82	0.9999	0.0009	10	20	50	100	
Se	78	0.9999	0.0020	10	20	50	100	
Mo	98	0.9996	0.0257	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	0.9999	0.0319	10	20	50	100	
Cd	111	0.9999	0.0080	10	20	50	100	
Cd	114	0.9999	0.0182	10	20	50	100	
Sb	121	0.9999	0.0220	10	20	50	100	
Sb	123	0.9999	0.0165	10	20	50	100	
Ba	135	0.9999	0.0062	10	20	50	100	
Ba	137	0.9999	0.0108	10	20	50	100	
Tb	159							
Tl	205	0.9999	0.0745	10	20	50	100	
Pb	208	0.9999	0.0998	10	20	50	100	
Bi	209							
Th	232	0.9999	0.1199	10	20	50	100	
U	238	0.9999	0.1288	10	20	50	100	



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:31:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	761365 ✓	3
[ Be	9	50.963	ug/L	1.317	2	23	37908	0
C	13		mg/L			6243	11955	4
Cl	37		mg/L			1387303	1391231	0
> Sc	45		ug/L			409578	413228 ✓	1
V	51	50.528	ug/L	0.379	0	2772	884103	0
V-1	51	50.535	ug/L	0.415	0	1649	897128	0
Cr	52	50.336	ug/L	0.606	1	8617	768093	0
Cr	53	50.365	ug/L	0.776	1	614	90959	0
Mn	55	50.996	ug/L	0.527	1	377	1322242	0
[ Co	59	50.475	ug/L	0.646	1	55	935284	0
> Ge	72		ug/L			372563	375534 ✓	0
Ni	60	50.163	ug/L	0.546	1	49	189795	1
Ni	62	50.218	ug/L	0.301	0	97	27770	0
Cu	63	50.988	ug/L	0.284	0	233	392034	0
Cu	65	49.965	ug/L	0.276	0	114	178589	0
Zn	66	49.036	ug/L	0.166	0	375	116919	0
Zn	67	49.666	ug/L	0.231	0	141	20876	0
Zn	68	48.651	ug/L	0.312	0	5524	86410	0
As	75	51.820	ug/L	0.196	0	145	117750	0
As-1	75	50.496	ug/L	0.126	0	7671	117812	0
Se	82	78.050	ug/L	0.130	0	0	25448	0
Se	78	77.255	ug/L	0.187	0	7997	65263	0
[ Mo	98	49.443	ug/L	0.185	0	87	478094	0
Y	89		ug/L			461134	470246	1
Kr	83		ug/L			197	225	0
> In	115		ug/L			515607	520381 ✓	1
Ag	107	51.078	ug/L	1.413	2	75	848923	1
Cd	111	50.143	ug/L	0.624	1	330	209534	0
Cd	114	50.653	ug/L	0.366	0	32	480165	1
Sb	121	50.155	ug/L	0.684	1	198	573012	0
Sb	123	50.129	ug/L	0.502	1	157	429759	1
Ba	135	49.200	ug/L	1.054	2	24	159294	0
[ Ba	137	49.545	ug/L	1.288	2	36	278482	0
> Tb	159		ug/L			612197	629667 ✓	0
Tl	205	50.642	ug/L	0.493	0	250	2375889	0
Pb	208	50.318	ug/L	0.478	0	1016	3161532	0
Bi	209		ug/L			532877	525622	1
Th	232	50.380	ug/L	0.228	0	1565	3803488	0
[ U	238	51.203	ug/L	0.442	0	1000	4153338	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:37:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	748617 ✓	1
[ Be	9	0.004	ug/L	0.004	83	23	25	10
C	13		mg/L			6243	6278	1
Cl	37		mg/L			1387303	1413313	0
> Sc	45		ug/L			409578	406799 ✓	0
V	51	0.005	ug/L	0.003	61	2772	2845	1
V-1	51	0.007	ug/L	0.004	49	1649	1764	3
Cr	52	-0.011	ug/L	0.014	126	8617	8393	2
Cr	53	-0.004	ug/L	0.007	148	614	602	2
Mn	55	0.002	ug/L	0.001	43	377	430	5
[ Co	59	0.001	ug/L	0.001	43	55	76	12
> Ge	72		ug/L			372563	371234 ✓	0
Ni	60	0.004	ug/L	0.002	54	49	64	12
Ni	62	-0.001	ug/L	0.036	3774	97	96	20
Cu	63	0.006	ug/L	0.001	20	233	275	2
Cu	65	0.002	ug/L	0.002	107	114	120	5
Zn	66	0.015	ug/L	0.008	53	375	409	4
Zn	67	-0.040	ug/L	0.049	121	141	124	16
Zn	68	-0.133	ug/L	0.058	43	5524	5286	2
As	75	0.005	ug/L	0.010	208	145	156	15
As-1	75	-0.040	ug/L	0.013	33	7671	7558	0
Se	82	-0.034	ug/L	0.015	44	0	-11	42
Se	78	-0.150	ug/L	0.047	31	7997	7858	0
[ Mo	98	0.005	ug/L	0.004	71	87	135	25
Y	89		ug/L			461134	462158	0
Kr	83		ug/L			197	202	4
> In	115		ug/L			515607	513404 ✓	0
Ag	107	0.008	ug/L	0.002	22	75	200	13
Cd	111	0.004	ug/L	0.005	134	330	344	5
Cd	114	-0.000	ug/L	0.001	235	32	30	19
Sb	121	0.020	ug/L	0.007	36	198	427	19
Sb	123	0.017	ug/L	0.006	34	157	300	16
Ba	135	0.003	ug/L	0.001	31	24	32	7
[ Ba	137	0.004	ug/L	0.004	104	36	56	36
> Tb	159		ug/L			612197	612322 ✓	0
Tl	205	0.001	ug/L	0.001	129	250	281	14
Pb	208	-0.003	ug/L	0.002	67	1016	823	15
Bi	209		ug/L			532877	529663	0
Th	232	0.024	ug/L	0.010	41	1565	3332	21
[ U	238	-0.006	ug/L	0.001	19	1000	494	19

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:43:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	768542✓	0
[ Be	9	48.940	ug/L	0.792	1	23	36767	1
C	13		mg/L			6243	2535	2
Cl	37		mg/L			1387303	1382663	0
[> Sc	45		ug/L			409578	413851✓	0
V	51	48.353	ug/L	0.213	0	2772	847493	0
V-1	51	48.405	ug/L	0.410	0	1649	860758	0
Cr	52	48.314	ug/L	0.374	0	8617	738779	0
Cr	53	48.481	ug/L	0.634	1	614	87724	1
Mn	55	48.900	ug/L	0.222	0	377	1269945	0
[ Co	59	48.911	ug/L	0.489	0	55	907786	1
[> Ge	72		ug/L			372563	374562✓	0
Ni	60	49.021	ug/L	0.282	0	49	184994	0
Ni	62	49.284	ug/L	0.391	0	97	27185	0
Cu	63	49.644	ug/L	0.190	0	233	380724	0
Cu	65	49.241	ug/L	0.249	0	114	175545	0
Zn	66	49.478	ug/L	0.635	1	375	117659	0
Zn	67	49.590	ug/L	0.423	0	141	20790	0
Zn	68	48.877	ug/L	0.184	0	5524	86561	0
As	75	48.567	ug/L	0.203	0	145	110082	0
As-1	75	48.319	ug/L	0.250	0	7671	112772	0
Se	82	48.980	ug/L	0.410	0	0	15927	0
Se	78	48.271	ug/L	0.583	1	7997	43687	0
[ Mo	98	47.766	ug/L	0.230	0	87	460690	0
Y	89		ug/L			461134	465904	1
Kr	83		ug/L			197	218	2
[> In	115		ug/L			515607	520080✓	0
Ag	107	48.984	ug/L	0.250	0	75	813894	0
Cd	111	49.115	ug/L	0.308	0	330	205159	0
Cd	114	48.835	ug/L	0.293	0	32	462704	0
Sb	121	48.305	ug/L	0.437	0	198	551646	0
Sb	123	48.136	ug/L	0.630	1	157	412474	1
Ba	135	47.929	ug/L	0.189	0	24	155127	0
[ Ba	137	47.861	ug/L	0.213	0	36	268941	0
[> Tb	159		ug/L			612197	624951✓	0
Tl	205	49.526	ug/L	0.159	0	250	2306220	0
Pb	208	49.170	ug/L	0.256	0	1016	3066428	0
Bi	209		ug/L			532877	527189	0
Th	232	49.627	ug/L	0.204	0	1565	3718643	0
[ U	238	49.226	ug/L	0.759	1	1000	3963085	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:49:42

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	731468 ✓	1
[ Be	9	0.013	ug/L	0.007	54	23	30	16
C	13		mg/L			6243	6023	1
Cl	37		mg/L			1387303	1391085	0
[> Sc	45		ug/L			409578	406549 ✓	0
V	51	-0.001	ug/L	0.007	780	2772	2736	4
V-1	51	0.006	ug/L	0.007	128	1649	1735	7
Cr	52	-0.015	ug/L	0.005	32	8617	8328	1
Cr	53	0.006	ug/L	0.005	84	614	620	1
Mn	55	0.002	ug/L	0.000	27	377	421	3
[ Co	59	0.002	ug/L	0.001	42	55	84	14
[> Ge	72		ug/L			372563	367891 ✓	0
Ni	60	0.003	ug/L	0.002	72	49	58	11
Ni	62	0.005	ug/L	0.026	551	97	98	13
Cu	63	0.007	ug/L	0.001	8	233	282	0
Cu	65	0.001	ug/L	0.002	382	114	115	6
Zn	66	0.020	ug/L	0.008	41	375	416	4
Zn	67	-0.019	ug/L	0.040	213	141	131	12
Zn	68	-0.080	ug/L	0.050	62	5524	5325	1
As	75	0.015	ug/L	0.012	83	145	175	14
As-1	75	-0.015	ug/L	0.019	122	7671	7541	0
Se	82	0.034	ug/L	0.002	6	0	10	5
Se	78	-0.055	ug/L	0.044	79	7997	7856	0
[ Mo	98	0.005	ug/L	0.004	78	87	133	27
Y	89		ug/L			461134	462055	1
Kr	83		ug/L			197	193	2
[> In	115		ug/L			515607	507772 ✓	0
Ag	107	0.007	ug/L	0.001	19	75	180	11
Cd	111	0.006	ug/L	0.004	60	330	351	4
Cd	114	0.000	ug/L	0.000	109	32	36	11
Sb	121	0.060	ug/L	0.016	27	198	866	21
Sb	123	0.060	ug/L	0.015	25	157	655	19
Ba	135	0.002	ug/L	0.003	136	24	32	33
[ Ba	137	0.002	ug/L	0.002	114	36	45	22
[> Tb	159		ug/L			612197	604503 ✓	0
Tl	205	0.001	ug/L	0.002	229	250	285	30
Pb	208	-0.004	ug/L	0.002	41	1016	749	14
Bi	209		ug/L			532877	531281	0
Th	232	0.020	ug/L	0.007	37	1565	2979	18
[ U	238	-0.008	ug/L	0.001	12	1000	379	19

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:55:10

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	727330 ✓	0
[ Be	9	0.228 ✓	ug/L	0.019	8	23	182	6
C	13		mg/L			6243	5521	1
Cl	37		mg/L			1387303	1410923	0
[> Sc	45		ug/L			409578	401487 ✓	0
V	51	0.194	ug/L	0.008	4	2772	6005	1
V-1	51	0.212	ug/L	0.002	0	1649	5269	0
Cr	52	0.490	ug/L	0.011	2	8617	15627	1
Cr	53	0.532 ✓	ug/L	0.030	5	614	1530	3
Mn	55	0.523 ✓	ug/L	0.012	2	377	13541	1
[ Co	59	0.213 ✓	ug/L	0.002	1	55	3889	1
[> Ge	72		ug/L			372563	366889 ✓	0
Ni	60	0.524	ug/L	0.016	3	49	1984	3
Ni	62	0.538 ✓	ug/L	0.030	5	97	385	4
Cu	63	0.564 ✓	ug/L	0.007	1	233	4460	1
Cu	65	0.559	ug/L	0.006	1	114	2062	0
Zn	66	4.309 ✓	ug/L	0.091	2	375	10374	1
Zn	67	3.694	ug/L	0.132	3	141	1645	3
Zn	68	4.151	ug/L	0.065	1	5524	12179	1
As	75	0.244	ug/L	0.008	3	145	684	2
As-1	75	0.220	ug/L	0.017	7	7671	8023	0
Se	82	0.559 ✓	ug/L	0.052	9	0	177	9
Se	78	0.540	ug/L	0.058	10	7997	8265	0
[ Mo	98	0.199 ✓	ug/L	0.006	2	87	1963	2
Y	89		ug/L			461134	458945	0
Kr	83		ug/L			197	197	4
[> In	115		ug/L			515607	506212 ✓	0
Ag	107	0.231 ✓	ug/L	0.008	3	75	3816	3
Cd	111	0.109 ✓	ug/L	0.008	7	330	765	4
Cd	114	0.108	ug/L	0.002	1	32	1027	0
Sb	121	0.217 ✓	ug/L	0.003	1	198	2610	0
Sb	123	0.218	ug/L	0.005	2	157	1968	2
Ba	135	0.495 ✓	ug/L	0.016	3	24	1582	3
[ Ba	137	0.495	ug/L	0.010	1	36	2740	1
[> Tb	159		ug/L			612197	598660 ✓	0
Tl	205	0.210 ✓	ug/L	0.003	1	250	9592	1
Pb	208	0.102 ✓	ug/L	0.003	2	1016	7073	2
Bi	209		ug/L			532877	524595	0
Th	232	0.202 ✓	ug/L	0.001	0	1565	16008	0
[ U	238	0.193 ✓	ug/L	0.001	0	1000	15829	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:00:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> LI	6		ug/L			803723	757697 ✓	0
[ Be	9	0.005	ug/L	0.007	148	23	25	19
C	13		mg/L			6243	17119	1
Cl	37		mg/L			1387303	3063857	1
[> Sc	45		ug/L			409578	380690 ✓	1
V	51	0.022	ug/L	0.020	92	2772	2925	10
V-1	51	0.906	ug/L	0.012	1	1649	16322	1
Cr	52	0.466	ug/L	0.015	3	8617	14493	1
Cr	53	3.237	ug/L	0.047	1	614	5922	2
Mn	55	0.097	ug/L	0.005	4	377	2666	3
[ Co	59	0.034	ug/L	0.002	6	55	630	4
[> Ge	72		ug/L			372563	341454 ✓	0
Ni	60	0.965	ug/L	0.018	1	49	3363	2
Ni	62	5.902	ug/L	0.148	2	97	3045	1
Cu	63	0.646	ug/L	0.011	1	233	4726	1
Cu	65	0.959	ug/L	0.008	0	114	3220	0
Zn	66	1.870	ug/L	0.063	3	375	4386	3
Zn	67	1.421	ug/L	0.090	6	141	668	5
Zn	68	0.593	ug/L	0.115	19	5524	5958	2
As	75	0.125	ug/L	0.016	13	145	391	8
As-1	75	0.039	ug/L	0.023	58	7671	7108	0
Se	82	-0.074	ug/L	0.021	27	0	-22	27
Se	78	0.009	ug/L	0.004	38	7997	7335	0
[ Mo	98	410.739	ug/L	1.588	0	87	3610658	0
Y	89		ug/L			461134	421041	1
Kr	83		ug/L			197	276	0
[> In	115		ug/L			515607	463853 ✓	1
Ag	107	0.026	ug/L	0.002	9	75	446	8
Cd	111	0.101	ug/L	0.006	5	330	673	1
Cd	114	0.932	ug/L	0.034	3	32	7905	2
Sb	121	0.066	ug/L	0.002	3	198	845	2
Sb	123	0.066	ug/L	0.007	9	157	646	7
Ba	135	0.062	ug/L	0.002	3	24	200	3
[ Ba	137	0.051	ug/L	0.004	7	36	286	7
[> Tb	159		ug/L			612197	570401 ✓	0
Tl	205	0.029	ug/L	0.002	5	250	1484	3
Pb	208	0.034	ug/L	0.001	3	1016	2862	2
Bi	209		ug/L			532877	449562	0
Th	232	0.044	ug/L	0.008	17	1565	4446	11
[ U	238	-0.009	ug/L	0.001	8	1000	287	18

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:06:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	776333✓	0
[ Be	9	0.005	ug/L	0.002	36	23	26	5
C	13		mg/L			6243	17195	0
Cl	37		mg/L			1387303	2985961	0
[> Sc	45		ug/L			409578	378189✓	0
V	51	-0.324	ug/L	0.093	28	2772	-2610	57
V-1	51	0.910	ug/L	0.031	3	1649	16275	2
Cr	52	20.624	ug/L	0.236	1	8617	292738	0
Cr	53	23.482	ug/L	0.264	1	614	39119	0
Mn	55	20.429	ug/L	0.192	0	377	485016	1
[ Co	59	20.104	ug/L	0.199	0	55	340988	0
[> Ge	72		ug/L			372563	339873✓	0
Ni	60	20.415	ug/L	0.106	0	49	69934	0
Ni	62	25.292	ug/L	0.183	0	97	12702	0
Cu	63	20.009	ug/L	0.264	1	233	139360	1
Cu	65	20.198	ug/L	0.250	1	114	65401	1
Zn	66	20.802	ug/L	0.194	0	375	45086	1
Zn	67	17.491	ug/L	0.200	1	141	6737	1
Zn	68	19.175	ug/L	0.127	0	5524	33875	0
As	75	18.890	ug/L	0.060	0	145	38931	0
As-1	75	19.544	ug/L	0.086	0	7671	45556	0
Se	82	-0.077	ug/L	0.059	77	0	-23	75
Se	78	-0.122	ug/L	0.124	101	7997	7213	0
[ Mo	98	406.190	ug/L	0.417	0	87	3554100	0
Y	89		ug/L			461134	415983	0
Kr	83		ug/L			197	264	5
[> In	115		ug/L			515607	466346✓	0
Ag	107	19.684	ug/L	0.160	0	75	293307	0
Cd	111	20.205	ug/L	0.129	0	330	75854	1
Cd	114	21.078	ug/L	0.056	0	32	179095	0
Sb	121	0.059	ug/L	0.001	1	198	782	1
Sb	123	0.060	ug/L	0.005	8	157	601	7
Ba	135	0.051	ug/L	0.006	11	24	169	9
Ba	137	0.046	ug/L	0.003	6	36	263	5
[> Tb	159		ug/L			612197	575893✓	0
Tl	205	0.030	ug/L	0.003	9	250	1504	6
Pb	208	0.042	ug/L	0.002	3	1016	3342	1
Bi	209		ug/L			532877	451256	0
Th	232	0.020	ug/L	0.000	0	1565	2849	0
[ U	238	-0.004	ug/L	0.001	40	1000	672	15

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:12:33

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	737456 ✓	1
[ Be	9	191.973	ug/L	2.132	1	23	138321	1
C	13		mg/L			6243	5110	1
Cl	37		mg/L			1387303	1294068	0
[> Sc	45		ug/L			409578	377493 ✓	0
V	51	200.189	ug/L	1.664	0	2772	3192473	0
V-1	51	200.332	ug/L	1.228	0	1649	3244612	0
Cr	52	200.161	ug/L	1.830	0	8617	2766838	0
Cr	53	200.613	ug/L	0.628	0	614	329326	0
Mn	55	200.812	ug/L	1.437	0	377	4755896	1
[ Co	59	199.571	ug/L	0.449	0	55	3378427	0
[> Ge	72		ug/L			372563	340991 ✓	0
Ni	60	194.164	ug/L	1.564	0	49	666929	0
Ni	62	193.937	ug/L	1.538	0	97	97129	0
Cu	63	190.834	ug/L	1.347	0	233	1331728	0
Cu	65	190.486	ug/L	0.953	0	114	617931	0
Zn	66	191.775	ug/L	1.789	0	375	414197	0
Zn	67	192.055	ug/L	2.329	1	141	72932	1
Zn	68	191.168	ug/L	1.435	0	5524	293495	0
As	75	197.557	ug/L	0.763	0	145	407243	0
As-1	75	197.972	ug/L	0.949	0	7671	398897	0
Se	82	190.221	ug/L	0.200	0	0	56316	0
Se	78	190.581	ug/L	0.714	0	7997	135451	0
[ Mo	98	207.961	ug/L	1.845	0	87	1825660	0
Y	89		ug/L			461134	422852	0
Kr	83		ug/L			197	292	2
[> In	115		ug/L			515607	469590 ✓	0
Ag	107	197.877	ug/L	3.941	1	75	2968210	1
Cd	111	201.087	ug/L	1.800	0	330	757487	1
Cd	114	202.340	ug/L	2.811	1	32	1730810	0
Sb	121	209.840	ug/L	1.812	0	198	2163076	0
Sb	123	206.376	ug/L	1.984	0	157	1596232	0
Ba	135	202.375	ug/L	0.933	0	24	591347	0
Ba	137	202.246	ug/L	1.207	0	36	1025999	0
[> Tb	159		ug/L			612197	578202 ✓	0
Tl	205	200.793	ug/L	1.494	0	250	8649888	0
Pb	208	201.489	ug/L	0.921	0	1016	11622680	0
Bi	209		ug/L			532877	449088	0
Th	232	206.747	ug/L	2.565	1	1565	14328415	1
[ U	238	205.004	ug/L	2.011	0	1000	15267432	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:18:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	673332 ✓	2
[ Be	9	294.825	ug/L	2.103	0	23	193936	1
C	13		mg/L			6243	4850	2
Cl	37		mg/L			1387303	1300108	1
[> Sc	45		ug/L			409578	374410 ✓	0
V	51	305.450	ug/L	3.863	1	2772	4829785	0
V-1	51	305.054	ug/L	3.544	1	1649	4899384	0
Cr	52	304.094	ug/L	3.273	1	8617	4164967	0
Cr	53	302.908	ug/L	2.291	0	614	492898	0
Mn	55	305.008	ug/L	1.989	0	377	7164249	0
[ Co	59	303.580	ug/L	1.169	0	55	5097082	0
[> Ge	72		ug/L			372563	342706 ✓	0
Ni	60	287.503	ug/L	1.774	0	49	992470	0
Ni	62	286.695	ug/L	1.401	0	97	144263	0
Cu	63	280.116	ug/L	2.547	0	233	1964482	0
Cu	65	280.112	ug/L	1.323	0	114	913188	0
Zn	66	278.787	ug/L	1.524	0	375	604986	0
Zn	67	279.998	ug/L	1.924	0	141	106804	0
Zn	68	276.083	ug/L	0.126	0	5524	423736	0
As	75	287.089	ug/L	1.098	0	145	594713	0
As-1	75	289.319	ug/L	1.226	0	7671	582624	0
Se	82	269.810	ug/L	0.671	0	0	80281	0
Se	78	274.304	ug/L	1.122	0	7997	192703	0
[ Mo	98	326.588	ug/L	1.630	0	87	2881455	0
Y	89		ug/L			461134	415061	0
Kr	83		ug/L			197	338	2
[> In	115		ug/L			515607	463783 ✓	0
Ag	107	300.993	ug/L	1.693	0	75	4459472	0
Cd	111	300.664	ug/L	2.183	0	330	1118405	0
Cd	114	307.173	ug/L	0.429	0	32	2595246	0
Sb	121	313.382	ug/L	2.784	0	198	3190379	0
Sb	123	313.520	ug/L	2.584	0	157	2394910	0
Ba	135	300.080	ug/L	4.257	1	24	865952	0
[ Ba	137	300.036	ug/L	2.595	0	36	1503251	0
[> Tb	159		ug/L			612197	568923 ✓	0
Tl	205	305.257	ug/L	3.660	1	250	12938517	0
Pb	208	302.262	ug/L	2.482	0	1016	17155251	0
Bi	209		ug/L			532877	424358	0
Th	232	308.889	ug/L	1.397	0	1565	21063351	0
[ U	238	311.572	ug/L	3.889	1	1000	22830141	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: **CCV2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, February 28, 2013 11:25:07**

Number of Replicates: **3**

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	730764 ✓	1
[ Be	9	50.171	ug/L	1.088	2	23	35831	0
C	13		mg/L			6243	2598	4
Cl	37		mg/L			1387303	1376812	0
[> Sc	45		ug/L			409578	411995 ✓	0
V	51	48.223	ug/L	0.812	1	2772	841472	2
V-1	51	48.365	ug/L	0.638	1	1649	856198	1
Cr	52	48.554	ug/L	0.285	0	8617	739087	1
Cr	53	48.984	ug/L	0.457	0	614	88226	0
Mn	55	49.530	ug/L	0.840	1	377	1280475	1
[ Co	59	49.011	ug/L	0.481	0	55	905535	0
[> Ge	72		ug/L			372563	380974 ✓	0
Ni	60	48.484	ug/L	0.173	0	49	186101	0
Ni	62	48.389	ug/L	0.504	1	97	27150	0
Cu	63	48.884	ug/L	0.102	0	233	381315	0
Cu	65	48.764	ug/L	0.266	0	114	176822	0
Zn	66	49.048	ug/L	0.378	0	375	118640	0
Zn	67	48.869	ug/L	0.912	1	141	20841	1
Zn	68	48.517	ug/L	0.653	1	5524	87436	1
As	75	48.207	ug/L	0.387	0	145	111136	0
As-1	75	47.968	ug/L	0.522	1	7671	113924	0
Se	82	48.596	ug/L	0.085	0	0	16073	0
Se	78	47.870	ug/L	0.495	1	7997	44134	0
[ Mo	98	47.457	ug/L	0.741	1	87	465530	1
Y	89		ug/L			461134	475335	0
Kr	83		ug/L			197	210	3
[> In	115		ug/L			515607	527281 ✓	1
Ag	107	48.524	ug/L	0.262	0	75	817414	1
Cd	111	48.713	ug/L	0.336	0	330	206291	0
Cd	114	48.709	ug/L	0.193	0	32	467893	0
Sb	121	48.017	ug/L	0.291	0	198	555937	0
Sb	123	48.305	ug/L	0.521	1	157	419636	0
Ba	135	47.663	ug/L	0.334	0	24	156399	0
[ Ba	137	47.668	ug/L	0.521	1	36	271556	1
[> Tb	159		ug/L			612197	624495 ✓	0
Tl	205	51.352	ug/L	0.215	0	250	2389559	1
Pb	208	49.860	ug/L	0.322	0	1016	3107136	0
Bi	209		ug/L			532877	528560	0
Th	232	50.858	ug/L	0.315	0	1565	3808044	0
[ U	238	50.643	ug/L	0.209	0	1000	4074282	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:31:26

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			803723	726462 ✓	1
[ ] Be	9	0.005	ug/L	0.008	160	23	24	23
[ ] C	13		mg/L			6243	5792	3
[ ] Cl	37		mg/L			1387303	1409217	0
[>] Sc	45		ug/L			409578	410526 ✓	0
[ ] V	51	-0.006	ug/L	0.005	86	2772	2683	3
[ ] V-1	51	0.033	ug/L	0.003	9	1649	2238	2
[ ] Cr	52	-0.026	ug/L	0.013	48	8617	8245	2
[ ] Cr	53	0.097	ug/L	0.017	17	614	789	2
[ ] Mn	55	0.006	ug/L	0.002	35	377	535	9
[ ] Co	59	0.003	ug/L	0.001	27	55	108	13
[>] Ge	72		ug/L			372563	372572 ✓	0
[ ] Ni	60	0.001	ug/L	0.002	160	49	54	16
[ ] Ni	62	0.013	ug/L	0.018	142	97	104	9
[ ] Cu	63	0.017	ug/L	0.002	11	233	365	4
[ ] Cu	65	0.006	ug/L	0.002	36	114	135	5
[ ] Zn	66	0.010	ug/L	0.003	32	375	398	2
[ ] Zn	67	-0.020	ug/L	0.024	120	141	132	7
[ ] Zn	68	-0.051	ug/L	0.089	175	5524	5440	2
[ ] As	75	-0.000	ug/L	0.006	1346	145	144	9
[ ] As-1	75	-0.006	ug/L	0.028	496	7671	7658	0
[ ] Se	82	-0.040	ug/L	0.030	75	0	-13	73
[ ] Se	78	-0.054	ug/L	0.075	139	7997	7957	0
[ ] Mo	98	0.017	ug/L	0.005	28	87	248	19
[ ] Y	89		ug/L			461134	465436	1
[ ] Kr	83		ug/L			197	198	4
[>] In	115		ug/L			515607	518360 ✓	1
[ ] Ag	107	0.013	ug/L	0.003	20	75	294	16
[ ] Cd	111	0.009	ug/L	0.002	24	330	369	3
[ ] Cd	114	0.002	ug/L	0.001	68	32	52	24
[ ] Sb	121	0.089	ug/L	0.023	26	198	1211	22
[ ] Sb	123	0.086	ug/L	0.026	30	157	894	26
[ ] Ba	135	0.005	ug/L	0.002	38	24	40	15
[ ] Ba	137	0.004	ug/L	0.002	37	36	60	15
[>] Tb	159		ug/L			612197	612044 ✓	0
[ ] Tl	205	0.008	ug/L	0.002	30	250	602	17
[ ] Pb	208	-0.000	ug/L	0.002	15650	1016	1015	9
[ ] Bi	209		ug/L			532877	534530	1
[ ] Th	232	0.037	ug/L	0.011	30	1565	4286	19
[ ] U	238	-0.004	ug/L	0.001	27	1000	648	15

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 MB1 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:41:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	784355✓	1
[ Be	9	0.012	ug/L	0.007	62	23	31	16
C	13		mg/L			6243	5465	1
Cl	37		mg/L			1387303	1403938	0
> Sc	45		ug/L			409578	429960✓	0
V	51	✓ -0.006	ug/L	0.007	110	2772	2794	5
V-1	51	0.027	ug/L	0.004	15	1649	2236	3
Cr	52	✓ -0.030	ug/L	0.007	24	8617	8578	1
Cr	53	0.078	ug/L	0.021	26	614	790	4
Mn	55	0.013	ug/L	0.000	1	377	758	1
[ Co	59	0.000	ug/L	0.001	173	55	67	23
> Ge	72		ug/L			372563	390572✓	0
Ni	60	0.002	ug/L	0.002	110	49	60	15
Ni	62	0.034	ug/L	0.023	69	97	121	11
Cu	63	0.014	ug/L	0.002	11	233	359	4
Cu	65	0.010	ug/L	0.006	57	114	155	12
Zn	66	0.250	ug/L	0.009	3	375	1010	2
Zn	67	0.204	ug/L	0.015	7	141	236	2
Zn	68	0.021	ug/L	0.020	97	5524	5827	0
As	75	✓ 0.002	ug/L	0.026	1282	145	157	38
As-1	75	-0.143	ug/L	0.070	49	7671	7716	1
Se	82	✓ -0.005	ug/L	0.021	380	0	-2	299
Se	78	-0.457	ug/L	0.141	30	7997	8031	0
[ Mo	98	0.001	ug/L	0.001	48	87	104	6
Y	89		ug/L			461134	493967	0
Kr	83		ug/L			197	199	1
> In	115		ug/L			515607	539487✓	0
Ag	107	✓ 0.006	ug/L	0.001	17	75	190	10
Cd	111	0.002	ug/L	0.002	154	330	352	3
Cd	114	-0.001	ug/L	0.000	46	32	27	12
Sb	121	✓ 0.013	ug/L	0.002	15	198	363	6
Sb	123	0.010	ug/L	0.003	26	157	255	9
Ba	135	0.013	ug/L	0.002	12	24	70	7
[ Ba	137	0.013	ug/L	0.002	18	36	115	12
> Tb	159		ug/L			612197	642736✓	0
Tl	205	-0.000	ug/L	0.000	67	250	241	6
Pb	208	✓ -0.001	ug/L	0.000	54	1016	1008	2
Bi	209		ug/L			532877	560986	0
Th	232	0.007	ug/L	0.002	33	1565	2188	8
[ U	238	-0.009	ug/L	0.000	2	1000	304	7

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 B SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:47:02

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	793717 ✓	0
[ Be	9	0.691	ug/L	0.046	6	23	559	6
C	13		mg/L			6243	8991	0
Cl	37		mg/L			1387303	1384524	0
> Sc	45		ug/L			409578	489296 ✓	0
V	51	22.886	ug/L	0.201	0	2772	475965	0
V-1	51	22.751	ug/L	0.218	0	1649	479325	0
Cr	52	9.608	ug/L	0.091	0	8617	181938	0
Cr	53	9.840	ug/L	0.179	1	614	21633	0
Mn	55	433.270	ug/L	5.544	1	377	13298679	0
[ Co	59	8.659	ug/L	0.061	0	55	190057	0
> Ge	72		ug/L			372563	389714 ✓	0
Ni	60	11.016	ug/L	0.134	1	49	43295	1
Ni	62	11.162	ug/L	0.060	0	97	6484	0
Cu	63	14.952	ug/L	0.117	0	233	119476	0
Cu	65	14.939	ug/L	0.076	0	114	55495	0
Zn	66	61.884	ug/L	0.313	0	375	153016	0
Zn	67	59.401	ug/L	0.196	0	141	25883	1
Zn	68	63.209	ug/L	0.461	0	5524	114772	0
As	75	47.591	ug/L	0.267	0	145	112234	0
As-1	75	49.165	ug/L	0.340	0	7671	119244	0
Se	82	✓ 0.252	ug/L	0.030	12	0	84	11
Se	78	-0.567	ug/L	0.177	31	7997	7929	0
[ Mo	98	0.143	ug/L	0.004	2	87	1525	3
Y	89		ug/L			461134	908380	0
Kr	83		ug/L			197	287	4
> In	115		ug/L			515607	538739 ✓	0
Ag	107	0.863	ug/L	0.011	1	75	14928	1
Cd	111	0.476	ug/L	0.031	6	330	2404	6
Cd	114	0.110	ug/L	0.005	4	32	1113	4
Sb	121	✓ 0.018	ug/L	0.001	5	198	416	2
Sb	123	0.017	ug/L	0.003	15	157	315	7
Ba	135	111.884	ug/L	0.305	0	24	375087	0
[ Ba	137	111.053	ug/L	0.267	0	36	646378	1
> Tb	159		ug/L			612197	650782 ✓	0
Ti	205	0.197	ug/L	0.002	1	250	9803	1
Pb	208	10.894	ug/L	0.082	0	1016	708291	0
Bi	209		ug/L			532877	531560	0
Th	232	2.210	ug/L	0.018	0	1565	174003	0
[ U	238	0.393	ug/L	0.003	0	1000	34009	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 C SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:52:59

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	768082 ✓	2
[ Be	9	0.211	ug/L	0.015	7	23	180	5
C	13		mg/L			6243	9229	1
Cl	37		mg/L			1387303	1429448	0
[> Sc	45		ug/L			409578	445168 ✓	0
V	51	10.559	ug/L	0.087	0	2772	201435	1
V-1	51	10.523	ug/L	0.109	1	1649	202698	1
Cr	52	6.956	ug/L	0.017	0	8617	122430	1
Cr	53	7.021	ug/L	0.098	1	614	14238	2
Mn	55	130.278	ug/L	1.105	0	377	3638848	1
[ Co	59	1.149	ug/L	0.019	1	55	23000	2
[> Ge	72		ug/L			372563	390082 ✓	1
Ni	60	1.907	ug/L	0.027	1	49	7546	2
Ni	62	1.998	ug/L	0.014	0	97	1245	2
Cu	63	21.485	ug/L	0.170	0	233	171739	2
Cu	65	21.677	ug/L	0.111	0	114	80550	1
Zn	66	17.999	ug/L	0.146	0	375	44825	1
Zn	67	19.227	ug/L	0.256	1	141	8484	0
Zn	68	19.204	ug/L	0.218	1	5524	38926	0
As	75	177.610	ug/L	0.868	0	145	418825	1
As-1	75	184.520	ug/L	0.932	0	7671	425838	1
Se	82	1.039	ug/L	0.028	2	0	351	1
Se	78	u 0.106	ug/L	0.093	87	7997	8453	0
[ Mo	98	0.098	ug/L	0.002	2	87	1076	0
Y	89		ug/L			461134	617571	1
Kr	83		ug/L			197	226	3
[> In	115		ug/L			515607	535410 ✓	1
Ag	107	8.294	ug/L	0.025	0	75	141946	2
Cd	111	0.127	ug/L	0.006	4	330	889	4
Cd	114	0.009	ug/L	0.001	17	32	119	12
Sb	121	u 0.027	ug/L	0.001	4	198	527	3
Sb	123	0.024	ug/L	0.001	4	157	375	4
Ba	135	69.889	ug/L	1.151	1	24	232816	0
[ Ba	137	69.488	ug/L	0.925	1	36	401902	0
[> Tb	159		ug/L			612197	646057 ✓	0
Tl	205	0.377	ug/L	0.003	0	250	18392	0
Pb	208	13.181	ug/L	0.076	0	1016	850554	0
Bi	209		ug/L			532877	539909	0
Th	232	2.116	ug/L	0.033	1	1565	165482	1
[ U	238	0.255	ug/L	0.001	0	1000	22286	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 D SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:58:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	739326 ✓	1
[ Be	9	0.687	ug/L	0.055	7	23	517	7
C	13		mg/L			6243	7595	1
Cl	37		mg/L			1387303	1429856	0
[> Sc	45		ug/L			409578	463000 ✓	0
V	51	22.021	ug/L	0.114	0	2772	433505	0
V-1	51	21.873	ug/L	0.094	0	1649	436164	0
Cr	52	11.911	ug/L	0.086	0	8617	211103	0
Cr	53	11.945	ug/L	0.066	0	614	24705	0
Mn	55	583.613	ug/L	4.524	0	377	16951380	0
[ Co	59	2.977	ug/L	0.024	0	55	61864	0
[> Ge	72		ug/L			372563	385293 ✓	0
Ni	60	5.025	ug/L	0.045	0	49	19554	1
Ni	62	5.206	ug/L	0.081	1	97	3043	0
Cu	63	33.621	ug/L	0.117	0	233	265307	0
Cu	65	33.879	ug/L	0.180	0	114	124279	1
Zn	66	43.126	ug/L	0.216	0	375	105543	0
Zn	67	43.335	ug/L	0.475	1	141	18706	0
Zn	68	44.551	ug/L	0.392	0	5524	81662	0
As	75	191.114	ug/L	0.501	0	145	445146	0
As-1	75	198.603	ug/L	0.529	0	7671	452129	0
Se	82	✓ 0.437	ug/L	0.024	5	0	145	5
Se	78	-0.329	ug/L	0.031	9	7997	8020	0
[ Mo	98	0.122	ug/L	0.006	4	87	1297	4
Y	89		ug/L			461134	833252	0
Kr	83		ug/L			197	273	5
[> In	115		ug/L			515607	519628 ✓	0
Ag	107	1.202	ug/L	0.014	1	75	20029	1
Cd	111	0.190	ug/L	0.000	0	330	1126	0
Cd	114	0.029	ug/L	0.001	2	32	306	1
Sb	121	✓ 0.004	ug/L	0.001	16	198	245	3
Sb	123	0.002	ug/L	0.003	132	157	175	12
Ba	135	101.550	ug/L	0.897	0	24	328355	0
[ Ba	137	100.827	ug/L	1.675	1	36	565994	1
[> Tb	159		ug/L			612197	644060 ✓	0
Tl	205	0.254	ug/L	0.003	1	250	12440	1
Pb	208	14.240	ug/L	0.107	0	1016	915954	0
Bi	209		ug/L			532877	523329	1
Th	232	2.811	ug/L	0.021	0	1565	218612	0
[ U	238	0.410	ug/L	0.003	0	1000	35078	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 A-L SWN

Sample Dil Factor: 100

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:04:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	743016 ✓	1
[ Be	9	0.136	ug/L	0.010	7	23	120	7
C	13		mg/L			6243	5325	0
Cl	37		mg/L			1387303	1493244	0
> Sc	45		ug/L			409578	430254 ✓	0
V	51	4.236	ug/L	0.025	0	2772	79850	0
V-1	51	4.261	ug/L	0.034	0	1649	80354	0
Cr	52	2.638	ug/L	0.025	0	8617	50501	1
Cr	53	2.796	ug/L	0.052	1	614	5867	1
Mn	55	152.675	ug/L	0.388	0	377	4121257	0
Co	59	0.638	ug/L	0.011	1	55	12368	1
> Ge	72		ug/L			372563	385797 ✓	0
Ni	60	1.078	ug/L	0.026	2	49	4240	2
Ni	62	1.131	ug/L	0.038	3	97	740	3
Cu	63	7.854	ug/L	0.087	1	233	62241	0
Cu	65	7.823	ug/L	0.065	0	114	28827	0
Zn	66	6.991	ug/L	0.077	1	375	17458	1
Zn	67	6.957	ug/L	0.036	0	141	3130	0
Zn	68	7.113	ug/L	0.032	0	5524	17863	0
As	75	33.007	ug/L	0.181	0	145	77106	0
As-1	75	34.290	ug/L	0.208	0	7671	84737	0
Se	82	✓ 0.123	ug/L	0.035	28	0	40	28
Se	78	-0.028	ug/L	0.113	401	7997	8260	1
Mo	98	0.023	ug/L	0.000	0	87	316	0
Y	89		ug/L			461134	533181	0
Kr	83		ug/L			197	218	4
> In	115		ug/L			515607	522175 ✓	1
Ag	107	0.303	ug/L	0.006	2	75	5131	2
Cd	111	0.044	ug/L	0.008	18	330	518	5
Cd	114	0.003	ug/L	0.002	71	32	60	33
Sb	121	✓ -0.001	ug/L	0.001	86	198	186	6
Sb	123	-0.003	ug/L	0.002	69	157	132	15
Ba	135	13.463	ug/L	0.008	0	24	43767	1
Ba	137	13.422	ug/L	0.235	1	36	75741	0
> Tb	159		ug/L			612197	630314 ✓	1
Tl	205	0.049	ug/L	0.002	3	250	2550	2
Pb	208	2.660	ug/L	0.032	1	1016	168260	0
Bi	209		ug/L			532877	542068	0
Th	232	0.513	ug/L	0.008	1	1565	40355	0
U	238	0.064	ug/L	0.002	3	1000	6199	2



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 A SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:10:54

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	764520 ✓	0
[ Be	9	0.611	ug/L	0.025	4	23	478	4
C	13		mg/L			6243	8073	1
Cl	37		mg/L			1387303	1469070	1
[> Sc	45		ug/L			409578	466562 ✓	0
V	51	19.138	ug/L	0.039	0	2772	380062	0
V-1	51	19.110	ug/L	0.064	0	1649	384230	0
Cr	52	11.910	ug/L	0.133	1	8617	212694	0
Cr	53	12.179	ug/L	0.072	0	614	25367	0
Mn	55	683.863	ug/L	3.785	0	377	20016927	1
[ Co	59	2.878	ug/L	0.002	0	55	60268	0
[> Ge	72		ug/L			372563	393001 ✓	0
Ni	60	5.171	ug/L	0.046	0	49	20523	1
Ni	62	5.251	ug/L	0.176	3	97	3130	3
Cu	63	36.544	ug/L	0.190	0	233	294115	0
Cu	65	36.555	ug/L	0.441	1	114	136771	1
Zn	66	31.817	ug/L	0.227	0	375	79530	1
Zn	67	32.908	ug/L	0.351	1	141	14526	1
Zn	68	32.665	ug/L	0.290	0	5524	62630	0
As	75	155.390	ug/L	1.214	0	145	369205	0
As-1	75	161.430	ug/L	1.265	0	7671	376369	0
Se	82	u 0.499	ug/L	0.030	6	0	169	5
Se	78	-0.266	ug/L	0.040	15	7997	8229	0
[ Mo	98	0.121	ug/L	0.005	3	87	1321	3
Y	89		ug/L			461134	739049	0
Kr	83		ug/L			197	260	1
[> In	115		ug/L			515607	523678 ✓	0
Ag	107	1.435	ug/L	0.013	0	75	24082	0
Cd	111	0.153	ug/L	0.015	9	330	979	5
Cd	114	0.019	ug/L	0.001	4	32	210	3
Sb	121	u 0.001	ug/L	0.001	73	198	217	6
Sb	123	0.001	ug/L	0.005	410	157	170	23
Ba	135	65.439	ug/L	0.211	0	24	213253	0
[ Ba	137	65.047	ug/L	0.436	0	36	368036	1
[> Tb	159		ug/L			612197	643684 ✓	0
Tl	205	0.244	ug/L	0.003	1	250	11943	1
Pb	208	12.503	ug/L	0.113	0	1016	803944	0
Bi	209		ug/L			532877	526853	0
Th	232	2.437	ug/L	0.007	0	1565	189686	0
[ U	238	0.337	ug/L	0.003	0	1000	28961	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 ADUP SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:16:52

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	756694 ✓	1
[ Be	9	0.651	ug/L	0.037	5	23	503	6
C	13		mg/L			6243	8941	0
Cl	37		mg/L			1387303	1481597	0
[> Sc	45		ug/L			409578	461462 ✓	0
V	51	20.978	ug/L	0.161	0	2772	411752	1
V-1	51	20.886	ug/L	0.127	0	1649	415179	0
Cr	52	12.617	ug/L	0.181	1	8617	222294	1
Cr	53	12.740	ug/L	0.192	1	614	26215	1
Mn	55	730.127	ug/L	9.202	1	377	21136868	1
[ Co	59	2.996	ug/L	0.024	0	55	62070	1
[> Ge	72		ug/L			372563	388756 ✓	0
Ni	60	5.126	ug/L	0.046	0	49	20124	1
Ni	62	5.434	ug/L	0.189	3	97	3201	3
Cu	63	37.350	ug/L	0.066	0	233	297347	0
Cu	65	37.100	ug/L	0.460	1	114	137307	1
Zn	66	32.597	ug/L	0.442	1	375	80591	1
Zn	67	33.728	ug/L	0.450	1	141	14724	1
Zn	68	33.577	ug/L	0.556	1	5524	63524	1
As	75	166.111	ug/L	1.743	1	145	390409	1
As-1	75	172.598	ug/L	1.804	1	7671	397512	1
Se	82	u 0.471	ug/L	0.043	9	0	158	9
Se	78	-0.235	ug/L	0.075	31	7997	8164	0
[ Mo	98	0.074	ug/L	0.002	2	87	831	2
Y	89		ug/L			461134	750869	1
Kr	83		ug/L			197	269	1
[> In	115		ug/L			515607	516747 ✓	0
Ag	107	1.406	ug/L	0.023	1	75	23281	2
Cd	111	0.176	ug/L	0.011	6	330	1059	3
Cd	114	0.018	ug/L	0.002	8	32	205	7
Sb	121	u 0.000	ug/L	0.001	1693	198	199	6
Sb	123	-0.002	ug/L	0.004	185	157	139	25
Ba	135	69.482	ug/L	0.282	0	24	223438	0
[ Ba	137	69.422	ug/L	0.514	0	36	387594	1
[> Tb	159		ug/L			612197	641217 ✓	0
Tl	205	0.247	ug/L	0.004	1	250	12055	1
Pb	208	12.805	ug/L	0.100	0	1016	820158	1
Bi	209		ug/L			532877	522873	0
Th	232	2.634	ug/L	0.021	0	1565	204091	1
[ U	238	0.358	ug/L	0.002	0	1000	30626	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 ASPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:22:51

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	750988 ✓	2
[ Be	9	23.876	ug/L	0.459	1	23	17533	0
C	13		mg/L			6243	5658	1
Cl	37		mg/L			1387303	1486555	0
[> Sc	45		ug/L			409578	470463 ✓	0
V	51	43.016	ug/L	0.108	0	2772	857448	1
V-1	51	42.927	ug/L	0.091	0	1649	867979	0
Cr	52	34.731	ug/L	0.069	0	8617	606519	1
Cr	53	34.862	ug/L	0.469	1	614	71904	0
Mn	55	723.509	ug/L	2.277	0	377	21353417	0
[ Co	59	24.605	ug/L	0.129	0	55	519171	1
[> Ge	72		ug/L			372563	382671 ✓	0
Ni	60	29.365	ug/L	0.363	1	49	113241	1
Ni	62	29.271	ug/L	0.529	1	97	16535	1
Cu	63	62.259	ug/L	0.100	0	233	487744	0
Cu	65	62.494	ug/L	0.341	0	114	227587	0
Zn	66	109.642	ug/L	0.214	0	375	265916	0
Zn	67	102.396	ug/L	0.943	0	141	43703	0
Zn	68	109.140	ug/L	0.204	0	5524	190473	0
As	75	181.624	ug/L	0.486	0	145	420170	0
As-1	75	186.641	ug/L	0.715	0	7671	422476	0
Se	82	69.075	ug/L	0.300	0	0	22949	1
Se	78	70.354	ug/L	0.654	0	7997	61294	0
[ Mo	98	18.711	ug/L	0.095	0	87	184418	0
Y	89		ug/L			461134	771698	0
Kr	83		ug/L			197	280	0
[> In	115		ug/L			515607	509120 ✓	0
Ag	107	25.042	ug/L	0.179	0	75	407353	0
Cd	111	25.045	ug/L	0.109	0	330	102569	0
Cd	114	25.135	ug/L	0.166	0	32	233151	1
Sb	121	<i>u</i> 0.038	ug/L	0.002	6	198	618	4
Sb	123	0.038	ug/L	0.003	8	157	474	5
Ba	135	111.268	ug/L	1.475	1	24	352498	0
[ Ba	137	110.742	ug/L	1.371	1	36	609104	0
[> Tb	159		ug/L			612197	637571 ✓	1
Tl	205	22.887	ug/L	0.265	1	250	1087333	0
Pb	208	38.016	ug/L	0.203	0	1016	2418892	0
Bi	209		ug/L			532877	515438	0
Th	232	27.491	ug/L	0.281	1	1565	2102153	0
[ U	238	24.477	ug/L	0.505	2	1000	2011335	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 APOST SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:28:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	749142✓	2
[ Be	9	23.374	ug/L	0.523	2	23	17123	0
C	13		mg/L			6243	8356	2
Cl	37		mg/L			1387303	1487953	0
[> Sc	45		ug/L			409578	450454✓	0
V	51	40.976	ug/L	0.482	1	2772	782198	1
V-1	51	40.890	ug/L	0.484	1	1649	791733	1
Cr	52	34.333	ug/L	0.354	1	8617	574168	1
Cr	53	34.392	ug/L	0.366	1	614	67930	1
Mn	55	703.410	ug/L	3.891	0	377	19877274	0
Co	59	25.045	ug/L	0.176	0	55	505960	0
[> Ge	72		ug/L			372563	381912✓	0
Ni	60	28.785	ug/L	0.037	0	49	110781	0
Ni	62	28.839	ug/L	0.141	0	97	16261	0
Cu	63	60.010	ug/L	0.317	0	233	469193	0
Cu	65	59.946	ug/L	0.431	0	114	217879	0
Zn	66	109.337	ug/L	0.366	0	375	264650	0
Zn	67	102.739	ug/L	0.290	0	141	43764	0
Zn	68	109.831	ug/L	0.361	0	5524	191265	0
As	75	180.548	ug/L	1.124	0	145	416856	0
As-1	75	185.092	ug/L	1.016	0	7671	418212	0
Se	82	73.891	ug/L	0.253	0	0	24500	0
Se	78	74.471	ug/L	0.492	0	7997	64274	0
[ Mo	98	22.733	ug/L	0.163	0	87	223602	0
Y	89		ug/L			461134	713849	0
Kr	83		ug/L			197	275	2
[> In	115		ug/L			515607	508376✓	1
Ag	107	26.357	ug/L	0.513	1	75	428041	0
Cd	111	24.938	ug/L	0.224	0	330	101978	0
Cd	114	24.753	ug/L	0.253	1	32	229251	0
Sb	121	23.702	ug/L	0.291	1	198	264655	0
Sb	123	23.701	ug/L	0.487	2	157	198567	0
Ba	135	91.051	ug/L	1.264	1	24	288001	0
[ Ba	137	90.702	ug/L	1.837	2	36	498067	0
[> Tb	159		ug/L			612197	634804✓	0
Tl	205	24.731	ug/L	0.148	0	250	1169892	0
Pb	208	37.159	ug/L	0.179	0	1016	2354182	0
Bi	209		ug/L			532877	516345	0
Th	232	25.626	ug/L	0.280	1	1565	1951226	0
[ U	238	23.807	ug/L	0.305	1	1000	1947426	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 MB1SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:34:46

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	751523 ✓	0
[	Be	9	ug/L	0.308	1	23	17551	0
	C	13	mg/L			6243	4922	1
	Cl	37	mg/L			1387303	1560478	0
[>	Sc	45	ug/L			409578	420551 ✓	0
[	V	51	ug/L	0.300	1	2772	441350	0
	V-1	51	ug/L	0.196	0	1649	448339	0
	Cr	52	ug/L	0.352	1	8617	398028	0
	Cr	53	ug/L	0.188	0	614	47212	1
	Mn	55	ug/L	0.005	0	377	682084	0
[	Co	59	ug/L	0.079	0	55	477024	0
[>	Ge	72	ug/L			372563	380329 ✓	0
[	Ni	60	ug/L	0.343	1	49	98773	1
	Ni	62	ug/L	0.265	1	97	14362	1
	Cu	63	ug/L	0.120	0	233	208991	0
	Cu	65	ug/L	0.298	1	114	97439	0
	Zn	66	ug/L	0.269	0	375	192500	0
	Zn	67	ug/L	0.575	0	141	30642	0
	Zn	68	ug/L	0.465	0	5524	137556	0
	As	75	ug/L	0.170	0	145	64884	0
	As-1	75	ug/L	0.233	0	7671	64731	0
	Se	82	ug/L	0.232	0	0	26427	0
[	Se	78	ug/L	0.548	0	7997	67524	0
[>	Mo	98	ug/L	0.312	1	87	236557	1
[	Y	89	ug/L			461134	483944	0
	Kr	83	ug/L			197	220	0
[>	In	115	ug/L			515607	518149 ✓	1
[	Ag	107	ug/L	0.082	0	75	434624	1
	Cd	111	ug/L	0.351	1	330	103821	0
	Cd	114	ug/L	0.305	1	32	237024	0
	Sb	121	ug/L	0.368	1	198	288547	0
	Sb	123	ug/L	0.508	2	157	216980	0
	Ba	135	ug/L	0.507	1	24	82867	0
[	Ba	137	ug/L	0.784	3	36	143037	1
[>	Tb	159	ug/L			612197	631132 ✓	0
[	Tl	205	ug/L	0.244	0	250	1206637	0
	Pb	208	ug/L	0.232	0	1016	1645950	0
	Bi	209	ug/L			532877	545593	0
	Th	232	ug/L	0.388	1	1565	1860203	0
[	U	238	ug/L	0.808	3	1000	2031854	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:40:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	743493 ✓	0
[ Be	9	48.233	ug/L	0.343	0	23	35056	1
C	13		mg/L			6243	2876	0
Cl	37		mg/L			1387303	1550168	0
[> Sc	45		ug/L			409578	422079 ✓	1
V	51	47.936	ug/L	0.257	0	2772	856876	0
V-1	51	47.915	ug/L	0.306	0	1649	868971	0
Cr	52	48.303	ug/L	0.618	1	8617	753232	0
Cr	53	48.221	ug/L	0.661	1	614	88983	0
Mn	55	49.216	ug/L	0.475	0	377	1303479	0
[ Co	59	48.691	ug/L	0.405	0	55	921605	0
[> Ge	72		ug/L			372563	387804 ✓	0
Ni	60	47.947	ug/L	0.350	0	49	187338	0
Ni	62	47.851	ug/L	0.827	1	97	27330	1
Cu	63	48.521	ug/L	0.298	0	233	385261	0
Cu	65	48.478	ug/L	0.193	0	114	178937	0
Zn	66	48.826	ug/L	0.079	0	375	120223	0
Zn	67	49.515	ug/L	0.213	0	141	21494	0
Zn	68	48.528	ug/L	0.182	0	5524	89022	0
As	75	48.502	ug/L	0.133	0	145	113821	0
As-1	75	48.412	ug/L	0.349	0	7671	116966	0
Se	82	49.022	ug/L	0.329	0	0	16505	1
Se	78	48.790	ug/L	0.555	1	7997	45629	0
[ Mo	98	46.776	ug/L	0.480	1	87	467085	1
Y	89		ug/L			461134	478403	1
Kr	83		ug/L			197	226	6
[> In	115		ug/L			515607	520485 ✓	1
Ag	107	49.203	ug/L	0.772	1	75	818076	0
Cd	111	48.797	ug/L	0.354	0	330	203993	1
Cd	114	48.954	ug/L	0.591	1	32	464153	0
Sb	121	48.552	ug/L	0.223	0	198	554915	1
Sb	123	48.539	ug/L	0.197	0	157	416245	0
Ba	135	49.036	ug/L	0.663	1	24	158815	0
[ Ba	137	48.885	ug/L	0.552	1	36	274883	0
[> Tb	159		ug/L			612197	633873 ✓	0
Tl	205	49.798	ug/L	0.281	0	250	2351991	0
Pb	208	48.701	ug/L	0.513	1	1016	3080404	0
Bi	209		ug/L			532877	521345	0
Th	232	49.336	ug/L	0.065	0	1565	3749687	0
[ U	238	48.949	ug/L	0.411	0	1000	3997039	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:47:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	741309✓	0
Be	9	0.009	ug/L	0.006	70	23	27	15
C	13		mg/L			6243	5812	1
Cl	37		mg/L			1387303	1586149	0
> Sc	45		ug/L			409578	413824✓	1
V	51	0.016	ug/L	0.004	22	2772	3079	3
V-1	51	0.050	ug/L	0.005	9	1649	2556	3
Cr	52	0.020	ug/L	0.006	28	8617	9002	1
Cr	53	0.128	ug/L	0.020	15	614	850	3
Mn	55	0.009	ug/L	0.003	28	377	620	9
Co	59	0.001	ug/L	0.001	73	55	79	20
> Ge	72		ug/L			372563	390187✓	0
Mi	60	-0.001	ug/L	0.003	499	49	48	27
Mi	62	0.039	ug/L	0.005	12	97	124	2
Cu	63	0.007	ug/L	0.003	45	233	301	8
Cu	65	0.001	ug/L	0.003	220	114	124	7
Zn	66	0.016	ug/L	0.010	62	375	432	5
Zn	67	0.034	ug/L	0.024	71	141	162	6
Zn	68	0.091	ug/L	0.065	71	5524	5943	1
As	75	-0.014	ug/L	0.008	59	145	120	16
As-1	75	0.131	ug/L	0.008	5	7671	8330	0
Se	82	-0.048	ug/L	0.082	170	0	-16	164
Se	78	0.403	ug/L	0.022	5	7997	8685	0
Mo	98	0.003	ug/L	0.004	123	87	123	31
Y	89		ug/L			461134	479926	1
Kr	83		ug/L			197	215	8
> In	115		ug/L			515607	518596✓	1
Ag	107	0.008	ug/L	0.002	28	75	210	18
Cd	111	0.022	ug/L	0.004	19	330	422	4
Cd	114	0.001	ug/L	0.001	159	32	39	25
Sb	121	0.060	ug/L	0.018	29	198	881	23
Sb	123	0.059	ug/L	0.021	35	157	662	28
Ba	135	0.003	ug/L	0.001	47	24	34	14
Ba	137	0.004	ug/L	0.002	56	36	58	21
> Tl	159		ug/L			612197	621168✓	1
Tl	205	0.002	ug/L	0.001	77	250	326	18
Pb	208	-0.004	ug/L	0.001	27	1016	813	8
Bi	209		ug/L			532877	532735	0
Th	232	0.019	ug/L	0.007	35	1565	3027	17
U	238	-0.007	ug/L	0.001	13	1000	424	19

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 MB2 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:52:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	779083 ✓	0
[ Be	9	0.007	ug/L	0.009	124	23	27	22
C	13		mg/L			6243	6467	0
Cl	37		mg/L			1387303	1598547	1
[> Sc	45		ug/L			409578	439085 ✓	0
V	51	U 0.023	ug/L	0.007	32	2772	3392	3
V-1	51	0.057	ug/L	0.001	0	1649	2836	0
Cr	52	U 0.087	ug/L	0.009	10	8617	10636	1
Cr	53	0.191	ug/L	0.014	7	614	1023	3
Mn	55	0.038	ug/L	0.003	6	377	1464	5
Co	59	0.001	ug/L	0.001	70	55	79	17
[> Ge	72		ug/L			372563	402289 ✓	0
Ni	60	0.006	ug/L	0.003	42	49	77	13
Ni	62	0.036	ug/L	0.020	55	97	126	8
Cu	63	0.123	ug/L	0.005	4	233	1263	3
Cu	65	0.120	ug/L	0.004	3	114	583	3
Zn	66	0.554	ug/L	0.034	6	375	1815	4
Zn	67	0.489	ug/L	0.020	4	141	371	2
Zn	68	0.503	ug/L	0.171	34	5524	6859	4
As	75	U -0.007	ug/L	0.012	162	145	139	19
As-1	75	0.067	ug/L	0.030	44	7671	8438	0
Se	82	U 0.005	ug/L	0.029	544	0	1	727
Se	78	0.188	ug/L	0.058	30	7997	8784	0
Mo	98	0.013	ug/L	0.002	17	87	228	9
Y	89		ug/L			461134	504163	0
Kr	83		ug/L			197	201	2
[> In	115		ug/L			515607	537967 ✓	0
Ag	107	U 0.005	ug/L	0.001	20	75	166	11
Cd	111	0.025	ug/L	0.002	7	330	451	1
Cd	114	0.000	ug/L	0.001	939	32	35	17
Sb	121	U 0.016	ug/L	0.005	33	198	397	16
Sb	123	0.012	ug/L	0.005	42	157	268	16
Ba	135	0.053	ug/L	0.001	1	24	202	1
Ba	137	0.047	ug/L	0.002	4	36	312	4
[> Tb	159		ug/L			612197	647099 ✓	0
Tl	205	0.003	ug/L	0.000	13	250	425	5
Pb	208	U 0.002	ug/L	0.000	14	1016	1189	1
Bi	209		ug/L			532877	549955	1
Th	232	0.010	ug/L	0.003	26	1565	2406	8
U	238	-0.008	ug/L	0.000	0	1000	411	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 E SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:58:28

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	774286 ✓	1
[ Be	9	0.476	ug/L	0.052	10	23	382	10
C	13		mg/L			6243	8552	0
Cl	37		mg/L			1387303	1524974	0
[> Sc	45		ug/L			409578	464238 ✓	1
V	51	18.305	ug/L	0.013	0	2772	361849	1
V-1	51	18.208	ug/L	0.039	0	1649	364377	1
Cr	52	10.778	ug/L	0.089	0	8617	192472	2
Cr	53	10.846	ug/L	0.172	1	614	22558	3
Mn	55	668.287	ug/L	7.844	1	377	19465147	2
[ Co	59	2.470	ug/L	0.028	1	55	51492	2
[> Ge	72		ug/L			372563	390866 ✓	2
Ni	60	4.472	ug/L	0.022	0	49	17655	2
Ni	62	4.560	ug/L	0.053	1	97	2716	1
Cu	63	27.217	ug/L	0.114	0	233	217929	3
Cu	65	27.153	ug/L	0.248	0	114	101075	3
Zn	66	26.412	ug/L	0.089	0	375	65722	2
Zn	67	28.208	ug/L	0.208	0	141	12406	3
Zn	68	27.425	ug/L	0.239	0	5524	53221	2
As	75	118.557	ug/L	1.071	0	145	280161	2
As-1	75	123.176	ug/L	1.122	0	7671	287492	2
Se	82	0.453	ug/L	0.017	3	0	153	1
Se	78	-0.067	ug/L	0.081	120	7997	8337	2
[ Mo	98	0.065	ug/L	0.004	5	87	750	5
Y	89		ug/L			461134	769934	2
Kr	83		ug/L			197	253	5
[> In	115		ug/L			515607	523370 ✓	2
Ag	107	0.909	ug/L	0.005	0	75	15271	2
Cd	111	0.153	ug/L	0.008	5	330	978	2
Cd	114	0.011	ug/L	0.001	12	32	137	10
Sb	121	0.009	ug/L	0.004	39	198	306	15
Sb	123	0.010	ug/L	0.002	18	157	249	7
Ba	135	70.734	ug/L	0.371	0	24	230358	1
Ba	137	70.134	ug/L	0.770	1	36	396534	2
[> Tb	159		ug/L			612197	643700 ✓	0
Tl	205	0.220	ug/L	0.003	1	250	10809	1
Pb	208	9.728	ug/L	0.042	0	1016	625762	0
Bi	209		ug/L			532877	517258	1
Th	232	2.559	ug/L	0.019	0	1565	199073	0
[ U	238	0.417	ug/L	0.003	0	1000	35623	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 F SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:04:25

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	755174 ✓	0
[ Be	9	0.671	ug/L	0.019	2	23	516	2
C	13		mg/L			6243	8650	0
Cl	37		mg/L			1387303	1512917	0
[> Sc	45		ug/L			409578	458862 ✓	1
V	51	18.568	ug/L	0.115	0	2772	362754	1
V-1	51	18.516	ug/L	0.107	0	1649	366196	1
Cr	52	11.668	ug/L	0.105	0	8617	205142	0
Cr	53	11.844	ug/L	0.073	0	614	24281	0
Mn	55	715.272	ug/L	7.721	1	377	20588776	0
Co	59	2.723	ug/L	0.031	1	55	56081	0
[> Ge	72		ug/L			372563	382193 ✓	0
Ni	60	4.973	ug/L	0.039	0	49	19193	0
Ni	62	5.051	ug/L	0.074	1	97	2932	1
Cu	63	34.581	ug/L	0.233	0	233	270666	0
Cu	65	34.824	ug/L	0.051	0	114	126713	1
Zn	66	30.705	ug/L	0.338	1	375	74647	0
Zn	67	31.423	ug/L	0.375	1	141	13496	1
Zn	68	31.431	ug/L	0.125	0	5524	58820	0
As	75	114.104	ug/L	0.756	0	145	263686	0
As-1	75	118.550	ug/L	0.809	0	7671	270877	0
Se	82	✓ 0.345	ug/L	0.019	5	0	114	4
Se	78	-0.083	ug/L	0.097	117	7997	8141	0
[ Mo	98	0.057	ug/L	0.001	1	87	646	2
Y	89		ug/L			461134	727872	0
Kr	83		ug/L			197	271	3
[> In	115		ug/L			515607	510112 ✓	0
Ag	107	1.157	ug/L	0.011	0	75	18932	0
Cd	111	0.181	ug/L	0.021	11	330	1068	7
Cd	114	0.016	ug/L	0.001	5	32	184	4
Sb	121	✓ 0.002	ug/L	0.001	66	198	216	6
Sb	123	0.000	ug/L	0.001	179	157	160	4
Ba	135	66.808	ug/L	0.251	0	24	212077	0
Ba	137	66.493	ug/L	0.439	0	36	366469	0
[> Tl	159		ug/L			612197	633250 ✓	1
Tl	205	0.229	ug/L	0.002	1	250	11069	2
Pb	208	12.116	ug/L	0.179	1	1016	766348	0
Bi	209		ug/L			532877	515599	0
Th	232	2.478	ug/L	0.051	2	1565	189620	0
[ U	238	0.331	ug/L	0.006	1	1000	28002	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 G SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:10:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	757407 ✓	1
[ Be	9	0.418	ug/L	0.007	1	23	331	1
C	13		mg/L			6243	9374	0
Cl	37		mg/L			1387303	1531410	0
> Sc	45		ug/L			409578	451313 ✓	0
V	51	18.768	ug/L	0.251	1	2772	360570	0
V-1	51	18.659	ug/L	0.225	1	1649	362933	0
Cr	52	10.340	ug/L	0.159	1	8617	179873	0
Cr	53	10.415	ug/L	0.087	0	614	21081	0
Mn	55	403.056	ug/L	1.975	0	377	11411587	0
Co	59	4.577	ug/L	0.024	0	55	92694	0
> Ge	72		ug/L			372563	375441 ✓	0
Ni	60	7.350	ug/L	0.075	1	49	27847	1
Ni	62	7.478	ug/L	0.140	1	97	4217	1
Cu	63	24.616	ug/L	0.265	1	233	189347	1
Cu	65	24.861	ug/L	0.126	0	114	88893	0
Zn	66	41.782	ug/L	0.331	0	375	99654	0
Zn	67	41.289	ug/L	0.260	0	141	17375	1
Zn	68	42.987	ug/L	0.147	0	5524	76980	0
As	75	117.806	ug/L	0.102	0	145	267438	0
As-1	75	122.445	ug/L	0.127	0	7671	274592	0
Se	82	0.622	ug/L	0.051	8	0	202	7
Se	78	0.336	ug/L	0.058	17	7997	8308	0
[ Mo	98	0.125	ug/L	0.005	3	87	1293	3
Y	89		ug/L			461134	701589	0
Kr	83		ug/L			197	263	4
> In	115		ug/L			515607	506840 ✓	2
Ag	107	2.030	ug/L	0.007	0	75	32950	2
Cd	111	0.376	ug/L	0.011	2	330	1853	3
Cd	114	0.072	ug/L	0.001	1	32	694	3
Sb	121	✓ 0.009	ug/L	0.001	16	198	291	3
Sb	123	0.007	ug/L	0.005	79	157	211	22
Ba	135	86.101	ug/L	1.887	2	24	271490	1
[ Ba	137	86.068	ug/L	2.296	2	36	471121	0
> Tb	159		ug/L			612197	623675 ✓	0
Tl	205	0.207	ug/L	0.002	0	250	9889	0
Pb	208	10.301	ug/L	0.030	0	1016	641900	0
Bi	209		ug/L			532877	509057	0
Th	232	2.082	ug/L	0.016	0	1565	157225	0
[ U	238	0.368	ug/L	0.002	0	1000	30544	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 H SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:16:18

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	761007 ✓	0
[ Be	9	0.564	ug/L	0.008	1	23	441	1
C	13		mg/L			6243	9030	0
Cl	37		mg/L			1387303	1535922	0
[> Sc	45		ug/L			409578	465141 ✓	0
V	51	20.655	ug/L	0.180	0	2772	408694	0
V-1	51	20.524	ug/L	0.172	0	1649	411256	0
Cr	52	10.227	ug/L	0.073	0	8617	183466	0
Cr	53	10.327	ug/L	0.075	0	614	21551	0
Mn	55	431.128	ug/L	2.304	0	377	12580312	0
[ Co	59	6.468	ug/L	0.077	1	55	134976	1
[> Ge	72		ug/L			372563	377884 ✓	0
Ni	60	11.988	ug/L	0.122	1	49	45677	1
Ni	62	12.014	ug/L	0.237	1	97	6759	1
Cu	63	21.064	ug/L	0.174	0	233	163102	0
Cu	65	21.042	ug/L	0.290	1	114	75743	0
Zn	66	53.266	ug/L	0.476	0	375	127762	0
Zn	67	52.685	ug/L	0.184	0	141	22275	0
Zn	68	54.760	ug/L	0.072	0	5524	97165	0
As	75	62.584	ug/L	0.216	0	145	143068	0
As-1	75	64.974	ug/L	0.241	0	7671	150307	0
Se	82	✓ 0.342	ug/L	0.078	22	0	111	22
Se	78	0.111	ug/L	0.072	64	7997	8194	0
[ Mo	98	0.142	ug/L	0.003	2	87	1468	2
Y	89		ug/L			461134	820709	0
Kr	83		ug/L			197	275	4
[> In	115		ug/L			515607	509513 ✓	1
Ag	107	2.126	ug/L	0.033	1	75	34681	1
Cd	111	0.565	ug/L	0.011	2	330	2636	2
Cd	114	0.100	ug/L	0.005	5	32	961	4
Sb	121	✓ 0.003	ug/L	0.001	25	198	234	3
Sb	123	0.004	ug/L	0.002	38	157	189	7
Ba	135	103.820	ug/L	1.361	1	24	329142	0
Ba	137	104.003	ug/L	1.724	1	36	572442	0
[> Tb	159		ug/L			612197	636567 ✓	0
Tl	205	0.193	ug/L	0.001	0	250	9399	0
Pb	208	10.323	ug/L	0.009	0	1016	656574	0
Bi	209		ug/L			532877	510239	1
Th	232	2.147	ug/L	0.034	1	1565	165420	1
[ U	238	0.386	ug/L	0.005	1	1000	32692	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 | SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:22:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			803723	765519 ✓	1
[ Be	9	0.556	ug/L	0.027	4	23	437	3
C	13		mg/L			6243	9023	1
Cl	37		mg/L			1387303	1540262	0
[>] Sc	45		ug/L			409578	467687 ✓	0
V	51	23.319	ug/L	0.270	1	2772	463537	1
V-1	51	23.141	ug/L	0.264	1	1649	466024	1
Cr	52	10.294	ug/L	0.062	0	8617	185633	0
Cr	53	10.378	ug/L	0.108	1	614	21771	1
Mn	55	379.780	ug/L	3.872	1	377	11143161	1
Co	59	6.476	ug/L	0.051	0	55	135889	1
[>] Ge	72		ug/L			372563	376657 ✓	0
Ni	60	9.298	ug/L	0.047	0	49	35325	0
Ni	62	9.756	ug/L	0.083	0	97	5490	1
Cu	63	18.250	ug/L	0.051	0	233	140893	0
Cu	65	18.250	ug/L	0.038	0	114	65500	0
Zn	66	55.079	ug/L	0.145	0	375	131672	0
Zn	67	53.672	ug/L	0.626	1	141	22615	0
Zn	68	56.820	ug/L	0.602	1	5524	100280	0
As	75	51.060	ug/L	0.453	0	145	116372	0
As-1	75	52.968	ug/L	0.500	0	7671	123566	0
Se	82	✓ 0.254	ug/L	0.016	6	0	82	5
Se	78	-0.015	ug/L	0.158	1081	7997	8073	0
[ Mo	98	0.143	ug/L	0.001	0	87	1475	0
Y	89		ug/L			461134	754943	0
Kr	83		ug/L			197	274	1
[>] In	115		ug/L			515807	508346 ✓	1
Ag	107	1.305	ug/L	0.009	0	75	21261	1
Cd	111	0.663	ug/L	0.025	3	330	3028	2
Cd	114	0.135	ug/L	0.004	2	32	1278	3
Sb	121	✓ 0.009	ug/L	0.002	19	198	300	6
Sb	123	0.010	ug/L	0.002	21	157	241	9
Ba	135	104.558	ug/L	1.177	1	24	330719	0
[ Ba	137	105.063	ug/L	1.181	1	36	576955	0
[>] Tb	159		ug/L			612197	624852 ✓	1
Tl	205	0.172	ug/L	0.003	1	250	8249	0
Pb	208	14.105	ug/L	0.209	1	1016	880140	0
Bi	209		ug/L			532877	513430	0
Th	232	2.027	ug/L	0.036	1	1565	153367	0
[ U	238	0.390	ug/L	0.007	1	1000	32405	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 J SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:28:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	763333 ✓	1
[ Be	9	0.039	ug/L	0.015	38	23	51	21
C	13		mg/L			6243	7469	1
Cl	37		mg/L			1387303	1571366	0
[> Sc	45		ug/L			409578	444574 ✓	0
V	51	3.597	ug/L	0.043	1	2772	70511	0
V-1	51	3.615	ug/L	0.040	1	1649	70700	0
Cr	52	1.446	ug/L	0.025	1	8617	32821	0
Cr	53	1.607	ug/L	0.014	0	614	3769	0
Mn	55	2.774	ug/L	0.041	1	377	77782	0
[ Co	59	0.092	ug/L	0.005	5	55	1901	5
[> Ge	72		ug/L			372563	382636 ✓	0
Ni	60	0.224	ug/L	0.010	4	49	915	4
Ni	62	0.293	ug/L	0.038	13	97	264	8
Cu	63	7.682	ug/L	0.046	0	233	60384	0
Cu	65	7.703	ug/L	0.068	0	114	28151	0
Zn	66	2.223	ug/L	0.072	3	375	5767	2
Zn	67	4.162	ug/L	0.176	4	141	1915	4
Zn	68	3.448	ug/L	0.055	1	5524	11512	0
As	75	75.305	ug/L	0.285	0	145	174284	0
As-1	75	78.278	ug/L	0.310	0	7671	181748	0
Se	82	1.165	ug/L	0.037	3	0	386	3
Se	78	0.994	ug/L	0.091	9	7997	8963	0
[ Mo	98	0.239	ug/L	0.012	4	87	2447	4
Y	89		ug/L			461134	482129	0
Kr	83		ug/L			197	214	4
[> In	115		ug/L			515607	515074 ✓	0
Ag	107	11.737	ug/L	0.083	0	75	193197	0
Cd	111	0.050	ug/L	0.005	9	330	534	2
Cd	114	0.003	ug/L	0.001	18	32	65	9
Sb	121	✓ 0.109	ug/L	0.039	35	198	1429	31
Sb	123	0.083	ug/L	0.007	7	157	858	7
Ba	135	53.127	ug/L	0.452	0	24	170287	0
[ Ba	137	53.725	ug/L	1.053	1	36	298965	1
[> Tb	159		ug/L			612197	623977 ✓	0
Tl	205	0.304	ug/L	0.003	1	250	14405	0
Pb	208	4.253	ug/L	0.028	0	1016	265765	0
Bi	209		ug/L			532877	541200	0
Th	232	0.371	ug/L	0.003	0	1565	29369	0
[ U	238	0.008	ug/L	0.001	9	1000	1666	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 K SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:34:14

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	727435 ✓	1
[ Be	9	0.039	ug/L	0.005	13	23	48	6
C	13		mg/L			6243	7619	2
Cl	37		mg/L			1387303	1600797	0
[> Sc	45		ug/L			409578	404126 ✓	0
V	51	1.262	ug/L	0.015	1	2772	24261	1
V-1	51	1.295	ug/L	0.011	0	1649	24075	0
Cr	52	1.213	ug/L	0.017	1	8617	26397	1
Cr	53	1.321	ug/L	0.047	3	614	2923	2
Mn	55	2.628	ug/L	0.023	0	377	67008	0
[ Co	59	0.178	ug/L	0.003	1	55	3289	1
[> Ge	72		ug/L			372563	368935 ✓	0
Ni	60	0.327	ug/L	0.014	4	49	1265	3
Ni	62	0.360	ug/L	0.028	7	97	290	5
Cu	63	1.751	ug/L	0.015	0	233	13447	0
Cu	65	1.807	ug/L	0.033	1	114	6455	2
Zn	66	4.302	ug/L	0.034	0	375	10414	0
Zn	67	5.327	ug/L	0.170	3	141	2324	3
Zn	68	5.478	ug/L	0.015	0	5524	14414	1
As	75	136.149	ug/L	0.950	0	145	303690	0
As-1	75	141.885	ug/L	0.993	0	7671	311457	0
Se	82	1.217	ug/L	0.024	2	0	389	1
Se	78	1.798	ug/L	0.120	6	7997	9227	0
[ Mo	98	0.092	ug/L	0.005	5	87	959	6
Y	89		ug/L			461134	476531	0
Kr	83		ug/L			197	196	2
[> In	115		ug/L			515607	489463 ✓	0
Ag	107	11.775	ug/L	0.172	1	75	184194	1
Cd	111	0.071	ug/L	0.021	29	330	593	14
Cd	114	0.006	ug/L	0.001	10	32	84	6
Sb	121	✓ 0.052	ug/L	0.003	6	198	750	4
Sb	123	0.050	ug/L	0.001	1	157	550	1
Ba	135	46.257	ug/L	0.337	0	24	140901	0
[ Ba	137	46.499	ug/L	0.197	0	36	245905	0
[> Tb	159		ug/L			612197	596454 ✓	0
Tl	205	0.302	ug/L	0.005	1	250	13650	0
Pb	208	10.829	ug/L	0.167	1	1016	645238	0
Bi	209		ug/L			532877	513194	0
Th	232	0.293	ug/L	0.005	1	1565	22475	0
[ U	238	0.017	ug/L	0.000	1	1000	2256	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 L SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:40:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	716660 ✓	2
[ Be	9	0.067	ug/L	0.001	0	23	67	2
C	13		mg/L			6243	7546	1
Cl	37		mg/L			1387303	1590909	0
[> Sc	45		ug/L			409578	413231 ✓	0
V	51	7.015	ug/L	0.047	0	2772	125150	0
V-1	51	6.998	ug/L	0.018	0	1649	125683	0
Cr	52	3.264	ug/L	0.040	1	8617	57940	0
Cr	53	3.399	ug/L	0.066	1	614	6717	2
Mn	55	19.412	ug/L	0.190	0	377	503574	0
[ Co	59	0.690	ug/L	0.013	1	55	12834	1
[> Ge	72		ug/L			372563	372380 ✓	0
Ni	60	1.406	ug/L	0.023	1	49	5322	1
Ni	62	1.569	ug/L	0.034	2	97	954	1
Cu	63	7.670	ug/L	0.076	0	233	58674	0
Cu	65	7.696	ug/L	0.016	0	114	27373	0
Zn	66	8.682	ug/L	0.048	0	375	20834	0
Zn	67	9.782	ug/L	0.100	1	141	4190	1
Zn	68	9.665	ug/L	0.071	0	5524	21447	1
As	75	187.038	ug/L	0.677	0	145	421052	0
As-1	75	194.734	ug/L	0.732	0	7671	428611	0
Se	82	1.265	ug/L	0.063	4	0	408	5
Se	78	1.530	ug/L	0.053	3	7997	9116	0
[ Mo	98	0.101	ug/L	0.001	1	87	1051	0
Y	89		ug/L			461134	479244	0
Kr	83		ug/L			197	215	1
[> In	115		ug/L			515607	492159 ✓	0
Ag	107	7.435	ug/L	0.117	1	75	116961	0
Cd	111	0.146	ug/L	0.010	6	330	891	3
Cd	114	0.005	ug/L	0.001	12	32	72	7
Sb	121	u 0.041	ug/L	0.004	9	198	632	5
Sb	123	0.038	ug/L	0.004	11	157	460	7
Ba	135	46.065	ug/L	0.179	0	24	141091	1
[ Ba	137	45.993	ug/L	0.503	1	36	244557	0
[> Tb	159		ug/L			612197	599651 ✓	1
Tl	205	0.446	ug/L	0.005	1	250	20159	0
Pb	208	18.979	ug/L	0.246	1	1016	1136242	0
Bi	209		ug/L			532877	509518	0
Th	232	0.670	ug/L	0.006	0	1565	49711	0
[ U	238	0.078	ug/L	0.001	1	1000	6976	2



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 MB2SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:46:12

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			803723	713563 ✓	1
[ Be	9	24.400	ug/L	0.499	2	23	17028	1
C	13		mg/L			6243	5069	0
Cl	37		mg/L			1387303	1631841	0
[>] Sc	45		ug/L			409578	403097 ✓	0
V	51	24.372	ug/L	0.117	0	2772	417425	0
V-1	51	24.515	ug/L	0.101	0	1649	425398	0
Cr	52	24.989	ug/L	0.335	1	8617	376259	0
Cr	53	25.409	ug/L	0.259	1	614	45067	0
Mn	55	25.787	ug/L	0.178	0	377	652437	0
Co	59	25.132	ug/L	0.291	1	55	454341	1
[>] Ge	72		ug/L			372563	370078 ✓	0
Ni	60	25.214	ug/L	0.143	0	49	94034	0
Ni	62	25.291	ug/L	0.253	0	97	13831	1
Cu	63	26.443	ug/L	0.152	0	233	200463	0
Cu	65	26.466	ug/L	0.333	1	114	93271	0
Zn	66	79.256	ug/L	1.001	1	375	185986	0
Zn	67	71.201	ug/L	0.899	1	141	29432	1
Zn	68	78.301	ug/L	0.110	0	5524	133709	0
As	75	27.521	ug/L	0.481	1	145	61692	1
As-1	75	25.751	ug/L	0.336	1	7671	62937	0
Se	82	78.146	ug/L	1.026	1	0	25107	0
Se	78	78.973	ug/L	1.031	1	7997	65564	0
[ Mo	98	23.501	ug/L	0.308	1	87	223973	0
Y	89		ug/L			461134	453710	0
Kr	83		ug/L			197	220	7
[>] In	115		ug/L			515607	492350 ✓	0
Ag	107	25.790	ug/L	0.087	0	75	405702	1
Cd	111	24.858	ug/L	0.251	1	330	98449	0
Cd	114	25.174	ug/L	0.018	0	32	225820	0
Sb	121	25.398	ug/L	0.202	0	198	274659	0
Sb	123	25.570	ug/L	0.203	0	157	207495	0
Ba	135	25.466	ug/L	0.270	1	24	78036	0
[ Ba	137	25.554	ug/L	0.313	1	36	135946	0
[>] Tb	159		ug/L			612197	593813 ✓	0
Tl	205	25.495	ug/L	0.178	0	250	1128129	0
Pb	208	25.922	ug/L	0.244	0	1016	1536504	0
Bi	209		ug/L			532877	514496	0
Th	232	24.636	ug/L	0.360	1	1565	1754690	0
[ U	238	24.260	ug/L	0.272	1	1000	1856287	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:52:12

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	711210 ✓	1
[	Be	9	ug/L	0.799	1	23	34436	0
	C	13	mg/L			6243	3271	2
	Cl	37	mg/L			1387303	1622856	0
[>	Sc	45	ug/L			409578	404159 ✓	1
	V	51	ug/L	0.679	1	2772	834862	0
	V-1	51	ug/L	0.758	1	1649	845893	0
	Cr	52	ug/L	0.291	0	8617	730121	1
	Cr	53	ug/L	0.609	1	614	86031	0
	Mn	55	ug/L	0.760	1	377	1263230	0
[	Co	59	ug/L	0.696	1	55	880433	0
[>	Ge	72	ug/L			372563	374362 ✓	0
	Ni	60	ug/L	0.437	0	49	181418	1
	Ni	62	ug/L	0.679	1	97	26390	1
	Cu	63	ug/L	0.130	0	233	374999	0
	Cu	65	ug/L	0.509	1	114	173127	1
	Zn	66	ug/L	0.086	0	375	116938	0
	Zn	67	ug/L	0.513	1	141	20689	1
	Zn	68	ug/L	0.143	0	5524	86904	0
	As	75	ug/L	0.333	0	145	110695	0
	As-1	75	ug/L	0.244	0	7671	114445	0
	Se	82	ug/L	0.496	1	0	15930	1
	Se	78	ug/L	0.217	0	7997	44785	0
[	Mo	98	ug/L	0.271	0	87	446152	0
	Y	89	ug/L			461134	456678	1
	Kr	83	ug/L			197	232	3
[>	In	115	ug/L			515607	490499 ✓	1
	Ag	107	ug/L	0.438	0	75	783526	1
	Cd	111	ug/L	0.865	1	330	196966	0
	Cd	114	ug/L	0.585	1	32	448149	1
	Sb	121	ug/L	0.929	1	198	539054	0
	Sb	123	ug/L	0.914	1	157	404469	0
	Ba	135	ug/L	1.284	2	24	152832	0
[	Ba	137	ug/L	1.100	2	36	264058	0
[>	Tb	159	ug/L			612197	596269 ✓	0
	Tl	205	ug/L	0.308	0	250	2271772	0
	Pb	208	ug/L	0.137	0	1016	2930969	0
	Bi	209	ug/L			532877	488760	0
	Th	232	ug/L	0.200	0	1565	3586902	0
[	U	238	ug/L	0.256	0	1000	3810393	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:58:30

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	711916✓	0
[ Be	9	0.012	ug/L	0.003	24	23	28	7
C	13		mg/L			6243	6437	0
Cl	37		mg/L			1387303	1636584	0
> Sc	45		ug/L			409578	406026✓	0
V	51	0.016	ug/L	0.006	34	2772	3020	3
V-1	51	0.036	ug/L	0.004	12	1649	2267	3
Cr	52	0.026	ug/L	0.011	42	8617	8924	2
Cr	53	0.090	ug/L	0.018	20	614	767	3
Mn	55	0.005	ug/L	0.000	3	377	505	0
[ Co	59	0.001	ug/L	0.001	136	55	68	26
> Ge	72		ug/L			372563	370257✓	0
Ni	60	0.000	ug/L	0.002	864	49	49	12
Ni	62	0.046	ug/L	0.018	39	97	121	8
Cu	63	0.005	ug/L	0.001	15	233	268	2
Cu	65	0.004	ug/L	0.001	16	114	127	2
Zn	66	-0.005	ug/L	0.011	246	375	362	6
Zn	67	-0.007	ug/L	0.041	588	141	137	11
Zn	68	0.230	ug/L	0.082	35	5524	5866	2
As	75	0.027	ug/L	0.015	54	145	204	15
As-1	75	0.349	ug/L	0.020	5	7671	8374	0
Se	82	0.060	ug/L	0.034	56	0	18	57
Se	78	1.038	ug/L	0.050	4	7997	8705	0
[ Mo	98	0.001	ug/L	0.003	519	87	93	32
Y	89		ug/L			461134	452688	1
Kr	83		ug/L			197	203	4
> In	115		ug/L			515607	490519✓	0
Ag	107	0.003	ug/L	0.001	19	75	124	8
Cd	111	0.019	ug/L	0.004	23	330	389	4
Cd	114	-0.001	ug/L	0.001	62	32	24	18
Sb	121	0.058	ug/L	0.017	30	198	810	23
Sb	123	0.055	ug/L	0.016	29	157	591	22
Ba	135	0.002	ug/L	0.002	99	24	29	21
[ Ba	137	0.002	ug/L	0.001	57	36	43	11
> Tl	159		ug/L			612197	589548✓	1
Tl	205	-0.000	ug/L	0.001	6350	250	240	26
Pb	208	-0.006	ug/L	0.001	20	1016	617	11
Bi	209		ug/L			532877	507792	0
Th	232	0.006	ug/L	0.007	115	1565	1924	24
[ U	238	-0.009	ug/L	0.001	9	1000	296	21

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 M SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:03:57

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	743956 ✓	1
[ Be	9	0.063	ug/L	0.021	33	23	67	22
C	13		mg/L			6243	7354	0
Cl	37		mg/L			1387303	1632453	0
[> Sc	45		ug/L			409578	421989 ✓	0
V	51	4.176	ug/L	0.042	1	2772	77233	0
V-1	51	4.168	ug/L	0.036	0	1649	77127	0
Cr	52	1.981	ug/L	0.015	0	8617	39402	0
Cr	53	2.066	ug/L	0.011	0	614	4418	0
Mn	55	17.602	ug/L	0.171	0	377	466350	0
[ Co	59	0.525	ug/L	0.005	0	55	9999	1
[> Ge	72		ug/L			372563	383471 ✓	0
Ni	60	0.701	ug/L	0.020	2	49	2758	2
Ni	62	0.815	ug/L	0.040	4	97	558	4
Cu	63	11.418	ug/L	0.041	0	233	89833	0
Cu	65	11.331	ug/L	0.122	1	114	41446	0
Zn	66	6.260	ug/L	0.086	1	375	15579	1
Zn	67	7.622	ug/L	0.200	2	141	3394	2
Zn	68	7.629	ug/L	0.055	0	5524	18630	0
As	75	177.293	ug/L	0.479	0	145	411012	0
As-1	75	184.628	ug/L	0.506	0	7671	418883	0
Se	82	2.018	ug/L	0.015	0	0	671	1
Se	78	2.472	ug/L	0.030	1	7997	10100	0
[ Mo	98	0.142	ug/L	0.004	2	87	1492	2
Y	89		ug/L			461134	501831	0
Kr	83		ug/L			197	217	1
[> In	115		ug/L			515607	507358 ✓	0
Ag	107	15.749	ug/L	0.142	0	75	255319	0
Cd	111	0.066	ug/L	0.013	19	330	595	8
Cd	114	0.008	ug/L	0.003	43	32	102	29
Sb	121	0.099 ✓	ug/L	0.005	5	198	1292	4
Sb	123	0.106	ug/L	0.014	13	157	1044	11
Ba	135	53.307	ug/L	0.119	0	24	168312	0
[ Ba	137	53.208	ug/L	0.388	0	36	291672	0
[> Tb	159		ug/L			612197	613336 ✓	0
Tl	205	0.562	ug/L	0.006	1	250	25953	1
Pb	208	16.841	ug/L	0.127	0	1016	1031370	0
Bi	209		ug/L			532877	519094	1
Th	232	0.809	ug/L	0.012	1	1565	61063	1
[ U	238	0.065	ug/L	0.001	1	1000	6134	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 N SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:09:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	740175 ✓	1
[ Be	9	0.077	ug/L	0.020	26	23	77	18
C	13		mg/L			6243	7966	1
Cl	37		mg/L			1387303	1618277	0
[> Sc	45		ug/L			409578	411571 ✓	1
V	51	4.678	ug/L	0.058	1	2772	84046	1
V-1	51	4.678	ug/L	0.062	1	1649	84220	1
Cr	52	2.450	ug/L	0.033	1	8617	45474	2
Cr	53	2.562	ug/L	0.079	3	614	5194	1
Mn	55	14.241	ug/L	0.074	0	377	368058	0
Co	59	0.490	ug/L	0.006	1	55	9090	1
[> Ge	72		ug/L			372563	376514 ✓	0
Ni	60	1.028	ug/L	0.044	4	49	3947	4
Ni	62	1.192	ug/L	0.059	4	97	756	3
Cu	63	9.151	ug/L	0.045	0	233	70736	0
Cu	65	9.154	ug/L	0.040	0	114	32901	1
Zn	66	8.758	ug/L	0.085	0	375	21250	1
Zn	67	9.834	ug/L	0.126	1	141	4258	1
Zn	68	9.807	ug/L	0.042	0	5524	21921	1
As	75	171.555	ug/L	1.014	0	145	390497	0
As-1	75	178.646	ug/L	1.056	0	7671	398207	0
Se	82	1.367	ug/L	0.024	1	0	446	1
Se	78	1.702	ug/L	0.087	5	7997	9346	1
[ Mo	98	0.142	ug/L	0.002	1	87	1460	2
Y	89		ug/L			461134	498703	0
Kr	83		ug/L			197	208	2
[> In	115		ug/L			515607	502444 ✓	0
Ag	107	12.024	ug/L	0.044	0	75	193059	0
Cd	111	0.133	ug/L	0.015	11	330	858	6
Cd	114	0.012	ug/L	0.001	7	32	144	6
Sb	121	0.073	ug/L	0.003	4	198	998	4
Sb	123	0.073	ug/L	0.008	11	157	758	9
Ba	135	54.973	ug/L	0.478	0	24	171884	0
[ Ba	137	55.096	ug/L	0.258	0	36	299092	0
[> Tb	159		ug/L			612197	603954 ✓	0
Tl	205	0.416	ug/L	0.001	0	250	18966	0
Pb	208	55.272	ug/L	0.391	0	1016	3331041	0
Bi	209		ug/L			532877	514906	0
Th	232	0.737	ug/L	0.004	0	1565	54888	0
[ U	238	0.072	ug/L	0.002	2	1000	6570	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 O SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:15:53

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	750903 ✓	1
[ Be	9	0.038	ug/L	0.005	13	23	49	8
C	13		mg/L			6243	7778	2
Cl	37		mg/L			1387303	1597024	0
[> Sc	45		ug/L			409578	414490 ✓	0
V	51	1.923	ug/L	0.005	0	2772	36454	0
V-1	51	1.933	ug/L	0.010	0	1649	36030	1
Cr	52	1.417	ug/L	0.033	2	8617	30161	1
Cr	53	1.473	ug/L	0.011	0	614	3272	0
Mn	55	2.543	ug/L	0.032	1	377	66498	0
[ Co	59	0.063	ug/L	0.004	5	55	1236	5
[> Ge	72		ug/L			372563	373102 ✓	0
Ni	60	0.192	ug/L	0.003	1	49	769	2
Ni	62	0.325	ug/L	0.009	2	97	275	2
Cu	63	6.235	ug/L	0.090	1	233	47834	0
Cu	65	6.225	ug/L	0.036	0	114	22206	1
Zn	66	2.088	ug/L	0.018	0	375	5306	0
Zn	67	3.284	ug/L	0.073	2	141	1503	2
Zn	68	3.107	ug/L	0.075	2	5524	10661	0
As	75	88.583	ug/L	0.480	0	145	199879	0
As-1	75	92.366	ug/L	0.518	0	7671	207732	0
Se	82	1.102	ug/L	0.021	1	0	356	1
Se	78	1.667	ug/L	0.152	9	7997	9234	0
[ Mo	98	0.122	ug/L	0.003	2	87	1258	2
Y	89		ug/L			461134	480475	0
Kr	83		ug/L			197	198	2
[> In	115		ug/L			515607	496745 ✓	0
Ag	107	13.207	ug/L	0.042	0	75	209640	0
Cd	111	0.060	ug/L	0.013	21	330	556	10
Cd	114	0.004	ug/L	0.001	35	32	63	18
Sb	121	0.101	ug/L	0.001	1	198	1292	1
Sb	123	0.104	ug/L	0.001	0	157	1003	1
Ba	135	39.090	ug/L	0.634	1	24	120838	1
[ Ba	137	39.257	ug/L	0.717	1	36	210678	0
[> Tb	159		ug/L			612197	600895 ✓	0
Tl	205	0.361	ug/L	0.002	0	250	16416	0
Pb	208	10.334	ug/L	0.041	0	1016	620451	0
Bi	209		ug/L			532877	517868	0
Th	232	0.812	ug/L	0.006	0	1565	60045	0
[ U	238	0.037	ug/L	0.000	0	1000	3849	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 P SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:21:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6	ug/L			803723	745130✓	0
[	Be	9	ug/L	0.004	5	23	76	4
	C	13	mg/L			6243	7681	1
	Cl	37	mg/L			1387303	1578264	0
>	Sc	45	ug/L			409578	409731✓	1
	V	51	ug/L	0.009	0	2772	21263	0
	V-1	51	ug/L	0.016	1	1649	20583	0
	Cr	52	ug/L	0.021	1	8617	24392	0
	Cr	53	ug/L	0.046	4	614	2538	2
	Mn	55	ug/L	0.039	1	377	85197	0
	Co	59	ug/L	0.003	2	55	2177	1
>	Ge	72	ug/L			372563	368319✓	0
	Ni	60	ug/L	0.006	3	49	695	2
	Ni	62	ug/L	0.041	17	97	219	9
	Cu	63	ug/L	0.035	1	233	20125	0
	Cu	65	ug/L	0.029	1	114	9339	0
	Zn	66	ug/L	0.042	1	375	6575	1
	Zn	67	ug/L	0.048	1	141	1502	1
	Zn	68	ug/L	0.133	3	5524	11128	1
	As	75	ug/L	0.310	0	145	338288	0
	As-1	75	ug/L	0.362	0	7671	346002	0
	Se	82	ug/L	0.067	2	0	1031	2
	Se	78	ug/L	0.059	1	7997	10826	0
	Mo	98	ug/L	0.002	4	87	573	3
	Y	89	ug/L			461134	524997	0
	Kr	83	ug/L			197	204	2
>	In	115	ug/L			515607	503300✓	0
	Ag	107	ug/L	0.090	0	75	271812	0
	Cd	111	ug/L	0.004	6	330	615	3
	Cd	114	ug/L	0.001	75	32	41	17
	Sb	121	ug/L	0.004	5	198	1039	4
	Sb	123	ug/L	0.003	3	157	782	2
	Ba	135	ug/L	0.317	1	24	96089	1
	Ba	137	ug/L	0.241	0	36	164609	0
>	Tb	159	ug/L			612197	604621✓	0
	Tl	205	ug/L	0.003	0	250	29409	1
	Pb	208	ug/L	0.084	0	1016	1297551	0
	Bi	209	ug/L			532877	514446	1
	Th	232	ug/L	0.012	0	1565	105275	0
	U	238	ug/L	0.001	0	1000	7487	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 Q SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:27:47

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	736107 ✓	1
[ Be	9	0.443	ug/L	0.021	4	23	339	4
C	13		mg/L			6243	8184	0
Cl	37		mg/L			1387303	1522827	0
[> Sc	45		ug/L			409578	448869 ✓	0
V	51	24.439	ug/L	0.303	1	2772	466082	1
V-1	51	24.245	ug/L	0.261	1	1649	468505	1
Cr	52	12.554	ug/L	0.084	0	8617	215201	0
Cr	53	12.531	ug/L	0.107	0	614	25092	1
Mn	55	253.614	ug/L	0.630	0	377	7141951	0
[ Co	59	3.615	ug/L	0.051	1	55	72821	1
[> Ge	72		ug/L			372563	364521 ✓	1
Ni	60	7.643	ug/L	0.033	0	49	28110	1
Ni	62	7.881	ug/L	0.089	1	97	4310	2
Cu	63	42.054	ug/L	0.140	0	233	313892	0
Cu	65	42.257	ug/L	0.262	0	114	146632	1
Zn	66	58.744	ug/L	0.346	0	375	135889	1
Zn	67	56.764	ug/L	0.412	0	141	23141	1
Zn	68	60.037	ug/L	0.074	0	5524	102241	1
As	75	101.511	ug/L	0.505	0	145	223764	1
As-1	75	105.593	ug/L	0.509	0	7671	230944	1
Se	82	0.576	ug/L	0.065	11	0	181	12
Se	78	0.608	ug/L	0.012	1	7997	8261	1
[ Mo	98	0.300	ug/L	0.004	1	87	2905	2
Y	89		ug/L			461134	618255	1
Kr	83		ug/L			197	254	0
[> In	115		ug/L			515607	486823 ✓	1
Ag	107	2.923	ug/L	0.017	0	75	45537	1
Cd	111	0.448	ug/L	0.016	3	330	2061	2
Cd	114	0.060	ug/L	0.002	3	32	561	3
Sb	121	✓ 0.006	ug/L	0.001	10	198	256	3
Sb	123	0.003	ug/L	0.002	58	157	175	8
Ba	135	96.692	ug/L	0.385	0	24	292910	0
[ Ba	137	96.473	ug/L	0.478	0	36	507404	1
[> Tb	159		ug/L			612197	597097 ✓	0
Tl	205	0.342	ug/L	0.002	0	250	15443	1
Pb	208	11.102	ug/L	0.113	1	1016	662250	0
Bi	209		ug/L			532877	487544	0
Th	232	2.228	ug/L	0.012	0	1565	160985	0
[ U	238	0.470	ug/L	0.007	1	1000	37097	1



# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 R SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:33:43

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

No As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	732402 ✓	0
[ Be	9	0.317	ug/L	0.008	2	23	248	1
C	13		mg/L			6243	8417	0
Cl	37		mg/L			1387303	1517329	0
> Sc	45		ug/L			409578	434197 ✓	0
V	51	18.451	ug/L	0.008	0	2772	341115	0
V-1	51	18.295	ug/L	0.038	0	1649	342412	0
Cr	52	9.083	ug/L	0.049	0	8617	153133	0
Cr	53	9.055	ug/L	0.164	1	614	17718	1
Mn	55	86.089	ug/L	0.403	0	377	2345356	0
[ Co	59	1.574	ug/L	0.016	1	55	30701	0
> Ge	72		ug/L			372563	361788 ✓	0
Ni	60	2.946	ug/L	0.016	0	49	10782	0
Ni	62	3.057	ug/L	0.083	2	97	1717	2
Cu	63	55.701	ug/L	0.414	0	233	412572	0
Cu	65	55.776	ug/L	0.493	0	114	192046	0
Zn	66	28.307	ug/L	0.157	0	375	65176	0
Zn	67	31.719	ug/L	0.128	0	141	12894	0
Zn	68	31.385	ug/L	0.260	0	5524	55607	0
As	75	421.539	ug/L	0.433	0	145	921793	0
As-1	75	438.695	ug/L	0.458	0	7671	928786	0
Se	82	2.360	ug/L	0.019	0	0	740	0
Se	78	2.354	ug/L	0.063	2	7997	9445	0
[ Mo	98	0.416	ug/L	0.015	3	87	3957	3
Y	89		ug/L			461134	521611	0
Kr	83		ug/L			197	235	0
> In	115		ug/L			515607	481665 ✓	0
Ag	107	4.936	ug/L	0.031	0	75	76020	0
Cd	111	0.180	ug/L	0.013	7	330	1004	4
Cd	114	0.025	ug/L	0.001	5	32	253	4
Sb	121	0.010	ug/L	0.002	18	198	286	6
Sb	123	0.008	ug/L	0.003	38	157	212	11
Ba	135	154.561	ug/L	0.517	0	24	463253	0
[ Ba	137	153.933	ug/L	2.308	1	36	801005	1
> Tb	159		ug/L			612197	589004 ✓	0
Tl	205	0.502	ug/L	0.008	1	250	22260	1
Pb	208	24.168	ug/L	0.310	1	1016	1420985	0
Bi	209		ug/L			532877	485678	0
Th	232	2.636	ug/L	0.017	0	1565	187592	1
[ U	238	0.374	ug/L	0.003	0	1000	29364	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 R SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:39:39

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

AS

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	741352 ✓	1
[ Be	9	0.121	ug/L	0.009	7	23	108	5
C	13		mg/L			6243	6261	0
Cl	37		mg/L			1387303	1546642	0
> Sc	45		ug/L			409578	410825 ✓	0
V	51	7.990	ug/L	0.112	1	2772	141334	1
V-1	51	7.968	ug/L	0.108	1	1649	142027	0
Cr	52	3.857	ug/L	0.018	0	8617	66498	0
Cr	53	3.992	ug/L	0.024	0	614	7736	0
Mn	55	36.594	ug/L	0.422	1	377	943453	0
[ Co	59	0.681	ug/L	0.004	0	55	12610	0
> Ge	72		ug/L			372563	359503 ✓	1
Ni	60	1.217	ug/L	0.029	2	49	4454	1
Ni	62	1.332	ug/L	0.028	2	97	796	0
Cu	63	23.415	ug/L	0.340	1	233	172449	0
Cu	65	23.380	ug/L	0.186	0	114	80053	0
Zn	66	11.995	ug/L	0.247	2	375	27648	1
Zn	67	13.463	ug/L	0.168	1	141	5516	0
Zn	68	13.284	ug/L	0.205	1	5524	26458	0
As	75	175.235	ug/L	2.041	1	145	380816	0
As-1	75	182.471	ug/L	2.165	1	7671	388163	0
Se	82	1.051	ug/L	0.034	3	0	327	1
Se	78	1.347	ug/L	0.179	13	7997	8670	0
[ Mo	98	0.163	ug/L	0.006	3	87	1595	3
Y	89		ug/L			461134	477703	1
Kr	83		ug/L			197	204	1
> In	115		ug/L			515607	480946 ✓	0
Ag	107	2.032	ug/L	0.033	1	75	31289	2
Cd	111	0.087	ug/L	0.016	18	330	642	9
Cd	114	0.009	ug/L	0.002	16	32	113	11
Sb	121	-0.004	ug/L	0.001	40	198	146	11
Sb	123	-0.005	ug/L	0.001	18	157	110	6
Ba	135	63.177	ug/L	0.392	0	24	189083	0
Ba	137	62.894	ug/L	0.601	0	36	326804	0
> Tb	159		ug/L			612197	588275 ✓	0
Tl	205	0.201	ug/L	0.003	1	250	9037	1
Pb	208	9.923	ug/L	0.028	0	1016	583284	0
Bi	209		ug/L			532877	494524	1
Th	232	1.079	ug/L	0.004	0	1565	77576	0
[ U	238	0.145	ug/L	0.000	0	1000	11941	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 S SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:45:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	756855 ✓	1
[ Be	9	0.067	ug/L	0.013	19	23	71	12
C	13		mg/L			6243	9376	1
Cl	37		mg/L			1387303	1580590	0
[> Sc	45		ug/L			409578	401780 ✓	1
V	51	1.713	ug/L	0.054	3	2772	31752	1
V-1	51	1.738	ug/L	0.044	2	1649	31554	0
Cr	52	1.741	ug/L	0.045	2	8617	33982	0
Cr	53	1.820	ug/L	0.017	0	614	3776	1
Mn	55	6.993	ug/L	0.164	2	377	176589	0
Co	59	0.170	ug/L	0.006	3	55	3114	2
[> Ge	72		ug/L			372563	358698 ✓	0
Ni	60	0.378	ug/L	0.018	4	49	1413	5
Ni	62	0.455	ug/L	0.035	7	97	332	5
Cu	63	3.347	ug/L	0.028	0	233	24794	1
Cu	65	3.340	ug/L	0.041	1	114	11504	1
Zn	66	3.675	ug/L	0.082	2	375	8704	2
Zn	67	4.602	ug/L	0.079	1	141	1971	2
Zn	68	4.734	ug/L	0.139	2	5524	12832	1
As	75	117.285	ug/L	0.420	0	145	254379	0
As-1	75	122.182	ug/L	0.476	0	7671	261793	0
Se	82	2.158	ug/L	0.101	4	0	671	5
Se	78	2.687	ug/L	0.111	4	7997	9599	0
[ Mo	98	0.077	ug/L	0.004	4	87	795	4
Y	89		ug/L			461134	494886	0
Kr	83		ug/L			197	199	2
[> In	115		ug/L			515607	488670 ✓	0
Ag	107	13.846	ug/L	0.145	1	75	216211	0
Cd	111	0.086	ug/L	0.002	2	330	651	2
Cd	114	0.006	ug/L	0.001	9	32	88	5
Sb	121	0.081	ug/L	0.008	10	198	1054	7
Sb	123	0.073	ug/L	0.006	8	157	737	7
Ba	135	40.271	ug/L	0.439	1	24	122469	0
Ba	137	40.416	ug/L	0.450	1	36	213386	0
[> Tb	159		ug/L			612197	594482 ✓	0
Tl	205	0.518	ug/L	0.004	0	250	23167	0
Pb	208	16.871	ug/L	0.155	0	1016	1001506	0
Bi	209		ug/L			532877	503944	1
Th	232	0.817	ug/L	0.007	0	1565	59742	0
[ U	238	0.054	ug/L	0.001	1	1000	5143	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 T SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:51:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	746463 ✓	0
[ Be	9	0.051	ug/L	0.008	16	23	58	11
C	13		mg/L			6243	7891	0
Cl	37		mg/L			1387303	1565861	0
[> Sc	45		ug/L			409578	396381 ✓	0
V	51	3.398	ug/L	0.012	0	2772	59534	0
V-1	51	3.396	ug/L	0.015	0	1649	59315	0
Cr	52	1.707	ug/L	0.020	1	8617	33043	0
Cr	53	1.784	ug/L	0.065	3	614	3664	3
Mn	55	6.981	ug/L	0.092	1	377	173943	1
[ Co	59	0.264	ug/L	0.001	0	55	4751	0
[> Ge	72		ug/L			372563	360257 ✓	0
Ni	60	0.529	ug/L	0.019	3	49	1965	2
Ni	62	0.617	ug/L	0.071	11	97	420	8
Cu	63	4.331	ug/L	0.005	0	233	32148	0
Cu	65	4.370	ug/L	0.024	0	114	15083	0
Zn	66	4.184	ug/L	0.061	1	375	9902	1
Zn	67	5.346	ug/L	0.302	5	141	2277	5
Zn	68	4.991	ug/L	0.122	2	5524	13298	1
As	75	192.881	ug/L	0.566	0	145	420067	0
As-1	75	200.843	ug/L	0.568	0	7671	427434	0
Se	82	1.273	ug/L	0.049	3	0	397	3
Se	78	1.579	ug/L	0.041	2	7997	8855	0
[ Mo	98	0.111	ug/L	0.004	3	87	1110	3
Y	89		ug/L			461134	462260	0
Kr	83		ug/L			197	199	4
[> In	115		ug/L			515607	486732 ✓	1
Ag	107	8.483	ug/L	0.099	1	75	131959	0
Cd	111	0.092	ug/L	0.015	16	330	672	8
Cd	114	0.002	ug/L	0.001	27	32	51	11
Sb	121	0.045	ug/L	0.002	4	198	662	2
Sb	123	0.045	ug/L	0.001	1	157	510	1
Ba	135	38.972	ug/L	0.684	1	24	118039	0
[ Ba	137	38.886	ug/L	0.675	1	36	204483	0
[> Tb	159		ug/L			612197	593360 ✓	0
Tl	205	0.413	ug/L	0.006	1	250	18478	1
Pb	208	12.162	ug/L	0.154	1	1016	720800	0
Bi	209		ug/L			532877	495640	0
Th	232	0.450	ug/L	0.008	1	1565	33535	0
[ U	238	0.033	ug/L	0.001	2	1000	3473	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 U SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:57:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	738590 ✓	1
[ Be	9	0.698	ug/L	0.042	6	23	525	7
C	13		mg/L			6243	8950	0
Cl	37		mg/L			1387303	1528558	0
> Sc	45		ug/L			409578	443818 ✓	1
V	51	26.039	ug/L	0.040	0	2772	490820	1
V-1	51	25.871	ug/L	0.036	0	1649	494189	1
Cr	52	11.691	ug/L	0.024	0	8617	198787	1
Cr	53	11.873	ug/L	0.072	0	614	23540	0
Mn	55	460.848	ug/L	2.858	0	377	12831721	1
[ Co	59	8.836	ug/L	0.032	0	55	175920	1
> Ge	72		ug/L			372563	353967 ✓	0
Ni	60	11.926	ug/L	0.139	1	49	42567	1
Ni	62	13.877	ug/L	0.104	0	97	7300	0
Cu	63	24.300	ug/L	0.355	1	233	176226	1
Cu	65	24.258	ug/L	0.256	1	114	81784	1
Zn	66	67.339	ug/L	0.527	0	375	151208	1
Zn	67	64.930	ug/L	0.121	0	141	25684	0
Zn	68	68.000	ug/L	0.391	0	5524	111752	0
As	75	23.284	ug/L	0.216	0	145	49946	1
As-1	75	24.225	ug/L	0.221	0	7671	57065	1
Se	82	0.086	ug/L	0.027	30	0	26	31
Se	78	0.398	ug/L	0.007	1	7997	7875	0
[ Mo	98	0.172	ug/L	0.005	2	87	1647	3
Y	89		ug/L			461134	791218	1
Kr	83		ug/L			197	282	0
> In	115		ug/L			515607	476947 ✓	1
Ag	107	0.572	ug/L	0.010	1	75	8781	0
Cd	111	1.045	ug/L	0.038	3	330	4301	3
Cd	114	0.172	ug/L	0.010	5	32	1521	4
Sb	121	0.008	ug/L	0.002	25	198	271	7
Sb	123	0.007	ug/L	0.001	19	157	203	6
Ba	135	126.844	ug/L	0.697	0	24	376466	1
[ Ba	137	127.302	ug/L	1.597	1	36	655924	1
> Tb	159		ug/L			612197	597813 ✓	0
Tl	205	0.192	ug/L	0.004	2	250	8809	1
Pb	208	12.860	ug/L	0.066	0	1016	767880	0
Bi	209		ug/L			532877	483511	0
Th	232	2.208	ug/L	0.039	1	1565	159740	1
[ U	238	0.492	ug/L	0.002	0	1000	38874	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:03:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	723295 ✓	1
[ Be	9	48.434	ug/L	1.113	2	23	34236	0
C	13		mg/L			6243	3360	0
Cl	37		mg/L			1387303	1587585	0
> Sc	45		ug/L			409578	391353 ✓	0
V	51	48.307	ug/L	0.408	0	2772	800685	1
V-1	51	48.286	ug/L	0.384	0	1649	811974	1
Cr	52	48.736	ug/L	0.130	0	8617	704647	0
Cr	53	48.647	ug/L	0.174	0	614	83235	0
Mn	55	49.590	ug/L	0.235	0	377	1217854	1
Co	59	48.114	ug/L	0.391	0	55	844448	1
> Ge	72		ug/L			372563	356950 ✓	0
Ni	60	48.020	ug/L	0.113	0	49	172701	1
Ni	62	47.690	ug/L	0.583	1	97	25071	0
Cu	63	48.747	ug/L	0.183	0	233	356267	0
Cu	65	48.511	ug/L	0.339	0	114	164816	1
Zn	66	49.602	ug/L	0.172	0	375	112410	0
Zn	67	50.315	ug/L	0.356	0	141	20100	0
Zn	68	49.259	ug/L	0.582	1	5524	83090	0
As	75	49.275	ug/L	0.106	0	145	106433	0
As-1	75	49.430	ug/L	0.116	0	7671	109771	0
Se	82	49.845	ug/L	0.114	0	0	15447	0
Se	78	50.398	ug/L	0.179	0	7997	43130	0
Mo	98	46.541	ug/L	0.248	0	87	427761	0
Y	89		ug/L			461134	438784	0
Kr	83		ug/L			197	226	7
> In	115		ug/L			515607	471666 ✓	0
Ag	107	49.628	ug/L	0.850	1	75	747844	1
Cd	111	49.994	ug/L	0.236	0	330	189387	0
Cd	114	50.294	ug/L	0.263	0	32	432168	0
Sb	121	50.206	ug/L	0.431	0	198	520002	1
Sb	123	50.028	ug/L	0.454	0	157	388798	1
Ba	135	50.358	ug/L	0.438	0	24	147814	0
Ba	137	50.792	ug/L	0.044	0	36	258842	0
> Tb	159		ug/L			612197	580720 ✓	0
Tl	205	51.398	ug/L	0.863	1	250	2223887	1
Pb	208	49.725	ug/L	0.556	1	1016	2881485	0
Bi	209		ug/L			532877	485164	0
Th	232	50.960	ug/L	0.820	1	1565	3548046	1
U	238	50.332	ug/L	0.150	0	1000	3765499	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:09:53

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	716920 ✓	1
[ Be	9	0.019	ug/L	0.010	52	23	33	19
C	13		mg/L			6243	6261	3
Cl	37		mg/L			1387303	1606651	0
[> Sc	45		ug/L			409578	393084 ✓	0
V	51	0.012	ug/L	0.009	77	2772	2862	5
V-1	51	0.033	ug/L	0.001	3	1649	2137	1
Cr	52	0.012	ug/L	0.010	80	8617	8443	1
Cr	53	0.077	ug/L	0.022	28	614	722	5
Mn	55	0.008	ug/L	0.000	5	377	564	2
[ Co	59	0.001	ug/L	0.000	37	55	68	8
[> Ge	72		ug/L			372563	357001 ✓	0
Ni	60	-0.002	ug/L	0.001	54	49	40	9
Ni	62	0.044	ug/L	0.029	65	97	116	13
Cu	63	0.003	ug/L	0.003	94	233	247	8
Cu	65	0.003	ug/L	0.001	44	114	118	3
Zn	66	-0.000	ug/L	0.012	5338	375	359	6
Zn	67	0.017	ug/L	0.007	41	141	142	1
Zn	68	0.127	ug/L	0.086	68	5524	5493	2
As	75	0.007	ug/L	0.021	286	145	155	28
As-1	75	0.297	ug/L	0.038	12	7671	7966	0
Se	82	0.002	ug/L	0.024	1278	0	0	5706
Se	78	0.894	ug/L	0.060	6	7997	8292	0
[ Mo	98	-0.001	ug/L	0.003	670	87	79	38
Y	89		ug/L			461134	441458	0
Kr	83		ug/L			197	200	2
[> In	115		ug/L			515607	474661 ✓	1
[ Ag	107	0.003	ug/L	0.001	32	75	122	13
Cd	111	0.025	ug/L	0.002	7	330	399	2
Cd	114	-0.001	ug/L	0.001	113	32	24	26
Sb	121	0.050	ug/L	0.019	37	198	704	27
Sb	123	0.051	ug/L	0.014	27	157	542	19
Ba	135	0.003	ug/L	0.001	23	24	30	4
[ Ba	137	0.003	ug/L	0.001	41	36	46	10
[> Tb	159		ug/L			612197	570238 ✓	0
Tl	205	-0.001	ug/L	0.001	278	250	210	28
Pb	208	-0.006	ug/L	0.001	14	1016	595	7
Bi	209		ug/L			532877	497303	1
Th	232	0.002	ug/L	0.006	393	1565	1558	25
[ U	238	-0.009	ug/L	0.001	10	1000	265	25

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 MB1 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:17:01

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	747484✓	2
[ Be	9	0.015	ug/L	0.013	89	23	32	31
C	13		mg/L			6243	5267	1
Cl	37		mg/L			1387303	1615542	1
[> Sc	45		ug/L			409578	405350✓	0
V	51	✓ 0.002	ug/L	0.008	317	2772	2785	4
V-1	51	0.028	ug/L	0.005	18	1649	2127	4
Cr	52	✓ 0.004	ug/L	0.009	248	8617	8582	0
Cr	53	0.086	ug/L	0.002	2	614	759	1
Mn	55	0.034	ug/L	0.001	1	377	1230	1
[ Co	59	0.001	ug/L	0.000	27	55	67	4
[> Ge	72		ug/L			372563	368789✓	0
Ni	60	0.002	ug/L	0.001	36	49	55	3
Ni	62	0.087	ug/L	0.036	41	97	143	13
Cu	63	0.017	ug/L	0.002	12	233	362	4
Cu	65	0.013	ug/L	0.004	29	114	159	8
Zn	66	0.194	ug/L	0.018	9	375	824	5
Zn	67	0.147	ug/L	0.034	22	141	200	7
Zn	68	0.306	ug/L	0.041	13	5524	5967	1
As	75	✓ 0.009	ug/L	0.016	173	145	164	21
As-1	75	0.219	ug/L	0.046	21	7671	8062	1
Se	82	✓ -0.004	ug/L	0.034	829	0	-1	624
Se	78	0.636	ug/L	0.114	17	7997	8379	1
[ Mo	98	-0.003	ug/L	0.001	27	87	53	16
Y	89		ug/L			461134	460437	0
Kr	83		ug/L			197	202	1
[> In	115		ug/L			515607	494401✓	1
Ag	107	✓ 0.001	ug/L	0.000	57	75	80	4
Cd	111	0.026	ug/L	0.006	22	330	418	4
Cd	114	-0.001	ug/L	0.001	44	32	21	20
Sb	121	✓ 0.005	ug/L	0.002	41	198	247	8
Sb	123	0.003	ug/L	0.004	122	157	178	17
Ba	135	0.003	ug/L	0.001	41	24	33	13
Ba	137	0.003	ug/L	0.001	31	36	52	11
[> Tb	159		ug/L			612197	596776✓	0
Tl	205	-0.003	ug/L	0.000	5	250	110	6
Pb	208	✓ -0.006	ug/L	0.000	5	1016	647	2
Bi	209		ug/L			532877	509541	1
Th	232	-0.010	ug/L	0.001	12	1565	819	10
[ U	238	-0.010	ug/L	0.000	4	1000	217	15



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 V SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:23:00

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	751486 ✓	1
[ Be	9	0.668	ug/L	0.018	2	23	512	1
C	13		mg/L			6243	7841	2
Cl	37		mg/L			1387303	1555682	0
[> Sc	45		ug/L			409578	449572 ✓	0
V	51	23.454	ug/L	0.191	0	2772	448118	0
V-1	51	23.252	ug/L	0.177	0	1649	450092	0
Cr	52	12.444	ug/L	0.095	0	8617	213728	1
Cr	53	12.352	ug/L	0.049	0	614	24782	0
Mn	55	558.347	ug/L	4.074	0	377	15747249	0
Co	59	8.911	ug/L	0.067	0	55	179711	0
[> Ge	72		ug/L			372563	366866 ✓	0
Ni	60	12.727	ug/L	0.121	0	49	47080	1
Ni	62	15.375	ug/L	0.214	1	97	8372	1
Cu	63	20.206	ug/L	0.205	1	233	151905	0
Cu	65	20.261	ug/L	0.224	1	114	70813	1
Zn	66	68.506	ug/L	0.408	0	375	159421	0
Zn	67	64.203	ug/L	0.452	0	141	26323	0
Zn	68	69.003	ug/L	0.598	0	5524	117450	0
As	75	21.153	ug/L	0.120	0	145	47041	0
As-1	75	21.950	ug/L	0.112	0	7671	54300	0
Se	82	u 0.107	ug/L	0.017	15	0	33	15
Se	78	0.192	ug/L	0.121	62	7997	8014	1
[ Mo	98	0.254	ug/L	0.007	2	87	2480	2
Y	89		ug/L			461134	833760	0
Kr	83		ug/L			197	274	2
[> In	115		ug/L			515607	490946 ✓	0
Ag	107	0.749	ug/L	0.002	0	75	11819	0
Cd	111	1.140	ug/L	0.050	4	330	4804	4
Cd	114	0.301	ug/L	0.005	1	32	2727	1
Sb	121	u 0.021	ug/L	0.002	8	198	414	4
Sb	123	0.021	ug/L	0.007	32	157	316	16
Ba	135	108.253	ug/L	0.170	0	24	330717	0
[ Ba	137	108.938	ug/L	1.073	0	36	577817	1
[> Tb	159		ug/L			612197	604827 ✓	0
Tl	205	0.163	ug/L	0.004	2	250	7573	2
Pb	208	18.588	ug/L	0.187	1	1016	1122484	0
Bi	209		ug/L			532877	494724	0
Th	232	2.195	ug/L	0.015	0	1565	160677	0
[ U	238	0.463	ug/L	0.002	0	1000	37027	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 X SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:28:59

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

No As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	747892 ✓	1
[ Be	9	0.084	ug/L	0.013	15	23	82	10
C	13		mg/L			6243	6723	0
Cl	37		mg/L			1387303	1587029	0
[> Sc	45		ug/L			409578	407410 ✓	0
V	51	2.743	ug/L	0.009	0	2772	49924	0
V-1	51	2.756	ug/L	0.012	0	1649	49792	0
Cr	52	2.219	ug/L	0.014	0	8617	41583	0
Cr	53	2.287	ug/L	0.053	2	614	4656	1
Mn	55	13.191	ug/L	0.064	0	377	337509	0
Co	59	0.303	ug/L	0.010	3	55	5593	3
[> Ge	72		ug/L			372563	360722 ✓	0
Ni	60	0.732	ug/L	0.014	1	49	2708	2
Ni	62	0.727	ug/L	0.045	6	97	478	4
Cu	63	4.312	ug/L	0.051	1	233	32055	1
Cu	65	4.337	ug/L	0.073	1	114	14991	1
Zn	66	4.495	ug/L	0.046	1	375	10624	0
Zn	67	7.013	ug/L	0.098	1	141	2949	1
Zn	68	6.641	ug/L	0.039	0	5524	15948	0
As	75	395.264	ug/L	0.177	0	145	861803	0
As-1	75	411.458	ug/L	0.199	0	7671	869019	0
Se	82	2.692	ug/L	0.065	2	0	842	2
Se	78	3.022	ug/L	0.016	0	7997	9892	0
Mo	98	0.098	ug/L	0.004	3	87	993	3
Y	89		ug/L			461134	482534	0
Kr	83		ug/L			197	221	2
[> In	115		ug/L			515607	481236 ✓	1
Ag	107	8.785	ug/L	0.107	1	75	135109	0
Cd	111	0.135	ug/L	0.018	13	330	827	8
Cd	114	0.003	ug/L	0.000	7	32	59	2
Sb	121	0.030	ug/L	0.003	8	198	504	4
Sb	123	0.030	ug/L	0.002	6	157	387	3
Ba	135	88.788	ug/L	0.876	0	24	265864	0
Ba	137	89.037	ug/L	2.018	2	36	462827	0
[> Tb	159		ug/L			612197	586060 ✓	0
Tl	205	0.203	ug/L	0.001	0	250	9098	0
Pb	208	6.593	ug/L	0.045	0	1016	386434	0
Bi	209		ug/L			532877	491295	0
Th	232	0.778	ug/L	0.006	0	1565	56111	0
U	238	0.095	ug/L	0.001	0	1000	8095	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 X SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:34:58

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

AS

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	729047	1
[ Be	9	0.043	ug/L	0.017	40	23	51	24
C	13		mg/L			6243	5593	2
Cl	37		mg/L			1387303	1603862	0
[> Sc	45		ug/L			409578	395858	1
V	51	1.053	ug/L	0.009	0	2772	20269	1
V-1	51	1.077	ug/L	0.012	1	1649	19872	1
Cr	52	0.850	ug/L	0.008	0	8617	20617	0
Cr	53	0.936	ug/L	0.023	2	614	2202	0
Mn	55	5.118	ug/L	0.037	0	377	127454	0
Co	59	0.114	ug/L	0.007	5	55	2076	5
[> Ge	72		ug/L			372563	356595	0
Ni	60	0.285	ug/L	0.014	4	49	1069	5
Ni	62	0.323	ug/L	0.054	16	97	261	10
Cu	63	1.672	ug/L	0.045	2	233	12422	2
Cu	65	1.662	ug/L	0.055	3	114	5746	2
Zn	66	1.859	ug/L	0.026	1	375	4553	0
Zn	67	2.759	ug/L	0.135	4	141	1228	4
Zn	68	2.689	ug/L	0.065	2	5524	9530	0
As	75	152.475	ug/L	0.942	0	145	328717	0
As-1	75	158.867	ug/L	0.976	0	7671	336193	0
Se	82	1.071	ug/L	0.079	7	0	331	7
Se	78	1.648	ug/L	0.027	1	7997	8813	0
[ Mo	98	0.035	ug/L	0.004	11	87	401	8
Y	89		ug/L			461134	449891	1
Kr	83		ug/L			197	206	4
[> In	115		ug/L			515607	472392	1
Ag	107	3.385	ug/L	0.035	1	75	51145	0
Cd	111	0.053	ug/L	0.005	9	330	502	4
Cd	114	0.001	ug/L	0.000	44	32	37	6
Sb	121	0.005	ug/L	0.001	15	198	229	4
Sb	123	0.004	ug/L	0.003	76	157	175	13
Ba	135	33.633	ug/L	0.601	1	24	98869	0
[ Ba	137	33.576	ug/L	0.832	2	36	171350	1
[> Tb	159		ug/L			612197	566682	0
Ti	205	0.075	ug/L	0.001	1	250	3413	1
Pb	208	2.554	ug/L	0.016	0	1016	145350	1
Bi	209		ug/L			532877	492756	0
Th	232	0.291	ug/L	0.002	0	1565	21222	1
[ U	238	0.030	ug/L	0.000	1	1000	3116	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 A-L SWN

Sample Dil Factor: 100

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:40:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	716245 ✓	1
[ Be	9	0.029	ug/L	0.018	64	23	40	30
C	13		mg/L			6243	5359	1
Cl	37		mg/L			1387303	1617535	0
> Sc	45		ug/L			409578	386755 ✓	0
V	51	✓ 0.362	ug/L	0.009	2	2772	8520	1
V-1	51	0.394	ug/L	0.001	0	1649	8091	0
Cr	52	✓ 0.342	ug/L	0.004	1	8617	12963	0
Cr	53	0.445	ug/L	0.029	6	614	1327	3
Mn	55	2.507	ug/L	0.038	1	377	61179	1
Co	59	0.049	ug/L	0.002	3	55	899	3
> Ge	72		ug/L			372563	354651 ✓	0
Ni	60	0.122	ug/L	0.006	4	49	481	4
Ni	62	0.172	ug/L	0.016	9	97	181	4
Cu	63	0.405	ug/L	0.012	2	233	3160	2
Cu	65	0.409	ug/L	0.015	3	114	1490	3
Zn	66	0.593	ug/L	0.007	1	375	1689	0
Zn	67	0.693	ug/L	0.035	5	141	407	3
Zn	68	0.774	ug/L	0.036	4	5524	6472	0
As	75	20.463	ug/L	0.200	0	145	43995	0
As-1	75	21.560	ug/L	0.172	0	7671	51688	0
Se	82	✓ 0.119	ug/L	0.016	13	0	36	13
Se	78	0.914	ug/L	0.156	17	7997	8252	1
Mo	98	0.008	ug/L	0.002	21	87	153	9
Y	89		ug/L			461134	443038	0
Kr	83		ug/L			197	194	4
> In	115		ug/L			515607	467723 ✓	0
Ag	107	0.735	ug/L	0.012	1	75	11049	1
Cd	111	0.036	ug/L	0.009	24	330	435	7
Cd	114	0.000	ug/L	0.000	245	32	31	11
Sb	121	✓ -0.006	ug/L	0.000	7	198	113	4
Sb	123	-0.009	ug/L	0.001	9	157	73	8
Ba	135	3.630	ug/L	0.034	0	24	10586	1
Ba	137	3.706	ug/L	0.015	0	36	18760	0
> Tb	159		ug/L			612197	565300 ✓	0
Tl	205	0.011	ug/L	0.000	1	250	683	1
Pb	208	1.021	ug/L	0.009	0	1016	58509	0
Bi	209		ug/L			532877	486831	0
Th	232	0.073	ug/L	0.002	2	1565	6364	1
U	238	0.001	ug/L	0.000	28	1000	992	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 A SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:46:52

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	750610 ✓	1
[ Be	9	0.084	ug/L	0.010	11	23	83	9
C	13		mg/L			6243	6771	1
Cl	37		mg/L			1387303	1599469	0
[> Sc	45		ug/L			409578	404272 ✓	0
V	51	1.732	ug/L	0.028	1	2772	32296	2
V-1	51	1.746	ug/L	0.012	0	1649	31904	1
Cr	52	1.635	ug/L	0.011	0	8617	32634	1
Cr	53	1.684	ug/L	0.092	5	614	3562	4
Mn	55	11.459	ug/L	0.082	0	377	290992	0
[ Co	59	0.224	ug/L	0.005	2	55	4120	3
[> Ge	72		ug/L			372563	359206 ✓	0
Ni	60	0.575	ug/L	0.006	1	49	2129	0
Ni	62	0.642	ug/L	0.011	1	97	432	1
Cu	63	1.935	ug/L	0.013	0	233	14450	0
Cu	65	1.934	ug/L	0.008	0	114	6717	0
Zn	66	2.339	ug/L	0.031	1	375	5679	1
Zn	67	2.756	ug/L	0.115	4	141	1236	3
Zn	68	2.812	ug/L	0.069	2	5524	9795	0
As	75	98.390	ug/L	0.450	0	145	213725	0
As-1	75	102.585	ug/L	0.464	0	7671	221304	0
Se	82	u 0.420	ug/L	0.027	6	0	130	6
Se	78	1.014	ug/L	0.049	4	7997	8428	0
[ Mo	98	0.063	ug/L	0.006	9	87	664	8
Y	89		ug/L			461134	489836	0
Kr	83		ug/L			197	215	1
[> In	115		ug/L			515607	479958 ✓	0
Ag	107	3.557	ug/L	0.086	2	75	54609	1
Cd	111	0.069	ug/L	0.008	11	330	571	4
Cd	114	0.004	ug/L	0.001	13	32	64	6
Sb	121	u 0.010	ug/L	0.002	17	198	291	6
Sb	123	0.006	ug/L	0.006	109	157	194	26
Ba	135	17.481	ug/L	0.138	0	24	52227	0
[ Ba	137	17.529	ug/L	0.163	0	36	90921	1
[> Tb	159		ug/L			612197	583184 ✓	0
Tl	205	0.070	ug/L	0.002	3	250	3260	2
Pb	208	4.847	ug/L	0.014	0	1016	282978	0
Bi	209		ug/L			532877	500360	0
Th	232	0.416	ug/L	0.007	1	1565	30600	0
[ U	238	0.046	ug/L	0.001	2	1000	4417	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 ADUP SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:52:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	763528 ✓	0
[ Be	9	0.083	ug/L	0.021	25	23	84	17
C	13		mg/L			6243	8953	3
Cl	37		mg/L			1387303	1586538	0
[> Sc	45		ug/L			409578	412355 ✓	0
V	51	2.197	ug/L	0.029	1	2772	41026	1
V-1	51	2.200	ug/L	0.010	0	1649	40571	0
Cr	52	2.139	ug/L	0.017	0	8617	40876	0
Cr	53	2.153	ug/L	0.041	1	614	4473	1
Mn	55	14.144	ug/L	0.128	0	377	366259	0
[ Co	59	0.277	ug/L	0.006	2	55	5172	1
[> Ge	72		ug/L			372563	363041 ✓	0
Ni	60	0.696	ug/L	0.022	3	49	2592	2
Ni	62	0.779	ug/L	0.045	5	97	509	4
Cu	63	2.149	ug/L	0.046	2	233	16187	1
Cu	65	2.131	ug/L	0.030	1	114	7470	0
Zn	66	3.227	ug/L	0.055	1	375	7779	1
Zn	67	3.779	ug/L	0.120	3	141	1662	2
Zn	68	3.691	ug/L	0.047	1	5524	11312	0
As	75	91.937	ug/L	0.698	0	145	201853	1
As-1	75	95.836	ug/L	0.747	0	7671	209448	1
Se	82	✓ 0.407	ug/L	0.055	13	0	127	13
Se	78	0.895	ug/L	0.127	14	7997	8433	0
[ Mo	98	0.055	ug/L	0.006	10	87	600	9
Y	89		ug/L			461134	499997	0
Kr	83		ug/L			197	213	2
[> In	115		ug/L			515607	484340 ✓	0
Ag	107	3.278	ug/L	0.038	1	75	50792	1
Cd	111	0.094	ug/L	0.001	1	330	676	0
Cd	114	0.006	ug/L	0.001	14	32	79	8
Sb	121	✓ 0.001	ug/L	0.002	251	198	194	9
Sb	123	-0.004	ug/L	0.002	54	157	119	12
Ba	135	18.971	ug/L	0.140	0	24	57196	0
Ba	137	19.039	ug/L	0.066	0	36	99652	0
[> Tb	159		ug/L			612197	584442 ✓	0
Tl	205	0.091	ug/L	0.002	2	250	4179	1
Pb	208	5.010	ug/L	0.055	1	1016	293017	0
Bi	209		ug/L			532877	500473	0
Th	232	0.436	ug/L	0.005	1	1565	32027	0
[ U	238	0.053	ug/L	0.001	2	1000	4968	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 ASPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:58:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	743360 ✓	2
[	Be	9	24.234	ug/L	0.567	2	23	17615	0
	C	13		mg/L			6243	6656	1
	Cl	37		mg/L			1387303	1587391	0
[>	Sc	45		ug/L			409578	403961 ✓	0
[	V	51	24.306	ug/L	0.285	1	2772	417182	1
	V-1	51	24.370	ug/L	0.181	0	1649	423805	0
	Cr	52	26.386	ug/L	0.255	0	8617	397669	0
	Cr	53	26.486	ug/L	0.180	0	614	47054	0
	Mn	55	39.542	ug/L	0.390	0	377	1002408	0
[	Co	59	24.501	ug/L	0.059	0	55	443886	0
[>	Ge	72		ug/L			372563	355945 ✓	0
[	Ni	60	25.923	ug/L	0.478	1	49	92979	1
	Ni	62	25.745	ug/L	0.298	1	97	13539	0
	Cu	63	27.519	ug/L	0.064	0	233	200654	0
	Cu	65	27.523	ug/L	0.230	0	114	93293	1
	Zn	66	81.528	ug/L	0.396	0	375	184009	0
	Zn	67	73.219	ug/L	0.452	0	141	29106	0
	Zn	68	79.649	ug/L	0.510	0	5524	130720	0
	As	75	116.289	ug/L	0.363	0	145	250282	0
	As-1	75	118.044	ug/L	0.303	0	7671	251235	0
	Se	82	77.944	ug/L	0.798	1	0	24086	0
	Se	78	78.456	ug/L	0.760	0	7997	62699	0
[	Mo	98	15.049	ug/L	0.050	0	87	137983	0
	Y	89		ug/L			461134	492451	1
	Kr	83		ug/L			197	228	4
[>	In	115		ug/L			515607	478831 ✓	0
[	Ag	107	29.150	ug/L	0.134	0	75	445953	0
	Cd	111	24.981	ug/L	0.186	0	330	96223	0
	Cd	114	24.962	ug/L	0.104	0	32	217765	0
	Sb	121	0.167	ug/L	0.002	0	198	1939	0
	Sb	123	0.164	ug/L	0.009	5	157	1436	4
	Ba	135	44.497	ug/L	0.550	1	24	132592	0
[	Ba	137	44.530	ug/L	0.183	0	36	230379	0
[>	Tb	159		ug/L			612197	579377 ✓	0
[	Tl	205	23.717	ug/L	0.158	0	250	1024008	0
	Pb	208	30.280	ug/L	0.215	0	1016	1751064	0
	Bi	209		ug/L			532877	492804	0
	Th	232	24.924	ug/L	0.119	0	1565	1732163	0
[	U	238	24.450	ug/L	0.230	0	1000	1825370	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 I SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:39:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	785063 ✓	0
[ Be	9	0.367	ug/L	0.007	1	23	304	1
C	13		mg/L			6243	6438	2
Cl	37		mg/L			1387303	1487960	0
[> Sc	45		ug/L			409578	422246 ✓	0
V	51	18.576	ug/L	0.127	0	2772	333958	1
V-1	51	18.358	ug/L	0.135	0	1649	334124	1
Cr	52	5.676	ug/L	0.034	0	8617	96387	0
Cr	53	5.625	ug/L	0.067	1	614	10944	1
Mn	55	195.514	ug/L	1.039	0	377	5179412	1
[ Co	59	3.955	ug/L	0.007	0	55	74951	0
[> Ge	72		ug/L			372563	350866 ✓	0
Ni	60	4.876	ug/L	0.084	1	49	17278	1
Ni	62	4.636	ug/L	0.035	0	97	2478	1
Cu	63	6.056	ug/L	0.028	0	233	43697	0
Cu	65	6.050	ug/L	0.062	1	114	20298	1
Zn	66	34.968	ug/L	0.096	0	375	78001	1
Zn	67	35.921	ug/L	0.570	1	141	14142	0
Zn	68	36.689	ug/L	0.070	0	5524	62163	0
As	75	72.097	ug/L	0.278	0	145	153009	0
As-1	75	75.043	ug/L	0.325	0	7671	160068	0
Se	82	✓ 0.347	ug/L	0.087	25	0	105	25
Se	78	0.629	ug/L	0.067	10	7997	7966	1
[ Mo	98	0.162	ug/L	0.004	2	87	1547	3
Y	89		ug/L			461134	613654	0
Kr	83		ug/L			197	262	3
[> In	115		ug/L			515607	467808 ✓	1
Ag	107	1.336	ug/L	0.039	2	75	20021	1
Cd	111	0.145	ug/L	0.020	13	330	844	8
Cd	114	0.026	ug/L	0.002	6	32	255	5
Sb	121	✓ 0.019	ug/L	0.003	13	198	374	6
Sb	123	0.018	ug/L	0.003	16	157	279	6
Ba	135	112.018	ug/L	1.071	0	24	326065	0
[ Ba	137	111.505	ug/L	1.781	1	36	563494	1
[> Tb	159		ug/L			612197	567946 ✓	1
Tl	205	0.139	ug/L	0.002	1	250	6103	0
Pb	208	5.765	ug/L	0.074	1	1016	327538	0
Bi	209		ug/L			532877	466333	0
Th	232	1.482	ug/L	0.010	0	1565	102354	0
[ U	238	0.263	ug/L	0.007	2	1000	20130	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 APOST SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:04:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	769875 ✓	1
[	Be	9	ug/L	0.194	0	23	17921	0
	C	13	mg/L			6243	7198	2
	Cl	37	mg/L			1387303	1590145	0
[>	Sc	45	ug/L			409578	412639 ✓	0
	V	51	ug/L	0.057	0	2772	445630	0
	V-1	51	ug/L	0.056	0	1649	452403	0
	Cr	52	ug/L	0.211	0	8617	395505	0
	Cr	53	ug/L	0.201	0	614	46858	0
	Mn	55	ug/L	0.116	0	377	938626	1
[	Co	59	ug/L	0.392	1	55	450411	0
[>	Ge	72	ug/L			372563	363700 ✓	0
	Ni	60	ug/L	0.076	0	49	93976	0
	Ni	62	ug/L	0.115	0	97	13863	1
	Cu	63	ug/L	0.066	0	233	206964	0
	Cu	65	ug/L	0.461	1	114	96207	1
	Zn	66	ug/L	0.243	0	375	193822	0
	Zn	67	ug/L	0.804	1	141	30486	0
	Zn	68	ug/L	0.331	0	5524	138846	0
	As	75	ug/L	0.771	0	145	278216	0
	As-1	75	ug/L	0.797	0	7671	278664	0
	Se	82	ug/L	0.534	0	0	25684	0
	Se	78	ug/L	0.558	0	7997	66263	0
[	Mo	98	ug/L	0.190	0	87	218235	0
	Y	89	ug/L			461134	492452	0
	Kr	83	ug/L			197	231	3
[>	In	115	ug/L			515607	483983 ✓	0
	Ag	107	ug/L	0.133	0	75	447707	0
	Cd	111	ug/L	0.190	0	330	98567	0
	Cd	114	ug/L	0.098	0	32	223008	0
	Sb	121	ug/L	0.163	0	198	268994	0
	Sb	123	ug/L	0.044	0	157	201690	0
	Ba	135	ug/L	0.091	0	24	129664	0
[	Ba	137	ug/L	0.671	1	36	223929	1
[>	Tb	159	ug/L			612197	581455 ✓	0
	Tl	205	ug/L	0.427	1	250	1106073	0
	Pb	208	ug/L	0.224	0	1016	1783962	0
	Bi	209	ug/L			532877	502553	2
	Th	232	ug/L	0.155	0	1565	1746883	0
[	U	238	ug/L	0.123	0	1000	1837245	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 MB1SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:10:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	766971	0
[	Be	9	ug/L	0.123	0	23	17131	1
	C	13	mg/L			6243	5555	1
	Cl	37	mg/L			1387303	1593615	0
[>	Sc	45	ug/L			409578	398908	0
	V	51	ug/L	0.063	0	2772	401830	0
	V-1	51	ug/L	0.223	0	1649	406869	0
	Cr	52	ug/L	0.158	0	8617	361196	0
	Cr	53	ug/L	0.660	2	614	42426	1
	Mn	55	ug/L	0.409	1	377	627917	0
[	Co	59	ug/L	0.308	1	55	429088	0
[>	Ge	72	ug/L			372563	364499	0
	Ni	60	ug/L	0.087	0	49	89129	0
	Ni	62	ug/L	0.420	1	97	13039	1
	Cu	63	ug/L	0.153	0	233	189801	0
	Cu	65	ug/L	0.095	0	114	87411	0
	Zn	66	ug/L	0.631	0	375	177232	0
	Zn	67	ug/L	0.491	0	141	27882	0
	Zn	68	ug/L	0.364	0	5524	126107	0
	As	75	ug/L	0.160	0	145	58657	0
	As-1	75	ug/L	0.133	0	7671	59818	0
	Se	82	ug/L	0.612	0	0	24004	0
	Se	78	ug/L	0.414	0	7997	62679	0
[	Mo	98	ug/L	0.226	1	87	211743	1
	Y	89	ug/L			461134	446116	0
	Kr	83	ug/L			197	220	3
[>	In	115	ug/L			515607	486882	0
[	Ag	107	ug/L	0.407	1	75	388874	1
	Cd	111	ug/L	0.149	0	330	93405	0
	Cd	114	ug/L	0.328	1	32	212539	1
	Sb	121	ug/L	0.069	0	198	263142	0
	Sb	123	ug/L	0.157	0	157	197715	0
	Ba	135	ug/L	0.379	1	24	73941	1
[	Ba	137	ug/L	0.494	2	36	128906	1
[>	Tb	159	ug/L			612197	586076	0
	Tl	205	ug/L	0.048	0	250	1066414	0
	Pb	208	ug/L	0.292	1	1016	1460703	1
	Bi	209	ug/L			532877	504691	0
	Th	232	ug/L	0.052	0	1565	1659813	0
[	U	238	ug/L	0.016	0	1000	1784173	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: **CCV6**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, February 28, 2013 16:16:37**

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	739974 ✓	1
[ Be	9	48.241	ug/L	0.874	1	23	34891	0
C	13		mg/L			6243	3538	2
Cl	37		mg/L			1387303	1581506	0
[> Sc	45		ug/L			409578	393949 ✓	0
V	51	48.085	ug/L	0.349	0	2772	802284	0
V-1	51	48.195	ug/L	0.346	0	1649	815806	0
Cr	52	48.651	ug/L	0.257	0	8617	708082	0
Cr	53	48.968	ug/L	0.066	0	614	84337	0
Mn	55	50.022	ug/L	0.305	0	377	1236562	0
[ Co	59	48.041	ug/L	0.428	0	55	848725	0
[> Ge	72		ug/L			372563	357190 ✓	0
Ni	60	48.390	ug/L	0.711	1	49	174140	1
Ni	62	47.943	ug/L	0.507	1	97	25222	1
Cu	63	48.801	ug/L	0.389	0	233	356895	0
Cu	65	48.817	ug/L	0.161	0	114	165964	0
Zn	66	49.682	ug/L	0.458	0	375	112664	0
Zn	67	50.236	ug/L	0.285	0	141	20083	1
Zn	68	49.717	ug/L	0.469	0	5524	83871	0
As	75	49.126	ug/L	0.260	0	145	106180	0
As-1	75	49.374	ug/L	0.185	0	7671	109730	0
Se	82	49.747	ug/L	0.724	1	0	15426	1
Se	78	50.632	ug/L	0.410	0	7997	43324	0
[ Mo	98	46.664	ug/L	0.418	0	87	429168	0
Y	89		ug/L			461134	437120	0
Kr	83		ug/L			197	239	2
[> In	115		ug/L			515607	473184 ✓	0
Ag	107	49.139	ug/L	0.816	1	75	742785	0
Cd	111	50.125	ug/L	0.580	1	330	190480	0
Cd	114	50.571	ug/L	0.490	0	32	435920	0
Sb	121	50.283	ug/L	0.555	1	198	522420	0
Sb	123	50.555	ug/L	0.155	0	157	394136	0
Ba	135	50.279	ug/L	0.888	1	24	148043	0
[ Ba	137	50.089	ug/L	0.748	1	36	256061	0
[> Tb	159		ug/L			612197	575119 ✓	1
Tl	205	51.033	ug/L	0.292	0	250	2186832	0
Pb	208	49.246	ug/L	0.596	1	1016	2826047	0
Bi	209		ug/L			532877	473835	0
Th	232	50.873	ug/L	0.628	1	1565	3507839	1
[ U	238	50.200	ug/L	0.575	1	1000	3719117	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:22:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	749944 ✓	1
[ Be	9	0.022	ug/L	0.008	37	23	37	14
C	13		mg/L			6243	6249	1
Cl	37		mg/L			1387303	1604350	0
[> Sc	45		ug/L			409578	389012 ✓	0
[ V	51	0.007	ug/L	0.002	29	2772	2756	1
[ V-1	51	0.016	ug/L	0.006	35	1649	1834	5
[ Cr	52	0.020	ug/L	0.010	51	8617	8468	1
[ Cr	53	0.046	ug/L	0.017	37	614	662	4
[ Mn	55	0.005	ug/L	0.001	17	377	479	4
[ Co	59	0.002	ug/L	0.001	53	55	80	18
[> Ge	72		ug/L			372563	356226 ✓	0
[ Ni	60	-0.001	ug/L	0.001	77	49	42	8
[ Ni	62	0.040	ug/L	0.012	29	97	113	5
[ Cu	63	0.004	ug/L	0.003	73	233	255	8
[ Cu	65	-0.001	ug/L	0.003	384	114	107	8
[ Zn	66	-0.001	ug/L	0.004	312	375	356	2
[ Zn	67	-0.023	ug/L	0.011	47	141	125	3
[ Zn	68	0.096	ug/L	0.042	43	5524	5432	0
[ As	75	0.009	ug/L	0.010	107	145	158	12
[ As-1	75	0.300	ug/L	0.050	16	7671	7954	0
[ Se	82	0.001	ug/L	0.032	2619	0	0	10150
[ Se	78	0.906	ug/L	0.124	13	7997	8282	0
[ Mo	98	0.002	ug/L	0.003	130	87	106	27
[ Y	89		ug/L			461134	438553	1
[ Kr	83		ug/L			197	202	6
[> In	115		ug/L			515607	468807 ✓	0
[ Ag	107	0.003	ug/L	0.002	57	75	119	24
[ Cd	111	0.014	ug/L	0.002	14	330	355	2
[ Cd	114	-0.001	ug/L	0.001	148	32	25	28
[ Sb	121	0.060	ug/L	0.024	39	198	795	30
[ Sb	123	0.065	ug/L	0.024	37	157	647	28
[ Ba	135	0.001	ug/L	0.002	337	24	24	25
[ Ba	137	0.002	ug/L	0.001	86	36	41	17
[> Tb	159		ug/L			612197	565258 ✓	0
[ Tl	205	0.000	ug/L	0.001	3881	250	232	26
[ Pb	208	-0.006	ug/L	0.001	14	1016	583	8
[ Bi	209		ug/L			532877	488186	0
[ Th	232	0.010	ug/L	0.009	90	1565	2133	29
[ U	238	-0.010	ug/L	0.001	7	1000	227	22

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 MB2 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:28:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	777256 ✓	0
[ Be	9	0.023	ug/L	0.010	44	23	40	20
C	13		mg/L			6243	5870	0
Cl	37		mg/L			1387303	1595777	0
[> Sc	45		ug/L			409578	404667 ✓	0
V	51	✓ 0.014	ug/L	0.003	19	2772	2970	1
V-1	51	0.018	ug/L	0.003	19	1649	1937	3
Cr	52	✓ 0.012	ug/L	0.009	75	8617	8695	1
Cr	53	0.026	ug/L	0.002	7	614	652	0
Mn	55	0.016	ug/L	0.001	3	377	789	1
Co	59	0.003	ug/L	0.000	3	55	107	1
[> Ge	72		ug/L			372563	362258 ✓	0
Ni	60	0.005	ug/L	0.002	31	49	66	8
Ni	62	0.054	ug/L	0.027	48	97	123	11
Cu	63	0.018	ug/L	0.001	5	233	364	2
Cu	65	0.019	ug/L	0.004	22	114	175	8
Zn	66	0.208	ug/L	0.005	2	375	842	1
Zn	67	0.202	ug/L	0.033	16	141	218	6
Zn	68	0.241	ug/L	0.043	17	5524	5758	1
As	75	✓ 0.021	ug/L	0.021	98	145	188	24
As-1	75	0.249	ug/L	0.005	2	7671	7982	0
Se	82	✓ -0.008	ug/L	0.068	815	0	-3	687
Se	78	0.728	ug/L	0.013	1	7997	8295	0
Mo	98	-0.003	ug/L	0.000	15	87	56	8
Y	89		ug/L			461134	452102	0
Kr	83		ug/L			197	211	3
[> In	115		ug/L			515607	483947 ✓	1
Ag	107	✓ 0.004	ug/L	0.001	26	75	125	10
Cd	111	0.021	ug/L	0.002	10	330	390	0
Cd	114	0.000	ug/L	0.000	165	32	32	6
Sb	121	✓ 0.016	ug/L	0.004	24	198	354	10
Sb	123	0.015	ug/L	0.003	20	157	266	7
Ba	135	0.019	ug/L	0.002	11	24	81	6
Ba	137	0.019	ug/L	0.003	17	36	135	12
[> Tb	159		ug/L			612197	582560 ✓	0
Tl	205	0.004	ug/L	0.001	15	250	424	6
Pb	208	✓ -0.002	ug/L	0.001	36	1016	865	3
Bi	209		ug/L			532877	499888	1
Th	232	0.006	ug/L	0.003	47	1565	1906	9
[ U	238	-0.009	ug/L	0.000	3	1000	265	8

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 W SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:34:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	788643 ✓	2
[ Be	9	0.680	ug/L	0.064	9	23	545	7
C	13		mg/L			6243	7257	1
Cl	37		mg/L			1387303	1507620	0
[> Sc	45		ug/L			409578	457780 ✓	0
V	51	25.346	ug/L	0.235	0	2772	492866	0
V-1	51	25.171	ug/L	0.239	0	1649	495991	0
Cr	52	12.619	ug/L	0.116	0	8617	220559	0
Cr	53	12.698	ug/L	0.272	2	614	25922	2
Mn	55	465.145	ug/L	4.820	1	377	13358212	0
[ Co	59	8.126	ug/L	0.076	0	55	166873	1
[> Ge	72		ug/L			372563	361435 ✓	0
Ni	60	12.446	ug/L	0.155	1	49	45354	0
Ni	62	16.598	ug/L	0.267	1	97	8896	0
Cu	63	19.751	ug/L	0.163	0	233	146294	0
Cu	65	19.967	ug/L	0.100	0	114	68752	0
Zn	66	68.947	ug/L	0.772	1	375	158069	1
Zn	67	65.298	ug/L	0.617	0	141	26372	0
Zn	68	69.543	ug/L	0.754	1	5524	116571	0
As	75	13.594	ug/L	0.151	1	145	29831	0
As-1	75	14.068	ug/L	0.147	1	7671	36956	0
Se	82	u 0.035	ug/L	0.028	80	0	10	84
Se	78	0.138	ug/L	0.040	29	7997	7857	0
[ Mo	98	0.143	ug/L	0.005	3	87	1420	3
Y	89		ug/L			461134	789081	0
Kr	83		ug/L			197	288	4
[> In	115		ug/L			515607	478462 ✓	0
Ag	107	0.540	ug/L	0.010	1	75	8323	1
Cd	111	1.228	ug/L	0.058	4	330	5019	3
Cd	114	0.210	ug/L	0.003	1	32	1860	0
Sb	121	u 0.016	ug/L	0.001	5	198	354	2
Sb	123	0.014	ug/L	0.002	14	157	254	5
Ba	135	120.757	ug/L	1.637	1	24	359521	1
[ Ba	137	121.259	ug/L	1.393	1	36	626796	1
[> Tb	159		ug/L			612197	593864 ✓	1
Tl	205	0.175	ug/L	0.003	1	250	7972	1
Pb	208	7.523	ug/L	0.114	1	1016	446656	1
Bi	209		ug/L			532877	481963	1
Th	232	2.194	ug/L	0.017	0	1565	157696	1
[ U	238	0.536	ug/L	0.003	0	1000	41964	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 B SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:40:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	750451 ✓	1
[ Be	9	0.093	ug/L	0.013	13	23	90	11
C	13		mg/L			6243	8028	1
Cl	37		mg/L			1387303	1560901	0
[> Sc	45		ug/L			409578	385011 ✓	1
V	51	2.983	ug/L	0.031	1	2772	51082	2
V-1	51	2.961	ug/L	0.028	0	1649	50442	2
Cr	52	2.255	ug/L	0.015	0	8617	39805	1
Cr	53	2.223	ug/L	0.013	0	614	4293	1
Mn	55	18.371	ug/L	0.227	1	377	444077	2
[ Co	59	0.264	ug/L	0.006	2	55	4617	0
[> Ge	72		ug/L			372563	346963 ✓	0
Ni	60	0.499	ug/L	0.019	3	49	1790	2
Ni	62	0.520	ug/L	0.019	3	97	355	3
Cu	63	3.402	ug/L	0.091	2	233	24366	2
Cu	65	3.423	ug/L	0.038	1	114	11404	1
Zn	66	3.563	ug/L	0.088	2	375	8171	2
Zn	67	6.841	ug/L	0.058	0	141	2770	0
Zn	68	6.315	ug/L	0.158	2	5524	14839	1
As	75	102.638	ug/L	1.308	1	145	215339	1
As-1	75	107.035	ug/L	1.377	1	7671	222716	1
Se	82	1.347	ug/L	0.061	4	0	405	3
Se	78	2.131	ug/L	0.134	6	7997	8905	0
[ Mo	98	0.067	ug/L	0.002	2	87	684	2
Y	89		ug/L			461134	454249	0
Kr	83		ug/L			197	206	3
[> In	115		ug/L			515607	462682 ✓	1
Ag	107	6.296	ug/L	0.029	0	75	93129	1
Cd	111	0.079	ug/L	0.006	7	330	590	4
Cd	114	0.006	ug/L	0.001	20	32	81	12
Sb	121	0.015	ug/L	0.002	10	198	335	5
Sb	123	0.016	ug/L	0.002	9	157	262	3
Ba	135	108.961	ug/L	0.567	0	24	313724	1
[ Ba	137	109.435	ug/L	1.292	1	36	547014	1
[> Tb	159		ug/L			612197	563165 ✓	0
Ti	205	0.214	ug/L	0.002	1	250	9216	1
Pb	208	10.743	ug/L	0.059	0	1016	604452	0
Bi	209		ug/L			532877	476676	0
Th	232	1.161	ug/L	0.013	1	1565	79797	1
[ U	238	0.053	ug/L	0.001	1	1000	4790	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 C SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:46:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	771890 ✓	1
[	Be	9	ug/L	0.015	8	23	156	7
	C	13	mg/L			6243	7503	1
	Cl	37	mg/L			1387303	1550806	0
[>	Sc	45	ug/L			409578	405594 ✓	0
	V	51	ug/L	0.063	0	2772	144144	0
	V-1	51	ug/L	0.064	0	1649	144533	0
	Cr	52	ug/L	0.024	0	8617	62377	1
	Cr	53	ug/L	0.035	0	614	7173	1
	Mn	55	ug/L	0.328	0	377	2321020	0
[	Co	59	ug/L	0.015	0	55	28555	0
[>	Ge	72	ug/L			372563	350602 ✓	1
	Ni	60	ug/L	0.015	0	49	8030	1
	Ni	62	ug/L	0.104	4	97	1267	3
	Cu	63	ug/L	0.022	0	233	40004	0
	Cu	65	ug/L	0.043	0	114	18610	0
	Zn	66	ug/L	0.173	1	375	33496	1
	Zn	67	ug/L	0.469	3	141	6209	2
	Zn	68	ug/L	0.178	1	5524	30003	0
	As	75	ug/L	0.554	0	145	119793	0
	As-1	75	ug/L	0.617	1	7671	126990	0
	Se	82	ug/L	0.057	8	0	199	9
	Se	78	ug/L	0.118	11	7997	8265	0
[	Mo	98	ug/L	0.004	4	87	818	4
	Y	89	ug/L			461134	525939	0
	Kr	83	ug/L			197	231	4
[>	In	115	ug/L			515607	475366 ✓	0
	Ag	107	ug/L	0.071	1	75	70908	1
	Cd	111	ug/L	0.014	8	330	963	5
	Cd	114	ug/L	0.001	6	32	214	5
	Sb	121	ug/L	0.002	13	198	325	5
	Sb	123	ug/L	0.001	8	157	249	3
	Ba	135	ug/L	0.267	0	24	164945	0
[	Ba	137	ug/L	0.252	0	36	287288	0
[>	Tb	159	ug/L			612197	570870 ✓	1
	Tl	205	ug/L	0.003	1	250	7382	0
	Pb	208	ug/L	0.091	0	1016	580859	0
	Bi	209	ug/L			532877	482572	1
	Th	232	ug/L	0.022	2	1565	71912	0
[	U	238	ug/L	0.005	3	1000	12103	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 D SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:52:21

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	762620 ✓	1
[ Be	9	0.128	ug/L	0.025	19	23	117	14
C	13		mg/L			6243	6611	3
Cl	37		mg/L			1387303	1541811	0
> Sc	45		ug/L			409578	397527 ✓	0
V	51	2.892	ug/L	0.011	0	2772	51211	0
V-1	51	2.892	ug/L	0.019	0	1649	50900	0
Cr	52	2.273	ug/L	0.031	1	8617	41353	0
Cr	53	2.305	ug/L	0.080	3	614	4573	2
Mn	55	25.053	ug/L	0.097	0	377	625120	0
[ Co	59	0.488	ug/L	0.006	1	55	8761	1
> Ge	72		ug/L			372563	348891 ✓	0
Ni	60	0.984	ug/L	0.015	1	49	3504	0
Ni	62	0.983	ug/L	0.056	5	97	593	3
Cu	63	4.368	ug/L	0.024	0	233	31403	0
Cu	65	4.295	ug/L	0.072	1	114	14361	1
Zn	66	4.632	ug/L	0.057	1	375	10578	0
Zn	67	5.349	ug/L	0.054	1	141	2206	0
Zn	68	5.223	ug/L	0.025	0	5524	13236	1
As	75	81.665	ug/L	0.135	0	145	172324	1
As-1	75	85.184	ug/L	0.151	0	7671	179708	0
Se	82	0.608	ug/L	0.062	10	0	183	10
Se	78	1.267	ug/L	0.018	1	7997	8360	0
[ Mo	98	0.065	ug/L	0.005	8	87	669	6
Y	89		ug/L			461134	473838	1
Kr	83		ug/L			197	211	4
> In	115		ug/L			515607	469964 ✓	0
Ag	107	5.362	ug/L	0.055	1	75	80575	1
Cd	111	0.093	ug/L	0.001	1	330	651	0
Cd	114	0.008	ug/L	0.001	16	32	97	11
Sb	121	0.012	ug/L	0.002	19	198	300	7
Sb	123	0.010	ug/L	0.001	12	157	217	4
Ba	135	27.514	ug/L	0.288	0	24	80476	0
[ Ba	137	27.535	ug/L	0.361	1	36	139820	0
> Tb	159		ug/L			612197	568650 ✓	0
Tl	205	0.125	ug/L	0.003	2	250	5509	2
Pb	208	2.689	ug/L	0.026	0	1016	153493	0
Bi	209		ug/L			532877	484244	1
Th	232	0.655	ug/L	0.011	1	1565	46115	1
[ U	238	0.080	ug/L	0.002	2	1000	6797	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 E SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:58:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	762642 ✓	1
[ Be	9	0.083	ug/L	0.033	39	23	84	28
C	13		mg/L			6243	6392	0
Cl	37		mg/L			1387303	1578239	0
[> Sc	45		ug/L			409578	384595 ✓	0
V	51	1.429	ug/L	0.020	1	2772	25806	0
V-1	51	1.437	ug/L	0.009	0	1649	25252	0
Cr	52	1.309	ug/L	0.022	1	8617	26476	0
Cr	53	1.340	ug/L	0.015	1	614	2814	1
Mn	55	9.642	ug/L	0.138	1	377	232976	0
[ Co	59	0.150	ug/L	0.004	2	55	2640	2
[> Ge	72		ug/L			372563	350099 ✓	0
Ni	60	0.501	ug/L	0.011	2	49	1813	2
Ni	62	0.489	ug/L	0.031	6	97	342	4
Cu	63	1.879	ug/L	0.042	2	233	13681	2
Cu	65	1.885	ug/L	0.022	1	114	6384	1
Zn	66	2.376	ug/L	0.047	1	375	5616	2
Zn	67	2.790	ug/L	0.108	3	141	1218	4
Zn	68	2.796	ug/L	0.099	3	5524	9522	1
As	75	78.462	ug/L	0.423	0	145	166141	0
As-1	75	81.821	ug/L	0.454	0	7671	173492	0
Se	82	1.164	ug/L	0.024	2	0	353	1
Se	78	1.785	ug/L	0.032	1	7997	8747	0
[ Mo	98	0.049	ug/L	0.004	8	87	520	6
Y	89		ug/L			461134	452304	1
Kr	83		ug/L			197	206	2
[> In	115		ug/L			515607	466552 ✓	2
Ag	107	10.126	ug/L	0.251	2	75	150929	0
Cd	111	0.078	ug/L	0.014	18	330	589	10
Cd	114	0.009	ug/L	0.002	20	32	105	12
Sb	121	✓ 0.056	ug/L	0.005	9	198	754	7
Sb	123	0.050	ug/L	0.001	2	157	530	2
Ba	135	18.083	ug/L	0.523	2	24	52492	0
[ Ba	137	18.185	ug/L	0.401	2	36	91653	0
[> Tb	159		ug/L			612197	565063 ✓	0
Tl	205	0.163	ug/L	0.004	2	250	7097	1
Pb	208	6.818	ug/L	0.029	0	1016	385255	0
Bi	209		ug/L			532877	482543	0
Th	232	0.414	ug/L	0.001	0	1565	29491	0
[ U	238	0.031	ug/L	0.001	2	1000	3204	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 F SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:04:17

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	720090 ✓	1
[ Be	9	0.069	ug/L	0.016	23	23	69	17
C	13		mg/L			6243	7487	2
Cl	37		mg/L			1387303	1563146	0
[> Sc	45		ug/L			409578	365028 ✓	0
V	51	1.939	ug/L	0.009	0	2772	32349	0
V-1	51	1.933	ug/L	0.009	0	1649	31725	0
Cr	52	1.573	ug/L	0.026	1	8617	28644	0
Cr	53	1.571	ug/L	0.027	1	614	3037	1
Mn	55	10.161	ug/L	0.066	0	377	233021	1
[ Co	59	0.165	ug/L	0.005	2	55	2753	2
[> Ge	72		ug/L			372563	330492 ✓	0
Ni	60	0.575	ug/L	0.021	3	49	1956	3
Ni	62	0.686	ug/L	0.049	7	97	418	5
Cu	63	2.665	ug/L	0.033	1	233	18226	1
Cu	65	2.733	ug/L	0.009	0	114	8691	0
Zn	66	2.657	ug/L	0.071	2	375	5889	2
Zn	67	4.294	ug/L	0.150	3	141	1702	3
Zn	68	4.093	ug/L	0.077	1	5524	10886	1
As	75	163.986	ug/L	1.067	0	145	327651	0
As-1	75	170.871	ug/L	1.097	0	7671	334618	0
Se	82	1.906	ug/L	0.021	1	0	546	0
Se	78	2.692	ug/L	0.064	2	7997	8848	0
[ Mo	98	0.147	ug/L	0.004	3	87	1325	3
Y	89		ug/L			461134	435461	1
Kr	83		ug/L			197	204	2
[> In	115		ug/L			515607	441231 ✓	0
Ag	107	15.362	ug/L	0.204	1	75	216591	1
Cd	111	0.084	ug/L	0.008	9	330	580	4
Cd	114	0.006	ug/L	0.002	29	32	76	18
Sb	121	0.011	ug/L	0.002	17	198	276	6
Sb	123	0.013	ug/L	0.004	33	157	231	13
Ba	135	57.631	ug/L	0.635	1	24	158248	1
[ Ba	137	57.962	ug/L	0.300	0	36	276317	0
[> Tb	159		ug/L			612197	537216 ✓	1
Tl	205	0.354	ug/L	0.006	1	250	14387	1
Pb	208	13.499	ug/L	0.129	0	1016	724264	0
Bi	209		ug/L			532877	456831	0
Th	232	0.493	ug/L	0.010	2	1565	33119	0
[ U	238	0.034	ug/L	0.001	2	1000	3260	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 G SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:10:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	746986 ✓	0
[ Be	9	0.074	ug/L	0.003	3	23	75	3
C	13		mg/L			6243	6704	2
Cl	37		mg/L			1387303	1564925	0
> Sc	45		ug/L			409578	391735 ✓	1
V	51	2.079	ug/L	0.012	0	2772	37036	0
V-1	51	2.096	ug/L	0.017	0	1649	36784	1
Cr	52	2.570	ug/L	0.009	0	8617	45004	1
Cr	53	2.597	ug/L	0.063	2	614	5004	3
Mn	55	12.663	ug/L	0.122	0	377	311523	0
[ Co	59	0.184	ug/L	0.004	2	55	3292	0
> Ge	72		ug/L			372563	347819 ✓	0
Ni	60	0.405	ug/L	0.015	3	49	1465	4
Ni	62	0.419	ug/L	0.011	2	97	304	1
Cu	63	2.853	ug/L	0.027	0	233	20524	0
Cu	65	2.874	ug/L	0.059	2	114	9614	1
Zn	66	2.366	ug/L	0.024	1	375	5558	1
Zn	67	3.094	ug/L	0.073	2	141	1328	2
Zn	68	2.839	ug/L	0.070	2	5524	9526	1
As	75	164.970	ug/L	0.728	0	145	346897	0
As-1	75	171.935	ug/L	0.732	0	7671	354311	0
Se	82	0.764	ug/L	0.054	7	0	230	6
Se	78	1.534	ug/L	0.052	3	7997	8517	0
[ Mo	98	0.092	ug/L	0.006	6	87	902	6
Y	89		ug/L			461134	471104	0
Kr	83		ug/L			197	215	2
> In	115		ug/L			515607	467100 ✓	1
Ag	107	15.436	ug/L	0.144	0	75	230391	0
Cd	111	0.082	ug/L	0.012	14	330	607	7
Cd	114	0.001	ug/L	0.002	122	32	41	35
Sb	121	0.046	ug/L	0.003	6	198	654	3
Sb	123	0.050	ug/L	0.003	6	157	531	5
Ba	135	19.391	ug/L	0.291	1	24	56374	0
Ba	137	19.425	ug/L	0.210	1	36	98044	0
> Tb	159		ug/L			612197	559382 ✓	0
Tl	205	0.270	ug/L	0.006	2	250	11492	2
Pb	208	5.633	ug/L	0.066	1	1016	315235	0
Bi	209		ug/L			532877	476170	0
Th	232	0.558	ug/L	0.011	1	1565	38860	1
[ U	238	0.070	ug/L	0.002	2	1000	5964	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 H SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:16:09

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	751052 ✓	0
[ Be	9	0.150	ug/L	0.004	2	23	132	1
C	13		mg/L			6243	7055	2
Cl	37		mg/L			1387303	1544554	0
[> Sc	45		ug/L			409578	396797 ✓	0
V	51	4.654	ug/L	0.048	1	2772	80641	0
V-1	51	4.629	ug/L	0.069	1	1649	80356	0
Cr	52	3.174	ug/L	0.012	0	8617	54337	0
Cr	53	3.166	ug/L	0.082	2	614	6048	1
Mn	55	49.045	ug/L	0.710	1	377	1221131	0
[ Co	59	0.960	ug/L	0.006	0	55	17137	1
[> Ge	72		ug/L			372563	348288 ✓	0
Ni	60	1.255	ug/L	0.015	1	49	4447	1
Ni	62	1.223	ug/L	0.092	7	97	715	5
Cu	63	3.897	ug/L	0.022	0	233	27993	1
Cu	65	3.886	ug/L	0.029	0	114	12979	1
Zn	66	8.877	ug/L	0.100	1	375	19916	1
Zn	67	10.704	ug/L	0.144	1	141	4276	1
Zn	68	10.781	ug/L	0.173	1	5524	21779	1
As	75	101.292	ug/L	0.209	0	145	213336	0
As-1	75	105.643	ug/L	0.212	0	7671	220760	0
Se	82	1.186	ug/L	0.070	5	0	358	6
Se	78	2.045	ug/L	0.072	3	7997	8880	0
[ Mo	98	0.035	ug/L	0.003	8	87	396	6
Y	89		ug/L			461134	499455	0
Kr	83		ug/L			197	226	6
[> In	115		ug/L			515607	467318 ✓	0
Ag	107	7.707	ug/L	0.099	1	75	115121	1
Cd	111	0.090	ug/L	0.002	2	330	637	1
Cd	114	0.010	ug/L	0.001	7	32	113	5
Sb	121	0.009	ug/L	0.001	13	198	275	3
Sb	123	0.011	ug/L	0.002	13	157	226	4
Ba	135	83.051	ug/L	0.314	0	24	241517	0
[ Ba	137	83.185	ug/L	0.687	0	36	419979	0
[> Tb	159		ug/L			612197	566631 ✓	0
Tl	205	0.086	ug/L	0.001	0	250	3872	0
Pb	208	2.842	ug/L	0.029	1	1016	161595	0
Bi	209		ug/L			532877	477798	0
Th	232	0.708	ug/L	0.004	0	1565	49521	0
[ U	238	0.076	ug/L	0.002	2	1000	6486	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 MB2SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:22:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	747728 ✓	2
[	Be	9	23.321	ug/L	0.343	1	23	17053	0
	C	13		mg/L			6243	5107	1
	Cl	37		mg/L			1387303	1572853	0
[>	Sc	45		ug/L			409578	382500 ✓	0
	V	51	24.537	ug/L	0.127	0	2772	398753	0
	V-1	51	24.568	ug/L	0.152	0	1649	404522	0
	Cr	52	25.162	ug/L	0.350	1	8617	359440	0
	Cr	53	25.228	ug/L	0.430	1	614	42461	1
	Mn	55	25.899	ug/L	0.468	1	377	621785	1
[	Co	59	25.010	ug/L	0.079	0	55	429048	1
[>	Ge	72		ug/L			372563	343106 ✓	0
	Ni	60	25.326	ug/L	0.137	0	49	87570	0
	Ni	62	25.129	ug/L	0.423	1	97	12741	2
	Cu	63	26.779	ug/L	0.140	0	233	188216	0
	Cu	65	26.492	ug/L	0.155	0	114	86560	0
	Zn	66	81.563	ug/L	0.959	1	375	177449	1
	Zn	67	72.035	ug/L	0.510	0	141	27605	0
	Zn	68	78.914	ug/L	0.567	0	5524	124890	0
	As	75	27.939	ug/L	0.163	0	145	58064	0
	As-1	75	26.300	ug/L	0.528	2	7671	59443	1
	Se	82	79.769	ug/L	0.521	0	0	23762	1
	Se	78	81.176	ug/L	0.850	1	7997	62277	0
[	Mo	98	23.757	ug/L	0.053	0	87	209923	0
	Y	89		ug/L			461134	423349	1
	Kr	83		ug/L			197	218	4
[>	In	115		ug/L			515607	460791 ✓	0
	Ag	107	25.865	ug/L	0.152	0	75	380790	0
	Cd	111	24.913	ug/L	0.210	0	330	92344	0
	Cd	114	25.343	ug/L	0.108	0	32	212767	1
	Sb	121	25.633	ug/L	0.176	0	198	259441	0
	Sb	123	25.646	ug/L	0.153	0	157	194774	0
	Ba	135	25.540	ug/L	0.196	0	24	73249	0
[	Ba	137	25.500	ug/L	0.340	1	36	126965	0
[>	Tb	159		ug/L			612197	547287 ✓	1
	Tl	205	25.989	ug/L	0.286	1	250	1059848	0
	Pb	208	26.394	ug/L	0.317	1	1016	1441809	0
	Bi	209		ug/L			532877	473964	1
	Th	232	25.060	ug/L	0.258	1	1565	1645045	0
[	U	238	24.972	ug/L	0.173	0	1000	1761036	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: **CCV7**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, February 28, 2013 17:28:02**

Number of Replicates: **3**

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	759180 ✓	1
[	Be	9	46.820	ug/L	0.440	0	23	34744	0
	C	13		mg/L			6243	3655	2
	Cl	37		mg/L			1387303	1564689	0
[>	Sc	45		ug/L			409578	386800 ✓	0
	V	51	48.860	ug/L	0.734	1	2772	800337	1
	V-1	51	48.777	ug/L	0.704	1	1649	810631	1
	Cr	52	49.106	ug/L	0.366	0	8617	701655	0
	Cr	53	48.833	ug/L	0.325	0	614	82579	0
	Mn	55	50.124	ug/L	0.660	1	377	1216583	0
[	Co	59	48.731	ug/L	0.226	0	55	845309	0
[>	Ge	72		ug/L			372563	355381 ✓	0
	Ni	60	48.622	ug/L	0.269	0	49	174091	0
	Ni	62	48.431	ug/L	0.156	0	97	25349	1
	Cu	63	48.636	ug/L	0.566	1	233	353876	0
	Cu	65	48.504	ug/L	0.464	0	114	164058	0
	Zn	66	49.442	ug/L	0.286	0	375	111555	0
	Zn	67	49.757	ug/L	0.308	0	141	19792	1
	Zn	68	49.474	ug/L	0.429	0	5524	83063	0
	As	75	48.987	ug/L	0.143	0	145	105346	0
	As-1	75	49.181	ug/L	0.222	0	7671	108775	0
	Se	82	49.811	ug/L	0.440	0	0	15368	0
	Se	78	50.541	ug/L	0.681	1	7997	43040	0
[	Mo	98	46.322	ug/L	0.559	1	87	423858	0
	Y	89		ug/L			461134	434159	0
	Kr	83		ug/L			197	233	3
[>	In	115		ug/L			515607	468522 ✓	1
	Ag	107	49.210	ug/L	1.000	2	75	736481	0
	Cd	111	50.040	ug/L	1.058	2	330	188270	1
	Cd	114	49.958	ug/L	0.802	1	32	426371	0
	Sb	121	50.241	ug/L	0.704	1	198	516821	0
	Sb	123	50.191	ug/L	1.061	2	157	387390	1
	Ba	135	50.456	ug/L	0.765	1	24	147111	1
[	Ba	137	50.348	ug/L	0.323	0	36	254859	0
[>	Tb	159		ug/L			612197	566313 ✓	0
	Tl	205	51.535	ug/L	0.700	1	250	2174623	1
	Pb	208	49.492	ug/L	0.358	0	1016	2796874	0
	Bi	209		ug/L			532877	467720	1
	Th	232	51.255	ug/L	0.764	1	1565	3480114	1
[	U	238	50.390	ug/L	0.798	1	1000	3676163	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:34:21

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	761124 ✓	1
[ Be	9	0.017	ug/L	0.001	8	23	34	2
C	13		mg/L			6243	6179	1
Cl	37		mg/L			1387303	1571344	0
> Sc	45		ug/L			409578	388138 ✓	0
V	51	0.016	ug/L	0.002	11	2772	2892	0
V-1	51	0.010	ug/L	0.004	45	1649	1722	3
Cr	52	0.026	ug/L	0.006	21	8617	8527	0
Cr	53	0.004	ug/L	0.012	297	614	589	2
Mn	55	0.005	ug/L	0.002	43	377	469	10
[ Co	59	0.001	ug/L	0.000	31	55	76	9
> Ge	72		ug/L			372563	353459 ✓	0
Ni	60	0.000	ug/L	0.003	1015	49	47	18
Ni	62	0.051	ug/L	0.012	22	97	118	4
Cu	63	0.002	ug/L	0.003	152	233	238	10
Cu	65	-0.000	ug/L	0.003	807	114	107	8
Zn	66	0.005	ug/L	0.011	198	375	368	6
Zn	67	0.030	ug/L	0.045	149	141	145	11
Zn	68	0.191	ug/L	0.085	44	5524	5538	1
As	75	0.017	ug/L	0.006	36	145	173	7
As-1	75	0.333	ug/L	0.016	4	7671	7961	0
Se	82	-0.037	ug/L	0.023	62	0	-11	60
Se	78	0.986	ug/L	0.040	4	7997	8274	0
[ Mo	98	0.000	ug/L	0.002	11291	87	83	20
Y	89		ug/L			461134	434876	0
Kr	83		ug/L			197	214	5
> In	115		ug/L			515607	467701 ✓	1
Ag	107	0.003	ug/L	0.002	56	75	110	21
Cd	111	0.009	ug/L	0.003	38	330	332	5
Cd	114	-0.000	ug/L	0.000	404	32	29	12
Sb	121	0.061	ug/L	0.024	39	198	805	29
Sb	123	0.063	ug/L	0.028	44	157	625	33
Ba	135	0.004	ug/L	0.006	155	24	33	50
Ba	137	0.003	ug/L	0.001	25	36	46	5
> Tb	159		ug/L			612197	563587 ✓	0
Tl	205	-0.000	ug/L	0.001	1795	250	228	17
Pb	208	-0.006	ug/L	0.001	17	1016	580	10
Bi	209		ug/L			532877	485790	0
Th	232	0.008	ug/L	0.007	94	1565	1960	25
[ U	238	-0.010	ug/L	0.000	4	1000	189	17



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 J SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:45:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			803723	776866 ✓	1
[ Be	9	0.376	ug/L	0.018	4	23	307	3
C	13		mg/L			6243	6029	2
Cl	37		mg/L			1387303	1459260	0
[>] Sc	45		ug/L			409578	415605 ✓	0
V	51	18.991	ug/L	0.291	1	2772	335951	0
V-1	51	18.782	ug/L	0.254	1	1649	336402	0
Cr	52	5.431	ug/L	0.083	1	8617	91147	0
Cr	53	5.443	ug/L	0.057	1	614	10444	1
Mn	55	199.409	ug/L	1.651	0	377	5199145	0
Co	59	3.933	ug/L	0.023	0	55	73349	0
[>] Ge	72		ug/L			372563	348820 ✓	0
Ni	60	4.608	ug/L	0.096	2	49	16234	1
Ni	62	4.396	ug/L	0.047	1	97	2340	1
Cu	63	6.012	ug/L	0.031	0	233	43128	0
Cu	65	6.013	ug/L	0.020	0	114	20056	0
Zn	66	33.768	ug/L	0.502	1	375	74893	1
Zn	67	35.376	ug/L	0.298	0	141	13850	0
Zn	68	36.274	ug/L	0.322	0	5524	61159	1
As	75	70.730	ug/L	0.295	0	145	149236	0
As-1	75	73.646	ug/L	0.319	0	7671	156307	0
Se	82	u 0.298	ug/L	0.033	10	0	89	11
Se	78	0.666	ug/L	0.019	2	7997	7945	0
[ Mo	98	0.187	ug/L	0.002	1	87	1765	1
Y	89		ug/L			461134	584373	0
Kr	83		ug/L			197	265	1
[>] In	115		ug/L			515607	466105 ✓	1
Ag	107	1.194	ug/L	0.011	0	75	17850	0
Cd	111	0.151	ug/L	0.013	8	330	862	6
Cd	114	0.024	ug/L	0.001	5	32	236	3
Sb	121	u 0.008	ug/L	0.004	48	198	265	14
Sb	123	0.004	ug/L	0.001	39	157	171	6
Ba	135	119.828	ug/L	1.704	1	24	347532	1
[ Ba	137	119.524	ug/L	1.235	1	36	601827	0
[>] Tb	159		ug/L			612197	567576 ✓	0
Tl	205	0.128	ug/L	0.002	1	250	5643	0
Pb	208	5.838	ug/L	0.072	1	1016	331452	0
Bi	209		ug/L			532877	463945	0
Th	232	1.183	ug/L	0.019	1	1565	81926	1
[ U	238	0.231	ug/L	0.001	0	1000	17790	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 K SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:51:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	747082 ✓	1
[	Be	9	0.337	ug/L	0.062	18	23	267	15
	C	13		mg/L			6243	7588	2
	Cl	37		mg/L			1387303	1460443	1
[>	Sc	45		ug/L			409578	412178 ✓	0
	V	51	21.731	ug/L	0.151	0	2772	380866	0
	V-1	51	21.534	ug/L	0.139	0	1649	382285	0
	Cr	52	10.475	ug/L	0.078	0	8617	166309	0
	Cr	53	10.411	ug/L	0.134	1	614	19246	0
	Mn	55	284.458	ug/L	3.900	1	377	7355289	0
	Co	59	4.801	ug/L	0.042	0	55	88787	0
[>	Ge	72		ug/L			372563	333749 ✓	0
	Ni	60	8.187	ug/L	0.052	0	49	27566	0
	Ni	62	8.479	ug/L	0.080	0	97	4239	0
	Cu	63	11.107	ug/L	0.127	1	233	76060	0
	Cu	65	11.017	ug/L	0.069	0	114	35076	0
	Zn	66	38.006	ug/L	0.542	1	375	80609	1
	Zn	67	38.548	ug/L	0.202	0	141	14428	0
	Zn	68	39.916	ug/L	0.164	0	5524	63895	0
	As	75	69.143	ug/L	0.108	0	145	139587	0
	As-1	75	72.163	ug/L	0.147	0	7671	146680	0
	Se	82	u 0.342	ug/L	0.016	4	0	98	4
	Se	78	1.244	ug/L	0.110	8	7997	7982	0
[	Mo	98	0.147	ug/L	0.001	0	87	1340	0
	Y	89		ug/L			461134	608432	0
	Kr	83		ug/L			197	262	0
[>	In	115		ug/L			515607	446033 ✓	0
	Ag	107	4.533	ug/L	0.035	0	75	64654	0
	Cd	111	0.538	ug/L	0.029	5	330	2211	4
	Cd	114	0.072	ug/L	0.006	7	32	612	7
	Sb	121	u 0.010	ug/L	0.001	13	198	273	4
	Sb	123	0.010	ug/L	0.002	16	157	213	6
	Ba	135	115.244	ug/L	1.079	0	24	319868	1
[	Ba	137	116.200	ug/L	0.426	0	36	559944	0
[>	Tb	159		ug/L			612197	543562 ✓	0
	Tl	205	0.182	ug/L	0.003	1	250	7610	0
	Pb	208	10.119	ug/L	0.010	0	1016	549610	0
	Bi	209		ug/L			532877	448324	0
	Th	232	2.056	ug/L	0.010	0	1565	135300	0
[	U	238	0.404	ug/L	0.009	2	1000	29144	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 L SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:57:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	777767 ✓	0
[ Be	9	0.388	ug/L	0.015	3	23	317	2
C	13		mg/L			6243	6392	0
Cl	37		mg/L			1387303	1473672	0
[> Sc	45		ug/L			409578	441954 ✓	1
V	51	22.024	ug/L	0.454	2	2772	413759	0
V-1	51	21.863	ug/L	0.451	2	1649	416056	0
Cr	52	10.147	ug/L	0.124	1	8617	173020	0
Cr	53	10.229	ug/L	0.128	1	614	20285	0
Mn	55	386.295	ug/L	5.808	1	377	10708578	0
[ Co	59	5.376	ug/L	0.075	1	55	106583	0
[> Ge	72		ug/L			372563	352323 ✓	0
Ni	60	8.823	ug/L	0.077	0	49	31358	1
Ni	62	9.549	ug/L	0.080	0	97	5028	0
Cu	63	10.894	ug/L	0.145	1	233	78761	1
Cu	65	10.902	ug/L	0.032	0	114	36641	0
Zn	66	42.233	ug/L	0.317	0	375	94522	0
Zn	67	42.201	ug/L	0.279	0	141	16662	0
Zn	68	43.555	ug/L	0.501	1	5524	73125	1
As	75	38.828	ug/L	0.141	0	145	82810	0
As-1	75	40.396	ug/L	0.204	0	7671	89873	0
Se	82	✓ 0.219	ug/L	0.073	33	0	66	33
Se	78	0.470	ug/L	0.126	26	7997	7889	1
[ Mo	98	0.124	ug/L	0.002	1	87	1209	1
Y	89		ug/L			461134	670265	0
Kr	83		ug/L			197	269	4
[> In	115		ug/L			515607	471278 ✓	0
Ag	107	2.639	ug/L	0.008	0	75	39797	1
Cd	111	0.653	ug/L	0.007	1	330	2770	1
Cd	114	0.092	ug/L	0.002	2	32	817	2
Sb	121	✓ 0.013	ug/L	0.003	20	198	310	8
Sb	123	0.011	ug/L	0.003	24	157	233	8
Ba	135	109.096	ug/L	0.919	0	24	319929	0
[ Ba	137	108.483	ug/L	0.417	0	36	552339	0
[> Tb	159		ug/L			612197	581928 ✓	0
Tl	205	0.119	ug/L	0.003	2	250	5417	2
Pb	208	9.105	ug/L	0.016	0	1016	529520	0
Bi	209		ug/L			532877	472883	0
Th	232	2.026	ug/L	0.023	1	1565	142798	0
[ U	238	0.378	ug/L	0.003	0	1000	29264	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 M SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:03:43

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	765027 ✓	1
[ Be	9	0.387	ug/L	0.013	3	23	311	1
C	13		mg/L			6243	7198	0
Cl	37		mg/L			1387303	1454138	0
[> Sc	45		ug/L			409578	441882 ✓	2
V	51	24.280	ug/L	0.259	1	2772	455809	1
V-1	51	24.083	ug/L	0.267	1	1649	458080	1
Cr	52	12.819	ug/L	0.232	1	8617	216084	0
Cr	53	12.765	ug/L	0.262	2	614	25143	0
Mn	55	400.320	ug/L	4.634	1	377	11095822	1
[ Co	59	5.524	ug/L	0.123	2	55	109497	0
[> Ge	72		ug/L			372563	341791 ✓	1
Ni	60	10.474	ug/L	0.169	1	49	36100	0
Ni	62	13.658	ug/L	0.136	0	97	6939	1
Cu	63	11.910	ug/L	0.029	0	233	83509	1
Cu	65	12.192	ug/L	0.208	1	114	39734	1
Zn	66	48.051	ug/L	0.285	0	375	104276	0
Zn	67	48.480	ug/L	0.426	0	141	18548	0
Zn	68	49.811	ug/L	0.662	1	5524	80390	0
As	75	19.310	ug/L	0.064	0	145	40018	1
As-1	75	20.189	ug/L	0.108	0	7671	47091	1
Se	82	u 0.074	ug/L	0.039	52	0	21	54
Se	78	0.691	ug/L	0.099	14	7997	7802	0
[ Mo	98	0.139	ug/L	0.002	1	87	1301	1
Y	89		ug/L			461134	705967	0
Kr	83		ug/L			197	275	1
[> In	115		ug/L			515607	459759 ✓	1
Ag	107	1.109	ug/L	0.002	0	75	16361	1
Cd	111	0.948	ug/L	0.070	7	330	3789	5
Cd	114	0.119	ug/L	0.003	2	32	1022	3
Sb	121	u 0.007	ug/L	0.002	24	198	243	5
Sb	123	0.006	ug/L	0.002	31	157	189	8
Ba	135	139.015	ug/L	1.025	0	24	397705	1
[ Ba	137	137.589	ug/L	1.240	0	36	683374	0
[> Tb	159		ug/L			612197	558064 ✓	0
Tl	205	0.108	ug/L	0.001	1	250	4712	0
Pb	208	8.871	ug/L	0.025	0	1016	494769	0
Bi	209		ug/L			532877	458522	0
Th	232	2.224	ug/L	0.006	0	1565	150181	0
[ U	238	0.491	ug/L	0.005	1	1000	36170	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 N SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:09:43

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	740771 ✓	2
[ Be	9	0.267	ug/L	0.007	2	23	214	3
C	13		mg/L			6243	4972	0
Cl	37		mg/L			1387303	1468242	0
[> Sc	45		ug/L			409578	391967 ✓	0
V	51	15.658	ug/L	0.047	0	2772	261724	0
V-1	51	15.509	ug/L	0.033	0	1649	262266	0
Cr	52	4.507	ug/L	0.077	1	8617	72760	2
Cr	53	4.588	ug/L	0.059	1	614	8395	1
Mn	55	154.835	ug/L	1.789	1	377	3807595	1
Co	59	3.063	ug/L	0.037	1	55	53900	1
[> Ge	72		ug/L			372563	338199 ✓	0
Ni	60	2.267	ug/L	0.039	1	49	7766	1
Ni	62	8.990	ug/L	0.181	2	97	4549	2
Cu	63	10.759	ug/L	0.157	1	233	74666	1
Cu	65	11.116	ug/L	0.201	1	114	35861	1
Zn	66	31.599	ug/L	0.056	0	375	67973	0
Zn	67	29.296	ug/L	0.435	1	141	11142	1
Zn	68	30.541	ug/L	0.545	1	5524	50719	1
As	75	96.815	ug/L	0.702	0	145	198009	0
As-1	75	100.775	ug/L	0.756	0	7671	204810	0
Se	82	✓ 0.409	ug/L	0.064	15	0	119	15
Se	78	0.588	ug/L	0.054	9	7997	7651	0
[ Mo	98	0.024	ug/L	0.001	5	87	288	3
Y	89		ug/L			461134	558408	0
Kr	83		ug/L			197	225	5
[> In	115		ug/L			515607	452731 ✓	1
Ag	107	1.280	ug/L	0.029	2	75	18582	1
Cd	111	0.180	ug/L	0.002	0	330	944	1
Cd	114	0.009	ug/L	0.003	29	32	104	22
Sb	121	✓ 0.010	ug/L	0.003	28	198	270	11
Sb	123	0.005	ug/L	0.002	42	157	176	7
Ba	135	39.004	ug/L	0.557	1	24	109883	0
[ Ba	137	39.033	ug/L	0.345	0	36	190926	0
[> Tb	159		ug/L			612197	559008 ✓	0
Tl	205	0.076	ug/L	0.003	4	250	3398	3
Pb	208	11.998	ug/L	0.135	1	1016	669943	0
Bi	209		ug/L			532877	462603	0
Th	232	1.194	ug/L	0.011	0	1565	81445	0
[ U	238	0.329	ug/L	0.002	0	1000	24603	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 O SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:15:42

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	711844 ✓	0
[	Be	9	0.235	ug/L	0.023	9	23	184	9
	C	13		mg/L			6243	5269	2
	Cl	37		mg/L			1387303	1483782	0
[>	Sc	45		ug/L			409578	380735 ✓	0
	V	51	15.859	ug/L	0.094	0	2772	257449	0
	V-1	51	15.697	ug/L	0.107	0	1649	257827	0
	Cr	52	5.129	ug/L	0.050	0	8617	79316	0
	Cr	53	5.150	ug/L	0.117	2	614	9083	2
	Mn	55	161.925	ug/L	1.697	1	377	3867805	0
[	Co	59	3.244	ug/L	0.026	0	55	55440	1
[>	Ge	72		ug/L			372563	333648 ✓	0
	Ni	60	2.492	ug/L	0.084	3	49	8418	2
	Ni	62	9.016	ug/L	0.189	2	97	4501	1
	Cu	63	24.428	ug/L	0.167	0	233	166976	0
	Cu	65	24.612	ug/L	0.163	0	114	78211	0
	Zn	66	28.154	ug/L	0.114	0	375	59783	0
	Zn	67	26.663	ug/L	0.179	0	141	10016	0
	Zn	68	27.691	ug/L	0.089	0	5524	45828	0
	As	75	121.748	ug/L	0.559	0	145	245613	0
	As-1	75	126.848	ug/L	0.608	0	7671	252548	0
	Se	82	0.395	ug/L	0.029	7	0	113	7
	Se	78	0.941	ug/L	0.109	11	7997	7780	0
[	Mo	98	0.035	ug/L	0.003	7	87	382	6
	Y	89		ug/L			461134	539992	0
	Kr	83		ug/L			197	229	6
[>	In	115		ug/L			515607	445064 ✓	1
	Ag	107	9.367	ug/L	0.178	1	75	133227	1
	Cd	111	0.188	ug/L	0.012	6	330	955	5
	Cd	114	0.011	ug/L	0.002	19	32	114	15
	Sb	121	0.014	ug/L	0.003	20	198	305	9
	Sb	123	0.013	ug/L	0.004	30	157	232	11
	Ba	135	44.678	ug/L	0.573	1	24	123740	0
[	Ba	137	44.614	ug/L	0.599	1	36	214520	0
[>	Tb	159		ug/L			612197	546140 ✓	0
	Tl	205	0.089	ug/L	0.003	3	250	3841	3
	Pb	208	18.222	ug/L	0.173	0	1016	993643	0
	Bi	209		ug/L			532877	456087	0
	Th	232	1.226	ug/L	0.005	0	1565	81625	0
[	U	238	0.374	ug/L	0.002	0	1000	27223	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 P SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:21:41

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	740000 ✓	0
[ Be	9	0.286	ug/L	0.009	3	23	227	2
C	13		mg/L			6243	5465	0
Cl	37		mg/L			1387303	1469210	0
[> Sc	45		ug/L			409578	397519 ✓	1
V	51	17.752	ug/L	0.291	1	2772	300525	0
V-1	51	17.604	ug/L	0.287	1	1649	301658	0
Cr	52	6.273	ug/L	0.062	0	8617	99400	0
Cr	53	6.374	ug/L	0.110	1	614	11594	0
Mn	55	193.747	ug/L	3.116	1	377	4831249	0
[ Co	59	3.841	ug/L	0.082	2	55	68508	1
[> Ge	72		ug/L			372563	340630 ✓	0
Ni	60	3.547	ug/L	0.032	0	49	12216	0
Ni	62	11.458	ug/L	0.312	2	97	5815	2
Cu	63	10.954	ug/L	0.083	0	233	76560	0
Cu	65	11.508	ug/L	0.183	1	114	37388	1
Zn	66	32.929	ug/L	0.261	0	375	71327	0
Zn	67	31.514	ug/L	0.385	1	141	12062	1
Zn	68	32.428	ug/L	0.283	0	5524	53926	0
As	75	132.139	ug/L	0.294	0	145	272145	0
As-1	75	137.580	ug/L	0.329	0	7671	279057	0
Se	82	u 0.281	ug/L	0.031	10	0	82	10
Se	78	0.567	ug/L	0.152	26	7997	7692	1
[ Mo	98	0.081	ug/L	0.003	3	87	791	3
Y	89		ug/L			461134	577881	0
Kr	83		ug/L			197	234	1
[> In	115		ug/L			515607	455386 ✓	1
Ag	107	1.754	ug/L	0.038	2	75	25571	0
Cd	111	0.303	ug/L	0.034	11	330	1397	8
Cd	114	0.009	ug/L	0.001	10	32	100	6
Sb	121	u 0.013	ug/L	0.003	25	198	309	11
Sb	123	0.013	ug/L	0.001	4	157	239	2
Ba	135	68.239	ug/L	1.128	1	24	193362	1
[ Ba	137	67.710	ug/L	0.706	1	36	333108	0
[> Tl	159		ug/L			612197	562868 ✓	0
Tl	205	0.115	ug/L	0.001	0	250	5045	1
Pb	208	12.348	ug/L	0.033	0	1016	694297	0
Bi	209		ug/L			532877	461659	0
Th	232	1.571	ug/L	0.015	0	1565	107431	0
[ U	238	0.347	ug/L	0.003	0	1000	26045	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 Q SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:27:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	733818 ✓	1
[ Be	9	0.218	ug/L	0.011	4	23	177	2
C	13		mg/L			6243	5340	1
Cl	37		mg/L			1387303	1480828	0
[> Sc	45		ug/L			409578	395442 ✓	0
V	51	17.838	ug/L	0.068	0	2772	300433	0
V-1	51	17.654	ug/L	0.081	0	1649	300977	0
Cr	52	6.190	ug/L	0.089	1	8617	97701	1
Cr	53	6.187	ug/L	0.070	1	614	11214	0
Mn	55	179.789	ug/L	2.327	1	377	4460344	1
Co	59	3.141	ug/L	0.021	0	55	55745	0
[> Ge	72		ug/L			372563	340376 ✓	0
Ni	60	4.237	ug/L	0.038	0	49	14573	1
Ni	62	10.651	ug/L	0.086	0	97	5408	0
Cu	63	11.873	ug/L	0.046	0	233	82904	0
Cu	65	12.353	ug/L	0.126	1	114	40097	0
Zn	66	28.402	ug/L	0.119	0	375	61525	0
Zn	67	27.696	ug/L	0.275	0	141	10609	1
Zn	68	27.990	ug/L	0.180	0	5524	47202	0
As	75	49.220	ug/L	0.025	0	145	101378	0
As-1	75	51.332	ug/L	0.036	0	7671	108433	0
Se	82	✓ 0.138	ug/L	0.041	29	0	40	29
Se	78	0.608	ug/L	0.021	3	7997	7714	0
[ Mo	98	0.051	ug/L	0.001	2	87	522	1
Y	89		ug/L			461134	547655	0
Kr	83		ug/L			197	229	4
[> In	115		ug/L			515607	450822 ✓	0
Ag	107	1.582	ug/L	0.013	0	75	22855	1
Cd	111	0.283	ug/L	0.010	3	330	1310	3
Cd	114	0.017	ug/L	0.000	2	32	165	2
Sb	121	✓ 0.003	ug/L	0.001	30	198	200	4
Sb	123	0.002	ug/L	0.001	62	157	149	4
Ba	135	57.029	ug/L	0.795	1	24	159990	0
[ Ba	137	56.870	ug/L	0.556	0	36	277001	0
[> Tb	159		ug/L			612197	558940 ✓	1
Tl	205	0.081	ug/L	0.001	1	250	3603	0
Pb	208	11.354	ug/L	0.066	0	1016	634004	0
Bi	209		ug/L			532877	465348	1
Th	232	1.093	ug/L	0.009	0	1565	74642	0
[ U	238	0.302	ug/L	0.005	1	1000	22670	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 R SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:33:34

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	726385 ✓	1
[ Be	9	0.239	ug/L	0.005	2	23	190	1
C	13		mg/L			6243	5134	2
Cl	37		mg/L			1387303	1486743	0
[> Sc	45		ug/L			409578	393696 ✓	0
V	51	17.725	ug/L	0.165	0	2772	297208	0
V-1	51	17.537	ug/L	0.123	0	1649	297665	0
Cr	52	6.393	ug/L	0.108	1	8617	100166	0
Cr	53	6.362	ug/L	0.022	0	614	11465	1
Mn	55	167.933	ug/L	2.862	1	377	4147462	0
Co	59	3.316	ug/L	0.034	1	55	58594	0
[> Ge	72		ug/L			372563	339077 ✓	1
Ni	60	3.396	ug/L	0.055	1	49	11644	2
Ni	62	10.155	ug/L	0.392	3	97	5139	2
Cu	63	10.512	ug/L	0.082	0	233	73140	0
Cu	65	11.047	ug/L	0.113	1	114	35731	0
Zn	66	31.874	ug/L	0.267	0	375	68743	1
Zn	67	30.461	ug/L	0.164	0	141	11611	1
Zn	68	31.663	ug/L	0.207	0	5524	52532	1
As	75	128.773	ug/L	1.150	0	145	263988	0
As-1	75	134.060	ug/L	1.211	0	7671	270838	0
Se	82	u 0.345	ug/L	0.072	20	0	101	19
Se	78	0.600	ug/L	0.092	15	7997	7678	0
Mo	98	0.075	ug/L	0.002	3	87	737	1
Y	89		ug/L			461134	564082	1
Kr	83		ug/L			197	235	4
[> In	115		ug/L			515607	448293 ✓	0
Ag	107	1.571	ug/L	0.012	0	75	22562	1
Cd	111	0.248	ug/L	0.028	11	330	1179	9
Cd	114	0.009	ug/L	0.003	29	32	104	20
Sb	121	u 0.015	ug/L	0.000	2	198	317	0
Sb	123	0.012	ug/L	0.002	17	157	228	7
Ba	135	66.638	ug/L	0.912	1	24	185888	0
Ba	137	66.106	ug/L	0.839	1	36	320156	0
[> Tb	159		ug/L			612197	554144 ✓	1
Tl	205	0.110	ug/L	0.003	3	250	4772	1
Pb	208	12.142	ug/L	0.169	1	1016	672069	0
Bi	209		ug/L			532877	457136	0
Th	232	1.412	ug/L	0.022	1	1565	95209	1
U	238	0.359	ug/L	0.004	1	1000	26548	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:39:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	737296 ✓	1
[	Be	9	47.179	ug/L	0.124	0	23	34005	1
	C	13		mg/L			6243	3593	0
	Cl	37		mg/L			1387303	1513539	0
[>	Sc	45		ug/L			409578	373851 ✓	0
	V	51	48.522	ug/L	0.453	0	2772	768216	0
	V-1	51	48.667	ug/L	0.366	0	1649	781738	0
	Cr	52	48.621	ug/L	0.469	0	8617	671534	0
	Cr	53	49.075	ug/L	0.186	0	614	80207	0
	Mn	55	49.931	ug/L	0.792	1	377	1171278	0
[	Co	59	48.018	ug/L	0.519	1	55	805049	1
[>	Ge	72		ug/L			372563	338285 ✓	0
	Ni	60	48.097	ug/L	0.315	0	49	163928	0
	Ni	62	47.719	ug/L	0.355	0	97	23775	0
	Cu	63	48.827	ug/L	0.535	1	233	338179	0
	Cu	65	48.648	ug/L	0.107	0	114	156636	0
	Zn	66	49.909	ug/L	0.411	0	375	107187	0
	Zn	67	50.151	ug/L	0.478	0	141	18987	0
	Zn	68	49.495	ug/L	0.421	0	5524	79100	0
	As	75	49.173	ug/L	0.351	0	145	100658	0
	As-1	75	49.385	ug/L	0.318	0	7671	103943	0
	Se	82	50.252	ug/L	0.419	0	0	14758	0
	Se	78	51.048	ug/L	0.415	0	7997	41309	0
[	Mo	98	46.641	ug/L	0.454	0	87	406261	0
	Y	89		ug/L			461134	416545	0
	Kr	83		ug/L			197	218	1
[>	In	115		ug/L			515607	451135 ✓	0
	Ag	107	49.312	ug/L	0.549	1	75	710699	0
	Cd	111	49.731	ug/L	0.293	0	330	180190	0
	Cd	114	50.184	ug/L	0.449	0	32	412441	0
	Sb	121	50.418	ug/L	0.083	0	198	499451	0
	Sb	123	50.379	ug/L	0.153	0	157	374465	0
	Ba	135	50.123	ug/L	0.151	0	24	140720	0
[	Ba	137	50.107	ug/L	0.480	0	36	244225	0
[>	Tb	159		ug/L			612197	551192 ✓	1
	Tl	205	51.811	ug/L	0.220	0	250	2127840	0
	Pb	208	49.601	ug/L	0.473	0	1016	2728129	0
	Bi	209		ug/L			532877	458173	0
	Th	232	51.620	ug/L	0.572	1	1565	3411223	0
[	U	238	50.786	ug/L	0.786	1	1000	3605898	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:45:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	747944 ✓	1
[	Be	9	ug/L	0.008	79	23	29	19
	C	13	mg/L			6243	5743	2
	Cl	37	mg/L			1387303	1538932	1
[>	Sc	45	ug/L			409578	376881 ✓	1
	V	51	ug/L	0.007	69	2772	2718	4
	V-1	51	ug/L	0.002	14	1649	1701	1
	Cr	52	ug/L	0.007	31	8617	8222	2
	Cr	53	ug/L	0.021	89	614	603	5
	Mn	55	ug/L	0.001	9	377	550	2
[	Co	59	ug/L	0.001	38	55	73	10
[>	Ge	72	ug/L			372563	344511 ✓	0
	Ni	60	ug/L	0.003	270	49	41	24
	Ni	62	ug/L	0.008	15	97	114	3
	Cu	63	ug/L	0.002	2149	233	215	6
	Cu	65	ug/L	0.003	1150	114	106	7
	Zn	66	ug/L	0.010	136	375	363	6
	Zn	67	ug/L	0.036	145	141	121	11
	Zn	68	ug/L	0.083	38	5524	5434	2
	As	75	ug/L	0.010	40	145	186	11
	As-1	75	ug/L	0.025	6	7671	7829	0
	Se	82	ug/L	0.039	674	0	-2	547
	Se	78	ug/L	0.041	3	7997	8139	0
[	Mo	98	ug/L	0.004	376	87	71	47
	Y	89	ug/L			461134	421415	1
	Kr	83	ug/L			197	208	4
[>	In	115	ug/L			515607	455165 ✓	1
	Ag	107	ug/L	0.002	65	75	102	23
	Cd	111	ug/L	0.003	18	330	355	4
	Cd	114	ug/L	0.001	230	32	24	40
	Sb	121	ug/L	0.021	35	198	769	28
	Sb	123	ug/L	0.028	44	157	619	35
	Ba	135	ug/L	0.002	83	24	27	18
[	Ba	137	ug/L	0.004	111	36	48	37
[>	Tb	159	ug/L			612197	548951 ✓	0
	Tl	205	ug/L	0.001	58	250	153	26
	Pb	208	ug/L	0.000	3	1016	568	2
	Bi	209	ug/L			532877	473120	1
	Th	232	ug/L	0.007	529	1565	1484	28
[	U	238	ug/L	0.001	5	1000	170	23

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 S SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:51:17

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	772563 ✓	0
[ Be	9	0.250	ug/L	0.009	3	23	211	4
C	13		mg/L			6243	5322	2
Cl	37		mg/L			1387303	1473348	1
[> Sc	45		ug/L			409578	418080 ✓	1
V	51	18.775	ug/L	0.176	0	2772	334160	1
V-1	51	18.589	ug/L	0.181	0	1649	334965	1
Cr	52	6.781	ug/L	0.148	2	8617	112298	1
Cr	53	6.789	ug/L	0.153	2	614	12947	1
Mn	55	263.048	ug/L	3.480	1	377	6898804	0
[ Co	59	4.375	ug/L	0.056	1	55	82078	1
[> Ge	72		ug/L			372563	351454 ✓	0
Ni	60	4.960	ug/L	0.046	0	49	17605	0
Ni	62	11.320	ug/L	0.157	1	97	5929	1
Cu	63	12.857	ug/L	0.080	0	233	92677	0
Cu	65	13.301	ug/L	0.090	0	114	44573	0
Zn	66	32.974	ug/L	0.223	0	375	73695	0
Zn	67	32.167	ug/L	0.423	1	141	12700	1
Zn	68	32.722	ug/L	0.118	0	5524	56097	0
As	75	68.529	ug/L	0.313	0	145	145690	0
As-1	75	71.348	ug/L	0.330	0	7671	152801	0
Se	82	✓ 0.161	ug/L	0.035	21	0	48	21
Se	78	0.454	ug/L	0.076	16	7997	7859	0
[ Mo	98	0.073	ug/L	0.002	2	87	747	2
Y	89		ug/L			461134	598453	0
Kr	83		ug/L			197	256	4
[> In	115		ug/L			515607	472522 ✓	0
Ag	107	1.807	ug/L	0.013	0	75	27340	0
Cd	111	0.248	ug/L	0.012	4	330	1241	3
Cd	114	0.013	ug/L	0.002	14	32	141	11
Sb	121	✓ 0.029	ug/L	0.004	12	198	484	8
Sb	123	0.027	ug/L	0.004	15	157	351	9
Ba	135	66.316	ug/L	0.776	1	24	195008	1
[ Ba	137	65.589	ug/L	0.324	0	36	334850	0
[> Tb	159		ug/L			612197	568020 ✓	1
Tl	205	0.101	ug/L	0.002	1	250	4508	2
Pb	208	12.058	ug/L	0.080	0	1016	684175	0
Bi	209		ug/L			532877	474174	0
Th	232	1.477	ug/L	0.018	1	1565	101974	0
[ U	238	0.365	ug/L	0.003	0	1000	27603	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 T SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:57:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	777169 ✓	2
[ Be	9	0.277	ug/L	0.028	10	23	232	7
C	13		mg/L			6243	5731	2
Cl	37		mg/L			1387303	1471247	0
[> Sc	45		ug/L			409578	411543 ✓	0
V	51	15.433	ug/L	0.165	1	2772	270892	1
V-1	51	15.295	ug/L	0.143	0	1649	271605	1
Cr	52	5.644	ug/L	0.081	1	8617	93464	0
Cr	53	5.694	ug/L	0.094	1	614	10789	1
Mn	55	215.658	ug/L	1.087	0	377	5568012	0
[ Co	59	4.264	ug/L	0.015	0	55	78739	0
[> Ge	72		ug/L			372563	352543 ✓	0
Ni	60	4.072	ug/L	0.085	2	49	14503	1
Ni	62	4.898	ug/L	0.045	0	97	2625	1
Cu	63	4.796	ug/L	0.039	0	233	34814	0
Cu	65	4.885	ug/L	0.028	0	114	16487	0
Zn	66	36.516	ug/L	0.033	0	375	81826	0
Zn	67	34.577	ug/L	0.782	2	141	13684	2
Zn	68	36.991	ug/L	0.251	0	5524	62929	0
As	75	93.749	ug/L	0.134	0	145	199874	0
As-1	75	97.594	ug/L	0.131	0	7671	206987	0
Se	82	0.277	ug/L	0.033	12	0	84	11
Se	78	0.492	ug/L	0.068	13	7997	7909	0
[ Mo	98	0.030	ug/L	0.003	8	87	359	5
Y	89		ug/L			461134	642493	0
Kr	83		ug/L			197	240	4
[> In	115		ug/L			515607	465858 ✓	1
Ag	107	1.080	ug/L	0.007	0	75	16142	1
Cd	111	0.151	ug/L	0.005	3	330	863	2
Cd	114	0.020	ug/L	0.002	8	32	200	8
Sb	121	0.011	ug/L	0.002	21	198	288	9
Sb	123	0.008	ug/L	0.002	20	157	205	4
Ba	135	59.472	ug/L	0.568	0	24	172403	0
[ Ba	137	59.485	ug/L	0.838	1	36	299370	0
[> Tb	159		ug/L			612197	573947 ✓	1
Tl	205	0.047	ug/L	0.003	7	250	2260	6
Pb	208	7.788	ug/L	0.107	1	1016	446827	0
Bi	209		ug/L			532877	474055	0
Th	232	1.944	ug/L	0.007	0	1565	135187	1
[ U	238	0.290	ug/L	0.005	1	1000	22363	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 U SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:03:08

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	782651 ✓	0
[ Be	9	0.334	ug/L	0.020	6	23	277	5
C	13		mg/L			6243	6845	1
Cl	37		mg/L			1387303	1450147	0
[> Sc	45		ug/L			409578	412147 ✓	1
V	51	19.154	ug/L	0.102	0	2772	336015	0
V-1	51	18.940	ug/L	0.129	0	1649	336411	0
Cr	52	7.866	ug/L	0.059	0	8617	127045	1
Cr	53	7.750	ug/L	0.121	1	614	14482	0
Mn	55	282.498	ug/L	2.527	0	377	7303949	0
[ Co	59	4.889	ug/L	0.074	1	55	90410	1
[> Ge	72		ug/L			372563	346325 ✓	1
Ni	60	6.367	ug/L	0.156	2	49	22253	2
Ni	62	7.355	ug/L	0.104	1	97	3827	0
Cu	63	10.961	ug/L	0.156	1	233	77887	1
Cu	65	11.069	ug/L	0.065	0	114	36568	1
Zn	66	45.439	ug/L	0.659	1	375	99932	1
Zn	67	43.670	ug/L	0.682	1	141	16942	0
Zn	68	46.226	ug/L	0.563	1	5524	75964	0
As	75	63.427	ug/L	0.424	0	145	132876	0
As-1	75	66.020	ug/L	0.480	0	7671	139848	0
Se	82	✓ 0.109	ug/L	0.014	12	0	32	11
Se	78	0.330	ug/L	0.173	52	7997	7659	1
[ Mo	98	0.068	ug/L	0.006	8	87	692	8
Y	89		ug/L			461134	623782	1
Kr	83		ug/L			197	248	1
[> In	115		ug/L			515607	464031 ✓	2
Ag	107	0.675	ug/L	0.009	1	75	10078	0
Cd	111	0.487	ug/L	0.023	4	330	2108	3
Cd	114	0.065	ug/L	0.002	2	32	576	5
Sb	121	✓ 0.007	ug/L	0.003	41	198	254	14
Sb	123	0.004	ug/L	0.002	57	157	172	11
Ba	135	87.760	ug/L	1.113	1	24	253366	1
[ Ba	137	87.017	ug/L	0.892	1	36	436190	1
[> Tb	159		ug/L			612197	568591 ✓	1
Tl	205	0.078	ug/L	0.001	1	250	3518	1
Pb	208	11.161	ug/L	0.059	0	1016	633986	0
Bi	209		ug/L			532877	470307	1
Th	232	1.758	ug/L	0.024	1	1565	121252	0
[ U	238	0.337	ug/L	0.004	1	1000	25621	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 V SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:09:04

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	779306 ✓	0
[ Be	9	0.328	ug/L	0.016	4	23	272	4
C	13		mg/L			6243	6254	0
Cl	37		mg/L			1387303	1442508	0
[> Sc	45		ug/L			409578	414259 ✓	1
V	51	18.173	ug/L	0.260	1	2772	320562	0
V-1	51	17.999	ug/L	0.266	1	1649	321407	0
Cr	52	7.166	ug/L	0.090	1	8617	117109	1
Cr	53	7.164	ug/L	0.132	1	614	13503	0
Mn	55	280.642	ug/L	2.447	0	377	7293251	0
[ Co	59	4.868	ug/L	0.030	0	55	90482	0
[> Ge	72		ug/L			372563	344774 ✓	0
Ni	60	6.124	ug/L	0.063	1	49	21314	1
Ni	62	6.337	ug/L	0.117	1	97	3295	1
Cu	63	7.880	ug/L	0.035	0	233	55810	1
Cu	65	7.915	ug/L	0.140	1	114	26059	1
Zn	66	46.820	ug/L	0.312	0	375	102506	1
Zn	67	43.911	ug/L	0.455	1	141	16961	1
Zn	68	46.897	ug/L	0.131	0	5524	76657	1
As	75	53.536	ug/L	0.185	0	145	111683	1
As-1	75	55.709	ug/L	0.197	0	7671	118596	1
Se	82	u 0.037	ug/L	0.021	56	0	10	59
Se	78	0.216	ug/L	0.095	44	7997	7547	0
[ Mo	98	0.052	ug/L	0.002	4	87	539	4
Y	89		ug/L			461134	624505	1
Kr	83		ug/L			197	249	1
[> In	115		ug/L			515607	466242 ✓	0
Ag	107	0.424	ug/L	0.000	0	75	6389	0
Cd	111	0.373	ug/L	0.014	3	330	1695	2
Cd	114	0.056	ug/L	0.002	3	32	503	3
Sb	121	u 0.000	ug/L	0.000	65	198	183	1
Sb	123	-0.002	ug/L	0.000	18	157	125	2
Ba	135	82.363	ug/L	0.453	0	24	238966	0
Ba	137	81.492	ug/L	0.502	0	36	410493	0
[> Tb	159		ug/L			612197	564078 ✓	0
Tl	205	0.062	ug/L	0.001	2	250	2836	0
Pb	208	9.329	ug/L	0.047	0	1016	525893	0
Bi	209		ug/L			532877	468970	1
Th	232	1.714	ug/L	0.022	1	1565	117338	0
[ U	238	0.314	ug/L	0.001	0	1000	23732	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:15:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	768415 ✓	0
[ Be	9	46.956	ug/L	0.173	0	23	35273	0
C	13		mg/L			6243	3666	1
Cl	37		mg/L			1387303	1483684	0
[> Sc	45		ug/L			409578	376812 ✓	0
V	51	48.329	ug/L	0.338	0	2772	771246	0
V-1	51	48.326	ug/L	0.469	0	1649	782431	0
Cr	52	48.696	ug/L	0.239	0	8617	677911	0
Cr	53	48.671	ug/L	0.554	1	614	80180	0
Mn	55	49.389	ug/L	0.720	1	377	1167776	0
[ Co	59	47.765	ug/L	0.665	1	55	807125	1
[> Ge	72		ug/L			372563	341205 ✓	0
Ni	60	48.500	ug/L	0.348	0	49	166726	0
Ni	62	48.165	ug/L	0.584	1	97	24204	1
Cu	63	48.774	ug/L	0.340	0	233	340737	0
Cu	65	48.270	ug/L	0.652	1	114	156759	1
Zn	66	49.619	ug/L	0.238	0	375	107490	0
Zn	67	49.420	ug/L	1.352	2	141	18873	2
Zn	68	49.576	ug/L	0.616	1	5524	79907	1
As	75	49.090	ug/L	0.051	0	145	101358	0
As-1	75	49.325	ug/L	0.075	0	7671	104723	0
Se	82	49.911	ug/L	0.563	1	0	14785	0
Se	78	50.796	ug/L	0.519	1	7997	41496	0
[ Mo	98	46.713	ug/L	0.068	0	87	410401	0
Y	89		ug/L			461134	418572	0
Kr	83		ug/L			197	233	3
[> In	115		ug/L			515607	457057 ✓	1
Ag	107	49.001	ug/L	0.997	2	75	715416	1
Cd	111	49.631	ug/L	1.138	2	330	182159	1
Cd	114	50.264	ug/L	0.799	1	32	418485	0
Sb	121	50.189	ug/L	0.647	1	198	503657	0
Sb	123	50.274	ug/L	0.486	0	157	378567	0
Ba	135	49.459	ug/L	0.717	1	24	140666	0
[ Ba	137	49.421	ug/L	0.793	1	36	244024	0
[> Tb	159		ug/L			612197	549279 ✓	0
Tl	205	51.896	ug/L	0.353	0	250	2123891	0
Pb	208	50.125	ug/L	0.274	0	1016	2747437	0
Bi	209		ug/L			532877	460478	0
Th	232	52.365	ug/L	0.630	1	1565	3448467	0
[ U	238	51.494	ug/L	0.470	0	1000	3643667	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:21:21

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	766868 ✓	0
[ Be	9	0.020	ug/L	0.016	78	23	37	31
C	13		mg/L			6243	5716	3
Cl	37		mg/L			1387303	1489565	0
> Sc	45		ug/L			409578	373101 ✓	0
V	51	-0.001	ug/L	0.008	1043	2772	2514	5
V-1	51	-0.006	ug/L	0.006	101	1649	1401	7
Cr	52	0.005	ug/L	0.003	56	8617	7921	0
Cr	53	-0.013	ug/L	0.013	104	614	539	3
Mn	55	0.007	ug/L	0.003	49	377	509	15
[ Co	59	0.001	ug/L	0.001	50	55	74	16
> Ge	72		ug/L			372563	339377 ✓	0
Ni	60	0.002	ug/L	0.003	128	49	52	18
Ni	62	0.002	ug/L	0.014	616	97	89	7
Cu	63	0.002	ug/L	0.004	233	233	225	13
Cu	65	-0.002	ug/L	0.002	82	114	97	5
Zn	66	-0.006	ug/L	0.005	84	375	330	2
Zn	67	-0.056	ug/L	0.010	17	141	107	3
Zn	68	0.131	ug/L	0.030	22	5524	5229	0
As	75	0.034	ug/L	0.014	40	145	202	14
As-1	75	0.278	ug/L	0.016	5	7671	7535	0
Se	82	0.011	ug/L	0.021	186	0	2	214
Se	78	0.815	ug/L	0.046	5	7997	7829	0
[ Mo	98	0.001	ug/L	0.002	138	87	91	17
Y	89		ug/L			461134	417599	0
Kr	83		ug/L			197	203	4
> In	115		ug/L			515607	457874 ✓	0
Ag	107	0.003	ug/L	0.001	35	75	107	13
Cd	111	-0.001	ug/L	0.002	180	330	289	2
Cd	114	-0.000	ug/L	0.000	526	32	28	14
Sb	121	0.060	ug/L	0.022	36	198	775	28
Sb	123	0.060	ug/L	0.022	36	157	588	27
Ba	135	0.003	ug/L	0.001	32	24	29	8
[ Ba	137	0.003	ug/L	0.003	87	36	47	28
> Tb	159		ug/L			612197	542403 ✓	0
Tl	205	-0.001	ug/L	0.001	36	250	165	12
Pb	208	-0.007	ug/L	0.001	8	1016	521	6
Bi	209		ug/L			532877	471459	0
Th	232	0.004	ug/L	0.008	194	1565	1653	31
[ U	238	-0.010	ug/L	0.001	6	1000	182	25

**Metals Data Review Checklist**

Method: ICP ICP-MS GFA CVA

Analysis Date: 2-27-13

	Analyst	Peer	Comment
	2-27 DM	M 227	
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	
Internal Standards	—	—	
Carry-over	—	✓	
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	NETA ASPE LOW %R
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	✓	✓	SK CAF

# Mercury Analysis Log

Analyst: DM  
Instrument: CETA2

Date: 2-27-13  
Page: 1 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	TMM	IX		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			8.03	%R=100 ✓
ICB			-0.04	✓
CCV			4.12	%R=103 ✓
CCB			-0.01	✓
CRA			0.10	✓
WE70 MB			-0.01	✓
" WEPK			2.05	%R=103 ✓
" A				Prep - 4x Dil.
CCV			4.14	%R=104 ✓
CCB			-0.01	✓
STD 0.0	SMM			
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			7.81	Eq: in CLP %R=95 ✓
ICB			-0.04	✓
CCV			3.96	%R=99 ✓
CCB			-0.00	✓
CRA			0.11	✓
WE83 MB1	SMM	IX	0.01	✓

Chemical/Reagent ID:  
10% SnCl<sub>2</sub>: MP2442

14% NH<sub>2</sub>OH/NaCl: MP2436

Standard ID:  
Standard: 301K-11 (TMM)  
301K-12 (SMM)

ICV/CCV: 59-6

### Mercury Analysis Log

Analyst: DM  
Instrument: CETAC

Date: 2-27-13  
Page: 2 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
NEB3 MBSPK	SMM	1X	1.97	4R=99 ✓
" A			0.16	
" ADUP			0.23	✓
" ASPK			1.22	9R=106 ✓
" B			0.24	
" EDUP			0.21	✓
" EBPK			1.32	9R=108 ✓
" C				
CCV2			3.99	9R=100 ✓
CCB2			-0.01	✓
NEB3 D				
" E				
" F				
" G				
" H				
" I				
" J				
NET9 MBI			0.00	✓
" MBEPK			2.04	9R=102 ✓
" A			3.22	
CCV3			4.02	9R=101 ✓
CCB3			-0.01	✓
NET9 ADUP			2.75	RPO=15.7 ✓
" ASPK			3.82	9R=60 LOW X
" B				
" C				
" D				
" E				
" F	↓	↓		
" G	SMM	1X		

Chemical/Reagent ID:  
10% SnCl<sub>2</sub>: MP2442  
Standard ID:  
Standard: 3016-D

14% NH<sub>2</sub>OH/NaCl: MP2436  
ICV/CCV: 59-L

### Mercury Analysis Log

Analyst: DM  
 Instrument: CETAL

Date: 2-27-13  
 Page: 3 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WE79 H	SMM	1X		
" I				
CCV4			4.05	%R=101 ✓
CCB4			-0.02	✓
WE79 J				
" K				
" L				
" M				
" N				
" O				
" P			0.04	DEL RR 1/2 #227 High X
" Q				
" R				
" S				
CCV5			3.96	%R=99 ✓
CCB5			-0.02	✓
WE79 T				
" MB2			0.00	✓
" MB23PK			2.04	%R=102 ✓
" U				
" V				
" W				
" X			10.00	DEL RR 1/2 #227 High X
CCV6			3.99	%R=100 ✓
CCB6			-0.00	✓
WE79 A			3.20	DEL Confirms PREVIOUS #227
" ADP			2.69	RPO=17.3 ✓
" ADPK		↓	3.74	↓ %R=54 LOW X
" P	↓	2X		
" X	SMM	2X		

Chemical/Reagent ID:  
 10% SnCl<sub>2</sub>: MP2442  
 Standard ID:  
 Standard: 301L-12

14% NH<sub>2</sub>OH/NaCl: MP2436  
 ICV/CCV: 59-6

### Mercury Analysis Log

Analyst: DM  
 Instrument: CETA

Date: 2-27-13  
 Page: 4 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
CCV7	Smm	1x	3.98	%R=100 ✓
CCB7			-0.01	✓
WES0 MBI			-0.00	✓
" MBI/PAK			2.10	%R=105 ✓
" A			1.17	
" ADUP			1.08	RPO=8.00 ✓
" AEPK			2.22	%R=105 ✓
" B				
" C				
" D				
" E			10.59	DEL 22-1/2 M227 → High X
" F				
CCV8			3.85	%R=96 ✓
CCB8			-0.03	✓
WES0 G				
" H				
" I				
" J				
" K				
" L				
" M				
" N				
" O				
" P				
CCV9			3.91	%R=98 ✓
CCB9			-0.01	✓
WES0 Q				
" R				
" S				
" T	Smm	1x		

Chemical/Reagent ID:  
 10% SnCl<sub>2</sub>: MP2442  
 Standard ID:  
 Standard: 3016-12

14% NH<sub>2</sub>OH/NaCl: MP2436  
 ICV/CCV: 59-6

### Mercury Analysis Log

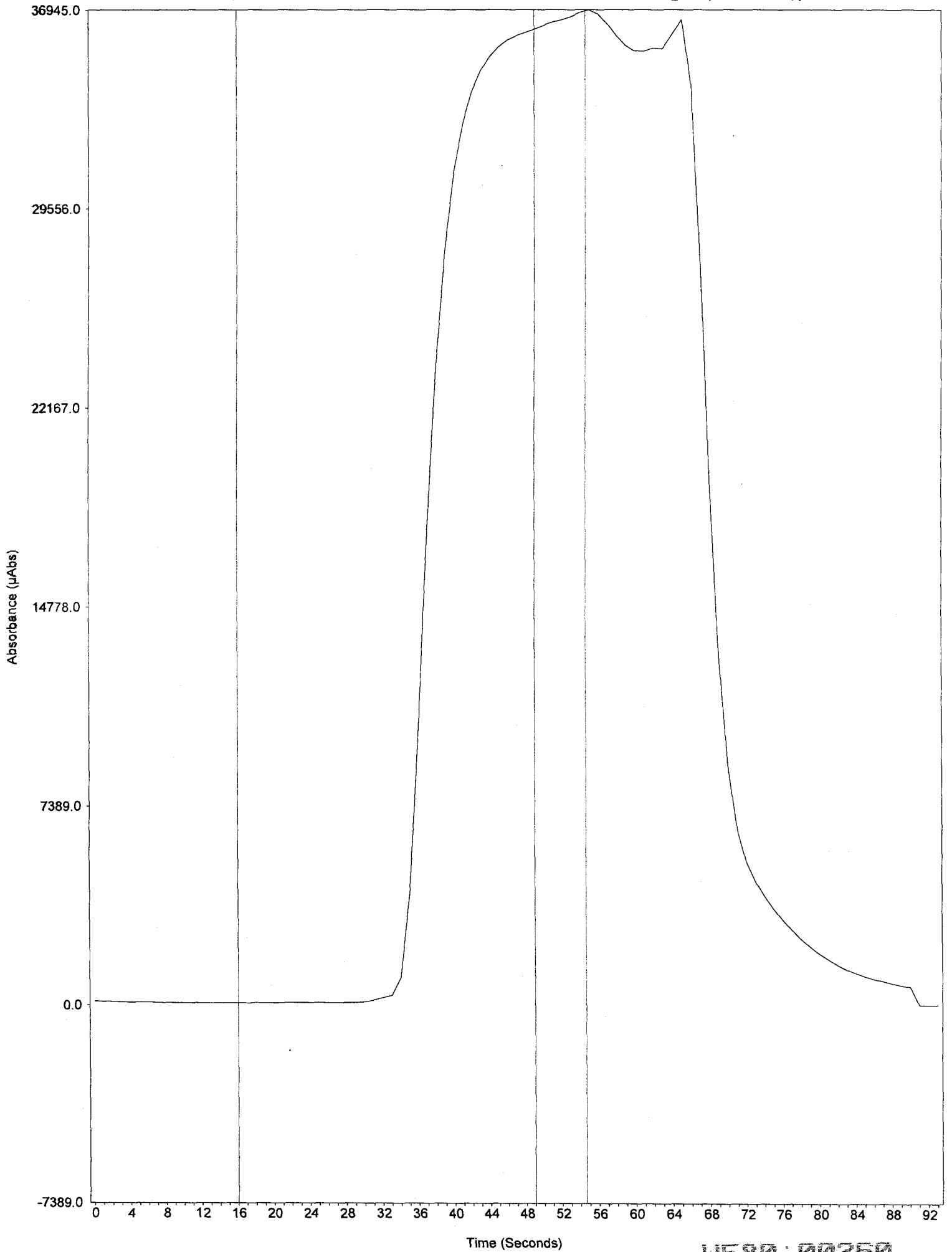
Analyst: DM  
 Instrument: CETAC

Date: 2-27-13  
 Page: 5 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WEB0 MB2	SMM	1X	-0.01	✓
" MB2SPK			1.90	%R=95 ✓
" U				
" V				
CCV10			3.88	%R=97 ✓
CCB10			-0.02	✓
WET7 MB			-0.01	✓
" MB2SPK			1.82	%R=91 ✓
" MB2SP0			1.94	%R=97 ✓
" A				
CCV11			3.67	%R=97 ✓
CCB11		↓	-0.01	✓
WEB0 E		2X		
CCV12	↓	1X	3.90	%R=98 ✓
CCB12	SMM	1X	-0.02	END CLP ✓
<del> <div style="text-align: center;">2-27-13 DM</div> </del>				

Chemical/Reagent ID:  
 10% SnCl<sub>2</sub>: MP2442  
 Standard ID:  
 Standard: 301612

14% NH<sub>2</sub>OH/NaCl: MP2436  
 ICV/CCV: 59.6





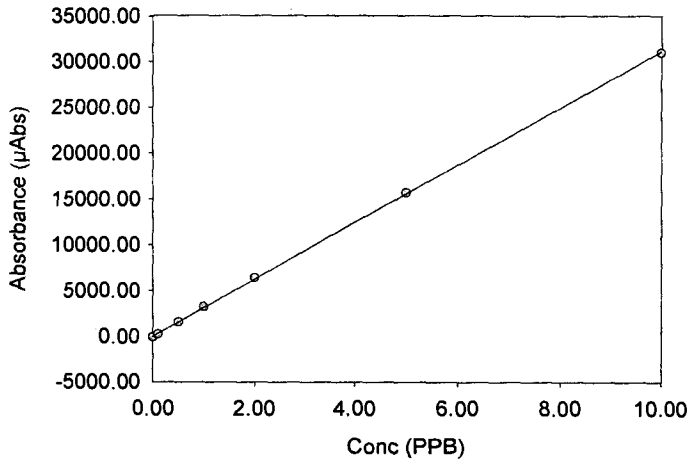
Analyst  
Date Started  
Worksheet  
Comment

Wednesday, February 27, 2013, 10:03:33  
ARI 10ppb CALIB

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	27-Feb-2013, 10:03	0.00	28.00	-36.40	1.00	
Standard #1	27-Feb-2013, 10:05	0.10	6.79	280.00	1.00	
Standard #2	27-Feb-2013, 10:06	0.50	0.82	1580.00	1.00	
Standard #3	27-Feb-2013, 10:08	1.00	0.36	3240.00	1.00	
Standard #4	27-Feb-2013, 10:09	2.00	0.39	6410.00	1.00	
Standard #5	27-Feb-2013, 10:11	5.00	2.64	15700.00	1.00	
Standard #6	27-Feb-2013, 10:13	10.00	0.24	31100.00	1.00	

SMM

Calibration Data



Int. Slope 0.000  
Slope 3117.860  
Correlation 0.99995

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	27-Feb-2013, 10:16	7.81	0.60	24400.00	1.00	
ICB	27-Feb-2013, 10:18	-0.04	2.51	-111.00	1.00	

Begin CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 10:19	3.96	0.96	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 10:21	-0.00	35.70	-15.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	27-Feb-2013, 10:23	0.11	0.89	333.00	1.00	
WE83 MB1 SMM	27-Feb-2013, 10:24	0.01	21.50	17.90	1.00	
WE83 MB1SPK SMM	27-Feb-2013, 10:26	1.97	0.89	6160.00	1.00	
WE83 A SMM	27-Feb-2013, 10:27	0.16	0.43	506.00	1.00	
WE83 ADUP SMM	27-Feb-2013, 10:29	0.23	1.21	728.00	1.00	
WE83 ASPK SMM	27-Feb-2013, 10:31	1.22	0.25	3790.00	1.00	
WE83 B SMM	27-Feb-2013, 10:32	0.24	0.22	755.00	1.00	
WE83 BDUP SMM	27-Feb-2013, 10:34	0.21	1.26	643.00	1.00	
WE83 BSPK SMM	27-Feb-2013, 10:35	1.32	0.78	4110.00	1.00	
WE83 C SMM	27-Feb-2013, 10:37	0.19	1.46	595.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 10:39	3.99	0.45	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 10:40	-0.01	32.00	-33.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE83 D SMM	27-Feb-2013, 10:42	0.11	1.21	341.00	1.00	
WE83 E SMM	27-Feb-2013, 10:44	0.31	1.04	975.00	1.00	
WE83 F SMM	27-Feb-2013, 10:45	0.15	2.44	471.00	1.00	
WE83 G SMM	27-Feb-2013, 10:47	0.18	0.29	555.00	1.00	

Analyst  
 Date Started Wednesday, February 27, 2013, 10:48:51  
 Worksheet ARI 10ppb CALIB  
 Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE83 H SMM	27-Feb-2013, 10:48	0.09	1.30	275.00	1.00	
WE83 I SMM	27-Feb-2013, 10:50	0.08	0.60	259.00	1.00	
WE83 J SMM	27-Feb-2013, 10:52	0.17 <sup>f</sup>	2.79	539.00	1.00	
WE79 MB1 SMM	27-Feb-2013, 10:53	0.00	85.10	6.15	1.00	
WE79 MB1SPK SMM	27-Feb-2013, 10:55	2.04	0.78	6360.00	1.00	
WE79 A SMM	27-Feb-2013, 10:56	3.22	0.35	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 10:58	4.02	0.23	12500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 11:00	-0.01	27.90	-44.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE79 ADUP SMM	27-Feb-2013, 11:01	2.75	1.32	8570.00	1.00	
WE79 ASPK SMM	27-Feb-2013, 11:03	3.82	0.15	11900.00	1.00	LOW %R
WE79 B SMM	27-Feb-2013, 11:05	3.17	0.56	9890.00	1.00	
WE79 C SMM	27-Feb-2013, 11:06	5.98	0.34	18700.00	1.00	
WE79 D SMM	27-Feb-2013, 11:08	2.36	0.14	7350.00	1.00	
WE79 E SMM	27-Feb-2013, 11:09	3.23	0.42	10100.00	1.00	
WE79 F SMM	27-Feb-2013, 11:11	3.60	0.71	11200.00	1.00	
WE79 G SMM	27-Feb-2013, 11:13	2.22	0.34	6910.00	1.00	
WE79 H SMM	27-Feb-2013, 11:14	2.22	0.19	6920.00	1.00	
WE79 I SMM	27-Feb-2013, 11:16	1.72	0.39	5370.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 11:18	4.05	0.30	12600.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 11:19	-0.02	11.10	-52.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE79 J SMM	27-Feb-2013, 11:21	3.15	0.69	9820.00	1.00	
WE79 K SMM	27-Feb-2013, 11:23	1.87	0.24	5830.00	1.00	
WE79 L SMM	27-Feb-2013, 11:24	2.83	1.12	8810.00	1.00	
WE79 M SMM	27-Feb-2013, 11:26	5.23	0.36	16300.00	1.00	
WE79 N SMM	27-Feb-2013, 11:27	2.62	0.58	8180.00	1.00	
WE79 O SMM	27-Feb-2013, 11:29	4.04	0.27	12600.00	1.00	
WE79 P SMM	27-Feb-2013, 11:31	10.00	0.55	31300.00	1.00	O
WE79 Q SMM	27-Feb-2013, 11:32	5.86	0.43	18300.00	1.00	
WE79 R SMM	27-Feb-2013, 11:34	6.67	0.36	20800.00	1.00	
WE79 S SMM	27-Feb-2013, 11:36	7.85	0.28	24500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 11:37	3.96	0.22	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 11:39	-0.02	11.90	-65.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE79 T SMM	27-Feb-2013, 11:40	1.92	0.40	6000.00	1.00	
WE79 MB2 SMM	27-Feb-2013, 11:42	0.00	943.00	0.40	1.00	
WE79 MB2SPK SMM	27-Feb-2013, 11:44	2.04	0.09	6350.00	1.00	
WE79 U SMM	27-Feb-2013, 11:45	2.10	0.72	6530.00	1.00	
WE79 V SMM	27-Feb-2013, 11:47	0.90	0.44	2810.00	1.00	
WE79 W SMM	27-Feb-2013, 11:49	0.48	0.48	1490.00	1.00	
WE79 X SMM	27-Feb-2013, 11:50	10.90	0.24	34000.00	1.00	O

Analyst  
 Date Started Wednesday, February 27, 2013, 11:53:34  
 Worksheet ARI 10ppb CALIB  
 Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 11:53	3.99	1.18	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 11:55	-0.00	64.10	-5.87	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE79 A SMM	27-Feb-2013, 12:00	3.20	0.30	9980.00	1.00	
WE79 ADUP SMM	27-Feb-2013, 12:02	2.69	0.93	8380.00	1.00	
WE79 ASPK SMM	27-Feb-2013, 12:03	3.74	0.56	11700.00	1.00	- Low %R
WE79 P SMM	27-Feb-2013, 12:05	5.02	0.91	15700.00	2.00	
WE79 X SMM	27-Feb-2013, 12:06	5.39	0.20	16800.00	2.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 12:08	3.98	1.12	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 12:10	-0.01	7.47	-32.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE80 MB1 SMM	27-Feb-2013, 12:12	-0.00	108.00	-13.60	1.00	
WE80 MB1SPK SMM	27-Feb-2013, 12:13	2.10	1.55	6560.00	1.00	
WE80 A SMM	27-Feb-2013, 12:15	1.17	0.73	3660.00	1.00	
WE80 ADUP SMM	27-Feb-2013, 12:16	1.08	0.56	3370.00	1.00	
WE80 ASPK SMM	27-Feb-2013, 12:18	2.22	0.37	6910.00	1.00	
WE80 B SMM	27-Feb-2013, 12:20	0.66	0.39	2050.00	1.00	
WE80 C SMM	27-Feb-2013, 12:21	2.14	0.18	6660.00	1.00	
WE80 D SMM	27-Feb-2013, 12:23	8.45	0.56	26300.00	1.00	
WE80 E SMM	27-Feb-2013, 12:24	10.60	0.56	33000.00	1.00	O
WE80 F SMM	27-Feb-2013, 12:27	7.37	0.34	23000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 12:29	3.85	0.41	12000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 12:31	-0.03	1.85	-80.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE80 G SMM	27-Feb-2013, 12:32	5.23	0.37	16300.00	1.00	
WE80 H SMM	27-Feb-2013, 12:34	2.38	0.55	7410.00	1.00	
WE80 I SMM	27-Feb-2013, 12:35	1.22	0.48	3820.00	1.00	
WE80 J SMM	27-Feb-2013, 12:37	1.65	0.93	5150.00	1.00	
WE80 K SMM	27-Feb-2013, 12:39	1.18	0.80	3670.00	1.00	
WE80 L SMM	27-Feb-2013, 12:40	1.28	0.65	3990.00	1.00	
WE80 M SMM	27-Feb-2013, 12:42	0.55	1.18	1710.00	1.00	
WE80 N SMM	27-Feb-2013, 12:43	0.38	0.72	1180.00	1.00	
WE80 O SMM	27-Feb-2013, 12:45	0.92	0.74	2860.00	1.00	
WE80 P SMM	27-Feb-2013, 12:47	0.55	1.18	1710.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 12:48	3.91	0.32	12200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 12:50	-0.01	30.20	-19.50	1.00	

Analyst  
Date Started Wednesday, February 27, 2013, 12:52:10  
Worksheet ARI 10ppb CALIB  
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
WE80 Q SMM	27-Feb-2013, 12:52	0.31	0.33	967.00	1.00	
WE80 R SMM	27-Feb-2013, 12:53	0.63	0.52	1970.00	1.00	
WE80 S SMM	27-Feb-2013, 12:55	0.45	0.25	1410.00	1.00	
WE80 T SMM	27-Feb-2013, 12:57	0.37	1.08	1170.00	1.00	
WE80 MB2 SMM	27-Feb-2013, 12:58	-0.01	22.20	-16.00	1.00	
WE80 MB2SPK SMM	27-Feb-2013, 13:00	1.90	0.85	5930.00	1.00	
WE80 U SMM	27-Feb-2013, 13:01	0.32	0.83	1010.00	1.00	
WE80 V SMM	27-Feb-2013, 13:03	0.22	0.13	677.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Standard	27-Feb-2013, 13:05	3.88	0.35	12100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Blank	27-Feb-2013, 13:06	-0.02	4.84	-74.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
WE77 MB SMM	27-Feb-2013, 13:08	-0.01	21.40	-17.50	1.00	
WE77 MBSPK SMM	27-Feb-2013, 13:10	1.82	0.51	5680.00	1.00	
WE77 MBSPD SMM	27-Feb-2013, 13:11	1.94	0.63	6060.00	1.00	
WE77 A SMM	27-Feb-2013, 13:13	-0.02	12.80	-77.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Standard	27-Feb-2013, 13:14	3.87	0.28	12100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Blank	27-Feb-2013, 13:16	-0.01	40.50	-19.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
WE80 E SMM	27-Feb-2013, 13:18	5.31	0.65	16600.00	2.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Standard	27-Feb-2013, 13:20	3.90	0.40	12100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Blank	27-Feb-2013, 13:21	-0.02	3.24	-62.40	1.00	

ENO CLP

**Analyst**  
**Date Created:** Thursday, July 13, 2000  
**Worksheet** ARI 10ppb CALIB  
**Comment**

**Sip Duration (Sec.):** 30  
**Rinse Duration (Sec.):** 60  
**Read Delay:** 49  
**Integration Time/Replicate:** 1.40  
**# of Replicates:** 4  
**# of Repeats:** 1  
**Baseline Correction Enabled:** True  
**Baseline Point 1 Start Time:** 10  
**Baseline Point 1 End Time:** 16  
**2-Point Baseline Corr. Enabled:** False  
**Baseline Point 2 Start Time:**  
**Baseline Point 2 End Time:**

**Gas Flow (ml/min):** 180

**Calibration Algorithm:** Linear, Zero Intercept  
**Recalibration Frequency:** 0  
**Reslope Frequency:** 0  
**Reslope Standard:** 5  
**Calibration Standard #1 Conc.:** 0.10 PPB  
**Calibration Standard #2 Conc.:** 0.50 PPB  
**Calibration Standard #3 Conc.:** 1.00 PPB  
**Calibration Standard #4 Conc.:** 2.00 PPB  
**Calibration Standard #5 Conc.:** 5.00 PPB  
**Calibration Standard #6 Conc.:** 10.00 PPB

**QC Enabled:** True  
**QC-RSD Enabled:** True  
**Limit Condition & Error Action:** If %RSD > 5.0%, if  $\mu$ Abs. > 1500, Flag and Continue

**QC-Std Enabled:** True  
**Limit Condition & Error Action:** If outside 80% .. 120%,Stop

**QC-Blank Enabled:** True  
**Limit Condition & Error Action:** If outside -100 .. 100,Stop



# Mercury Standard Prep Log

Digestd 20.0mL

Prep Code: TNm  
Analyst: DM  
Bath Temp: 95°C

Instrument: CETAC  
Date: 2-25-13  
End Time: 1215

Start Time: 1015

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	-	0.00	100.0	0.0	1
STD1	3016-11	0.01		0.1	1
STD2		0.05		0.5	1
STD3		0.10		1.0	1
STD4		0.20		2.0	1
STD5		0.50		5.0	1
STD6		1.00		10.0	1
CRA	↓	0.01		0.1	1
ICB/CCB	-	0.00		0.0	1
ICV/LCS	59-6	0.16	↓	8.0	1
CCV	↓	0.08	100.0	4.0	1

Chemical/Reagent ID:

HNO<sub>3</sub>: J8022      H<sub>2</sub>SO<sub>4</sub>: J727      HCl: -  
5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418      5% KMnO<sub>4</sub>: MP2425

Prep Code: 3MM  
Analyst: DM  
Bath Temp: 95°C

Instrument: CETAC  
Date: 2-25-13  
End Time: 120

Start Time: 1059

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	-	0.00	50.0	0.0	3
STD1	3016-12	0.01		0.1	2
STD2		0.05		0.5	2
STD3		0.10		1.0	2
STD4		0.20		2.0	2
STD5		0.50		5.0	2
STD6		1.00		10.0	2
CRA	↓	0.01		0.1	1
ICB/CCB	-	0.00		0.0	3
ICV/LCS	59-6	0.08	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:

HNO<sub>3</sub>: J8022      H<sub>2</sub>SO<sub>4</sub>: J727      HCl: -  
5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418      5% KMnO<sub>4</sub>: MP2425



# Mercury Digestion Log

Prep Code: SMM  
Analyst: NB  
Bath Temp: 95°C

Matrix: SOIL  
Date: 2-27-13  
End Time: 0800

Start Time: 0730

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WE80 A	1	-	0.670	50.0	03-08   1	YES	
" ADAP	1	-	0.673		1		
" ASPK	1	-	0.674		1		
" B	1	-	0.629		1		
" C	1	-	0.681		1		
" D	1	-	0.682		1		
" E	1	-	0.640		1		
" F	1	-	0.717		1		
" G	1	-	0.524		1		
" H	1	-	0.653		1		
" I	1	-	0.543		1		
" J	1	-	0.693		1		
" K	1	-	0.618		1		
" L	1	-	0.637		1		
" M	1	-	0.574		1		
" MBI	-	-	-		1		
" MBSPK	-	-	-		1		
" N	1	-	0.581		1		
" O	1	-	0.649		1		
" P	1	-	0.566		1		
" Q	1	-	0.703		1		
" R	1	-	0.694		1		
" S	1	-	0.649	↓	1	↓	
" T	1	-	0.721	50.0	1	(4)	
			NB 02-26-13				

Chemical/Reagent ID:

HNO<sub>3</sub>: J8022  
5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418

H<sub>2</sub>SO<sub>4</sub>: J7671  
5% KMnO<sub>4</sub>: MP 2425

HCl: -  
Digest Tube Lot: MFO6LKK01



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 2-27-13

Bath Temp: 95°C

Start Time: 0730

End Time: 0800

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WE80 U	1	—	0.725	50.0	03-08 1	YES	
" V	1	—	0.659	↓	1	↓	
" MB2	—	—	—	↓	1	↓	
" MB25PK	—	—	—	50.0	1	↓	
<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> <span style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">NB</span> <span style="position: absolute; top: 60%; left: 50%; transform: translate(-50%, -50%); font-size: 1.2em;">02-26-13</span> </div>							

Chemical/Reagent ID:

HNO<sub>3</sub>: I6002

H<sub>2</sub>SO<sub>4</sub>: I767

HCl: —

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418

5% KMnO<sub>4</sub>: MP2425

Digest Tube Lot: MF06LKK01



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AV  
Signature

March-05-2013  
Date



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

March 6, 2013

Steve Hughes  
Hart Crowser, Inc.  
1700 Westlake Avenue N. Suite 200  
Seattle, WA 98109-3256

**RE: Client Project: Upper Columbia 17917-00**  
**ARI Job No. WE81 and WE82**

Dear Steve:

Please find enclosed the chain of custody documentation and data package for samples from the project referenced above

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Kelly Bottem  
Client Services Manager  
kellyb@arilabs.com  
206/695-6211

Enclosures

cc: eFile WE81 and WE82

KFB/kfb

**Chain of Custody Documentation**

**ARI Job ID: WE81, WE82**

# Sample Custody Record

Samples Shipped to: ART

JOB 17917-00 LAB NUMBER

PROJECT NAME SADDLE ROCK

HART CROWSER CONTACT S. HUGHES  
R. McGinnis, A-Comm

SAMPLED BY: ASFS NG

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX
	SR05-001		2/21/13	0700	S
	SR05-002		2/21/13	1552	"
	SR05-003		2/21/13	1519	"
	SR05-004		"	1533	"
	SR05-005		"	1543	"
	SR05-006		"	1537	"
	SR05-001		"	1621	"
	SR05-002		"	1630	"
	SR05-003		2/21/13	0941	"
	SR06-001		"	1100	"
	SR06-002		"	1115	"
	SR06-003		"	1138	"

RELINQUISHED BY	DATE	RECEIVED BY	DATE
<u>[Signature]</u>	2/21/13	<u>[Signature]</u>	2/25/13
PRINT NAME <u>R. McGinnis</u>	TIME 1126	SIGNATURE <u>[Signature]</u>	TIME 1310
COMPANY <u>Hart Crowser</u>		COMPANY <u>ART</u>	
SIGNATURE	DATE	SIGNATURE	DATE
PRINT NAME	TIME	PRINT NAME	TIME
COMPANY		COMPANY	

REQUESTED ANALYSIS	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
METALS	1	WE81
TOTALS	12	



Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:  
LEVEL II DATA PACKAGE

TOTAL NUMBER OF CONTAINERS: 12

SAMPLE RECEIPT INFORMATION  
CUSTODY SEALS:  YES  NO  N/A  
GOOD CONDITION  YES  NO  
TEMPERATURE  HAND  OVERNIGHT  
SHIPMENT METHOD:  COURIER  OVERNIGHT

TURNAROUND TIME:  
 24 HOURS  1 WEEK  
 48 HOURS  STANDARD  
 72 HOURS  OTHER

COOLER NO.: \_\_\_\_\_ STORAGE LOCATION: \_\_\_\_\_

See Lab Work Order No. \_\_\_\_\_  
for Other Contract Requirements



**HART CROWSER**

**Sample Custody Record**

Samples Shipped to: ARF

JOB	LAB NUMBER		REQUESTED ANALYSIS				NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSING INSTRUCTIONS
	PROJECT NAME	LAB NUMBER	NETAS	TOTALS				
17917-00	SADDLE ROCK							WES1
HART CROWSER CONTACT <u>J. HUGHES</u> <u>R. McGinnis, A. Conway</u> SAMPLED BY: <u>A, SF, MK</u>								
LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX			
	SR06-004		2/22/13	1205	S	X		
	SR06-005		"	1218	"	X		
	SR06-006		"	1144	"	X		
	SR06-001		"	1237	"	X		
	SR06-002		"	1302	"	X		
	SR06-003		"	1324	"	X		
	SR07-001		2/20/13	1557	"	X		
	SR07-002		"	1607	"	X		
	SR07-003		"	1616	"	X		
	SR07-004		"	1629	"	X		
	SR07-005		"	1640	"	X		
	SR07-006		"	1627	"	X		
RELINQUISHED BY		DATE		RECEIVED BY		DATE		SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:
SIGNATURE <u>[Signature]</u>		2/25/13		SIGNATURE <u>[Signature]</u>		2/25/13		LOW LEVEL DATA PACKAGE
PRINT NAME <u>[Name]</u>		TIME		PRINT NAME <u>[Name]</u>		TIME		
COMPANY <u>[Company]</u>		1126		COMPANY <u>[Company]</u>		130		
RELINQUISHED BY		DATE		RECEIVED BY		DATE		TOTAL NUMBER OF CONTAINERS
SIGNATURE				SIGNATURE				12
PRINT NAME				PRINT NAME				SAMPLE RECEIPT INFORMATION
COMPANY				COMPANY				CUSTODY SEALS:
								<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
								GOOD CONDITION
								<input type="checkbox"/> YES <input type="checkbox"/> NO
								TEMPERATURE
								SHIPMENT METHOD: <input type="checkbox"/> HAND <input type="checkbox"/> COURIER <input type="checkbox"/> OVERNIGHT
								TURNAROUND TIME:
								<input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK
								<input type="checkbox"/> 48 HOURS <input checked="" type="checkbox"/> STANDARD
								<input type="checkbox"/> 72 HOURS <input type="checkbox"/> OTHER
COOLER NO.:				STORAGE LOCATION:				
See Lab Work Order No. _____				for Other Contract Requirements				



# Cooler Receipt Form

ARI Client: Hart Crouser  
 COC No(s): \_\_\_\_\_ NA  
 Assigned ARI Job No: WESI

Project Name: Saddle Rock  
 Delivered by: Fed-Ex UPS (Courier) Hand Delivered  Other: \_\_\_\_\_  
 Tracking No: \_\_\_\_\_ NA

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler?  YES  NO  
 Were custody papers included with the cooler?  YES  NO  
 Were custody papers properly filled out (ink, signed, etc.)  YES  NO  
 Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 5.1 1.9 4.9  
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90877952  
 Cooler Accepted by: \_\_\_\_\_ Date: 2/25/13 Time: 1310

*Complete custody forms and attach all shipping documents*

**Log-In Phase:**

Was a temperature blank included in the cooler?  YES  NO  
 What kind of packing material was used? ... Bubble Wrap  Wet Ice  Gel Packs  Raggies  Foam Block  Paper  Other: \_\_\_\_\_  
 Was sufficient ice used (if appropriate)?  NA  YES  NO  
 Were all bottles sealed in individual plastic bags?  YES  NO  
 Did all bottles arrive in good condition (unbroken)?  YES  NO  
 Were all bottle labels complete and legible?  YES  NO  
 Did the number of containers listed on COC match with the number of containers received?  YES  NO  
 Did all bottle labels and tags agree with custody papers?  YES  NO  
 Were all bottles used correct for the requested analyses?  YES  NO  
 Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...  NA  YES  NO  
 Were all VOC vials free of air bubbles?  NA  YES  NO  
 Was sufficient amount of sample sent in each bottle?  YES  NO  
 Date VOC Trip Blank was made at ARI  NA  
 Was Sample Split by ARI:  NA  YES Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by: JM Date: 2/25/13 Time: 1354  
 \*\* Notify Project Manager of discrepancies or concerns \*\*

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:  
 By: \_\_\_\_\_ Date: \_\_\_\_\_

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

WESI : 00005

# Sample Custody Record

Samples Shipped to: ART



**HARTCROWSER**

Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

JOB <u>17917-00</u> LAB NUMBER		PROJECT NAME <u>SADDLE ROCK</u>				HART CROWSER CONTACT <u>S. HUGHES</u>		SAMPLED BY: <u>NG</u>		OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS	
LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS		NO. OF CONTAINERS			
	BG-D01		2/21/13	0946	S	X			1	METALS - Al, Sb, As,	
	BG-D02		"	1121	"	X			1	Ba, Cr, Fe, Pb,	
	BG-D03		"	1341	"	X			1	Mn, Hg, Se, Ag, V	
	BG-D04		2/22/13	0930	"	X			1		
	BG-D05		"	0952	"	X			1		
	BG-D06		"	1025	"	X			1		
	BG-D07		2/20/13	1635	"	X			1		
	BG-D08		2/22/13	1055	"	X			1		
	BG-D09		"	1503	"	X			1		
	BG-P10		2/20/13	1607	"	X			1		
	BG-B11		"	1538	"	X			1		
	BG-D12		2/22/13	1440	"	X			1		
RELINQUISHED BY		DATE	RECEIVED BY	DATE	SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:		TOTAL NUMBER OF CONTAINERS		SAMPLE RECEIPT INFORMATION		
SIGNATURE <u>[Signature]</u>		2/25/13	SIGNATURE <u>[Signature]</u>	2/25/13	Level 1 v DATA PACKAGE		12		CUSTODY SEALS:		
PRINT NAME <u>Chad Ober</u>		TIME	PRINT NAME <u>R. Hughes</u>	TIME					CUSTODY SEALS: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A		
COMPANY <u>Hart Crowser</u>			COMPANY <u>Hart Crowser</u>						GOOD CONDITION: <input type="checkbox"/> YES <input type="checkbox"/> NO		
RELINQUISHED BY		DATE	RECEIVED BY	DATE					TEMPERATURE: _____		
SIGNATURE		TIME	SIGNATURE	TIME					SHIPMENT METHOD: <input type="checkbox"/> HAND <input type="checkbox"/> COURIER <input type="checkbox"/> OVERNIGHT		
PRINT NAME			PRINT NAME						TURNAROUND TIME:		
COMPANY			COMPANY						<input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> OTHER		
RELINQUISHED BY		DATE	RECEIVED BY	DATE	COOLER NO.:		STORAGE LOCATION:				
SIGNATURE		TIME	SIGNATURE	TIME							
PRINT NAME			PRINT NAME		See Lab Work Order No. _____		For Other Contract Requirements				
COMPANY			COMPANY								

# Sample Custody Record

Samples Shipped to: ARI

3 OF 3

Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581



## HARTCROWSER

JOB 17917-00 LAB NUMBER \_\_\_\_\_  
PROJECT NAME SADDLE ROCK  
HART CROWSER CONTACT S. HUGHES  
R. MCGOWAN, A. CORREO  
SAMPLED BY: A, SE, NG

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS					NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
						HTALS	TOTAL SOLIDS	#				
	SR07-001		2/20/13	1727	S	X	X				1	NONE
	SR07-002		"	1736	"	X	X				1	
	SR08-001		2/19/13	1507	"	X	X	X			1	
	SR08-002		"	1520	"	X	X				1	
	SR08-003		"	1532	"	X	X				1	
	SR08-004		"	1610	"	X	X				1	
	SR08-005		"	1557	"	X	X				1	
	SR08-006		"	1602	"	X	X				1	
	SR08-001		"	1632	"	X	X				1	
	SR08-002		"	1702	"	X	X				1	
	SR08-003		2/29/13	0829	"	X	X				1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
<u>[Signature]</u>	2/25/13	<u>[Signature]</u>	2/25/13
SIGNATURE	TIME	SIGNATURE	TIME
<u>Hughes</u>		<u>Rich</u>	
PRINT NAME		PRINT NAME	
<u>Hart Crowser</u>		<u>ARI</u>	
COMPANY		COMPANY	
	1126		1310
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	TIME	SIGNATURE	TIME
PRINT NAME		PRINT NAME	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:  
Level II DATA PACKAGE

COOLER NO.: \_\_\_\_\_ STORAGE LOCATION: \_\_\_\_\_

TURNAROUND TIME:  
 24 HOURS     1 WEEK  
 48 HOURS     STANDARD  
 72 HOURS     OTHER \_\_\_\_\_

SHIPPING METHOD:  HAND     OVERNIGHT  
 COURIER

TEMPERATURE: \_\_\_\_\_

GOOD CONDITION:  YES     NO

CUSTODY SEALS:  YES     NO     N/A

SAMPLE RECEIPT INFORMATION

TOTAL NUMBER OF CONTAINERS: 11





# Cooler Receipt Form

ARI Client: Hart Crowser  
 COC No(s): \_\_\_\_\_ (NA)  
 Assigned ARI Job No: WE82

Project Name: Saddle Rock  
 Delivered by: Fed-Ex UPS (Courier) Hand Delivered Other: \_\_\_\_\_  
 Tracking No: \_\_\_\_\_ NA

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler?  YES  NO  
 Were custody papers included with the cooler?  YES  NO  
 Were custody papers properly filled out (ink, signed, etc.)  YES  NO  
 Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 5.1 1.9 4.9  
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90877952

Cooler Accepted by: [Signature] Date: 2/25/13 Time: 1310  
 Complete custody forms and attach all shipping documents

**Log-In Phase:**

Was a temperature blank included in the cooler?  YES  NO  
 What kind of packing material was used? ... Bubble Wrap  Wet Ice  Gel Packs  Baggies  Foam Block  Paper Other: \_\_\_\_\_  
 Was sufficient ice used (if appropriate)?  NA  YES  NO  
 Were all bottles sealed in individual plastic bags?  YES  NO  
 Did all bottles arrive in good condition (unbroken)?  YES  NO  
 Were all bottle labels complete and legible?  YES  NO  
 Did the number of containers listed on COC match with the number of containers received?  YES  NO  
 Did all bottle labels and tags agree with custody papers?  YES  NO  
 Were all bottles used correct for the requested analyses?  YES  NO  
 Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...  NA  YES  NO  
 Were all VOC vials free of air bubbles?  NA  YES  NO  
 Was sufficient amount of sample sent in each bottle?  YES  NO  
 Date VOC Trip Blank was made at ARI:  NA \_\_\_\_\_  
 Was Sample Split by ARI:  NA YES Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by: JM Date: 2/25/13 Time: 1401  
 \*\* Notify Project Manager of discrepancies or concerns \*\*

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

By: \_\_\_\_\_ Date: \_\_\_\_\_

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

WE81 : 00000

**Case Narrative, Data Qualifiers, Control Limits**

**ARI Job ID: WE81, WE82**



**Case Narrative**

**Project: 17917-00**

**ARI Job No.: WE81 and WE82**

**March 6, 2013**

**Sample Receipt:**

Please find enclosed the original chain of custody (COC) record and analytical results for the project referenced above. Analytical Resources, Inc. accepted forty seven soil samples in good condition on February 25, 2013. The samples were received with cooler temperatures between 4.9 and 5.1°C. Please see the Cooler Receipt Form for further details.

**Total Metals by 200.8, 6010C and 7471A**

The samples were digested on 2/27/13 and 2/28/13 and analyzed between 3/1/13 and 3/4/13 within the method recommended holding time.

***Initial calibration (s):*** All analytes were within method acceptance criteria.

***Continuing calibration (s):*** All analytes were within method acceptance criteria.

***Samples:*** No anomalies were encountered for these samples.

***Method Blank:*** The method blanks were free of contamination.

***LCS:*** Is in control.

***Matrix spike/Sample Duplicate/RPD:*** The matrix spikes in association with samples SR05-D01 and SR07-C01 are out of control low for antimony. No further corrective action was taken.

**Conventional Chemistry Parameters**

The samples were analyzed on 2/28/13 within the method recommended holding times.

***Initial calibration (s):*** All analytes were within method acceptance criteria.

***Continuing calibration (s):*** All analytes of interest were within method acceptance criteria.

***Samples:*** There were no anomalies with these samples.

***SRM/ LCS/ Sample Replicates:*** All percent recoveries and RPDs were in control.

# Sample ID Cross Reference Report



ARI Job No: WE81  
Client: Hart Crowser, Inc.  
Project Event: 17917-00  
Project Name: Saddle Rock

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. SR05-D01	WE81A	13-3579	Soil	02/21/13 07:00	02/25/13 13:10
2. SR05-D02	WE81B	13-3580	Soil	02/21/13 15:52	02/25/13 13:10
3. SR05-D03	WE81C	13-3581	Soil	02/21/13 15:19	02/25/13 13:10
4. SR05-D04	WE81D	13-3582	Soil	02/21/13 15:33	02/25/13 13:10
5. SR05-D05	WE81E	13-3583	Soil	02/21/13 15:43	02/25/13 13:10
6. SR05-D06	WE81F	13-3584	Soil	02/21/13 15:37	02/25/13 13:10
7. SR05-C01	WE81G	13-3585	Soil	02/21/13 16:21	02/25/13 13:10
8. SR05-C02	WE81H	13-3586	Soil	02/21/13 16:30	02/25/13 13:10
9. SR05-C03	WE81I	13-3587	Soil	02/22/13 09:41	02/25/13 13:10
10. SR06-D01	WE81J	13-3588	Soil	02/22/13 11:00	02/25/13 13:10
11. SR06-D02	WE81K	13-3589	Soil	02/22/13 11:15	02/25/13 13:10
12. SR06-D03	WE81L	13-3590	Soil	02/22/13 11:38	02/25/13 13:10
13. SR06-D04	WE81M	13-3591	Soil	02/22/13 12:05	02/25/13 13:10
14. SR06-D05	WE81N	13-3592	Soil	02/22/13 12:18	02/25/13 13:10
15. SR06-D06	WE81O	13-3593	Soil	02/22/13 11:44	02/25/13 13:10
16. SR06-C01	WE81P	13-3594	Soil	02/22/13 12:37	02/25/13 13:10
17. SR06-C02	WE81Q	13-3595	Soil	02/22/13 13:02	02/25/13 13:10
18. SR06-C03	WE81R	13-3596	Soil	02/22/13 13:24	02/25/13 13:10
19. SR07-D01	WE81S	13-3597	Soil	02/20/13 15:57	02/25/13 13:10
20. SR07-D02	WE81T	13-3598	Soil	02/20/13 16:07	02/25/13 13:10
21. SR07-D03	WE81U	13-3599	Soil	02/20/13 16:16	02/25/13 13:10
22. SR07-D04	WE81V	13-3600	Soil	02/20/13 16:29	02/25/13 13:10
23. SR07-D05	WE81W	13-3601	Soil	02/20/13 16:40	02/25/13 13:10
24. SR07-D06	WE81X	13-3602	Soil	02/20/13 16:27	02/25/13 13:10

# Sample ID Cross Reference Report



ARI Job No: WE82  
Client: Hart Crowser, Inc.  
Project Event: 17917-00  
Project Name: Saddle Rock

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. SR07-C01	WE82A	13-3603	Soil	02/20/13 17:27	02/25/13 13:10
2. SR07-C02	WE82B	13-3604	Soil	02/20/13 17:36	02/25/13 13:10
3. SR08-D01	WE82C	13-3605	Soil	02/19/13 15:07	02/25/13 13:10
4. SR08-D02	WE82D	13-3606	Soil	02/19/13 15:20	02/25/13 13:10
5. SR08-D03	WE82E	13-3607	Soil	02/19/13 15:32	02/25/13 13:10
6. SR08-D04	WE82F	13-3608	Soil	02/19/13 16:10	02/25/13 13:10
7. SR08-D05	WE82G	13-3609	Soil	02/19/13 15:51	02/25/13 13:10
8. SR08-D06	WE82H	13-3610	Soil	02/19/13 16:02	02/25/13 13:10
9. SR08-C01	WE82I	13-3611	Soil	02/19/13 16:32	02/25/13 13:10
10. SR08-C02	WE82J	13-3612	Soil	02/19/13 17:02	02/25/13 13:10
11. SR08-C03	WE82K	13-3613	Soil	02/20/13 08:29	02/25/13 13:10
12. BG-D01	WE82L	13-3614	Soil	02/21/13 09:46	02/25/13 13:10
13. BG-D02	WE82M	13-3615	Soil	02/21/13 11:21	02/25/13 13:10
14. BG-D03	WE82N	13-3616	Soil	02/21/13 13:41	02/25/13 13:10
15. BG-D04	WE82O	13-3617	Soil	02/22/13 09:30	02/25/13 13:10
16. BG-D05	WE82P	13-3618	Soil	02/22/13 09:52	02/25/13 13:10
17. BG-D06	WE82Q	13-3619	Soil	02/22/13 10:25	02/25/13 13:10
18. BG-D07	WE82R	13-3620	Soil	02/20/13 16:35	02/25/13 13:10
19. BG-D08	WE82S	13-3621	Soil	02/22/13 10:55	02/25/13 13:10
20. BG-D09	WE82T	13-3622	Soil	02/22/13 15:03	02/25/13 13:10
21. BG-D10	WE82U	13-3623	Soil	02/20/13 16:07	02/25/13 13:10
22. BG-D11	WE82V	13-3624	Soil	02/20/13 15:38	02/25/13 13:10
23. BG-D12	WE82W	13-3625	Soil	02/22/13 14:40	02/25/13 13:10



**Quality Control Parameters for Metals Analysis-ICP-OES  
EPA Methods 200.7 and 6010C**

Analyte	Aqueous Samples <sup>2</sup>			Spike Recovery		RPD <sup>5</sup>	Solids <sup>3</sup>	Tissue <sup>4</sup>
	DL <sup>1</sup> µg/L	LOD <sup>1</sup> µg/L	LOQ <sup>1</sup> µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Antimony	6.28	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Arsenic	3.33	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Barium	1.33	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Beryllium	0.16	0.5	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Boron	7.39	10	20	75 – 125	80 – 120	≤ 20	2.0	0.4
Cadmium	0.18	0.5	2.0	75 – 125	80 – 120	≤ 20	0.2	0.04
Calcium	11.27	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Chromium	1.24	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.1
Cobalt	0.27	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Copper	0.92	1.0	2.0	75 – 125	80 – 120	≤ 20	0.2	0.04
Iron	7.50	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Lead	1.55	10	20	75 – 125	80 – 120	≤ 20	2.0	0.4
Magnesium	9.61	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Manganese	0.28	0.5	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Molybdenum	0.79	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.1
Nickel	3.86	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2
Potassium	65.70	250	500	75 – 125	80 – 120	≤ 20	50	10
Selenium	4.99	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Silicon	8.17	30	60	75 – 125	80 – 120	≤ 20	(6)	(6)
Silver	0.43	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Sodium	11.35	250	500	75 – 125	80 – 120	≤ 20	50	10
Strontium	0.09	1.0	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Thallium	3.10	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Tin	1.41	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2
Titanium	2.11	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.01
Vanadium	0.27	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Zinc	1.45	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S

(2) 50 mL sample and 50 mL final volume

(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.

(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.

(5) Relative Percent Difference between analytes in replicate analyzes. If C<sub>O</sub> and C<sub>D</sub> are the concentrations of the

original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} \times 100$$

(6) ARI does not analyze for Silicon in solids or tissue samples



**Quality Control Parameters for Metals Analysis ICP-MS EPA  
Methods 200.8 or 6020A**

Analyte	Mass	Aqueous Samples <sup>2</sup>			Spike Recovery		RPD <sup>3</sup>	Solids <sup>2</sup>
		DL <sup>1</sup> µg/L	LOD <sup>1</sup> µg/L	LOQ <sup>1</sup> µg/L	Matrix Spike	LCS		LOQ <sup>1</sup> mg/kg
Aluminum	27	1.601	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Antimony	121	0.010	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
	123	0.011	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Arsenic #1	75	0.048	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Arsenic #2	75	0.092	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Barium	135	0.020	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	137	0.019	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Beryllium	9	0.021	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Cadmium	111	0.010	0.05	0.1	75 – 125	80 – 120	≤ 20	0.1
	114	0.005	0.05	0.1	75 – 125	80 – 120	≤ 20	0.1
Calcium	43	3.983	25	50.0	75 – 125	80 – 120	≤ 20	50.0
Chromium	52	0.045	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	53	0.118	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Cobalt	59	0.011	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Copper	63	0.158	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	65	0.236	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Iron	54	5.753	10	20.0	75 – 125	80 – 120	≤ 20	20.0
	57	3.876	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Lead	208	0.046	0.05	0.1	75 – 125	80 – 120	≤ 20	0.1
Magnesium	24	0.297	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Manganese	55	0.022	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Molybdenum	98	0.013	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Nickel	60	0.079	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	62	0.089	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Potassium	39	2.944	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Selenium	82	0.127	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	78	0.324	0.25	2.0	75 – 125	80 – 120	≤ 20	2.0
Silver	107	0.008	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Sodium	23	2.833	50	100.0	75 – 125	80 – 120	≤ 20	100.0
Thorium <sup>4</sup>	232	0.013	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Thallium	205	0.004	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Uranium <sup>4</sup>	238	0.003	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Vanadium	51	0.043	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Zinc	66	0.497	2	4.0	75 – 125	80 – 120	≤ 20	4.0
	67	0.531	2	4.0	75 – 125	80 – 120	≤ 20	4.0
	68	0.524	2	4.0	75 – 125	80 – 120	≤ 20	4.0

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S  
 (2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.

(3) Relative Percent Difference in replicate analyzes.  $RPD = \frac{|C_o - C_D|}{\frac{C_o + C_D}{2}} \times 100$  where C<sub>o</sub>=Original, C<sub>D</sub>=Duplicate

(4) ARI has no accreditation for these elements.



<b>Quality Control Parameters for Mercury Analysis using CVAA EPA Methods 7470A or 245.1 for Aqueous Samples EPA Methods 7471B or 245.5 for Solid Samples</b>						
	<b>Aqueous Samples<sup>2</sup></b>			<b>Spike Recovery</b>		<b>RPD<sup>5</sup></b>
	<b>DL<sup>1</sup> µg/L</b>	<b>LOD<sup>1</sup> µg/L</b>	<b>LOQ<sup>1</sup> µg/L</b>	<b>Matrix Spike</b>	<b>LCS</b>	
<b>Mercury</b>	0.0069	0.05	<b>0.10<sup>2</sup></b>	75 – 125	80 – 120	≤ 20
<b>Mercury (low level)</b>	0.0026	0.01	<b>0.02<sup>2</sup></b>	75 – 125	80 – 120	≤ 20
	<b>Soil / Sediment Samples</b>			<b>Spike Recovery</b>		<b>RPD<sup>5</sup></b>
	<b>DL<sup>1</sup> mg/kg</b>	<b>LOD<sup>1</sup> mg/kg</b>	<b>LOQ<sup>1</sup> mg/kg</b>	<b>Matrix Spike</b>	<b>LCS</b>	
<b>Mercury</b>	0.0021	0.0125	0.025 <sup>3</sup>	75 – 125	80 – 120	≤ 20
	<b>Tissue Samples</b>			<b>Spike Recovery</b>		<b>RPD<sup>5</sup></b>
	<b>DL<sup>1</sup> mg/kg</b>	<b>LOD<sup>1</sup> mg/kg</b>	<b>LOQ<sup>1</sup> mg/kg</b>	<b>Matrix Spike</b>	<b>LCS</b>	
<b>Mercury</b>	0.0021	0.0125	0.005 <sup>4</sup>	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S

(2) 20 mL sample with 20 mL final volume

(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.

(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.

(5) Relative Percent Difference between analytes in replicate analyzes. If C<sub>o</sub> and C<sub>d</sub> are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_o - C_d|}{\frac{C_o + C_d}{2}} \times 100$$





**Spike Recovery Control Limits for Conventional Wet Chemistry**  
Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. <http://www.arilabs.com/portal/downloads/ARI-CLs.zip>

	ARI's Control Limits	
Sample Matrix:	Water	Soil / Sediment
<b>Matrix Spike Recoveries</b>	% Recovery	% Recovery
Ammonia	75 - 125	75 - 125
Bromide	75 - 125	75 - 125
Chloride	75 - 125	75 - 125
Cyanide	75 - 125	75 - 125
Ferrous Iron	75 - 125	75 - 125
Fluoride	75 - 125	75 - 125
Formaldehyde	75 - 125	75 - 125
Hexane Extractable Material	-- - --	78 - 114
Hexavalent Chromium	75 - 125	75 - 125
Nitrate/Nitrite	75 - 125	75 - 125
Oil and Grease	75 - 125	75 - 125
Phenol	75 - 125	75 - 125
Phosphorous	75 - 125	75 - 125
Sulfate	75 - 125	75 - 125
Sulfide	75 - 125	75 - 125
Total Kjeldahl Nitrogen	75 - 125	75 - 125
Total Organic Carbon	75 - 125	75 - 125
<b>Duplicate RPDs</b>		
Acidity	±20%	±20%
Alkalinity	±20%	±20%
BOD	±20%	±20%
Cation Exchange	±20%	±20%
COD	±20%	±20%
Conductivity	±20%	±20%
Salinity	±20%	±20%
Solids	±20%	±20%
Turbidity	±20%	±20%

**Metals Analysis  
Report and Summary QC Forms**

**ARI Job ID: WE81, WE82**

# Cover Page

INORGANIC ANALYSIS DATA PACKAGE



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SR05-D01	WE81A	13-3579	
SR05-D01D	WE81ADUP	13-3579	
SR05-D01S	WE81ASPK	13-3579	
SR05-D02	WE81B	13-3580	
PBS	WE81MB1	13-3580	
LCSS	WE81MB1SPK	13-3580	
SR05-D03	WE81C	13-3581	
SR05-D04	WE81D	13-3582	
SR05-D05	WE81E	13-3583	
SR05-D06	WE81F	13-3584	
SR05-C01	WE81G	13-3585	
SR05-C02	WE81H	13-3586	
SR05-C03	WE81I	13-3587	
SR06-D01	WE81J	13-3588	
SR06-D02	WE81K	13-3589	
SR06-D03	WE81L	13-3590	
SR06-D04	WE81M	13-3591	
SR06-D05	WE81N	13-3592	
SR06-D06	WE81O	13-3593	
SR06-C01	WE81P	13-3594	
SR06-C02	WE81Q	13-3595	

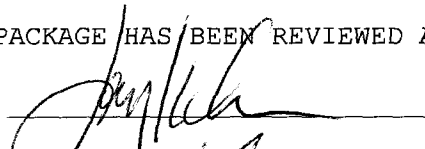
Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES

If yes - were raw data generated before application of background corrections ? Yes/No NO

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature:  Name: Jay Kuhn  
Date: 3/5/13 Title: Inorganics Director

# Cover Page

INORGANIC ANALYSIS DATA PACKAGE



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SR06-C03	WE81R	13-3596	
SR07-D01	WE81S	13-3597	
SR07-D02	WE81T	13-3598	
PBS	WE81MB2	13-3599	
LCSS	WE81MB2SPK	13-3599	
SR07-D03	WE81U	13-3599	
SR07-D04	WE81V	13-3600	
SR07-D05	WE81W	13-3601	
SR07-D06	WE81X	13-3602	

Were ICP interelement corrections applied ?                      Yes/No    YES  
Were ICP background corrections applied ?                      Yes/No    YES  
If yes - were raw data generated before  
application of background corrections ?                      Yes/No    NO

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: \_\_\_\_\_

Name: Jay Kuhn

Date: \_\_\_\_\_ 3/6/13

Title: Inorganics Director

COVER PAGE

WE81 : 00019

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR05-D01

SAMPLE

Lab Sample ID: WE81A

LIMS ID: 13-3579

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 87.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.5	10	3,640	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.094	0.5	216	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	75.8	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.041	0.5	3.7	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.0	10	19,200	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.051	0.1	10.5	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	34.3	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.009	0.306	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	2	2	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0086	0.2	12.6	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	11.6	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR05-D02  
SAMPLE

Lab Sample ID: WE81B

LIMS ID: 13-3580

Matrix: Soil

Data Release Authorized:

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 88.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.2	10	6,140	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.094	0.2	122	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	110	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.041	0.5	6.3	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	1.9	10	17,100	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.051	0.1	8.8	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.10	0.3	292	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0004	0.008	0.029	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.5	0.6	
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0086	0.2	11.0	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	20.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR05-D03  
SAMPLE

Lab Sample ID: WE81C

LIMS ID: 13-3581

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 83.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	10	14	7,970	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.097	0.2	200	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.9	88.4	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.042	0.6	7.3	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	25,900	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.052	0.1	11.2	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	79.2	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0006	0.01	0.13	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	1.3	
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0089	0.2	5.6	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	20.0	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR05-D04  
SAMPLE

Lab Sample ID: WE81D

LIMS ID: 13-3582

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 91.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.1	10	9,290	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.23	0.5	713	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.15	0.8	77.0	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.040	0.5	10.2	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	1.9	10	33,500	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.050	0.1	6.9	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.10	0.3	96.1	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.15	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.10	0.5	1.3	
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0085	0.2	2.8	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	35.7	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR05-D05  
SAMPLE

Lab Sample ID: WE81E

LIMS ID: 13-3583

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 81.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	10	14	9,360	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.53	1	1,290	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.8	56.1	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.23	3	21	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	32,300	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.057	0.1	3.9	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	94.9	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0004	0.009	0.180	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.12	0.6	1.8	
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0097	0.2	2.6	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.10	1	105	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR05-D06  
SAMPLE

Lab Sample ID: WE81F  
LIMS ID: 13-3584  
Matrix: Soil  
Data Release Authorized  
Reported: 03/05/13



QC Report No: WE81-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: 02/21/13  
Date Received: 02/25/13

Percent Total Solids: 87.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	10	14	3,980	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.097	0.2	226	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.9	77.5	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.042	0.6	4.4	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	18,400	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.052	0.1	10.8	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	27.7	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.33	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	3.1	
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0089	0.2	13.4	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	15.3	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR05-C01  
SAMPLE

Lab Sample ID: WE81G

LIMS ID: 13-3585

Matrix: Soil

Data Release Authorized

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 87.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.8	10	7,080	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.091	0.2	121	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.8	94.6	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.040	0.5	7.2	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	15,400	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.049	0.1	12.2	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	253	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0004	0.009	0.052	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.10	0.5	0.7	
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0084	0.2	12.7	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	18.4	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR05-C02  
SAMPLE

Lab Sample ID: WE81H

LIMS ID: 13-3586

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 83.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.9	10	9,840	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.097	0.2	138	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.8	152	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.042	0.6	8.1	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	16,400	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.053	0.1	10.8	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	473	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.05	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0089	0.2	4.4	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	22.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR05-C03  
SAMPLE

Lab Sample ID: WE81I

LIMS ID: 13-3587

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 87.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.7	10	6,580	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.094	0.2	96.2	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	110	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.041	0.5	5.5	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.0	10	15,700	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.051	0.1	9.4	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	299	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0004	0.008	0.039	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0086	0.2	6.6	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	16.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

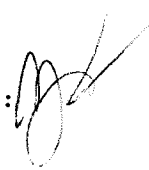
Page 1 of 1

Sample ID: SR06-D01  
SAMPLE

Lab Sample ID: WE81J

LIMS ID: 13-3588

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 81.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	10	15	9,630	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.10	0.2	31.2	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.9	128	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.044	0.6	2.6	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.2	10	27,600	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.054	0.1	6.0	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.12	0.3	18.7	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.029	0.6	47.2	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0092	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.020	0.2	28.3	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

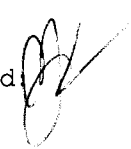
Page 1 of 1

Sample ID: SR06-D02  
SAMPLE

Lab Sample ID: WE81K

LIMS ID: 13-3589

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 82.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	10	14	7,950	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.096	0.2	52.6	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.9	155	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.10	1	5	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.2	10	28,700	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.052	0.1	9.2	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.12	0.3	8.0	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.012	0.2	20.5	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0088	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.047	0.6	19.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

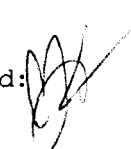
Page 1 of 1

Sample ID: SR06-D03  
SAMPLE

Lab Sample ID: WE81L

LIMS ID: 13-3590

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 90.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.1	10	9,150	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.095	0.2	77.9	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.15	0.8	167	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.10	1	2	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	1.9	10	23,200	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.051	0.1	6.1	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.10	0.3	24.9	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.021	0.4	25.5	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0088	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.047	0.5	22.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR06-D04  
SAMPLE

Lab Sample ID: WE81M

LIMS ID: 13-3591

Matrix: Soil

Data Release Authorized

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 80.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	10	14	8,240	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.11	0.2	87.7	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.9	166	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.12	2	3	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	32,300	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.058	0.1	7.5	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	36.7	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.023	0.4	27.0	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0098	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.052	0.6	32.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR06-D05  
SAMPLE

Lab Sample ID: WE81N

LIMS ID: 13-3592

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 84.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.9	10	8,600	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.24	0.5	454	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.8	130	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.10	1	3	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	30,100	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.051	0.1	9.0	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	95.5	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.011	0.2	15.1	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0088	0.2	0.4	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.046	0.5	20.3	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

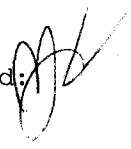
Page 1 of 1

Sample ID: SR06-D06  
SAMPLE

Lab Sample ID: WE810

LIMS ID: 13-3593

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 90.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.3	10	7,780	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.089	0.2	92.3	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	157	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.097	1	2	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.0	10	24,300	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.048	0.1	6.7	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.10	0.3	24.7	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.019	0.4	28.9	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0082	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.043	0.5	21.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR06-C01  
SAMPLE

Lab Sample ID: WE81P

LIMS ID: 13-3594

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 82.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.8	10	15,000	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.10	0.2	274	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.8	154	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.044	0.6	5.3	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	25,800	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.054	0.1	8.1	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	283	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0046	0.09	4.61	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0092	0.2	0.3	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	17.6	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

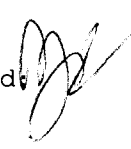
Page 1 of 1

Sample ID: SR06-C02  
SAMPLE

Lab Sample ID: WE81Q

LIMS ID: 13-3595

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 83.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.8	10	21,400	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.099	0.2	298	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.8	179	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.043	0.6	5.9	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	24,100	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.053	0.1	9.3	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	383	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.21	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0091	0.2	0.5	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	19.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL


RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR06-C03  
SAMPLE

Lab Sample ID: WE81R  
LIMS ID: 13-3596  
Matrix: Soil  
Data Release Authorized:   
Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: 02/22/13  
Date Received: 02/25/13

Percent Total Solids: 82.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	10	14	16,900	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.10	0.2	237	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.9	154	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.044	0.6	5.5	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.2	10	23,000	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.055	0.1	10.2	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.12	0.3	309	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0009	0.02	1.20	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0093	0.2	0.4	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.020	0.2	18.7	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR07-D01  
SAMPLE

Lab Sample ID: WE81S

LIMS ID: 13-3597

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 89.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.8	10	6,800	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/27/13	200.8	03/04/13	7440-38-2	Arsenic	0.24	0.6	367	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.8	196	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.042	0.6	5.1	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	22,200	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.053	0.1	27.5	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	77.3	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0006	0.01	0.06	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	1.7	
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0089	0.2	10.8	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	11.8	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR07-D02  
SAMPLE

Lab Sample ID: WE81T

LIMS ID: 13-3598

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 85.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.4	10	9,290	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.095	0.5	304	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	222	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.042	0.5	8.0	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.0	10	27,300	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.051	0.1	13.5	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	171	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0006	0.01	0.03	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	2	2	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0087	0.2	9.9	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	18.2	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR07-D03  
SAMPLE

Lab Sample ID: WE81U

LIMS ID: 13-3599

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 86.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	10	14	9,140	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.093	0.5	313	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.8	267	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.041	0.5	8.0	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	27,300	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.050	0.1	13.1	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	190	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.009	0.035	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	2	2	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0085	0.2	9.0	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	18.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR07-D04  
SAMPLE

Lab Sample ID: WE81V

LIMS ID: 13-3600

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 87.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.4	10	7,270	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.092	0.5	269	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	225	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.040	0.5	5.4	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.0	10	23,500	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.050	0.1	23.5	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	116	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.05	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.10	2	2	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0085	0.2	9.2	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	11.7	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

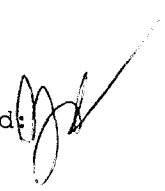
Page 1 of 1

Sample ID: SR07-D05  
SAMPLE

Lab Sample ID: WE81W

LIMS ID: 13-3601

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 90.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.0	10	5,330	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	03/04/13	7440-38-2	Arsenic	0.24	0.5	372	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.15	0.8	166	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.041	0.5	3.2	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	1.9	10	19,000	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.051	0.1	27.4	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.10	0.3	55.8	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.009	0.061	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	2	2	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0087	0.2	8.4	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	9.0	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR07-D06  
SAMPLE

Lab Sample ID: WE81X

LIMS ID: 13-3602

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 89.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	9.4	10	5,560	
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/27/13	200.8	03/04/13	7440-38-2	Arsenic	0.23	0.5	423	
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	183	
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.041	0.5	3.8	
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	2.0	10	20,900	
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.051	0.1	25.0	
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	70.9	
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.05	
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.11	2	2	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0086	0.2	9.2	
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	10.3	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR05-D01

**MATRIX SPIKE**

Lab Sample ID: WE81A

LIMS ID: 13-3579

Matrix: Soil

Data Release Authorized:

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	3,640	4,460	213	385%	H
Antimony	200.8	0.2 U	0.3	27.1	1.1%	N
Arsenic	200.8	216	252	27.1	133%	H
Barium	6010C	75.8	310	213	110%	
Chromium	200.8	3.7	28.1	27.1	90.0%	
Iron	6010C	19,200	22,400	213	1500%	H
Lead	200.8	10.5	37.1	27.1	98.2%	
Manganese	6010C	34.3	87.3	53.3	99.4%	
Mercury	7471A	0.306	0.402	0.0917	105%	
Selenium	200.8	2 U	83	86.6	95.8%	
Silver	200.8	12.6	38.4	27.1	95.2%	
Vanadium	200.8	11.6	36.7	27.1	92.6%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

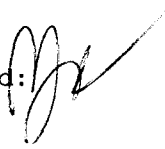
Page 1 of 1

Sample ID: SR05-D01  
DUPLICATE

Lab Sample ID: WE81A

LIMS ID: 13-3579

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	3,640	3,920	7.4%	+/- 20%	
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	216	215	0.5%	+/- 20%	
Barium	6010C	75.8	78.3	3.2%	+/- 20%	
Chromium	200.8	3.7	4.1	10.3%	+/- 20%	
Iron	6010C	19,200	19,700	2.6%	+/- 20%	
Lead	200.8	10.5	10.4	1.0%	+/- 20%	
Manganese	6010C	34.3	36.9	7.3%	+/- 20%	
Mercury	7471A	0.306	0.322	5.1%	+/- 20%	
Selenium	200.8	2 U	2 U	0.0%	+/- 2	L
Silver	200.8	12.6	14.0	10.5%	+/- 20%	
Vanadium	200.8	11.6	13.5	15.1%	+/- 20%	

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: WE81LCS

LIMS ID: 13-3580

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Aluminum	6010C	203	200	102%	
Antimony	200.8	25.3	25.0	101%	
Arsenic	200.8	27.1	25.0	108%	
Barium	6010C	206	200	103%	
Chromium	200.8	25.5	25.0	102%	
Iron	6010C	199	200	99.5%	
Lead	200.8	26.1	25.0	104%	
Manganese	6010C	49.9	50.0	99.8%	
Mercury	7471A	0.21	0.20	105%	
Selenium	200.8	82.1	80.0	103%	
Silver	200.8	25.1	25.0	100%	
Vanadium	200.8	24.8	25.0	99.2%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked


Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**Sample ID: METHOD BLANK**

**TOTAL METALS**

Page 1 of 1

Lab Sample ID: WE81MB  
 LIMS ID: 13-3580  
 Matrix: Soil  
 Data Release Authorized:   
 Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.  
 Project: Saddle Rock  
 17917-00  
 Date Sampled: NA  
 Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	3.6	5	5	U
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	0.75	5	5	U
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.01	U
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.017	0.2	0.2	U

Reported in mg/kg (ppm).  
 U-Analyte undetected at given RL  
 RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: WE81LCS

LIMS ID: 13-3599

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE81-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Aluminum	6010C	203	200	102%	
Antimony	200.8	24.1	25.0	96.4%	
Arsenic	200.8	25.3	25.0	101%	
Barium	6010C	207	200	104%	
Chromium	200.8	23.6	25.0	94.4%	
Iron	6010C	199	200	99.5%	
Lead	200.8	24.5	25.0	98.0%	
Manganese	6010C	49.8	50.0	99.6%	
Mercury	7471A	0.20	0.20	100%	
Selenium	200.8	77.1	80.0	96.4%	
Silver	200.8	24.1	25.0	96.4%	
Vanadium	200.8	23.1	25.0	92.4%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

**Sample ID: METHOD BLANK**

Page 1 of 1

Lab Sample ID: WE81MB

QC Report No: WE81-Hart Crowser, Inc.

LIMS ID: 13-3599

Project: Saddle Rock

Matrix: Soil

17917-00

Data Release Authorized:

Date Sampled: NA

Reported: 03/05/13

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/27/13	6010C	03/01/13	7429-90-5	Aluminum	3.6	5	5	U
3050B	02/27/13	200.8	03/01/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	02/27/13	6010C	03/01/13	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	02/27/13	200.8	03/01/13	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	02/27/13	6010C	03/01/13	7439-89-6	Iron	0.75	5	5	U
3050B	02/27/13	200.8	03/01/13	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	02/27/13	6010C	03/01/13	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	02/27/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.01	U
3050B	02/27/13	200.8	03/01/13	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	02/27/13	200.8	03/01/13	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	02/27/13	200.8	03/01/13	7440-62-2	Vanadium	0.017	0.2	0.2	U

Reported in mg/kg (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81



UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP030171	2000.0	2014.99	100.7	2000.0	2017.09	100.9	1989.15	99.5	1981.89	99.1	2013.43	100.7	2005.89	100.3
Antimony	SB	PMS	MS030181	50.0	49.80	99.6	50.0	49.61	99.2	49.30	98.6	49.73	99.5	50.20	100.4	49.71	99.4
Arsenic	AS	PMS	MS030181	50.0	51.50	103.0	50.0	49.46	98.9	49.64	99.3	49.94	99.9	49.81	99.6	49.36	98.7
Barium	BA	ICP	IP030171	1000.0	1023.51	102.4	1000.0	1031.60	103.2	1026.92	102.7	1026.92	102.7	1040.47	104.0	1037.36	103.7
Chromium	CR	PMS	MS030181	50.0	49.86	99.7	50.0	50.22	100.4	49.41	98.8	50.20	100.4	49.15	98.3	48.97	97.9
Iron	FE	ICP	IP030171	2000.0	2044.96	102.2	2000.0	2046.42	102.3	2000.62	100.0	1980.50	99.0	2032.57	101.6	2041.20	102.1
Lead	PB	PMS	MS030181	50.0	50.25	100.5	50.0	50.06	100.1	50.61	101.2	50.62	101.2	50.80	101.6	50.08	100.2
Manganese	MN	ICP	IP030171	1000.0	975.96	97.6	1000.0	970.43	97.0	960.71	96.1	951.39	95.1	978.33	97.8	972.01	97.2
Mercury	HG	CVA	HG030403	8.0	8.46	105.8	4.0	4.12	103.0	4.17	104.3	4.14	103.5	4.15	103.8	4.12	103.0
Selenium	SE	PMS	MS030181	80.0	80.02	100.0	50.0	50.35	100.7	50.68	101.4	51.00	102.0	50.40	100.8	50.13	100.3
Silver	AG	PMS	MS030181	50.0	50.48	101.0	50.0	49.77	99.5	49.62	99.2	49.35	98.7	49.46	98.9	48.66	97.3
Vanadium	V	PMS	MS030181	50.0	50.62	101.2	50.0	49.92	99.8	49.04	98.1	49.56	99.1	48.93	97.9	48.71	97.4

Control Limits: Mercury 80-120; Other Metals 90-110

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81



UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6 %R	CCV7 %R	CCV8 %R	CCV9 %R	CCV10 %R	CCV11 %R
Aluminum	AL	ICP	IP030171	2000.0						
Antimony	SB	PMS	MS030181	50.0	50.01 100.0	50.68 101.4	50.74 101.5	50.66 101.3	49.98 100.0	50.29 100.6
Arsenic	AS	PMS	MS030181	50.0	49.71 99.4	50.13 100.3	49.56 99.1	49.45 98.9	49.46 98.9	49.72 99.4
Barium	BA	ICP	IP030171	1000.0						
Chromium	CR	PMS	MS030181	50.0	48.99 98.0	48.92 97.8	49.16 98.3	48.51 97.0	49.13 98.3	48.90 97.8
Iron	FE	ICP	IP030171	2000.0						
Lead	PB	PMS	MS030181	50.0	50.36 100.7	50.23 100.5	49.92 99.8	50.32 100.6	50.69 101.4	50.77 101.5
Manganese	MN	ICP	IP030171	1000.0						
Mercury	HG	CVA	HG030403	4.0	3.98 99.5	3.98 99.5	3.95 98.8	4.13 103.3	4.12 103.0	4.14 103.5
Selenium	SE	PMS	MS030181	50.0	50.33 100.7	50.38 100.8	49.46 98.9	49.43 98.9	50.27 100.5	50.62 101.2
Silver	AG	PMS	MS030181	50.0	48.88 97.8	49.30 98.6	49.30 98.6	49.89 99.8	48.81 97.6	49.07 98.1
Vanadium	V	PMS	MS030181	50.0	48.98 98.0	48.60 97.2	48.54 97.1	48.19 96.4	48.70 97.4	48.79 97.6

Control Limits: Mercury 80-120; Other Metals 90-110

WE81 : 00051

# Calibration Verification



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV12 %R	CCV13 %R	CCV14 %R	CCV15 %R	CCV16 %R	CCV17 %R
Aluminum	AL	ICP	IP030171	2000.0						
Antimony	SB	PMS	MS030181	50.0	50.67	101.3				
Arsenic	AS	PMS	MS030181	50.0	49.91	99.8				
Barium	BA	ICP	IP030171	1000.0						
Chromium	CR	PMS	MS030181	50.0	48.58	97.2				
Iron	FE	ICP	IP030171	2000.0						
Lead	PB	PMS	MS030181	50.0	50.33	100.7				
Manganese	MN	ICP	IP030171	1000.0						
Mercury	HG	CVA	HG030403	4.0						
Selenium	SE	PMS	MS030181	50.0	50.20	100.4				
Silver	AG	PMS	MS030181	50.0	49.08	98.2				
Vanadium	V	PMS	MS030181	50.0	49.24	98.5				

Control Limits: Mercury 80-120; Other Metals 90-110

WE 81 00052

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81



UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	PMS	MS030481	50.0	50.96	101.9	50.0	50.13	100.3	50.01	100.0	50.12	100.2				

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

# CRDL Standard

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81



UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Aluminum	AL	ICP	IP030171		50.0	52.80	105.6	59.17	118.3	51.29	102.6						
Antimony	SB	PMS	MS030181		0.2	0.24	120.0										
Arsenic	AS	PMS	MS030181		0.2	0.21	105.0										
Barium	BA	ICP	IP030171		3.0	3.55	118.3	3.54	118.0	3.07	102.3						
Chromium	CR	PMS	MS030181		0.5	0.51	102.0										
Iron	FE	ICP	IP030171		50.0	49.75	99.5	51.29	102.6	52.85	105.7						
Lead	PB	PMS	MS030181		0.1	0.11	110.0										
Manganese	MN	ICP	IP030171		1.0	0.81	81.0	0.86	86.0	0.80	80.0						
Mercury	HG	CVA	HG030403		0.1	0.09	90.0										
Selenium	SE	PMS	MS030181		0.5	0.41	82.0										
Silver	AG	PMS	MS030181		0.2	0.22	110.0										
Vanadium	V	PMS	MS030181		0.2	0.21	105.0										
Arsenic	AS	PMS	MS030481		0.2	0.24	120.0										

Control Limits: no control limits have been established by the EPA at this time.

11 11 11 11 11 11

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81



UNITS: ug/L

ANALYTE	EL METH	RUN	CRDL	IDL	ICB	CCB1	CCB2	CCB3	CCB4	CCB5
					C	C	C	C	C	C
Aluminum	AL ICP	IP030171	200.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Antimony	SB PMS	MS030181	60.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Arsenic	AS PMS	MS030181	10.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Barium	BA ICP	IP030171	200.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Chromium	CR PMS	MS030181	10.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Iron	FE ICP	IP030171	100.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Lead	PB PMS	MS030181	3.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Manganese	MN ICP	IP030171	15.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Mercury	HG CVA	HG030403	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Selenium	SE PMS	MS030181	5.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Silver	AG PMS	MS030181	10.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Vanadium	V PMS	MS030181	50.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2



# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81



UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Aluminum	AL	ICP	IP030171	200.0	50.0												
Antimony	SB	PMS	MS030181	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS030181	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Barium	BA	ICP	IP030171	200.0	3.0												
Chromium	CR	PMS	MS030181	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Iron	FE	ICP	IP030171	100.0	50.0												
Lead	PB	PMS	MS030181	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Manganese	MN	ICP	IP030171	15.0	1.0												
Mercury	HG	CVA	HG030403	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Selenium	SE	PMS	MS030181	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Silver	AG	PMS	MS030181	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Vanadium	V	PMS	MS030181	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81



UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB12	C	CCB13	C	CCB14	C	CCB15	C	CCB16	C	CCB17	C
Aluminum	AL	ICP	IP030171	200.0	50.0												
Antimony	SB	PMS	MS030181	60.0	0.2	0.2	U										
Arsenic	AS	PMS	MS030181	10.0	0.2	0.2	U										
Barium	BA	ICP	IP030171	200.0	3.0												
Chromium	CR	PMS	MS030181	10.0	0.5	0.5	U										
Iron	FE	ICP	IP030171	100.0	50.0												
Lead	PB	PMS	MS030181	3.0	0.1	0.1	U										
Manganese	MN	ICP	IP030171	15.0	1.0												
Mercury	HG	CVA	HG030403	0.2	0.1												
Selenium	SE	PMS	MS030181	5.0	0.5	0.5	U										
Silver	AG	PMS	MS030181	10.0	0.2	0.2	U										
Vanadium	V	PMS	MS030181	50.0	0.2	0.2	U										

WE81 : 00057

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81



UNITS: ug/L

ANALYTE	AS	PMS	MS030481	CRDL	IDL	ICB	ICB	CCB1	CCB2	CCB3	CCB4	CCB5	C
Arsenic			10.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U

MS030481 : 000000

# ICP Interference Check Sample



CLIENT: Hart Crowser, Inc.

ICS SOURCE: I.V.

PROJECT: Saddle Rock

RUNID: IP030171

SDG: WE81

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	197863.1	195335.8	97.7	199186.9	200195.7	100.1			
Antimony	1000	1000	5.7	987.2	98.7	1.8	1015.0	101.5			
Arsenic	1000	1000	21.8	1010.9	101.1	21.6	1039.1	103.9			
Barium	1000	1000	-3.9	989.5	99.0	-3.3	1036.3	103.6			
Beryllium	1000	1000	0.1	959.8	96.0	0.1	980.9	98.1			
Boron			-8.5	-8.7		-5.2	-11.2				
Cadmium	1000	1000	2.4	990.5	99.1	2.4	1019.8	102.0			
Calcium	100000	100000	98972.8	97463.4	97.5	100041.6	100345.7	100.3			
Chromium	1000	1000	0.8	987.2	98.7	-0.4	1031.7	103.2			
Cobalt	1000	1000	1.6	933.8	93.4	1.7	963.1	96.3			
Copper	1000	1000	1.4	1021.8	102.2	1.5	1052.5	105.3			
Iron	200000	200000	192775.1	191206.3	95.6	190609.3	194390.3	97.2			
Lead	1000	1000	-12.5	929.2	92.9	-12.2	955.1	95.5			
Magnesium	100000	100000	101282.2	96546.5	96.5	103077.8	99664.8	99.7			
Manganese	1000	1000	0.0	934.7	93.5	0.0	963.1	96.3			
Molybdenum			4.1	3.5		3.2	3.5				
Nickel	1000	1000	0.8	935.4	93.5	1.4	981.2	98.1			
Potassium			36.1	20.4		35.7	-2.9				
Selenium	1000	1000	-11.2	960.1	96.0	-14.9	989.1	98.9			
Silicon			-2.7	-7.6		-2.6	-6.7				
Silver	1000	1000	-0.6	1030.9	103.1	-0.4	1066.0	106.6			
Sodium			14.4	23.4		16.5	21.6				
Strontium			4.0	3.9		4.1	4.1				
Thallium	1000	1000	10.7	928.7	92.9	9.1	957.6	95.8			
Tin			-10.2	-11.6		-11.3	-11.5				
Titanium			4.7	4.8		4.8	4.4				
Vanadium	1000	1000	-2.7	967.7	96.8	-3.0	1000.7	100.1			
Zinc	1000	1000	0.3	920.1	92.0	0.4	962.8	96.3			

11/11/00 10:55:50

# ICP Interference Check Sample



CLIENT: Hart Crowser, Inc.

ICS SOURCE: I.V.

PROJECT: Saddle Rock

RUNID: MS030181

SDG: WE81

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1	0.1						
Arsenic		20	0.1	19.0	95.0						
Cadmium		20	0.0	20.0	100.0						
Chromium		20	0.4	19.9	99.5						
Cobalt		20	0.0	19.5	97.5						
Copper		20	0.5	19.4	97.0						
Manganese		20	0.1	19.7	98.5						
Molybdenum	400	400	402.6	394.7	98.7						
Nickel		20	0.4	19.4	97.0						
Silver		20	0.0	19.2	96.0						
Thorium			0.1	0.1							
Vanadium			0.0	-0.3							
Zinc		20	1.3	20.2	101.0						

WE 81 : 00050

# ICP Interference Check Sample



CLIENT: Hart Crowser, Inc.

ICS SOURCE: I.V.

PROJECT: Saddle Rock

RUNID: MS030481

SDG: WE81

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.1	95.5						
Cadmium		20	0.1	19.6	98.0						
Chromium		20	0.5	19.5	97.5						
Cobalt		20	0.0	19.0	95.0						
Copper		20	0.5	19.2	96.0						
Manganese		20	0.1	19.4	97.0						
Molybdenum	400	400	426.2	407.9	102.0						
Nickel		20	0.4	19.0	95.0						
Selenium			-0.1	0.1							
Silver		20	0.0	18.9	94.5						
Vanadium			0.1	-0.3							
Zinc		20	1.2	19.7	98.5						

# Post Digest Spike Sample Recovery

ANALYTICAL  
RESOURCES   
INCORPORATED

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: PMS

SDG: WE81

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT C	SAMPLE RESULT C	SPIKE ADDED	MATRIX	%R
Antimony	SR05-D01A	WE81APOST	MS030181	497.06 B	1000.00 U	500	Soil	99.4

# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: ICP

SDG: WE81

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFER- ENCE	Q
Aluminum	SR05-D01L	WE81A-L	Soil	IP030171	13637.96		13260.65		2.8	
Barium	SR05-D01L	WE81A-L	Soil	IP030171	283.53		281.10 B		0.9	
Iron	SR05-D01L	WE81A-L	Soil	IP030171	71872.40		72331.60		0.6	
Manganese	SR05-D01L	WE81A-L	Soil	IP030171	128.49		131.20		2.1	



# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: PMS

SDG: WE81

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT		SERIAL DILUTION RESULT		% DIFFERENCE	Q
					(I)	C	(S)	C		
Antimony	SR05-D01L	WE81A-L	Soil	MS030181	0.04	U	0.10	B		
Arsenic	SR05-D01L	WE81A-L	Soil	MS030181	200.28		202.20		1.0	
Chromium	SR05-D01L	WE81A-L	Soil	MS030181	3.41	B	3.70	B	8.5	
Lead	SR05-D01L	WE81A-L	Soil	MS030181	9.72		10.05	B	3.4	
Selenium	SR05-D01L	WE81A-L	Soil	MS030181	1.49	U	2.75	B		
Silver	SR05-D01L	WE81A-L	Soil	MS030181	11.66		12.20	B	4.6	
Vanadium	SR05-D01L	WE81A-L	Soil	MS030181	10.77	B	11.90	B	10.5	

# IDLs and ICP Linear Ranges



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENGTH (nm)	GFA BACK- GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Aluminum	AL	ICP	OPTIMA ICP 2	308.22		200	50.0	4/1/2012	250000.0	1/22/2013
Antimony	SB	PMS	PE ELAN 6000 MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Barium	BA	ICP	OPTIMA ICP 2	455.50		200	3.0	4/1/2012	100000.0	1/22/2013
Chromium	CR	PMS	PE ELAN 6000 MS	0.00		10	0.5	4/1/2012		
Iron	FE	ICP	OPTIMA ICP 2	259.94		100	50.0	4/1/2012	250000.0	1/22/2013
Lead	PB	PMS	PE ELAN 6000 MS	0.00		3	0.1	4/1/2012		
Manganese	MN	ICP	OPTIMA ICP 2	257.61		15	1.0	4/1/2012	30000.0	1/22/2013
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Selenium	SE	PMS	PE ELAN 6000 MS	0.00		5	0.5	4/1/2012		
Silver	AG	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Vanadium	V	PMS	PE ELAN 6000 MS	0.00		50	0.2	4/1/2012		

# ICP Interelement Correction Factors



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81

IEC DATE: 1/22/2013

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Antimony	206.84	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	13.7020120	0.000000	0.000000
Arsenic	188.98	0.000000	0.000000	0.000000	0.000000	0.0911890	0.000000	-1.1057220	1.4447090	0.000000	0.000000
Barium	233.53	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1795110	0.000000	0.000000	0.1469350
Beryllium	313.04	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Cadmium	228.80	0.000000	5.5964570	0.000000	0.000000	0.000000	0.000000	0.1385480	0.000000	0.000000	0.000000
Calcium	317.93	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Chromium	267.72	0.000000	0.000000	0.0295099	0.000000	0.1250000	0.000000	0.000000	0.000000	0.000000	0.000000
Cobalt	228.62	0.000000	0.000000	0.1133150	0.000000	0.000000	0.000000	0.000000	-0.0333930	0.000000	-0.0309050
Copper	324.75	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1698980	-0.0211960	0.000000	0.000000
Iron	273.96	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.7025530	0.000000	0.000000
Lead	220.35	-0.2707930	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-1.8104440	1.2410760	0.0536970
Magnesium	279.08	0.000000	0.000000	0.000000	0.000000	0.1060020	0.000000	-1.4277330	-1.1381670	0.000000	0.5549620
Manganese	257.61	0.0049590	0.000000	0.000000	0.000000	0.0038740	0.000000	0.0125790	0.000000	0.000000	0.000000
Molybdenum	202.03	0.000000	0.000000	0.000000	0.000000	0.0117860	0.000000	0.000000	0.0509920	0.000000	0.000000
Nickel	231.60	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Potassium	766.49	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Selenium	196.03	0.1149780	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Silicon	288.16	0.000000	0.000000	0.000000	0.000000	0.000000	-3.2795240	0.000000	0.000000	0.000000	0.000000
Silver	328.07	0.000000	0.000000	0.000000	0.000000	0.000000	-0.0054570	0.000000	0.000000	0.000000	0.000000
Sodium	589.59	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Thallium	190.80	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.9747620	0.000000	0.000000	-0.1326730
Tin	189.93	0.000000	0.000000	0.000000	0.000000	-0.0837380	0.000000	0.000000	0.000000	0.000000	0.000000
Titanium	334.90	0.000000	0.000000	0.000000	0.000000	0.0594390	0.000000	0.000000	0.1892210	0.000000	0.000000
Vanadium	292.40	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-4.3335490	0.000000	0.0501910
Zinc	206.20	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1801790	0.000000	0.000000

WE81 000000

# ICP Interelement Correction Factors



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81

IEC DATE: 1/22/2013

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.000000	0.000000	17.5877940	0.000000	0.000000	0.000000	2.0603180	0.000000	14.5677200	0.000000
Antimony	206.84	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.7545320	0.000000	-3.8306350	0.000000
Arsenic	188.98	0.000000	0.000000	3.3991370	0.000000	0.000000	0.000000	-34.6204750	0.000000	0.000000	0.000000
Barium	233.53	0.000000	0.000000	0.000000	0.1174000	0.000000	0.000000	0.000000	0.000000	0.2171460	0.000000
Beryllium	313.04	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.0100680	0.000000	0.2372710	0.000000
Cadmium	228.80	0.000000	0.000000	0.000000	-0.9200350	0.000000	0.000000	0.000000	0.000000	0.0629730	0.000000
Calcium	317.93	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Chromium	267.72	0.0938730	0.0834700	0.0738780	0.000000	0.000000	0.000000	0.000000	0.000000	0.3293430	0.000000
Cobalt	228.62	0.000000	0.000000	-0.1425980	0.1557020	0.000000	0.000000	1.7571760	0.000000	0.000000	0.000000
Copper	324.75	0.0053240	0.000000	0.3083290	0.000000	0.000000	0.000000	0.1931400	0.000000	0.000000	0.000000
Iron	273.96	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	6.3157650	0.000000
Lead	220.35	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Magnesium	279.08	0.000000	0.000000	-4.9970650	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Manganese	257.61	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Molybdenum	202.03	0.000000	0.000000	0.000000	0.000000	-0.1877320	0.000000	0.000000	0.000000	0.000000	0.000000
Nickel	231.60	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.4360770	0.000000	0.000000
Potassium	766.49	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Selenium	196.03	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.5722860	0.000000
Silicon	288.16	-0.1122540	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Silver	328.07	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.3208460	0.000000
Sodium	589.59	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Thallium	190.80	0.000000	0.000000	-1.6204090	0.000000	0.000000	0.000000	0.000000	0.000000	3.6226430	0.000000
Tin	189.93	0.000000	0.000000	0.000000	0.000000	0.000000	-0.5136310	-0.1873890	0.000000	0.000000	0.000000
Titanium	334.90	0.000000	0.000000	1.0549050	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Vanadium	292.40	0.000000	-0.1522160	-0.5618640	0.000000	0.000000	0.000000	0.5717940	0.000000	0.000000	0.000000
Zinc	206.20	0.000000	0.000000	0.2590480	0.000000	-0.0606610	0.000000	0.000000	0.000000	0.000000	0.000000

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: ICP

PROJECT: Saddle Rock

ARI PREP CODE: SWC

SDG: WE81

PREPDATE: 2/27/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR05-D01	WE81A	1.064	0.0	50.0
SR05-D01D	WE81ADUP	1.065	0.0	50.0
SR05-D01S	WE81ASPK	1.066	0.0	50.0
SR05-D02	WE81B	1.096	0.0	50.0
SR05-D03	WE81C	1.057	0.0	50.0
SR05-D04	WE81D	1.067	0.0	50.0
SR05-D05	WE81E	1.093	0.0	50.0
SR05-D06	WE81F	1.004	0.0	50.0
SR05-C01	WE81G	1.036	0.0	50.0
SR05-C02	WE81H	1.074	0.0	50.0
SR05-C03	WE81I	1.050	0.0	50.0
SR06-D01	WE81J	1.058	0.0	50.0
SR06-D02	WE81K	1.050	0.0	50.0
SR06-D03	WE81L	1.077	0.0	50.0
SR06-D04	WE81M	1.088	0.0	50.0
PBS	WE81MB1	1.000	0.0	50.0
LCSS	WE81MB1SPK	1.000	0.0	50.0
PBS	WE81MB2	1.000	0.0	50.0
LCSS	WE81MB2SPK	1.000	0.0	50.0
SR06-D05	WE81N	1.064	0.0	50.0
SR06-D06	WE81O	1.057	0.0	50.0
SR06-C01	WE81P	1.099	0.0	50.0
SR06-C02	WE81Q	1.086	0.0	50.0
SR06-C03	WE81R	1.046	0.0	50.0
SR07-D01	WE81S	1.017	0.0	50.0
SR07-D02	WE81T	1.094	0.0	50.0
SR07-D03	WE81U	1.034	0.0	50.0
SR07-D04	WE81V	1.078	0.0	50.0
SR07-D05	WE81W	1.091	0.0	50.0
SR07-D06	WE81X	1.056	0.0	50.0

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: PMS

PROJECT: Saddle Rock

ARI PREP CODE: SWN

SDG: WE81

PREPDATE: 2/27/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR05-D01	WE81A	1.054	0.0	50.0
SR05-D01D	WE81ADUP	1.055	0.0	50.0
SR05-D01S	WE81ASPK	1.051	0.0	50.0
SR05-D02	WE81B	1.056	0.0	50.0
SR05-D03	WE81C	1.073	0.0	50.0
SR05-D04	WE81D	1.035	0.0	50.0
SR05-D05	WE81E	1.016	0.0	50.0
SR05-D06	WE81F	1.022	0.0	50.0
SR05-C01	WE81G	1.096	0.0	50.0
SR05-C02	WE81H	1.067	0.0	50.0
SR05-C03	WE81I	1.065	0.0	50.0
SR06-D01	WE81J	1.072	0.0	50.0
SR06-D02	WE81K	1.095	0.0	50.0
SR06-D03	WE81L	1.008	0.0	50.0
SR06-D04	WE81M	1.014	0.0	50.0
PBS	WE81MB1	1.000	0.0	50.0
LCSS	WE81MB1SPK	1.000	0.0	50.0
PBS	WE81MB2	1.000	0.0	50.0
LCSS	WE81MB2SPK	1.000	0.0	50.0
SR06-D05	WE81N	1.088	0.0	50.0
SR06-D06	WE81O	1.079	0.0	50.0
SR06-C01	WE81P	1.063	0.0	50.0
SR06-C02	WE81Q	1.056	0.0	50.0
SR06-C03	WE81R	1.040	0.0	50.0
SR07-D01	WE81S	1.005	0.0	50.0
SR07-D02	WE81T	1.065	0.0	50.0
SR07-D03	WE81U	1.089	0.0	50.0
SR07-D04	WE81V	1.075	0.0	50.0
SR07-D05	WE81W	1.015	0.0	50.0
SR07-D06	WE81X	1.032	0.0	50.0

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: CVA

PROJECT: Saddle Rock

ARI PREP CODE: SMM

SDG: WE81

PREPDATE: 2/27/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR05-D01	WE81A	0.616	0.0	50.0
SR05-D01D	WE81ADUP	0.617	0.0	50.0
SR05-D01S	WE81ASPK	0.620	0.0	50.0
SR05-D02	WE81B	0.717	0.0	50.0
SR05-D03	WE81C	0.543	0.0	50.0
SR05-D04	WE81D	0.559	0.0	50.0
SR05-D05	WE81E	0.716	0.0	50.0
SR05-D06	WE81F	0.542	0.0	50.0
SR05-C01	WE81G	0.671	0.0	50.0
SR05-C02	WE81H	0.605	0.0	50.0
SR05-C03	WE81I	0.748	0.0	50.0
SR06-D01	WE81J	0.546	0.0	50.0
SR06-D02	WE81K	0.544	0.0	50.0
SR06-D03	WE81L	0.552	0.0	50.0
SR06-D04	WE81M	0.573	0.0	50.0
PBS	WE81MB1	0.500	0.0	50.0
LCSW	WE81MB1SPK	0.500	0.0	50.0
PBS	WE81MB2	0.500	0.0	50.0
LCSW	WE81MB2SPK	0.500	0.0	50.0
SR06-D05	WE81N	0.589	0.0	50.0
SR06-D06	WE81O	0.598	0.0	50.0
SR06-C01	WE81P	0.687	0.0	50.0
SR06-C02	WE81Q	0.615	0.0	50.0
SR06-C03	WE81R	0.675	0.0	50.0
SR07-D01	WE81S	0.506	0.0	50.0
SR07-D02	WE81T	0.507	0.0	50.0
SR07-D03	WE81U	0.616	0.0	50.0
SR07-D04	WE81V	0.592	0.0	50.0
SR07-D05	WE81W	0.608	0.0	50.0
SR07-D06	WE81X	0.586	0.0	50.0

# Analysis Run Log

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81

INSTRUMENT ID: OPTIMA ICP 2

RUNID: IP030171 METHOD: ICP

START DATE: 3/1/2013

END DATE: 3/1/2013



CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN						
S0	S0	1.00	08261		X																													X					
S2	S2	1.00	08302		X																														X				
S3	S3	1.00	08321																																	X			
S4	S4	1.00	08344																																		X		
S5	S5	1.00	08370		X																																X		
ICV	ICV	1.00	08443		X																																X		
ICB	ICB	1.00	08483		X																																	X	
CRI	CRII	1.00	08524		X																																X		
ICSA	ICSAI	1.00	08570		X																																X		
ICSAB	ICSABI	1.00	09012		X																																X		
CCV	CCV1	1.00	09052		X																																X		
CCB	CCB1	1.00	09092		X																																X		
PBS	WE81MB1	2.00	09134		X																																X		
SR05-D01L	WE81A-L	25.00	09180		X																																X		
SR05-D01	WE81A	5.00	09221		X																																X		
SR05-D01D	WE81ADUP	5.00	09263		X																																X		
SR05-D01S	WE81ASPK	5.00	09303		X																																X		
SR05-D02	WE81B	5.00	09343		X																																X		
SR05-D03	WE81C	5.00	09383		X																																X		
SR05-D04	WE81D	5.00	09423		X																																X		
SR05-D05	WE81E	5.00	09465		X																																X		
LCSS	WE81MB1SPK	2.00	09505		X																																X		
CCV	CCV2	1.00	09545		X																																X		
CCB	CCB2	1.00	09585		X																																X		
PBS	WE81MB2	2.00	10031		X																																X		
SR05-D06	WE81F	5.00	10073		X																																X		
SR05-C01	WE81G	5.00	10114		X																																X		
SR05-C02	WE81H	5.00	10154		X																																X		
SR05-C03	WE81I	5.00	10194		X																																X		
SR06-D01	WE81J	5.00	10234		X																																X		
SR06-D02	WE81K	5.00	10280		X																																X		
SR06-D03	WE81L	5.00	10320		X																																X		
SR06-D04	WE81M	5.00	10360		X																																X		
LCSS	WE81MB2SPK	2.00	10402		X																																X		
CCV	CCV3	1.00	10442		X																																X		



# Analysis Run Log

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81



INSTRUMENT ID: OPTIMA ICP 2

RUNID: IP030171

METHOD: ICP

START DATE: 3/1/2013

END DATE: 3/1/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN	
CCB	CCB3	1.00	10482		X				X																									X
SR06-D05	WE81N	5.00	10524		X				X																									X
SR06-D06	WE81O	5.00	10564		X				X																									X
SR06-C01	WE81P	5.00	11004		X				X																									X
SR06-C02	WE81Q	5.00	11044		X				X																									X
SR06-C03	WE81R	5.00	11084		X				X																									X
SR07-D01	WE81S	5.00	11124		X				X																									X
SR07-D02	WE81T	5.00	11164		X				X																									X
SR07-D03	WE81U	5.00	11210		X				X																									X
SR07-D04	WE81V	5.00	11252		X				X																									X
SR07-D05	WE81W	5.00	11293		X				X																									X
CCV	CCV4	1.00	11333		X				X																									X
CCB	CCB4	1.00	11374		X				X																									X
SR07-D06	WE81X	5.00	11415		X				X																									X
CRI	CRIF	1.00	11470		X				X																									X
ICSA	ICSAF	1.00	11512		X				X																									X
ICSAB	ICSABF	1.00	11553		X				X																									X
CCV	CCV5	1.00	11594		X				X																									X
CCB	CCB5	1.00	12034		X				X																									X

WE 81 : 00072

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE81



INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS030181  
 METHOD: PMS

START DATE: 3/1/2013  
 END DATE: 3/1/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FZ	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0			1.00	09010																													X
S1			1.00	09070																													X
S2			1.00	09130																													X
S3			1.00	09190																													X
S4			1.00	09250																													X
ZZZZZ	Rinse Sampl		1.00	09320																													X
ICV	MICV		1.00	09390																													X
ICB	ICB		1.00	09450																													X
CCV	MCCV1		1.00	09500																													X
CCB	CCB1		1.00	09570																													X
CRI	MCRI		1.00	10020																													X
ZZZZZ	ZZZZZ		1.00	10080																													X
ZZZZZ	ZZZZZ		1.00	10140																													X
ZZZZZ	LR200		1.00	10190																													X
ZZZZZ	LR300		1.00	10260																													X
CCV	MCCV2		1.00	10320																													X
CCB	CCB2		1.00	10380																													X
ICSA	ICSAI		1.00	10540																													X
ICSAB	ICSABI		1.00	11000																													X
CCV	MCCV3		1.00	11060																													X
CCB	CCB3		1.00	11120																													X
PBS	WE81MB1		20.00	11190																													X
SR05-D02	WE81B		20.00	11250																													X
SR05-D03	WE81C		20.00	11310																													X
SR05-D04	WE81D		20.00	11370																													X
SR05-D05	WE81E		20.00	11430																													X
ZZZZZ	WE83A-L		250.00	11490																													X
ZZZZZ	WE83A		50.00	11550																													X
ZZZZZ	WE83ADUP		50.00	12010																													X
ZZZZZ	WE83ASPK		50.00	12070																													X
LCSS	WE81MB1SPK		20.00	12130																													X
CCV	MCCV4		1.00	12190																													X
CCB	CCB4		1.00	12250																													X
PBS	WE81MB2		20.00	12310																													X
SR05-D06	WE81F		20.00	12370																													X

3/1/2013 11:50:00

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE81



INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS030181  
 METHOD: PMS

START DATE: 3/1/2013  
 END DATE: 3/1/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SR05-C01	WE81G		20.00 12430																														X
SR05-C02	WE81H		20.00 12490		X																												X
SR05-D01L	WE81A-L		100.00 12550		X																												X
SR05-D01	WE81A		20.00 13000		X																												X
SR05-D01D	WE81ADUP		20.00 13060		X																												X
SR05-D01S	WE81ASPK		20.00 13120		X																												X
SR05-D01A	WE81APOST		20.00 13180		X																												X
LCSS	WE81MB2SPK		20.00 13240		X																												X
CCV	MCCV5		1.00 13300		X																												X
CCB	CCB5		1.00 13370		X																												X
SR05-C03	WE81I		20.00 13420		X																												X
SR06-D01	WE81J		20.00 13480		X																												X
SR06-D02	WE81K		20.00 13540		X																												X
SR06-D03	WE81L		20.00 14000		X																												X
SR06-D04	WE81M		20.00 14060		X																												X
SR06-D05	WE81N		20.00 14120		X																												X
SR06-D06	WE81O		20.00 14180		X																												X
SR06-C01	WE81P		20.00 14240		X																												X
SR06-C02	WE81Q		20.00 14300		X																												X
SR06-C03	WE81R		20.00 14360		X																												X
CCV	MCCV6		1.00 14420		X																												X
CCB	CCB6		1.00 14480		X																												X
ZZZZZZ	WF55MB		2.00 14560																														X
ZZZZZZ	WF55A		2.00 15020																														X
ZZZZZZ	WF55B		2.00 15080																														X
ZZZZZZ	WF55MBSPK		2.00 15140																														X
CCV	MCCV7		1.00 15200		X																												X
CCB	CCB7		1.00 15260		X																												X
ZZZZZZ	WE82MB1		20.00 15320																														X
SR07-D01	WE81S		20.00 15380		X																												X
SR07-D02	WE81T		20.00 15440		X																												X
SR07-D03	WE81U		20.00 15500		X																												X
SR07-D04	WE81V		20.00 15560		X																												X
SR07-D05	WE81W		20.00 16020		X																												X
SR07-D06	WE81X		20.00 16080		X																												X

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE81



INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS030181  
 METHOD: PMS

START DATE: 3/1/2013  
 END DATE: 3/1/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN	
SR05-D04	WE81D		50.00	16140																													X	
SR05-D05	WE81E		100.00	16200	X																												X	
ZZZZZZ	WE82MB1SPK		20.00	16260	X																												X	
CCV	MCCV8		1.00	16320	X																												X	
CCB	CCB8		1.00	16380	X																												X	
ZZZZZZ	WE82MB2		20.00	16440																														X
ZZZZZZ	WE82B		20.00	16500																														X
ZZZZZZ	WE82C		20.00	16560																														X
ZZZZZZ	WE82D		20.00	17010																														X
ZZZZZZ	WE82A-L		100.00	17070																														X
ZZZZZZ	WE82A		20.00	17130																														X
ZZZZZZ	WE82ADUP		20.00	17190																														X
ZZZZZZ	WE82ASPK		20.00	17250																														X
ZZZZZZ	WE82APOST		20.00	17310																														X
ZZZZZZ	WE82MB2SPK		20.00	17370																														X
CCV	MCCV9		1.00	17430	X																													X
CCB	CCB9		1.00	17500	X																													X
ZZZZZZ	WE82E		20.00	17550																														X
ZZZZZZ	WE82F		20.00	18010																														X
ZZZZZZ	WE82G		20.00	18070																														X
ZZZZZZ	WE82H		20.00	18130																														X
ZZZZZZ	WE82I		20.00	18190																														X
ZZZZZZ	WE82J		20.00	18250																														X
ZZZZZZ	WE82K		20.00	18310																														X
ZZZZZZ	WE82L		20.00	18370																														X
ZZZZZZ	WE82M		20.00	18430																														X
ZZZZZZ	WE82N		20.00	18490																														X
CCV	MCCV10		1.00	18550	X																													X
CCB	CCB10		1.00	19010	X																													X
ZZZZZZ	WE82O		20.00	19060																														X
ZZZZZZ	WE82P		20.00	19120																														X
ZZZZZZ	WE82Q		20.00	19180																														X
ZZZZZZ	WE82R		20.00	19240																														X
ZZZZZZ	WE82S		20.00	19300																														X
ZZZZZZ	WE82T		20.00	19360																														X

WE81 : 00075



# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE81



INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS030481  
 METHOD: PMS

START DATE: 3/4/2013  
 END DATE: 3/4/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN					
S0			1.00	09190																																		
S1			1.00	09240																																		
S2			1.00	09300																																		
S3			1.00	09360																																		
S4			1.00	09420																																		
ZZZZZ			1.00	09480																																		
ICV	Rinse Sampl		1.00	09550																																		
ICB			1.00	10010																																		
CCV			1.00	10070																																		
CCB			1.00	10130																																		
CRI			1.00	10190																																		
ICSA			1.00	10240																																		
ICSAB			1.00	10300																																		
ZZZZZ			1.00	10360																																		
ZZZZZ			1.00	10420																																		
CCV			1.00	10490																																		
CCB			1.00	10550																																		
SR07-D01			50.00	11020																																		
SR07-D05			50.00	11080																																		
SR07-D06			50.00	11140																																		
ZZZZZ			50.00	11200																																		
ZZZZZ			50.00	11260																																		
ZZZZZ			50.00	11320																																		
ZZZZZ			50.00	11380																																		
ZZZZZ			50.00	11440																																		
ZZZZZ			50.00	11500																																		
ZZZZZ			50.00	11560																																		
CCV			1.00	12020																																		
CCB			1.00	12080																																		

WE 081 : 55577

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE81



INSTRUMENT ID: CETAC MERCURY  
 RUNID: HG030403  
 METHOD: CVA

START DATE: 3/4/2013  
 END DATE: 3/4/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN				
S0			1.00	10424													X																				
S0.1	S0.1		1.00	10442													X																				
S0.5	S0.5		1.00	10460													X																				
S1	S1		1.00	10473													X																				
S2	S2		1.00	10491													X																				
S5	S5		1.00	10505													X																				
S10	S10		1.00	10523													X																				
ICV	AICV		1.00	10562													X																				
ICB	ICB		1.00	10580													X																				
CCV	ACCV1		1.00	10593													X																				
CCB	CCB1		1.00	11011													X																				
CRA	CRA		1.00	11025													X																				
WE82ZZ	WE82MB1		1.00	11043													X																				
WE82ZZ	WE82MB1SPK		1.00	11060													X																				
WE82ZZ	WE82A		1.00	11074													X																				
WE82ZZ	WE82ADUP		1.00	11091													X																				
WE82ZZ	WE82ASPK		1.00	11105													X																				
WE82ZZ	WE82B		1.00	11123													X																				
WE82ZZ	WE82C		1.00	11141													X																				
WE82ZZ	WE82D		1.00	11154													X																				
WE82ZZ	WE82E		1.00	11172													X																				
CCV	ACCV2		1.00	11190													X																				
CCB	CCB2		1.00	11204													X																				
WE82ZZ	WE82F		1.00	11222													X																				
WE82ZZ	WE82G		1.00	11235													X																				
WE82ZZ	WE82H		1.00	11253													X																				
WE82ZZ	WE82I		1.00	11270													X																				
WE82ZZ	WE82J		1.00	11284													X																				
WE82ZZ	WE82K		1.00	11302													X																				
WE82ZZ	WE82L		1.00	11315													X																				
WE82ZZ	WE82M		1.00	11333													X																				
WE82ZZ	WE82N		1.00	11351													X																				
WE82ZZ	WE82O		1.00	11365													X																				
CCV	ACCV3		1.00	11383													X																				
CCB	CCB3		1.00	11401													X																				

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE81



INSTRUMENT ID: CETAC MERCURY  
 RUNID: HG030403  
 METHOD: CVA

START DATE: 3/4/2013  
 END DATE: 3/4/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN				
ZZZZZ	WE82P	1.00	11415																																		
ZZZZZ	WE82Q	1.00	11432																																		
ZZZZZ	WE82R	1.00	11450																																		
ZZZZZ	WE82S	1.00	11464																																		
ZZZZZ	WE82T	1.00	11481																																		
ZZZZZ	WE82MB2	1.00	11495																																		
ZZZZZ	WE82MB2SPK	1.00	11512																																		
ZZZZZ	WE82U	1.00	11530																																		
ZZZZZ	WE82V	1.00	11544																																		
ZZZZZ	WE82W	1.00	11562																																		
CCV	ACCV4	1.00	11575																																		
CCB	CCB4	1.00	11593																																		
PBW	WE81MB1	1.00	12014																																		
LCSW	WE81MB1SPK	1.00	12032																																		
SR05-D01	WE81A	1.00	12045																																		
SR05-D01D	WE81ADUP	1.00	12063																																		
SR05-D01S	WE81ASPK	1.00	12080																																		
SR05-D02	WE81B	1.00	12094																																		
SR05-D03	WE81C	1.00	12111																																		
SR05-D04	WE81D	1.00	12125																																		
SR05-D05	WE81E	1.00	12143																																		
SR05-D06	WE81F	1.00	12161																																		
CCV	ACCV5	1.00	12174																																		
CCB	CCB5	1.00	12193																																		
SR05-C01	WE81G	1.00	12210																																		
SR05-C02	WE81H	1.00	12224																																		
SR05-C03	WE81I	1.00	12242																																		
SR06-D01	WE81J	1.00	12255																																		
SR06-D02	WE81K	1.00	12335																																		
SR06-D03	WE81L	1.00	12385																																		
SR06-D04	WE81M	1.00	12452																																		
SR06-D05	WE81N	1.00	12511																																		
SR06-D06	WE81O	1.00	12564																																		
SR06-C01	WE81P	1.00	13032																																		
CCV	ACCV6	1.00	13071																																		

WE81 : 03070



# Analysis Run Log

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE81

INSTRUMENT ID: CETAC MERCURY

RUNID: HG030403 METHOD: CVA

START DATE: 3/4/2013

END DATE: 3/4/2013



CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCB	CCB6	1.00	13085														X																
SR06-C02	WE81Q	1.00	13103														X																
SR06-C03	WE81R	1.00	13121														X																
SR07-D01	WE81S	1.00	13145														X																
SR07-D02	WE81T	1.00	13163														X																
PBW	WE81MB2	1.00	13181														X																
LCSW	WE81MB2SEK	1.00	13194														X																
SR07-D03	WE81U	1.00	13212														X																
SR07-D04	WE81V	1.00	13225														X																
SR07-D05	WE81W	1.00	13243														X																
SR07-D06	WE81X	1.00	13261														X																
CCV	ACCV7	1.00	13275														X																
CCB	CCB7	1.00	13293														X																
SR06-D01	WE81J	5.00	13315														X																
SR06-D02	WE81K	5.00	13352														X																
SR06-D03	WE81L	5.00	13382														X																
SR06-D04	WE81M	5.00	13414														X																
SR06-D05	WE81N	5.00	13451														X																
SR06-D06	WE81O	5.00	13480														X																
SR06-C01	WE81P	5.00	13520														X																
SR06-C03	WE81R	2.00	13534														X																
CCV	ACCV8	1.00	13552														X																
CCB	CCB8	1.00	13570														X																
SR06-D01	WE81J	10.00	13594														X																
SR06-D02	WE81K	10.00	14023														X																
SR06-D03	WE81L	10.00	14052														X																
SR06-D04	WE81M	10.00	14081														X																
SR06-D05	WE81N	10.00	14112														X																
SR06-D06	WE81O	10.00	14140														X																
SR06-C01	WE81P	10.00	14170														X																
CCV	ACCV9	1.00	14183														X																
CCB	CCB9	1.00	14201														X																
SR06-D01	WE81J	20.00	14221														X																
SR06-D02	WE81K	20.00	14251														X																
SR06-D03	WE81L	20.00	14264														X																

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE81



INSTRUMENT ID: CETAC MERCURY  
 RUNID: HG030403  
 METHOD: CVA

START DATE: 3/4/2013  
 END DATE: 3/4/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TEL	U	V	ZN	
SR06-D04	WE81M	20.00	14291														X																	
SR06-D05	WE81N	20.00	14315														X																	
SR06-D06	WE81O	20.00	14332														X																	
CCV	ACCV10	1.00	14360														X																	
CCB	CCB10	1.00	14374														X																	
SR06-D01	WE81J	50.00	14412														X																	
SR06-D03	WE81L	40.00	14425														X																	
SR06-D04	WE81M	40.00	14443														X																	
SR06-D06	WE81O	40.00	14460														X																	
CCV	ACCV11	1.00	14474														X																	
CCB	CCB11	1.00	14492														X																	

WE 01 : 0000 1

# Cover Page

INORGANIC ANALYSIS DATA PACKAGE



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SR07-C01	WE82A	13-3603	
SR07-C01D	WE82ADUP	13-3603	
SR07-C01S	WE82ASPK	13-3603	
SR07-C02	WE82B	13-3604	
PBS	WE82MB1	13-3604	
LCSS	WE82MB1SPK	13-3604	
SR08-D01	WE82C	13-3605	
SR08-D02	WE82D	13-3606	
SR08-D03	WE82E	13-3607	
SR08-D04	WE82F	13-3608	
SR08-D05	WE82G	13-3609	
SR08-D06	WE82H	13-3610	
SR08-C01	WE82I	13-3611	
SR08-C02	WE82J	13-3612	
SR08-C03	WE82K	13-3613	
BG-D01	WE82L	13-3614	
BG-D02	WE82M	13-3615	
BG-D03	WE82N	13-3616	
BG-D04	WE82O	13-3617	
BG-D05	WE82P	13-3618	
BG-D06	WE82Q	13-3619	

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES

If yes - were raw data generated before application of background corrections ? Yes/No NO

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature:  \_\_\_\_\_

Name: Jay Kuhn

Date: 3/5/13

Title: Inorganics Director

COVER PAGE

WE81 : 00002

# Cover Page

INORGANIC ANALYSIS DATA PACKAGE



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
BG-D07	WE82R	13-3620	
BG-D08	WE82S	13-3621	
BG-D09	WE82T	13-3622	
PBS	WE82MB2	13-3623	
LCSS	WE82MB2SPK	13-3623	
BG-D10	WE82U	13-3623	
BG-D11	WE82V	13-3624	
BG-D12	WE82W	13-3625	

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES

If yes - were raw data generated before application of background corrections ? Yes/No NO

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: 

Name: Jay Kuhn

Date: 3/5/13

Title: Inorganics Director

COVER PAGE

WEB1 : 00000

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1


Sample ID: SR07-C01

SAMPLE

Lab Sample ID: WE82A

LIMS ID: 13-3603

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 92.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	8.8	10	9,030	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.013	0.2	0.3	
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.087	0.2	266	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.15	0.7	216	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.038	0.5	7.8	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	1.9	10	26,100	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.047	0.1	12.9	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.099	0.2	186	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0004	0.008	0.040	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.099	0.5	1.6	
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0080	0.2	9.2	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.017	0.2	17.8	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR07-C02  
SAMPLE

Lab Sample ID: WE82B

LIMS ID: 13-3604

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 90.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	9.3	10	8,520	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.092	0.5	181	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	238	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.040	0.5	7.2	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.0	10	27,600	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.050	0.1	12.0	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.10	0.3	177	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0004	0.008	0.049	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.10	2	2	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0084	0.2	6.3	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	18.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

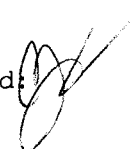
Page 1 of 1

Sample ID: SR08-D01  
SAMPLE

Lab Sample ID: WE82C

LIMS ID: 13-3605

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 85.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	10	15	8,110	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.095	0.2	306	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.18	0.9	122	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.042	0.5	5.7	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.2	10	23,900	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.051	0.1	13.9	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.12	0.3	249	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.009	0.198	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.5	3.3	
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0088	0.2	29.4	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	11.2	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR08-D02  
SAMPLE

Lab Sample ID: WE82D

LIMS ID: 13-3606

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 82.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	10	14	4,650	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/28/13	200.8	03/04/13	7440-38-2	Arsenic	0.26	0.6	412	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.9	153	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.046	0.6	3.5	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	22,400	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.057	0.1	12.9	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	58.6	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.14	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.12	0.6	3.8	
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0096	0.2	19.7	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.020	0.2	7.3	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR08-D03  
SAMPLE

Lab Sample ID: WE82E

LIMS ID: 13-3607

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 91.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	3.6	5	1,910	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/28/13	200.8	03/04/13	7440-38-2	Arsenic	0.22	0.5	366	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.060	0.3	138	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.039	0.5	1.0	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	0.75	5	16,500	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.048	0.1	17.6	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.040	0.1	8.0	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.08	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.10	2	3	
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0082	0.2	9.4	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.017	0.2	2.4	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

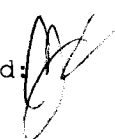
Page 1 of 1

Sample ID: SR08-D04  
SAMPLE

Lab Sample ID: WE82F

LIMS ID: 13-3608

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 90.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	3.6	5	2,180	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/28/13	200.8	03/04/13	7440-38-2	Arsenic	0.22	0.5	305	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.061	0.3	112	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.039	0.5	1.6	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	0.76	5	15,600	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.048	0.1	15.6	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.041	0.1	9.6	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.009	0.040	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.10	0.5	2.8	
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0082	0.2	8.2	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.017	0.2	3.6	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR08-D05  
SAMPLE

Lab Sample ID: WE82G

LIMS ID: 13-3609

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 86.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	4.0	6	2,410	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/28/13	200.8	03/04/13	7440-38-2	Arsenic	0.24	0.5	387	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.068	0.3	126	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.042	0.5	1.6	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	0.85	6	16,600	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.051	0.1	21.6	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.045	0.1	11.8	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.009	0.067	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.5	3.1	
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0087	0.2	8.9	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	4.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR08-D06  
SAMPLE

Lab Sample ID: WE82H

LIMS ID: 13-3610

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 84.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	4.0	6	2,070	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/28/13	200.8	03/04/13	7440-38-2	Arsenic	0.24	0.6	372	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.068	0.3	125	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.042	0.6	1.3	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	0.86	6	14,900	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.052	0.1	15.7	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.046	0.1	9.4	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.009	0.075	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	3.6	
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0088	0.2	10.7	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	2.9	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR08-C01  
SAMPLE

Lab Sample ID: WE82I

LIMS ID: 13-3611

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 85.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	10	14	16,700	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.093	0.2	26.5	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.9	138	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.041	0.5	8.5	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	22,400	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.050	0.1	9.8	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	342	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0006	0.01	0.11	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0086	0.2	0.7	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	28.0	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR08-C02  
SAMPLE

Lab Sample ID: WE82J

LIMS ID: 13-3612

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Percent Total Solids: 87.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	9.4	10	16,700	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.098	0.2	15.6	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	131	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.043	0.6	10.2	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.0	10	21,200	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.053	0.1	7.6	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	323	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.09	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0090	0.2	0.7	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	31.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: SR08-C03  
SAMPLE

Lab Sample ID: WE82K

LIMS ID: 13-3613

Matrix: Soil

Data Release Authorized

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 87.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	9.8	10	16,700	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.096	0.2	9.0	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	141	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.042	0.6	9.2	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	21,500	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.052	0.1	7.7	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	332	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0006	0.01	0.18	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0089	0.2	0.3	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	28.4	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

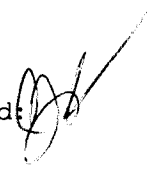
Page 1 of 1

Sample ID: BG-D01  
SAMPLE

Lab Sample ID: WE82L

LIMS ID: 13-3614

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 75.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	11	20	16,700	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.11	0.2	3.1	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.19	1	175	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.047	0.6	13.6	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.4	20	28,800	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.058	0.1	13.1	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.13	0.3	748	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0007	0.01	0.02	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0098	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.021	0.2	42.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: BG-D02  
SAMPLE

Lab Sample ID: WE82M

LIMS ID: 13-3615

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 77.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	11	20	20,500	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.11	0.2	4.9	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.19	1	130	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.047	0.6	15.3	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.4	20	33,900	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.058	0.1	8.3	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.13	0.3	776	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.009	0.031	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0099	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.021	0.2	45.0	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: BG-D03  
SAMPLE

Lab Sample ID: WE82N

LIMS ID: 13-3616

Matrix: Soil

Data Release Authorized 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 80.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	10	14	19,000	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.10	0.2	12.2	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.9	157	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.044	0.6	17.3	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	21,000	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.055	0.1	9.7	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	515	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.02	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0094	0.2	0.6	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.020	0.2	32.9	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

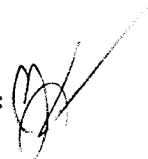
Page 1 of 1

Sample ID: BG-D04  
SAMPLE

Lab Sample ID: WE820

LIMS ID: 13-3617

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 67.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	13	20	12,000	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.018	0.3	0.3	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.12	0.3	5.9	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.21	1	88	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.052	0.7	15.3	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.6	20	18,100	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.065	0.1	10.2	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.14	0.4	305	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0007	0.01	0.01	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.14	0.7	0.7	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.011	0.3	0.3	U
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.023	0.3	27.9	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: BG-D05  
SAMPLE

Lab Sample ID: WE82P

LIMS ID: 13-3618

Matrix: Soil

Data Release Authorized:

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 90.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	9.3	10	10,600	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.088	0.2	4.9	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	69.5	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.039	0.5	5.3	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.0	10	19,300	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.048	0.1	9.0	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.10	0.3	334	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.01	U
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0081	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.017	0.2	26.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: BG-D06  
SAMPLE

Lab Sample ID: WE82Q

LIMS ID: 13-3619

Matrix: Soil

Data Release Authorized

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 91.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	9.2	10	7,250	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.089	0.2	5.9	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	86.5	
3050B	02/28/13	200.8	03/04/13	7440-47-3	Chromium	0.097	1	18	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	1.9	10	26,600	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.048	0.1	12.9	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.10	0.3	472	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0004	0.008	0.011	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0081	0.2	0.2	U
3050B	02/28/13	200.8	03/04/13	7440-62-2	Vanadium	0.043	0.5	48.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

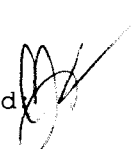
Page 1 of 1

Sample ID: BG-D07  
SAMPLE

Lab Sample ID: WE82R

LIMS ID: 13-3620

Matrix: Soil

Data Release Authorized 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 85.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	9.5	10	18,100	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.096	0.2	3.7	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	144	
3050B	02/28/13	200.8	03/04/13	7440-47-3	Chromium	0.11	1	17	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.0	10	34,000	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.052	0.1	7.4	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	597	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0004	0.008	0.013	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0089	0.2	0.2	U
3050B	02/28/13	200.8	03/04/13	7440-62-2	Vanadium	0.047	0.6	57.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: BG-D08  
SAMPLE

Lab Sample ID: WE82S

LIMS ID: 13-3621

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 90.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	9.4	10	18,700	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.093	0.2	2.9	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	113	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.041	0.5	10.1	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.0	10	25,400	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.050	0.1	10.4	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	400	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.009	0.061	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0086	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	35.2	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

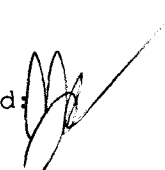
Page 1 of 1

Sample ID: BG-D09  
SAMPLE

Lab Sample ID: WE82T

LIMS ID: 13-3622

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 87.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	9.6	10	18,200	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.093	0.2	7.0	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	148	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.040	0.5	15.9	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.0	10	22,800	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.050	0.1	7.3	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	479	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.02	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0085	0.2	0.2	
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	34.4	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: BG-D10  
SAMPLE

Lab Sample ID: WE82U

LIMS ID: 13-3623

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 85.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	10	15	12,900	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.097	0.2	55.6	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.18	0.9	129	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.042	0.6	8.2	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.2	10	17,700	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.052	0.1	8.0	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.12	0.3	382	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.05	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0089	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	21.8	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: BG-D11  
SAMPLE

Lab Sample ID: WE82V

LIMS ID: 13-3624

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 86.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	9.7	10	19,700	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.094	0.2	4.7	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.16	0.8	121	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.041	0.5	8.8	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.1	10	24,400	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.051	0.1	13.7	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.11	0.3	417	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0006	0.01	0.02	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0087	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.018	0.2	25.6	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: BG-D12  
SAMPLE

Lab Sample ID: WE82W

LIMS ID: 13-3625

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 79.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	10	15	21,600	
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.099	0.2	5.9	
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.17	0.9	167	
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.043	0.6	11.3	
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	2.2	10	20,800	
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.054	0.1	9.4	
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.12	0.3	654	
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.07	
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0091	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.019	0.2	26.1	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: SR07-C01  
MATRIX SPIKE

Lab Sample ID: WE82A

LIMS ID: 13-3603

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	9,030	10,600	198	793%	H
Antimony	200.8	0.3	0.6	25.2	1.2%	N
Arsenic	200.8	266	277	25.2	43.7%	H
Barium	6010C	216	430	198	108%	
Chromium	200.8	7.8	31.7	25.2	94.8%	
Iron	6010C	26,100	26,200	198	50.5%	H
Lead	200.8	12.9	39.1	25.2	104%	
Manganese	6010C	186	247	49.5	123%	
Mercury	7471A	0.040	0.139	0.0842	118%	
Selenium	200.8	1.6	81.0	80.5	98.6%	
Silver	200.8	9.2	34.7	25.2	101%	
Vanadium	200.8	17.8	41.8	25.2	95.2%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

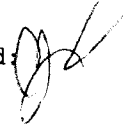
Page 1 of 1

Sample ID: SR07-C01  
DUPLICATE

Lab Sample ID: WE82A

LIMS ID: 13-3603

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	9,030	9,560	5.7%	+/- 20%	
Antimony	200.8	0.3	0.2 U	40.0%	+/- 0.2	L
Arsenic	200.8	266	272	2.2%	+/- 20%	
Barium	6010C	216	212	1.9%	+/- 20%	
Chromium	200.8	7.8	8.1	3.8%	+/- 20%	
Iron	6010C	26,100	24,600	5.9%	+/- 20%	
Lead	200.8	12.9	13.3	3.1%	+/- 20%	
Manganese	6010C	186	182	2.2%	+/- 20%	
Mercury	7471A	0.040	0.045	11.8%	+/- 0.008	L
Selenium	200.8	1.6	1.5	6.5%	+/- 0.5	L
Silver	200.8	9.2	9.1	1.1%	+/- 20%	
Vanadium	200.8	17.8	18.3	2.8%	+/- 20%	

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: WE82LCS

LIMS ID: 13-3604

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Aluminum	6010C	201	200	100%	
Antimony	200.8	27.2	25.0	109%	
Arsenic	200.8	28.2	25.0	113%	
Barium	6010C	203	200	102%	
Chromium	200.8	26.5	25.0	106%	
Iron	6010C	200	200	100%	
Lead	200.8	27.0	25.0	108%	
Manganese	6010C	50.0	50.0	100%	
Mercury	7471A	0.22	0.20	110%	
Selenium	200.8	83.8	80.0	105%	
Silver	200.8	26.7	25.0	107%	
Vanadium	200.8	26.2	25.0	105%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

**Sample ID: METHOD BLANK**

Page 1 of 1

Lab Sample ID: WE82MB

QC Report No: WE82-Hart Crowser, Inc.

LIMS ID: 13-3604

Project: Saddle Rock

Matrix: Soil

17917-00

Data Release Authorized:

Date Sampled: NA

Reported: 03/05/13

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	3.6	5	5	U
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	0.75	5	5	U
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.01	U
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.017	0.2	0.2	U

Reported in mg/kg (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

**Sample ID: LAB CONTROL**

Lab Sample ID: WE82LCS

LIMS ID: 13-3623

Matrix: Soil

Data Release Authorized: 

Reported: 03/05/13

QC Report No: WE82-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Aluminum	6010C	202	200	101%	
Antimony	200.8	26.6	25.0	106%	
Arsenic	200.8	27.2	25.0	109%	
Barium	6010C	206	200	103%	
Chromium	200.8	25.5	25.0	102%	
Iron	6010C	202	200	101%	
Lead	200.8	26.6	25.0	106%	
Manganese	6010C	50.5	50.0	101%	
Mercury	7471A	0.22	0.20	110%	
Selenium	200.8	81.1	80.0	101%	
Silver	200.8	26.2	25.0	105%	
Vanadium	200.8	24.7	25.0	98.8%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

**Sample ID: METHOD BLANK**

Page 1 of 1

Lab Sample ID: WE82MB

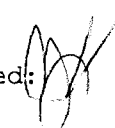
QC Report No: WE82-Hart Crowser, Inc.

LIMS ID: 13-3623

Project: Saddle Rock

Matrix: Soil

17917-00

Data Release Authorized: 

Date Sampled: NA

Reported: 03/05/13

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/28/13	6010C	03/01/13	7429-90-5	Aluminum	3.6	5	5	U
3050B	02/28/13	200.8	03/01/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	02/28/13	6010C	03/01/13	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	02/28/13	200.8	03/01/13	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	02/28/13	6010C	03/01/13	7439-89-6	Iron	0.75	5	5	U
3050B	02/28/13	200.8	03/01/13	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	02/28/13	6010C	03/01/13	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	02/28/13	7471A	03/04/13	7439-97-6	Mercury	0.0005	0.01	0.01	U
3050B	02/28/13	200.8	03/01/13	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	02/28/13	200.8	03/01/13	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	02/28/13	200.8	03/01/13	7440-62-2	Vanadium	0.017	0.2	0.2	U

Reported in mg/kg (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82



UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP030171	2000.0	2014.99	100.7	2000.0	2017.09	100.9	1989.15	99.5	1981.89	99.1	2013.43	100.7	2005.89	100.3
Antimony	SB	PMS	MS030181	50.0	49.80	99.6	50.0	49.61	99.2	49.30	98.6	49.73	99.5	50.20	100.4	49.71	99.4
Arsenic	AS	PMS	MS030181	50.0	51.50	103.0	50.0	49.46	98.9	49.64	99.3	49.94	99.9	49.81	99.6	49.36	98.7
Barium	BA	ICP	IP030171	1000.0	1023.51	102.4	1000.0	1031.60	103.2	1026.92	102.7	1026.92	102.7	1040.47	104.0	1037.36	103.7
Chromium	CR	PMS	MS030181	50.0	49.86	99.7	50.0	50.22	100.4	49.41	98.8	50.20	100.4	49.15	98.3	48.97	97.9
Iron	FE	ICP	IP030171	2000.0	2044.96	102.2	2000.0	2046.42	102.3	2000.62	100.0	1980.50	99.0	2032.57	101.6	2041.20	102.1
Lead	PB	PMS	MS030181	50.0	50.25	100.5	50.0	50.06	100.1	50.61	101.2	50.62	101.2	50.80	101.6	50.08	100.2
Manganese	MN	ICP	IP030171	1000.0	975.96	97.6	1000.0	970.43	97.0	960.71	96.1	951.39	95.1	978.33	97.8	972.01	97.2
Mercury	HG	CVA	HG030403	8.0	8.46	105.8	4.0	4.12	103.0	4.17	104.3	4.14	103.5	4.15	103.8		
Selenium	SE	PMS	MS030181	80.0	80.02	100.0	50.0	50.35	100.7	50.68	101.4	51.00	102.0	50.40	100.8	50.13	100.3
Silver	AG	PMS	MS030181	50.0	50.48	101.0	50.0	49.77	99.5	49.62	99.2	49.35	98.7	49.46	98.9	48.66	97.3
Vanadium	V	PMS	MS030181	50.0	50.62	101.2	50.0	49.92	99.8	49.04	98.1	49.56	99.1	48.93	97.9	48.71	97.4

Control Limits: Mercury 80-120; Other Metals 90-110

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82



UNITS: ug/L

ANALYTE	EL	M	RUN	CCVIV	CCV6 %R	CCV7 %R	CCV8 %R	CCV9 %R	CCV10 %R	CCV11 %R		
Aluminum	AL	ICP	IP030171	2000.0	1932.40	96.6	2005.73	100.3	1963.69	98.2	1946.62	97.3
Antimony	SB	PMS	MS030181	50.0	50.01	100.0	50.68	101.4	50.74	101.5	50.66	101.3
Arsenic	AS	PMS	MS030181	50.0	49.71	99.4	50.13	100.3	49.56	99.1	49.45	98.9
Barium	BA	ICP	IP030171	1000.0	1000.53	100.1	1033.74	103.4	1007.64	100.8	1003.93	100.4
Chromium	CR	PMS	MS030181	50.0	48.99	98.0	48.92	97.8	49.16	98.3	48.51	97.0
Iron	FE	ICP	IP030171	2000.0	1960.22	98.0	2034.10	101.7	2007.44	100.4	2000.92	100.0
Lead	PB	PMS	MS030181	50.0	50.36	100.7	50.23	100.5	49.92	99.8	50.32	100.6
Manganese	MN	ICP	IP030171	1000.0	939.63	94.0	975.12	97.5	962.96	96.3	951.28	95.1
Mercury	HG	CVA	HG030403	4.0								
Selenium	SE	PMS	MS030181	50.0	50.33	100.7	50.38	100.8	49.46	98.9	49.43	98.9
Silver	AG	PMS	MS030181	50.0	48.88	97.8	49.30	98.6	49.30	98.6	49.89	99.8
Vanadium	V	PMS	MS030181	50.0	48.98	98.0	48.60	97.2	48.54	97.1	48.19	96.4

Control Limits: Mercury 80-120; Other Metals 90-110

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82



UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	PMS	MS030481	50.0	50.96	101.9	50.0	50.13	100.3	50.01	100.0	50.12	100.2				
Chromium	CR	PMS	MS030481	50.0	48.35	96.7	50.0	50.27	100.5	49.33	98.7	48.43	96.9				
Vanadium	V	PMS	MS030481	50.0	48.86	97.7	50.0	50.46	100.9	49.26	98.5	49.14	98.3				

WE 82 : 001 15

Control Limits: Mercury 80-120; Other Metals 90-110

# CRDL Standard

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82



UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Aluminum	AL	ICP	IP030171	50.0		52.80	105.6	59.17	118.3	51.29	102.6						
Antimony	SB	PMS	MS030181	0.2		0.24	120.0										
Arsenic	AS	PMS	MS030181	0.2		0.21	105.0										
Barium	BA	ICP	IP030171	3.0		3.55	118.3	3.54	118.0	3.07	102.3						
Chromium	CR	PMS	MS030181	0.5		0.51	102.0										
Iron	FE	ICP	IP030171	50.0		49.75	99.5	51.29	102.6	52.85	105.7						
Lead	PB	PMS	MS030181	0.1		0.11	110.0										
Manganese	MN	ICP	IP030171	1.0		0.81	81.0	0.86	86.0	0.80	80.0						
Mercury	HG	CVA	HG030403	0.1		0.09	90.0										
Selenium	SE	PMS	MS030181	0.5		0.41	82.0										
Silver	AG	PMS	MS030181	0.2		0.22	110.0										
Vanadium	V	PMS	MS030181	0.2		0.21	105.0										
Arsenic	AS	PMS	MS030481	0.2		0.24	120.0										
Chromium	CR	PMS	MS030481	0.5		0.54	108.0										
Vanadium	V	PMS	MS030481	0.2		0.21	105.0										

Control Limits: no control limits have been established by the EPA at this time.

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# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82



UNITS: ug/L

ANALYTE	EL METH	RUN	CRDL	IDL	ICB	ICB C	CCB1	CCB1 C	CCB2	CCB2 C	CCB3	CCB3 C	CCB4	CCB4 C	CCB5	C
Aluminum	AL ICP	IP030171	200.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Antimony	SB PMS	MS030181	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS PMS	MS030181	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Barium	BA ICP	IP030171	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Chromium	CR PMS	MS030181	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Iron	FE ICP	IP030171	100.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Lead	PB PMS	MS030181	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Manganese	MN ICP	IP030171	15.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Mercury	HG CVA	HG030403	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Selenium	SE PMS	MS030181	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Silver	AG PMS	MS030181	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Vanadium	V PMS	MS030181	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

WE 82 : 05 11 17

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82



UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	CCB7	CCB8	CCB9	CCB10	CCB11	C
Aluminum	AL	ICP	IP030171	200.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	U
Antimony	SB	PMS	MS030181	60.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U
Arsenic	AS	PMS	MS030181	10.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U
Barium	BA	ICP	IP030171	200.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	U
Chromium	CR	PMS	MS030181	10.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	U
Iron	FE	ICP	IP030171	100.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	U
Lead	PB	PMS	MS030181	3.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	U
Manganese	MN	ICP	IP030171	15.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	U
Mercury	HG	CVA	HG030403	0.2	0.1							
Selenium	SE	PMS	MS030181	5.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	U
Silver	AG	PMS	MS030181	10.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U
Vanadium	V	PMS	MS030181	50.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U

WE82 : 001 10

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82



UNITS: ug/L

ANALYTE	EL METH	RUN	CRDL	IDL	ICB	ICB C	CCB1	CCB1 C	CCB2	CCB2 C	CCB3	CCB3 C	CCB4	CCB4 C	CCB5	CCB5 C
Arsenic	AS PMS	MS030481	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				
Chromium	CR PMS	MS030481	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U				
Vanadium	V PMS	MS030481	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				

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# ICP Interference Check Sample



CLIENT: Hart Crowser, Inc.

ICS SOURCE: I.V.

PROJECT: Saddle Rock

RUNID: IP030171

SDG: WE82

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSA1 %R	ICSA2	ICSA2 %R	ICSA3	ICSA3 %R	ICSA4	ICSA4 %R
Aluminum	200000	200000	197863.1	195335.8	97.7	199186.9	193016.6	194652.7	97.3	
Antimony	1000	1000	5.7	987.2	98.7	1.8	3.9	1017.2	101.7	
Arsenic	1000	1000	21.8	1010.9	101.1	21.6	25.4	1042.6	104.3	
Barium	1000	1000	-3.9	989.5	99.0	-3.3	-3.5	1007.1	100.7	
Beryllium	1000	1000	0.1	959.8	96.0	0.1	0.1	964.4	96.4	
Boron			-8.5	-8.7		-5.2	-2.7	-9.5		
Cadmium	1000	1000	2.4	990.5	99.1	2.4	2.2	1018.5	101.9	
Calcium	100000	100000	98972.8	97463.4	97.5	100041.6	97925.7	98156.8	98.2	
Chromium	1000	1000	0.8	987.2	98.7	-0.4	1.2	1009.5	101.0	
Cobalt	1000	1000	1.6	933.8	93.4	1.7	1.6	960.6	96.1	
Copper	1000	1000	1.4	1021.8	102.2	1.5	1.1	1048.1	104.8	
Iron	200000	200000	192775.1	191206.3	95.6	190609.3	186808.5	190779.6	95.4	
Lead	1000	1000	-12.5	929.2	92.9	-12.2	-13.3	953.1	95.3	
Magnesium	100000	100000	101282.2	96546.5	96.5	103077.8	100668.3	97163.9	97.2	
Manganese	1000	1000	0.0	934.7	93.5	0.0	-0.3	943.6	94.4	
Molybdenum			4.1	3.5		3.2	3.2	3.1		
Nickel	1000	1000	0.8	935.4	93.5	1.4	0.7	954.7	95.5	
Potassium			36.1	20.4		35.7	9.9	-5.9		
Selenium	1000	1000	-11.2	960.1	96.0	-14.9	-7.2	998.1	99.8	
Silicon			-2.7	-7.6		-2.6	-1.5	-6.2		
Silver	1000	1000	-0.6	1030.9	103.1	-0.4	-0.3	1056.4	105.6	
Sodium			14.4	23.4		16.5	19.0	22.7		
Strontium			4.0	3.9		4.1	4.0	4.0		
Thallium	1000	1000	10.7	928.7	92.9	9.1	12.3	952.9	95.3	
Tin			-10.2	-11.6		-11.3	-10.5	-10.4		
Titanium			4.7	4.8		4.8	4.8	4.4		
Vanadium	1000	1000	-2.7	967.7	96.8	-3.0	-3.0	994.1	99.4	
Zinc	1000	1000	0.3	920.1	92.0	0.4	-1.2	941.8	94.2	

# ICP Interference Check Sample



CLIENT: Hart Crowser, Inc.

ICS SOURCE: I.V.

PROJECT: Saddle Rock

RUNID: MS030181

SDG: WE82

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1	0.1						
Arsenic		20	0.1	19.0	95.0						
Cadmium		20	0.0	20.0	100.0						
Chromium		20	0.4	19.9	99.5						
Cobalt		20	0.0	19.5	97.5						
Copper		20	0.5	19.4	97.0						
Manganese		20	0.1	19.7	98.5						
Molybdenum	400	400	402.6	394.7	98.7						
Nickel		20	0.4	19.4	97.0						
Silver		20	0.0	19.2	96.0						
Thorium			0.1	0.1							
Vanadium			0.0	-0.3							
Zinc		20	1.3	20.2	101.0						

WE82 : 00121

# ICP Interference Check Sample



CLIENT: Hart Crowser, Inc.  
PROJECT: Saddle Rock  
SDG: WE82

ICS SOURCE: I.V.  
RUNID: MS030481  
INSTRUMENT ID: PE ELAN 6000  
UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSAI	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1	0.1						
Arsenic	20	20	0.1	19.1	95.5						
Cadmium	20	20	0.1	19.6	98.0						
Chromium	20	20	0.5	19.5	97.5						
Cobalt	20	20	0.0	19.0	95.0						
Copper	20	20	0.5	19.2	96.0						
Manganese	20	20	0.1	19.4	97.0						
Molybdenum	400	400	426.2	407.9	102.0						
Nickel	20	20	0.4	19.0	95.0						
Selenium	20	20	-0.1	0.1							
Silver	20	20	0.0	18.9	94.5						
Vanadium	20	20	0.1	-0.3							
Zinc	20	20	1.2	19.7	98.5						

WE 82 : 001 20

# Post Digest Spike Sample Recovery



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: PMS

SDG: WE82

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT C	SAMPLE RESULT C	SPIKE ADDED	MATRIX	%R
Antimony	SR07-C01A	WE82APOST	MS030181	504.54 B	5.20 B	500	Soil	99.9

# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: ICP

SDG: WE82

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFER- ENCE	Q
Aluminum	SR07-C01L	WE82A-L	Soil	IP030171	36384.32		35758.65		1.7	
Barium	SR07-C01L	WE82A-L	Soil	IP030171	870.25		886.35 B		1.9	
Iron	SR07-C01L	WE82A-L	Soil	IP030171	105209.20		106322.60		1.1	
Manganese	SR07-C01L	WE82A-L	Soil	IP030171	750.36		736.65		1.8	

# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: PMS

SDG: WE82

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT		SERIAL DILUTION RESULT		% DIFFERENCE	
					(I)	C	(S)	C	Q	
Antimony	SR07-C01L	WE82A-L	Soil	MS030181	0.26	B	0.30	B	15.4	
Arsenic	SR07-C01L	WE82A-L	Soil	MS030181	264.88		258.20		2.5	
Chromium	SR07-C01L	WE82A-L	Soil	MS030181	7.79	B	7.55	B	3.1	
Lead	SR07-C01L	WE82A-L	Soil	MS030181	12.85		12.50	B	2.7	
Selenium	SR07-C01L	WE82A-L	Soil	MS030181	1.64	B	1.55	B	5.5	
Silver	SR07-C01L	WE82A-L	Soil	MS030181	9.21	B	8.70	B	5.5	
Vanadium	SR07-C01L	WE82A-L	Soil	MS030181	17.76	B	17.85	B	0.5	

# IDLs and ICP Linear Ranges



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENGTH (nm)	GFA BACK- GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Aluminum	AL	ICP	OPTIMA ICP 2	308.22		200	50.0	4/1/2012	250000.0	1/22/2013
Antimony	SB	PMS	PE ELAN 6000 MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Barium	BA	ICP	OPTIMA ICP 2	455.50		200	3.0	4/1/2012	100000.0	1/22/2013
Chromium	CR	PMS	PE ELAN 6000 MS	0.00		10	0.5	4/1/2012		
Iron	FE	ICP	OPTIMA ICP 2	259.94		100	50.0	4/1/2012	250000.0	1/22/2013
Lead	PB	PMS	PE ELAN 6000 MS	0.00		3	0.1	4/1/2012		
Manganese	MN	ICP	OPTIMA ICP 2	257.61		15	1.0	4/1/2012	30000.0	1/22/2013
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Selenium	SE	PMS	PE ELAN 6000 MS	0.00		5	0.5	4/1/2012		
Silver	AG	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Vanadium	V	PMS	PE ELAN 6000 MS	0.00		50	0.2	4/1/2012		

# ICP Interelement Correction Factors



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

IEC DATE: 1/22/2013

SDG: WE82

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Antimony	206.84	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	13.7020120	0.000000	0.000000
Arsenic	188.98	0.000000	0.000000	0.000000	0.000000	0.0911890	0.000000	-1.1057220	1.4447090	0.000000	0.000000
Barium	233.53	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1795110	0.000000	0.000000	0.1469350
Beryllium	313.04	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Cadmium	228.80	0.000000	5.5964570	0.000000	0.000000	0.000000	0.000000	0.1385480	0.000000	0.000000	0.000000
Calcium	317.93	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Chromium	267.72	0.000000	0.000000	0.0295099	0.000000	0.1250000	0.000000	0.000000	0.000000	0.000000	0.000000
Cobalt	228.62	0.000000	0.000000	0.1133150	0.000000	0.000000	0.000000	0.000000	-0.0333930	0.000000	-0.0309050
Copper	324.75	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1698980	-0.0211960	0.000000	0.000000
Iron	273.96	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.7025530	0.000000	0.000000
Lead	220.35	-0.2707930	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-1.8104440	1.2410760	0.0536970
Magnesium	279.08	0.000000	0.000000	0.000000	0.000000	0.1060020	0.000000	-1.4277330	-1.1381670	0.000000	0.5549620
Manganese	257.61	0.0049690	0.000000	0.000000	0.000000	0.0038740	0.000000	0.0125790	0.000000	0.000000	0.000000
Molybdenum	202.03	0.000000	0.000000	0.000000	0.000000	0.0117860	0.000000	0.000000	0.0509920	0.000000	0.000000
Nickel	231.60	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Potassium	766.49	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Selenium	196.03	0.1149780	0.000000	0.000000	0.000000	0.000000	0.000000	0.4775670	0.000000	0.000000	0.000000
Silicon	288.16	0.000000	0.000000	0.000000	0.000000	0.000000	-3.2795240	0.000000	0.000000	0.000000	0.000000
Silver	328.07	0.000000	0.000000	0.000000	0.000000	0.000000	-0.0054570	0.000000	0.000000	0.000000	0.000000
Sodium	589.59	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Thallium	190.80	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.9747620	0.000000	0.000000	-0.1326730
Tin	189.93	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Titanium	334.90	0.000000	0.000000	0.000000	0.000000	-0.0837380	0.000000	0.000000	0.000000	0.000000	0.000000
Vanadium	292.40	0.000000	0.000000	0.000000	0.000000	0.0594390	0.000000	0.000000	0.1892210	0.000000	0.000000
Zinc	206.20	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-4.3335490	0.000000	0.0501910
									-0.1801790	0.000000	0.000000

1/22/2013 10:01:17



# ICP Interelement Correction Factors



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82

IEC DATE: 1/22/2013

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TIL	V	ZN
Aluminum	308.22	0.000000	0.000000	17.5877940	0.000000	0.000000	0.000000	2.0603180	0.000000	14.5677200	0.000000
Antimony	206.84	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.7545320	0.000000	-3.8306350	0.000000
Arsenic	188.98	0.000000	0.000000	3.3991370	0.000000	0.000000	0.000000	-34.6204750	0.000000	0.000000	0.000000
Barium	233.53	0.000000	0.000000	0.000000	0.1174000	0.000000	0.000000	0.000000	0.000000	0.2171460	0.000000
Beryllium	313.04	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.0100680	0.000000	0.2372710	0.000000
Cadmium	228.80	0.000000	0.000000	0.000000	-0.9200350	0.000000	0.000000	0.000000	0.000000	0.0629730	0.000000
Calcium	317.93	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Chromium	267.72	0.0938730	0.0834700	0.0738780	0.000000	0.000000	0.000000	0.000000	0.000000	0.3293430	0.000000
Cobalt	228.62	0.000000	0.000000	-0.1425980	0.1557020	0.000000	0.000000	1.7571760	0.000000	0.000000	0.000000
Copper	324.75	0.0053240	0.000000	0.3083290	0.000000	0.000000	0.000000	0.1931400	0.000000	0.000000	0.000000
Iron	273.96	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	6.3157650	0.000000
Lead	220.35	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Magnesium	279.08	0.000000	0.000000	-4.9970650	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Manganese	257.61	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Molybdenum	202.03	0.000000	0.000000	0.000000	0.000000	-0.1877320	0.000000	0.000000	0.000000	0.000000	0.000000
Nickel	231.60	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Potassium	766.49	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Selenium	196.03	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.5722860	0.000000
Silicon	288.16	-0.1122540	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Silver	328.07	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.3208460	0.000000
Sodium	589.59	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Thallium	190.80	0.000000	0.000000	-1.6204090	0.000000	0.000000	0.000000	0.000000	0.000000	3.6226430	0.000000
Tin	189.93	0.000000	0.000000	0.000000	0.000000	0.000000	-0.5136310	-0.1873890	0.000000	0.000000	0.000000
Titanium	334.90	0.000000	0.000000	1.0549050	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Vanadium	292.40	0.000000	-0.1522160	-0.5618640	0.000000	0.000000	0.000000	0.5717940	0.000000	0.000000	0.000000
Zinc	206.20	0.000000	0.000000	0.2590480	0.000000	-0.0606610	0.000000	0.000000	0.000000	0.000000	0.000000

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: ICP

PROJECT: Saddle Rock

ARI PREP CODE: SWC

SDG: WE82

PREPDATE: 2/28/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR07-C01	WE82A	1.088	0.0	50.0
SR07-C01D	WE82ADUP	1.089	0.0	50.0
SR07-C01S	WE82ASPK	1.092	0.0	50.0
SR07-C02	WE82B	1.052	0.0	50.0
SR08-D01	WE82C	1.003	0.0	50.0
SR08-D02	WE82D	1.061	0.0	50.0
SR08-D03	WE82E	1.096	0.0	50.0
SR08-D04	WE82F	1.084	0.0	50.0
SR08-D05	WE82G	1.022	0.0	50.0
SR08-D06	WE82H	1.039	0.0	50.0
SR08-C01	WE82I	1.031	0.0	50.0
SR08-C02	WE82J	1.089	0.0	50.0
SR08-C03	WE82K	1.042	0.0	50.0
BG-D01	WE82L	1.022	0.0	50.0
BG-D02	WE82M	1.023	0.0	50.0
PBS	WE82MB1	1.000	0.0	50.0
LCSS	WE82MB1SPK	1.000	0.0	50.0
PBS	WE82MB2	1.000	0.0	50.0
LCSS	WE82MB2SPK	1.000	0.0	50.0
BG-D03	WE82N	1.086	0.0	50.0
BG-D04	WE82O	1.045	0.0	50.0
BG-D05	WE82P	1.051	0.0	50.0
BG-D06	WE82Q	1.049	0.0	50.0
BG-D07	WE82R	1.098	0.0	50.0
BG-D08	WE82S	1.042	0.0	50.0
BG-D09	WE82T	1.061	0.0	50.0
BG-D10	WE82U	1.000	0.0	50.0
BG-D11	WE82V	1.060	0.0	50.0
BG-D12	WE82W	1.081	0.0	50.0

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: PMS

PROJECT: Saddle Rock

ARI PREP CODE: SWN

SDG: WE82

PREPDATE: 2/28/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR07-C01	WE82A	1.077	0.0	50.0
SR07-C01D	WE82ADUP	1.077	0.0	50.0
SR07-C01S	WE82ASPK	1.074	0.0	50.0
SR07-C02	WE82B	1.046	0.0	50.0
SR08-D01	WE82C	1.075	0.0	50.0
SR08-D02	WE82D	1.010	0.0	50.0
SR08-D03	WE82E	1.070	0.0	50.0
SR08-D04	WE82F	1.078	0.0	50.0
SR08-D05	WE82G	1.062	0.0	50.0
SR08-D06	WE82H	1.076	0.0	50.0
SR08-C01	WE82I	1.097	0.0	50.0
SR08-C02	WE82J	1.022	0.0	50.0
SR08-C03	WE82K	1.034	0.0	50.0
BG-D01	WE82L	1.073	0.0	50.0
BG-D02	WE82M	1.054	0.0	50.0
PBS	WE82MB1	1.000	0.0	50.0
LCSS	WE82MB1SPK	1.000	0.0	50.0
PBS	WE82MB2	1.000	0.0	50.0
LCSS	WE82MB2SPK	1.000	0.0	50.0
BG-D03	WE82N	1.062	0.0	50.0
BG-D04	WE82O	1.075	0.0	50.0
BG-D05	WE82P	1.083	0.0	50.0
BG-D06	WE82Q	1.070	0.0	50.0
BG-D07	WE82R	1.057	0.0	50.0
BG-D08	WE82S	1.029	0.0	50.0
BG-D09	WE82T	1.074	0.0	50.0
BG-D10	WE82U	1.051	0.0	50.0
BG-D11	WE82V	1.074	0.0	50.0
BG-D12	WE82W	1.098	0.0	50.0

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: CVA

PROJECT: Saddle Rock

ARI PREP CODE: SMM

SDG: WE82

PREPDATE: 2/28/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR07-C01	WE82A	0.643	0.0	50.0
SR07-C01D	WE82ADUP	0.640	0.0	50.0
SR07-C01S	WE82ASPK	0.642	0.0	50.0
SR07-C02	WE82B	0.692	0.0	50.0
SR08-D01	WE82C	0.673	0.0	50.0
SR08-D02	WE82D	0.594	0.0	50.0
SR08-D03	WE82E	0.576	0.0	50.0
SR08-D04	WE82F	0.620	0.0	50.0
SR08-D05	WE82G	0.663	0.0	50.0
SR08-D06	WE82H	0.664	0.0	50.0
SR08-C01	WE82I	0.543	0.0	50.0
SR08-C02	WE82J	0.573	0.0	50.0
SR08-C03	WE82K	0.523	0.0	50.0
BG-D01	WE82L	0.519	0.0	50.0
BG-D02	WE82M	0.685	0.0	50.0
PBS	WE82MB1	0.500	0.0	50.0
LCSW	WE82MB1SPK	0.500	0.0	50.0
PBS	WE82MB2	0.500	0.0	50.0
LCSW	WE82MB2SPK	0.500	0.0	50.0
BG-D03	WE82N	0.592	0.0	50.0
BG-D04	WE82O	0.552	0.0	50.0
BG-D05	WE82P	0.566	0.0	50.0
BG-D06	WE82Q	0.645	0.0	50.0
BG-D07	WE82R	0.690	0.0	50.0
BG-D08	WE82S	0.618	0.0	50.0
BG-D09	WE82T	0.581	0.0	50.0
BG-D10	WE82U	0.577	0.0	50.0
BG-D11	WE82V	0.534	0.0	50.0
BG-D12	WE82W	0.614	0.0	50.0

**Analysis Run Log**

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE82



INSTRUMENT ID: OPTIMA ICP 2  
 RUNID: IP030171 METHOD: ICP  
 START DATE: 3/1/2013  
 END DATE: 3/1/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN		
S0	S0	1.00	08261		X																												X		
S2	S2	1.00	08302					X								X																	X		
S3	S3	1.00	08321					X																										X	
S4	S4	1.00	08344																																X
S5	S5	1.00	08370		X																													X	
ICV	ICV	1.00	08443		X																													X	
ICB	ICB	1.00	08483		X																													X	
CRI	CRII	1.00	08524		X																													X	
ICSA	ICSAI	1.00	08570		X																													X	
ICSAB	ICSABI	1.00	09012		X																													X	
CCV	CCV1	1.00	09052		X																													X	
CCB	CCB1	1.00	09092		X																													X	
WE81MB1	WE81MB1	2.00	09134		X																													X	
WE81A-L	WE81A-L	25.00	09180																																
WE81A	WE81A	5.00	09221																																
WE81ADUP	WE81ADUP	5.00	09263																																
WE81ASPK	WE81ASPK	5.00	09303																																
WE81B	WE81B	5.00	09343																																
WE81C	WE81C	5.00	09383																																
WE81D	WE81D	5.00	09423																																
WE81E	WE81E	5.00	09465																																
WE81MB1SPK	WE81MB1SPK	2.00	09505																																
CCV2	CCV2	1.00	09545		X																														X
CCB2	CCB2	1.00	09585		X																														X
WE81MB2	WE81MB2	2.00	10031																																
WE81F	WE81F	5.00	10073																																
WE81G	WE81G	5.00	10114																																
WE81H	WE81H	5.00	10154																																
WE81I	WE81I	5.00	10194																																
WE81J	WE81J	5.00	10234																																
WE81K	WE81K	5.00	10280																																
WE81L	WE81L	5.00	10320																																
WE81M	WE81M	5.00	10360																																
WE81MB2SPK	WE81MB2SPK	2.00	10402		X																														X
CCV3	CCV3	1.00	10442																																

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE82



INSTRUMENT ID: OPTIMA ICP 2  
 RUNID: IP030171  
 METHOD: ICP

START DATE: 3/1/2013  
 END DATE: 3/1/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN			
CCB	CCB3		1.00 10482						X																										X	
ZZZZZZ	WE81N		5.00 10524																																	
ZZZZZZ	WE81O		5.00 10564																																	
ZZZZZZ	WE81P		5.00 11004																																	
ZZZZZZ	WE81Q		5.00 11044																																	
ZZZZZZ	WE81R		5.00 11084																																	
ZZZZZZ	WE81S		5.00 11124																																	
ZZZZZZ	WE81T		5.00 11164																																	
ZZZZZZ	WE81U		5.00 11210																																	
ZZZZZZ	WE81V		5.00 11252																																	
ZZZZZZ	WE81W		5.00 11293																																	
CCV	CCV4		1.00 11333						X																											X
CCB	CCB4		1.00 11374						X																											X
ZZZZZZ	WE81X		5.00 11415																																	
CRI	CRI1		1.00 11470						X																											X
ICSA	ICSA1		1.00 11512						X																											X
ICSAB	ICSAB1		1.00 11553						X																											X
CCV	CCV5		1.00 11594						X																											X
CCB	CCB5		1.00 12034						X																											X
PBS	WE82MB1		2.00 12080						X																											X
SR07-C01L	WE82A-L		25.00 12122						X																											X
SR07-C01	WE82A		5.00 12163						X																											X
SR07-C01D	WE82ADUP		5.00 12205						X																											X
SR07-C01S	WE82ASPK		5.00 12250						X																											X
SR07-C02	WE82B		5.00 12291						X																											X
SR08-D01	WE82C		5.00 12332						X																											X
SR08-D02	WE82D		5.00 12372						X																											X
SR08-D03	WE82E		5.00 12412						X																											X
ICSS	WE82MB1SPK		2.00 12454						X																											X
CCV	CCV6		1.00 12494						X																											X
CCB	CCB6		1.00 12535						X																											X
PBS	WE82MB2		2.00 12580						X																											X
SR08-D04	WE82F		5.00 13022						X																											X
SR08-D05	WE82G		5.00 13063						X																											X
SR08-D06	WE82H		5.00 13105						X																											X

WE 82 : 0011 00

# Analysis Run Log



CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE82

INSTRUMENT ID: OPTIMA ICP 2  
 RUNID: IP030171 METHOD: ICP  
 START DATE: 3/1/2013  
 END DATE: 3/1/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SR08-C01	WE82I	5.00	13150		X				X																							X	
SR08-C02	WE82J	5.00	13191		X				X																							X	
SR08-C03	WE82K	5.00	13231		X				X																							X	
BG-D01	WE82L	5.00	13271		X				X																							X	
BG-D02	WE82M	5.00	13311		X				X																							X	
LCSS	WE82MB2SPK	2.00	13351		X				X																							X	
CCV	CCV7	1.00	13391		X				X																							X	
CCB	CCB7	1.00	13431		X				X																							X	
BG-D03	WE82N	5.00	13473		X				X																							X	
BG-D04	WE82O	5.00	13513		X				X																							X	
BG-D05	WE82P	5.00	13553		X				X																							X	
BG-D06	WE82Q	5.00	13593		X				X																							X	
BG-D07	WE82R	5.00	14034		X				X																							X	
BG-D08	WE82S	5.00	14074		X				X																							X	
BG-D09	WE82T	5.00	14114		X				X																							X	
BG-D10	WE82U	5.00	14154		X				X																							X	
BG-D11	WE82V	5.00	14194		X				X																							X	
BG-D12	WE82W	5.00	14234		X				X																							X	
CCV	CCV8	1.00	14274		X				X																							X	
CCB	CCB8	1.00	14315		X				X																							X	
SR08-D03	WE82E	2.00	14360		X				X																							X	
SR08-D04	WE82F	2.00	14402		X				X																							X	
SR08-D05	WE82G	2.00	14444		X				X																							X	
SR08-D06	WE82H	2.00	14485		X				X																							X	
CRI	CRIF1	1.00	14541		X				X																							X	
ICSA	ICSAF1	1.00	14583		X				X																							X	
ICSAB	ICSABF1	1.00	15025		X				X																							X	
CCV	CCV9	1.00	15065		X				X																							X	
CCB	CCB9	1.00	15110		X				X																							X	

FORM XIV

# Analysis Run Log

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82

INSTRUMENT ID: PE ELAN 6000 MS

RUNID: MS030181 METHOD: PMS

START DATE: 3/1/2013

END DATE: 3/1/2013



CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN	
S0			1.00	09010																													X	
S1			1.00	09070																													X	
S2			1.00	09130																													X	
S3			1.00	09190																													X	
S4			1.00	09250																													X	
ZZZZZ	Rinse Sampl		1.00	09320																													X	
ICV	MICV		1.00	09390																													X	
ICB	ICB		1.00	09450																													X	
CCV	MCCV1		1.00	09500																													X	
CCB	CCB1		1.00	09570																													X	
CRI	MCRI		1.00	10020																													X	
ZZZZZ	ZZZZZ		1.00	10080																														X
ZZZZZ	ZZZZZ		1.00	10140																														X
ZZZZZ	LR200		1.00	10190																														X
ZZZZZ	LR300		1.00	10260																														X
CCV	MCCV2		1.00	10320																														X
CCB	CCB2		1.00	10380																														X
ICSA	ICSAI		1.00	10540																														X
ICSAB	ICSABI		1.00	11000																														X
CCV	MCCV3		1.00	11060																														X
CCB	CCB3		1.00	11120																														X
ZZZZZ	WE81MB1		20.00	11190																														X
ZZZZZ	WE81B		20.00	11250																														X
ZZZZZ	WE81C		20.00	11310																														X
ZZZZZ	WE81D		20.00	11370																														X
ZZZZZ	WE81E		20.00	11430																														X
ZZZZZ	WE83A-L		250.00	11490																														X
ZZZZZ	WE83A		50.00	11550																														X
ZZZZZ	WE83ADUP		50.00	12010																														X
ZZZZZ	WE83ASPK		50.00	12070																														X
ZZZZZ	WE81MB1SPK		20.00	12130																														X
CCV	MCCV4		1.00	12190																														X
CCB	CCB4		1.00	12250																														X
ZZZZZ	WE81MB2		20.00	12310																														X
ZZZZZ	WE81F		20.00	12370																														X

3/1/2013 10:00:00





# Analysis Run Log

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE82

INSTRUMENT ID: PE ELAN 6000 MS

RUNID: MS030181 METHOD: PMS

START DATE: 3/1/2013

END DATE: 3/1/2013



CLIENT ID	ARI ID	DIL.	TIME	SR	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN						
ZZZZZZ	WE81D	50.00	16140																														X	X					
ZZZZZZ	WE81E	100.00	16200																															X	X				
LCSS	WE82MB1SPK	20.00	16260	X	X																												X	X					
CCV	MCCV8	1.00	16320	X	X																												X	X					
CCB	CCB8	1.00	16380	X	X																													X	X				
PBS	WE82MB2	20.00	16440	X	X																													X	X				
SR07-C02	WE82B	20.00	16500	X	X																													X	X				
SR08-D01	WE82C	20.00	16560	X	X																														X	X			
SR08-D02	WE82D	20.00	17010	X	X																														X	X			
SR07-C01L	WE82A-L	100.00	17070	X	X																														X	X			
SR07-C01	WE82A	20.00	17130	X	X																															X	X		
SR07-C01D	WE82ADUP	20.00	17190	X	X																															X	X		
SR07-C01S	WE82ASPK	20.00	17250	X	X																															X	X		
SR07-C01A	WE82APOST	20.00	17310	X	X																															X	X		
LCSS	WE82MB2SPK	20.00	17370	X	X																															X	X		
CCV	MCCV9	1.00	17430	X	X																															X	X		
CCB	CCB9	1.00	17500	X	X																																X	X	
SR08-D03	WE82E	20.00	17550	X	X																																X	X	
SR08-D04	WE82F	20.00	18010	X	X																																X	X	
SR08-D05	WE82G	20.00	18070	X	X																																X	X	
SR08-D06	WE82H	20.00	18130	X	X																																X	X	
SR08-C01	WE82I	20.00	18190	X	X																																X	X	
SR08-C02	WE82J	20.00	18250	X	X																																X	X	
SR08-C03	WE82K	20.00	18310	X	X																																X	X	
BG-D01	WE82L	20.00	18370	X	X																																X	X	
BG-D02	WE82M	20.00	18430	X	X																																	X	X
BG-D03	WE82N	20.00	18490	X	X																																	X	X
CCV	MCCV10	1.00	18550	X	X																																X	X	
CCB	CCB10	1.00	19010	X	X																																	X	X
BG-D04	WE82O	20.00	19060	X	X																																	X	X
BG-D05	WE82P	20.00	19120	X	X																																	X	X
BG-D06	WE82Q	20.00	19180	X	X																																	X	X
BG-D07	WE82R	20.00	19240	X	X																																	X	X
BG-D08	WE82S	20.00	19300	X	X																																	X	X
BG-D09	WE82T	20.00	19360	X	X																																	X	X

3/1/2013 10:00 AM

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE82



INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS030181  
 METHOD: PMS

START DATE: 3/1/2013  
 END DATE: 3/1/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN		
BG-D10	WE82U	20.00	19420		X																			X	X	X	X	X	X	X	X	X	X		
BG-D11	WE82V	20.00	19480		X																			X	X	X	X	X	X	X	X	X	X	X	
BG-D12	WE82W	20.00	19540		X																			X	X	X	X	X	X	X	X	X	X	X	
CCV	MCCV11	1.00	20000		X																			X	X	X	X	X	X	X	X	X	X	X	
CCB	CCB11	1.00	20060		X																			X	X	X	X	X	X	X	X	X	X	X	X

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE82



INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS030481  
 METHOD: PMS

START DATE: 3/4/2013  
 END DATE: 3/4/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN			
S0			1.00	09190																													X			
S1			1.00	09240																													X			
S2			1.00	09300																													X			
S3			1.00	09360																													X			
S4			1.00	09420																													X			
ZZZZZ	Rinse	Sampl	1.00	09480																													X			
ICV	MICV		1.00	09550																													X			
ICB	ICB		1.00	10010																														X		
CCV	MCCV1		1.00	10070																														X		
CCB	CCB1		1.00	10130																														X		
CRI	MCRI		1.00	10190																														X		
ICSA	ICSAI		1.00	10240																														X		
ICSAB	ICSABI		1.00	10300																														X		
ZZZZZ	LR200		1.00	10360																														X		
ZZZZZ	LR300		1.00	10420																															X	
CCV	MCCV2		1.00	10490																														X		
CCB	CCB2		1.00	10550																														X		
ZZZZZ	WE81S		50.00	11020																															X	
ZZZZZ	WE81W		50.00	11080																															X	
ZZZZZ	WE81X		50.00	11140																															X	
SR08-D02	WE82D		50.00	11200																															X	
SR08-D03	WE82E		50.00	11260																																X
SR08-D04	WE82F		50.00	11320																																X
SR08-D05	WE82G		50.00	11380																																X
SR08-D06	WE82H		50.00	11440																																X
BG-D06	WE82Q		50.00	11500																															X	
BG-D07	WE82R		50.00	11560																															X	
CCV	MCCV3		1.00	12020																															X	
CCB	CCB3		1.00	12080																															X	

3/4/2013 10:00

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE82



INSTRUMENT ID: CETAC MERCURY  
 RUNID: HG030403 METHOD: CVA

START DATE: 3/4/2013  
 END DATE: 3/4/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0		1.00 10424														X																
S0.1	S0.1		1.00 10442														X																
S0.5	S0.5		1.00 10460														X																
S1	S1		1.00 10473														X																
S2	S2		1.00 10491														X																
S5	S5		1.00 10505														X																
S10	S10		1.00 10523														X																
ICV	AICV		1.00 10562														X																
ICB	ICB		1.00 10580														X																
CCV	ACCV1		1.00 10593														X																
CCB	CCB1		1.00 11011														X																
CRA	CRA		1.00 11025														X																
PBW	WE82MB1		1.00 11043														X																
LCSW	WE82MB1SPK		1.00 11060														X																
SR07-C01	WE82A		1.00 11074														X																
SR07-C01D	WE82ADUP		1.00 11091														X																
SR07-C01S	WE82ASPK		1.00 11105														X																
SR07-C02	WE82B		1.00 11123														X																
SR08-D01	WE82C		1.00 11141														X																
SR08-D02	WE82D		1.00 11154														X																
SR08-D03	WE82E		1.00 11172														X																
CCV	ACCV2		1.00 11190														X																
CCB	CCB2		1.00 11204														X																
SR08-D04	WE82F		1.00 11222														X																
SR08-D05	WE82G		1.00 11235														X																
SR08-D06	WE82H		1.00 11253														X																
SR08-C01	WE82I		1.00 11270														X																
SR08-C02	WE82J		1.00 11284														X																
SR08-C03	WE82K		1.00 11302														X																
BG-D01	WE82L		1.00 11315														X																
BG-D02	WE82M		1.00 11333														X																
BG-D03	WE82N		1.00 11351														X																
BG-D04	WE82O		1.00 11365														X																
CCV	ACCV3		1.00 11383														X																
CCB	CCB3		1.00 11401														X																

# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE82



INSTRUMENT ID: CETAC MERCURY  
 RUNID: HG030403  
 METHOD: CVA

START DATE: 3/4/2013  
 END DATE: 3/4/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN		
BG-D05	WE82P	1.00	11415														X																		
BG-D06	WE82Q	1.00	11432														X																		
BG-D07	WE82R	1.00	11450														X																		
BG-D08	WE82S	1.00	11464														X																		
BG-D09	WE82T	1.00	11481														X																		
PBW	WE82MB2	1.00	11495														X																		
LCSW	WE82MB2SPK	1.00	11512														X																		
BG-D10	WE82U	1.00	11530														X																		
BG-D11	WE82V	1.00	11544														X																		
BG-D12	WE82W	1.00	11562														X																		
CCV	ACCV4	1.00	11575														X																		
CCB	CCB4	1.00	11593														X																		

3/10/2013 10:04:14

**General Chemistry Raw Data  
Analyst Notes and Raw Data**

**ARI Job ID: WE81, WE82**

SAMPLE RESULTS-CONVENTIONALS  
WE82-Hart Crowser, Inc.



Matrix: Soil  
Data Release Authorized: *MB*  
Reported: 03/01/13

Project: Saddle Rock  
Event: 17917-00  
Date Sampled: 02/19/13  
Date Received: 02/25/13

Client ID: SR08-D01  
ARI ID: 13-3605 WE82C

Analyte	Date	Method	Units	RL	Sample
pH	02/28/13 022813#1	SW9045	std units	0.01	4.36

RL Analytical reporting limit  
U Undetected at reported detection limit

Results reported on a fresh weight basis  
pH determined on 1:1 soil:D.I. water extracts.



LAB CONTROL RESULTS-CONVENTIONALS  
WE82-Hart Crowser, Inc.



Matrix: Soil  
Data Release Authorized *MB*  
Reported: 03/01/13

Project: Saddle Rock  
Event: 17917-00  
Date Sampled: NA  
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
pH SW9045	ICVL	02/28/13	std units	6.97	7.00	0.03

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

**Total Solids**

**ARI Job ID: WE81, WE82**

Solids Data Entry Report  
Date: 02/28/13

Checked by: CA Date: 2/28/13  
Data Analyst: DM

Solids Determination performed on 02/27/13 by NB

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
WE81	A	SR05-D01	1.006	10.432	9.294	87.93
WE81	B	SR05-D02	0.992	10.270	9.164	88.08
WE81	C	SR05-D03	1.014	10.346	8.801	83.44
WE81	D	SR05-D04	0.955	10.803	9.943	91.27
WE81	E	SR05-D05	0.946	10.376	8.619	81.37
WE81	F	SR05-D06	0.983	10.462	9.294	87.68
WE81	G	SR05-C01	1.000	10.200	9.040	87.39
WE81	H	SR05-C02	0.980	10.677	9.107	83.81
WE81	I	SR05-C03	1.013	10.153	8.983	87.20
WE81	J	SR06-D01	0.984	10.852	8.992	81.15
WE81	K	SR06-D02	1.009	10.219	8.635	82.80
WE81	L	SR06-D03	0.981	10.500	9.607	90.62
WE81	M	SR06-D04	0.979	10.105	8.306	80.29
WE81	N	SR06-D05	1.008	10.610	9.075	84.01
WE81	O	SR06-D06	0.996	10.097	9.257	90.77
WE81	P	SR06-C01	0.978	10.795	9.043	82.15
WE81	Q	SR06-C02	0.970	10.502	8.901	83.20
WE81	R	SR06-C03	1.025	10.116	8.522	82.47
WE81	S	SR07-D01	0.983	10.054	9.055	88.99
WE81	T	SR07-D02	1.009	10.471	9.141	85.94
WE81	U	SR07-D03	0.993	10.528	9.206	86.14
WE81	V	SR07-D04	0.965	10.227	9.110	87.94
WE81	W	SR07-D05	0.978	10.526	9.623	90.54
WE81	X	SR07-D06	0.990	10.659	9.671	89.78



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# Total Solids Bench Sheet

Laboratory Section METALS

Oven Identification: 07

Balance ID: B116132369

Samples in Oven: Date: 02-27-13 Time: 1336 Temp: 104°C Analyst: NB

Removed from Oven: Date: 2-28-13 Time: 0700 Temp: 100°C Analyst: DM

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs <sup>1</sup>
WE81 A	1.006	10.432	9.294	-	✓
" B	0.992	10.270	9.164	-	✓
" C	1.014	10.346	8.801	-	✓
" D	0.955	10.803	9.943	-	✓
" E	0.946	10.376	8.619	-	✓
" F	0.983	10.462	9.294	-	✓
" G	1.000	10.200	9.040	-	✓
" H	0.980	10.677	9.107	-	✓
" I	1.013	10.153	8.983	-	✓
" J	0.984	10.852	8.992	-	✓
" K	1.009	10.219	8.635	-	✓
" L	0.981	10.500	9.607	-	✓
" M	0.979	10.105	8.306	-	✓
" N	1.008	10.610	9.075	-	✓
" O	0.996	10.097	9.257	-	✓
" P	0.978	10.795	9.043	-	✓
" Q	0.970	10.502	8.901	-	✓
" R	1.025	10.116	8.522	-	✓
" S	0.983	10.054	9.055	-	✓
" T	1.009	10.471	9.141	-	✓
" U	0.993	10.528	9.206	-	✓
" V	0.965	10.227	9.110	-	✓
" W	0.978	10.526	9.623	-	✓

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2<sup>nd</sup> bench sheet for additional weightings.



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# Total Solids Bench Sheet

Laboratory Section METALS

Oven Identification: 07

Balance ID: B116132369

Samples in Oven: Date: 02-27-13 Time: 1336 Temp: 104°C Analyst: NB

Removed from Oven: Date: 2-28-13 Time: 0700 Temp: 100°C Analyst: DM

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs <sup>1</sup>
WE81 X	0.990	10.659	9.671	—	✓

NB  
02-27-13

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2<sup>nd</sup> bench sheet for additional weightings.

WE81 : 00118

Solids Data Entry Report  
Date: 03/01/13

Checked by: CB Date: 3/01/13  
Data Analyst: DM

Solids Determination performed on 02/28/13 by NB

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
WE82	A	SR07-C01	0.995	10.509	9.799	92.54
WE82	B	SR07-C02	0.967	10.685	9.781	90.70
WE82	C	SR08-D01	0.999	10.165	8.789	84.99
WE82	D	SR08-D02	0.996	10.621	8.918	82.31
WE82	E	SR08-D03	0.984	10.102	9.279	90.97
WE82	F	SR08-D04	0.992	10.257	9.372	90.45
WE82	G	SR08-D05	0.973	10.505	9.181	86.11
WE82	H	SR08-D06	0.984	10.976	9.418	84.41
WE82	I	SR08-C01	0.992	10.221	8.853	85.18
WE82	J	SR08-C02	0.982	10.192	9.003	87.09
WE82	K	SR08-C03	1.014	10.506	9.301	87.31
WE82	L	BG-D01	1.020	10.764	8.415	75.89
WE82	M	BG-D02	1.034	10.240	8.126	77.04
WE82	N	BG-D03	0.996	10.662	8.779	80.52
WE82	O	BG-D04	1.014	10.841	7.670	67.73
WE82	P	BG-D05	0.997	10.772	9.886	90.94
WE82	Q	BG-D06	0.962	10.365	9.595	91.81
WE82	R	BG-D07	1.007	10.839	9.400	85.36
WE82	S	BG-D08	0.995	10.808	9.912	90.87
WE82	T	BG-D09	0.980	10.785	9.560	87.51
WE82	U	BG-D10	0.988	10.423	9.028	85.21
WE82	V	BG-D11	0.991	10.709	9.345	85.96
WE82	W	BG-D12	1.003	10.029	8.200	79.74



# Total Solids Bench Sheet

Laboratory Section METALS

Oven Identification: 07

Balance ID: B116132369

Samples in Oven: Date: 02-28-13 Time: 1313 Temp: 104°C Analyst: NB

Removed from Oven: Date: 3-01-13 Time: 0705 Temp: 101°C Analyst: DN

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs <sup>1</sup>
WE82 A	0.995	10.509	9.799	-	✓
" B	0.967	10.685	9.781	-	✓
" C	0.999	10.165	8.789	-	✓
" D	0.996	10.621	8.918	-	✓
" E	0.984	10.102	9.279	-	✓
" F	0.992	10.257	9.372	-	✓
" G	0.973	10.505	9.181	-	✓
" H	0.984	10.976	9.418	-	✓
" I	0.992	10.221	8.853	-	✓
" J	0.982	10.192	9.003	-	✓
" K	1.014	10.506	9.301	-	✓
" L	1.020	10.764	8.415	-	✓
" M	1.034	10.240	8.126	-	✓
" N	0.996	10.662	8.779	-	✓
" O	1.014	10.841	7.670	-	✓
" P	0.997	10.772	9.886	-	✓
" Q	0.962	10.365	9.595	-	✓
" R	1.007	10.839	9.400	-	✓
" S	0.995	10.808	9.912	-	✓
" T	0.980	10.785	9.560	-	✓
" U	0.988	10.423	9.028	-	✓
" V	0.991	10.709	9.345	-	✓
" W	1.003	10.029	8.200	-	✓

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2<sup>nd</sup> bench sheet for additional weightings.

**Metals Raw Data  
Preparation Bench Sheets and Notes**

**ARI Job ID: WE81, WE82**





# SPIKING LOG

Analyst: NB      Date: 02-27-13      Sample ID: WEB1 ASPK, MB1SPK, MB2SPK

Final Volume 50.0

Final Volume (Hg): 50.0

Precode:	ICP Routine	ICP No GFA	GFA
Spike Solution:	SWJ		
Standard No.:	3201-10		
Vol Added (mL):	1.0		
Ag	50		2.0
Al	200	200	
As	200		10
Ba	200	200	
Be	50	50	
Ca	1000	1000	
Cd	50		2.0
Co	50	50	
Cr	50	50	
Cu	50	50	
Fe	200	200	
K	1000	1000	
Mg	1000	1000	
Mn	50	50	
Na	1000	1000	
Ni	50	50	
Pb	200		10
Se	200		10
Sr	50	50	
Tl	200		10
V	50	50	
Zn	50	50	

ICP-MS #1	ICP-MS #2	ICP-MS Minerals
SWJ	SWJ	
3012-15	3001-4	
2.0	1.0	
25 ✓		
		500
25 ✓		
25		
25		
		500
25		
25		
25 ✓		
25		
		500
		500
		500
25	25	
		500
25		
25 ✓		
	25 ✓	
80 ✓		
25		
25		
25 ✓		
80		

Element	Precode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	GMM	CVA	1.0	0.05	3007-13
Hg MBSPK	↓	CVA	1.0	0.10	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Tl		ICP	2000		

Additional Elements:

Element	Precode	Analysis	Stock Conc.	Stock Added	Std. No.



# Digestion Log

Analyst: NB Date: 02-27-13 Time: 1423  
 Matrix: SOIL Block ID: SWC: #6 / SWN: #4 Block Temp: SWC: 95°C / SWN: 93°C Thermometer: MP46 / MP52

ARI Sample ID	Btl #	pH<2	Prep Code: SWC		Prep Code: SWN		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
WEB1 A	1	-	1.064	50.0	1.054	50.0	
" ADUP	1	-	1.065		1.055		
" ASPK	1	-	1.066		1.051		
" B	1	-	1.096		1.056		
" C	1	-	1.057		1.073		
" D	1	-	1.067		1.035		
" E	1	-	1.093		1.016		
" F	1	-	1.004		1.022		
" G	1	-	1.036		1.096		
" H	1	-	1.074		1.067		
" I	1	-	1.050		1.065		
" J	1	-	1.058		1.072		
" K	1	-	1.050		1.095		
" L	1	-	1.077		1.008		
" M	1	-	1.088		1.014		
" MBI	-	-	-		-		
" MBISPK	-	-	-		-		
" N	1	-	1.064		1.088		
" O	1	-	1.057		1.079		
" P	1	-	1.099		1.063		
" Q	1	-	1.086		1.056		
" R	1	-	1.046		1.040		
" S	1	-	1.017	↓	1.005	↓	
" T	1	-	1.094	50.0	1.065	50.0	
			NB 02-27-13				

Chemical/Reagent ID:  
 HNO<sub>3</sub>: MP2444 / I8022 HCl: I7971 H<sub>2</sub>O<sub>2</sub>: I7845 Tube Lot #: 1208059



# Digestion Log

Analyst: NB Date: 02-27-13 Time: 1423  
 Matrix: SOIL Block ID: SWC: #6 / SWN: #4 Block Temp: SWC: 95°C / SWN: 43°C Thermometer: SWC: MP46 / SWN: MP52

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SWC</u>		Prep Code: <u>SWN</u>		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
WE81 U	1	-	1.034	50.0	1.089	50.0	
" V	1	-	1.078	↓	1.075	↓	
" W	1	-	1.091	↓	1.015	↓	
" X	1	-	1.056	↓	1.032	↓	
" MB2	-	-	-	↓	-	↓	
" MB25PK	-	-	-	50.0	-	50.0	
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: relative; margin: 10px auto;"> <span style="position: absolute; top: -20px; left: 50%; transform: translate(-50%, -50%);">NB 02-27-13</span> </div>							

Chemical/Reagent ID:  
 HNO<sub>3</sub>: MP2444/1802 HCl: I7971 H<sub>2</sub>O<sub>2</sub>: I7845 Tube Lot #: 1208059



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 02-27-13

Bath Temp: 90°C

Start Time: 1452

End Time: 1522

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WE81 A	1	-	0.616	50.0	03-08 1	YES	
" ADUP	1	-	0.617		1		
" ASPK	1	-	0.620		1		
" B	1	-	0.717		1		
" C	1	-	0.543		1		
" D	1	-	0.559		1		
" E	1	-	0.716		1		
" F	1	-	0.542		1		
" G	1	-	0.671		1		
" H	1	-	0.605		1		
" I	1	-	0.748		1		
" J	1	-	0.546		1		
" K	1	-	0.544		1		
" L	1	-	0.552		1		
" M	1	-	0.573		1		
" MBI	-	-	-		1		
" MBISPK	-	-	-		1		
" N	1	-	0.589		1		
" O	1	-	0.598		1		
" P	1	-	0.687		1		
" Q	1	-	0.615		1		
" R	1	-	0.675		1		
" S	1	-	0.506	↓	1		
" T	1	-	0.507	50.0	1	↓	
				NB 02-27-13			

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022

H<sub>2</sub>SO<sub>4</sub>: I7677

HCl: —

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2439

5% KMnO<sub>4</sub>: MP2425

Digest Tube Lot: MFO6LKK01



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 02-27-13

Bath Temp: 90°C

Start Time: 1452

End Time: 1522

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) -Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WEB1 U	1	-	0.616	50.0	03-03 1	YES	
" V	1	-	0.592	↓	1	↓	
" W	1	-	0.608	↓	1	↓	
" X	1	-	0.586	↓	1	↓	
" MB2	-	-	-	↓	1	↓	
" MB2SPK	-	-	-	50.0	1	↓	
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: relative; margin: 0 auto;"> <span style="position: absolute; top: -20px; left: 50%; transform: translate(-50%, -50%);">NB 02-27-13</span> </div>							

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022

H<sub>2</sub>SO<sub>4</sub>: I7677

HCl: —

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2439

5% KMnO<sub>4</sub>: MP2425

Digest Tube Lot: MFO6LKK01

### SPIKING LOG

Analyst: NB Final Volume 50.0 Sample ID WESB2 ASPK, MBSPK MBDS

Date: 02-28-13 Final Volume (Hg): 50.0

Precode:	ICP Routine	ICP No GFA	GFA	ICP-MS #1	ICP-MS #2	ICP-MS Minerals	Element	Precode	Analysis	Stock Conc.	Stock Added	Std No.
Spike Solution: <u>SWN</u>												
Standard No.: <u>3001-10</u>												
Vol Added (mL): <u>1.0</u>												
Ag	50	200 ✓	2.0	<u>3012-15</u>	<u>3001-A</u>		Hg	<u>SMM</u>	<u>CVA</u>	<u>1.0</u>	<u>0.05</u>	<u>3007-B</u>
Al	200	200 ✓		<u>2.0</u>	<u>1.0</u>		Hg MBSPK			<u>1.0</u>	<u>0.10</u>	↓
As	200	200	10	25 ✓		500	Sb		<u>ICP</u>	<u>2000</u>		
Ba	200 ✓	200		25			Sb		<u>GFA</u>	<u>100</u>		
Be	50	50		25			B		<u>ICP</u>	<u>500</u>		
Ca	1000	1000				500	Mo		<u>ICP</u>	<u>500</u>		
Cd	50		2.0	25			Si		<u>ICP</u>	<u>10000</u>		
Co	50	50		25			Sn		<u>ICP</u>	<u>500</u>		
Cr	50	50		25 ✓			Ti		<u>ICP</u>	<u>2000</u>		
Cu	50	50		25			Additional Elements:					
Fe	200	200				500	Element	Precode	Analysis	Stock Conc.	Stock Added	Std. No.
K	1000	1000				500						
Mg	1000	1000				500						
Mn	50 ✓	50		25								
Na	1000	1000										
Ni	50	50			25	500						
Pb	200		10	25								
Se	200		10	25 ✓								
Sr	50	50			25 ✓							
Ti	200		10	80 ✓								
V	50	50		25								
Zn	50	50		25 ✓								

WESB2 ASPK, MBSPK MBDS



# Digestion Log

Analyst: NB Date: 02-28-13 Time: 1407  
 Matrix: SOIL Block ID: SWC: #6 / SWN: #4 Block Temp: 95°C / 95°C Thermometer: MP46 / MP52

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SWC</u>		Prep Code: <u>SWN</u>		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
WE82 A	1	-	1.088	50.0	1.077	50.0	
" ADUP	1	-	1.089		1.077		
" ASPK	1	-	1.092		1.074		
" B	1	-	1.052		1.046		
" C	1	-	1.003		1.075		
" D	1	-	1.061		1.010		
" E	1	-	1.096		1.070		
" F	1	-	1.084		1.078		
" G	1	-	1.022		1.062		
" H	1	-	1.039		1.076		
" I	1	-	1.031		1.097		
" J	1	-	1.089		1.022		
" K	1	-	1.042		1.034		
" L	1	-	1.022		1.073		see green sheet
" M	1	-	1.023		1.054		
" MBI	-	-	-		-		
" MBISPK	-	-	-		-		
" N	1	-	1.086		1.062		
" O	1	-	1.045		1.075		
" P	1	-	1.051		1.083		
" Q	1	-	1.049		1.070		
" R	1	-	1.098		1.057		
" S	1	-	1.042	✓	1.029	✓	
" T	1	-	1.061	50.0	1.074	50.0	
			NB 02-28-13				

Chemical/Reagent ID:  
 HNO<sub>3</sub>: MP2444/I8022 HCl: I7971 H<sub>2</sub>O<sub>2</sub>: I7845 Tube Lot #: 1208059



# Digestion Log

Analyst: NB Date: 02-28-13 Time: 1407  
 Matrix: SOIL Block ID: SWC: #6 / SWN: #4 Block Temp: SWC: 95°C / SWN: 95°C Thermometer: SWC: MP46 / SWN: MP52

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SWC</u>		Prep Code: <u>SWN</u>		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
<u>WE82 U</u>	<u>1</u>	<u>-</u>	<u>1.000</u>	<u>50.0</u>	<u>1.051</u>	<u>50.0</u>	
<u>" V</u>	<u>1</u>	<u>-</u>	<u>1.060</u>	↓	<u>1.074</u>	↓	
<u>" W</u>	<u>1</u>	<u>-</u>	<u>1.081</u>	↓	<u>1.098</u>	↓	
<u>" MBZ</u>	<u>-</u>	<u>-</u>	<u>-</u>	↓	<u>-</u>	↓	
<u>" MBZSPK</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>50.0</u>	<u>-</u>	<u>50.0</u>	
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: absolute; top: 50%; left: 50%;"></div>							
<u>NB</u> <u>02-28-13</u>							

Chemical/Reagent ID:  
 HNO<sub>3</sub>: MP2444/I8022 HCl: I7971 H<sub>2</sub>O<sub>2</sub>: I7845 Tube Lot #: 1208059





# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 02-28-13

Bath Temp: 92°C

Start Time: 1433

End Time: 1503

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WE82 A	1	-	0.643	50.0	53-08 1	YES	
" ADUP	1	-	0.640		1		
" ASPK	1	-	0.642		1		
" B	1	-	0.692		1		
" C	1	-	0.673		1		
" D	1	-	0.594		1		
" E	1	-	0.576		1		
" F	1	-	0.620		1		
" G	1	-	0.663		1		
" H	1	-	0.664		1		
" I	1	-	0.543		1		
" J	1	-	0.573		1		
" K	1	-	0.523		1		
" L	1	-	0.519		1		
" M	1	-	0.685		1		
" MBI	-	-	-		1		
" MBISPK	-	-	-		1		
" N	1	-	0.592		1		
" O	1	-	0.552		1		
" P	1	-	0.566		1		
" Q	1	-	0.645		1		
" R	1	-	0.690		1		
" S	1	-	0.618	↓	1		
" T	1	-	0.581	50.0	1	↓	
			NB 02-28-13				

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022  
5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2439

H<sub>2</sub>SO<sub>4</sub>: I7677  
5% KMnO<sub>4</sub>: MP2425

HCl:             
Digest Tube Lot: MF06LKK01



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 02-28-13

Bath Temp: 92°C

Start Time: 1433

End Time: 1503

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WE82 U	1	-	0.577	50.0	03-08, 1	YES	
" V	1	-	0.534	↓	1	↓	
" W	1	-	0.614	↓	1	↓	
" MB2	-	-	-	↓	1	↓	
" MB25PK	-	-	-	50.0	1	↓	
<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> <span style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%);">           NB 02-28-13         </span> </div>							

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022

H<sub>2</sub>SO<sub>4</sub>: I7677

HCl: —

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2439

5% KMnO<sub>4</sub>: MP2425

Digest Tube Lot: ME06LKK01



ARI Job No.: WEB1

Client ID: Hat Crowse

Parameter: ICP

Client Project: Saddle Rock

List problems, concerns, corrective actions and any other pertinent information

Based on digestate color all samples were stained at 5X dilution. Any samples with analyte levels less than 50X the RL were rerun at lower dilution if possible.

Analyst Initials:

At

Date:

3-1-13



Criteria Flagged:		ARI Job No.:	WE81
Unacceptable Blank:	<input type="checkbox"/>	Date of Event:	3-1-13
Unacceptable Duplicate:	<input type="checkbox"/>	Client ID:	Hart Crowser
Unacceptable Spike:	<input checked="checked" type="checkbox"/>	Method/Element:	ICPMS
Unacceptable Reference:	<input checked="checked" type="checkbox"/> (Serial Diln)	Prep Code:	SWN

**Details of Problem/Recommended Corrective Action:**

A-L/A V > 10% A-L (2.378 x 5 = 11.89 ug/L) }  
A 10.767 ug/L } 10.4%  
RA 3/4/13  
ASPK ~~A-A (11.35%)~~ } APOST  
Sb ↓ } in control.

**Samples Affected:**

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**Corrective Action Taken:**

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*[Signature]*  
*[Signature]* 3/4/13

Analyst Initials: RA  
Date: 3/4/13

Supervisor: \_\_\_\_\_  
Date: \_\_\_\_\_



ARI Job No.: WES2

Client ID: \_\_\_\_\_

Parameter: \_\_\_\_\_

Client Project: \_\_\_\_\_

List problems, concerns, corrective actions and any other pertinent information

Sample L, SWN only: at end of digestion, large crack was noticed on side of digestion tube. Digestate was transferred/insed into a new tube, diluted to 50 ml.

Analyst Initials:

NB

Date:

02-28-13



ARI Job No.: WE02

Client ID: Hat Crows

Parameter: 100

Client Project: Saddle Rock

List problems, concerns, corrective actions and any other pertinent information

Based on digestate color all samples were started at 5X dilution any samples with analyte levels less than 50X the RL were rerun at lower dilution if possible

Analyst Initials:

AA

Date:

3-1-13



Criteria Flagged:	ARI Job No.: <u>WE82</u>
Unacceptable Blank: <input type="checkbox"/>	Date of Event: <u>3-1-13</u>
Unacceptable Duplicate: <input type="checkbox"/>	Client ID: <u>Hart Growser</u>
Unacceptable Spike: <input checked="" type="checkbox"/>	Method/Element: <u>ICPMS</u>
Unacceptable Reference: <input type="checkbox"/>	Prep Code: <u>SWN</u>

**Details of Problem/Recommended Corrective Action:**

ASPK ~~As~~ Sb ↓ - APOST in control.  
BA 3/4/13

**Samples Affected:**

**Corrective Action Taken:**

*Good*  
*BA*  
*3/4/13*

**Analyst Initials:** BA  
**Date:** 3/4/13

**Supervisor:** \_\_\_\_\_  
**Date:** \_\_\_\_\_

**Metals Raw Data  
Run Logs, Calibrations, and Raw Data**

**ARI Job ID: WE81, WE82**



**Metals Data Review Checklist**

Method: ICP ICP-MS GFA CVA

Analysis Date: 3-1-13

	Analyst	Peer	Comment
<u>12</u>	<u>AK 3-1-13</u>	<u>PA 3-4-13</u>	
<b>Logbook:</b>			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
<b>Calibration:</b>			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
<b>Calibration Verification:</b>			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
<b>Samples:</b>			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
<b>Method QC:</b>			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	✓	✓	
<b>Matrix QC:</b>			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
<b>Data Distribution:</b>			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	A.N WEB2 WEB1



IEC Date: 1-22-13

Analysis Date: 3-1-13

Analyst: MA

LR Date: 1-22-13

Page: 5 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STO 0			3016-3
		↓ 2			↓ -7
		3			-8
		↓ 4			↓ -9
		5			↓ -10
		ICV			3004-1
		ICB			
		CRI			
		ICSA			
		ICSA B			
		CCV1			
		CCB1			
		WEB1	MB1	SWC	Z
		↓	A-L	↓	25 ✓
			A		5
			ADup	↓	✓
			ASpv		✓ Al, Fe str
			B		
			C		
			D		
			E	↓	
		↓	MBISOL	↓	2 ✓
		CCV2			
		CCB2			



IEC Date:                     

Analysis Date: 3-13

Analyst: MT

LR Date:                     

Page: 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		WEB1 MBZ	SWC	2	
		F		5	
		G			
		H			
		I			
		J			
		K			
		L			
		M			
		↓ MBZ PL	↓	2 ✓	
		CCV3			
		CCB3			
		WEB1 N	SWC	5	
		O			
		P			
		Q			
		R			
		S			
		T			
		U			
		V			
		↓ W	↓	↓	
		CCV4			
		CCB4			



IEC Date: \_\_\_\_\_

Analysis Date: 3-13

Analyst: M

LR Date: \_\_\_\_\_

Page: 3 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		WE81 X	Swc	5	
		CR4			
		ICSA			
		ICSA B			
		CCRS			
		CCBS			
		WE82 MB1	Swc	2	
		A-L		25	✓
		A		5	
		ADwp			✓
		Aspl			✓
		B			
		C			
		D			
		E			rework
		MB1spk		2	✓
		Carb			
		CCB6			
		WE82 MB2	Swc	2	
✓		F		5	rework
✓		G			"
✓		H			"
		I			
		J			

*M*  
*3-13*



IEC Date: \_\_\_\_\_

Analysis Date: 3-13

Analyst: MS

LR Date: \_\_\_\_\_

Page: 4 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		WESZ K	SWC	5	
		L			
		M			
		WESZ N	SWC	2	
		CC17			
		CCB7			
		WESZ O	SWC	5	
		P			
		Q			
		R			
		S			
		T			
		U			
		V			
		W			
		CC18			
		CCB8			
		WESZ E	SWC	2	
		F			
		G			
		H			
		CC1			
		ICSA			



## Nebulizer Parameters: Hg ReAlign

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

3/1/2013 7:57:23 AM Hg ReAlign... Actual peak offset (nm): 0.003  
 Drift (nm): 0.000 Slit adjustment: 0

## Analysis Begun

Start Time: 3/1/2013 8:00:11 AM	Plasma On Time: 3/1/2013 7:10:58 AM
Logged In Analyst: Metals	Technique: ICP Continuous
Spectrometer: Optima 7300 DV, S/N 077C8121202	Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\BLKS.sif

Batch ID:

Results Data Set: I2130301

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

## Method Loaded

Method Name: 7300bcESI2FAST

Method Last Saved: 8/13/2012 7:13:22 AM

IEC File: 012213.iec

MSF File:

Method Description: 12Axial Elements

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

Sequence No.: 1

Autosampler Location: 1

Sample ID: B1

Date Collected: 3/1/2013 8:00:20 AM

Data Type: Original

Dilution: 1.000000X

## Nebulizer Parameters: B1

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

=====  
Analysis Begun

Start Time: 3/1/2013 8:26:10 AM  
 Logged In Analyst: Metals  
 Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 3/1/2013 7:10:58 AM  
 Technique: ICP Continuous  
 Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISSET2.sif

Batch ID:

Results Data Set: I2130301

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

=====  
 Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank 1

Date Collected: 3/1/2013 8:26:12 AM

Data Type: Original

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Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

-----  
Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
ScA 357.253	3016487.1	9717.29	0.32%	100.0	%
ScR 361.383	319979.2	1158.44	0.36%	100.0	%
Ag 328.068†	-58.8	47.66	81.11%	[0.00]	mg/L
Al 308.215†	215.0	2.21	1.03%	[0.00]	mg/L
As 188.979†	-19.3	2.82	14.58%	[0.00]	mg/L
B 249.677†	-46.4	3.88	8.36%	[0.00]	mg/L
Ba 233.527†	48.4	6.12	12.65%	[0.00]	mg/L
Be 313.042†	712.2	11.17	1.57%	[0.00]	mg/L
Ca 317.933†	117.0	14.53	12.42%	[0.00]	mg/L
Cd 228.802†	272.3	2.99	1.10%	[0.00]	mg/L
Co 228.616†	-153.6	2.16	1.41%	[0.00]	mg/L
Cr 267.716†	-184.2	2.94	1.60%	[0.00]	mg/L
Cu 324.752†	3561.0	56.86	1.60%	[0.00]	mg/L
Fe 273.955†	16.8	1.15	6.82%	[0.00]	mg/L
K 766.490†	380.7	12.81	3.36%	[0.00]	mg/L
Mg 279.077†	85.4	3.66	4.29%	[0.00]	mg/L
Mn 257.610†	263.7	5.12	1.94%	[0.00]	mg/L
Mo 202.031†	93.2	7.58	8.13%	[0.00]	mg/L
Na 589.592†	-565.3	26.21	4.64%	[0.00]	mg/L
Na 330.237†	-101.6	9.97	9.81%	[0.00]	mg/L
Ni 231.604†	8.9	2.52	28.19%	[0.00]	mg/L
Pb 220.353†	-33.7	3.19	9.47%	[0.00]	mg/L
Sb 206.836†	55.5	7.74	13.95%	[0.00]	mg/L
Se 196.026†	-47.1	4.04	8.58%	[0.00]	mg/L
Si 288.158†	55.9	2.89	5.16%	[0.00]	mg/L
Sn 189.927†	-8.8	1.07	12.15%	[0.00]	mg/L
Sr 421.552†	326.2	49.67	15.23%	[0.00]	mg/L
Ti 334.903†	-77.6	15.59	20.08%	[0.00]	mg/L
Tl 190.801†	-44.7	3.55	7.94%	[0.00]	mg/L
V 292.402†	118.0	28.73	24.34%	[0.00]	mg/L
Zn 206.200†	-17.9	0.16	0.91%	[0.00]	mg/L



Sequence No.: 2  
Sample ID: STD2

Autosampler Location: 2  
Date Collected: 3/1/2013 8:30:27 AM  
Data Type: Original

## Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	3025929.4	397.41	0.01%	100.3	%
ScR 361.383	319810.0	717.35	0.22%	99.95	%
Ba 233.527†	62805.9	266.68	0.42%	[10]	mg/L
Cd 228.802†	267323.0	871.02	0.33%	[10]	mg/L
Co 228.616†	441180.5	1030.17	0.23%	[10]	mg/L
Cr 267.716†	67765.3	112.78	0.17%	[10]	mg/L
Cu 324.752†	2896879.6	7304.43	0.25%	[10]	mg/L
Mn 257.610†	495454.6	1251.86	0.25%	[10]	mg/L
V 292.402†	1446710.4	1096.65	0.08%	[10]	mg/L

Sequence No.: 3  
Sample ID: STD3

Autosampler Location: 3  
Date Collected: 3/1/2013 8:32:14 AM  
Data Type: Original

## Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	2991888.8	7169.32	0.24%	99.18	%
ScR 361.383	314071.9	1572.20	0.50%	98.15	%
Ag 328.068†	237650.7	339.81	0.14%	[1.0]	mg/L
As 188.979†	17846.7	40.72	0.23%	[10]	mg/L
B 249.677†	70563.3	386.30	0.55%	[10]	mg/L
Be 313.042†	2653946.1	12870.47	0.48%	[5.0]	mg/L
Na 589.592†	667000.9	2172.70	0.33%	[50]	mg/L
Ni 231.604†	43432.6	365.45	0.84%	[10]	mg/L
Pb 220.353†	98855.1	159.29	0.16%	[10]	mg/L
Se 196.026†	17510.8	22.46	0.13%	[10]	mg/L
Sr 421.552†	4902766.9	26518.59	0.54%	[5]	mg/L
Tl 190.801†	24324.5	22.01	0.09%	[10]	mg/L
Zn 206.200†	44938.3	152.11	0.34%	[10]	mg/L

Sequence No.: 4  
Sample ID: STD4

Autosampler Location: 4  
Date Collected: 3/1/2013 8:34:48 AM  
Data Type: Original

## Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
ScA 357.253	3053725.7	12320.18	0.40%	101.2 %
ScR 361.383	323796.8	1730.69	0.53%	101.2 %
Mo 202.031†	226193.3	2020.13	0.89%	[10] mg/L
Sb 206.836†	35750.7	282.16	0.79%	[10] mg/L
Si 288.158†	18183.7	107.18	0.59%	[10] mg/L
Sn 189.927†	51060.0	400.34	0.78%	[10] mg/L
Ti 334.903†	234400.5	759.95	0.32%	[10] mg/L

Sequence No.: 5  
Sample ID: STD5

Autosampler Location: 5  
Date Collected: 3/1/2013 8:37:03 AM  
Data Type: Original

## Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
ScA 357.253	2870074.7	5634.32	0.20%	95.15 %
ScR 361.383	318581.4	2320.22	0.73%	99.56 %
Al 308.215†	42332.2	229.89	0.54%	[30] mg/L
Ca 317.933†	322725.6	701.63	0.22%	[30] mg/L
Fe 273.955†	156031.9	1796.72	1.15%	[100] mg/L
K 766.490†	172233.7	833.69	0.48%	[100] mg/L
Mg 279.077†	31786.7	145.23	0.46%	[30] mg/L
Na 330.237†	3104.6	14.73	0.47%	[100] mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	237700	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1411	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1785	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	7056	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	6281	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	530800	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	10760	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	26730	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	44120	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	6777	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	289700	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1560	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1722	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1060	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	49550	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	22620	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	13340	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	31.05	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	4343	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	9886	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	3575	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1751	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1818	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	5106	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	980600	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	23440	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2432	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	144700	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	4494	0.00000	1.000000	

=====  
Analysis Begun

Start Time: 3/1/2013 8:44:28 AM  
 Logged In Analyst: Metals  
 Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 3/1/2013 7:10:58 AM  
 Technique: ICP Continuous  
 Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISSET2.sif  
 Batch ID:

Results Data Set: I2130301

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

=====  
Sequence No.: 1Sample ID: *ICV*

Autosampler Location: 7

Date Collected: 3/1/2013 8:44:30 AM

Data Type: Original

Dilution: 1.000000X

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Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

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Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3017504.1	100.0 %	0.29			0.29%
ScR 361.383	315510.9	98.60 %	0.289			0.29%
Ag 328.068†	245970.0	1.035 mg/L	0.0029	1.035 mg/L	0.0029	0.28%
Al 308.215†	2891.6	2.015 mg/L	0.0093	2.015 mg/L	0.0093	0.46%
As 188.979†	3529.2	2.008 mg/L	0.0072	2.008 mg/L	0.0072	0.36%
B 249.677†	7042.6	0.9970 mg/L	0.00307	0.9970 mg/L	0.00307	0.31%
Ba 233.527†	6431.1	1.024 mg/L	0.0040	1.024 mg/L	0.0040	0.39%
Be 313.042†	511830.2	0.9640 mg/L	0.00529	0.9640 mg/L	0.00529	0.55%
Ca 317.933†	22122.6	2.056 mg/L	0.0110	2.056 mg/L	0.0110	0.54%
Cd 228.802†	27356.0	1.013 mg/L	0.0041	1.013 mg/L	0.0041	0.40%
Co 228.616†	43886.0	0.9929 mg/L	0.00530	0.9929 mg/L	0.00530	0.53%
Cr 267.716†	6911.1	1.019 mg/L	0.0067	1.019 mg/L	0.0067	0.66%
Cu 324.752†	296350.2	1.023 mg/L	0.0062	1.023 mg/L	0.0062	0.61%
Fe 273.955†	3199.7	2.045 mg/L	0.0180	2.045 mg/L	0.0180	0.88%
K 766.490†	34234.0	19.88 mg/L	0.025	19.88 mg/L	0.025	0.13%
Mg 279.077†	2138.5	2.024 mg/L	0.0129	2.024 mg/L	0.0129	0.64%
Mn 257.610†	48337.3	0.9760 mg/L	0.00688	0.9760 mg/L	0.00688	0.70%
Mo 202.031†	22448.1	0.9924 mg/L	0.00359	0.9924 mg/L	0.00359	0.36%
Na 589.592†	673077.4	50.46 mg/L	0.225	50.46 mg/L	0.225	0.45%
Na 330.237†	1643.2	52.90 mg/L	0.281	52.90 mg/L	0.281	0.53%
Ni 231.604†	4333.7	0.9979 mg/L	0.00645	0.9979 mg/L	0.00645	0.65%
Pb 220.353†	19616.6	1.985 mg/L	0.0059	1.985 mg/L	0.0059	0.30%
Sb 206.836†	7331.4	2.049 mg/L	0.0007	2.049 mg/L	0.0007	0.04%
Se 196.026†	3447.0	1.967 mg/L	0.0086	1.967 mg/L	0.0086	0.44%
Si 288.158†	3694.1	2.027 mg/L	0.0051	2.027 mg/L	0.0051	0.25%
Sn 189.927†	4952.2	0.9713 mg/L	0.00459	0.9713 mg/L	0.00459	0.47%
Sr 421.552†	969866.9	0.9891 mg/L	0.00204	0.9891 mg/L	0.00204	0.21%
Ti 334.903†	23358.2	0.9951 mg/L	0.00281	0.9951 mg/L	0.00281	0.28%
Tl 190.801†	4826.0	1.976 mg/L	0.0024	1.976 mg/L	0.0024	0.12%
V 292.402†	146549.8	1.017 mg/L	0.0034	1.017 mg/L	0.0034	0.33%
Zn 206.200†	4608.9	1.026 mg/L	0.0081	1.026 mg/L	0.0081	0.79%

Sequence No.: 2  
 Sample ID: 1CB

Autosampler Location: 1  
 Date Collected: 3/1/2013 8:48:33 AM  
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3068868.9	101.7 %		0.14			0.14%
ScR 361.383	324695.4	101.5 %		0.53			0.52%
Ag 328.068†	-27.8	-0.00012 mg/L		0.000028	-0.00012 mg/L	0.000028	24.08%
Al 308.215†	1.7	0.00116 mg/L		0.002482	0.00116 mg/L	0.002482	214.59%
As 188.979†	3.5	0.00198 mg/L		0.001812	0.00198 mg/L	0.001812	91.70%
B 249.677†	21.6	0.00306 mg/L		0.000790	0.00306 mg/L	0.000790	25.82%
Ba 233.527†	-0.8	-0.00013 mg/L		0.000350	-0.00013 mg/L	0.000350	259.79%
Be 313.042†	18.3	0.00003 mg/L		0.000012	0.00003 mg/L	0.000012	33.80%
Ca 317.933†	-24.6	-0.00228 mg/L		0.000980	-0.00228 mg/L	0.000980	42.90%
Cd 228.802†	0.3	0.00000 mg/L		0.000204	0.00000 mg/L	0.000204	>999.9%
Co 228.616†	-1.0	-0.00002 mg/L		0.000114	-0.00002 mg/L	0.000114	477.29%
Cr 267.716†	4.6	0.00068 mg/L		0.000335	0.00068 mg/L	0.000335	49.00%
Cu 324.752†	-26.9	-0.00009 mg/L		0.000053	-0.00009 mg/L	0.000053	56.37%
Fe 273.955†	-2.2	-0.00140 mg/L		0.003112	-0.00140 mg/L	0.003112	221.77%
K 766.490†	25.6	0.01487 mg/L		0.008648	0.01487 mg/L	0.008648	58.17%
Mg 279.077†	-3.9	-0.00365 mg/L		0.000980	-0.00365 mg/L	0.000980	26.82%
Mn 257.610†	-5.0	-0.00010 mg/L		0.000058	-0.00010 mg/L	0.000058	57.01%
Mo 202.031†	40.3	0.00178 mg/L		0.000437	0.00178 mg/L	0.000437	24.57%
Na 589.592†	49.6	0.00372 mg/L		0.001897	0.00372 mg/L	0.001897	50.99%
Na 330.237†	4.7	0.1524 mg/L		0.48715	0.1524 mg/L	0.48715	319.71%
Ni 231.604†	5.5	0.00126 mg/L		0.000443	0.00126 mg/L	0.000443	35.12%
Pb 220.353†	-6.8	-0.00069 mg/L		0.000424	-0.00069 mg/L	0.000424	61.38%
Sb 206.836†	14.5	0.00405 mg/L		0.000704	0.00405 mg/L	0.000704	17.40%
Se 196.026†	0.0	0.00001 mg/L		0.002300	0.00001 mg/L	0.002300	>999.9%
Si 288.158†	-2.3	-0.00130 mg/L		0.003649	-0.00130 mg/L	0.003649	280.71%
Sn 189.927†	4.5	0.00089 mg/L		0.000622	0.00089 mg/L	0.000622	70.12%
Sr 421.552†	72.3	0.00007 mg/L		0.000040	0.00007 mg/L	0.000040	54.54%
Ti 334.903†	16.6	0.00071 mg/L		0.000572	0.00071 mg/L	0.000572	80.78%
Tl 190.801†	3.1	0.00128 mg/L		0.001185	0.00128 mg/L	0.001185	92.21%
V 292.402†	-28.9	-0.00020 mg/L		0.000152	-0.00020 mg/L	0.000152	77.58%
Zn 206.200†	-1.5	-0.00034 mg/L		0.000355	-0.00034 mg/L	0.000355	104.10%

Sequence No.: 3

Autosampler Location: 301

Sample ID: CRI

Date Collected: 3/1/2013 8:52:49 AM

Data Type: Original

Dilution: 1.000000X

## Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3082113.5	102.2 %		0.34			0.34%
ScR 361.383	325840.5	101.8 %		0.46			0.45%
Ag 328.068†	665.8	0.00280 mg/L		0.000272	0.00280 mg/L	0.000272	9.70%
Al 308.215†	74.7	0.05280 mg/L		0.001793	0.05280 mg/L	0.001793	3.40%
As 188.979†	89.4	0.05024 mg/L		0.000872	0.05024 mg/L	0.000872	1.74%
B 249.677†	151.5	0.02147 mg/L		0.000936	0.02147 mg/L	0.000936	4.36%
Ba 233.527†	22.3	0.00355 mg/L		0.000342	0.00355 mg/L	0.000342	9.65%
Be 313.042†	473.6	0.00089 mg/L		0.000025	0.00089 mg/L	0.000025	2.84%
Ca 317.933†	510.0	0.04741 mg/L		0.001297	0.04741 mg/L	0.001297	2.74%
Cd 228.802†	66.1	0.00220 mg/L		0.000120	0.00220 mg/L	0.000120	5.46%
Co 228.616†	148.4	0.00335 mg/L		0.000098	0.00335 mg/L	0.000098	2.91%
Cr 267.716†	33.8	0.00498 mg/L		0.000232	0.00498 mg/L	0.000232	4.67%
Cu 324.752†	517.0	0.00178 mg/L		0.000042	0.00178 mg/L	0.000042	2.37%
Fe 273.955†	77.6	0.04975 mg/L		0.001045	0.04975 mg/L	0.001045	2.10%
K 766.490†	860.8	0.4998 mg/L		0.03084	0.4998 mg/L	0.03084	6.17%
Mg 279.077†	45.5	0.04291 mg/L		0.006662	0.04291 mg/L	0.006662	15.53%
Mn 257.610†	40.2	0.00081 mg/L		0.000051	0.00081 mg/L	0.000051	6.29%
Mo 202.031†	120.0	0.00531 mg/L		0.000251	0.00531 mg/L	0.000251	4.74%
Na 589.592†	6407.8	0.4803 mg/L		0.00190	0.4803 mg/L	0.00190	0.40%
Na 330.237†	11.6	0.3713 mg/L		0.23389	0.3713 mg/L	0.23389	62.99%
Ni 231.604†	48.9	0.01127 mg/L		0.000823	0.01127 mg/L	0.000823	7.30%
Pb 220.353†	194.7	0.01971 mg/L		0.000712	0.01971 mg/L	0.000712	3.61%
Sb 206.836†	177.3	0.04961 mg/L		0.000969	0.04961 mg/L	0.000969	1.95%
Se 196.026†	81.3	0.04639 mg/L		0.003608	0.04639 mg/L	0.003608	7.78%
Si 288.158†	105.2	0.05781 mg/L		0.003455	0.05781 mg/L	0.003455	5.98%
Sn 189.927†	48.3	0.00949 mg/L		0.000390	0.00949 mg/L	0.000390	4.11%
Sr 421.552†	974.9	0.00099 mg/L		0.000022	0.00099 mg/L	0.000022	2.21%
Ti 334.903†	124.2	0.00529 mg/L		0.000371	0.00529 mg/L	0.000371	7.00%
Tl 190.801†	121.3	0.04984 mg/L		0.001047	0.04984 mg/L	0.001047	2.10%
V 292.402†	412.5	0.00287 mg/L		0.000108	0.00287 mg/L	0.000108	3.78%
Zn 206.200†	47.5	0.01059 mg/L		0.000211	0.01059 mg/L	0.000211	2.00%

Sequence No.: 4

Autosampler Location: 302

Sample ID: ICSA

Date Collected: 3/1/2013 8:57:06 AM

Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSA

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2955599.6	97.98 %		0.340			0.35%
ScR 361.383	320430.7	100.1 %		0.21			0.21%
Ag 328.068†	-286.1	-0.00056 mg/L		0.000112	-0.00056 mg/L	0.000112	19.89%
Al 308.215†	279199.4	197.9 mg/L		0.77	197.9 mg/L	0.77	0.39%
As 188.979†	54.4	0.02182 mg/L		0.002988	0.02182 mg/L	0.002988	13.69%
B 249.677†	-60.1	-0.00851 mg/L		0.002703	-0.00851 mg/L	0.002703	31.75%
Ba 233.527†	153.3	-0.00391 mg/L		0.000182	-0.00391 mg/L	0.000182	4.66%
Be 313.042†	41.6	0.00008 mg/L		0.000009	0.00008 mg/L	0.000009	11.62%
Ca 317.933†	1064702.1	98.97 mg/L		0.721	98.97 mg/L	0.721	0.73%
Cd 228.802†	69.0	0.00241 mg/L		0.000134	0.00241 mg/L	0.000134	5.56%
Co 228.616†	72.1	0.00161 mg/L		0.000276	0.00161 mg/L	0.000276	17.11%
Cr 267.716†	37.8	0.00078 mg/L		0.000428	0.00078 mg/L	0.000428	54.50%
Cu 324.752†	-2182.3	0.00140 mg/L		0.000144	0.00140 mg/L	0.000144	10.26%
Fe 273.955†	300790.6	192.8 mg/L		2.65	192.8 mg/L	2.65	1.37%
K 766.490†	62.2	0.03613 mg/L		0.009607	0.03613 mg/L	0.009607	26.59%
Mg 279.077†	107438.8	101.3 mg/L		0.75	101.3 mg/L	0.75	0.74%
Mn 257.610†	70.6	0.00005 mg/L		0.000159	0.00005 mg/L	0.000159	333.67%
Mo 202.031†	120.0	0.00414 mg/L		0.000372	0.00414 mg/L	0.000372	8.99%
Na 589.592†	192.5	0.01443 mg/L		0.004276	0.01443 mg/L	0.004276	29.64%
Na 330.237†	1.6	0.05287 mg/L		0.304635	0.05287 mg/L	0.304635	576.21%
Ni 231.604†	3.3	0.00078 mg/L		0.000293	0.00078 mg/L	0.000293	37.53%
Pb 220.353†	-551.1	-0.01250 mg/L		0.000533	-0.01250 mg/L	0.000533	4.26%
Sb 206.836†	21.2	0.00575 mg/L		0.001682	0.00575 mg/L	0.001682	29.25%
Se 196.026†	20.2	-0.01124 mg/L		0.004164	-0.01124 mg/L	0.004164	37.04%
Si 288.158†	-26.0	-0.00274 mg/L		0.003750	-0.00274 mg/L	0.003750	137.00%
Sn 189.927†	-94.2	-0.01015 mg/L		0.001288	-0.01015 mg/L	0.001288	12.69%
Sr 421.552†	3945.8	0.00402 mg/L	cont	0.000043	0.00402 mg/L	0.000043	1.06%
Ti 334.903†	247.2	0.00465 mg/L		0.000380	0.00465 mg/L	0.000380	8.17%
Tl 190.801†	-36.1	0.01069 mg/L		0.001417	0.01069 mg/L	0.001417	13.25%
V 292.402†	1005.4	-0.00270 mg/L		0.000199	-0.00270 mg/L	0.000199	7.35%
Zn 206.200†	1.3	0.00028 mg/L		0.000331	0.00028 mg/L	0.000331	118.95%



Sequence No.: 5  
Sample ID: ICSAB

Autosampler Location: 303  
Date Collected: 3/1/2013 9:01:22 AM  
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSAB

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3015101.6	99.95 %		0.164			0.16%
ScR 361.383	322714.4	100.9 %		0.73			0.72%
Ag 328.068†	244775.4	1.031 mg/L		0.0090	1.031 mg/L	0.0090	0.87%
Al 308.215†	275653.0	195.3 mg/L		2.03	195.3 mg/L	2.03	1.04%
As 188.979†	1820.1	1.011 mg/L		0.0052	1.011 mg/L	0.0052	0.52%
B 249.677†	-46.2	-0.00872 mg/L		0.000332	-0.00872 mg/L	0.000332	3.81%
Ba 233.527†	6392.2	0.9895 mg/L		0.00669	0.9895 mg/L	0.00669	0.68%
Be 313.042†	509587.5	0.9598 mg/L		0.00972	0.9598 mg/L	0.00972	1.01%
Ca 317.933†	1048464.3	97.46 mg/L		0.957	97.46 mg/L	0.957	0.98%
Cd 228.802†	26613.3	0.9905 mg/L		0.00877	0.9905 mg/L	0.00877	0.89%
Co 228.616†	41208.7	0.9338 mg/L		0.00591	0.9338 mg/L	0.00591	0.63%
Cr 267.716†	6722.5	0.9872 mg/L		0.00493	0.9872 mg/L	0.00493	0.50%
Cu 324.752†	293384.2	1.022 mg/L		0.0081	1.022 mg/L	0.0081	0.79%
Fe 273.955†	298351.3	191.2 mg/L		1.48	191.2 mg/L	1.48	0.78%
K 766.490†	35.2	0.02045 mg/L		0.021243	0.02045 mg/L	0.021243	103.88%
Mg 279.077†	102417.4	96.55 mg/L		0.988	96.55 mg/L	0.988	1.02%
Mn 257.610†	46369.4	0.9347 mg/L		0.00995	0.9347 mg/L	0.00995	1.06%
Mo 202.031†	106.3	0.00350 mg/L		0.000292	0.00350 mg/L	0.000292	8.33%
Na 589.592†	312.3	0.02341 mg/L		0.001824	0.02341 mg/L	0.001824	7.79%
Na 330.237†	6.9	-0.04696 mg/L		0.025174	-0.04696 mg/L	0.025174	53.61%
Ni 231.604†	4062.3	0.9354 mg/L		0.00677	0.9354 mg/L	0.00677	0.72%
Pb 220.353†	8758.5	0.9292 mg/L		0.00201	0.9292 mg/L	0.00201	0.22%
Sb 206.836†	3565.0	0.9872 mg/L		0.00396	0.9872 mg/L	0.00396	0.40%
Se 196.026†	1722.3	0.9601 mg/L		0.00374	0.9601 mg/L	0.00374	0.39%
Si 288.158†	-39.8	-0.00760 mg/L		0.002603	-0.00760 mg/L	0.002603	34.27%
Sn 189.927†	-103.5	-0.01159 mg/L		0.000819	-0.01159 mg/L	0.000819	7.07%
Sr 421.552†	3833.0	0.00391 mg/L		0.000030	0.00391 mg/L	0.000030	0.76%
Ti 334.903†	251.8	0.00475 mg/L		0.000020	0.00475 mg/L	0.000020	0.43%
Tl 190.801†	2220.4	0.9287 mg/L		0.00176	0.9287 mg/L	0.00176	0.19%
V 292.402†	140738.9	0.9677 mg/L		0.00802	0.9677 mg/L	0.00802	0.83%
Zn 206.200†	4133.6	0.9201 mg/L		0.00486	0.9201 mg/L	0.00486	0.53%

Sequence No.: 6

Sample ID: CV |

Autosampler Location: 7

Date Collected: 3/1/2013 9:05:24 AM

Data Type: Original

Dilution: 1.000000X

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3032612.4	100.5 %	0.22			0.21%
ScR 361.383	317818.5	99.32 %	0.723			0.73%
Ag 328.068†	246019.5	1.036 mg/L	0.0105	1.036 mg/L	0.0105	1.01%
Al 308.215†	2894.8	2.017 mg/L	0.0213	2.017 mg/L	0.0213	1.06%
As 188.979†	3543.4	2.016 mg/L	0.0045	2.016 mg/L	0.0045	0.22%
B 249.677†	7050.8	0.9981 mg/L	0.01026	0.9981 mg/L	0.01026	1.03%
Ba 233.527†	6481.9	1.032 mg/L	0.0080	1.032 mg/L	0.0080	0.78%
Be 313.042†	511313.6	0.9631 mg/L	0.00612	0.9631 mg/L	0.00612	0.64%
Ca 317.933†	22216.9	2.065 mg/L	0.0266	2.065 mg/L	0.0266	1.29%
Cd 228.802†	27344.8	1.013 mg/L	0.0036	1.013 mg/L	0.0036	0.35%
Co 228.616†	44017.4	0.9959 mg/L	0.00741	0.9959 mg/L	0.00741	0.74%
Cr 267.716†	6960.5	1.026 mg/L	0.0113	1.026 mg/L	0.0113	1.10%
Cu 324.752†	295439.4	1.020 mg/L	0.0060	1.020 mg/L	0.0060	0.59%
Fe 273.955†	3201.9	2.046 mg/L	0.0297	2.046 mg/L	0.0297	1.45%
K 766.490†	34576.9	20.08 mg/L	0.074	20.08 mg/L	0.074	0.37%
Mg 279.077†	2155.7	2.041 mg/L	0.0268	2.041 mg/L	0.0268	1.32%
Mn 257.610†	48063.1	0.9704 mg/L	0.00093	0.9704 mg/L	0.00093	0.10%
Mo 202.031†	22531.3	0.9960 mg/L	0.00218	0.9960 mg/L	0.00218	0.22%
Na 589.592†	677198.0	50.76 mg/L	0.171	50.76 mg/L	0.171	0.34%
Na 330.237†	1633.1	52.57 mg/L	0.530	52.57 mg/L	0.530	1.01%
Ni 231.604†	4376.2	1.008 mg/L	0.0110	1.008 mg/L	0.0110	1.09%
Pb 220.353†	19736.6	1.998 mg/L	0.0033	1.998 mg/L	0.0033	0.17%
Sb 206.836†	7376.6	2.061 mg/L	0.0049	2.061 mg/L	0.0049	0.24%
Se 196.026†	3459.3	1.974 mg/L	0.0052	1.974 mg/L	0.0052	0.26%
Si 288.158†	3678.8	2.018 mg/L	0.0090	2.018 mg/L	0.0090	0.44%
Sn 189.927†	4968.8	0.9745 mg/L	0.00121	0.9745 mg/L	0.00121	0.12%
Sr 421.552†	970577.3	0.9898 mg/L	0.00207	0.9898 mg/L	0.00207	0.21%
Ti 334.903†	23385.8	0.9963 mg/L	0.00141	0.9963 mg/L	0.00141	0.14%
Tl 190.801†	4865.8	1.992 mg/L	0.0023	1.992 mg/L	0.0023	0.11%
V 292.402†	146951.6	1.020 mg/L	0.0067	1.020 mg/L	0.0067	0.65%
Zn 206.200†	4648.7	1.035 mg/L	0.0120	1.035 mg/L	0.0120	1.16%

Sequence No.: 7

Autosampler Location: 1

Sample ID: CB1

Date Collected: 3/1/2013 9:09:29 AM

Data Type: Original

Dilution: 1.000000X

## Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3064082.3	101.6	%	0.44			0.43%
ScR 361.383	326079.8	101.9	%	0.62			0.61%
Ag 328.068†	-7.8	-0.00003	mg/L	0.000136	-0.00003	0.000136	411.13%
Al 308.215†	8.6	0.00610	mg/L	0.001850	0.00610	0.001850	30.32%
As 188.979†	3.1	0.00178	mg/L	0.001128	0.00178	0.001128	63.47%
B 249.677†	20.5	0.00291	mg/L	0.000304	0.00291	0.000304	10.47%
Ba 233.527†	2.8	0.00045	mg/L	0.000459	0.00045	0.000459	102.39%
Be 313.042†	12.8	0.00002	mg/L	0.000001	0.00002	0.000001	3.49%
Ca 317.933†	-25.6	-0.00238	mg/L	0.000938	-0.00238	0.000938	39.48%
Cd 228.802†	5.5	0.00020	mg/L	0.000051	0.00020	0.000051	25.72%
Co 228.616†	1.2	0.00003	mg/L	0.000144	0.00003	0.000144	555.25%
Cr 267.716†	12.2	0.00180	mg/L	0.000658	0.00180	0.000658	36.59%
Cu 324.752†	22.9	0.00008	mg/L	0.000136	0.00008	0.000136	172.78%
Fe 273.955†	0.1	0.00009	mg/L	0.001171	0.00009	0.001171	>999.9%
K 766.490†	47.4	0.02750	mg/L	0.005541	0.02750	0.005541	20.15%
Mg 279.077†	-0.6	-0.00054	mg/L	0.001647	-0.00054	0.001647	305.32%
Mn 257.610†	-5.4	-0.00011	mg/L	0.000071	-0.00011	0.000071	65.35%
Mo 202.031†	33.3	0.00147	mg/L	0.000090	0.00147	0.000090	6.09%
Na 589.592†	28.4	0.00213	mg/L	0.001839	0.00213	0.001839	86.31%
Na 330.237†	0.9	0.02879	mg/L	0.293866	0.02879	0.293866	>999.9%
Ni 231.604†	6.7	0.00156	mg/L	0.000489	0.00156	0.000489	31.44%
Pb 220.353†	-0.5	-0.00005	mg/L	0.000567	-0.00005	0.000567	>999.9%
Sb 206.836†	18.2	0.00508	mg/L	0.002311	0.00508	0.002311	45.50%
Se 196.026†	-3.9	-0.00223	mg/L	0.002631	-0.00223	0.002631	118.00%
Si 288.158†	-4.6	-0.00256	mg/L	0.000961	-0.00256	0.000961	37.56%
Sn 189.927†	3.7	0.00073	mg/L	0.000931	0.00073	0.000931	127.18%
Sr 421.552†	65.8	0.00007	mg/L	0.000019	0.00007	0.000019	27.96%
Ti 334.903†	24.6	0.00105	mg/L	0.000363	0.00105	0.000363	34.65%
Tl 190.801†	3.8	0.00157	mg/L	0.001628	0.00157	0.001628	103.99%
V 292.402†	-34.5	-0.00023	mg/L	0.000174	-0.00023	0.000174	75.55%
Zn 206.200†	1.5	0.00033	mg/L	0.000686	0.00033	0.000686	206.80%

Sequence No.: 8  
 Sample ID: WE81 MB1 SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 304  
 Date Collected: 3/1/2013 9:13:45 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 MB1 SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE81 MB1 SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3087687.4	102.4	%	0.09			0.08%
ScR 361.383	326835.2	102.1	%	0.34			0.33%
Ag 328.068†	-19.6	-0.00008	mg/L	0.000025	-0.00016 mg/L	0.000050	30.38%
Al 308.215†	4.3	0.00307	mg/L	0.004253	0.00615 mg/L	0.008507	138.39%
As 188.979†	2.7	0.00153	mg/L	0.001710	0.00307 mg/L	0.003420	111.54%
B 249.677†	19.6	0.00278	mg/L	0.000739	0.00555 mg/L	0.001478	26.63%
Ba 233.527†	2.8	0.00045	mg/L	0.000199	0.00091 mg/L	0.000398	43.89%
Be 313.042†	2.2	0.00000	mg/L	0.000026	0.00001 mg/L	0.000051	603.31%
Ca 317.933†	70.9	0.00659	mg/L	0.001450	0.01318 mg/L	0.002900	22.00%
Cd 228.802†	3.2	0.00011	mg/L	0.000047	0.00022 mg/L	0.000093	41.78%
Co 228.616†	-1.3	-0.00003	mg/L	0.000101	-0.00006 mg/L	0.000202	320.57%
Cr 267.716†	9.0	0.00132	mg/L	0.000852	0.00264 mg/L	0.001703	64.50%
Cu 324.752†	527.3	0.00182	mg/L	0.000239	0.00364 mg/L	0.000478	13.14%
Fe 273.955†	3.7	0.00239	mg/L	0.001200	0.00478 mg/L	0.002400	50.19%
K 766.490†	22.8	0.01325	mg/L	0.021624	0.02649 mg/L	0.043247	163.25%
Mg 279.077†	3.7	0.00351	mg/L	0.004100	0.00702 mg/L	0.008200	116.88%
Mn 257.610†	-6.8	-0.00014	mg/L	0.000063	-0.00027 mg/L	0.000126	46.18%
Mo 202.031†	-0.1	-0.00000	mg/L	0.000267	-0.00001 mg/L	0.000534	>999.9%
Na 589.592†	76.3	0.00572	mg/L	0.002817	0.01144 mg/L	0.005633	49.23%
Na 330.237†	6.5	0.2097	mg/L	0.21598	0.4194 mg/L	0.43196	102.99%
Ni 231.604†	1.9	0.00044	mg/L	0.000498	0.00087 mg/L	0.000996	113.94%
Pb 220.353†	-2.6	-0.00026	mg/L	0.000687	-0.00052 mg/L	0.001374	265.79%
Sb 206.836†	1.7	0.00046	mg/L	0.000746	0.00093 mg/L	0.001493	161.25%
Se 196.026†	-3.3	-0.00186	mg/L	0.001620	-0.00372 mg/L	0.003240	87.22%
Si 288.158†	1.2	0.00065	mg/L	0.002716	0.00131 mg/L	0.005432	415.08%
Sn 189.927†	1.1	0.00022	mg/L	0.000728	0.00044 mg/L	0.001457	329.39%
Sr 421.552†	25.0	0.00003	mg/L	0.000022	0.00005 mg/L	0.000044	86.82%
Ti 334.903†	15.8	0.00068	mg/L	0.001162	0.00135 mg/L	0.002323	172.01%
Tl 190.801†	1.4	0.00059	mg/L	0.001619	0.00118 mg/L	0.003237	273.83%
V 292.402†	-19.6	-0.00013	mg/L	0.000059	-0.00026 mg/L	0.000117	45.13%
Zn 206.200†	12.0	0.00266	mg/L	0.000381	0.00533 mg/L	0.000762	14.31%

Sequence No.: 9  
 Sample ID: WE81 A-L SWC  
 Analyst: ALA  
 Dilution: 25.000000X

Autosampler Location: 305  
 Date Collected: 3/1/2013 9:18:02 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 A-L SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE81 A-L SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
ScA 357.253	3088724.2	102.4 %		0.58				0.56%
ScR 361.383	329270.0	102.9 %		0.60				0.59%
Ag 328.068†	3235.3	0.01362 mg/L		0.000324	0.3405 mg/L	0.00810		2.38%
Al 308.215†	3742.7	2.652 mg/L		0.0151	66.30 mg/L	0.377		0.57%
As 188.979†	309.7	0.1753 mg/L		0.00357	4.382 mg/L	0.0893		2.04%
B 249.677†	10.8	0.00152 mg/L		0.000953	0.03810 mg/L	0.023822		62.53%
Ba 233.527†	366.5	0.05622 mg/L		0.001055	1.406 mg/L	0.0264		1.88%
Be 313.042†	7.7	0.00001 mg/L		0.000037	0.00029 mg/L	0.000931		325.21%
Ca 317.933†	2662.4	0.2475 mg/L		0.00122	6.187 mg/L	0.0305		0.49%
Cd 228.802†	37.1	0.00042 mg/L		0.000147	0.01040 mg/L	0.003663		35.23%
Co 228.616†	46.0	0.00095 mg/L		0.000043	0.02365 mg/L	0.001087		4.60%
Cr 267.716†	25.4	0.00411 mg/L		0.000843	0.1027 mg/L	0.02108		20.52%
Cu 324.752†	2454.1	0.00917 mg/L		0.000120	0.2292 mg/L	0.00299		1.31%
Fe 273.955†	22572.2	14.47 mg/L		0.039	361.7 mg/L	0.98		0.27%
K 766.490†	5447.8	3.163 mg/L		0.0314	79.08 mg/L	0.784		0.99%
Mg 279.077†	838.4	0.7832 mg/L		0.00953	19.58 mg/L	0.238		1.22%
Mn 257.610†	1300.6	0.02624 mg/L		0.000269	0.6559 mg/L	0.00672		1.02%
Mo 202.031†	-2.3	-0.00011 mg/L		0.000214	-0.00267 mg/L	0.005339		199.70%
Na 589.592†	692.4	0.05191 mg/L		0.002003	1.298 mg/L	0.0501		3.86%
Na 330.237†	2.8	0.1014 mg/L		0.72427	2.534 mg/L	18.1067		714.54%
Ni 231.604†	4.8	0.00111 mg/L		0.000783	0.02771 mg/L	0.019586		70.69%
Pb 220.353†	75.4	0.00756 mg/L		0.000266	0.1891 mg/L	0.00664		3.51%
Sb 206.836†	3.6	0.00102 mg/L		0.000985	0.02561 mg/L	0.024620		96.15%
Se 196.026†	2.7	0.00122 mg/L		0.000637	0.03038 mg/L	0.015920		52.41%
Si 288.158†	196.8	0.1083 mg/L		0.00184	2.708 mg/L	0.0459		1.70%
Sn 189.927†	-3.4	-0.00064 mg/L		0.000421	-0.01593 mg/L	0.010519		66.03%
Sr 421.552†	33537.3	0.03420 mg/L		0.000131	0.8551 mg/L	0.00327		0.38%
Ti 334.903†	1201.1	0.05123 mg/L		0.000959	1.281 mg/L	0.0240		1.87%
Tl 190.801†	-2.2	0.00095 mg/L		0.000480	0.02373 mg/L	0.012005		50.59%
V 292.402†	1574.4	0.01015 mg/L		0.000100	0.2537 mg/L	0.00250		0.98%
Zn 206.200†	23.8	0.00531 mg/L		0.000703	0.1328 mg/L	0.01758		13.23%

Sequence No.: 10  
 Sample ID: WE81 A SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 306  
 Date Collected: 3/1/2013 9:22:17 AM  
 Data Type: Original

Nebulizer Parameters: WE81 A SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

Mean Data: WE81 A SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3094833.2	102.6	%	0.16				0.15%
ScR 361.383	329129.6	102.9	%	0.30				0.29%
Ag 328.068†	16705.4	0.07032	mg/L	0.000530	0.3516	mg/L	0.00265	0.75%
Al 308.215†	19246.0	13.64	mg/L	0.059	68.19	mg/L	0.293	0.43%
As 188.979†	1575.1	0.8914	mg/L	0.00147	4.457	mg/L	0.0074	0.17%
B 249.677†	1.2	0.00016	mg/L	0.001245	0.00078	mg/L	0.006227	794.02%
Ba 233.527†	1847.1	0.2835	mg/L	0.00114	1.418	mg/L	0.0057	0.40%
Be 313.042†	80.1	0.00014	mg/L	0.000031	0.00068	mg/L	0.000156	23.08%
Ca 317.933†	13208.2	1.228	mg/L	0.0038	6.139	mg/L	0.0188	0.31%
Cd 228.802†	171.2	0.00146	mg/L	0.000134	0.00731	mg/L	0.000670	9.16%
Co 228.616†	222.8	0.00456	mg/L	0.000183	0.02282	mg/L	0.000913	4.00%
Cr 267.716†	102.5	0.01694	mg/L	0.000388	0.08470	mg/L	0.001939	2.29%
Cu 324.752†	12727.0	0.04740	mg/L	0.000441	0.2370	mg/L	0.00220	0.93%
Fe 273.955†	112144.4	71.87	mg/L	0.215	359.4	mg/L	1.07	0.30%
K 766.490†	27505.5	15.97	mg/L	0.082	79.85	mg/L	0.411	0.52%
Mg 279.077†	4052.3	3.785	mg/L	0.0099	18.92	mg/L	0.050	0.26%
Mn 257.610†	6369.4	0.1285	mg/L	0.00111	0.6425	mg/L	0.00553	0.86%
Mo 202.031†	4.6	0.00019	mg/L	0.000138	0.00093	mg/L	0.000690	74.16%
Na 589.592†	3301.6	0.2475	mg/L	0.00230	1.237	mg/L	0.0115	0.93%
Na 330.237†	8.3	0.3325	mg/L	0.44284	1.663	mg/L	2.2142	133.18%
Ni 231.604†	8.0	0.00184	mg/L	0.000918	0.00918	mg/L	0.004592	50.01%
Pb 220.353†	419.0	0.04219	mg/L	0.001236	0.2109	mg/L	0.00618	2.93%
Sb 206.836†	30.2	0.00866	mg/L	0.001277	0.04330	mg/L	0.006384	14.74%
Se 196.026†	18.2	0.00880	mg/L	0.001256	0.04398	mg/L	0.006280	14.28%
Si 288.158†	1076.4	0.5924	mg/L	0.00244	2.962	mg/L	0.0122	0.41%
Sn 189.927†	-0.2	0.00012	mg/L	0.000456	0.00060	mg/L	0.002279	380.58%
Sr 421.552†	169336.6	0.1727	mg/L	0.00022	0.8635	mg/L	0.00109	0.13%
Ti 334.903†	6041.3	0.2577	mg/L	0.00073	1.288	mg/L	0.0037	0.28%
Tl 190.801†	-9.3	0.00547	mg/L	0.001617	0.02736	mg/L	0.008085	29.54%
V 292.402†	7938.5	0.05120	mg/L	0.000334	0.2560	mg/L	0.00167	0.65%
Zn 206.200†	103.1	0.02304	mg/L	0.000599	0.1152	mg/L	0.00299	2.60%

Sequence No.: 11  
 Sample ID: WE81 ADUP SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 307  
 Date Collected: 3/1/2013 9:26:32 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 ADUP SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE81 ADUP SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3111559.6	103.2	%	0.09			0.09%
ScR 361.383	331919.4	103.7	%	0.09			0.08%
Ag 328.068†	12714.2	0.05353	mg/L	0.000145	0.2676 mg/L	0.00073	0.27%
Al 308.215†	20741.0	14.70	mg/L	0.023	73.49 mg/L	0.117	0.16%
As 188.979†	1545.9	0.8746	mg/L	0.00373	4.373 mg/L	0.0187	0.43%
B 249.677†	3.5	0.00049	mg/L	0.001031	0.00244 mg/L	0.005155	211.29%
Ba 233.527†	1911.3	0.2935	mg/L	0.00121	1.467 mg/L	0.0061	0.41%
Be 313.042†	133.9	0.00024	mg/L	0.000014	0.00118 mg/L	0.000072	6.16%
Ca 317.933†	12479.6	1.160	mg/L	0.0024	5.800 mg/L	0.0122	0.21%
Cd 228.802†	173.3	0.00163	mg/L	0.000156	0.00817 mg/L	0.000779	9.54%
Co 228.616†	196.8	0.00400	mg/L	0.000064	0.01998 mg/L	0.000320	1.60%
Cr 267.716†	120.7	0.01957	mg/L	0.000205	0.09786 mg/L	0.001026	1.05%
Cu 324.752†	12622.9	0.04713	mg/L	0.000101	0.2356 mg/L	0.00051	0.21%
Fe 273.955†	115049.1	73.73	mg/L	0.286	368.7 mg/L	1.43	0.39%
K 766.490†	29042.2	16.86	mg/L	0.128	84.31 mg/L	0.642	0.76%
Mg 279.077†	5256.3	4.920	mg/L	0.0284	24.60 mg/L	0.142	0.58%
Mn 257.610†	6844.4	0.1381	mg/L	0.00028	0.6904 mg/L	0.00139	0.20%
Mo 202.031†	3.2	0.00013	mg/L	0.000170	0.00063 mg/L	0.000852	134.30%
Na 589.592†	3466.7	0.2599	mg/L	0.00238	1.299 mg/L	0.0119	0.92%
Na 330.237†	8.0	0.3196	mg/L	0.05024	1.598 mg/L	0.2512	15.72%
Ni 231.604†	6.6	0.00152	mg/L	0.000598	0.00759 mg/L	0.002988	39.39%
Pb 220.353†	363.2	0.03674	mg/L	0.000585	0.1837 mg/L	0.00293	1.59%
Sb 206.836†	29.8	0.00851	mg/L	0.002050	0.04254 mg/L	0.010249	24.09%
Se 196.026†	23.1	0.01149	mg/L	0.000916	0.05746 mg/L	0.004578	7.97%
Si 288.158†	839.0	0.4620	mg/L	0.00492	2.310 mg/L	0.0246	1.07%
Sn 189.927†	2.4	0.00061	mg/L	0.000676	0.00304 mg/L	0.003381	111.13%
Sr 421.552†	168052.8	0.1714	mg/L	0.00053	0.8569 mg/L	0.00263	0.31%
Ti 334.903†	5723.9	0.2441	mg/L	0.00026	1.221 mg/L	0.0013	0.11%
Tl 190.801†	-12.2	0.00453	mg/L	0.000785	0.02263 mg/L	0.003923	17.34%
V 292.402†	8814.0	0.05718	mg/L	0.000474	0.2859 mg/L	0.00237	0.83%
Zn 206.200†	93.2	0.02083	mg/L	0.000498	0.1041 mg/L	0.00249	2.39%

Sequence No.: 12  
Sample ID: WE81 ASPK SWC  
Analyst: ALA  
Dilution: 5.000000X

Autosampler Location: 308  
Date Collected: 3/1/2013 9:30:33 AM  
Data Type: Original

Nebulizer Parameters: WE81 ASPK SWC

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: WE81 ASPK SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
ScA 357.253	3088653.0	102.4	%	1.08			1.06%	
ScR 361.383	327139.8	102.2	%	1.13			1.11%	
Ag 328.068†	63969.8	0.2693	mg/L	0.00309	1.346	mg/L	0.0154	1.15%
Al 308.215†	23617.9	16.73	mg/L	0.050	83.67	mg/L	0.249	0.30%
As 188.979†	3212.7	1.810	mg/L	0.0170	9.048	mg/L	0.0850	0.94%
B 249.677†	7.2	0.00051	mg/L	0.000319	0.00257	mg/L	0.001596	62.08%
Ba 233.527†	7387.1	1.164	mg/L	0.0151	5.819	mg/L	0.0753	1.29%
Be 313.042†	103425.9	0.1948	mg/L	0.00019	0.9739	mg/L	0.00093	0.10%
Ca 317.933†	55175.4	5.129	mg/L	0.0167	25.65	mg/L	0.084	0.33%
Cd 228.802†	6002.2	0.2146	mg/L	0.00190	1.073	mg/L	0.0095	0.89%
Co 228.616†	9449.8	0.2135	mg/L	0.00180	1.068	mg/L	0.0090	0.84%
Cr 267.716†	1553.9	0.2309	mg/L	0.00178	1.155	mg/L	0.0089	0.77%
Cu 324.752†	73980.1	0.2595	mg/L	0.00314	1.297	mg/L	0.0157	1.21%
Fe 273.955†	131270.7	84.13	mg/L	0.981	420.6	mg/L	4.91	1.17%
K 766.490†	39708.3	23.05	mg/L	0.107	115.3	mg/L	0.53	0.46%
Mg 279.077†	9343.7	8.772	mg/L	0.0626	43.86	mg/L	0.313	0.71%
Mn 257.610†	16206.7	0.3272	mg/L	0.00223	1.636	mg/L	0.0112	0.68%
Mo 202.031†	15.0	0.00059	mg/L	0.000252	0.00295	mg/L	0.001258	42.59%
Na 589.592†	57442.9	4.306	mg/L	0.0221	21.53	mg/L	0.111	0.51%
Na 330.237†	133.3	4.309	mg/L	0.1290	21.54	mg/L	0.645	2.99%
Ni 231.604†	886.9	0.2038	mg/L	0.00198	1.019	mg/L	0.0099	0.97%
Pb 220.353†	8435.9	0.8535	mg/L	0.00875	4.267	mg/L	0.0438	1.03%
Sb 206.836†	49.9	0.01204	mg/L	0.002339	0.06020	mg/L	0.011696	19.43%
Se 196.026†	1438.3	0.8192	mg/L	0.00734	4.096	mg/L	0.0367	0.90%
Si 288.158†	1073.5	0.5921	mg/L	0.00538	2.961	mg/L	0.0269	0.91%
Sn 189.927†	-14.9	-0.00243	mg/L	0.000518	-0.01214	mg/L	0.002589	21.33%
Sr 421.552†	376221.1	0.3837	mg/L	0.00102	1.918	mg/L	0.0051	0.27%
Ti 334.903†	6828.9	0.2910	mg/L	0.00155	1.455	mg/L	0.0077	0.53%
Tl 190.801†	1960.2	0.8147	mg/L	0.00865	4.073	mg/L	0.0432	1.06%
V 292.402†	38296.6	0.2614	mg/L	0.00344	1.307	mg/L	0.0172	1.32%
Zn 206.200†	996.0	0.2218	mg/L	0.00207	1.109	mg/L	0.0104	0.93%



Sequence No.: 13  
 Sample ID: WE81 B SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 309  
 Date Collected: 3/1/2013 9:34:34 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 B SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE81 B SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3068848.7	101.7 %	%	0.45			0.44%
ScR 361.383	329152.5	102.9 %	%	0.25			0.25%
Ag 328.068†	5961.8	0.02515 mg/L	mg/L	0.000125	0.1257 mg/L	0.00062	0.50%
Al 308.215†	33482.9	23.73 mg/L	mg/L	0.094	118.6 mg/L	0.47	0.40%
As 188.979†	753.5	0.4545 mg/L	mg/L	0.00090	2.272 mg/L	0.0045	0.20%
B 249.677†	-0.3	-0.00008 mg/L	mg/L	0.000252	-0.00039 mg/L	0.001259	326.83%
Ba 233.527†	2722.9	0.4238 mg/L	mg/L	0.00118	2.119 mg/L	0.0059	0.28%
Be 313.042†	452.2	0.00082 mg/L	mg/L	0.000008	0.00411 mg/L	0.000040	0.98%
Ca 317.933†	51041.3	4.745 mg/L	mg/L	0.0124	23.72 mg/L	0.062	0.26%
Cd 228.802†	104.3	0.00155 mg/L	mg/L	0.000141	0.00774 mg/L	0.000707	9.13%
Co 228.616†	661.0	0.01327 mg/L	mg/L	0.000157	0.06637 mg/L	0.000784	1.18%
Cr 267.716†	182.0	0.02822 mg/L	mg/L	0.000783	0.1411 mg/L	0.00392	2.78%
Cu 324.752†	8284.2	0.03163 mg/L	mg/L	0.000421	0.1581 mg/L	0.00210	1.33%
Fe 273.955†	102787.2	65.88 mg/L	mg/L	0.292	329.4 mg/L	1.46	0.44%
K 766.490†	15328.2	8.900 mg/L	mg/L	0.0651	44.50 mg/L	0.326	0.73%
Mg 279.077†	5620.5	5.268 mg/L	mg/L	0.0219	26.34 mg/L	0.109	0.42%
Mn 257.610†	55949.4	1.129 mg/L	mg/L	0.0024	5.646 mg/L	0.0121	0.22%
Mo 202.031†	18.4	0.00076 mg/L	mg/L	0.000225	0.00378 mg/L	0.001127	29.78%
Na 589.592†	11536.6	0.8648 mg/L	mg/L	0.00493	4.324 mg/L	0.0247	0.57%
Na 330.237†	20.3	0.8943 mg/L	mg/L	0.07128	4.471 mg/L	0.3564	7.97%
Ni 231.604†	68.6	0.01579 mg/L	mg/L	0.001652	0.07894 mg/L	0.008259	10.46%
Pb 220.353†	252.7	0.02846 mg/L	mg/L	0.000693	0.1423 mg/L	0.00346	2.43%
Sb 206.836†	11.8	0.00397 mg/L	mg/L	0.001468	0.01984 mg/L	0.007342	37.01%
Se 196.026†	5.1	0.00011 mg/L	mg/L	0.005375	0.00054 mg/L	0.026873	>999.9%
Si 288.158†	1679.0	0.9240 mg/L	mg/L	0.00402	4.620 mg/L	0.0201	0.43%
Sn 189.927†	-12.7	-0.00192 mg/L	mg/L	0.000612	-0.00960 mg/L	0.003061	31.88%
Sr 421.552†	234538.9	0.2392 mg/L	mg/L	0.00080	1.196 mg/L	0.0040	0.34%
Ti 334.903†	22131.8	0.9439 mg/L	mg/L	0.00269	4.719 mg/L	0.0135	0.29%
Tl 190.801†	-13.8	0.00264 mg/L	mg/L	0.002637	0.01319 mg/L	0.013184	99.96%
V 292.402†	12717.9	0.08435 mg/L	mg/L	0.000710	0.4218 mg/L	0.00355	0.84%
Zn 206.200†	322.8	0.07199 mg/L	mg/L	0.000439	0.3600 mg/L	0.00219	0.61%

Sequence No.: 14  
 Sample ID: WE81 C SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 310  
 Date Collected: 3/1/2013 9:38:35 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 C SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE81 C SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3106214.4	103.0	%	0.18				0.18%
ScR 361.383	331716.1	103.7	%	0.15				0.14%
Ag 328.068†	5407.3	0.02281	mg/L	0.000139	0.1140	mg/L	0.00069	0.61%
Al 308.215†	39670.4	28.11	mg/L	0.118	140.6	mg/L	0.59	0.42%
As 188.979†	4363.9	2.454	mg/L	0.0067	12.27	mg/L	0.033	0.27%
B 249.677†	-13.2	-0.00189	mg/L	0.000798	-0.00946	mg/L	0.003990	42.17%
Ba 233.527†	2043.7	0.3119	mg/L	0.00190	1.560	mg/L	0.0095	0.61%
Be 313.042†	363.4	0.00066	mg/L	0.000004	0.00330	mg/L	0.00020	0.62%
Ca 317.933†	40466.1	3.762	mg/L	0.0164	18.81	mg/L	0.082	0.44%
Cd 228.802†	452.9	0.00326	mg/L	0.000112	0.01628	mg/L	0.000558	3.43%
Co 228.616†	380.1	0.00811	mg/L	0.000021	0.04054	mg/L	0.000105	0.26%
Cr 267.716†	200.6	0.03172	mg/L	0.000435	0.1586	mg/L	0.00217	1.37%
Cu 324.752†	16182.5	0.06027	mg/L	0.000155	0.3014	mg/L	0.00077	0.26%
Fe 273.955†	142688.7	91.45	mg/L	0.525	457.2	mg/L	2.63	0.57%
K 766.490†	20943.1	12.16	mg/L	0.036	60.80	mg/L	0.179	0.29%
Mg 279.077†	6783.9	6.351	mg/L	0.0300	31.76	mg/L	0.150	0.47%
Mn 257.610†	13858.0	0.2796	mg/L	0.00148	1.398	mg/L	0.0074	0.53%
Mo 202.031†	16.6	0.00069	mg/L	0.000050	0.00344	mg/L	0.000248	7.21%
Na 589.592†	7765.2	0.5821	mg/L	0.00375	2.910	mg/L	0.0187	0.64%
Na 330.237†	13.4	0.4868	mg/L	0.08420	2.434	mg/L	0.4210	17.30%
Ni 231.604†	25.1	0.00579	mg/L	0.000486	0.02893	mg/L	0.002429	8.40%
Pb 220.353†	330.1	0.03608	mg/L	0.000715	0.1804	mg/L	0.00357	1.98%
Sb 206.836†	39.6	0.01124	mg/L	0.001710	0.05619	mg/L	0.008548	15.21%
Se 196.026†	18.8	0.00746	mg/L	0.001769	0.03730	mg/L	0.008847	23.72%
Si 288.158†	1182.4	0.6510	mg/L	0.00532	3.255	mg/L	0.0266	0.82%
Sn 189.927†	-7.6	-0.00112	mg/L	0.000354	-0.00559	mg/L	0.001771	31.66%
Sr 421.552†	234380.2	0.2390	mg/L	0.00067	1.195	mg/L	0.0034	0.28%
Ti 334.903†	6282.1	0.2678	mg/L	0.00071	1.339	mg/L	0.0036	0.27%
Tl 190.801†	-16.1	0.00510	mg/L	0.000919	0.02551	mg/L	0.004596	18.02%
V 292.402†	13700.4	0.09013	mg/L	0.000127	0.4506	mg/L	0.00064	0.14%
Zn 206.200†	272.6	0.06079	mg/L	0.001164	0.3039	mg/L	0.00582	1.92%

Sequence No.: 15  
Sample ID: WE81 D SWC  
Analyst: ALA  
Dilution: 5.000000X

Autosampler Location: 311  
Date Collected: 3/1/2013 9:42:36 AM  
Data Type: Original

Nebulizer Parameters: WE81 D SWC

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: WE81 D SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3054056.3	101.2	%	0.46			0.46%
ScR 361.383	326537.7	102.0	%	0.33			0.32%
Ag 328.068†	2222.0	0.00973	mg/L	0.000121	0.04866	0.000604	1.24%
Al 308.215†	51059.2	36.18	mg/L	0.067	180.9	0.34	0.19%
As 188.979†	5058.6	2.832	mg/L	0.0161	14.16	0.081	0.57%
B 249.677†	-26.4	-0.00378	mg/L	0.002394	-0.01888	0.011972	63.40%
Ba 233.527†	2004.0	0.2998	mg/L	0.00091	1.499	0.0045	0.30%
Be 313.042†	418.2	0.00075	mg/L	0.000026	0.00375	0.000131	3.51%
Ca 317.933†	551753.7	51.29	mg/L	0.148	256.5	0.74	0.29%
Cd 228.802†	529.4	0.00394	mg/L	0.000214	0.01969	0.001072	5.44%
Co 228.616†	551.0	0.01234	mg/L	0.000128	0.06172	0.000639	1.04%
Cr 267.716†	286.2	0.04470	mg/L	0.000826	0.2235	0.00413	1.85%
Cu 324.752†	12857.0	0.05075	mg/L	0.000486	0.2537	0.00243	0.96%
Fe 273.955†	203804.5	130.6	mg/L	0.62	653.1	3.10	0.47%
K 766.490†	20725.8	12.03	mg/L	0.122	60.17	0.608	1.01%
Mg 279.077†	9601.6	8.984	mg/L	0.0368	44.92	0.184	0.41%
Mn 257.610†	18571.8	0.3745	mg/L	0.00111	1.872	0.0055	0.30%
Mo 202.031†	69.5	0.00247	mg/L	0.000267	0.01233	0.001337	10.84%
Na 589.592†	19944.6	1.495	mg/L	0.0089	7.475	0.0443	0.59%
Na 330.237†	50.8	1.628	mg/L	0.0975	8.142	0.4877	5.99%
Ni 231.604†	46.6	0.01074	mg/L	0.000390	0.05372	0.001952	3.63%
Pb 220.353†	193.3	0.02236	mg/L	0.000331	0.1118	0.00166	1.48%
Sb 206.836†	32.0	0.00892	mg/L	0.002167	0.04462	0.010837	24.29%
Se 196.026†	-2.3	-0.00555	mg/L	0.004669	-0.02776	0.023346	84.11%
Si 288.158†	1110.0	0.6116	mg/L	0.00326	3.058	0.0163	0.53%
Sn 189.927†	-62.9	-0.00800	mg/L	0.000446	-0.04001	0.002230	5.58%
Sr 421.552†	319457.4	0.3258	mg/L	0.00073	1.629	0.0037	0.23%
Ti 334.903†	1452.2	0.05889	mg/L	0.000898	0.2945	0.00449	1.53%
Tl 190.801†	-14.4	0.01077	mg/L	0.000525	0.05387	0.002627	4.88%
V 292.402†	22748.7	0.1509	mg/L	0.00167	0.7545	0.00835	1.11%
Zn 206.200†	366.3	0.08163	mg/L	0.000277	0.4081	0.00139	0.34%

Sequence No.: 16  
Sample ID: WE81 E SWC  
Analyst: ALA  
Dilution: 5.000000X

Autosampler Location: 312  
Date Collected: 3/1/2013 9:46:52 AM  
Data Type: Original

Nebulizer Parameters: WE81 E SWC  
Analyte Back Pressure Flow  
All 220.0 kPa 0.75 L/min

Mean Data: WE81 E SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3109548.7	103.1	%	0.44			0.43%
ScR 361.383	332178.8	103.8	%	0.04			0.04%
Ag 328.068†	2113.4	0.00900	mg/L	0.000122	0.04502 mg/L	0.000611	1.36%
Al 308.215†	46988.1	33.30	mg/L	0.080	166.5 mg/L	0.40	0.24%
As 188.979†	6158.8	3.451	mg/L	0.0205	17.26 mg/L	0.103	0.60%
B 249.677†	-30.8	-0.00441	mg/L	0.002953	-0.02203 mg/L	0.014764	67.03%
Ba 233.527†	1359.0	0.1995	mg/L	0.00091	0.9973 mg/L	0.00457	0.46%
Be 313.042†	258.5	0.00043	mg/L	0.000008	0.00217 mg/L	0.000041	1.91%
Ca 317.933†	64422.5	5.989	mg/L	0.0170	29.94 mg/L	0.085	0.28%
Cd 228.802†	640.4	0.00463	mg/L	0.000270	0.02317 mg/L	0.001352	5.84%
Co 228.616†	521.7	0.01175	mg/L	0.000105	0.05876 mg/L	0.000524	0.89%
Cr 267.716†	377.3	0.05830	mg/L	0.000316	0.2915 mg/L	0.00158	0.54%
Cu 324.752†	11780.5	0.04627	mg/L	0.000273	0.2313 mg/L	0.00136	0.59%
Fe 273.955†	179169.7	114.8	mg/L	0.95	574.1 mg/L	4.76	0.83%
K 766.490†	15055.1	8.741	mg/L	0.0271	43.71 mg/L	0.136	0.31%
Mg 279.077†	8391.9	7.856	mg/L	0.0209	39.28 mg/L	0.104	0.27%
Mn 257.610†	16730.1	0.3375	mg/L	0.00125	1.687 mg/L	0.0062	0.37%
Mo 202.031†	14.5	0.00057	mg/L	0.000168	0.00283 mg/L	0.000840	29.67%
Na 589.592†	10345.7	0.7755	mg/L	0.00457	3.878 mg/L	0.0228	0.59%
Na 330.237†	21.3	0.6794	mg/L	0.12047	3.397 mg/L	0.6023	17.73%
Ni 231.604†	28.1	0.00647	mg/L	0.001309	0.03237 mg/L	0.006544	20.22%
Pb 220.353†	80.2	0.01102	mg/L	0.000444	0.05508 mg/L	0.002219	4.03%
Sb 206.836†	49.2	0.01384	mg/L	0.000274	0.06918 mg/L	0.001369	1.98%
Se 196.026†	8.0	0.00059	mg/L	0.002810	0.00294 mg/L	0.014049	477.18%
Si 288.158†	1155.2	0.6363	mg/L	0.00223	3.181 mg/L	0.0111	0.35%
Sn 189.927†	-16.3	-0.00268	mg/L	0.001143	-0.01342 mg/L	0.005715	42.59%
Sr 421.552†	163742.9	0.1670	mg/L	0.00022	0.8350 mg/L	0.00109	0.13%
Ti 334.903†	672.3	0.02831	mg/L	0.000719	0.1416 mg/L	0.00359	2.54%
Tl 190.801†	-21.9	0.00533	mg/L	0.001905	0.02663 mg/L	0.009523	35.76%
V 292.402†	32202.2	0.2171	mg/L	0.00085	1.086 mg/L	0.0043	0.39%
Zn 206.200†	235.7	0.05258	mg/L	0.000972	0.2629 mg/L	0.00486	1.85%

Sequence No.: 17  
 Sample ID: WE81 MB1SPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 313  
 Date Collected: 3/1/2013 9:50:53 AM  
 Data Type: Original

Nebulizer Parameters: WE81 MB1SPK SWC  
 Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

Mean Data: WE81 MB1SPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
ScA 357.253	3058645.8	101.4	%	0.09				0.09%
ScR 361.383	325274.3	101.7	%	0.41				0.41%
Ag 328.068†	125391.9	0.5279	mg/L	0.00033	1.056	mg/L	0.0007	0.06%
Al 308.215†	2873.1	2.029	mg/L	0.0053	4.057	mg/L	0.0106	0.26%
As 188.979†	3665.5	2.053	mg/L	0.0058	4.106	mg/L	0.0115	0.28%
B 249.677†	11.9	0.00051	mg/L	0.000689	0.00101	mg/L	0.001378	136.06%
Ba 233.527†	12935.5	2.059	mg/L	0.0084	4.118	mg/L	0.0168	0.41%
Be 313.042†	255802.4	0.4818	mg/L	0.00186	0.9636	mg/L	0.00372	0.39%
Ca 317.933†	104748.5	9.737	mg/L	0.0310	19.47	mg/L	0.062	0.32%
Cd 228.802†	13935.0	0.5101	mg/L	0.00300	1.020	mg/L	0.0060	0.59%
Co 228.616†	22330.7	0.5059	mg/L	0.00203	1.012	mg/L	0.0041	0.40%
Cr 267.716†	3459.5	0.5093	mg/L	0.00162	1.019	mg/L	0.0032	0.32%
Cu 324.752†	146857.3	0.5071	mg/L	0.00083	1.014	mg/L	0.0017	0.16%
Fe 273.955†	3112.3	1.992	mg/L	0.0086	3.984	mg/L	0.0172	0.43%
K 766.490†	16951.5	9.842	mg/L	0.0685	19.68	mg/L	0.137	0.70%
Mg 279.077†	10740.5	10.14	mg/L	0.031	20.27	mg/L	0.063	0.31%
Mn 257.610†	24701.5	0.4989	mg/L	0.00236	0.9978	mg/L	0.00472	0.47%
Mo 202.031†	24.7	0.00095	mg/L	0.000057	0.00190	mg/L	0.000115	6.04%
Na 589.592†	131756.4	9.877	mg/L	0.0922	19.75	mg/L	0.184	0.93%
Na 330.237†	320.8	10.19	mg/L	0.203	20.38	mg/L	0.406	1.99%
Ni 231.604†	2155.2	0.4953	mg/L	0.00180	0.9907	mg/L	0.00360	0.36%
Pb 220.353†	19618.5	1.985	mg/L	0.0053	3.971	mg/L	0.0105	0.27%
Sb 206.836†	16.6	-0.00042	mg/L	0.000923	-0.00084	mg/L	0.001846	220.20%
Se 196.026†	3540.2	2.021	mg/L	0.0034	4.042	mg/L	0.0069	0.17%
Si 288.158†	-10.7	-0.00300	mg/L	0.006274	-0.00600	mg/L	0.012548	209.06%
Sn 189.927†	-22.9	-0.00366	mg/L	0.000811	-0.00733	mg/L	0.001623	22.15%
Sr 421.552†	481061.8	0.4906	mg/L	0.00344	0.9812	mg/L	0.00689	0.70%
Ti 334.903†	34.2	0.00078	mg/L	0.000463	0.00157	mg/L	0.000926	59.12%
Tl 190.801†	4979.7	2.042	mg/L	0.0037	4.085	mg/L	0.0074	0.18%
V 292.402†	73950.0	0.5133	mg/L	0.00110	1.027	mg/L	0.0022	0.22%
Zn 206.200†	2187.7	0.4870	mg/L	0.00066	0.9741	mg/L	0.00133	0.14%

Sequence No.: 18  
 Sample ID: CV 2  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 3/1/2013 9:54:54 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3059115.2	101.4 %		0.29			0.28%
ScR 361.383	322254.3	100.7 %		0.25			0.25%
Ag 328.068†	244297.3	1.028 mg/L		0.0087	1.028 mg/L	0.0087	0.85%
Al 308.215†	2854.8	1.989 mg/L		0.0098	1.989 mg/L	0.0098	0.50%
As 188.979†	3502.5	1.993 mg/L		0.0043	1.993 mg/L	0.0043	0.22%
B 249.677†	6970.3	0.9867 mg/L		0.00135	0.9867 mg/L	0.00135	0.14%
Ba 233.527†	6452.5	1.027 mg/L		0.0028	1.027 mg/L	0.0028	0.27%
Be 313.042†	505646.0	0.9524 mg/L		0.00511	0.9524 mg/L	0.00511	0.54%
Ca 317.933†	21892.0	2.035 mg/L		0.0063	2.035 mg/L	0.0063	0.31%
Cd 228.802†	27041.2	1.001 mg/L		0.0124	1.001 mg/L	0.0124	1.24%
Co 228.616†	43598.4	0.9864 mg/L		0.00543	0.9864 mg/L	0.00543	0.55%
Cr 267.716†	6877.9	1.014 mg/L		0.0019	1.014 mg/L	0.0019	0.18%
Cu 324.752†	292548.0	1.010 mg/L		0.0057	1.010 mg/L	0.0057	0.57%
Fe 273.955†	3130.4	2.001 mg/L		0.0079	2.001 mg/L	0.0079	0.40%
K 766.490†	34063.5	19.78 mg/L		0.083	19.78 mg/L	0.083	0.42%
Mg 279.077†	2117.3	2.004 mg/L		0.0063	2.004 mg/L	0.0063	0.31%
Mn 257.610†	47582.0	0.9607 mg/L		0.00309	0.9607 mg/L	0.00309	0.32%
Mo 202.031†	22232.7	0.9828 mg/L		0.00207	0.9828 mg/L	0.00207	0.21%
Na 589.592†	670284.9	50.25 mg/L		0.183	50.25 mg/L	0.183	0.36%
Na 330.237†	1612.6	51.92 mg/L		0.141	51.92 mg/L	0.141	0.27%
Ni 231.604†	4340.4	0.9994 mg/L		0.00292	0.9994 mg/L	0.00292	0.29%
Pb 220.353†	19481.7	1.972 mg/L		0.0059	1.972 mg/L	0.0059	0.30%
Sb 206.836†	7251.6	2.026 mg/L		0.0076	2.026 mg/L	0.0076	0.37%
Se 196.026†	3415.6	1.949 mg/L		0.0046	1.949 mg/L	0.0046	0.24%
Si 288.158†	3637.7	1.996 mg/L		0.0027	1.996 mg/L	0.0027	0.14%
Sn 189.927†	4896.9	0.9604 mg/L		0.00235	0.9604 mg/L	0.00235	0.24%
Sr 421.552†	962021.6	0.9811 mg/L		0.00273	0.9811 mg/L	0.00273	0.28%
Ti 334.903†	23128.7	0.9854 mg/L		0.00242	0.9854 mg/L	0.00242	0.25%
Tl 190.801†	4798.2	1.964 mg/L		0.0068	1.964 mg/L	0.0068	0.35%
V 292.402†	145463.3	1.010 mg/L		0.0090	1.010 mg/L	0.0090	0.89%
Zn 206.200†	4584.1	1.020 mg/L		0.0042	1.020 mg/L	0.0042	0.41%

Sequence No.: 19  
Sample ID: CB  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 1  
Date Collected: 3/1/2013 9:58:58 AM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3099247.8	102.7	%	0.23			0.22%
ScR 361.383	328688.1	102.7	%	0.42			0.41%
Ag 328.068†	-28.8	-0.00012	mg/L	0.000177	-0.00012	mg/L	0.000177 146.42%
Al 308.215†	4.5	0.00318	mg/L	0.003802	0.00318	mg/L	0.003802 119.72%
As 188.979†	2.5	0.00141	mg/L	0.001077	0.00141	mg/L	0.001077 76.48%
B 249.677†	8.2	0.00116	mg/L	0.000611	0.00116	mg/L	0.000611 52.60%
Ba 233.527†	0.1	0.00001	mg/L	0.000639	0.00001	mg/L	0.000639 >999.9%
Be 313.042†	3.0	0.00001	mg/L	0.000031	0.00001	mg/L	0.000031 547.02%
Ca 317.933†	-17.4	-0.00161	mg/L	0.000495	-0.00161	mg/L	0.000495 30.69%
Cd 228.802†	1.9	0.00006	mg/L	0.000067	0.00006	mg/L	0.000067 103.71%
Co 228.616†	3.2	0.00007	mg/L	0.000144	0.00007	mg/L	0.000144 204.45%
Cr 267.716†	13.3	0.00196	mg/L	0.000451	0.00196	mg/L	0.000451 22.99%
Cu 324.752†	39.3	0.00014	mg/L	0.000080	0.00014	mg/L	0.000080 59.13%
Fe 273.955†	-1.2	-0.00077	mg/L	0.000281	-0.00077	mg/L	0.000281 36.61%
K 766.490†	11.0	0.00641	mg/L	0.044219	0.00641	mg/L	0.044219 690.16%
Mg 279.077†	-4.6	-0.00431	mg/L	0.004090	-0.00431	mg/L	0.004090 94.78%
Mn 257.610†	-7.4	-0.00015	mg/L	0.000049	-0.00015	mg/L	0.000049 32.65%
Mo 202.031†	32.4	0.00143	mg/L	0.000020	0.00143	mg/L	0.000020 1.37%
Na 589.592†	46.5	0.00348	mg/L	0.002580	0.00348	mg/L	0.002580 74.08%
Na 330.237†	2.7	0.08824	mg/L	0.029942	0.08824	mg/L	0.029942 33.93%
Ni 231.604†	8.2	0.00188	mg/L	0.000454	0.00188	mg/L	0.000454 24.13%
Pb 220.353†	-1.3	-0.00013	mg/L	0.000314	-0.00013	mg/L	0.000314 249.30%
Sb 206.836†	14.9	0.00415	mg/L	0.000482	0.00415	mg/L	0.000482 11.60%
Se 196.026†	-0.1	-0.00005	mg/L	0.003392	-0.00005	mg/L	0.003392 >999.9%
Si 288.158†	-1.8	-0.00099	mg/L	0.002404	-0.00099	mg/L	0.002404 243.28%
Sn 189.927†	4.1	0.00080	mg/L	0.000874	0.00080	mg/L	0.000874 109.15%
Sr 421.552†	29.3	0.00003	mg/L	0.000017	0.00003	mg/L	0.000017 57.29%
Ti 334.903†	21.3	0.00091	mg/L	0.000552	0.00091	mg/L	0.000552 60.91%
Tl 190.801†	0.4	0.00015	mg/L	0.001566	0.00015	mg/L	0.001566 >999.9%
V 292.402†	-23.6	-0.00015	mg/L	0.000091	-0.00015	mg/L	0.000091 58.90%
Zn 206.200†	0.4	0.00010	mg/L	0.000567	0.00010	mg/L	0.000567 584.22%

Sequence No.: 20  
Sample ID: WE81 MB2 SWC  
Analyst: ALA  
Dilution: 2.000000X

Autosampler Location: 314  
Date Collected: 3/1/2013 10:03:14 AM  
Data Type: Original

Nebulizer Parameters: WE81 MB2 SWC

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: WE81 MB2 SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3120361.9	103.4	%	0.05				0.05%
ScR 361.383	331679.2	103.7	%	0.52				0.51%
Ag 328.068†	15.3	0.00006	mg/L	0.000074	0.00013	mg/L	0.000148	115.41%
Al 308.215†	12.2	0.00086	mg/L	0.005719	0.01732	mg/L	0.011438	66.03%
As 188.979†	0.0	0.00002	mg/L	0.001549	0.00003	mg/L	0.003099	>999.9%
B 249.677†	8.1	0.00115	mg/L	0.000987	0.00230	mg/L	0.001975	85.87%
Ba 233.527†	0.7	0.00011	mg/L	0.000749	0.00022	mg/L	0.001498	696.03%
Be 313.042†	-11.0	-0.00002	mg/L	0.000037	-0.00004	mg/L	0.000073	177.23%
Ca 317.933†	54.3	0.00504	mg/L	0.000150	0.01009	mg/L	0.000300	2.97%
Cd 228.802†	-0.7	-0.00002	mg/L	0.000193	-0.00005	mg/L	0.000385	775.62%
Co 228.616†	3.1	0.00007	mg/L	0.000171	0.00014	mg/L	0.000343	246.86%
Cr 267.716†	6.3	0.00093	mg/L	0.000557	0.00185	mg/L	0.001114	60.14%
Cu 324.752†	-9.0	-0.00003	mg/L	0.000039	-0.00006	mg/L	0.000077	125.64%
Fe 273.955†	12.1	0.00776	mg/L	0.001364	0.01551	mg/L	0.002728	17.59%
K 766.490†	12.2	0.00706	mg/L	0.005373	0.01413	mg/L	0.010746	76.05%
Mg 279.077†	-2.8	-0.00267	mg/L	0.001273	-0.00535	mg/L	0.002547	47.63%
Mn 257.610†	-11.7	-0.00024	mg/L	0.000085	-0.00047	mg/L	0.000170	35.89%
Mo 202.031†	1.8	0.00008	mg/L	0.000176	0.00016	mg/L	0.000352	218.37%
Na 589.592†	68.4	0.00513	mg/L	0.002166	0.01026	mg/L	0.004332	42.22%
Na 330.237†	18.5	0.5940	mg/L	0.32585	1.188	mg/L	0.6517	54.85%
Ni 231.604†	4.3	0.00100	mg/L	0.002131	0.00200	mg/L	0.004261	213.34%
Pb 220.353†	-3.2	-0.00032	mg/L	0.000394	-0.00065	mg/L	0.000789	121.77%
Sb 206.836†	-2.6	-0.00073	mg/L	0.000832	-0.00147	mg/L	0.001664	113.18%
Se 196.026†	3.9	0.00221	mg/L	0.003238	0.00443	mg/L	0.006476	146.32%
Si 288.158†	-1.3	-0.00074	mg/L	0.003443	-0.00149	mg/L	0.006887	463.24%
Sn 189.927†	2.0	0.00039	mg/L	0.000340	0.00078	mg/L	0.000680	87.11%
Sr 421.552†	54.1	0.00006	mg/L	0.000011	0.00011	mg/L	0.000021	19.07%
Ti 334.903†	3.3	0.00014	mg/L	0.000581	0.00028	mg/L	0.001162	412.47%
Tl 190.801†	0.4	0.00018	mg/L	0.002611	0.00035	mg/L	0.005221	>999.9%
V 292.402†	-20.6	-0.00014	mg/L	0.000091	-0.00028	mg/L	0.000183	65.90%
Zn 206.200†	13.7	0.00304	mg/L	0.000154	0.00608	mg/L	0.000309	5.08%



Sequence No.: 21  
 Sample ID: WE81 F SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 315  
 Date Collected: 3/1/2013 10:07:31 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 F SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE81 F SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3115970.0	103.3 %		0.26			0.25%
ScR 361.383	333161.0	104.1 %		0.74			0.71%
Ag 328.068†	10159.7	0.04278 mg/L		0.000308	0.2139 mg/L	0.00154	0.72%
Al 308.215†	19760.5	14.00 mg/L		0.145	70.01 mg/L	0.727	1.04%
As 188.979†	1259.8	0.7138 mg/L		0.00167	3.569 mg/L	0.0083	0.23%
B 249.677†	14.3	0.00201 mg/L		0.002249	0.01006 mg/L	0.011245	111.77%
Ba 233.527†	1773.2	0.2728 mg/L		0.00243	1.364 mg/L	0.0121	0.89%
Be 313.042†	101.8	0.00018 mg/L		0.000058	0.00088 mg/L	0.000292	33.19%
Ca 317.933†	12013.4	1.117 mg/L		0.0116	5.584 mg/L	0.0581	1.04%
Cd 228.802†	148.1	0.00159 mg/L		0.000207	0.00794 mg/L	0.001033	13.00%
Co 228.616†	185.3	0.00376 mg/L		0.000144	0.01882 mg/L	0.000722	3.84%
Cr 267.716†	118.2	0.01909 mg/L		0.000714	0.09546 mg/L	0.003570	3.74%
Cu 324.752†	10559.6	0.03958 mg/L		0.000285	0.1979 mg/L	0.00142	0.72%
Fe 273.955†	101151.7	64.83 mg/L		0.541	324.1 mg/L	2.71	0.84%
K 766.490†	26647.5	15.47 mg/L		0.160	77.36 mg/L	0.800	1.03%
Mg 279.077†	3532.8	3.298 mg/L		0.0402	16.49 mg/L	0.201	1.22%
Mn 257.610†	4835.3	0.09753 mg/L		0.000863	0.4876 mg/L	0.00431	0.88%
Mo 202.031†	1.6	0.00006 mg/L		0.000090	0.00028 mg/L	0.000450	161.34%
Na 589.592†	2910.0	0.2181 mg/L		0.00506	1.091 mg/L	0.0253	2.32%
Na 330.237†	2.7	0.1441 mg/L		0.33177	0.7206 mg/L	1.65885	230.20%
Ni 231.604†	8.0	0.00185 mg/L		0.000439	0.00923 mg/L	0.002197	23.79%
Pb 220.353†	369.8	0.03771 mg/L		0.000535	0.1886 mg/L	0.00267	1.42%
Sb 206.836†	23.1	0.00660 mg/L		0.001274	0.03300 mg/L	0.006370	19.30%
Se 196.026†	23.7	0.01186 mg/L		0.001610	0.05932 mg/L	0.008048	13.57%
Si 288.158†	878.7	0.4836 mg/L		0.00997	2.418 mg/L	0.0498	2.06%
Sn 189.927†	-3.0	-0.00045 mg/L		0.000336	-0.00223 mg/L	0.001678	75.20%
Sr 421.552†	130091.1	0.1327 mg/L		0.00076	0.6634 mg/L	0.00381	0.57%
Ti 334.903†	5411.1	0.2308 mg/L		0.00240	1.154 mg/L	0.0120	1.04%
Tl 190.801†	-12.2	0.00334 mg/L		0.001405	0.01672 mg/L	0.007027	42.02%
V 292.402†	8070.7	0.05249 mg/L		0.000186	0.2625 mg/L	0.00093	0.35%
Zn 206.200†	94.5	0.02112 mg/L		0.000564	0.1056 mg/L	0.00282	2.67%

Sequence No.: 22  
 Sample ID: WE81 G SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 316  
 Date Collected: 3/1/2013 10:11:46 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 G SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE81 G SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3096689.8	102.7	%	0.32			0.32%
ScR 361.383	330844.0	103.4	%	0.65			0.63%
Ag 328.068†	7601.5	0.03204	mg/L	0.000253	0.1602 mg/L	0.00127	0.79%
Al 308.215†	36165.8	25.63	mg/L	0.127	128.1 mg/L	0.63	0.49%
As 188.979†	858.5	0.4899	mg/L	0.00408	2.450 mg/L	0.0204	0.83%
B 249.677†	4.1	0.00055	mg/L	0.000816	0.00273 mg/L	0.004080	149.62%
Ba 233.527†	2202.0	0.3424	mg/L	0.00133	1.712 mg/L	0.0066	0.39%
Be 313.042†	435.8	0.00080	mg/L	0.000022	0.00401 mg/L	0.000111	2.77%
Ca 317.933†	47605.6	4.425	mg/L	0.0179	22.13 mg/L	0.090	0.41%
Cd 228.802†	108.7	0.00138	mg/L	0.000077	0.00691 mg/L	0.000386	5.58%
Co 228.616†	565.1	0.01229	mg/L	0.000080	0.06147 mg/L	0.000400	0.65%
Cr 267.716†	179.4	0.02744	mg/L	0.000574	0.1372 mg/L	0.00287	2.09%
Cu 324.752†	6793.7	0.02611	mg/L	0.000176	0.1305 mg/L	0.00088	0.67%
Fe 273.955†	86879.8	55.68	mg/L	0.094	278.4 mg/L	0.47	0.17%
K 766.490†	16472.4	9.564	mg/L	0.0793	47.82 mg/L	0.397	0.83%
Mg 279.077†	6675.0	6.268	mg/L	0.0098	31.34 mg/L	0.049	0.16%
Mn 257.610†	45463.2	0.9175	mg/L	0.00221	4.587 mg/L	0.0111	0.24%
Mo 202.031†	22.1	0.00092	mg/L	0.000240	0.00462 mg/L	0.001200	25.97%
Na 589.592†	6417.6	0.4811	mg/L	0.00335	2.405 mg/L	0.0167	0.70%
Na 330.237†	15.6	0.5538	mg/L	0.12525	2.769 mg/L	0.6262	22.61%
Ni 231.604†	60.5	0.01393	mg/L	0.001662	0.06967 mg/L	0.008311	11.93%
Pb 220.353†	358.9	0.04027	mg/L	0.000889	0.2014 mg/L	0.00444	2.21%
Sb 206.836†	18.5	0.00527	mg/L	0.000509	0.02637 mg/L	0.002546	9.66%
Se 196.026†	9.8	0.00262	mg/L	0.002428	0.01312 mg/L	0.012138	92.52%
Si 288.158†	1417.3	0.7802	mg/L	0.00304	3.901 mg/L	0.0152	0.39%
Sn 189.927†	-9.5	-0.00143	mg/L	0.000534	-0.00717 mg/L	0.002668	37.23%
Sr 421.552†	147546.6	0.1505	mg/L	0.00101	0.7524 mg/L	0.00504	0.67%
Ti 334.903†	6308.2	0.2688	mg/L	0.00127	1.344 mg/L	0.0064	0.47%
Tl 190.801†	-14.7	0.00101	mg/L	0.002127	0.00504 mg/L	0.010635	210.90%
V 292.402†	10492.3	0.06983	mg/L	0.000518	0.3492 mg/L	0.00259	0.74%
Zn 206.200†	335.4	0.07478	mg/L	0.000783	0.3739 mg/L	0.00392	1.05%

Sequence No.: 23  
 Sample ID: WE81 H SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 317  
 Date Collected: 3/1/2013 10:15:47 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 H SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE81 H SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3132663.1	103.9	%	0.24			0.24%
ScR 361.383	334436.0	104.5	%	0.18			0.18%
Ag 328.068†	3687.2	0.01559	mg/L	0.000072	0.07796 mg/L	0.000360	0.46%
Al 308.215†	49998.7	35.43	mg/L	0.158	177.2 mg/L	0.79	0.45%
As 188.979†	903.7	0.5215	mg/L	0.00216	2.607 mg/L	0.0108	0.41%
B 249.677†	5.3	0.00069	mg/L	0.000659	0.00343 mg/L	0.003293	95.91%
Ba 233.527†	3482.3	0.5457	mg/L	0.00157	2.729 mg/L	0.0079	0.29%
Be 313.042†	635.7	0.00117	mg/L	0.000014	0.00586 mg/L	0.000072	1.23%
Ca 317.933†	78634.8	7.310	mg/L	0.0167	36.55 mg/L	0.084	0.23%
Cd 228.802†	119.1	0.00163	mg/L	0.000163	0.00816 mg/L	0.000817	10.00%
Co 228.616†	1150.0	0.02520	mg/L	0.000406	0.1260 mg/L	0.00203	1.61%
Cr 267.716†	237.3	0.03566	mg/L	0.000319	0.1783 mg/L	0.00159	0.89%
Cu 324.752†	7246.6	0.02779	mg/L	0.000239	0.1389 mg/L	0.00120	0.86%
Fe 273.955†	92326.7	59.17	mg/L	0.348	295.9 mg/L	1.74	0.59%
K 766.490†	18560.1	10.78	mg/L	0.087	53.88 mg/L	0.435	0.81%
Mg 279.077†	10412.0	9.793	mg/L	0.0609	48.97 mg/L	0.305	0.62%
Mn 257.610†	84378.2	1.703	mg/L	0.0069	8.514 mg/L	0.0346	0.41%
Mo 202.031†	25.6	0.00104	mg/L	0.000062	0.00522 mg/L	0.000310	5.93%
Na 589.592†	8152.7	0.6111	mg/L	0.00497	3.056 mg/L	0.0248	0.81%
Na 330.237†	19.9	0.7301	mg/L	0.16288	3.650 mg/L	0.8144	22.31%
Ni 231.604†	100.5	0.02314	mg/L	0.000220	0.1157 mg/L	0.00110	0.95%
Pb 220.353†	296.9	0.03648	mg/L	0.001414	0.1824 mg/L	0.00707	3.88%
Sb 206.836†	3.2	0.00108	mg/L	0.001630	0.00539 mg/L	0.008148	151.13%
Se 196.026†	7.2	-0.00001	mg/L	0.002914	-0.00003 mg/L	0.014569	>999.9%
Si 288.158†	1600.2	0.8812	mg/L	0.00449	4.406 mg/L	0.0225	0.51%
Sn 189.927†	-14.4	-0.00212	mg/L	0.000454	-0.01062 mg/L	0.002268	21.35%
Sr 421.552†	162960.4	0.1662	mg/L	0.00097	0.8310 mg/L	0.00487	0.59%
Ti 334.903†	10694.5	0.4558	mg/L	0.00143	2.279 mg/L	0.0071	0.31%
Tl 190.801†	-10.1	0.00320	mg/L	0.002754	0.01598 mg/L	0.013769	86.16%
V 292.402†	12870.5	0.08615	mg/L	0.000349	0.4307 mg/L	0.00175	0.41%
Zn 206.200†	554.5	0.1236	mg/L	0.00062	0.6178 mg/L	0.00309	0.50%

Sequence No.: 24  
 Sample ID: WE81 I SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 318  
 Date Collected: 3/1/2013 10:19:48 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 I SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: WE81 I SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3092986.6	102.5	%	0.03			0.03%
ScR 361.383	330995.1	103.4	%	0.72			0.70%
Ag 328.068†	6337.3	0.02673	mg/L	0.000204	0.1336 mg/L	0.00102	0.76%
Al 308.215†	34007.5	24.10	mg/L	0.060	120.5 mg/L	0.30	0.25%
As 188.979†	1228.7	0.6974	mg/L	0.00549	3.487 mg/L	0.0275	0.79%
B 249.677†	6.5	0.00088	mg/L	0.000704	0.00442 mg/L	0.003518	79.59%
Ba 233.527†	2573.2	0.4012	mg/L	0.00203	2.006 mg/L	0.0101	0.51%
Be 313.042†	395.7	0.00072	mg/L	0.000001	0.00362 mg/L	0.000007	0.18%
Ca 317.933†	61588.5	5.725	mg/L	0.0194	28.63 mg/L	0.097	0.34%
Cd 228.802†	155.0	0.00195	mg/L	0.000046	0.00977 mg/L	0.000230	2.35%
Co 228.616†	603.4	0.01315	mg/L	0.000186	0.06573 mg/L	0.000931	1.42%
Cr 267.716†	170.2	0.02615	mg/L	0.000646	0.1307 mg/L	0.00323	2.47%
Cu 324.752†	6586.7	0.02548	mg/L	0.000062	0.1274 mg/L	0.00031	0.24%
Fe 273.955†	89696.6	57.49	mg/L	0.370	287.4 mg/L	1.85	0.64%
K 766.490†	14167.8	8.226	mg/L	0.0088	41.13 mg/L	0.044	0.11%
Mg 279.077†	6225.3	5.843	mg/L	0.0124	29.21 mg/L	0.062	0.21%
Mn 257.610†	54171.9	1.093	mg/L	0.0035	5.466 mg/L	0.0175	0.32%
Mo 202.031†	22.4	0.00092	mg/L	0.000346	0.00460 mg/L	0.001729	37.57%
Na 589.592†	5927.8	0.4444	mg/L	0.00171	2.222 mg/L	0.0086	0.39%
Ni 330.237†	11.7	0.4326	mg/L	0.04154	2.163 mg/L	0.2077	9.60%
Ni 231.604†	63.0	0.01450	mg/L	0.000434	0.07252 mg/L	0.002169	2.99%
Pb 220.353†	302.9	0.03410	mg/L	0.000506	0.1705 mg/L	0.00253	1.48%
Sb 206.836†	12.6	0.00367	mg/L	0.000107	0.01837 mg/L	0.000536	2.92%
Se 196.026†	0.5	-0.00256	mg/L	0.002283	-0.01279 mg/L	0.011415	89.22%
Si 288.158†	1274.4	0.7016	mg/L	0.01062	3.508 mg/L	0.0531	1.51%
Sn 189.927†	-16.4	-0.00269	mg/L	0.000813	-0.01343 mg/L	0.004066	30.27%
Sr 421.552†	127470.5	0.1300	mg/L	0.00026	0.6500 mg/L	0.00128	0.20%
Ti 334.903†	6438.4	0.2743	mg/L	0.00099	1.372 mg/L	0.0049	0.36%
Tl 190.801†	-17.9	-0.00012	mg/L	0.002048	-0.00060 mg/L	0.010238	>999.9%
V 292.402†	11748.7	0.07844	mg/L	0.000288	0.3922 mg/L	0.00144	0.37%
Zn 206.200†	315.2	0.07026	mg/L	0.000673	0.3513 mg/L	0.00337	0.96%

Sequence No.: 25  
 Sample ID: WE81 J SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 319  
 Date Collected: 3/1/2013 10:23:49 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 J SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE81 J SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	3058177.9	101.4 %		0.11			0.11%
ScR 361.383	329890.7	103.1 %		0.46			0.45%
Ag 328.068†	-150.6	-0.00010 mg/L		0.000280	-0.00052 mg/L	0.001400	268.45%
Al 308.215†	46676.4	33.08 mg/L		0.183	165.4 mg/L	0.01270	0.55%
As 188.979†	305.4	0.1651 mg/L		0.00254	0.8256 mg/L	0.01270	1.54%
B 249.677†	-7.4	-0.00106 mg/L		0.000516	-0.00529 mg/L	0.002579	48.78%
Ba 233.527†	2851.2	0.4400 mg/L		0.00461	2.200 mg/L	0.0231	1.05%
Be 313.042†	220.4	0.00038 mg/L		0.000020	0.00192 mg/L	0.000102	5.32%
Ca 317.933†	812299.1	75.51 mg/L		0.487	377.5 mg/L	2.43	0.64%
Cd 228.802†	64.7	0.00146 mg/L		0.000187	0.00728 mg/L	0.000935	12.84%
Co 228.616†	248.2	0.00553 mg/L		0.000119	0.02765 mg/L	0.000597	2.16%
Cr 267.716†	66.7	0.01153 mg/L		0.000999	0.05767 mg/L	0.004997	8.66%
Cu 324.752†	2000.3	0.01155 mg/L		0.000057	0.05776 mg/L	0.000283	0.49%
Fe 273.955†	148117.1	94.93 mg/L		0.852	474.6 mg/L	4.26	0.90%
K 766.490†	14623.8	8.491 mg/L		0.0707	42.45 mg/L	0.354	0.83%
Mg 279.077†	2772.1	2.556 mg/L		0.0234	12.78 mg/L	0.117	0.92%
Mn 257.610†	3210.0	0.06433 mg/L		0.000446	0.3217 mg/L	0.00223	0.69%
Mo 202.031†	115.9	0.00423 mg/L		0.000207	0.02117 mg/L	0.001036	4.89%
Na 589.592†	39301.6	2.946 mg/L		0.0048	14.73 mg/L	0.024	0.16%
Na 330.237†	98.1	3.159 mg/L		0.0429	15.79 mg/L	0.215	1.36%
Ni 231.604†	7.4	0.00172 mg/L		0.001430	0.00858 mg/L	0.007149	83.31%
Pb 220.353†	135.8	0.01761 mg/L		0.000660	0.08803 mg/L	0.003299	3.75%
Sb 206.836†	92.2	0.02608 mg/L		0.001349	0.1304 mg/L	0.00674	5.17%
Se 196.026†	-13.1	-0.01138 mg/L		0.004592	-0.05690 mg/L	0.022961	40.35%
Si 288.158†	1279.7	0.7042 mg/L		0.00599	3.521 mg/L	0.0299	0.85%
Sn 189.927†	-66.7	-0.00672 mg/L		0.000624	-0.03359 mg/L	0.003121	9.29%
Sr 421.552†	328876.4	0.3354 mg/L		0.00065	1.677 mg/L	0.0033	0.19%
Ti 334.903†	608.4	0.02146 mg/L		0.000538	0.1073 mg/L	0.00269	2.51%
Tl 190.801†	-0.2	0.01200 mg/L		0.002344	0.06001 mg/L	0.011722	19.53%
V 292.402†	18775.2	0.1251 mg/L		0.00024	0.6253 mg/L	0.00118	0.19%
Zn 206.200†	103.3	0.02310 mg/L		0.000321	0.1155 mg/L	0.00161	1.39%

Sequence No.: 26  
 Sample ID: WE81 K SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 320  
 Date Collected: 3/1/2013 10:28:05 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 K SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: WE81 K SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3154745.5	104.6	%	0.38				0.37%
ScR 361.383	335169.1	104.7	%	0.81				0.77%
Ag 328.068†	-30.6	-0.00010	mg/L	0.000089	-0.00050	mg/L	0.000444	89.06%
Al 308.215†	39020.0	27.65	mg/L	0.142	138.3	mg/L	0.71	0.51%
As 188.979†	366.6	0.2057	mg/L	0.00062	1.028	mg/L	0.0031	0.30%
B 249.677†	-15.3	-0.00218	mg/L	0.001117	-0.01090	mg/L	0.005585	51.25%
Ba 233.527†	3477.9	0.5391	mg/L	0.00152	2.695	mg/L	0.0076	0.28%
Be 313.042†	92.7	0.00016	mg/L	0.000019	0.00079	mg/L	0.000094	11.98%
Ca 317.933†	10327.8	0.9601	mg/L	0.00604	4.800	mg/L	0.0302	0.63%
Cd 228.802†	68.0	0.00139	mg/L	0.000280	0.00695	mg/L	0.001402	20.17%
Co 228.616†	87.7	0.00191	mg/L	0.000114	0.00954	mg/L	0.000571	5.98%
Cr 267.716†	106.4	0.01865	mg/L	0.000896	0.09326	mg/L	0.004480	4.80%
Cu 324.752†	3803.7	0.01803	mg/L	0.000184	0.09013	mg/L	0.000918	1.02%
Fe 273.955†	155595.0	99.72	mg/L	0.810	498.6	mg/L	4.05	0.81%
K 766.490†	15297.9	8.882	mg/L	0.0345	44.41	mg/L	0.172	0.39%
Mg 279.077†	1005.2	0.8933	mg/L	0.00346	4.466	mg/L	0.0173	0.39%
Mn 257.610†	1379.3	0.02770	mg/L	0.000034	0.1385	mg/L	0.00017	0.12%
Mo 202.031†	3.1	0.00012	mg/L	0.000164	0.00062	mg/L	0.000822	133.66%
Na 589.592†	14034.2	1.052	mg/L	0.0047	5.260	mg/L	0.0237	0.45%
Na 330.237†	35.1	1.130	mg/L	0.0773	5.648	mg/L	0.3864	6.84%
Ni 231.604†	2.6	0.00060	mg/L	0.001198	0.00302	mg/L	0.005989	198.06%
Pb 220.353†	256.0	0.02804	mg/L	0.000646	0.1402	mg/L	0.00323	2.31%
Sb 206.836†	91.7	0.02572	mg/L	0.001036	0.1286	mg/L	0.00518	4.03%
Se 196.026†	5.1	-0.00030	mg/L	0.003805	-0.00148	mg/L	0.019024	>999.9%
Si 288.158†	1059.8	0.5829	mg/L	0.00547	2.915	mg/L	0.0274	0.94%
Sn 189.927†	5.7	0.00121	mg/L	0.000055	0.00605	mg/L	0.000277	4.57%
Sr 421.552†	78208.7	0.07976	mg/L	0.000522	0.3988	mg/L	0.00261	0.65%
Ti 334.903†	224.0	0.00950	mg/L	0.000076	0.04748	mg/L	0.000382	0.81%
Tl 190.801†	-21.2	0.00424	mg/L	0.000724	0.02119	mg/L	0.003621	17.09%
V 292.402†	10271.0	0.06606	mg/L	0.000198	0.3303	mg/L	0.00099	0.30%
Zn 206.200†	32.5	0.00733	mg/L	0.000575	0.03665	mg/L	0.002876	7.85%

Sequence No.: 27  
 Sample ID: WE81 L SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 321  
 Date Collected: 3/1/2013 10:32:05 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 L SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE81 L SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3128376.5	103.7	%	0.34			0.33%
ScR 361.383	337527.3	105.5	%	0.58			0.55%
Ag 328.068†	-7.9	0.00005	mg/L	0.000134	0.00026 mg/L	0.000669	257.36%
Al 308.215†	50391.6	35.71	mg/L	0.028	178.5 mg/L	0.14	0.08%
As 188.979†	672.3	0.3765	mg/L	0.00346	1.883 mg/L	0.0173	0.92%
B 249.677†	-2.5	-0.00037	mg/L	0.001125	-0.00183 mg/L	0.005627	306.80%
Ba 233.527†	4181.6	0.6525	mg/L	0.00418	3.262 mg/L	0.0209	0.64%
Be 313.042†	250.5	0.00045	mg/L	0.000017	0.00223 mg/L	0.000086	3.87%
Ca 317.933†	82954.2	7.711	mg/L	0.0071	38.56 mg/L	0.036	0.09%
Cd 228.802†	96.9	0.00151	mg/L	0.000068	0.00755 mg/L	0.000340	4.50%
Co 228.616†	242.2	0.00539	mg/L	0.000106	0.02694 mg/L	0.000531	1.97%
Cr 267.716†	78.1	0.01390	mg/L	0.000408	0.06951 mg/L	0.002041	2.94%
Cu 324.752†	2824.0	0.01417	mg/L	0.000118	0.07087 mg/L	0.000589	0.83%
Fe 273.955†	141022.5	90.38	mg/L	0.380	451.9 mg/L	1.90	0.42%
K 766.490†	7698.4	4.470	mg/L	0.0278	22.35 mg/L	0.139	0.62%
Mg 279.077†	3165.1	2.936	mg/L	0.0242	14.68 mg/L	0.121	0.82%
Mn 257.610†	4828.2	0.09725	mg/L	0.000247	0.4862 mg/L	0.00124	0.25%
Mo 202.031†	38.0	0.00159	mg/L	0.000136	0.00795 mg/L	0.000682	8.58%
Na 589.592†	31665.8	2.374	mg/L	0.0084	11.87 mg/L	0.042	0.36%
Na 330.237†	74.7	2.405	mg/L	0.0410	12.02 mg/L	0.205	1.70%
Ni 231.604†	10.2	0.00237	mg/L	0.000686	0.01184 mg/L	0.003430	28.98%
Pb 220.353†	193.4	0.02439	mg/L	0.000184	0.1220 mg/L	0.00092	0.75%
Sb 206.836†	145.0	0.04082	mg/L	0.000922	0.2041 mg/L	0.00461	2.26%
Se 196.026†	3.9	-0.00194	mg/L	0.004488	-0.00968 mg/L	0.022442	231.92%
Si 288.158†	1185.2	0.6522	mg/L	0.00579	3.261 mg/L	0.0290	0.89%
Sn 189.927†	-10.5	-0.00138	mg/L	0.000303	-0.00690 mg/L	0.001513	21.93%
Sr 421.552†	308988.8	0.3151	mg/L	0.00016	1.576 mg/L	0.0008	0.05%
Ti 334.903†	357.6	0.01479	mg/L	0.000544	0.07397 mg/L	0.002719	3.68%
Tl 190.801†	-17.2	0.00449	mg/L	0.001264	0.02246 mg/L	0.006318	28.12%
V 292.402†	15909.2	0.1055	mg/L	0.00013	0.5274 mg/L	0.00063	0.12%
Zn 206.200†	92.4	0.02068	mg/L	0.000161	0.1034 mg/L	0.00081	0.78%

Sequence No.: 28  
 Sample ID: WE81 M SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 322  
 Date Collected: 3/1/2013 10:36:06 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 M SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

## Mean Data: WE81 M SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	3105521.0	103.0	%	0.33				0.32%
ScR 361.383	331392.6	103.6	%	0.64				0.62%
Ag 328.068†	-55.1	-0.00012	mg/L	0.000153	-0.00059	mg/L	0.000767	130.78%
Al 308.215†	40612.7	28.78	mg/L	0.341	143.9	mg/L	1.71	1.19%
As 188.979†	596.4	0.3339	mg/L	0.00521	1.669	mg/L	0.0261	1.56%
B 249.677†	-15.4	-0.00219	mg/L	0.000354	-0.01094	mg/L	0.001771	16.19%
Ba 233.527†	3750.7	0.5806	mg/L	0.00688	2.903	mg/L	0.0344	1.19%
Be 313.042†	235.2	0.00041	mg/L	0.000014	0.00207	mg/L	0.000070	3.37%
Ca 317.933†	125332.3	11.65	mg/L	0.055	58.25	mg/L	0.274	0.47%
Cd 228.802†	101.7	0.00193	mg/L	0.000079	0.00964	mg/L	0.000397	4.12%
Co 228.616†	233.4	0.00518	mg/L	0.000342	0.02592	mg/L	0.001710	6.60%
Cr 267.716†	43.4	0.00946	mg/L	0.000837	0.04731	mg/L	0.004187	8.85%
Cu 324.752†	3321.2	0.01699	mg/L	0.000168	0.08497	mg/L	0.000840	0.99%
Fe 273.955†	176051.1	112.8	mg/L	0.54	564.1	mg/L	2.70	0.48%
K 766.490†	8287.4	4.812	mg/L	0.0690	24.06	mg/L	0.345	1.43%
Mg 279.077†	2681.4	2.467	mg/L	0.0204	12.33	mg/L	0.102	0.83%
Mn 257.610†	6368.6	0.1284	mg/L	0.00141	0.6418	mg/L	0.00704	1.10%
Mo 202.031†	51.6	0.00214	mg/L	0.000154	0.01072	mg/L	0.000771	7.19%
Na 589.592†	56317.9	4.222	mg/L	0.0195	21.11	mg/L	0.098	0.46%
Na 330.237†	132.9	4.279	mg/L	0.1747	21.40	mg/L	0.873	4.08%
Ni 231.604†	7.8	0.00182	mg/L	0.000293	0.00911	mg/L	0.001464	16.08%
Pb 220.353†	224.5	0.02444	mg/L	0.000741	0.1222	mg/L	0.00370	3.03%
Sb 206.836†	140.7	0.03974	mg/L	0.000988	0.1987	mg/L	0.00494	2.49%
Se 196.026†	-0.1	-0.00342	mg/L	0.005043	-0.01712	mg/L	0.025216	147.30%
Si 288.158†	1046.6	0.5759	mg/L	0.00575	2.880	mg/L	0.0288	1.00%
Sn 189.927†	-15.3	-0.00199	mg/L	0.000812	-0.00994	mg/L	0.004060	40.83%
Sr 421.552†	353438.3	0.3604	mg/L	0.00132	1.802	mg/L	0.0066	0.37%
Ti 334.903†	520.7	0.02152	mg/L	0.001138	0.1076	mg/L	0.00569	5.29%
Tl 190.801†	-23.6	0.00480	mg/L	0.001161	0.02400	mg/L	0.005806	24.19%
V 292.402†	17715.5	0.1168	mg/L	0.00012	0.5841	mg/L	0.00061	0.10%
Zn 206.200†	126.4	0.02823	mg/L	0.000203	0.1412	mg/L	0.00102	0.72%



Sequence No.: 29  
 Sample ID: WE81 MB2SPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 323  
 Date Collected: 3/1/2013 10:40:22 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 MB2SPK SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE81 MB2SPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3093251.4	102.5 %	0.47			0.46%
ScR 361.383	327641.0	102.4 %	0.19			0.19%
Ag 328.068†	124497.9	0.5241 mg/L	0.00037	1.048 mg/L	0.0007	0.07%
Al 308.215†	2881.4	2.035 mg/L	0.0046	4.069 mg/L	0.0092	0.23%
As 188.979†	3628.6	2.032 mg/L	0.0101	4.064 mg/L	0.0201	0.50%
B 249.677†	19.0	0.00154 mg/L	0.000294	0.00307 mg/L	0.000587	19.11%
Ba 233.527†	12992.4	2.068 mg/L	0.0043	4.137 mg/L	0.0087	0.21%
Be 313.042†	254810.1	0.4799 mg/L	0.00109	0.9599 mg/L	0.00218	0.23%
Ca 317.933†	104680.0	9.731 mg/L	0.0142	19.46 mg/L	0.028	0.15%
Cd 228.802†	13775.9	0.5043 mg/L	0.00327	1.009 mg/L	0.0065	0.65%
Co 228.616†	22006.7	0.4985 mg/L	0.00093	0.9970 mg/L	0.00185	0.19%
Cr 267.716†	3471.2	0.5110 mg/L	0.00170	1.022 mg/L	0.0034	0.33%
Cu 324.752†	145318.5	0.5018 mg/L	0.00111	1.004 mg/L	0.0022	0.22%
Fe 273.955†	3104.5	1.987 mg/L	0.0132	3.974 mg/L	0.0264	0.67%
K 766.490†	16871.8	9.796 mg/L	0.0239	19.59 mg/L	0.048	0.24%
Mg 279.077†	10734.2	10.13 mg/L	0.043	20.26 mg/L	0.086	0.42%
Mn 257.610†	24637.1	0.4976 mg/L	0.00285	0.9952 mg/L	0.00570	0.57%
Mo 202.031†	22.0	0.00083 mg/L	0.000295	0.00166 mg/L	0.000589	35.41%
Na 589.592†	132014.2	9.896 mg/L	0.0414	19.79 mg/L	0.083	0.42%
Na 330.237†	323.4	10.27 mg/L	0.089	20.54 mg/L	0.178	0.87%
Ni 231.604†	2163.4	0.4972 mg/L	0.00148	0.9945 mg/L	0.00295	0.30%
Pb 220.353†	19318.8	1.955 mg/L	0.0049	3.910 mg/L	0.0097	0.25%
Sb 206.836†	16.2	-0.00059 mg/L	0.001436	-0.00117 mg/L	0.002872	244.44%
Se 196.026†	3500.1	1.998 mg/L	0.0122	3.996 mg/L	0.0245	0.61%
Si 288.158†	-7.0	-0.00099 mg/L	0.002322	-0.00197 mg/L	0.004645	235.44%
Sn 189.927†	-23.7	-0.00382 mg/L	0.000069	-0.00764 mg/L	0.000138	1.80%
Sr 421.552†	479724.6	0.4892 mg/L	0.00126	0.9785 mg/L	0.00252	0.26%
Ti 334.903†	42.0	0.00111 mg/L	0.000223	0.00223 mg/L	0.000446	20.00%
Tl 190.801†	4932.9	2.023 mg/L	0.0060	4.046 mg/L	0.0121	0.30%
V 292.402†	73369.1	0.5093 mg/L	0.00039	1.019 mg/L	0.0008	0.08%
Zn 206.200†	2190.0	0.4875 mg/L	0.00151	0.9751 mg/L	0.00301	0.31%

Sequence No.: 30  
 Sample ID: CV ↗  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 3/1/2013 10:44:23 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3064939.4	101.6 %	0.25			0.24%
ScR 361.383	325090.7	101.6 %	0.23			0.23%
Ag 328.068†	246606.8	1.038 mg/L	0.0029	1.038 mg/L	0.0029	0.28%
Al 308.215†	2844.8	1.982 mg/L	0.0084	1.982 mg/L	0.0084	0.43%
As 188.979†	3519.3	2.002 mg/L	0.0095	2.002 mg/L	0.0095	0.48%
B 249.677†	6930.7	0.9811 mg/L	0.00405	0.9811 mg/L	0.00405	0.41%
Ba 233.527†	6452.5	1.027 mg/L	0.0069	1.027 mg/L	0.0069	0.68%
Be 313.042†	504807.7	0.9508 mg/L	0.00783	0.9508 mg/L	0.00783	0.82%
Ca 317.933†	21820.5	2.028 mg/L	0.0033	2.028 mg/L	0.0033	0.16%
Cd 228.802†	27050.0	1.002 mg/L	0.0035	1.002 mg/L	0.0035	0.35%
Co 228.616†	44099.1	0.9977 mg/L	0.00270	0.9977 mg/L	0.00270	0.27%
Cr 267.716†	6845.5	1.010 mg/L	0.0034	1.010 mg/L	0.0034	0.33%
Cu 324.752†	294507.1	1.016 mg/L	0.0035	1.016 mg/L	0.0035	0.35%
Fe 273.955†	3099.1	1.981 mg/L	0.0115	1.981 mg/L	0.0115	0.58%
K 766.490†	34219.6	19.87 mg/L	0.015	19.87 mg/L	0.015	0.07%
Mg 279.077†	2108.1	1.996 mg/L	0.0107	1.996 mg/L	0.0107	0.54%
Mn 257.610†	47120.0	0.9514 mg/L	0.00348	0.9514 mg/L	0.00348	0.37%
Mo 202.031†	22318.4	0.9866 mg/L	0.00281	0.9866 mg/L	0.00281	0.28%
Na 589.592†	673937.3	50.52 mg/L	0.333	50.52 mg/L	0.333	0.66%
Na 330.237†	1609.1	51.80 mg/L	0.518	51.80 mg/L	0.518	1.00%
Ni 231.604†	4325.6	0.9960 mg/L	0.00281	0.9960 mg/L	0.00281	0.28%
Pb 220.353†	19573.7	1.981 mg/L	0.0053	1.981 mg/L	0.0053	0.27%
Sb 206.836†	7288.6	2.037 mg/L	0.0071	2.037 mg/L	0.0071	0.35%
Se 196.026†	3431.0	1.958 mg/L	0.0095	1.958 mg/L	0.0095	0.49%
Si 288.158†	3605.5	1.978 mg/L	0.0168	1.978 mg/L	0.0168	0.85%
Sn 189.927†	4906.5	0.9623 mg/L	0.00495	0.9623 mg/L	0.00495	0.51%
Sr 421.552†	961128.7	0.9802 mg/L	0.00332	0.9802 mg/L	0.00332	0.34%
Ti 334.903†	23052.9	0.9821 mg/L	0.00287	0.9821 mg/L	0.00287	0.29%
Tl 190.801†	4840.9	1.982 mg/L	0.0013	1.982 mg/L	0.0013	0.07%
V 292.402†	146562.9	1.018 mg/L	0.0042	1.018 mg/L	0.0042	0.42%
Zn 206.200†	4561.0	1.015 mg/L	0.0015	1.015 mg/L	0.0015	0.15%

Sequence No.: 31  
 Sample ID: CB 3  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 3/1/2013 10:48:27 AM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
ScA 357.253	3096401.0	102.6	%	0.52				0.51%
ScR 361.383	328930.9	102.8	%	0.40				0.39%
Ag 328.068†	4.8	0.00002	mg/L	0.000134	0.00002	mg/L	0.000134	672.81%
Al 308.215†	10.2	0.00722	mg/L	0.004477	0.00722	mg/L	0.004477	61.97%
As 188.979†	2.2	0.00127	mg/L	0.001019	0.00127	mg/L	0.001019	80.01%
B 249.677†	19.0	0.00269	mg/L	0.000992	0.00269	mg/L	0.000992	36.90%
Ba 233.527†	0.3	0.00005	mg/L	0.000638	0.00005	mg/L	0.000638	>999.9%
Be 313.042†	-10.1	-0.00002	mg/L	0.000023	-0.00002	mg/L	0.000023	118.38%
Ca 317.933†	-18.3	-0.00170	mg/L	0.000616	-0.00170	mg/L	0.000616	36.29%
Cd 228.802†	3.7	0.00013	mg/L	0.000085	0.00013	mg/L	0.000085	64.05%
Co 228.616†	6.9	0.00016	mg/L	0.000109	0.00016	mg/L	0.000109	69.91%
Cr 267.716†	6.7	0.00099	mg/L	0.000708	0.00099	mg/L	0.000708	71.23%
Cu 324.752†	59.7	0.00021	mg/L	0.000039	0.00021	mg/L	0.000039	18.97%
Fe 273.955†	-1.9	-0.00121	mg/L	0.002734	-0.00121	mg/L	0.002734	226.61%
K 766.490†	34.2	0.01984	mg/L	0.028303	0.01984	mg/L	0.028303	142.69%
Mg 279.077†	-2.5	-0.00233	mg/L	0.001708	-0.00233	mg/L	0.001708	73.25%
Mn 257.610†	-11.0	-0.00022	mg/L	0.000071	-0.00022	mg/L	0.000071	31.91%
Mo 202.031†	28.2	0.00125	mg/L	0.000277	0.00125	mg/L	0.000277	22.21%
Na 589.592†	47.9	0.00359	mg/L	0.001232	0.00359	mg/L	0.001232	34.34%
Na 330.237†	-3.5	-0.1142	mg/L	0.37807	-0.1142	mg/L	0.37807	330.94%
Ni 231.604†	0.7	0.00017	mg/L	0.001800	0.00017	mg/L	0.001800	>999.9%
Pb 220.353†	-3.3	-0.00033	mg/L	0.001089	-0.00033	mg/L	0.001089	325.23%
Sb 206.836†	12.3	0.00343	mg/L	0.000543	0.00343	mg/L	0.000543	15.81%
Se 196.026†	-0.3	-0.00019	mg/L	0.000765	-0.00019	mg/L	0.000765	406.98%
Si 288.158†	-3.5	-0.00192	mg/L	0.005777	-0.00192	mg/L	0.005777	300.34%
Sn 189.927†	1.4	0.00028	mg/L	0.000600	0.00028	mg/L	0.000600	212.25%
Sr 421.552†	21.4	0.00002	mg/L	0.000031	0.00002	mg/L	0.000031	139.91%
Ti 334.903†	15.6	0.00066	mg/L	0.000898	0.00066	mg/L	0.000898	135.19%
Tl 190.801†	2.2	0.00092	mg/L	0.000640	0.00092	mg/L	0.000640	69.69%
V 292.402†	-20.6	-0.00014	mg/L	0.000041	-0.00014	mg/L	0.000041	29.89%
Zn 206.200†	3.5	0.00078	mg/L	0.000793	0.00078	mg/L	0.000793	101.54%

Sequence No.: 32  
 Sample ID: WE81 N SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 324  
 Date Collected: 3/1/2013 10:52:43 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 N SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE81 N SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	3147674.5	104.3 %		0.19			0.18%
ScR 361.383	337054.9	105.3 %		0.37			0.35%
Ag 328.068†	114.7	0.00056 mg/L		0.000023	0.00280 mg/L	0.000116	4.14%
Al 308.215†	43397.0	30.75 mg/L		0.114	153.8 mg/L	0.57	0.37%
As 188.979†	2227.6	1.249 mg/L		0.0047	6.244 mg/L	0.0236	0.38%
B 249.677†	-9.0	-0.00129 mg/L		0.001805	-0.00646 mg/L	0.009026	139.83%
Ba 233.527†	3013.1	0.4639 mg/L		0.00239	2.320 mg/L	0.0120	0.52%
Be 313.042†	318.1	0.00058 mg/L		0.000015	0.00288 mg/L	0.000075	2.59%
Ca 317.933†	77360.2	7.191 mg/L		0.0417	35.96 mg/L	0.209	0.58%
Cd 228.802†	254.7	0.00254 mg/L		0.000163	0.01271 mg/L	0.000814	6.40%
Co 228.616†	466.3	0.01045 mg/L		0.000068	0.05225 mg/L	0.000340	0.65%
Cr 267.716†	69.2	0.01286 mg/L		0.000295	0.06432 mg/L	0.001477	2.30%
Cu 324.752†	4984.2	0.02245 mg/L		0.000096	0.1123 mg/L	0.00048	0.43%
Fe 273.955†	167708.2	107.5 mg/L		0.97	537.4 mg/L	4.83	0.90%
K 766.490†	10741.7	6.237 mg/L		0.0461	31.18 mg/L	0.231	0.74%
Mg 279.077†	5845.4	5.456 mg/L		0.0094	27.28 mg/L	0.047	0.17%
Mn 257.610†	16923.0	0.3414 mg/L		0.00246	1.707 mg/L	0.0123	0.72%
Mo 202.031†	42.8	0.00181 mg/L		0.000228	0.00903 mg/L	0.001141	12.64%
Na 589.592†	17615.3	1.320 mg/L		0.0079	6.602 mg/L	0.0394	0.60%
Na 330.237†	40.0	1.279 mg/L		0.2053	6.395 mg/L	1.0267	16.05%
Ni 231.604†	28.1	0.00647 mg/L		0.000457	0.03236 mg/L	0.002286	7.07%
Pb 220.353†	267.0	0.02956 mg/L		0.000481	0.1478 mg/L	0.00241	1.63%
Sb 206.836†	72.5	0.02051 mg/L		0.000595	0.1026 mg/L	0.00297	2.90%
Se 196.026†	7.7	0.00082 mg/L		0.002438	0.00410 mg/L	0.012192	297.21%
Si 288.158†	1291.6	0.7110 mg/L		0.00265	3.555 mg/L	0.0133	0.37%
Sn 189.927†	-11.7	-0.00168 mg/L		0.000378	-0.00839 mg/L	0.001888	22.50%
Sr 421.552†	124270.4	0.1267 mg/L		0.00040	0.6337 mg/L	0.00201	0.32%
Ti 334.903†	862.4	0.03636 mg/L		0.000158	0.1818 mg/L	0.00079	0.43%
Tl 190.801†	-20.1	0.00558 mg/L		0.001202	0.02792 mg/L	0.006009	21.52%
V 292.402†	13742.2	0.08967 mg/L		0.000465	0.4484 mg/L	0.00232	0.52%
Zn 206.200†	318.1	0.07090 mg/L		0.000522	0.3545 mg/L	0.00261	0.74%

Sequence No.: 33  
 Sample ID: WE81 O SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 325  
 Date Collected: 3/1/2013 10:56:44 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 O SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: WE81 O SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3158509.6	104.7 %		0.50			0.48%
ScR 361.383	339003.5	105.9 %		0.64			0.60%
Ag 328.068†	2.1	0.00009 mg/L		0.000061	0.00044 mg/L	0.000306	68.87%
Al 308.215†	42131.0	29.86 mg/L		0.268	149.3 mg/L	1.34	0.90%
As 188.979†	788.3	0.4420 mg/L		0.00275	2.210 mg/L	0.0138	0.62%
B 249.677†	-12.2	-0.00174 mg/L		0.000273	-0.00872 mg/L	0.001363	15.64%
Ba 233.527†	3881.1	0.6042 mg/L		0.00488	3.021 mg/L	0.0244	0.81%
Be 313.042†	191.1	0.00033 mg/L		0.000014	0.00167 mg/L	0.000070	4.21%
Ca 317.933†	74643.7	6.939 mg/L		0.0924	34.69 mg/L	0.462	1.33%
Cd 228.802†	108.0	0.00156 mg/L		0.000239	0.00781 mg/L	0.001194	15.29%
Co 228.616†	215.8	0.00478 mg/L		0.000110	0.02388 mg/L	0.000551	2.31%
Cr 267.716†	74.8	0.01353 mg/L		0.000383	0.06766 mg/L	0.001915	2.83%
Cu 324.752†	2366.6	0.01274 mg/L		0.000340	0.06369 mg/L	0.001702	2.67%
Fe 273.955†	145598.4	93.31 mg/L		1.368	466.6 mg/L	6.84	1.47%
K 766.490†	7423.7	4.310 mg/L		0.0244	21.55 mg/L	0.122	0.57%
Mg 279.077†	2984.7	2.764 mg/L		0.0221	13.82 mg/L	0.111	0.80%
Mn 257.610†	4703.3	0.09476 mg/L		0.001545	0.4738 mg/L	0.00773	1.63%
Mo 202.031†	39.2	0.00165 mg/L		0.000068	0.00826 mg/L	0.000341	4.13%
Na 589.592†	33934.7	2.544 mg/L		0.0273	12.72 mg/L	0.136	1.07%
Na 330.237†	81.4	2.623 mg/L		0.1891	13.11 mg/L	0.946	7.21%
Ni 231.604†	9.4	0.00219 mg/L		0.000320	0.01097 mg/L	0.001599	14.57%
Pb 220.353†	192.1	0.02252 mg/L		0.000947	0.1126 mg/L	0.00473	4.21%
Sb 206.836†	154.0	0.04337 mg/L		0.002428	0.2168 mg/L	0.01214	5.60%
Se 196.026†	9.1	0.00169 mg/L		0.003601	0.00843 mg/L	0.018005	213.69%
Si 288.158†	1010.8	0.5562 mg/L		0.00611	2.781 mg/L	0.0305	1.10%
Sn 189.927†	-2.0	0.00021 mg/L		0.000227	0.00107 mg/L	0.001136	105.78%
Sr 421.552†	245544.0	0.2504 mg/L		0.00228	1.252 mg/L	0.0114	0.91%
Ti 334.903†	610.5	0.02563 mg/L		0.000506	0.1281 mg/L	0.00253	1.97%
Ti 190.801†	-16.4	0.00522 mg/L		0.001734	0.02611 mg/L	0.008672	33.22%
V 292.402†	15918.2	0.1054 mg/L		0.00073	0.5270 mg/L	0.00363	0.69%
Zn 206.200†	76.3	0.01707 mg/L		0.000505	0.08537 mg/L	0.002526	2.96%

Sequence No.: 34  
 Sample ID: WE81 P SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 326  
 Date Collected: 3/1/2013 11:00:45 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 P SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE81 P SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	3087323.1	102.3	%	0.64			0.63%
ScR 361.383	332604.9	103.9	%	0.59			0.57%
Ag 328.068†	-12.8	0.00010	mg/L	0.000208	0.00052	0.001039	200.96%
Al 308.215†	76688.1	54.35	mg/L	0.0099	271.7	0.49	0.18%
As 188.979†	1679.7	0.9417	mg/L	0.00821	4.708	0.0410	0.87%
B 249.677†	-6.7	-0.00101	mg/L	0.001028	-0.00505	0.005141	101.88%
Ba 233.527†	3576.4	0.5557	mg/L	0.00246	2.779	0.0123	0.44%
Be 313.042†	1247.0	0.00233	mg/L	0.000030	0.01165	0.000149	1.28%
Ca 317.933†	219275.1	20.38	mg/L	0.048	101.9	0.24	0.23%
Cd 228.802†	203.0	0.00234	mg/L	0.000194	0.01168	0.000968	8.29%
Co 228.616†	1113.8	0.02506	mg/L	0.000072	0.1253	0.00036	0.29%
Cr 267.716†	145.8	0.02250	mg/L	0.000898	0.1125	0.00449	3.99%
Cu 324.752†	5257.2	0.02263	mg/L	0.000204	0.1132	0.00102	0.90%
Fe 273.955†	145430.2	93.20	mg/L	0.934	466.0	4.67	1.00%
K 766.490†	11313.5	6.569	mg/L	0.0305	32.84	0.152	0.46%
Mg 279.077†	17297.3	16.27	mg/L	0.032	81.36	0.159	0.20%
Mn 257.610†	50629.4	1.022	mg/L	0.0058	5.108	0.0288	0.56%
Mo 202.031†	51.5	0.00203	mg/L	0.000118	0.01017	0.000591	5.81%
Na 589.592†	19560.4	1.466	mg/L	0.0085	7.331	0.0427	0.58%
Na 330.237†	47.9	1.507	mg/L	0.1810	7.537	0.9049	12.01%
Ni 231.604†	88.9	0.02047	mg/L	0.001004	0.1023	0.00502	4.90%
Pb 220.353†	186.1	0.02856	mg/L	0.000550	0.1428	0.00275	1.93%
Sb 206.836†	35.8	0.01004	mg/L	0.001427	0.05018	0.007136	14.22%
Se 196.026†	2.1	-0.00513	mg/L	0.002655	-0.02564	0.013274	51.78%
Si 288.158†	1294.1	0.7136	mg/L	0.00990	3.568	0.0495	1.39%
Sn 189.927†	-35.8	-0.00529	mg/L	0.000181	-0.02644	0.000903	3.41%
Sr 421.552†	295493.4	0.3014	mg/L	0.00048	1.507	0.0024	0.16%
Ti 334.903†	1602.3	0.06714	mg/L	0.000835	0.3357	0.00417	1.24%
Tl 190.801†	-10.0	0.00782	mg/L	0.001788	0.03912	0.008941	22.86%
V 292.402†	11571.0	0.07551	mg/L	0.000677	0.3776	0.00338	0.90%
Zn 206.200†	828.4	0.1845	mg/L	0.00143	0.9224	0.00713	0.77%

Sequence No.: 35  
 Sample ID: WE81 Q SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 327  
 Date Collected: 3/1/2013 11:04:46 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 Q SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE81 Q SWC

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3081780.8	102.2 %	0.32			0.31%
ScR 361.383	332246.4	103.8 %	0.42			0.41%
Ag 328.068†	138.8	0.00076 mg/L	0.000045	0.00379 mg/L	0.000226	5.95%
Al 308.215†	108945.9	77.21 mg/L	0.184	386.0 mg/L	0.92	0.24%
As 188.979†	2498.4	1.400 mg/L	0.0076	7.002 mg/L	0.0380	0.54%
B 249.677†	3.5	0.00042 mg/L	0.001174	0.00208 mg/L	0.005868	281.90%
Ba 233.527†	4142.6	0.6468 mg/L	0.00455	3.234 mg/L	0.0228	0.70%
Be 313.042†	1580.6	0.00296 mg/L	0.000042	0.01478 mg/L	0.000209	1.42%
Ca 317.933†	242260.0	22.52 mg/L	0.079	112.6 mg/L	0.40	0.35%
Cd 228.802†	279.3	0.00263 mg/L	0.000141	0.01315 mg/L	0.000707	5.37%
Co 228.616†	1608.3	0.03625 mg/L	0.000097	0.1812 mg/L	0.00048	0.27%
Cr 267.716†	203.1	0.03036 mg/L	0.000406	0.1518 mg/L	0.00203	1.34%
Cu 324.752†	7438.8	0.02985 mg/L	0.000118	0.1492 mg/L	0.00059	0.40%
Fe 273.955†	135894.8	87.09 mg/L	0.736	435.5 mg/L	3.68	0.84%
K 766.490†	15691.1	9.110 mg/L	0.0449	45.55 mg/L	0.225	0.49%
Mg 279.077†	21090.6	19.85 mg/L	0.053	99.27 mg/L	0.267	0.27%
Mn 257.610†	68592.0	1.384 mg/L	0.0092	6.920 mg/L	0.0462	0.67%
Mo 202.031†	54.3	0.00214 mg/L	0.000225	0.01068 mg/L	0.001127	10.56%
Na 589.592†	10250.6	0.7684 mg/L	0.00166	3.842 mg/L	0.0083	0.22%
Na 330.237†	25.8	0.7770 mg/L	0.07839	3.885 mg/L	0.3919	10.09%
Ni 231.604†	123.6	0.02847 mg/L	0.001042	0.1424 mg/L	0.00521	3.66%
Pb 220.353†	118.7	0.02826 mg/L	0.000197	0.1413 mg/L	0.00098	0.70%
Sb 206.836†	29.4	0.00814 mg/L	0.001680	0.04072 mg/L	0.008400	20.63%
Se 196.026†	4.6	-0.00634 mg/L	0.003676	-0.03169 mg/L	0.018378	58.00%
Si 288.158†	1353.0	0.7464 mg/L	0.00320	3.732 mg/L	0.0160	0.43%
Sn 189.927†	-44.4	-0.00679 mg/L	0.000478	-0.03396 mg/L	0.002388	7.03%
Sr 421.552†	289988.8	0.2957 mg/L	0.00059	1.479 mg/L	0.0030	0.20%
Ti 334.903†	1730.7	0.07249 mg/L	0.000199	0.3625 mg/L	0.00099	0.27%
Tl 190.801†	-16.4	0.00426 mg/L	0.000689	0.02130 mg/L	0.003446	16.18%
V 292.402†	12790.9	0.08434 mg/L	0.000136	0.4217 mg/L	0.00068	0.16%
Zn 206.200†	1129.3	0.2514 mg/L	0.00133	1.257 mg/L	0.0067	0.53%

Sequence No.: 36  
 Sample ID: WE81 R SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 328  
 Date Collected: 3/1/2013 11:08:47 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 R SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE81 R SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3080137.7	102.1	%	0.32			0.32%
ScR 361.383	332497.3	103.9	%	0.20			0.20%
Ag 328.068†	19.4	0.00025	mg/L	0.000122	0.00125 mg/L	0.000611	49.02%
Al 308.215†	82137.9	58.21	mg/L	0.347	291.0 mg/L	1.74	0.60%
As 188.979†	1508.9	0.8465	mg/L	0.00481	4.233 mg/L	0.0240	0.57%
B 249.677†	6.1	0.00082	mg/L	0.000217	0.00409 mg/L	0.001086	26.58%
Ba 233.527†	3407.5	0.5309	mg/L	0.00175	2.654 mg/L	0.0087	0.33%
Be 313.042†	1048.3	0.00196	mg/L	0.000011	0.00978 mg/L	0.000056	0.57%
Ca 317.933†	236884.9	22.02	mg/L	0.120	110.1 mg/L	0.60	0.55%
Cd 228.802†	182.2	0.00209	mg/L	0.000196	0.01047 mg/L	0.000981	9.37%
Co 228.616†	1040.2	0.02336	mg/L	0.000083	0.1168 mg/L	0.00042	0.36%
Cr 267.716†	160.8	0.02434	mg/L	0.000217	0.1217 mg/L	0.00108	0.89%
Cu 324.752†	5349.7	0.02227	mg/L	0.000161	0.1114 mg/L	0.00081	0.72%
Fe 273.955†	123854.3	79.38	mg/L	0.333	396.9 mg/L	1.66	0.42%
K 766.490†	19420.2	11.28	mg/L	0.027	56.38 mg/L	0.134	0.24%
Mg 279.077†	16274.1	15.31	mg/L	0.112	76.57 mg/L	0.562	0.73%
Mn 257.610†	52909.2	1.068	mg/L	0.0038	5.338 mg/L	0.0190	0.36%
Mo 202.031†	48.7	0.00189	mg/L	0.000219	0.00946 mg/L	0.001093	11.56%
Na 589.592†	7484.0	0.5610	mg/L	0.00728	2.805 mg/L	0.0364	1.30%
Na 330.237†	14.0	0.4209	mg/L	0.06538	2.104 mg/L	0.3269	15.54%
Ni 231.604†	82.1	0.01892	mg/L	0.000705	0.09459 mg/L	0.003524	3.73%
Pb 220.353†	210.5	0.03282	mg/L	0.001654	0.1641 mg/L	0.00827	5.04%
Sb 206.836†	27.7	0.00772	mg/L	0.002212	0.03862 mg/L	0.011061	28.64%
Se 196.026†	3.3	-0.00485	mg/L	0.002209	-0.02424 mg/L	0.011044	45.55%
Si 288.158†	1556.7	0.8579	mg/L	0.00738	4.290 mg/L	0.0369	0.86%
Sn 189.927†	-43.9	-0.00673	mg/L	0.001458	-0.03366 mg/L	0.007291	21.66%
Sr 421.552†	281426.9	0.2870	mg/L	0.00124	1.435 mg/L	0.0062	0.43%
Ti 334.903†	2100.4	0.08829	mg/L	0.000429	0.4415 mg/L	0.00214	0.49%
Tl 190.801†	-18.0	0.00270	mg/L	0.001691	0.01350 mg/L	0.008456	62.63%
V 292.402†	11526.3	0.07590	mg/L	0.000479	0.3795 mg/L	0.00240	0.63%
Zn 206.200†	828.2	0.1845	mg/L	0.00030	0.9223 mg/L	0.00151	0.16%



Sequence No.: 37  
 Sample ID: WE81 S SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 329  
 Date Collected: 3/1/2013 11:12:48 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 S SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE81 S SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3106923.0	103.0	%	0.47			0.45%
ScR 361.383	333373.1	104.2	%	0.50			0.48%
Ag 328.068†	10278.2	0.04329	mg/L	0.000259	0.2164 mg/L	0.00129	0.60%
Al 308.215†	34746.7	24.62	mg/L	0.074	123.1 mg/L	0.37	0.30%
As 188.979†	2525.3	1.418	mg/L	0.0043	7.092 mg/L	0.0217	0.31%
B 249.677†	-10.6	-0.00152	mg/L	0.001232	-0.00760 mg/L	0.006159	80.98%
Ba 233.527†	4534.1	0.7101	mg/L	0.00566	3.550 mg/L	0.0283	0.80%
Be 313.042†	282.8	0.00052	mg/L	0.000014	0.00260 mg/L	0.000072	2.76%
Ca 317.933†	34109.0	3.171	mg/L	0.0106	15.85 mg/L	0.053	0.33%
Cd 228.802†	282.3	0.00265	mg/L	0.000066	0.01324 mg/L	0.000331	2.50%
Co 228.616†	229.5	0.00493	mg/L	0.000064	0.02463 mg/L	0.000320	1.30%
Cr 267.716†	128.3	0.02091	mg/L	0.000503	0.1046 mg/L	0.00251	2.41%
Cu 324.752†	10050.7	0.03860	mg/L	0.000330	0.1930 mg/L	0.00165	0.86%
Fe 273.955†	125470.9	80.41	mg/L	0.129	402.1 mg/L	0.65	0.16%
K 766.490†	25348.9	14.72	mg/L	0.029	73.59 mg/L	0.143	0.19%
Mg 279.077†	4881.3	4.562	mg/L	0.0290	22.81 mg/L	0.145	0.64%
Mn 257.610†	13861.5	0.2797	mg/L	0.00067	1.398 mg/L	0.0034	0.24%
Mo 202.031†	29.6	0.00127	mg/L	0.000106	0.00635 mg/L	0.000530	8.35%
Na 589.592†	4306.3	0.3228	mg/L	0.00099	1.614 mg/L	0.0049	0.31%
Na 330.237†	11.3	0.3827	mg/L	0.01232	1.913 mg/L	0.0616	3.22%
Ni 231.604†	42.6	0.00981	mg/L	0.001182	0.04905 mg/L	0.005909	12.05%
Pb 220.353†	867.5	0.09009	mg/L	0.001032	0.4505 mg/L	0.00516	1.15%
Sb 206.836†	44.3	0.01241	mg/L	0.000486	0.06207 mg/L	0.002429	3.91%
Se 196.026†	13.1	0.00461	mg/L	0.004112	0.02306 mg/L	0.020562	89.15%
Si 288.158†	1215.6	0.6691	mg/L	0.00453	3.345 mg/L	0.0226	0.68%
Sn 189.927†	-6.5	-0.00099	mg/L	0.000282	-0.00493 mg/L	0.001411	28.60%
Sr 421.552†	304382.3	0.3104	mg/L	0.00109	1.552 mg/L	0.0055	0.35%
Ti 334.903†	2572.8	0.1096	mg/L	0.00016	0.5478 mg/L	0.00078	0.14%
Tl 190.801†	-13.6	0.00485	mg/L	0.001254	0.02426 mg/L	0.006272	25.85%
V 292.402†	7525.2	0.04804	mg/L	0.000303	0.2402 mg/L	0.00151	0.63%
Zn 206.200†	201.0	0.04484	mg/L	0.000685	0.2242 mg/L	0.00342	1.53%

Sequence No.: 38  
 Sample ID: WE81 T SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 330  
 Date Collected: 3/1/2013 11:16:49 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 T SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE81 T SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3087765.7	102.4	%	0.61			0.59%
ScR 361.383	330607.2	103.3	%	0.33			0.32%
Ag 328.068†	8234.6	0.03473	mg/L	0.000211	0.1737 mg/L	0.00106	0.61%
Al 308.215†	49311.7	34.94	mg/L	0.264	174.7 mg/L	1.32	0.76%
As 188.979†	2010.7	1.153	mg/L	0.0047	5.765 mg/L	0.0237	0.41%
B 249.677†	-9.5	-0.00138	mg/L	0.000868	-0.00692 mg/L	0.004339	62.69%
Ba 233.527†	5347.6	0.8363	mg/L	0.01319	4.182 mg/L	0.0659	1.58%
Be 313.042†	506.3	0.00093	mg/L	0.000017	0.00463 mg/L	0.000084	1.80%
Ca 317.933†	88100.1	8.190	mg/L	0.0521	40.95 mg/L	0.260	0.64%
Cd 228.802†	237.6	0.00259	mg/L	0.000152	0.01297 mg/L	0.000762	5.87%
Co 228.616†	692.0	0.01421	mg/L	0.000310	0.07104 mg/L	0.001550	2.18%
Cr 267.716†	224.5	0.03546	mg/L	0.000731	0.1773 mg/L	0.00366	2.06%
Cu 324.752†	11751.5	0.04543	mg/L	0.000285	0.2272 mg/L	0.00143	0.63%
Fe 273.955†	160350.7	102.8	mg/L	0.19	513.8 mg/L	0.96	0.19%
K 766.490†	32675.9	18.97	mg/L	0.151	94.86 mg/L	0.755	0.80%
Mg 279.077†	7449.3	6.973	mg/L	0.0209	34.86 mg/L	0.104	0.30%
Mn 257.610†	31944.6	0.6446	mg/L	0.00129	3.223 mg/L	0.0065	0.20%
Mo 202.031†	27.0	0.00109	mg/L	0.000158	0.00547 mg/L	0.000788	14.41%
Na 589.592†	7778.5	0.5831	mg/L	0.00631	2.915 mg/L	0.0316	1.08%
Na 330.237†	12.5	0.6002	mg/L	0.18195	3.001 mg/L	0.9097	30.32%
Ni 231.604†	97.6	0.02249	mg/L	0.000574	0.1125 mg/L	0.00287	2.55%
Pb 220.353†	402.8	0.04470	mg/L	0.000359	0.2235 mg/L	0.00180	0.80%
Sb 206.836†	53.9	0.01552	mg/L	0.001243	0.07760 mg/L	0.006217	8.01%
Se 196.026†	14.8	0.00439	mg/L	0.001355	0.02197 mg/L	0.006773	30.83%
Si 288.158†	1671.7	0.9202	mg/L	0.00559	4.601 mg/L	0.0280	0.61%
Sn 189.927†	-19.4	-0.00295	mg/L	0.000470	-0.01477 mg/L	0.002351	15.92%
Sr 421.552†	465870.2	0.4751	mg/L	0.00086	2.376 mg/L	0.0043	0.18%
Ti 334.903†	18382.8	0.7838	mg/L	0.00449	3.919 mg/L	0.0224	0.57%
Tl 190.801†	-19.4	0.00527	mg/L	0.001234	0.02634 mg/L	0.006172	23.43%
V 292.402†	12266.4	0.07942	mg/L	0.000189	0.3971 mg/L	0.00094	0.24%
Zn 206.200†	339.6	0.07573	mg/L	0.000690	0.3787 mg/L	0.00345	0.91%

Sequence No.: 39  
 Sample ID: WE81 U SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 331  
 Date Collected: 3/1/2013 11:21:05 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 U SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

## Mean Data: WE81 U SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3087696.1	102.4	%	0.36			0.35%
ScR 361.383	330466.2	103.3	%	0.24			0.23%
Ag 328.068†	7678.0	0.03237	mg/L	0.000156	0.1619 mg/L	0.000078	0.48%
Al 308.215†	45953.8	32.56	mg/L	0.111	162.8 mg/L	0.56	0.34%
As 188.979†	2001.8	1.141	mg/L	0.0058	5.705 mg/L	0.0291	0.51%
B 249.677†	-12.9	-0.00186	mg/L	0.000886	-0.00929 mg/L	0.004429	47.66%
Ba 233.527†	6058.8	0.9504	mg/L	0.00094	4.752 mg/L	0.0047	0.10%
Be 313.042†	465.6	0.00085	mg/L	0.000004	0.00427 mg/L	0.000022	0.51%
Ca 317.933†	71192.9	6.618	mg/L	0.0180	33.09 mg/L	0.090	0.27%
Cd 228.802†	235.2	0.00253	mg/L	0.000349	0.01265 mg/L	0.001745	13.79%
Co 228.616†	606.4	0.01262	mg/L	0.000215	0.06312 mg/L	0.001074	1.70%
Cr 267.716†	199.2	0.03167	mg/L	0.001208	0.1583 mg/L	0.00604	3.81%
Cu 324.752†	10377.3	0.04047	mg/L	0.000390	0.2023 mg/L	0.00195	0.96%
Fe 273.955†	151877.6	97.34	mg/L	0.504	486.7 mg/L	2.52	0.52%
K 766.490†	32672.0	18.97	mg/L	0.037	94.85 mg/L	0.187	0.20%
Mg 279.077†	6423.5	6.008	mg/L	0.0068	30.04 mg/L	0.034	0.11%
Mn 257.610†	33491.8	0.6758	mg/L	0.00106	3.379 mg/L	0.0053	0.16%
Mo 202.031†	23.9	0.00098	mg/L	0.000366	0.00488 mg/L	0.001830	37.49%
Na 589.592†	7392.5	0.5542	mg/L	0.00165	2.771 mg/L	0.0083	0.30%
Na 330.237†	11.9	0.5225	mg/L	0.21723	2.612 mg/L	1.0862	41.58%
Ni 231.604†	77.7	0.01790	mg/L	0.001504	0.08948 mg/L	0.007518	8.40%
Pb 220.353†	547.1	0.05895	mg/L	0.000204	0.2947 mg/L	0.00102	0.35%
Sb 206.836†	51.2	0.01462	mg/L	0.002522	0.07308 mg/L	0.012612	17.26%
Se 196.026†	14.1	0.00424	mg/L	0.004007	0.02120 mg/L	0.020033	94.50%
Si 288.158†	2038.1	1.122	mg/L	0.0136	5.608 mg/L	0.0679	1.21%
Sn 189.927†	-16.0	-0.00247	mg/L	0.000464	-0.01234 mg/L	0.002319	18.78%
Sr 421.552†	370350.9	0.3777	mg/L	0.00018	1.888 mg/L	0.0009	0.05%
Ti 334.903†	13490.9	0.5751	mg/L	0.00186	2.876 mg/L	0.0093	0.32%
Tl 190.801†	-22.2	0.00342	mg/L	0.000331	0.01711 mg/L	0.001655	9.67%
V 292.402†	10265.7	0.06598	mg/L	0.000424	0.3299 mg/L	0.00212	0.64%
Zn 206.200†	310.1	0.06920	mg/L	0.001140	0.3460 mg/L	0.00570	1.65%

Sequence No.: 40  
 Sample ID: WE81 V SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 332  
 Date Collected: 3/1/2013 11:25:21 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 V SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE81 V SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3089779.8	102.4	%	0.32			0.31%
ScR 361.383	329207.0	102.9	%	0.49			0.48%
Ag 328.068†	10329.6	0.04353	mg/L	0.000141	0.2177 mg/L	0.000071	0.32%
Al 308.215†	38877.3	27.55	mg/L	0.0081	137.8 mg/L	0.40	0.29%
As 188.979†	2031.7	1.146	mg/L	0.0053	5.731 mg/L	0.0263	0.46%
B 249.677†	3.6	0.00049	mg/L	0.001027	0.00243 mg/L	0.005137	211.00%
Ba 233.527†	5436.8	0.8526	mg/L	0.00101	4.263 mg/L	0.0051	0.12%
Be 313.042†	353.5	0.00065	mg/L	0.000006	0.00325 mg/L	0.000031	0.96%
Ca 317.933†	80216.3	7.457	mg/L	0.0186	37.28 mg/L	0.093	0.25%
Cd 228.802†	234.7	0.00242	mg/L	0.000009	0.01208 mg/L	0.000046	0.38%
Co 228.616†	389.5	0.00830	mg/L	0.000140	0.04148 mg/L	0.000702	1.69%
Cr 267.716†	154.9	0.02498	mg/L	0.000591	0.1249 mg/L	0.00295	2.37%
Cu 324.752†	10796.4	0.04157	mg/L	0.000185	0.2078 mg/L	0.00092	0.44%
Fe 273.955†	138830.6	88.98	mg/L	0.119	444.9 mg/L	0.60	0.13%
K 766.490†	31288.7	18.17	mg/L	0.064	90.83 mg/L	0.322	0.36%
Mg 279.077†	5510.4	5.151	mg/L	0.0185	25.75 mg/L	0.093	0.36%
Mn 257.610†	21877.2	0.4414	mg/L	0.00201	2.207 mg/L	0.0100	0.45%
Mo 202.031†	21.2	0.00085	mg/L	0.000127	0.00423 mg/L	0.000637	15.05%
Na 589.592†	6182.0	0.4634	mg/L	0.00228	2.317 mg/L	0.0114	0.49%
Na 330.237†	14.3	0.5111	mg/L	0.15249	2.555 mg/L	0.7625	29.84%
Ni 231.604†	59.6	0.01373	mg/L	0.000524	0.06863 mg/L	0.002618	3.81%
Pb 220.353†	836.7	0.08731	mg/L	0.000807	0.4366 mg/L	0.00404	0.92%
Sb 206.836†	38.2	0.01076	mg/L	0.000398	0.05382 mg/L	0.001991	3.70%
Se 196.026†	14.2	0.00493	mg/L	0.003260	0.02465 mg/L	0.016301	66.13%
Si 288.158†	1307.5	0.7197	mg/L	0.00618	3.598 mg/L	0.0309	0.86%
Sn 189.927†	-12.9	-0.00184	mg/L	0.000439	-0.00922 mg/L	0.002197	23.82%
Sr 421.552†	393269.7	0.4011	mg/L	0.00031	2.005 mg/L	0.0015	0.08%
Ti 334.903†	5776.4	0.2460	mg/L	0.00161	1.230 mg/L	0.0080	0.65%
Tl 190.801†	-17.0	0.00456	mg/L	0.001848	0.02278 mg/L	0.009239	40.57%
V 292.402†	8259.9	0.05265	mg/L	0.000332	0.2633 mg/L	0.00166	0.63%
Zn 206.200†	295.3	0.06584	mg/L	0.000609	0.3292 mg/L	0.00305	0.93%

Sequence No.: 41  
 Sample ID: WE81 W SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 333  
 Date Collected: 3/1/2013 11:29:37 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 W SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE81 W SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3072379.2	101.9 %		0.38			0.38%
ScR 361.383	330254.0	103.2 %		0.53			0.52%
Ag 328.068†	9888.8	0.04165 mg/L		0.000225	0.2082 mg/L	0.00113	0.54%
Al 308.215†	29739.0	21.07 mg/L		0.043	105.4 mg/L	0.21	0.20%
As 188.979†	2763.2	1.550 mg/L		0.0126	7.751 mg/L	0.0632	0.82%
B 249.677†	-7.4	-0.00105 mg/L		0.001057	-0.00526 mg/L	0.005286	100.49%
Ba 233.527†	4200.6	0.6578 mg/L		0.00511	3.289 mg/L	0.0255	0.78%
Be 313.042†	231.6	0.00043 mg/L		0.000005	0.00213 mg/L	0.000023	1.07%
Ca 317.933†	34762.4	3.231 mg/L		0.0067	16.16 mg/L	0.034	0.21%
Cd 228.802†	301.6	0.00262 mg/L		0.000163	0.01310 mg/L	0.000816	6.23%
Co 228.616†	181.3	0.00392 mg/L		0.000055	0.01959 mg/L	0.000275	1.41%
Cr 267.716†	86.7	0.01468 mg/L		0.000478	0.07340 mg/L	0.002391	3.26%
Cu 324.752†	9495.9	0.03644 mg/L		0.000154	0.1822 mg/L	0.00077	0.42%
Fe 273.955†	117318.8	75.19 mg/L		0.138	375.9 mg/L	0.69	0.18%
K 766.490†	23921.3	13.89 mg/L		0.094	69.44 mg/L	0.469	0.67%
Mg 279.077†	4047.1	3.778 mg/L		0.0216	18.89 mg/L	0.108	0.57%
Mn 257.610†	10924.8	0.2204 mg/L		0.00054	1.102 mg/L	0.0027	0.25%
Mo 202.031†	26.9	0.00115 mg/L		0.000426	0.00575 mg/L	0.002132	37.11%
Na 589.592†	3908.2	0.2930 mg/L		0.00100	1.465 mg/L	0.0050	0.34%
Na 330.237†	8.4	0.2755 mg/L		0.28007	1.378 mg/L	1.4004	101.66%
Ni 231.604†	30.1	0.00693 mg/L		0.000199	0.03465 mg/L	0.000993	2.86%
Pb 220.353†	1111.9	0.1141 mg/L		0.00035	0.5707 mg/L	0.00175	0.31%
Sb 206.836†	33.8	0.00950 mg/L		0.001881	0.04752 mg/L	0.009406	19.79%
Se 196.026†	18.8	0.00829 mg/L		0.005134	0.04143 mg/L	0.025671	61.96%
Si 288.158†	1276.0	0.7022 mg/L		0.00215	3.511 mg/L	0.0108	0.31%
Sn 189.927†	-1.9	-0.00009 mg/L		0.000099	-0.00046 mg/L	0.000493	107.10%
Sr 421.552†	252877.6	0.2579 mg/L		0.00051	1.289 mg/L	0.0026	0.20%
Ti 334.903†	1539.0	0.06546 mg/L		0.000526	0.3273 mg/L	0.00263	0.80%
Tl 190.801†	-15.8	0.00328 mg/L		0.001155	0.01640 mg/L	0.005775	35.20%
V 292.402†	6289.0	0.03975 mg/L		0.000195	0.1987 mg/L	0.00098	0.49%
Zn 206.200†	182.7	0.04079 mg/L		0.000230	0.2040 mg/L	0.00115	0.56%

Sequence No.: 42  
 Sample ID: CV  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 3/1/2013 11:33:38 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3032346.8	100.5	%	0.33			0.33%
ScR 361.383	321352.0	100.4	%	0.10			0.10%
Ag 328.068†	249720.9	1.051	mg/L	0.0088	1.051 mg/L	0.0088	0.84%
Al 308.215†	2890.1	2.013	mg/L	0.0075	2.013 mg/L	0.0075	0.37%
As 188.979†	3595.2	2.045	mg/L	0.0096	2.045 mg/L	0.0096	0.47%
B 249.677†	7055.0	0.9987	mg/L	0.00320	0.9987 mg/L	0.00320	0.32%
Ba 233.527†	6537.7	1.040	mg/L	0.0027	1.040 mg/L	0.0027	0.26%
Be 313.042†	512938.4	0.9661	mg/L	0.00198	0.9661 mg/L	0.00198	0.20%
Ca 317.933†	21111.6	1.962	mg/L	0.0054	1.962 mg/L	0.0054	0.28%
Cd 228.802†	27480.8	1.017	mg/L	0.0091	1.017 mg/L	0.0091	0.89%
Co 228.616†	44770.3	1.013	mg/L	0.0069	1.013 mg/L	0.0069	0.69%
Cr 267.716†	6973.2	1.028	mg/L	0.0020	1.028 mg/L	0.0020	0.19%
Cu 324.752†	299105.1	1.032	mg/L	0.0101	1.032 mg/L	0.0101	0.98%
Fe 273.955†	3180.5	2.033	mg/L	0.0015	2.033 mg/L	0.0015	0.07%
K 766.490†	34931.4	20.28	mg/L	0.057	20.28 mg/L	0.057	0.28%
Mg 279.077†	2148.2	2.034	mg/L	0.0046	2.034 mg/L	0.0046	0.23%
Mn 257.610†	48454.6	0.9783	mg/L	0.00182	0.9783 mg/L	0.00182	0.19%
Mo 202.031†	22776.9	1.007	mg/L	0.0065	1.007 mg/L	0.0065	0.65%
Na 589.592†	684593.3	51.32	mg/L	0.280	51.32 mg/L	0.280	0.54%
Na 330.237†	1639.9	52.79	mg/L	0.156	52.79 mg/L	0.156	0.29%
Ni 231.604†	4395.0	1.012	mg/L	0.0029	1.012 mg/L	0.0029	0.29%
Pb 220.353†	19945.6	2.019	mg/L	0.0089	2.019 mg/L	0.0089	0.44%
Sb 206.836†	7434.5	2.078	mg/L	0.0079	2.078 mg/L	0.0079	0.38%
Se 196.026†	3502.0	1.999	mg/L	0.0083	1.999 mg/L	0.0083	0.42%
Si 288.158†	3685.3	2.022	mg/L	0.0100	2.022 mg/L	0.0100	0.50%
Sn 189.927†	5022.1	0.9850	mg/L	0.00824	0.9850 mg/L	0.00824	0.84%
Sr 421.552†	979412.6	0.9988	mg/L	0.00230	0.9988 mg/L	0.00230	0.23%
Ti 334.903†	23492.6	1.001	mg/L	0.0019	1.001 mg/L	0.0019	0.19%
Tl 190.801†	4915.5	2.012	mg/L	0.0081	2.012 mg/L	0.0081	0.40%
V 292.402†	148754.9	1.033	mg/L	0.0089	1.033 mg/L	0.0089	0.86%
Zn 206.200†	4656.4	1.037	mg/L	0.0010	1.037 mg/L	0.0010	0.10%

Sequence No.: 43  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 3/1/2013 11:37:43 AM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3057078.4	101.3	%	0.45			0.44%
ScR 361.383	327063.5	102.2	%	0.75			0.74%
Ag 328.068†	16.2	0.00007	mg/L	0.000052	0.00007 mg/L	0.000052	76.87%
Al 308.215†	5.5	0.00386	mg/L	0.010164	0.00386 mg/L	0.010164	263.31%
As 188.979†	4.4	0.00246	mg/L	0.000705	0.00246 mg/L	0.000705	28.69%
B 249.677†	17.2	0.00244	mg/L	0.000456	0.00244 mg/L	0.000456	18.72%
Ba 233.527†	2.4	0.00038	mg/L	0.000411	0.00038 mg/L	0.000411	108.93%
Be 313.042†	7.7	0.00001	mg/L	0.000044	0.00001 mg/L	0.000044	298.84%
Ca 317.933†	-12.7	-0.00118	mg/L	0.001523	-0.00118 mg/L	0.001523	128.65%
Cd 228.802†	6.4	0.00023	mg/L	0.000070	0.00023 mg/L	0.000070	30.72%
Co 228.616†	-2.7	-0.00006	mg/L	0.000201	-0.00006 mg/L	0.000201	327.01%
Cr 267.716†	6.0	0.00088	mg/L	0.000564	0.00088 mg/L	0.000564	64.08%
Cu 324.752†	34.8	0.00012	mg/L	0.000087	0.00012 mg/L	0.000087	72.99%
Fe 273.955†	-1.6	-0.00100	mg/L	0.002314	-0.00100 mg/L	0.002314	232.31%
K 766.490†	20.2	0.01174	mg/L	0.012903	0.01174 mg/L	0.012903	109.89%
Mg 279.077†	-3.4	-0.00321	mg/L	0.005639	-0.00321 mg/L	0.005639	175.69%
Mn 257.610†	-9.4	-0.00019	mg/L	0.000098	-0.00019 mg/L	0.000098	51.50%
Mo 202.031†	34.0	0.00150	mg/L	0.000070	0.00150 mg/L	0.000070	4.65%
Na 589.592†	42.7	0.00320	mg/L	0.003213	0.00320 mg/L	0.003213	100.42%
Na 330.237†	-2.7	-0.08732	mg/L	0.338252	-0.08732 mg/L	0.338252	387.38%
Ni 231.604†	5.0	0.00114	mg/L	0.001350	0.00114 mg/L	0.001350	118.17%
Pb 220.353†	-3.1	-0.00031	mg/L	0.000782	-0.00031 mg/L	0.000782	254.97%
Sb 206.836†	8.5	0.00237	mg/L	0.001273	0.00237 mg/L	0.001273	53.67%
Se 196.026†	-4.1	-0.00237	mg/L	0.002692	-0.00237 mg/L	0.002692	113.80%
Si 288.158†	-3.0	-0.00165	mg/L	0.002156	-0.00165 mg/L	0.002156	130.62%
Sn 189.927†	2.3	0.00046	mg/L	0.000381	0.00046 mg/L	0.000381	83.31%
Sr 421.552†	56.3	0.00006	mg/L	0.000029	0.00006 mg/L	0.000029	50.45%
Ti 334.903†	15.4	0.00065	mg/L	0.000875	0.00065 mg/L	0.000875	133.67%
Tl 190.801†	-3.7	-0.00152	mg/L	0.002305	-0.00152 mg/L	0.002305	151.59%
V 292.402†	-33.1	-0.00022	mg/L	0.000166	-0.00022 mg/L	0.000166	73.91%
Zn 206.200†	0.7	0.00016	mg/L	0.000571	0.00016 mg/L	0.000571	353.56%

Sequence No.: 44  
 Sample ID: WE81 X SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 334  
 Date Collected: 3/1/2013 11:41:59 AM  
 Data Type: Original

## Nebulizer Parameters: WE81 X SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE81 X SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3095016.7	102.6 %		0.16			0.16%
ScR 361.383	331544.4	103.6 %		0.28			0.27%
Ag 328.068†	8617.1	0.03630 mg/L		0.000209	0.1815 mg/L	0.00104	0.57%
Al 308.215†	29727.5	21.07 mg/L		0.058	105.3 mg/L	0.29	0.28%
As 188.979†	2658.9	1.493 mg/L		0.0076	7.463 mg/L	0.0382	0.51%
B 249.677†	-5.9	-0.00084 mg/L		0.000201	-0.00420 mg/L	0.001006	23.94%
Ba 233.527†	4440.9	0.6954 mg/L		0.00527	3.477 mg/L	0.0263	0.76%
Be 313.042†	257.2	0.00047 mg/L		0.000003	0.00236 mg/L	0.000017	0.73%
Ca 317.933†	34482.4	3.205 mg/L		0.0169	16.03 mg/L	0.085	0.53%
Cd 228.802†	287.0	0.00240 mg/L		0.000121	0.01202 mg/L	0.000605	5.03%
Co 228.616†	209.2	0.00450 mg/L		0.000138	0.02252 mg/L	0.000690	3.06%
Cr 267.716†	92.0	0.01557 mg/L		0.000203	0.07785 mg/L	0.001013	1.30%
Cu 324.752†	8858.7	0.03444 mg/L		0.000298	0.1722 mg/L	0.00149	0.87%
Fe 273.955†	123572.7	79.20 mg/L		0.157	396.0 mg/L	0.78	0.20%
K 766.490†	23687.2	13.75 mg/L		0.016	68.76 mg/L	0.079	0.11%
Mg 279.077†	4266.1	3.982 mg/L		0.0103	19.91 mg/L	0.051	0.26%
Mn 257.610†	13325.3	0.2689 mg/L		0.00057	1.344 mg/L	0.0028	0.21%
Mo 202.031†	28.6	0.00123 mg/L		0.000038	0.00614 mg/L	0.000192	3.13%
Na 589.592†	4105.3	0.3077 mg/L		0.00297	1.539 mg/L	0.0148	0.96%
Na 330.237†	8.8	0.2968 mg/L		0.11987	1.484 mg/L	0.5993	40.39%
Ni 231.604†	38.5	0.00886 mg/L		0.001128	0.04431 mg/L	0.005641	12.73%
Pb 220.353†	843.8	0.08679 mg/L		0.000583	0.4340 mg/L	0.00292	0.67%
Sb 206.836†	46.4	0.01303 mg/L		0.002517	0.06515 mg/L	0.012584	19.31%
Se 196.026†	16.3	0.00688 mg/L		0.003098	0.03441 mg/L	0.015491	45.02%
Si 288.158†	1428.5	0.7861 mg/L		0.00151	3.930 mg/L	0.0076	0.19%
Sn 189.927†	-4.1	-0.00050 mg/L		0.001031	-0.00252 mg/L	0.005156	204.24%
Sr 421.552†	313679.7	0.3199 mg/L		0.00079	1.600 mg/L	0.0039	0.25%
Ti 334.903†	2098.0	0.08931 mg/L		0.002258	0.4465 mg/L	0.01129	2.53%
Tl 190.801†	-17.8	0.00298 mg/L		0.002501	0.01492 mg/L	0.012506	83.83%
V 292.402†	6944.3	0.04408 mg/L		0.000147	0.2204 mg/L	0.00073	0.33%
Zn 206.200†	173.9	0.03885 mg/L		0.000678	0.1942 mg/L	0.00339	1.74%



Sequence No.: 45  
 Sample ID: CRI  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 301  
 Date Collected: 3/1/2013 11:47:05 AM  
 Data Type: Original

## Nebulizer Parameters: CRI

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3080913.1	102.1	%	0.22			0.21%
ScR 361.383	327078.8	102.2	%	0.13			0.13%
Ag 328.068†	739.5	0.00311	mg/L	0.000338	0.00311 mg/L	0.000338	10.85%
Al 308.215†	83.7	0.05917	mg/L	0.001750	0.05917 mg/L	0.001750	2.96%
As 188.979†	88.7	0.04984	mg/L	0.002269	0.04984 mg/L	0.002269	4.55%
B 249.677†	148.8	0.02108	mg/L	0.000201	0.02108 mg/L	0.000201	0.95%
Ba 233.527†	22.3	0.00354	mg/L	0.000213	0.00354 mg/L	0.000213	6.01%
Be 313.042†	526.0	0.00099	mg/L	0.000015	0.00099 mg/L	0.000015	1.51%
Ca 317.933†	507.2	0.04715	mg/L	0.001098	0.04715 mg/L	0.001098	2.33%
Cd 228.802†	69.7	0.00234	mg/L	0.000241	0.00234 mg/L	0.000241	10.30%
Co 228.616†	153.2	0.00346	mg/L	0.000102	0.00346 mg/L	0.000102	2.94%
Cr 267.716†	39.9	0.00589	mg/L	0.001049	0.00589 mg/L	0.001049	17.83%
Cu 324.752†	621.7	0.00215	mg/L	0.000215	0.00215 mg/L	0.000215	10.00%
Fe 273.955†	80.0	0.05129	mg/L	0.001345	0.05129 mg/L	0.001345	2.62%
K 766.490†	872.1	0.5064	mg/L	0.00940	0.5064 mg/L	0.00940	1.86%
Mg 279.077†	50.8	0.04793	mg/L	0.003702	0.04793 mg/L	0.003702	7.72%
Mn 257.610†	42.6	0.00086	mg/L	0.000063	0.00086 mg/L	0.000063	7.29%
Mo 202.031†	110.2	0.00487	mg/L	0.000266	0.00487 mg/L	0.000266	5.45%
Na 589.592†	6602.1	0.4949	mg/L	0.00305	0.4949 mg/L	0.00305	0.62%
Na 330.237†	29.9	0.9626	mg/L	0.19267	0.9626 mg/L	0.19267	20.01%
Ni 231.604†	45.9	0.01056	mg/L	0.000982	0.01056 mg/L	0.000982	9.29%
Pb 220.353†	192.4	0.01948	mg/L	0.000376	0.01948 mg/L	0.000376	1.93%
Sb 206.836†	182.7	0.05112	mg/L	0.001488	0.05112 mg/L	0.001488	2.91%
Se 196.026†	86.2	0.04920	mg/L	0.002929	0.04920 mg/L	0.002929	5.95%
Si 288.158†	114.1	0.06267	mg/L	0.002987	0.06267 mg/L	0.002987	4.77%
Sn 189.927†	52.7	0.01035	mg/L	0.000518	0.01035 mg/L	0.000518	5.00%
Sr 421.552†	1002.1	0.00102	mg/L	0.000028	0.00102 mg/L	0.000028	2.76%
Ti 334.903†	115.6	0.00492	mg/L	0.000932	0.00492 mg/L	0.000932	18.92%
Tl 190.801†	123.0	0.05056	mg/L	0.001550	0.05056 mg/L	0.001550	3.07%
V 292.402†	429.9	0.00299	mg/L	0.000087	0.00299 mg/L	0.000087	2.90%
Zn 206.200†	47.9	0.01068	mg/L	0.000348	0.01068 mg/L	0.000348	3.26%

Sequence No.: 46  
 Sample ID: ICSA  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 302  
 Date Collected: 3/1/2013 11:51:22 AM  
 Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	2974403.8	98.60	%	0.235			0.24%
ScR 361.383	318285.1	99.47	%	0.910			0.91%
Ag 328.068†	-242.2	-0.00037	mg/L	0.000285	-0.00037	mg/L	0.000285 76.94%
Al 308.215†	281067.3	199.2	mg/L	0.51	199.2	mg/L	0.51 0.26%
As 188.979†	54.1	0.02155	mg/L	0.003972	0.02155	mg/L	0.003972 18.43%
B 249.677†	-36.6	-0.00519	mg/L	0.001714	-0.00519	mg/L	0.001714 33.05%
Ba 233.527†	155.1	-0.00332	mg/L	0.000356	-0.00332	mg/L	0.000356 10.72%
Be 313.042†	69.4	0.00013	mg/L	0.000016	0.00013	mg/L	0.000016 12.51%
Ca 317.933†	1076199.6	100.0	mg/L	0.42	100.0	mg/L	0.42 0.42%
Cd 228.802†	68.9	0.00241	mg/L	0.000058	0.00241	mg/L	0.000058 2.42%
Co 228.616†	73.9	0.00165	mg/L	0.000221	0.00165	mg/L	0.000221 13.34%
Cr 267.716†	31.2	-0.00044	mg/L	0.001269	-0.00044	mg/L	0.001269 288.66%
Cu 324.752†	-2122.7	0.00149	mg/L	0.000072	0.00149	mg/L	0.000072 4.85%
Fe 273.955†	297411.3	190.6	mg/L	1.04	190.6	mg/L	1.04 0.54%
K 766.490†	61.4	0.03565	mg/L	0.013468	0.03565	mg/L	0.013468 37.78%
Mg 279.077†	109340.2	103.1	mg/L	0.63	103.1	mg/L	0.63 0.61%
Mn 257.610†	67.1	-0.00003	mg/L	0.000048	-0.00003	mg/L	0.000048 139.85%
Mo 202.031†	99.0	0.00320	mg/L	0.000114	0.00320	mg/L	0.000114 3.56%
Na 589.592†	219.5	0.01645	mg/L	0.003248	0.01645	mg/L	0.003248 19.74%
Na 330.237†	2.3	0.07689	mg/L	0.135136	0.07689	mg/L	0.135136 175.74%
Ni 231.604†	5.9	0.00136	mg/L	0.000491	0.00136	mg/L	0.000491 36.21%
Pb 220.353†	-552.5	-0.01217	mg/L	0.000121	-0.01217	mg/L	0.000121 0.99%
Sb 206.836†	7.1	0.00181	mg/L	0.003898	0.00181	mg/L	0.003898 215.33%
Se 196.026†	14.0	-0.01488	mg/L	0.001878	-0.01488	mg/L	0.001878 12.62%
Si 288.158†	-26.0	-0.00255	mg/L	0.002795	-0.00255	mg/L	0.002795 109.42%
Sn 189.927†	-100.5	-0.01131	mg/L	0.000494	-0.01131	mg/L	0.000494 4.37%
Sr 421.552†	4020.6	0.00410	mg/L	0.000004	0.00410	mg/L	0.000004 0.10%
Ti 334.903†	251.3	0.00477	mg/L	0.000206	0.00477	mg/L	0.000206 4.31%
Tl 190.801†	-39.4	0.00907	mg/L	0.003584	0.00907	mg/L	0.003584 39.54%
V 292.402†	941.0	-0.00305	mg/L	0.000096	-0.00305	mg/L	0.000096 3.14%
Zn 206.200†	1.9	0.00041	mg/L	0.000900	0.00041	mg/L	0.000900 219.74%

Sequence No.: 47  
 Sample ID: ICSAB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 303  
 Date Collected: 3/1/2013 11:55:39 AM  
 Data Type: Original

## Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2978147.0	98.73 %		0.310			0.31%
ScR 361.383	318107.9	99.42 %		0.801			0.81%
Ag 328.068†	253108.7	1.066 mg/L		0.0027	1.066 mg/L	0.0027	0.25%
Al 308.215†	282511.4	200.2 mg/L		0.42	200.2 mg/L	0.42	0.21%
As 188.979†	1871.0	1.039 mg/L		0.0056	1.039 mg/L	0.0056	0.54%
B 249.677†	-63.4	-0.01124 mg/L		0.001600	-0.01124 mg/L	0.001600	14.23%
Ba 233.527†	6689.0	1.036 mg/L		0.0036	1.036 mg/L	0.0036	0.35%
Be 313.042†	520802.0	0.9809 mg/L		0.00224	0.9809 mg/L	0.00224	0.23%
Ca 317.933†	1079471.2	100.3 mg/L		0.16	100.3 mg/L	0.16	0.16%
Cd 228.802†	27400.1	1.020 mg/L		0.0054	1.020 mg/L	0.0054	0.52%
Co 228.616†	42499.5	0.9631 mg/L		0.00279	0.9631 mg/L	0.00279	0.29%
Cr 267.716†	7025.3	1.032 mg/L		0.0038	1.032 mg/L	0.0038	0.37%
Cu 324.752†	302225.9	1.052 mg/L		0.0014	1.052 mg/L	0.0014	0.13%
Fe 273.955†	303319.6	194.4 mg/L		0.35	194.4 mg/L	0.35	0.18%
K 766.490†	-4.9	-0.00287 mg/L		0.015572	-0.00287 mg/L	0.015572	541.86%
Mg 279.077†	105723.5	99.66 mg/L		0.070	99.66 mg/L	0.070	0.07%
Mn 257.610†	47777.1	0.9631 mg/L		0.00142	0.9631 mg/L	0.00142	0.15%
Mo 202.031†	106.4	0.00347 mg/L		0.000081	0.00347 mg/L	0.000081	2.35%
Na 589.592†	288.6	0.02164 mg/L		0.002777	0.02164 mg/L	0.002777	12.83%
Na 330.237†	14.3	0.1764 mg/L		0.12640	0.1764 mg/L	0.12640	71.66%
Ni 231.604†	4261.5	0.9812 mg/L		0.00581	0.9812 mg/L	0.00581	0.59%
Pb 220.353†	9003.3	0.9551 mg/L		0.00452	0.9551 mg/L	0.00452	0.47%
Sb 206.836†	3666.1	1.015 mg/L		0.0045	1.015 mg/L	0.0045	0.44%
Se 196.026†	1774.2	0.9891 mg/L		0.00281	0.9891 mg/L	0.00281	0.28%
Si 288.158†	-39.0	-0.00674 mg/L		0.002150	-0.00674 mg/L	0.002150	31.91%
Sn 189.927†	-104.1	-0.01145 mg/L		0.001075	-0.01145 mg/L	0.001075	9.39%
Sr 421.552†	3991.0	0.00407 mg/L		0.000014	0.00407 mg/L	0.000014	0.35%
Ti 334.903†	248.1	0.00442 mg/L		0.000011	0.00442 mg/L	0.000011	0.24%
Tl 190.801†	2290.3	0.9576 mg/L		0.00183	0.9576 mg/L	0.00183	0.19%
V 292.402†	145516.2	1.001 mg/L		0.0022	1.001 mg/L	0.0022	0.22%
Zn 206.200†	4325.4	0.9628 mg/L		0.00534	0.9628 mg/L	0.00534	0.56%

Sequence No.: 48  
 Sample ID: CV5  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 3/1/2013 11:59:43 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3067410.6	101.7 %		0.60			0.59%
ScR 361.383	324192.2	101.3 %		0.14			0.14%
Ag 328.068†	248790.0	1.047 mg/L		0.0040	1.047 mg/L	0.0040	0.38%
Al 308.215†	2879.4	2.006 mg/L		0.0116	2.006 mg/L	0.0116	0.58%
As 188.979†	3588.3	2.041 mg/L		0.0099	2.041 mg/L	0.0099	0.48%
B 249.677†	7029.1	0.9950 mg/L		0.00567	0.9950 mg/L	0.00567	0.57%
Ba 233.527†	6518.1	1.037 mg/L		0.0080	1.037 mg/L	0.0080	0.77%
Be 313.042†	509739.5	0.9601 mg/L		0.00334	0.9601 mg/L	0.00334	0.35%
Ca 317.933†	22247.7	2.068 mg/L		0.0123	2.068 mg/L	0.0123	0.59%
Cd 228.802†	27609.6	1.022 mg/L		0.0050	1.022 mg/L	0.0050	0.49%
Co 228.616†	44777.4	1.013 mg/L		0.0051	1.013 mg/L	0.0051	0.51%
Cr 267.716†	6988.7	1.031 mg/L		0.0050	1.031 mg/L	0.0050	0.48%
Cu 324.752†	298149.7	1.029 mg/L		0.0058	1.029 mg/L	0.0058	0.56%
Fe 273.955†	3193.9	2.041 mg/L		0.0110	2.041 mg/L	0.0110	0.54%
K 766.490†	34767.7	20.19 mg/L		0.113	20.19 mg/L	0.113	0.56%
Mg 279.077†	2152.4	2.038 mg/L		0.0144	2.038 mg/L	0.0144	0.71%
Mn 257.610†	48141.6	0.9720 mg/L		0.00513	0.9720 mg/L	0.00513	0.53%
Mo 202.031†	22740.8	1.005 mg/L		0.0053	1.005 mg/L	0.0053	0.53%
Na 589.592†	678072.1	50.83 mg/L		0.183	50.83 mg/L	0.183	0.36%
Na 330.237†	1623.2	52.25 mg/L		0.263	52.25 mg/L	0.263	0.50%
Ni 231.604†	4400.4	1.013 mg/L		0.0049	1.013 mg/L	0.0049	0.48%
Pb 220.353†	19966.9	2.021 mg/L		0.0142	2.021 mg/L	0.0142	0.70%
Sb 206.836†	7437.9	2.078 mg/L		0.0135	2.078 mg/L	0.0135	0.65%
Se 196.026†	3510.8	2.004 mg/L		0.0098	2.004 mg/L	0.0098	0.49%
Si 288.158†	3663.9	2.010 mg/L		0.0112	2.010 mg/L	0.0112	0.56%
Sn 189.927†	5030.5	0.9867 mg/L		0.00370	0.9867 mg/L	0.00370	0.38%
Sr 421.552†	970326.2	0.9896 mg/L		0.00286	0.9896 mg/L	0.00286	0.29%
Ti 334.903†	23304.6	0.9928 mg/L		0.00355	0.9928 mg/L	0.00355	0.36%
Tl 190.801†	4917.6	2.013 mg/L		0.0100	2.013 mg/L	0.0100	0.49%
V 292.402†	148677.0	1.032 mg/L		0.0037	1.032 mg/L	0.0037	0.36%
Zn 206.200†	4670.8	1.040 mg/L		0.0056	1.040 mg/L	0.0056	0.53%

Sequence No.: 49  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 3/1/2013 12:03:48 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
ScA 357.253	3075010.6	101.9	%	0.33				0.33%
ScR 361.383	327282.3	102.3	%	0.21				0.21%
Ag 328.068†	11.1	0.00005	mg/L	0.000203	0.00005	mg/L	0.000203	436.33%
Al 308.215†	1.8	0.00125	mg/L	0.005627	0.00125	mg/L	0.005627	450.44%
As 188.979†	2.9	0.00168	mg/L	0.000661	0.00168	mg/L	0.000661	39.37%
B 249.677†	14.1	0.00200	mg/L	0.000741	0.00200	mg/L	0.000741	37.00%
Ba 233.527†	3.3	0.00052	mg/L	0.000390	0.00052	mg/L	0.000390	74.52%
Be 313.042†	28.0	0.00005	mg/L	0.000008	0.00005	mg/L	0.000008	15.50%
Ca 317.933†	-21.9	-0.00204	mg/L	0.000415	-0.00204	mg/L	0.000415	20.34%
Cd 228.802†	0.9	0.00003	mg/L	0.000100	0.00003	mg/L	0.000100	393.68%
Co 228.616†	1.4	0.00003	mg/L	0.000151	0.00003	mg/L	0.000151	496.26%
Cr 267.716†	-0.4	-0.00007	mg/L	0.000248	-0.00007	mg/L	0.000248	377.90%
Cu 324.752†	52.9	0.00018	mg/L	0.000172	0.00018	mg/L	0.000172	94.75%
Fe 273.955†	-3.3	-0.00212	mg/L	0.000964	-0.00212	mg/L	0.000964	45.51%
K 766.490†	7.1	0.00411	mg/L	0.007281	0.00411	mg/L	0.007281	177.30%
Mg 279.077†	4.5	0.00427	mg/L	0.002518	0.00427	mg/L	0.002518	58.93%
Mn 257.610†	-0.6	-0.00001	mg/L	0.000061	-0.00001	mg/L	0.000061	494.52%
Mo 202.031†	30.4	0.00134	mg/L	0.000287	0.00134	mg/L	0.000287	21.38%
Na 589.592†	54.8	0.00411	mg/L	0.001237	0.00411	mg/L	0.001237	30.08%
Na 330.237†	2.2	0.07183	mg/L	0.264149	0.07183	mg/L	0.264149	367.72%
Ni 231.604†	4.2	0.00098	mg/L	0.001046	0.00098	mg/L	0.001046	106.98%
Pb 220.353†	-6.8	-0.00069	mg/L	0.000425	-0.00069	mg/L	0.000425	61.89%
Sb 206.836†	23.0	0.00643	mg/L	0.001909	0.00643	mg/L	0.001909	29.66%
Se 196.026†	-6.4	-0.00364	mg/L	0.002270	-0.00364	mg/L	0.002270	62.39%
Si 288.158†	-1.7	-0.00092	mg/L	0.001009	-0.00092	mg/L	0.001009	109.39%
Sn 189.927†	-1.7	-0.00033	mg/L	0.000247	-0.00033	mg/L	0.000247	74.58%
Sr 421.552†	53.2	0.00005	mg/L	0.000031	0.00005	mg/L	0.000031	57.48%
Ti 334.903†	23.9	0.00102	mg/L	0.000669	0.00102	mg/L	0.000669	65.63%
Tl 190.801†	1.3	0.00055	mg/L	0.000978	0.00055	mg/L	0.000978	176.59%
V 292.402†	-15.9	-0.00011	mg/L	0.000086	-0.00011	mg/L	0.000086	78.19%
Zn 206.200†	1.1	0.00025	mg/L	0.000129	0.00025	mg/L	0.000129	51.79%

Sequence No.: 50  
 Sample ID: WE82 MB1 SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 335  
 Date Collected: 3/1/2013 12:08:04 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 MB1 SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE82 MB1 SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
ScA 357.253	3117230.6	103.3 %		0.76				0.74%
ScR 361.383	331944.1	103.7 %		0.30				0.29%
Ag 328.068†	-21.2	-0.00009 mg/L		0.000127	-0.00018 mg/L		0.000254	141.94%
Al 308.215†	7.2	0.00513 mg/L		0.002209	0.01027 mg/L		0.004417	43.01%
As 188.979†	2.0	0.00113 mg/L		0.000453	0.00227 mg/L		0.000906	39.94%
B 249.677†	10.6	0.00149 mg/L		0.000673	0.00299 mg/L		0.001346	45.01%
Ba 233.527†	4.2	0.00067 mg/L		0.000312	0.00134 mg/L		0.000624	46.56%
Be 313.042†	19.6	0.00004 mg/L		0.000019	0.00007 mg/L		0.000039	52.17%
Ca 317.933†	67.3	0.00625 mg/L		0.001169	0.01251 mg/L		0.002339	18.70%
Cd 228.802†	1.8	0.00006 mg/L		0.000055	0.00012 mg/L		0.000110	91.87%
Co 228.616†	4.2	0.00009 mg/L		0.000034	0.00019 mg/L		0.000068	36.63%
Cr 267.716†	3.3	0.00048 mg/L		0.000082	0.00097 mg/L		0.000164	17.00%
Cu 324.752†	44.9	0.00015 mg/L		0.000131	0.00031 mg/L		0.000263	84.76%
Fe 273.955†	3.7	0.00236 mg/L		0.001041	0.00472 mg/L		0.002083	44.13%
K 766.490†	3.0	0.00173 mg/L		0.020090	0.00346 mg/L		0.040181	>999.9%
Mg 279.077†	-4.1	-0.00385 mg/L		0.000566	-0.00770 mg/L		0.001132	14.71%
Mn 257.610†	-3.4	-0.00007 mg/L		0.000119	-0.00014 mg/L		0.000237	171.37%
Mo 202.031†	-0.1	-0.00000 mg/L		0.000023	-0.00001 mg/L		0.000045	518.04%
Na 589.592†	51.1	0.00383 mg/L		0.001327	0.00766 mg/L		0.002654	34.66%
Na 330.237†	8.2	0.2651 mg/L		0.31484	0.5303 mg/L		0.62968	118.75%
Ni 231.604†	2.3	0.00054 mg/L		0.001532	0.00108 mg/L		0.003064	284.78%
Pb 220.353†	-2.4	-0.00024 mg/L		0.000424	-0.00048 mg/L		0.000847	177.46%
Sb 206.836†	1.0	0.00029 mg/L		0.001160	0.00058 mg/L		0.002320	399.71%
Se 196.026†	-4.0	-0.00227 mg/L		0.002745	-0.00453 mg/L		0.005490	121.07%
Si 288.158†	-4.6	-0.00254 mg/L		0.004573	-0.00508 mg/L		0.009146	180.20%
Sn 189.927†	3.8	0.00075 mg/L		0.000094	0.00149 mg/L		0.000187	12.58%
Sr 421.552†	3.0	0.00000 mg/L		0.000013	0.00001 mg/L		0.000026	424.23%
Ti 334.903†	12.8	0.00055 mg/L		0.000716	0.00109 mg/L		0.001433	131.33%
Tl 190.801†	3.7	0.00153 mg/L		0.000785	0.00305 mg/L		0.001570	51.48%
V 292.402†	-47.3	-0.00033 mg/L		0.000132	-0.00065 mg/L		0.000264	40.55%
Zn 206.200†	3.7	0.00083 mg/L		0.000209	0.00166 mg/L		0.000419	25.17%

Sequence No.: 51  
 Sample ID: WE82 A-L SWC  
 Analyst: ALA  
 Dilution: 25.000000X

Autosampler Location: 336  
 Date Collected: 3/1/2013 12:12:21 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 A-L SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 A-L SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3090134.5	102.4 %		0.23			0.22%
ScR 361.383	330754.0	103.4 %		0.40			0.39%
Ag 328.068†	1768.2	0.00746 mg/L		0.000200	0.1864 mg/L	0.00499	2.68%
Al 308.215†	10092.4	7.152 mg/L		0.0253	178.8 mg/L	0.63	0.35%
As 188.979†	375.7	0.2156 mg/L		0.00261	5.391 mg/L	0.0652	1.21%
B 249.677†	6.3	0.00089 mg/L		0.000240	0.02219 mg/L	0.005995	27.02%
Ba 233.527†	1133.0	0.1773 mg/L		0.00015	4.432 mg/L	0.0038	0.09%
Be 313.042†	89.4	0.00016 mg/L		0.000021	0.00408 mg/L	0.000530	13.01%
Ca 317.933†	17709.9	1.646 mg/L		0.0066	41.16 mg/L	0.165	0.40%
Cd 228.802†	48.9	0.00065 mg/L		0.000111	0.01634 mg/L	0.002774	16.98%
Co 228.616†	143.8	0.00297 mg/L		0.000111	0.07430 mg/L	0.002780	3.74%
Cr 267.716†	52.3	0.00820 mg/L		0.000561	0.2050 mg/L	0.01403	6.84%
Cu 324.752†	2510.0	0.00967 mg/L		0.000097	0.2418 mg/L	0.00244	1.01%
Fe 273.955†	33179.6	21.26 mg/L		0.257	531.6 mg/L	6.43	1.21%
K 766.490†	6727.2	3.906 mg/L		0.0216	97.65 mg/L	0.540	0.55%
Mg 279.077†	1558.9	1.459 mg/L		0.0063	36.48 mg/L	0.157	0.43%
Mn 257.610†	7301.6	0.1473 mg/L		0.00150	3.683 mg/L	0.0374	1.02%
Mo 202.031†	2.2	0.00008 mg/L		0.000367	0.00195 mg/L	0.009182	471.45%
Na 589.592†	1731.9	0.1298 mg/L		0.00392	3.246 mg/L	0.0980	3.02%
Na 330.237†	3.0	0.1346 mg/L		0.31429	3.366 mg/L	7.8573	233.44%
Ni 231.604†	25.1	0.00578 mg/L		0.000953	0.1444 mg/L	0.02382	16.49%
Pb 220.353†	85.4	0.00944 mg/L		0.001443	0.2359 mg/L	0.03608	15.29%
Sb 206.836†	8.7	0.00249 mg/L		0.000110	0.06235 mg/L	0.002748	4.41%
Se 196.026†	1.9	0.00028 mg/L		0.002130	0.00698 mg/L	0.053251	763.10%
Si 288.158†	487.2	0.2681 mg/L		0.00389	6.702 mg/L	0.0973	1.45%
Sn 189.927†	-0.1	0.00016 mg/L		0.000795	0.00388 mg/L	0.019880	512.66%
Sr 421.552†	85136.6	0.08683 mg/L		0.000423	2.171 mg/L	0.0106	0.49%
Ti 334.903†	3568.6	0.1521 mg/L		0.00078	3.804 mg/L	0.0195	0.51%
Tl 190.801†	-1.4	0.00215 mg/L		0.001515	0.05378 mg/L	0.037863	70.40%
V 292.402†	2366.6	0.01526 mg/L		0.000215	0.3815 mg/L	0.00537	1.41%
Zn 206.200†	75.1	0.01677 mg/L		0.000635	0.4191 mg/L	0.01587	3.79%

Sequence No.: 52  
 Sample ID: WE82 A SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 337  
 Date Collected: 3/1/2013 12:16:36 PM  
 Data Type: Original

Nebulizer Parameters: WE82 A SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

Mean Data: WE82 A SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3100666.2	102.8	%	0.20			0.20%
ScR 361.383	331641.8	103.6	%	0.37			0.35%
Ag 328.068†	8729.7	0.03681	mg/L	0.000206	0.1841 mg/L	0.00103	0.56%
Al 308.215†	51344.9	36.38	mg/L	0.096	181.9 mg/L	0.48	0.26%
As 188.979†	1885.1	1.082	mg/L	0.0045	5.410 mg/L	0.0225	0.42%
B 249.677†	-11.1	-0.00161	mg/L	0.000549	-0.00804 mg/L	0.002743	34.11%
Ba 233.527†	5562.9	0.8702	mg/L	0.00229	4.351 mg/L	0.0115	0.26%
Be 313.042†	499.7	0.00091	mg/L	0.000037	0.00457 mg/L	0.000186	4.07%
Ca 317.933†	88880.2	8.262	mg/L	0.0287	41.31 mg/L	0.144	0.35%
Cd 228.802†	226.5	0.00258	mg/L	0.000159	0.01288 mg/L	0.000794	6.16%
Co 228.616†	728.5	0.01506	mg/L	0.000244	0.07532 mg/L	0.001221	1.62%
Cr 267.716†	220.2	0.03489	mg/L	0.000355	0.1745 mg/L	0.00178	1.02%
Cu 324.752†	12408.6	0.04782	mg/L	0.000474	0.2391 mg/L	0.00237	0.99%
Fe 273.955†	164160.7	105.2	mg/L	0.48	526.0 mg/L	2.39	0.45%
K 766.490†	33818.7	19.64	mg/L	0.112	98.18 mg/L	0.561	0.57%
Mg 279.077†	7451.8	6.974	mg/L	0.0386	34.87 mg/L	0.193	0.55%
Mn 257.610†	37187.1	0.7504	mg/L	0.00179	3.752 mg/L	0.0089	0.24%
Mo 202.031†	28.6	0.00116	mg/L	0.000164	0.00582 mg/L	0.000821	14.10%
Na 589.592†	8472.5	0.6351	mg/L	0.00364	3.176 mg/L	0.0182	0.57%
Na 330.237†	14.9	0.6694	mg/L	0.27236	3.347 mg/L	1.3618	40.69%
Ni 231.604†	98.6	0.02270	mg/L	0.002160	0.1135 mg/L	0.01080	9.52%
Pb 220.353†	441.7	0.04889	mg/L	0.000608	0.2445 mg/L	0.00304	1.24%
Sb 206.836†	50.5	0.01456	mg/L	0.002579	0.07278 mg/L	0.012893	17.71%
Se 196.026†	15.5	0.00462	mg/L	0.003103	0.02311 mg/L	0.015515	67.14%
Si 288.158†	2094.7	1.153	mg/L	0.0161	5.764 mg/L	0.0806	1.40%
Sn 189.927†	-17.5	-0.00259	mg/L	0.000128	-0.01297 mg/L	0.000638	4.92%
Sr 421.552†	429541.4	0.4381	mg/L	0.00038	2.190 mg/L	0.0019	0.09%
Ti 334.903†	17975.3	0.7664	mg/L	0.00367	3.832 mg/L	0.0183	0.48%
Tl 190.801†	-18.5	0.00595	mg/L	0.001808	0.02977 mg/L	0.009040	30.37%
V 292.402†	11910.9	0.07687	mg/L	0.000608	0.3843 mg/L	0.00304	0.79%
Zn 206.200†	371.1	0.08279	mg/L	0.000715	0.4139 mg/L	0.00358	0.86%



Sequence No.: 53  
 Sample ID: WE82 ADUP SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 338  
 Date Collected: 3/1/2013 12:20:52 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 ADUP SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 ADUP SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3101220.6	102.8	%	0.46			0.45%
ScR 361.383	331891.1	103.7	%	0.35			0.33%
Ag 328.068†	10027.7	0.04227	mg/L	0.000457	0.2114 mg/L	0.00229	1.08%
Al 308.215†	54361.5	38.52	mg/L	0.266	192.6 mg/L	1.33	0.69%
As 188.979†	1732.7	0.9979	mg/L	0.00553	4.990 mg/L	0.0276	0.55%
B 249.677†	-5.5	-0.00082	mg/L	0.000572	-0.00408 mg/L	0.002861	70.06%
Ba 233.527†	5463.2	0.8553	mg/L	0.00790	4.276 mg/L	0.0395	0.92%
Be 313.042†	483.4	0.00088	mg/L	0.000006	0.00442 mg/L	0.000028	0.64%
Ca 317.933†	88551.8	8.232	mg/L	0.0375	41.16 mg/L	0.188	0.46%
Cd 228.802†	212.0	0.00251	mg/L	0.000158	0.01256 mg/L	0.000791	6.30%
Co 228.616†	698.4	0.01432	mg/L	0.000216	0.07158 mg/L	0.001078	1.51%
Cr 267.716†	226.6	0.03565	mg/L	0.001103	0.1782 mg/L	0.00551	3.09%
Cu 324.752†	11719.9	0.04514	mg/L	0.000313	0.2257 mg/L	0.00156	0.69%
Fe 273.955†	154527.8	99.04	mg/L	1.231	495.2 mg/L	6.16	1.24%
K 766.490†	33656.3	19.54	mg/L	0.053	97.71 mg/L	0.267	0.27%
Mg 279.077†	7506.0	7.028	mg/L	0.0573	35.14 mg/L	0.287	0.82%
Mn 257.610†	36295.2	0.7324	mg/L	0.00274	3.662 mg/L	0.0137	0.37%
Mo 202.031†	27.3	0.00111	mg/L	0.000059	0.00555 mg/L	0.000296	5.34%
Na 589.592†	10004.7	0.7500	mg/L	0.00659	3.750 mg/L	0.0330	0.88%
Na 330.237†	17.6	0.7651	mg/L	0.13823	3.826 mg/L	0.6911	18.07%
Ni 231.604†	99.5	0.02292	mg/L	0.000234	0.1146 mg/L	0.00117	1.02%
Pb 220.353†	776.8	0.08370	mg/L	0.000575	0.4185 mg/L	0.00287	0.69%
Sb 206.836†	31.7	0.00929	mg/L	0.001929	0.04647 mg/L	0.009644	20.75%
Se 196.026†	16.5	0.00491	mg/L	0.003390	0.02457 mg/L	0.016950	69.00%
Si 288.158†	2217.9	1.221	mg/L	0.0075	6.103 mg/L	0.0375	0.61%
Sn 189.927†	-16.5	-0.00239	mg/L	0.000302	-0.01196 mg/L	0.001509	12.62%
Sr 421.552†	430487.8	0.4390	mg/L	0.00266	2.195 mg/L	0.0133	0.61%
Ti 334.903†	18846.6	0.8035	mg/L	0.00322	4.018 mg/L	0.0161	0.40%
Tl 190.801†	-16.5	0.00595	mg/L	0.002617	0.02975 mg/L	0.013083	43.97%
V 292.402†	11503.6	0.07434	mg/L	0.000512	0.3717 mg/L	0.00256	0.69%
Zn 206.200†	370.6	0.08268	mg/L	0.000262	0.4134 mg/L	0.00131	0.32%

Sequence No.: 54  
 Sample ID: WE82 ASPK SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 339  
 Date Collected: 3/1/2013 12:25:08 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 ASPK SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

## Mean Data: WE82 ASPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3084178.2	102.2	%	0.22			0.22%
ScR 361.383	329852.6	103.1	%	0.09			0.08%
Ag 328.068†	61419.6	0.2586	mg/L	0.00122	1.293 mg/L	0.0061	0.47%
Al 308.215†	60376.4	42.78	mg/L	0.135	213.9 mg/L	0.67	0.32%
As 188.979†	3453.0	1.964	mg/L	0.0056	9.822 mg/L	0.0280	0.28%
B 249.677†	5.2	0.00020	mg/L	0.000179	0.00100 mg/L	0.000895	89.19%
Ba 233.527†	11019.7	1.739	mg/L	0.0068	8.695 mg/L	0.0338	0.39%
Be 313.042†	105931.1	0.1995	mg/L	0.00134	0.9975 mg/L	0.00670	0.67%
Ca 317.933†	139536.6	12.97	mg/L	0.065	64.86 mg/L	0.325	0.50%
Cd 228.802†	6092.1	0.2172	mg/L	0.00021	1.086 mg/L	0.0011	0.10%
Co 228.616†	10046.6	0.2259	mg/L	0.00055	1.130 mg/L	0.0028	0.24%
Cr 267.716†	1697.0	0.2522	mg/L	0.00072	1.261 mg/L	0.0036	0.29%
Cu 324.752†	74678.2	0.2628	mg/L	0.00148	1.314 mg/L	0.0074	0.56%
Fe 273.955†	165321.3	106.0	mg/L	0.48	529.8 mg/L	2.40	0.45%
K 766.490†	39875.5	23.15	mg/L	0.128	115.8 mg/L	0.64	0.55%
Mg 279.077†	13291.8	12.49	mg/L	0.010	62.43 mg/L	0.048	0.08%
Mn 257.610†	49492.3	0.9988	mg/L	0.00246	4.994 mg/L	0.0123	0.25%
Mo 202.031†	41.9	0.00169	mg/L	0.000039	0.00843 mg/L	0.000194	2.30%
Na 589.592†	64811.3	4.858	mg/L	0.0183	24.29 mg/L	0.091	0.38%
Na 330.237†	147.9	4.924	mg/L	0.1019	24.62 mg/L	0.510	2.07%
Ni 231.604†	996.3	0.2290	mg/L	0.00044	1.145 mg/L	0.0022	0.19%
Pb 220.353†	8583.1	0.8743	mg/L	0.00114	4.371 mg/L	0.0057	0.13%
Sb 206.836†	52.6	0.01306	mg/L	0.000386	0.06531 mg/L	0.001930	2.96%
Se 196.026†	1459.3	0.8282	mg/L	0.00670	4.141 mg/L	0.0335	0.81%
Si 288.158†	2514.2	1.385	mg/L	0.0084	6.924 mg/L	0.0421	0.61%
Sn 189.927†	-26.8	-0.00398	mg/L	0.000247	-0.01992 mg/L	0.001236	6.21%
Sr 421.552†	624403.7	0.6368	mg/L	0.00102	3.184 mg/L	0.0051	0.16%
Ti 334.903†	20870.5	0.8896	mg/L	0.00115	4.448 mg/L	0.0058	0.13%
Tl 190.801†	1960.9	0.8177	mg/L	0.00265	4.088 mg/L	0.0133	0.32%
V 292.402†	42695.2	0.2905	mg/L	0.00145	1.453 mg/L	0.0073	0.50%
Zn 206.200†	1313.4	0.2926	mg/L	0.00147	1.463 mg/L	0.0073	0.50%

Sequence No.: 55  
 Sample ID: WE82 B SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 340  
 Date Collected: 3/1/2013 12:29:10 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 B SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 B SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3124174.6	103.6 %		0.21			0.21%
ScR 361.383	333641.1	104.3 %		0.14			0.13%
Ag 328.068†	11265.8	0.04749 mg/L		0.000049	0.2375 mg/L	0.00025	0.10%
Al 308.215†	45898.8	32.53 mg/L		0.031	162.6 mg/L	0.15	0.09%
As 188.979†	2825.1	1.602 mg/L		0.0063	8.011 mg/L	0.0314	0.39%
B 249.677†	-16.6	-0.00239 mg/L		0.000684	-0.01195 mg/L	0.003419	28.62%
Ba 233.527†	5814.1	0.9102 mg/L		0.00828	4.551 mg/L	0.0414	0.91%
Be 313.042†	557.7	0.00103 mg/L		0.000017	0.00513 mg/L	0.000087	1.70%
Ca 317.933†	101384.6	9.425 mg/L		0.0648	47.12 mg/L	0.324	0.69%
Cd 228.802†	317.2	0.00302 mg/L		0.000223	0.01508 mg/L	0.001113	7.38%
Co 228.616†	647.3	0.01354 mg/L		0.000084	0.06772 mg/L	0.000421	0.62%
Cr 267.716†	191.9	0.03069 mg/L		0.001116	0.1535 mg/L	0.00558	3.63%
Cu 324.752†	10434.2	0.04106 mg/L		0.000233	0.2053 mg/L	0.00117	0.57%
Fe 273.955†	164579.2	105.5 mg/L		0.78	527.4 mg/L	3.91	0.74%
K 766.490†	35329.1	20.51 mg/L		0.083	102.6 mg/L	0.41	0.40%
Mg 279.077†	7724.2	7.231 mg/L		0.0289	36.15 mg/L	0.145	0.40%
Mn 257.610†	33502.9	0.6760 mg/L		0.00209	3.380 mg/L	0.0104	0.31%
Mo 202.031†	23.9	0.00094 mg/L		0.000035	0.00472 mg/L	0.000173	3.68%
Na 589.592†	6925.0	0.5191 mg/L		0.00185	2.596 mg/L	0.0092	0.36%
Na 330.237†	5.3	0.3052 mg/L		0.15751	1.526 mg/L	0.7876	51.61%
Ni 231.604†	80.9	0.01865 mg/L		0.001409	0.09324 mg/L	0.007047	7.56%
Pb 220.353†	502.1	0.05395 mg/L		0.000595	0.2697 mg/L	0.00297	1.10%
Sb 206.836†	44.7	0.01284 mg/L		0.001159	0.06421 mg/L	0.005794	9.02%
Se 196.026†	10.1	0.00196 mg/L		0.003466	0.00981 mg/L	0.017331	176.67%
Si 288.158†	2176.0	1.198 mg/L		0.0117	5.988 mg/L	0.0587	0.98%
Sn 189.927†	-21.0	-0.00321 mg/L		0.001186	-0.01605 mg/L	0.005931	36.95%
Sr 421.552†	398900.9	0.4068 mg/L		0.00153	2.034 mg/L	0.0076	0.37%
Ti 334.903†	13621.4	0.5806 mg/L		0.00107	2.903 mg/L	0.0053	0.18%
Tl 190.801†	-21.7	0.00468 mg/L		0.001872	0.02341 mg/L	0.009362	39.98%
V 292.402†	12029.5	0.07775 mg/L		0.000258	0.3888 mg/L	0.00129	0.33%
Zn 206.200†	398.6	0.08891 mg/L		0.000480	0.4445 mg/L	0.00240	0.54%

Sequence No.: 56  
 Sample ID: WE82 C SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 341  
 Date Collected: 3/1/2013 12:33:26 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 C SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 C SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3111293.5	103.1 %		0.22			0.22%
ScR 361.383	335045.1	104.7 %		0.62			0.60%
Ag 328.068†	20489.3	0.08625 mg/L		0.000670	0.4313 mg/L	0.00335	0.78%
Al 308.215†	39010.5	27.64 mg/L		0.092	138.2 mg/L	0.46	0.33%
As 188.979†	1911.0	1.076 mg/L		0.0042	5.378 mg/L	0.0210	0.39%
B 249.677†	-8.0	-0.00118 mg/L		0.000095	-0.00590 mg/L	0.000473	8.00%
Ba 233.527†	2686.0	0.4157 mg/L		0.00330	2.078 mg/L	0.0165	0.79%
Be 313.042†	351.3	0.00065 mg/L		0.000016	0.00324 mg/L	0.000078	2.42%
Ca 317.933†	31733.8	2.950 mg/L		0.0112	14.75 mg/L	0.056	0.38%
Cd 228.802†	218.5	0.00219 mg/L		0.000227	0.01096 mg/L	0.001136	10.37%
Co 228.616†	1025.0	0.02293 mg/L		0.000140	0.1146 mg/L	0.00070	0.61%
Cr 267.716†	146.1	0.02352 mg/L		0.000320	0.1176 mg/L	0.00160	1.36%
Cu 324.752†	57048.7	0.2009 mg/L		0.00047	1.004 mg/L	0.0023	0.23%
Fe 273.955†	127119.7	81.47 mg/L		0.341	407.4 mg/L	1.71	0.42%
K 766.490†	15158.1	8.801 mg/L		0.0665	44.00 mg/L	0.332	0.76%
Mg 279.077†	4893.2	4.573 mg/L		0.0309	22.86 mg/L	0.155	0.68%
Mn 257.610†	42063.0	0.8488 mg/L		0.00095	4.244 mg/L	0.0047	0.11%
Mo 202.031†	35.3	0.00152 mg/L		0.000441	0.00762 mg/L	0.002207	28.96%
Na 589.592†	4833.9	0.3624 mg/L		0.00069	1.812 mg/L	0.0034	0.19%
Na 330.237†	14.1	0.4591 mg/L		0.26662	2.296 mg/L	1.3331	58.07%
Ni 231.604†	79.4	0.01830 mg/L		0.001024	0.09149 mg/L	0.005122	5.60%
Pb 220.353†	427.2	0.04612 mg/L		0.000447	0.2306 mg/L	0.00224	0.97%
Sb 206.836†	124.1	0.03469 mg/L		0.000875	0.1734 mg/L	0.00438	2.52%
Se 196.026†	20.2	0.00833 mg/L		0.005615	0.04164 mg/L	0.028073	67.41%
Si 288.158†	2256.0	1.241 mg/L		0.0224	6.206 mg/L	0.1122	1.81%
Sn 189.927†	-10.5	-0.00177 mg/L		0.001073	-0.00883 mg/L	0.005364	60.77%
Sr 421.552†	175267.1	0.1787 mg/L		0.00066	0.8937 mg/L	0.00329	0.37%
Ti 334.903†	3401.3	0.1449 mg/L		0.00144	0.7246 mg/L	0.00719	0.99%
Tl 190.801†	-15.0	0.00431 mg/L		0.000624	0.02153 mg/L	0.003121	14.50%
V 292.402†	6995.9	0.04441 mg/L		0.000100	0.2220 mg/L	0.00050	0.22%
Zn 206.200†	545.6	0.1216 mg/L		0.00033	0.6081 mg/L	0.00163	0.27%

Sequence No.: 57  
 Sample ID: WE82 D SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 342  
 Date Collected: 3/1/2013 12:37:27 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 D SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 D SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	3157606.8	104.7	%	0.24				0.23%
ScR 361.383	340646.0	106.5	%	0.09				0.09%
Ag 328.068†	15397.8	0.06480	mg/L	0.000189	0.3240	mg/L	0.00095	0.29%
Al 308.215†	22928.0	16.25	mg/L	0.114	81.24	mg/L	0.571	0.70%
As 188.979†	2392.7	1.343	mg/L	0.0040	6.716	mg/L	0.0198	0.29%
B 249.677†	-9.5	-0.00136	mg/L	0.000262	-0.00679	mg/L	0.001311	19.30%
Ba 233.527†	3440.0	0.5362	mg/L	0.00304	2.681	mg/L	0.0152	0.57%
Be 313.042†	144.1	0.00026	mg/L	0.000015	0.00132	mg/L	0.000077	5.86%
Ca 317.933†	4908.1	0.4563	mg/L	0.00502	2.281	mg/L	0.0251	1.10%
Cd 228.802†	258.2	0.00216	mg/L	0.000067	0.01079	mg/L	0.000335	3.11%
Co 228.616†	267.1	0.00586	mg/L	0.000117	0.02929	mg/L	0.000587	2.01%
Cr 267.716†	73.2	0.01294	mg/L	0.000745	0.06471	mg/L	0.003727	5.76%
Cu 324.752†	21211.0	0.07704	mg/L	0.000363	0.3852	mg/L	0.00182	0.47%
Fe 273.955†	122140.8	78.28	mg/L	0.345	391.4	mg/L	1.73	0.44%
K 766.490†	22685.9	13.17	mg/L	0.110	65.86	mg/L	0.548	0.83%
Mg 279.077†	2732.5	2.535	mg/L	0.0086	12.68	mg/L	0.043	0.34%
Mn 257.610†	10148.2	0.2048	mg/L	0.00088	1.024	mg/L	0.0044	0.43%
Mo 202.031†	13.4	0.00059	mg/L	0.000198	0.00293	mg/L	0.000988	33.77%
Na 589.592†	5851.6	0.4386	mg/L	0.00263	2.193	mg/L	0.0132	0.60%
Na 330.237†	16.2	0.5301	mg/L	0.13272	2.651	mg/L	0.6636	25.04%
Ni 231.604†	28.3	0.00653	mg/L	0.001871	0.03264	mg/L	0.009356	28.66%
Pb 220.353†	406.1	0.04121	mg/L	0.000312	0.2060	mg/L	0.00156	0.76%
Sb 206.836†	59.9	0.01677	mg/L	0.001267	0.08384	mg/L	0.006334	7.56%
Se 196.026†	24.9	0.01231	mg/L	0.003315	0.06157	mg/L	0.016577	26.92%
Si 288.158†	1805.8	0.9934	mg/L	0.01114	4.967	mg/L	0.0557	1.12%
Sn 189.927†	-3.9	-0.00070	mg/L	0.000374	-0.00348	mg/L	0.001870	53.67%
Sr 421.552†	278730.7	0.2843	mg/L	0.00166	1.421	mg/L	0.0083	0.58%
Ti 334.903†	1771.0	0.07553	mg/L	0.000848	0.3776	mg/L	0.00424	1.12%
Tl 190.801†	-13.0	0.00488	mg/L	0.001644	0.02442	mg/L	0.008221	33.66%
V 292.402†	4392.1	0.02647	mg/L	0.000141	0.1323	mg/L	0.00070	0.53%
Zn 206.200†	190.7	0.04262	mg/L	0.000838	0.2131	mg/L	0.00419	1.97%

Sequence No.: 58  
 Sample ID: WE82 E SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 343  
 Date Collected: 3/1/2013 12:41:28 PM  
 Data Type: Original

*RA 1/2*

## Nebulizer Parameters: WE82 E SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 E SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3146042.8	104.3	%	0.37			0.35%
ScR 361.383	337782.3	105.6	%	0.48			0.45%
Ag 328.068†	9394.2	0.03953	mg/L	0.000193	0.1977 mg/L	0.00097	0.49%
Al 308.215†	10838.6	7.681	mg/L	0.0422	38.40 mg/L	0.211	0.55%
As 188.979†	2686.9	1.506	mg/L	0.0117	7.530 mg/L	0.0585	0.78%
B 249.677†	-22.0	-0.00313	mg/L	0.000235	-0.01564 mg/L	0.001174	7.51%
Ba 233.527†	3491.7	0.5462	mg/L	0.00290	2.731 mg/L	0.0145	0.53%
Be 313.042†	48.6	0.00009	mg/L	0.000015	0.00044 mg/L	0.000077	17.33%
Ca 317.933†	1078.7	0.1003	mg/L	0.00088	0.5014 mg/L	0.00438	0.87%
Cd 228.802†	280.1	0.00205	mg/L	0.000174	0.01026 mg/L	0.000871	8.49%
Co 228.616†	69.4	0.00149	mg/L	0.000089	0.00745 mg/L	0.000445	5.97%
Cr 267.716†	20.4	0.00498	mg/L	0.000600	0.02492 mg/L	0.003000	12.04%
Cu 324.752†	9244.8	0.03515	mg/L	0.000225	0.1758 mg/L	0.00112	0.64%
Fe 273.955†	102914.3	65.96	mg/L	0.323	329.8 mg/L	1.61	0.49%
K 766.490†	22813.3	13.25	mg/L	0.057	66.23 mg/L	0.286	0.43%
Mg 279.077†	571.2	0.5025	mg/L	0.00416	2.513 mg/L	0.0208	0.83%
Mn 257.610†	1586.9	0.03200	mg/L	0.000394	0.1600 mg/L	0.00197	1.23%
Mo 202.031†	3.2	0.00014	mg/L	0.000256	0.00071 mg/L	0.001280	181.41%
Na 589.592†	4179.0	0.3133	mg/L	0.00071	1.566 mg/L	0.0035	0.23%
Na 330.237†	20.0	0.6424	mg/L	0.11195	3.212 mg/L	0.5598	17.43%
Ni 231.604†	8.8	0.00203	mg/L	0.000991	0.01016 mg/L	0.004954	48.77%
Pb 220.353†	678.4	0.06712	mg/L	0.000877	0.3356 mg/L	0.00438	1.31%
Sb 206.836†	57.8	0.01619	mg/L	0.000353	0.08096 mg/L	0.001767	2.18%
Se 196.026†	24.8	0.01328	mg/L	0.001132	0.06638 mg/L	0.005660	8.53%
Si 288.158†	1137.2	0.6255	mg/L	0.00751	3.127 mg/L	0.0376	1.20%
Sn 189.927†	-0.7	-0.00012	mg/L	0.000675	-0.00058 mg/L	0.003376	582.53%
Sr 421.552†	408588.3	0.4167	mg/L	0.00177	2.083 mg/L	0.0089	0.43%
Ti 334.903†	253.7	0.01082	mg/L	0.001208	0.05409 mg/L	0.006039	11.16%
Tl 190.801†	-9.5	0.00480	mg/L	0.000618	0.02399 mg/L	0.003089	12.88%
V 292.402†	1720.0	0.00859	mg/L	0.000433	0.04295 mg/L	0.002165	5.04%
Zn 206.200†	66.2	0.01483	mg/L	0.000460	0.07417 mg/L	0.002302	3.10%

Sequence No.: 59  
 Sample ID: WE82 MB1SPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 344  
 Date Collected: 3/1/2013 12:45:44 PM  
 Data Type: Original

Nebulizer Parameters: WE82 MB1SPK SWC  
 Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

Mean Data: WE82 MB1SPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3127854.2	103.7 %		0.58			0.55%
ScR 361.383	334350.0	104.5 %		0.58			0.56%
Ag 328.068†	123660.0	0.5206 mg/L		0.00496	1.041 mg/L	0.0099	0.95%
Al 308.215†	2847.5	2.011 mg/L		0.0078	4.021 mg/L	0.0156	0.39%
As 188.979†	3646.8	2.042 mg/L		0.0084	4.085 mg/L	0.0167	0.41%
B 249.677†	12.9	0.00066 mg/L		0.000854	0.00132 mg/L	0.001708	129.30%
Ba 233.527†	12774.9	2.034 mg/L		0.0159	4.067 mg/L	0.0317	0.78%
Be 313.042†	256731.8	0.4836 mg/L		0.00466	0.9671 mg/L	0.00932	0.96%
Ca 317.933†	104743.7	9.737 mg/L		0.0708	19.47 mg/L	0.142	0.73%
Cd 228.802†	13858.5	0.5073 mg/L		0.00400	1.015 mg/L	0.0080	0.79%
Co 228.616†	22138.3	0.5015 mg/L		0.00378	1.003 mg/L	0.0076	0.75%
Cr 267.716†	3457.0	0.5089 mg/L		0.00375	1.018 mg/L	0.0075	0.74%
Cu 324.752†	145254.2	0.5016 mg/L		0.00343	1.003 mg/L	0.0069	0.68%
Fe 273.955†	3130.6	2.004 mg/L		0.0103	4.007 mg/L	0.0207	0.52%
K 766.490†	16976.8	9.857 mg/L		0.0327	19.71 mg/L	0.065	0.33%
Mg 279.077†	10663.7	10.06 mg/L		0.065	20.13 mg/L	0.130	0.64%
Mn 257.610†	24738.0	0.4996 mg/L		0.00338	0.9992 mg/L	0.00676	0.68%
Mo 202.031†	20.7	0.00077 mg/L		0.000086	0.00154 mg/L	0.000172	11.11%
Na 589.592†	132011.0	9.896 mg/L		0.0773	19.79 mg/L	0.155	0.78%
Na 330.237†	326.1	10.36 mg/L		0.300	20.72 mg/L	0.600	2.89%
Ni 231.604†	2141.6	0.4922 mg/L		0.00113	0.9844 mg/L	0.00226	0.23%
Pb 220.353†	19437.5	1.967 mg/L		0.0091	3.934 mg/L	0.0181	0.46%
Sb 206.836†	16.1	-0.00058 mg/L		0.000761	-0.00115 mg/L	0.001523	132.03%
Se 196.026†	3535.1	2.018 mg/L		0.0089	4.036 mg/L	0.0178	0.44%
Si 288.158†	-5.3	-0.00003 mg/L		0.001351	-0.00006 mg/L	0.002701	>999.9%
Sn 189.927†	-23.9	-0.00387 mg/L		0.001377	-0.00773 mg/L	0.002754	35.62%
Sr 421.552†	479926.2	0.4894 mg/L		0.00308	0.9789 mg/L	0.00616	0.63%
Ti 334.903†	35.7	0.00085 mg/L		0.000436	0.00170 mg/L	0.000872	51.43%
Tl 190.801†	4925.2	2.020 mg/L		0.0070	4.040 mg/L	0.0141	0.35%
V 292.402†	72959.9	0.5065 mg/L		0.00362	1.013 mg/L	0.0072	0.71%
Zn 206.200†	2184.7	0.4864 mg/L		0.00476	0.9727 mg/L	0.00953	0.98%

Sequence No.: 60  
 Sample ID: CV *le*  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 3/1/2013 12:49:45 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3222324.8	106.8 %		0.40			0.37%
ScR 361.383	333228.6	104.1 %		1.50			1.44%
Ag 328.068†	234245.2	0.9860 mg/L		0.00868	0.9860 mg/L	0.00868	0.88%
Al 308.215†	2772.9	1.932 mg/L		0.0365	1.932 mg/L	0.0365	1.89%
As 188.979†	3384.2	1.926 mg/L		0.0132	1.926 mg/L	0.0132	0.68%
B 249.677†	6804.9	0.9633 mg/L		0.01391	0.9633 mg/L	0.01391	1.44%
Ba 233.527†	6286.7	1.001 mg/L		0.0185	1.001 mg/L	0.0185	1.85%
Be 313.042†	498477.4	0.9389 mg/L		0.01018	0.9389 mg/L	0.01018	1.08%
Ca 317.933†	20378.8	1.894 mg/L		0.0213	1.894 mg/L	0.0213	1.13%
Cd 228.802†	25966.2	0.9614 mg/L		0.00886	0.9614 mg/L	0.00886	0.92%
Co 228.616†	41997.0	0.9501 mg/L		0.01006	0.9501 mg/L	0.01006	1.06%
Cr 267.716†	6746.8	0.9950 mg/L		0.01862	0.9950 mg/L	0.01862	1.87%
Cu 324.752†	280843.7	0.9693 mg/L		0.00695	0.9693 mg/L	0.00695	0.72%
Fe 273.955†	3067.0	1.960 mg/L		0.0359	1.960 mg/L	0.0359	1.83%
K 766.490†	33678.9	19.55 mg/L		0.223	19.55 mg/L	0.223	1.14%
Mg 279.077†	2072.8	1.962 mg/L		0.0340	1.962 mg/L	0.0340	1.73%
Mn 257.610†	46538.2	0.9396 mg/L		0.01044	0.9396 mg/L	0.01044	1.11%
Mo 202.031†	21394.9	0.9458 mg/L		0.00649	0.9458 mg/L	0.00649	0.69%
Na 589.592†	660471.5	49.51 mg/L		0.554	49.51 mg/L	0.554	1.12%
Na 330.237†	1578.8	50.83 mg/L		0.735	50.83 mg/L	0.735	1.45%
Ni 231.604†	4244.8	0.9774 mg/L		0.01740	0.9774 mg/L	0.01740	1.78%
Pb 220.353†	18793.3	1.902 mg/L		0.0134	1.902 mg/L	0.0134	0.70%
Sb 206.836†	6984.4	1.951 mg/L		0.0143	1.951 mg/L	0.0143	0.73%
Se 196.026†	3319.0	1.894 mg/L		0.0088	1.894 mg/L	0.0088	0.46%
Si 288.158†	3540.5	1.942 mg/L		0.0315	1.942 mg/L	0.0315	1.62%
Sn 189.927†	4740.1	0.9297 mg/L		0.00818	0.9297 mg/L	0.00818	0.88%
Sr 421.552†	944214.2	0.9629 mg/L		0.00927	0.9629 mg/L	0.00927	0.96%
Ti 334.903†	22608.8	0.9632 mg/L		0.00936	0.9632 mg/L	0.00936	0.97%
Tl 190.801†	4629.2	1.895 mg/L		0.0156	1.895 mg/L	0.0156	0.83%
V 292.402†	139558.0	0.9690 mg/L		0.00920	0.9690 mg/L	0.00920	0.95%
Zn 206.200†	4500.9	1.002 mg/L		0.0177	1.002 mg/L	0.0177	1.77%



Sequence No.: 61  
Sample ID: CB  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 1  
Date Collected: 3/1/2013 12:53:50 PM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 221.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3157975.1	104.7	%	0.55			0.52%
ScR 361.383	339742.7	106.2	%	0.54			0.50%
Ag 328.068†	-1.5	-0.00001	mg/L	0.000219	-0.00001 mg/L	0.000219	>999.9%
Al 308.215†	-6.1	-0.00432	mg/L	0.002761	-0.00432 mg/L	0.002761	63.93%
As 188.979†	4.3	0.00249	mg/L	0.000942	0.00249 mg/L	0.000942	37.81%
B 249.677†	17.2	0.00244	mg/L	0.000585	0.00244 mg/L	0.000585	23.94%
Ba 233.527†	-1.4	-0.00023	mg/L	0.000468	-0.00023 mg/L	0.000468	204.04%
Be 313.042†	8.6	0.00002	mg/L	0.000025	0.00002 mg/L	0.000025	153.18%
Ca 317.933†	-12.0	-0.00112	mg/L	0.001451	-0.00112 mg/L	0.001451	130.01%
Cd 228.802†	-0.6	-0.00003	mg/L	0.000092	-0.00003 mg/L	0.000092	266.60%
Co 228.616†	6.1	0.00014	mg/L	0.000081	0.00014 mg/L	0.000081	59.78%
Cr 267.716†	6.2	0.00091	mg/L	0.000762	0.00091 mg/L	0.000762	83.48%
Cu 324.752†	-76.2	-0.00026	mg/L	0.000140	-0.00026 mg/L	0.000140	53.19%
Fe 273.955†	-0.6	-0.00037	mg/L	0.003165	-0.00037 mg/L	0.003165	857.00%
K 766.490†	17.0	0.00988	mg/L	0.028467	0.00988 mg/L	0.028467	288.16%
Mg 279.077†	-13.3	-0.01257	mg/L	0.001725	-0.01257 mg/L	0.001725	13.73%
Mn 257.610†	-18.2	-0.00037	mg/L	0.000133	-0.00037 mg/L	0.000133	36.15%
Mo 202.031†	27.7	0.00123	mg/L	0.000197	0.00123 mg/L	0.000197	16.09%
Na 589.592†	55.6	0.00417	mg/L	0.002236	0.00417 mg/L	0.002236	53.63%
Na 330.237†	6.7	0.2174	mg/L	0.01933	0.2174 mg/L	0.01933	8.89%
Ni 231.604†	1.1	0.00026	mg/L	0.000659	0.00026 mg/L	0.000659	250.48%
Pb 220.353†	-4.4	-0.00044	mg/L	0.000615	-0.00044 mg/L	0.000615	138.29%
Sb 206.836†	13.5	0.00378	mg/L	0.001446	0.00378 mg/L	0.001446	38.26%
Se 196.026†	-1.1	-0.00065	mg/L	0.000278	-0.00065 mg/L	0.000278	43.00%
Si 288.158†	1.9	0.00107	mg/L	0.005095	0.00107 mg/L	0.005095	476.40%
Sn 189.927†	0.8	0.00016	mg/L	0.000404	0.00016 mg/L	0.000404	247.91%
Sr 421.552†	46.5	0.00005	mg/L	0.000011	0.00005 mg/L	0.000011	23.05%
Ti 334.903†	40.7	0.00174	mg/L	0.000509	0.00174 mg/L	0.000509	29.30%
Tl 190.801†	2.2	0.00091	mg/L	0.001188	0.00091 mg/L	0.001188	130.86%
V 292.402†	-23.4	-0.00016	mg/L	0.000042	-0.00016 mg/L	0.000042	26.36%
Zn 206.200†	2.3	0.00051	mg/L	0.000501	0.00051 mg/L	0.000501	98.24%

Sequence No.: 62  
 Sample ID: WE82 MB2 SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 345  
 Date Collected: 3/1/2013 12:58:06 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 MB2 SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 MB2 SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3161111.9	104.8 %		0.71			0.68%
ScR 361.383	339947.1	106.2 %		0.24			0.23%
Ag 328.068†	-9.4	-0.00004 mg/L		0.000120	-0.00008 mg/L	0.000241	306.10%
Al 308.215†	4.3	0.00303 mg/L		0.004131	0.00605 mg/L	0.008261	136.48%
As 188.979†	4.9	0.00280 mg/L		0.000682	0.00560 mg/L	0.001364	24.34%
B 249.677†	16.6	0.00235 mg/L		0.001120	0.00469 mg/L	0.002239	47.69%
Ba 233.527†	0.7	0.00010 mg/L		0.000455	0.00021 mg/L	0.000911	436.29%
Be 313.042†	-16.9	-0.00003 mg/L		0.000034	-0.00006 mg/L	0.000068	106.86%
Ca 317.933†	50.0	0.00465 mg/L		0.001106	0.00929 mg/L	0.002213	23.82%
Cd 228.802†	1.9	0.00006 mg/L		0.000199	0.00011 mg/L	0.000398	355.92%
Co 228.616†	5.3	0.00012 mg/L		0.000029	0.00024 mg/L	0.000059	24.93%
Cr 267.716†	12.3	0.00181 mg/L		0.000928	0.00363 mg/L	0.001855	51.17%
Cu 324.752†	-22.8	-0.00008 mg/L		0.000196	-0.00016 mg/L	0.000393	250.00%
Fe 273.955†	4.3	0.00277 mg/L		0.001756	0.00554 mg/L	0.003513	63.45%
K 766.490†	12.6	0.00732 mg/L		0.014973	0.01465 mg/L	0.029945	204.44%
Mg 279.077†	-4.1	-0.00386 mg/L		0.003487	-0.00772 mg/L	0.006974	90.29%
Mn 257.610†	-14.4	-0.00029 mg/L		0.000059	-0.00058 mg/L	0.000118	20.29%
Mo 202.031†	-3.9	-0.00017 mg/L		0.000188	-0.00034 mg/L	0.000376	109.09%
Na 589.592†	85.8	0.00644 mg/L		0.004743	0.01287 mg/L	0.009485	73.70%
Na 330.237†	10.0	0.3217 mg/L		0.34239	0.6434 mg/L	0.68478	106.44%
Ni 231.604†	3.0	0.00068 mg/L		0.000672	0.00136 mg/L	0.001344	98.71%
Pb 220.353†	0.9	0.00010 mg/L		0.000532	0.00020 mg/L	0.001064	536.05%
Sb 206.836†	-1.9	-0.00055 mg/L		0.001024	-0.00110 mg/L	0.002047	185.80%
Se 196.026†	4.5	0.00258 mg/L		0.002214	0.00516 mg/L	0.004428	85.80%
Si 288.158†	-1.3	-0.00071 mg/L		0.001931	-0.00142 mg/L	0.003861	271.27%
Sn 189.927†	-2.4	-0.00047 mg/L		0.000360	-0.00095 mg/L	0.000720	76.05%
Sr 421.552†	13.2	0.00001 mg/L		0.000028	0.00003 mg/L	0.000056	207.47%
Ti 334.903†	24.1	0.00103 mg/L		0.000582	0.00206 mg/L	0.001164	56.61%
Tl 190.801†	2.6	0.00105 mg/L		0.001209	0.00210 mg/L	0.002419	115.03%
V 292.402†	-14.7	-0.00009 mg/L		0.000144	-0.00019 mg/L	0.000287	151.46%
Zn 206.200†	4.9	0.00108 mg/L		0.000668	0.00217 mg/L	0.001336	61.72%

Sequence No.: 63  
 Sample ID: WE82 F SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 346  
 Date Collected: 3/1/2013 1:02:23 PM  
 Data Type: Original

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 Nebulizer Parameters: WE82 F SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

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 Mean Data: WE82 F SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3126405.4	103.6 %		0.11			0.10%
ScR 361.383	338722.8	105.9 %		0.40			0.38%
Ag 328.068†	8163.9	0.03436 mg/L		0.000114	0.1718 mg/L	0.00057	0.33%
Al 308.215†	12236.8	8.672 mg/L		0.0282	43.36 mg/L	0.141	0.33%
As 188.979†	2356.8	1.321 mg/L		0.0064	6.606 mg/L	0.0318	0.48%
B 249.677†	-1.1	-0.00015 mg/L		0.000174	-0.00077 mg/L	0.000871	113.03%
Ba 233.527†	2831.3	0.4416 mg/L		0.00192	2.208 mg/L	0.0096	0.43%
Be 313.042†	43.0	0.00008 mg/L		0.000039	0.00038 mg/L	0.000197	51.27%
Ca 317.933†	3383.7	0.3145 mg/L		0.00210	1.573 mg/L	0.0105	0.67%
Cd 228.802†	247.3	0.00186 mg/L		0.000144	0.00931 mg/L	0.000720	7.73%
Co 228.616†	73.1	0.00157 mg/L		0.000117	0.00785 mg/L	0.000586	7.47%
Cr 267.716†	38.8	0.00755 mg/L		0.000842	0.03774 mg/L	0.004211	11.16%
Cu 324.752†	11117.1	0.04143 mg/L		0.000262	0.2071 mg/L	0.00131	0.63%
Fe 273.955†	97165.9	62.27 mg/L		0.383	311.4 mg/L	1.92	0.62%
K 766.490†	21317.3	12.38 mg/L		0.130	61.88 mg/L	0.649	1.05%
Mg 279.077†	1015.2	0.9236 mg/L		0.00225	4.618 mg/L	0.0112	0.24%
Mn 257.610†	1886.8	0.03805 mg/L		0.000413	0.1902 mg/L	0.00207	1.09%
Mo 202.031†	8.4	0.00037 mg/L		0.000202	0.00184 mg/L	0.001008	54.63%
Na 589.592†	3475.6	0.2605 mg/L		0.00410	1.303 mg/L	0.0205	1.57%
Na 330.237†	16.0	0.5138 mg/L		0.39789	2.569 mg/L	1.9894	77.44%
Ni 231.604†	13.7	0.00317 mg/L		0.000807	0.01583 mg/L	0.004034	25.49%
Pb 220.353†	590.9	0.05874 mg/L		0.000061	0.2937 mg/L	0.00031	0.10%
Sb 206.836†	51.1	0.01428 mg/L		0.001869	0.07141 mg/L	0.009344	13.08%
Se 196.026†	17.1	0.00876 mg/L		0.002706	0.04378 mg/L	0.013532	30.91%
Si 288.158†	1201.3	0.6608 mg/L		0.00637	3.304 mg/L	0.0318	0.96%
Sn 189.927†	-2.2	-0.00040 mg/L		0.000619	-0.00200 mg/L	0.003097	155.06%
Sr 421.552†	372119.7	0.3795 mg/L		0.00204	1.897 mg/L	0.0102	0.54%
Ti 334.903†	462.3	0.01970 mg/L		0.000475	0.09851 mg/L	0.002375	2.41%
Tl 190.801†	-12.7	0.00298 mg/L		0.001241	0.01488 mg/L	0.006207	41.72%
V 292.402†	2340.6	0.01307 mg/L		0.000245	0.06536 mg/L	0.001225	1.87%
Zn 206.200†	86.9	0.01944 mg/L		0.000350	0.09722 mg/L	0.001748	1.80%

Sequence No.: 64  
Sample ID: WE82 G SWC  
Analyst: ALA  
Dilution: 5.000000X

Autosampler Location: 347  
Date Collected: 3/1/2013 1:06:39 PM  
Data Type: Original

Nebulizer Parameters: WE82 G SWC

Analyte Back Pressure Flow  
All 221.0 kPa 0.75 L/min

Mean Data: WE82 G SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3167893.3	105.0 %	%	0.45			0.43%
ScR 361.383	342323.6	107.0 %	%	0.65			0.61%
Ag 328.068†	7789.4	0.03278 mg/L	mg/L	0.000087	0.1639 mg/L	0.00044	0.27%
Al 308.215†	12263.4	8.691 mg/L	mg/L	0.0414	43.45 mg/L	0.207	0.48%
As 188.979†	2389.0	1.339 mg/L	mg/L	0.0019	6.697 mg/L	0.0094	0.14%
B 249.677†	5.6	0.00080 mg/L	mg/L	0.000529	0.00398 mg/L	0.002644	66.50%
Ba 233.527†	2936.5	0.4586 mg/L	mg/L	0.00209	2.293 mg/L	0.0104	0.45%
Be 313.042†	40.8	0.00007 mg/L	mg/L	0.000031	0.00036 mg/L	0.000155	42.67%
Ca 317.933†	2271.8	0.2112 mg/L	mg/L	0.00149	1.056 mg/L	0.0075	0.71%
Cd 228.802†	248.5	0.00180 mg/L	mg/L	0.000263	0.00902 mg/L	0.001313	14.55%
Co 228.616†	76.9	0.00165 mg/L	mg/L	0.000150	0.00823 mg/L	0.000751	9.13%
Cr 267.716†	35.6	0.00701 mg/L	mg/L	0.000828	0.03503 mg/L	0.004138	11.81%
Cu 324.752†	7800.4	0.02989 mg/L	mg/L	0.000242	0.1495 mg/L	0.00121	0.81%
Fe 273.955†	94504.6	60.57 mg/L	mg/L	0.794	302.8 mg/L	3.97	1.31%
K 766.490†	21460.8	12.46 mg/L	mg/L	0.095	62.30 mg/L	0.477	0.77%
Mg 279.077†	1232.1	1.129 mg/L	mg/L	0.0087	5.646 mg/L	0.0436	0.77%
Mn 257.610†	2102.7	0.04241 mg/L	mg/L	0.000425	0.2120 mg/L	0.00212	1.00%
Mo 202.031†	2.5	0.00011 mg/L	mg/L	0.000137	0.00053 mg/L	0.000685	128.83%
Na 589.592†	3463.1	0.2596 mg/L	mg/L	0.00161	1.298 mg/L	0.0081	0.62%
Na 330.237†	17.3	0.5594 mg/L	mg/L	0.28408	2.797 mg/L	1.4204	50.78%
Ni 231.604†	10.3	0.00238 mg/L	mg/L	0.001181	0.01189 mg/L	0.005905	49.64%
Pb 220.353†	717.0	0.07161 mg/L	mg/L	0.000391	0.3580 mg/L	0.00195	0.55%
Sb 206.836†	47.8	0.01337 mg/L	mg/L	0.001719	0.06686 mg/L	0.008594	12.85%
Se 196.026†	23.4	0.01233 mg/L	mg/L	0.003671	0.06164 mg/L	0.018357	29.78%
Si 288.158†	1161.3	0.6388 mg/L	mg/L	0.00671	3.194 mg/L	0.0335	1.05%
Sn 189.927†	1.2	0.00026 mg/L	mg/L	0.000221	0.00129 mg/L	0.001105	85.67%
Sr 421.552†	291147.9	0.2969 mg/L	mg/L	0.00227	1.485 mg/L	0.0113	0.76%
Ti 334.903†	597.2	0.02547 mg/L	mg/L	0.000272	0.1273 mg/L	0.00136	1.07%
Tl 190.801†	-7.0	0.00509 mg/L	mg/L	0.001034	0.02545 mg/L	0.005171	20.31%
V 292.402†	2513.3	0.01435 mg/L	mg/L	0.000093	0.07173 mg/L	0.000465	0.65%
Zn 206.200†	72.3	0.01620 mg/L	mg/L	0.000642	0.08101 mg/L	0.003209	3.96%

Sequence No.: 65  
 Sample ID: WE82 H SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 348  
 Date Collected: 3/1/2013 1:10:54 PM  
 Data Type: Original

*re 1/2*

## Nebulizer Parameters: WE82 H SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 H SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	3142635.1	104.2	%	0.12			0.11%
ScR 361.383	335977.0	105.0	%	0.65			0.62%
Ag 328.068†	8126.0	0.03420	mg/L	0.000172	0.1710 mg/L	0.00086	0.50%
Al 308.215†	10382.6	7.358	mg/L	0.0666	36.79 mg/L	0.333	0.91%
As 188.979†	2245.7	1.259	mg/L	0.0027	6.293 mg/L	0.0135	0.21%
B 249.677†	-9.8	-0.00139	mg/L	0.000889	-0.00694 mg/L	0.004444	64.07%
Ba 233.527†	2837.0	0.4438	mg/L	0.00799	2.219 mg/L	0.0400	1.80%
Be 313.042†	56.0	0.00010	mg/L	0.000015	0.00051 mg/L	0.000074	14.46%
Ca 317.933†	983.2	0.09140	mg/L	0.000999	0.4570 mg/L	0.00500	1.09%
Cd 228.802†	234.7	0.00174	mg/L	0.000231	0.00868 mg/L	0.001157	13.32%
Co 228.616†	70.7	0.00154	mg/L	0.000042	0.00768 mg/L	0.000211	2.75%
Cr 267.716†	25.4	0.00535	mg/L	0.000139	0.02677 mg/L	0.000696	2.60%
Cu 324.752†	8094.3	0.03058	mg/L	0.000284	0.1529 mg/L	0.00142	0.93%
Fe 273.955†	84011.4	53.84	mg/L	0.198	269.2 mg/L	0.99	0.37%
K 766.490†	18920.8	10.99	mg/L	0.051	54.93 mg/L	0.256	0.47%
Mg 279.077†	578.5	0.5161	mg/L	0.00765	2.580 mg/L	0.0382	1.48%
Mn 257.610†	1635.2	0.03298	mg/L	0.000371	0.1649 mg/L	0.00185	1.12%
Mo 202.031†	6.1	0.00027	mg/L	0.000039	0.00135 mg/L	0.000196	14.49%
Na 589.592†	3263.9	0.2447	mg/L	0.00306	1.223 mg/L	0.0153	1.25%
Na 330.237†	12.8	0.4105	mg/L	0.39553	2.052 mg/L	1.9776	96.35%
Ni 231.604†	5.7	0.00131	mg/L	0.001361	0.00656 mg/L	0.006803	103.77%
Pb 220.353†	570.2	0.05676	mg/L	0.000616	0.2838 mg/L	0.00308	1.08%
Sb 206.836†	46.6	0.01304	mg/L	0.001666	0.06520 mg/L	0.008329	12.78%
Se 196.026†	24.7	0.01327	mg/L	0.001475	0.06634 mg/L	0.007374	11.12%
Si 288.158†	1390.1	0.7646	mg/L	0.00451	3.823 mg/L	0.0225	0.59%
Sn 189.927†	1.9	0.00039	mg/L	0.000883	0.00193 mg/L	0.004415	228.79%
Sr 421.552†	332427.7	0.3390	mg/L	0.00133	1.695 mg/L	0.0067	0.39%
Ti 334.903†	217.9	0.00929	mg/L	0.000441	0.04646 mg/L	0.002204	4.74%
Tl 190.801†	-8.0	0.00379	mg/L	0.000617	0.01896 mg/L	0.003085	16.27%
V 292.402†	1565.2	0.00813	mg/L	0.000086	0.04066 mg/L	0.000431	1.06%
Zn 206.200†	56.2	0.01264	mg/L	0.000525	0.06320 mg/L	0.002624	4.15%

Sequence No.: 66  
 Sample ID: WE82 I SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 349  
 Date Collected: 3/1/2013 1:15:09 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 I SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 I SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3128050.0	103.7 %		0.21			0.20%
ScR 361.383	341758.6	106.8 %		0.19			0.18%
Ag 328.068†	290.5	0.00143 mg/L		0.000168	0.00713 mg/L	0.000838	11.76%
Al 308.215†	82888.5	58.74 mg/L		0.130	293.7 mg/L	0.65	0.22%
As 188.979†	156.5	0.1058 mg/L		0.00173	0.5292 mg/L	0.00866	1.64%
B 249.677†	11.2	0.00153 mg/L		0.000120	0.00767 mg/L	0.000598	7.79%
Ba 233.527†	3120.2	0.4852 mg/L		0.00248	2.426 mg/L	0.0124	0.51%
Be 313.042†	1139.2	0.00211 mg/L		0.000022	0.01056 mg/L	0.000110	1.04%
Ca 317.933†	275905.6	25.65 mg/L		0.043	128.2 mg/L	0.21	0.17%
Cd 228.802†	47.5	0.00130 mg/L		0.000012	0.00649 mg/L	0.000060	0.93%
Co 228.616†	1134.7	0.02462 mg/L		0.000242	0.1231 mg/L	0.00121	0.98%
Cr 267.716†	255.1	0.03772 mg/L		0.000527	0.1886 mg/L	0.00264	1.40%
Cu 324.752†	8223.7	0.03204 mg/L		0.000063	0.1602 mg/L	0.00032	0.20%
Fe 273.955†	122929.5	78.78 mg/L		0.408	393.9 mg/L	2.04	0.52%
K 766.490†	23630.7	13.72 mg/L		0.069	68.60 mg/L	0.346	0.51%
Mg 279.077†	21450.2	20.20 mg/L		0.035	101.0 mg/L	0.18	0.17%
Mn 257.610†	59519.0	1.201 mg/L		0.0052	6.005 mg/L	0.0262	0.44%
Mo 202.031†	47.4	0.00179 mg/L		0.000283	0.00896 mg/L	0.001414	15.79%
Na 589.592†	6527.5	0.4893 mg/L		0.00163	2.447 mg/L	0.0082	0.33%
Na 330.237†	13.6	0.5406 mg/L		0.08975	2.703 mg/L	0.4488	16.60%
Ni 231.604†	108.6	0.02500 mg/L		0.000959	0.1250 mg/L	0.00479	3.83%
Pb 220.353†	175.5	0.02946 mg/L		0.000849	0.1473 mg/L	0.00424	2.88%
Sb 206.836†	3.7	0.00138 mg/L		0.000903	0.00689 mg/L	0.004515	65.51%
Se 196.026†	-0.6	-0.00715 mg/L		0.002257	-0.03576 mg/L	0.011283	31.55%
Si 288.158†	2017.3	1.112 mg/L		0.0135	5.559 mg/L	0.0673	1.21%
Sn 189.927†	-42.6	-0.00608 mg/L		0.000058	-0.03042 mg/L	0.000290	0.95%
Sr 421.552†	242289.7	0.2471 mg/L		0.00048	1.235 mg/L	0.0024	0.19%
Ti 334.903†	13898.6	0.5914 mg/L		0.00140	2.957 mg/L	0.0070	0.24%
Tl 190.801†	-8.2	0.00649 mg/L		0.001565	0.03243 mg/L	0.007825	24.13%
V 292.402†	17294.1	0.1156 mg/L		0.00009	0.5780 mg/L	0.00043	0.08%
Zn 206.200†	945.1	0.2105 mg/L		0.00133	1.052 mg/L	0.0066	0.63%

Sequence No.: 67  
 Sample ID: WE82 J SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 350  
 Date Collected: 3/1/2013 1:19:10 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 J SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 J SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3134419.9	103.9	%	0.13			0.13%
ScR 361.383	337755.8	105.6	%	0.18			0.17%
Ag 328.068†	720.5	0.00330	mg/L	0.000029	0.01651 mg/L	0.000143	0.87%
Al 308.215†	89583.1	63.48	mg/L	0.109	317.4 mg/L	0.55	0.17%
As 188.979†	130.5	0.09371	mg/L	0.000639	0.4685 mg/L	0.00320	0.68%
B 249.677†	6.5	0.00086	mg/L	0.000636	0.00428 mg/L	0.003180	74.21%
Ba 233.527†	3198.3	0.4974	mg/L	0.00604	2.487 mg/L	0.0302	1.21%
Be 313.042†	1243.8	0.00230	mg/L	0.000012	0.01152 mg/L	0.000061	0.53%
Ca 317.933†	379161.3	35.25	mg/L	0.009	176.2 mg/L	0.04	0.02%
Cd 228.802†	43.5	0.00124	mg/L	0.000218	0.00619 mg/L	0.001088	17.59%
Co 228.616†	1269.0	0.02749	mg/L	0.000042	0.1375 mg/L	0.00021	0.15%
Cr 267.716†	306.1	0.04495	mg/L	0.000302	0.2247 mg/L	0.00151	0.67%
Cu 324.752†	9807.0	0.03755	mg/L	0.000323	0.1878 mg/L	0.00162	0.86%
Fe 273.955†	125267.9	80.28	mg/L	0.253	401.4 mg/L	1.27	0.32%
K 766.490†	17685.3	10.27	mg/L	0.072	51.34 mg/L	0.360	0.70%
Mg 279.077†	23851.3	22.46	mg/L	0.049	112.3 mg/L	0.25	0.22%
Mn 257.610†	60804.3	1.227	mg/L	0.0033	6.134 mg/L	0.0164	0.27%
Mo 202.031†	68.1	0.00259	mg/L	0.000295	0.01297 mg/L	0.001473	11.36%
Na 589.592†	7275.1	0.5454	mg/L	0.00088	2.727 mg/L	0.0044	0.16%
Na 330.237†	16.0	0.6424	mg/L	0.14032	3.212 mg/L	0.7016	21.84%
Ni 231.604†	143.8	0.03312	mg/L	0.001840	0.1656 mg/L	0.00920	5.56%
Pb 220.353†	76.1	0.02062	mg/L	0.000389	0.1031 mg/L	0.00194	1.89%
Sb 206.836†	6.3	0.00209	mg/L	0.000903	0.01047 mg/L	0.004515	43.13%
Se 196.026†	3.6	-0.00531	mg/L	0.000645	-0.02655 mg/L	0.003223	12.14%
Si 288.158†	1933.0	1.066	mg/L	0.0036	5.328 mg/L	0.0179	0.34%
Sn 189.927†	-48.2	-0.00637	mg/L	0.000316	-0.03184 mg/L	0.001580	4.96%
Sr 421.552†	293936.0	0.2998	mg/L	0.00041	1.499 mg/L	0.0020	0.14%
Ti 334.903†	16134.5	0.6862	mg/L	0.00102	3.431 mg/L	0.0051	0.15%
Tl 190.801†	-9.1	0.00623	mg/L	0.003584	0.03117 mg/L	0.017921	57.50%
V 292.402†	19187.6	0.1286	mg/L	0.00078	0.6430 mg/L	0.00389	0.61%
Zn 206.200†	970.3	0.2161	mg/L	0.00167	1.081 mg/L	0.0083	0.77%

Sequence No.: 68  
 Sample ID: WE82 K SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 351  
 Date Collected: 3/1/2013 1:23:11 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 K SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 K SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3102719.8	102.9	%	0.21			0.20%
ScR 361.383	335527.5	104.9	%	0.50			0.48%
Ag 328.068†	514.6	0.00241	mg/L	0.000189	0.01203	0.000944	7.85%
Al 308.215†	85870.0	60.85	mg/L	0.020	304.3	0.10	0.03%
As 188.979†	132.3	0.09148	mg/L	0.002037	0.4574	0.01019	2.23%
B 249.677†	14.9	0.00205	mg/L	0.000496	0.01026	0.002478	24.16%
Ba 233.527†	3295.2	0.5132	mg/L	0.00319	2.566	0.0160	0.62%
Be 313.042†	1221.9	0.00227	mg/L	0.000031	0.01133	0.000157	1.39%
Ca 317.933†	330402.1	30.71	mg/L	0.083	153.6	0.41	0.27%
Cd 228.802†	45.9	0.00132	mg/L	0.000240	0.00660	0.001201	18.19%
Co 228.616†	1247.6	0.02719	mg/L	0.000122	0.1360	0.00061	0.45%
Cr 267.716†	303.3	0.04466	mg/L	0.000831	0.2233	0.00415	1.86%
Cu 324.752†	10317.5	0.03923	mg/L	0.000081	0.1962	0.00040	0.21%
Fe 273.955†	121844.2	78.09	mg/L	0.477	390.4	2.38	0.61%
K 766.490†	18025.8	10.47	mg/L	0.030	52.33	0.152	0.29%
Mg 279.077†	22406.2	21.10	mg/L	0.049	105.5	0.25	0.23%
Mn 257.610†	59891.9	1.208	mg/L	0.0047	6.042	0.0236	0.39%
Mo 202.031†	76.7	0.00303	mg/L	0.000180	0.01514	0.000898	5.93%
Na 589.592†	5213.9	0.3908	mg/L	0.00198	1.954	0.0099	0.51%
Na 330.237†	13.0	0.5230	mg/L	0.09032	2.615	0.4516	17.27%
Ni 231.604†	147.2	0.03389	mg/L	0.000996	0.1694	0.00498	2.94%
Pb 220.353†	124.6	0.02493	mg/L	0.000382	0.1246	0.00191	1.53%
Sb 206.836†	3.3	0.00120	mg/L	0.000373	0.00598	0.001863	31.17%
Se 196.026†	-6.3	-0.01069	mg/L	0.003098	-0.05346	0.015490	28.98%
Si 288.158†	2475.0	1.364	mg/L	0.0093	6.818	0.0467	0.69%
Sn 189.927†	-46.4	-0.00640	mg/L	0.001556	-0.03199	0.007779	24.32%
Sr 421.552†	278472.1	0.2840	mg/L	0.00029	1.420	0.0014	0.10%
Ti 334.903†	13678.7	0.5817	mg/L	0.00104	2.909	0.0052	0.18%
Tl 190.801†	-10.1	0.00554	mg/L	0.001102	0.02770	0.005508	19.88%
V 292.402†	18968.4	0.1272	mg/L	0.00016	0.6362	0.00079	0.12%
Zn 206.200†	874.7	0.1949	mg/L	0.00081	0.9744	0.00406	0.42%



Sequence No.: 69  
 Sample ID: WE82 L SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 352  
 Date Collected: 3/1/2013 1:27:12 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 L SWC

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: WE82 L SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3114959.4	103.3 %		0.71			0.68%
ScR 361.383	338021.1	105.6 %		0.34			0.32%
Ag 328.068†	-234.4	-0.00079 mg/L		0.000169	-0.00397 mg/L	0.000847	21.32%
Al 308.215†	73190.3	51.86 mg/L		0.420	259.3 mg/L	2.10	0.81%
As 188.979†	-311.0	-0.01515 mg/L		0.002316	-0.07573 mg/L	0.011580	15.29%
B 249.677†	32.9	0.00453 mg/L		0.000328	0.02265 mg/L	0.001639	7.24%
Ba 233.527†	3502.3	0.5445 mg/L		0.00297	2.722 mg/L	0.0148	0.55%
Be 313.042†	780.9	0.00138 mg/L		0.000032	0.00688 mg/L	0.000160	2.33%
Ca 317.933†	211066.3	19.62 mg/L		0.118	98.10 mg/L	0.589	0.60%
Cd 228.802†	41.8	0.00256 mg/L		0.000044	0.01280 mg/L	0.000219	1.71%
Co 228.616†	2500.4	0.04844 mg/L		0.000454	0.2422 mg/L	0.00227	0.94%
Cr 267.716†	378.5	0.05690 mg/L		0.001051	0.2845 mg/L	0.00525	1.85%
Cu 324.752†	18305.3	0.06663 mg/L		0.000671	0.3331 mg/L	0.00335	1.01%
Fe 273.955†	139488.6	89.40 mg/L		0.436	447.0 mg/L	2.18	0.49%
K 766.490†	21496.4	12.48 mg/L		0.064	62.40 mg/L	0.319	0.51%
Mg 279.077†	13732.8	12.91 mg/L		0.101	64.55 mg/L	0.503	0.78%
Mn 257.610†	115014.9	2.321 mg/L		0.0133	11.61 mg/L	0.066	0.57%
Mo 202.031†	56.0	0.00224 mg/L		0.000219	0.01121 mg/L	0.001097	9.79%
Na 589.592†	9085.2	0.6810 mg/L		0.00655	3.405 mg/L	0.0328	0.96%
Na 330.237†	-9.3	0.9310 mg/L		0.19087	4.655 mg/L	0.9544	20.50%
Ni 231.604†	205.0	0.04720 mg/L		0.000908	0.2360 mg/L	0.00454	1.92%
Pb 220.353†	237.7	0.03331 mg/L		0.000021	0.1666 mg/L	0.00011	0.06%
Sb 206.836†	-2.4	0.00283 mg/L		0.002895	0.01417 mg/L	0.014476	102.18%
Se 196.026†	2.6	-0.00460 mg/L		0.003985	-0.02298 mg/L	0.019926	86.69%
Si 288.158†	3480.8	1.916 mg/L		0.0113	9.579 mg/L	0.0564	0.59%
Sn 189.927†	-41.2	-0.00555 mg/L		0.000646	-0.02775 mg/L	0.003229	11.64%
Sr 421.552†	181522.9	0.1851 mg/L		0.00118	0.9256 mg/L	0.00589	0.64%
Ti 334.903†	108949.2	4.647 mg/L		0.0285	23.23 mg/L	0.143	0.61%
Tl 190.801†	-14.4	0.00485 mg/L		0.000905	0.02426 mg/L	0.004524	18.65%
V 292.402†	29453.8	0.1970 mg/L		0.00164	0.9852 mg/L	0.00821	0.83%
Zn 206.200†	989.8	0.2206 mg/L		0.00117	1.103 mg/L	0.0058	0.53%

Sequence No.: 70  
 Sample ID: WE82 M SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 353  
 Date Collected: 3/1/2013 1:31:13 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 M SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 M SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3118460.8	103.4 %		0.50			0.49%
ScR 361.383	338874.6	105.9 %		0.43			0.41%
Ag 328.068†	-217.4	-0.00072 mg/L		0.000041	-0.00360 mg/L	0.000205	5.70%
Al 308.215†	91309.3	64.70 mg/L		0.209	323.5 mg/L	1.04	0.32%
As 188.979†	-98.5	0.01258 mg/L		0.002073	0.06291 mg/L	0.010367	16.48%
B 249.677†	8.4	0.00108 mg/L		0.000195	0.00539 mg/L	0.000977	18.11%
Ba 233.527†	2681.5	0.4112 mg/L		0.00254	2.056 mg/L	0.0127	0.62%
Be 313.042†	846.9	0.00153 mg/L		0.000012	0.00765 mg/L	0.000060	0.78%
Ca 317.933†	219906.7	20.44 mg/L		0.097	102.2 mg/L	0.48	0.47%
Cd 228.802†	50.1	0.00222 mg/L		0.000121	0.01108 mg/L	0.000607	5.47%
Co 228.616†	2104.2	0.04410 mg/L		0.000192	0.2205 mg/L	0.00096	0.44%
Cr 267.716†	435.7	0.06540 mg/L		0.000438	0.3270 mg/L	0.00219	0.67%
Cu 324.752†	17718.5	0.06594 mg/L		0.000377	0.3297 mg/L	0.00188	0.57%
Fe 273.955†	166634.3	106.8 mg/L		0.38	534.0 mg/L	1.92	0.36%
K 766.490†	17483.3	10.15 mg/L		0.094	50.75 mg/L	0.470	0.93%
Mg 279.077†	18934.1	17.81 mg/L		0.099	89.04 mg/L	0.493	0.55%
Mn 257.610†	121232.2	2.446 mg/L		0.0093	12.23 mg/L	0.047	0.38%
Mo 202.031†	53.6	0.00213 mg/L		0.000136	0.01063 mg/L	0.000682	6.41%
Na 589.592†	10558.2	0.7915 mg/L		0.00825	3.957 mg/L	0.0412	1.04%
Na 330.237†	9.8	0.8203 mg/L		0.08649	4.102 mg/L	0.4325	10.54%
Ni 231.604†	248.2	0.05715 mg/L		0.001084	0.2858 mg/L	0.00542	1.90%
Pb 220.353†	119.4	0.02391 mg/L		0.000210	0.1195 mg/L	0.00105	0.88%
Sb 206.836†	14.0	0.00526 mg/L		0.001636	0.02629 mg/L	0.008182	31.13%
Se 196.026†	2.5	-0.00616 mg/L		0.001168	-0.03078 mg/L	0.005842	18.98%
Si 288.158†	2814.6	1.550 mg/L		0.0068	7.750 mg/L	0.0340	0.44%
Sn 189.927†	-41.8	-0.00609 mg/L		0.000645	-0.03043 mg/L	0.003225	10.60%
Sr 421.552†	218398.2	0.2227 mg/L		0.00081	1.114 mg/L	0.0040	0.36%
Ti 334.903†	47192.9	2.012 mg/L		0.0090	10.06 mg/L	0.045	0.44%
Tl 190.801†	-23.6	0.00347 mg/L		0.001377	0.01737 mg/L	0.006884	39.63%
V 292.402†	27886.6	0.1869 mg/L		0.00135	0.9345 mg/L	0.00676	0.72%
Zn 206.200†	872.6	0.1945 mg/L		0.00081	0.9723 mg/L	0.00403	0.41%

Sequence No.: 71  
 Sample ID: WE82 MB2SPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 354  
 Date Collected: 3/1/2013 1:35:14 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 MB2SPK SWC

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: WE82 MB2SPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3097408.5	102.7	%	0.31			0.30%
ScR 361.383	334389.6	104.5	%	0.22			0.21%
Ag 328.068†	125400.1	0.5279	mg/L	0.00312	1.056 mg/L	0.0062	0.59%
Al 308.215†	2867.3	2.025	mg/L	0.0082	4.049 mg/L	0.0163	0.40%
As 188.979†	3733.0	2.091	mg/L	0.0010	4.181 mg/L	0.0020	0.05%
B 249.677†	12.3	0.00055	mg/L	0.000123	0.00110 mg/L	0.000245	22.33%
Ba 233.527†	12924.9	2.058	mg/L	0.0083	4.115 mg/L	0.0165	0.40%
Be 313.042†	260156.2	0.4900	mg/L	0.00258	0.9800 mg/L	0.00516	0.53%
Ca 317.933†	105947.1	9.849	mg/L	0.0405	19.70 mg/L	0.081	0.41%
Cd 228.802†	14154.8	0.5182	mg/L	0.00214	1.036 mg/L	0.0043	0.41%
Co 228.616†	22544.4	0.5107	mg/L	0.00448	1.021 mg/L	0.0090	0.88%
Cr 267.716†	3499.3	0.5152	mg/L	0.00254	1.030 mg/L	0.0051	0.49%
Cu 324.752†	147506.5	0.5093	mg/L	0.00452	1.019 mg/L	0.0090	0.89%
Fe 273.955†	3159.2	2.022	mg/L	0.0061	4.044 mg/L	0.0123	0.30%
K 766.490†	17180.4	9.975	mg/L	0.0312	19.95 mg/L	0.062	0.31%
Mg 279.077†	10785.5	10.18	mg/L	0.040	20.36 mg/L	0.081	0.40%
Mn 257.610†	25008.1	0.5051	mg/L	0.00108	1.010 mg/L	0.0022	0.21%
Mo 202.031†	29.2	0.00115	mg/L	0.000045	0.00230 mg/L	0.000091	3.94%
Na 589.592†	133278.3	9.991	mg/L	0.0229	19.98 mg/L	0.046	0.23%
Na 330.237†	327.4	10.40	mg/L	0.214	20.80 mg/L	0.428	2.06%
Ni 231.604†	2168.4	0.4984	mg/L	0.00231	0.9967 mg/L	0.00463	0.46%
Pb 220.353†	19847.9	2.009	mg/L	0.0129	4.017 mg/L	0.0259	0.64%
Sb 206.836†	13.7	-0.00131	mg/L	0.001188	-0.00262 mg/L	0.002376	90.62%
Se 196.026†	3621.4	2.067	mg/L	0.0055	4.135 mg/L	0.0111	0.27%
Si 288.158†	-6.5	-0.00066	mg/L	0.002050	-0.00132 mg/L	0.004100	311.06%
Sn 189.927†	-18.9	-0.00287	mg/L	0.000079	-0.00574 mg/L	0.000159	2.77%
Sr 421.552†	484801.5	0.4944	mg/L	0.00113	0.9888 mg/L	0.00226	0.23%
Ti 334.903†	60.1	0.00188	mg/L	0.000518	0.00376 mg/L	0.001037	27.60%
Tl 190.801†	5021.8	2.060	mg/L	0.0026	4.119 mg/L	0.0052	0.13%
V 292.402†	74328.8	0.5160	mg/L	0.00319	1.032 mg/L	0.0064	0.62%
Zn 206.200†	2218.6	0.4939	mg/L	0.00241	0.9878 mg/L	0.00482	0.49%

Sequence No.: 72  
 Sample ID: CV7  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 3/1/2013 1:39:15 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3115235.9	103.3	%	0.49			0.47%
ScR 361.383	326664.8	102.1	%	0.64			0.62%
Ag 328.068†	244305.8	1.028	mg/L	0.0091	1.028 mg/L	0.0091	0.88%
Al 308.215†	2878.7	2.006	mg/L	0.0170	2.006 mg/L	0.0170	0.85%
As 188.979†	3572.7	2.032	mg/L	0.0130	2.032 mg/L	0.0130	0.64%
B 249.677†	7010.7	0.9925	mg/L	0.00511	0.9925 mg/L	0.00511	0.52%
Ba 233.527†	6495.4	1.034	mg/L	0.0055	1.034 mg/L	0.0055	0.53%
Be 313.042†	514501.5	0.9691	mg/L	0.00947	0.9691 mg/L	0.00947	0.98%
Ca 317.933†	21019.5	1.954	mg/L	0.0090	1.954 mg/L	0.0090	0.46%
Cd 228.802†	27288.3	1.010	mg/L	0.0093	1.010 mg/L	0.0093	0.92%
Co 228.616†	44105.5	0.9979	mg/L	0.00453	0.9979 mg/L	0.00453	0.45%
Cr 267.716†	6975.0	1.029	mg/L	0.0067	1.029 mg/L	0.0067	0.65%
Cu 324.752†	295280.7	1.019	mg/L	0.0055	1.019 mg/L	0.0055	0.54%
Fe 273.955†	3182.7	2.034	mg/L	0.0196	2.034 mg/L	0.0196	0.96%
K 766.490†	34831.6	20.22	mg/L	0.050	20.22 mg/L	0.050	0.25%
Mg 279.077†	2140.8	2.027	mg/L	0.0077	2.027 mg/L	0.0077	0.38%
Mn 257.610†	48295.7	0.9751	mg/L	0.00107	0.9751 mg/L	0.00107	0.11%
Mo 202.031†	22557.6	0.9972	mg/L	0.00653	0.9972 mg/L	0.00653	0.65%
Na 589.592†	683814.6	51.26	mg/L	0.416	51.26 mg/L	0.416	0.81%
Na 330.237†	1636.1	52.67	mg/L	0.262	52.67 mg/L	0.262	0.50%
Ni 231.604†	4376.8	1.008	mg/L	0.0070	1.008 mg/L	0.0070	0.70%
Pb 220.353†	19793.7	2.003	mg/L	0.0135	2.003 mg/L	0.0135	0.67%
Sb 206.836†	7353.9	2.055	mg/L	0.0110	2.055 mg/L	0.0110	0.53%
Se 196.026†	3498.9	1.997	mg/L	0.0164	1.997 mg/L	0.0164	0.82%
Si 288.158†	3665.5	2.011	mg/L	0.0108	2.011 mg/L	0.0108	0.54%
Sn 189.927†	5013.4	0.9833	mg/L	0.00795	0.9833 mg/L	0.00795	0.81%
Sr 421.552†	973857.4	0.9932	mg/L	0.00490	0.9932 mg/L	0.00490	0.49%
Ti 334.903†	23333.9	0.9941	mg/L	0.00395	0.9941 mg/L	0.00395	0.40%
Tl 190.801†	4855.7	1.988	mg/L	0.0105	1.988 mg/L	0.0105	0.53%
V 292.402†	146259.1	1.015	mg/L	0.0084	1.015 mg/L	0.0084	0.83%
Zn 206.200†	4662.3	1.038	mg/L	0.0074	1.038 mg/L	0.0074	0.71%

Sequence No.: 73  
 Sample ID: CB7  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 3/1/2013 1:43:19 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3127083.3	103.7	%	0.38			0.36%
ScR 361.383	333257.5	104.1	%	0.63			0.61%
Ag 328.068†	28.4	0.00012	mg/L	0.000175	0.00012 mg/L	0.000175	146.30%
Al 308.215†	6.4	0.00453	mg/L	0.005952	0.00453 mg/L	0.005952	131.37%
As 188.979†	2.0	0.00112	mg/L	0.001040	0.00112 mg/L	0.001040	92.90%
B 249.677†	20.7	0.00293	mg/L	0.001359	0.00293 mg/L	0.001359	46.39%
Ba 233.527†	4.9	0.00078	mg/L	0.000620	0.00078 mg/L	0.000620	79.10%
Be 313.042†	3.1	0.00001	mg/L	0.000037	0.00001 mg/L	0.000037	623.92%
Ca 317.933†	-9.2	-0.00085	mg/L	0.000593	-0.00085 mg/L	0.000593	69.47%
Cd 228.802†	1.3	0.00004	mg/L	0.000071	0.00004 mg/L	0.000071	165.97%
Co 228.616†	3.9	0.00009	mg/L	0.000029	0.00009 mg/L	0.000029	32.93%
Cr 267.716†	8.4	0.00124	mg/L	0.000256	0.00124 mg/L	0.000256	20.61%
Cu 324.752†	-69.4	-0.00024	mg/L	0.000046	-0.00024 mg/L	0.000046	19.11%
Fe 273.955†	-0.5	-0.00029	mg/L	0.000716	-0.00029 mg/L	0.000716	245.66%
K 766.490†	28.7	0.01667	mg/L	0.012437	0.01667 mg/L	0.012437	74.61%
Mg 279.077†	-0.3	-0.00032	mg/L	0.004559	-0.00032 mg/L	0.004559	>999.9%
Mn 257.610†	-8.4	-0.00017	mg/L	0.000145	-0.00017 mg/L	0.000145	85.57%
Mo 202.031†	29.0	0.00128	mg/L	0.000188	0.00128 mg/L	0.000188	14.70%
Na 589.592†	78.0	0.00585	mg/L	0.002522	0.00585 mg/L	0.002522	43.11%
Na 330.237†	12.1	0.3889	mg/L	0.34029	0.3889 mg/L	0.34029	87.49%
Ni 231.604†	1.3	0.00031	mg/L	0.000270	0.00031 mg/L	0.000270	87.52%
Pb 220.353†	-0.4	-0.00004	mg/L	0.000960	-0.00004 mg/L	0.000960	>999.9%
Sb 206.836†	14.3	0.00398	mg/L	0.000689	0.00398 mg/L	0.000689	17.33%
Se 196.026†	-1.0	-0.00056	mg/L	0.003038	-0.00056 mg/L	0.003038	546.70%
Si 288.158†	-0.6	-0.00034	mg/L	0.002713	-0.00034 mg/L	0.002713	790.42%
Sn 189.927†	1.0	0.00020	mg/L	0.000282	0.00020 mg/L	0.000282	141.85%
Sr 421.552†	48.7	0.00005	mg/L	0.000014	0.00005 mg/L	0.000014	27.76%
Ti 334.903†	13.3	0.00056	mg/L	0.000563	0.00056 mg/L	0.000563	99.60%
Tl 190.801†	3.8	0.00158	mg/L	0.000655	0.00158 mg/L	0.000655	41.42%
V 292.402†	-31.9	-0.00022	mg/L	0.000149	-0.00022 mg/L	0.000149	69.15%
Zn 206.200†	-1.6	-0.00035	mg/L	0.000212	-0.00035 mg/L	0.000212	60.08%

Sequence No.: 74  
 Sample ID: WE82 N SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 355  
 Date Collected: 3/1/2013 1:47:35 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 N SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 N SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3114693.8	103.3 %		0.24			0.24%
ScR 361.383	337373.0	105.4 %		0.54			0.51%
Ag 328.068†	207.1	0.00102 mg/L		0.000240	0.00510 mg/L	0.001202	23.57%
Al 308.215†	93542.7	66.28 mg/L		0.297	331.4 mg/L	1.48	0.45%
As 188.979†	-106.2	0.03373 mg/L		0.001082	0.1687 mg/L	0.00541	3.21%
B 249.677†	32.1	0.00445 mg/L		0.001346	0.02224 mg/L	0.006728	30.25%
Ba 233.527†	3526.0	0.5506 mg/L		0.00412	2.753 mg/L	0.0206	0.75%
Be 313.042†	994.2	0.00181 mg/L		0.000015	0.00905 mg/L	0.000075	0.83%
Ca 317.933†	167732.6	15.59 mg/L		0.037	77.96 mg/L	0.187	0.24%
Cd 228.802†	39.9	0.00185 mg/L		0.000115	0.00927 mg/L	0.000577	6.23%
Co 228.616†	1802.8	0.03599 mg/L		0.000114	0.1799 mg/L	0.00057	0.32%
Cr 267.716†	520.8	0.07745 mg/L		0.000529	0.3873 mg/L	0.00264	0.68%
Cu 324.752†	14591.7	0.05339 mg/L		0.000195	0.2669 mg/L	0.00097	0.36%
Fe 273.955†	114537.7	73.41 mg/L		0.633	367.0 mg/L	3.17	0.86%
K 766.490†	21977.4	12.76 mg/L		0.045	63.80 mg/L	0.225	0.35%
Mg 279.077†	14405.5	13.55 mg/L		0.089	67.77 mg/L	0.447	0.66%
Mn 257.610†	89254.0	1.801 mg/L		0.0098	9.005 mg/L	0.0491	0.55%
Mo 202.031†	51.9	0.00211 mg/L		0.000074	0.01054 mg/L	0.000369	3.50%
Na 589.592†	9396.1	0.7044 mg/L		0.00359	3.522 mg/L	0.0179	0.51%
Na 330.237†	8.4	0.9721 mg/L		0.18561	4.860 mg/L	0.9280	19.09%
Ni 231.604†	214.3	0.04934 mg/L		0.001030	0.2467 mg/L	0.00515	2.09%
Pb 220.353†	147.1	0.02897 mg/L		0.000496	0.1448 mg/L	0.00248	1.71%
Sb 206.836†	4.4	0.00280 mg/L		0.001145	0.01399 mg/L	0.005727	40.95%
Se 196.026†	1.7	-0.00678 mg/L		0.005747	-0.03391 mg/L	0.028737	84.75%
Si 288.158†	2716.0	1.495 mg/L		0.0138	7.476 mg/L	0.0692	0.93%
Sn 189.927†	-33.0	-0.00465 mg/L		0.000585	-0.02325 mg/L	0.002923	12.57%
Sr 421.552†	193146.2	0.1970 mg/L		0.00099	0.9849 mg/L	0.00493	0.50%
Ti 334.903†	64155.6	2.736 mg/L		0.0125	13.68 mg/L	0.063	0.46%
Tl 190.801†	-13.2	0.00349 mg/L		0.001909	0.01746 mg/L	0.009547	54.69%
V 292.402†	21577.2	0.1445 mg/L		0.00073	0.7225 mg/L	0.00366	0.51%
Zn 206.200†	909.3	0.2026 mg/L		0.00082	1.013 mg/L	0.0041	0.40%

Sequence No.: 75  
 Sample ID: WE82 O SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 356  
 Date Collected: 3/1/2013 1:51:37 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 O SWC

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: WE82 O SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	3134679.8	103.9	%	0.19				0.19%
ScR 361.383	335596.8	104.9	%	0.54				0.52%
Ag 328.068†	-182.7	-0.00067	mg/L	0.000015	-0.00335	mg/L	0.000075	2.23%
Al 308.215†	47923.9	33.96	mg/L	0.109	169.8	mg/L	0.55	0.32%
As 188.979†	-6.9	0.01882	mg/L	0.002141	0.09410	mg/L	0.010704	11.38%
B 249.677†	22.2	0.00309	mg/L	0.000842	0.01546	mg/L	0.004212	27.24%
Ba 233.527†	1606.8	0.2483	mg/L	0.00155	1.242	mg/L	0.0078	0.63%
Be 313.042†	725.7	0.00134	mg/L	0.000036	0.00670	mg/L	0.000178	2.65%
Ca 317.933†	117892.6	10.96	mg/L	0.026	54.80	mg/L	0.129	0.24%
Cd 228.802†	23.4	0.00092	mg/L	0.000131	0.00460	mg/L	0.000654	14.21%
Co 228.616†	768.7	0.01619	mg/L	0.000070	0.08093	mg/L	0.000348	0.43%
Cr 267.716†	442.2	0.06539	mg/L	0.000217	0.3270	mg/L	0.00108	0.33%
Cu 324.752†	5243.2	0.02042	mg/L	0.000106	0.1021	mg/L	0.00053	0.52%
Fe 273.955†	79790.0	51.14	mg/L	0.303	255.7	mg/L	1.51	0.59%
K 766.490†	15072.7	8.751	mg/L	0.0369	43.76	mg/L	0.185	0.42%
Mg 279.077†	13569.0	12.78	mg/L	0.044	63.88	mg/L	0.221	0.35%
Mn 257.610†	42742.4	0.8625	mg/L	0.00294	4.312	mg/L	0.0147	0.34%
Mo 202.031†	42.2	0.00173	mg/L	0.000087	0.00866	mg/L	0.000434	5.01%
Na 589.592†	2195.0	0.1645	mg/L	0.00377	0.8227	mg/L	0.01885	2.29%
Na 330.237†	0.2	0.1562	mg/L	0.25577	0.7808	mg/L	1.27885	163.79%
Ni 231.604†	148.2	0.03413	mg/L	0.001283	0.1706	mg/L	0.00641	3.76%
Pb 220.353†	193.5	0.02612	mg/L	0.000781	0.1306	mg/L	0.00390	2.99%
Sb 206.836†	-3.2	-0.00096	mg/L	0.000529	-0.00481	mg/L	0.002645	54.96%
Se 196.026†	7.3	0.00020	mg/L	0.002181	0.00100	mg/L	0.010907	>999.9%
Si 288.158†	2942.9	1.620	mg/L	0.0125	8.099	mg/L	0.0626	0.77%
Sn 189.927†	-25.6	-0.00397	mg/L	0.000787	-0.01984	mg/L	0.003934	19.83%
Sr 421.552†	54953.0	0.05604	mg/L	0.000195	0.2802	mg/L	0.00098	0.35%
Ti 334.903†	16072.8	0.6850	mg/L	0.00198	3.425	mg/L	0.0099	0.29%
Tl 190.801†	-8.5	0.00285	mg/L	0.001189	0.01426	mg/L	0.005945	41.70%
V 292.402†	12940.2	0.08690	mg/L	0.000283	0.4345	mg/L	0.00141	0.33%
Zn 206.200†	632.7	0.1411	mg/L	0.00098	0.7054	mg/L	0.00489	0.69%

Sequence No.: 76  
 Sample ID: WE82 P SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 357  
 Date Collected: 3/1/2013 1:55:38 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 P SWC

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: WE82 P SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3141212.7	104.1	%	0.45			0.44%
ScR 361.383	338642.8	105.8	%	0.58			0.55%
Ag 328.068†	-356.7	-0.00104	mg/L	0.000193	-0.00520 mg/L	0.000964	18.54%
Al 308.215†	57035.5	40.42	mg/L	0.104	202.1 mg/L	0.52	0.26%
As 188.979†	72.1	0.04494	mg/L	0.001137	0.2247 mg/L	0.00568	2.53%
B 249.677†	-5.7	-0.00086	mg/L	0.000876	-0.00432 mg/L	0.004380	101.32%
Ba 233.527†	1737.9	0.2658	mg/L	0.00276	1.329 mg/L	0.0138	1.04%
Be 313.042†	954.1	0.00177	mg/L	0.000020	0.00884 mg/L	0.000099	1.13%
Ca 317.933†	708804.4	65.89	mg/L	0.104	329.4 mg/L	0.52	0.16%
Cd 228.802†	34.0	0.00105	mg/L	0.000039	0.00527 mg/L	0.000196	3.73%
Co 228.616†	1036.8	0.02293	mg/L	0.000204	0.1146 mg/L	0.00102	0.89%
Cr 267.716†	174.2	0.02529	mg/L	0.000302	0.1265 mg/L	0.00151	1.19%
Cu 324.752†	3755.2	0.01644	mg/L	0.000186	0.08221 mg/L	0.000930	1.13%
Fe 273.955†	115336.2	73.92	mg/L	0.202	369.6 mg/L	1.01	0.27%
K 766.490†	7830.1	4.546	mg/L	0.0246	22.73 mg/L	0.123	0.54%
Mg 279.077†	19542.6	18.40	mg/L	0.024	91.98 mg/L	0.120	0.13%
Mn 257.610†	63210.9	1.275	mg/L	0.0042	6.377 mg/L	0.0210	0.33%
Mo 202.031†	79.7	0.00274	mg/L	0.000094	0.01372 mg/L	0.000469	3.42%
Na 589.592†	2376.4	0.1781	mg/L	0.00273	0.8907 mg/L	0.01367	1.53%
Na 330.237†	10.6	0.3745	mg/L	0.09302	1.872 mg/L	0.4651	24.84%
Ni 231.604†	87.8	0.02021	mg/L	0.001040	0.1011 mg/L	0.00520	5.15%
Pb 220.353†	219.0	0.02916	mg/L	0.001350	0.1458 mg/L	0.00675	4.63%
Sb 206.836†	4.9	0.00160	mg/L	0.001985	0.00798 mg/L	0.009924	124.35%
Se 196.026†	-10.8	-0.01087	mg/L	0.006682	-0.05436 mg/L	0.033408	61.45%
Si 288.158†	1648.0	0.9085	mg/L	0.00963	4.542 mg/L	0.0481	1.06%
Sn 189.927†	-66.6	-0.00747	mg/L	0.000878	-0.03737 mg/L	0.004390	11.75%
Sr 421.552†	136540.1	0.1392	mg/L	0.00020	0.6962 mg/L	0.00101	0.15%
Ti 334.903†	7177.7	0.3023	mg/L	0.00155	1.511 mg/L	0.0077	0.51%
Tl 190.801†	8.2	0.01262	mg/L	0.000731	0.06312 mg/L	0.003653	5.79%
V 292.402†	16219.2	0.1085	mg/L	0.00085	0.5427 mg/L	0.00426	0.78%
Zn 206.200†	813.7	0.1812	mg/L	0.00168	0.9061 mg/L	0.00839	0.93%



Sequence No.: 77  
 Sample ID: WE82 Q SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 358  
 Date Collected: 3/1/2013 1:59:39 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 Q SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 Q SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3157538.4	104.7	%	0.43			0.41%
ScR 361.383	339212.7	106.0	%	0.18			0.17%
Ag 328.068†	-179.7	-0.00065	mg/L	0.000083	-0.00327 mg/L	0.000416	12.73%
Al 308.215†	39433.7	27.94	mg/L	0.047	139.7 mg/L	0.23	0.17%
As 188.979†	-66.1	0.01389	mg/L	0.001072	0.06943 mg/L	0.005361	7.72%
B 249.677†	29.3	0.00402	mg/L	0.000773	0.02012 mg/L	0.003863	19.20%
Ba 233.527†	2188.8	0.3334	mg/L	0.00215	1.667 mg/L	0.0107	0.64%
Be 313.042†	1093.0	0.00200	mg/L	0.000008	0.00998 mg/L	0.000039	0.39%
Ca 317.933†	60243.4	5.600	mg/L	0.0319	28.00 mg/L	0.160	0.57%
Cd 228.802†	46.6	0.00202	mg/L	0.000128	0.01009 mg/L	0.000641	6.36%
Co 228.616†	2269.3	0.04877	mg/L	0.000221	0.2439 mg/L	0.00111	0.45%
Cr 267.716†	530.0	0.08056	mg/L	0.000504	0.4028 mg/L	0.00252	0.63%
Cu 324.752†	18637.0	0.06906	mg/L	0.001087	0.3453 mg/L	0.00543	1.57%
Fe 273.955†	159842.2	102.4	mg/L	1.56	512.2 mg/L	7.78	1.52%
K 766.490†	9320.1	5.411	mg/L	0.0255	27.06 mg/L	0.127	0.47%
Mg 279.077†	5995.6	5.601	mg/L	0.0141	28.01 mg/L	0.070	0.25%
Mn 257.610†	90170.1	1.820	mg/L	0.0171	9.099 mg/L	0.0855	0.94%
Mo 202.031†	13.6	0.00053	mg/L	0.000387	0.00266 mg/L	0.001937	72.74%
Na 589.592†	4392.9	0.3293	mg/L	0.00219	1.647 mg/L	0.0110	0.67%
Na 330.237†	4.1	0.4736	mg/L	0.22383	2.368 mg/L	1.1192	47.26%
Ni 231.604†	416.5	0.09590	mg/L	0.001134	0.4795 mg/L	0.00567	1.18%
Pb 220.353†	444.2	0.04706	mg/L	0.000897	0.2353 mg/L	0.00449	1.91%
Sb 206.836†	12.7	0.00440	mg/L	0.000870	0.02199 mg/L	0.004348	19.77%
Se 196.026†	1.9	-0.00225	mg/L	0.001372	-0.01124 mg/L	0.006860	61.03%
Si 288.158†	2246.8	1.236	mg/L	0.0075	6.181 mg/L	0.0374	0.60%
Sn 189.927†	-12.1	-0.00162	mg/L	0.001195	-0.00811 mg/L	0.005975	73.71%
Sr 421.552†	103768.5	0.1058	mg/L	0.00017	0.5291 mg/L	0.00086	0.16%
Ti 334.903†	34871.7	1.487	mg/L	0.0033	7.437 mg/L	0.0165	0.22%
Tl 190.801†	-22.0	0.00345	mg/L	0.003104	0.01724 mg/L	0.015519	90.00%
V 292.402†	29837.4	0.2009	mg/L	0.00193	1.004 mg/L	0.0096	0.96%
Zn 206.200†	1124.2	0.2504	mg/L	0.00090	1.252 mg/L	0.0045	0.36%

Sequence No.: 78  
 Sample ID: WE82 R SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 359  
 Date Collected: 3/1/2013 2:03:40 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 R SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

## Mean Data: WE82 R SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3130909.3	103.8 %		0.26			0.25%
ScR 361.383	339031.1	106.0 %		0.16			0.15%
Ag 328.068†	-326.0	-0.00117 mg/L		0.000089	-0.00586 mg/L	0.000447	7.62%
Al 308.215†	96014.1	68.03 mg/L		0.159	340.2 mg/L	0.80	0.23%
As 188.979†	-122.2	0.01192 mg/L		0.001336	0.05958 mg/L	0.006682	11.22%
B 249.677†	11.1	0.00145 mg/L		0.000734	0.00723 mg/L	0.003671	50.78%
Ba 233.527†	3510.2	0.5401 mg/L		0.00073	2.701 mg/L	0.0036	0.13%
Be 313.042†	1213.5	0.00220 mg/L		0.000031	0.01098 mg/L	0.000156	1.42%
Ca 317.933†	185238.6	17.22 mg/L		0.063	86.10 mg/L	0.313	0.36%
Cd 228.802†	48.6	0.00223 mg/L		0.000188	0.01115 mg/L	0.000938	8.41%
Co 228.616†	2504.6	0.05254 mg/L		0.000092	0.2627 mg/L	0.00046	0.18%
Cr 267.716†	486.6	0.07368 mg/L		0.000747	0.3684 mg/L	0.00374	1.01%
Cu 324.752†	17385.2	0.06574 mg/L		0.000173	0.3287 mg/L	0.00086	0.26%
Fe 273.955†	198867.1	127.5 mg/L		0.84	637.3 mg/L	4.22	0.66%
K 766.490†	16916.5	9.822 mg/L		0.0735	49.11 mg/L	0.367	0.75%
Mg 279.077†	17744.2	16.67 mg/L		0.050	83.37 mg/L	0.252	0.30%
Mn 257.610†	110952.4	2.239 mg/L		0.0106	11.20 mg/L	0.053	0.47%
Mo 202.031†	43.6	0.00172 mg/L		0.000097	0.00860 mg/L	0.000487	5.66%
Na 589.592†	9395.9	0.7043 mg/L		0.00298	3.522 mg/L	0.0149	0.42%
Na 330.237†	12.5	0.9922 mg/L		0.15425	4.961 mg/L	0.7713	15.55%
Ni 231.604†	259.9	0.05985 mg/L		0.000827	0.2992 mg/L	0.00413	1.38%
Pb 220.353†	127.8	0.02457 mg/L		0.000684	0.1228 mg/L	0.00342	2.78%
Sb 206.836†	9.9	0.00462 mg/L		0.000838	0.02309 mg/L	0.004188	18.14%
Se 196.026†	7.5	-0.00374 mg/L		0.004112	-0.01869 mg/L	0.020561	110.02%
Si 288.158†	1827.6	1.007 mg/L		0.0063	5.035 mg/L	0.0315	0.63%
Sn 189.927†	-31.0	-0.00418 mg/L		0.000898	-0.02091 mg/L	0.004488	21.47%
Sr 421.552†	157230.5	0.1603 mg/L		0.00020	0.8017 mg/L	0.00098	0.12%
Ti 334.903†	55539.5	2.368 mg/L		0.0053	11.84 mg/L	0.027	0.22%
Tl 190.801†	-27.0	0.00443 mg/L		0.000562	0.02213 mg/L	0.002809	12.69%
V 292.402†	40097.3	0.2701 mg/L		0.00123	1.350 mg/L	0.0061	0.45%
Zn 206.200†	1092.4	0.2433 mg/L		0.00127	1.216 mg/L	0.0064	0.52%

Sequence No.: 79  
 Sample ID: WE82 S SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 360  
 Date Collected: 3/1/2013 2:07:41 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 S SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 S SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3141085.2	104.1	%	0.45			0.44%
ScR 361.383	342037.9	106.9	%	0.40			0.38%
Ag 328.068†	-321.0	-0.00089	mg/L	0.000114	-0.00444 mg/L	0.000570	12.84%
Al 308.215†	100191.5	71.00	mg/L	0.284	355.0 mg/L	1.42	0.40%
As 188.979†	46.8	0.03293	mg/L	0.001834	0.1647 mg/L	0.00917	5.57%
B 249.677†	-2.2	-0.00039	mg/L	0.001482	-0.00196 mg/L	0.007412	378.65%
Ba 233.527†	2782.1	0.4288	mg/L	0.00206	2.144 mg/L	0.0103	0.48%
Be 313.042†	1236.3	0.00229	mg/L	0.000018	0.01143 mg/L	0.000089	0.78%
Ca 317.933†	684854.6	63.66	mg/L	0.138	318.3 mg/L	0.69	0.22%
Cd 228.802†	39.3	0.00134	mg/L	0.000154	0.00668 mg/L	0.000770	11.52%
Co 228.616†	1577.1	0.03506	mg/L	0.000268	0.1753 mg/L	0.00134	0.76%
Cr 267.716†	345.9	0.05017	mg/L	0.000820	0.2509 mg/L	0.00410	1.63%
Cu 324.752†	8114.8	0.03252	mg/L	0.000045	0.1626 mg/L	0.00022	0.14%
Fe 273.955†	150240.4	96.29	mg/L	0.403	481.4 mg/L	2.02	0.42%
K 766.490†	12748.4	7.402	mg/L	0.0616	37.01 mg/L	0.308	0.83%
Mg 279.077†	32500.9	30.61	mg/L	0.098	153.1 mg/L	0.49	0.32%
Mn 257.610†	75003.6	1.513	mg/L	0.0034	7.566 mg/L	0.0168	0.22%
Mo 202.031†	81.2	0.00284	mg/L	0.000279	0.01418 mg/L	0.001395	9.84%
Na 589.592†	3890.5	0.2916	mg/L	0.00328	1.458 mg/L	0.0164	1.12%
Na 330.237†	12.4	0.4335	mg/L	0.26660	2.167 mg/L	1.3330	61.50%
Ni 231.604†	133.0	0.03062	mg/L	0.001041	0.1531 mg/L	0.00521	3.40%
Pb 220.353†	174.4	0.03176	mg/L	0.000151	0.1588 mg/L	0.00075	0.47%
Sb 206.836†	1.5	0.00053	mg/L	0.000732	0.00266 mg/L	0.003662	137.47%
Se 196.026†	2.8	-0.00666	mg/L	0.001554	-0.03328 mg/L	0.007772	23.35%
Si 288.158†	1934.2	1.067	mg/L	0.0019	5.336 mg/L	0.0093	0.17%
Sn 189.927†	-68.6	-0.00805	mg/L	0.000858	-0.04023 mg/L	0.004292	10.67%
Sr 421.552†	297012.3	0.3029	mg/L	0.00071	1.515 mg/L	0.0036	0.23%
Ti 334.903†	8499.5	0.3588	mg/L	0.00200	1.794 mg/L	0.0100	0.56%
Tl 190.801†	-7.7	0.00880	mg/L	0.001622	0.04399 mg/L	0.008109	18.43%
V 292.402†	23725.6	0.1594	mg/L	0.00095	0.7971 mg/L	0.00476	0.60%
Zn 206.200†	995.5	0.2217	mg/L	0.00203	1.109 mg/L	0.0102	0.92%

Sequence No.: 80  
 Sample ID: WE82 T SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 361  
 Date Collected: 3/1/2013 2:11:42 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 T SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 T SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3130022.7	103.8 %		0.30			0.29%
ScR 361.383	340123.8	106.3 %		0.52			0.49%
Ag 328.068†	-145.5	-0.00045 mg/L		0.000059	-0.00223 mg/L	0.000296	13.28%
Al 308.215†	95215.0	67.47 mg/L		0.272	337.3 mg/L	1.36	0.40%
As 188.979†	-205.5	0.01224 mg/L		0.002058	0.06122 mg/L	0.010292	16.81%
B 249.677†	20.8	0.00285 mg/L		0.000749	0.01426 mg/L	0.003744	26.26%
Ba 233.527†	3535.3	0.5504 mg/L		0.00606	2.752 mg/L	0.0303	1.10%
Be 313.042†	888.2	0.00159 mg/L		0.000033	0.00797 mg/L	0.000167	2.09%
Ca 317.933†	180992.2	16.82 mg/L		0.046	84.12 mg/L	0.230	0.27%
Cd 228.802†	44.3	0.00234 mg/L		0.000180	0.01170 mg/L	0.000898	7.67%
Co 228.616†	1881.0	0.03602 mg/L		0.000095	0.1801 mg/L	0.00047	0.26%
Cr 267.716†	539.0	0.08013 mg/L		0.000464	0.4007 mg/L	0.00232	0.58%
Cu 324.752†	16151.8	0.05912 mg/L		0.000030	0.2956 mg/L	0.00015	0.05%
Fe 273.955†	132367.5	84.83 mg/L		0.465	424.2 mg/L	2.33	0.55%
K 766.490†	19448.8	11.29 mg/L		0.084	56.46 mg/L	0.418	0.74%
Mg 279.077†	18206.1	17.13 mg/L		0.045	85.67 mg/L	0.225	0.26%
Mn 257.610†	88218.8	1.780 mg/L		0.0098	8.901 mg/L	0.0492	0.55%
Mo 202.031†	55.9	0.00227 mg/L		0.000145	0.01135 mg/L	0.000727	6.41%
Na 589.592†	11207.7	0.8402 mg/L		0.00286	4.201 mg/L	0.0143	0.34%
Na 330.237†	5.3	1.153 mg/L		0.3308	5.763 mg/L	1.6538	28.70%
Ni 231.604†	257.5	0.05930 mg/L		0.002168	0.2965 mg/L	0.01084	3.66%
Pb 220.353†	95.1	0.02341 mg/L		0.000294	0.1171 mg/L	0.00147	1.26%
Sb 206.836†	-0.6	0.00223 mg/L		0.001251	0.01116 mg/L	0.006256	56.07%
Se 196.026†	1.6	-0.00696 mg/L		0.004724	-0.03481 mg/L	0.023621	67.85%
Si 288.158†	1709.0	0.9418 mg/L		0.00403	4.709 mg/L	0.0201	0.43%
Sn 189.927†	-37.4	-0.00522 mg/L		0.000397	-0.02609 mg/L	0.001986	7.61%
Sr 421.552†	172470.4	0.1759 mg/L		0.00063	0.8795 mg/L	0.00315	0.36%
Ti 334.903†	87348.3	3.725 mg/L		0.0167	18.63 mg/L	0.083	0.45%
Tl 190.801†	-10.1	0.00619 mg/L		0.001618	0.03096 mg/L	0.008089	26.13%
V 292.402†	25857.3	0.1730 mg/L		0.00046	0.8648 mg/L	0.00228	0.26%
Zn 206.200†	872.7	0.1944 mg/L		0.00137	0.9719 mg/L	0.00687	0.71%

Sequence No.: 81  
 Sample ID: WE82 U SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 362  
 Date Collected: 3/1/2013 2:15:44 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 U SWC

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: WE82 U SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3145264.3	104.3 %		0.71			0.68%
ScR 361.383	340642.3	106.5 %		0.08			0.07%
Ag 328.068†	-92.7	-0.00029 mg/L		0.000034	-0.00147 mg/L	0.000171	11.67%
Al 308.215†	62246.9	44.11 mg/L		0.028	220.6 mg/L	0.14	0.06%
As 188.979†	291.5	0.1785 mg/L		0.00455	0.8924 mg/L	0.02274	2.55%
B 249.677†	11.9	0.00162 mg/L		0.000621	0.00812 mg/L	0.003106	38.24%
Ba 233.527†	2821.0	0.4403 mg/L		0.00099	2.201 mg/L	0.0050	0.23%
Be 313.042†	744.6	0.00138 mg/L		0.000013	0.00689 mg/L	0.000066	0.96%
Ca 317.933†	113706.1	10.57 mg/L		0.038	52.85 mg/L	0.188	0.35%
Cd 228.802†	54.4	0.00113 mg/L		0.000170	0.00567 mg/L	0.000849	14.96%
Co 228.616†	1131.8	0.02478 mg/L		0.000226	0.1239 mg/L	0.00113	0.91%
Cr 267.716†	241.3	0.03607 mg/L		0.001704	0.1804 mg/L	0.00852	4.72%
Cu 324.752†	7794.1	0.02972 mg/L		0.000313	0.1486 mg/L	0.00157	1.05%
Fe 273.955†	94150.2	60.34 mg/L		0.225	301.7 mg/L	1.13	0.37%
K 766.490†	21302.9	12.37 mg/L		0.032	61.84 mg/L	0.158	0.26%
Mg 279.077†	12825.5	12.07 mg/L		0.045	60.35 mg/L	0.226	0.38%
Mn 257.610†	64483.5	1.301 mg/L		0.0034	6.506 mg/L	0.0170	0.26%
Mo 202.031†	31.1	0.00125 mg/L		0.000092	0.00624 mg/L	0.000460	7.37%
Na 589.592†	7105.4	0.5326 mg/L		0.00335	2.663 mg/L	0.0167	0.63%
Na 330.237†	14.9	0.5549 mg/L		0.08844	2.775 mg/L	0.4422	15.94%
Ni 231.604†	101.5	0.02337 mg/L		0.000336	0.1168 mg/L	0.00168	1.44%
Pb 220.353†	162.3	0.02515 mg/L		0.000272	0.1258 mg/L	0.00136	1.08%
Sb 206.836†	14.7	0.00428 mg/L		0.000926	0.02141 mg/L	0.004630	21.63%
Se 196.026†	1.8	-0.00410 mg/L		0.002716	-0.02050 mg/L	0.013579	66.23%
Si 288.158†	2867.9	1.579 mg/L		0.0025	7.893 mg/L	0.0123	0.16%
Sn 189.927†	-23.6	-0.00365 mg/L		0.000912	-0.01826 mg/L	0.004562	24.98%
Sr 421.552†	157361.3	0.1605 mg/L		0.00019	0.8024 mg/L	0.00096	0.12%
Ti 334.903†	10910.0	0.4648 mg/L		0.00112	2.324 mg/L	0.0056	0.24%
Tl 190.801†	-8.9	0.00387 mg/L		0.000727	0.01933 mg/L	0.003637	18.82%
V 292.402†	12838.7	0.08580 mg/L		0.000435	0.4290 mg/L	0.00217	0.51%
Zn 206.200†	821.2	0.1830 mg/L		0.00090	0.9151 mg/L	0.00451	0.49%

Sequence No.: 82  
 Sample ID: WE82 V SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 363  
 Date Collected: 3/1/2013 2:19:45 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 V SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 V SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
ScA 357.253	3123511.1	103.5	%	0.21				0.20%
ScR 361.383	337179.9	105.4	%	0.67				0.63%
Ag 328.068†	-199.7	-0.00055	mg/L	0.000027	-0.00275	mg/L	0.000136	4.95%
Al 308.215†	101218.8	71.73	mg/L	0.353	358.6	mg/L	1.76	0.49%
As 188.979†	39.0	0.02787	mg/L	0.000756	0.1393	mg/L	0.00378	2.71%
B 249.677†	-2.8	-0.00046	mg/L	0.000122	-0.00230	mg/L	0.000611	26.60%
Ba 233.527†	2851.2	0.4409	mg/L	0.00245	2.204	mg/L	0.0123	0.56%
Be 313.042†	462.9	0.00084	mg/L	0.000007	0.00419	mg/L	0.000033	0.79%
Ca 317.933†	413316.9	38.42	mg/L	0.148	192.1	mg/L	0.74	0.38%
Cd 228.802†	44.1	0.00153	mg/L	0.000130	0.00766	mg/L	0.000651	8.50%
Co 228.616†	1255.5	0.02792	mg/L	0.000095	0.1396	mg/L	0.00047	0.34%
Cr 267.716†	311.8	0.04558	mg/L	0.000215	0.2279	mg/L	0.00108	0.47%
Cu 324.752†	9482.2	0.03691	mg/L	0.000298	0.1846	mg/L	0.00149	0.81%
Fe 273.955†	138785.5	88.95	mg/L	0.589	444.7	mg/L	2.94	0.66%
K 766.490†	5372.3	3.119	mg/L	0.0290	15.60	mg/L	0.145	0.93%
Mg 279.077†	28628.0	26.97	mg/L	0.127	134.8	mg/L	0.64	0.47%
Mn 257.610†	75264.8	1.519	mg/L	0.0100	7.593	mg/L	0.0501	0.66%
Mo 202.031†	63.8	0.00236	mg/L	0.000232	0.01182	mg/L	0.001162	9.83%
Na 589.592†	145800.1	10.93	mg/L	0.032	54.65	mg/L	0.161	0.29%
Na 330.237†	345.8	11.17	mg/L	0.247	55.84	mg/L	1.233	2.21%
Ni 231.604†	89.8	0.02067	mg/L	0.000778	0.1033	mg/L	0.00389	3.76%
Pb 220.353†	293.0	0.04433	mg/L	0.000528	0.2217	mg/L	0.00264	1.19%
Sb 206.836†	9.6	0.00270	mg/L	0.000825	0.01350	mg/L	0.004124	30.54%
Se 196.026†	0.4	-0.00813	mg/L	0.002858	-0.04066	mg/L	0.014292	35.15%
Si 288.158†	1657.3	0.9145	mg/L	0.00679	4.573	mg/L	0.0339	0.74%
Sn 189.927†	-51.7	-0.00685	mg/L	0.000644	-0.03425	mg/L	0.003219	9.40%
Sr 421.552†	465764.4	0.4750	mg/L	0.00222	2.375	mg/L	0.0111	0.47%
Ti 334.903†	6491.3	0.2746	mg/L	0.00231	1.373	mg/L	0.0116	0.84%
Tl 190.801†	-6.5	0.00845	mg/L	0.001412	0.04226	mg/L	0.007062	16.71%
V 292.402†	19425.3	0.1301	mg/L	0.00085	0.6504	mg/L	0.00424	0.65%
Zn 206.200†	720.1	0.1604	mg/L	0.00107	0.8021	mg/L	0.00534	0.67%

Sequence No.: 83  
 Sample ID: WE82 W SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 364  
 Date Collected: 3/1/2013 2:23:47 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 W SWC

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: WE82 W SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3160229.8	104.8	%	0.15			0.14%
ScR 361.383	341807.2	106.8	%	0.46			0.43%
Ag 328.068†	-131.7	-0.00038	mg/L	0.000171	-0.00188	0.000855	45.53%
Al 308.215†	104898.5	74.33	mg/L	0.409	371.7	2.04	0.55%
As 188.979†	-49.3	0.02350	mg/L	0.002573	0.1175	0.01287	10.95%
B 249.677†	43.3	0.00606	mg/L	0.000341	0.03032	0.001703	5.62%
Ba 233.527†	3672.2	0.5741	mg/L	0.00296	2.871	0.0148	0.52%
Be 313.042†	641.5	0.00116	mg/L	0.000011	0.00581	0.000057	0.98%
Ca 317.933†	229083.2	21.30	mg/L	0.084	106.5	0.42	0.40%
Cd 228.802†	37.4	0.00157	mg/L	0.000266	0.00786	0.001331	16.93%
Co 228.616†	1390.6	0.02875	mg/L	0.000046	0.1438	0.00023	0.16%
Cr 267.716†	375.9	0.05550	mg/L	0.000308	0.2775	0.00154	0.56%
Cu 324.752†	14542.6	0.05334	mg/L	0.000175	0.2667	0.00088	0.33%
Fe 273.955†	111978.0	71.77	mg/L	0.621	358.8	3.11	0.87%
K 766.490†	30017.5	17.43	mg/L	0.049	87.14	0.244	0.28%
Mg 279.077†	19128.8	18.01	mg/L	0.100	90.06	0.501	0.56%
Mn 257.610†	111730.6	2.255	mg/L	0.0183	11.27	0.092	0.81%
Mo 202.031†	56.3	0.00224	mg/L	0.000135	0.01118	0.000673	6.02%
Na 589.592†	20134.2	1.509	mg/L	0.0082	7.547	0.0412	0.55%
Na 330.237†	41.1	1.691	mg/L	0.1007	8.453	0.5034	5.96%
Ni 231.604†	149.8	0.03449	mg/L	0.001590	0.1725	0.00795	4.61%
Pb 220.353†	117.9	0.02824	mg/L	0.000641	0.1412	0.00320	2.27%
Sb 206.836†	-0.9	0.00058	mg/L	0.001830	0.00292	0.009148	313.16%
Se 196.026†	7.3	-0.00446	mg/L	0.002121	-0.02228	0.010607	47.61%
Si 288.158†	2513.4	1.384	mg/L	0.0058	6.922	0.0291	0.42%
Sr 189.927†	-38.0	-0.00537	mg/L	0.000277	-0.02687	0.001383	5.15%
Sr 421.552†	488851.5	0.4985	mg/L	0.00209	2.493	0.0104	0.42%
Ti 334.903†	35964.6	1.533	mg/L	0.0094	7.665	0.0470	0.61%
Tl 190.801†	-8.8	0.00525	mg/L	0.002079	0.02625	0.010396	39.60%
V 292.402†	18490.1	0.1239	mg/L	0.00056	0.6196	0.00280	0.45%
Zn 206.200†	927.4	0.2066	mg/L	0.00096	1.033	0.0048	0.46%

Sequence No.: 84  
 Sample ID: CV8  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 3/1/2013 2:27:48 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3193549.6	105.9	%	0.51			0.48%
ScR 361.383	331888.1	103.7	%	0.03			0.03%
Ag 328.068†	236786.2	0.9967	mg/L	0.00340	0.9967 mg/L	0.00340	0.34%
Al 308.215†	2817.7	1.964	mg/L	0.0037	1.964 mg/L	0.0037	0.19%
As 188.979†	3444.3	1.960	mg/L	0.0126	1.960 mg/L	0.0126	0.64%
B 249.677†	6884.2	0.9746	mg/L	0.00090	0.9746 mg/L	0.00090	0.09%
Ba 233.527†	6331.4	1.008	mg/L	0.0037	1.008 mg/L	0.0037	0.37%
Be 313.042†	507093.4	0.9551	mg/L	0.00520	0.9551 mg/L	0.00520	0.54%
Ca 317.933†	20706.0	1.925	mg/L	0.0069	1.925 mg/L	0.0069	0.36%
Cd 228.802†	26373.9	0.9765	mg/L	0.00621	0.9765 mg/L	0.00621	0.64%
Co 228.616†	42688.5	0.9658	mg/L	0.00372	0.9658 mg/L	0.00372	0.39%
Cr 267.716†	6836.8	1.008	mg/L	0.0008	1.008 mg/L	0.0008	0.08%
Cu 324.752†	284647.0	0.9824	mg/L	0.00718	0.9824 mg/L	0.00718	0.73%
Fe 273.955†	3140.8	2.007	mg/L	0.0043	2.007 mg/L	0.0043	0.21%
K 766.490†	34573.1	20.07	mg/L	0.075	20.07 mg/L	0.075	0.37%
Mg 279.077†	2087.9	1.977	mg/L	0.0035	1.977 mg/L	0.0035	0.18%
Mn 257.610†	47693.7	0.9630	mg/L	0.00244	0.9630 mg/L	0.00244	0.25%
Mo 202.031†	21762.1	0.9620	mg/L	0.00548	0.9620 mg/L	0.00548	0.57%
Na 589.592†	674528.0	50.56	mg/L	0.180	50.56 mg/L	0.180	0.36%
Na 330.237†	1606.3	51.71	mg/L	0.064	51.71 mg/L	0.064	0.12%
Ni 231.604†	4292.5	0.9884	mg/L	0.00218	0.9884 mg/L	0.00218	0.22%
Pb 220.353†	19097.9	1.933	mg/L	0.0088	1.933 mg/L	0.0088	0.45%
Sb 206.836†	7098.3	1.983	mg/L	0.0108	1.983 mg/L	0.0108	0.54%
Se 196.026†	3381.9	1.930	mg/L	0.0094	1.930 mg/L	0.0094	0.49%
Si 288.158†	3585.0	1.967	mg/L	0.0132	1.967 mg/L	0.0132	0.67%
Sn 189.927†	4831.4	0.9476	mg/L	0.00526	0.9476 mg/L	0.00526	0.56%
Sr 421.552†	961292.5	0.9804	mg/L	0.00189	0.9804 mg/L	0.00189	0.19%
Ti 334.903†	22990.4	0.9795	mg/L	0.00216	0.9795 mg/L	0.00216	0.22%
Tl 190.801†	4688.0	1.919	mg/L	0.0092	1.919 mg/L	0.0092	0.48%
V 292.402†	141336.5	0.9814	mg/L	0.00437	0.9814 mg/L	0.00437	0.45%
Zn 206.200†	4564.3	1.016	mg/L	0.0001	1.016 mg/L	0.0001	0.01%



Sequence No.: 85  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 3/1/2013 2:31:53 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	3174905.0	105.3	%	0.23			0.22%
ScR 361.383	335549.2	104.9	%	0.58			0.55%
Ag 328.068†	7.8	0.00003	mg/L	0.000137	0.00003 mg/L	0.000137	417.26%
Al 308.215†	6.5	0.00456	mg/L ✓	0.007831	0.00456 mg/L	0.007831	171.84%
As 188.979†	0.1	0.00009	mg/L	0.000238	0.00009 mg/L	0.000238	265.54%
B 249.677†	20.7	0.00293	mg/L	0.000478	0.00293 mg/L	0.000478	16.31%
Ba 233.527†	1.0	0.00016	mg/L ✓	0.000632	0.00016 mg/L	0.000632	392.32%
Be 313.042†	26.7	0.00005	mg/L	0.000019	0.00005 mg/L	0.000019	36.97%
Ca 317.933†	-19.3	-0.00179	mg/L	0.000232	-0.00179 mg/L	0.000232	12.95%
Cd 228.802†	0.8	0.00003	mg/L	0.000086	0.00003 mg/L	0.000086	274.81%
Co 228.616†	6.5	0.00015	mg/L	0.000065	0.00015 mg/L	0.000065	44.10%
Cr 267.716†	5.4	0.00080	mg/L	0.000546	0.00080 mg/L	0.000546	68.22%
Cu 324.752†	-103.4	-0.00036	mg/L ✓	0.000072	-0.00036 mg/L	0.000072	20.07%
Fe 273.955†	-1.5	-0.00093	mg/L	0.000681	-0.00093 mg/L	0.000681	72.94%
K 766.490†	-6.3	-0.00363	mg/L	0.025665	-0.00363 mg/L	0.025665	706.24%
Mg 279.077†	-4.3	-0.00409	mg/L	0.006438	-0.00409 mg/L	0.006438	157.24%
Mn 257.610†	-8.6	-0.00017	mg/L ✓	0.000053	-0.00017 mg/L	0.000053	30.78%
Mo 202.031†	24.7	0.00109	mg/L	0.000256	0.00109 mg/L	0.000256	23.37%
Na 589.592†	73.9	0.00554	mg/L	0.003859	0.00554 mg/L	0.003859	69.69%
Na 330.237†	5.2	0.1673	mg/L	0.15418	0.1673 mg/L	0.15418	92.18%
Ni 231.604†	1.8	0.00040	mg/L	0.001319	0.00040 mg/L	0.001319	325.92%
Pb 220.353†	1.7	0.00017	mg/L	0.000998	0.00017 mg/L	0.000998	575.12%
Sb 206.836†	16.8	0.00469	mg/L	0.002776	0.00469 mg/L	0.002776	59.20%
Se 196.026†	2.8	0.00160	mg/L	0.001575	0.00160 mg/L	0.001575	98.43%
Si 288.158†	-1.2	-0.00067	mg/L	0.001911	-0.00067 mg/L	0.001911	286.03%
Sn 189.927†	-0.0	-0.00000	mg/L	0.000664	-0.00000 mg/L	0.000664	>999.9%
Sr 421.552†	43.9	0.00004	mg/L	0.000021	0.00004 mg/L	0.000021	46.80%
Ti 334.903†	17.5	0.00074	mg/L	0.000935	0.00074 mg/L	0.000935	125.63%
Tl 190.801†	3.9	0.00160	mg/L	0.001242	0.00160 mg/L	0.001242	77.63%
V 292.402†	-36.0	-0.00024	mg/L	0.000099	-0.00024 mg/L	0.000099	40.48%
Zn 206.200†	0.8	0.00019	mg/L	0.000485	0.00019 mg/L	0.000485	260.13%

Sequence No.: 86  
 Sample ID: WE82 E SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 365  
 Date Collected: 3/1/2013 2:36:09 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 E SWC

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: WE82 E SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3173527.8	105.2 %		1.15			1.09%
ScR 361.383	340197.2	106.3 %		0.95			0.90%
Ag 328.068†	23361.6	0.09831 mg/L		0.001189	0.1966 mg/L	0.00238	1.21%
Al 308.215†	26879.8	19.05 mg/L		0.208	38.10 mg/L	0.416	1.09%
As 188.979†	6672.1	3.739 mg/L		0.0398	7.479 mg/L	0.0795	1.06%
B 249.677†	-16.3	-0.00232 mg/L		0.001055	-0.00463 mg/L	0.002111	45.56%
Ba 233.527†	8797.6	1.377 mg/L		0.0151	2.753 mg/L	0.0301	1.10%
Be 313.042†	178.0	0.00033 mg/L		0.000024	0.00066 mg/L	0.000047	7.18%
Ca 317.933†	2731.8	0.2539 mg/L		0.00354	0.5079 mg/L	0.00708	1.39%
Cd 228.802†	682.3	0.00460 mg/L		0.000392	0.00921 mg/L	0.000784	8.51%
Co 228.616†	163.2	0.00350 mg/L		0.000158	0.00700 mg/L	0.000315	4.50%
Cr 267.716†	42.5	0.01122 mg/L		0.000957	0.02243 mg/L	0.001913	8.53%
Cu 324.752†	22825.8	0.08688 mg/L		0.001067	0.1738 mg/L	0.00213	1.23%
Fe 273.955†	256916.8	164.7 mg/L		2.71	329.3 mg/L	5.41	1.64%
K 766.490†	57343.5	33.29 mg/L		0.168	66.59 mg/L	0.336	0.50%
Mg 279.077†	1433.8	1.262 mg/L		0.0051	2.524 mg/L	0.0101	0.40%
Mn 257.610†	3952.9	0.07972 mg/L		0.000991	0.1594 mg/L	0.00198	1.24%
Mo 202.031†	25.4	0.00112 mg/L		0.000077	0.00224 mg/L	0.000154	6.88%
Na 589.592†	10518.2	0.7885 mg/L		0.00977	1.577 mg/L	0.0195	1.24%
Na 330.237†	20.7	0.6615 mg/L		0.19247	1.323 mg/L	0.3849	29.09%
Ni 231.604†	18.8	0.00436 mg/L		0.000861	0.00872 mg/L	0.001722	19.74%
Pb 220.353†	1661.2	0.1643 mg/L		0.00065	0.3286 mg/L	0.00130	0.39%
Sb 206.836†	145.4	0.04071 mg/L		0.000452	0.08143 mg/L	0.000905	1.11%
Se 196.026†	67.4	0.03626 mg/L		0.000827	0.07252 mg/L	0.001655	2.28%
Si 288.158†	2445.5	1.345 mg/L		0.0121	2.690 mg/L	0.0242	0.90%
Sn 189.927†	1.5	0.00034 mg/L		0.001116	0.00067 mg/L	0.002231	331.98%
Sr 421.552†	1015448.0	1.036 mg/L		0.0083	2.071 mg/L	0.0167	0.81%
Ti 334.903†	560.2	0.02388 mg/L		0.000400	0.04776 mg/L	0.000800	1.68%
Tl 190.801†	-35.7	0.00704 mg/L		0.001367	0.01407 mg/L	0.002734	19.43%
V 292.402†	4253.2	0.02116 mg/L		0.000064	0.04232 mg/L	0.000128	0.30%
Zn 206.200†	160.0	0.03584 mg/L		0.000291	0.07167 mg/L	0.000581	0.81%

Sequence No.: 87  
 Sample ID: WE82 F SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 366  
 Date Collected: 3/1/2013 2:40:27 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 F SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE82 F SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3174220.8	105.2 %		0.55			0.52%
ScR 361.383	337461.5	105.5 %		0.31			0.30%
Ag 328.068†	19800.1	0.08333 mg/L		0.000808	0.1667 mg/L	0.00162	0.97%
Al 308.215†	30205.1	21.41 mg/L		0.039	42.81 mg/L	0.079	0.18%
As 188.979†	5713.5	3.203 mg/L		0.0216	6.406 mg/L	0.0432	0.67%
B 249.677†	-18.4	-0.00261 mg/L		0.001239	-0.00523 mg/L	0.002479	47.43%
Ba 233.527†	7008.9	1.094 mg/L		0.0056	2.187 mg/L	0.0111	0.51%
Be 313.042†	205.3	0.00038 mg/L		0.000020	0.00075 mg/L	0.000040	5.30%
Ca 317.933†	8174.0	0.7598 mg/L		0.00222	1.520 mg/L	0.0044	0.29%
Cd 228.802†	594.5	0.00433 mg/L		0.000112	0.00865 mg/L	0.000224	2.59%
Co 228.616†	166.6	0.00357 mg/L		0.000204	0.00713 mg/L	0.000408	5.71%
Cr 267.716†	84.5	0.01695 mg/L		0.000908	0.03389 mg/L	0.001816	5.36%
Cu 324.752†	27094.5	0.1010 mg/L		0.00091	0.2020 mg/L	0.00183	0.91%
Fe 273.955†	238219.6	152.7 mg/L		0.75	305.3 mg/L	1.50	0.49%
K 766.490†	53552.2	31.09 mg/L		0.116	62.19 mg/L	0.233	0.37%
Mg 279.077†	2475.0	2.251 mg/L		0.0083	4.502 mg/L	0.0166	0.37%
Mn 257.610†	4668.8	0.09415 mg/L		0.000987	0.1883 mg/L	0.00197	1.05%
Mo 202.031†	30.2	0.00133 mg/L		0.000500	0.00265 mg/L	0.000999	37.70%
Na 589.592†	8586.3	0.6436 mg/L		0.00154	1.287 mg/L	0.0031	0.24%
Na 330.237†	15.2	0.4883 mg/L		0.05962	0.9766 mg/L	0.11924	12.21%
Ni 231.604†	28.9	0.00668 mg/L		0.000450	0.01336 mg/L	0.000899	6.73%
Pb 220.353†	1436.0	0.1428 mg/L		0.00184	0.2855 mg/L	0.00367	1.29%
Sb 206.836†	116.8	0.03269 mg/L		0.002654	0.06538 mg/L	0.005307	8.12%
Se 196.026†	49.6	0.02582 mg/L		0.000944	0.05165 mg/L	0.001888	3.66%
Si 288.158†	2860.3	1.573 mg/L		0.0126	3.147 mg/L	0.0252	0.80%
Sn 189.927†	-3.6	-0.00062 mg/L		0.000250	-0.00124 mg/L	0.000499	40.30%
Sr 421.552†	918075.5	0.9363 mg/L		0.00079	1.873 mg/L	0.0016	0.08%
Ti 334.903†	1106.7	0.04717 mg/L		0.000977	0.09433 mg/L	0.001953	2.07%
Tl 190.801†	-33.5	0.00631 mg/L		0.002087	0.01262 mg/L	0.004175	33.08%
V 292.402†	5688.5	0.03170 mg/L		0.000098	0.06340 mg/L	0.000195	0.31%
Zn 206.200†	201.8	0.04518 mg/L		0.000619	0.09035 mg/L	0.001238	1.37%

Sequence No.: 88  
 Sample ID: WE82 G SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 367  
 Date Collected: 3/1/2013 2:44:43 PM  
 Data Type: Original

## Nebulizer Parameters: WE82 G SWC

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: WE82 G SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3258792.2	108.0	%	0.46			0.43%
ScR 361.383	343885.6	107.5	%	0.41			0.38%
Ag 328.068†	18681.5	0.07863	mg/L	0.000422	0.1573 mg/L	0.00084	0.54%
Al 308.215†	29894.5	21.18	mg/L	0.159	42.37 mg/L	0.318	0.75%
As 188.979†	5695.6	3.193	mg/L	0.0190	6.387 mg/L	0.0380	0.59%
B 249.677†	-14.5	-0.00207	mg/L	0.001899	-0.00413 mg/L	0.003799	91.94%
Ba 233.527†	7115.6	1.111	mg/L	0.0111	2.223 mg/L	0.0223	1.00%
Be 313.042†	189.0	0.00035	mg/L	0.000016	0.00069 mg/L	0.000032	4.67%
Ca 317.933†	5486.4	0.5100	mg/L	0.00166	1.020 mg/L	0.0033	0.33%
Cd 228.802†	583.5	0.00397	mg/L	0.000113	0.00793 mg/L	0.000225	2.84%
Co 228.616†	176.8	0.00377	mg/L	0.000144	0.00754 mg/L	0.000288	3.82%
Cr 267.716†	76.3	0.01548	mg/L	0.000659	0.03097 mg/L	0.001318	4.26%
Cu 324.752†	18655.4	0.07157	mg/L	0.000388	0.1431 mg/L	0.00078	0.54%
Fe 273.955†	228484.3	146.4	mg/L	0.68	292.9 mg/L	1.35	0.46%
K 766.490†	52987.7	30.76	mg/L	0.160	61.53 mg/L	0.321	0.52%
Mg 279.077†	3008.3	2.758	mg/L	0.0204	5.516 mg/L	0.0408	0.74%
Mn 257.610†	5163.0	0.1041	mg/L	0.00098	0.2083 mg/L	0.00195	0.94%
Mo 202.031†	20.3	0.00089	mg/L	0.000178	0.00178 mg/L	0.000356	19.94%
Na 589.592†	8478.9	0.6356	mg/L	0.00642	1.271 mg/L	0.0128	1.01%
Na 330.237†	17.4	0.5672	mg/L	0.08974	1.134 mg/L	0.1795	15.82%
Ni 231.604†	12.9	0.00299	mg/L	0.000866	0.00598 mg/L	0.001731	28.93%
Pb 220.353†	1689.2	0.1687	mg/L	0.00180	0.3374 mg/L	0.00361	1.07%
Sb 206.836†	115.3	0.03231	mg/L	0.000783	0.06463 mg/L	0.001566	2.42%
Se 196.026†	54.6	0.02871	mg/L	0.002339	0.05741 mg/L	0.004678	8.15%
Si 288.158†	2954.2	1.625	mg/L	0.0144	3.250 mg/L	0.0288	0.88%
Sn 189.927†	-0.6	-0.00004	mg/L	0.000577	-0.00009 mg/L	0.001155	>999.9%
Sr 421.552†	710997.8	0.7251	mg/L	0.00264	1.450 mg/L	0.0053	0.36%
Ti 334.903†	1446.1	0.06166	mg/L	0.000470	0.1233 mg/L	0.00094	0.76%
Tl 190.801†	-30.2	0.00684	mg/L	0.001761	0.01369 mg/L	0.003522	25.74%
V 292.402†	5974.3	0.03398	mg/L	0.000301	0.06795 mg/L	0.000603	0.89%
Zn 206.200†	175.3	0.03930	mg/L	0.000473	0.07860 mg/L	0.000947	1.20%

Sequence No.: 89  
Sample ID: WE82 H SWC  
Analyst: ALA  
Dilution: 2.000000X

Autosampler Location: 368  
Date Collected: 3/1/2013 2:48:59 PM  
Data Type: Original

Nebulizer Parameters: WE82 H SWC

Analyte Back Pressure Flow  
All 220.0 kPa 0.75 L/min

Mean Data: WE82 H SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3165167.3	104.9	%	0.37			0.35%
ScR 361.383	339136.9	106.0	%	1.23			1.16%
Ag 328.068†	20217.8	0.08508	mg/L	0.000338	0.1702	0.00068	0.40%
Al 308.215†	25601.6	18.14	mg/L	0.378	36.29	0.755	2.08%
As 188.979†	5556.6	3.114	mg/L	0.0134	6.229	0.0269	0.43%
B 249.677†	-21.1	-0.00300	mg/L	0.002145	-0.00599	0.004289	71.59%
Ba 233.527†	6991.9	1.094	mg/L	0.0269	2.188	0.0538	2.46%
Be 313.042†	163.4	0.00030	mg/L	0.000008	0.00060	0.000017	2.75%
Ca 317.933†	2371.9	0.2205	mg/L	0.00370	0.4410	0.00740	1.68%
Cd 228.802†	571.0	0.00394	mg/L	0.000044	0.00787	0.000088	1.12%
Co 228.616†	154.2	0.00333	mg/L	0.000143	0.00666	0.000287	4.31%
Cr 267.716†	44.9	0.01052	mg/L	0.000394	0.02103	0.000787	3.74%
Cu 324.752†	20343.7	0.07663	mg/L	0.000212	0.1533	0.00042	0.28%
Fe 273.955†	203516.9	130.4	mg/L	1.62	260.9	3.24	1.24%
K 766.490†	47581.1	27.63	mg/L	0.583	55.25	1.165	2.11%
Mg 279.077†	1424.5	1.272	mg/L	0.0149	2.544	0.0299	1.17%
Mn 257.610†	4070.9	0.08210	mg/L	0.001235	0.1642	0.00247	1.50%
Mo 202.031†	22.0	0.00097	mg/L	0.000153	0.00194	0.000306	15.77%
Na 589.592†	8037.8	0.6025	mg/L	0.01363	1.205	0.0273	2.26%
Na 330.237†	15.8	0.5068	mg/L	0.04931	1.014	0.0986	9.73%
Ni 231.604†	7.3	0.00171	mg/L	0.000301	0.00342	0.000601	17.55%
Pb 220.353†	1412.5	0.1407	mg/L	0.00070	0.2814	0.00140	0.50%
Sb 206.836†	128.6	0.03600	mg/L	0.001265	0.07201	0.002529	3.51%
Se 196.026†	46.8	0.02462	mg/L	0.002897	0.04923	0.005795	11.77%
Si 288.158†	3711.0	2.041	mg/L	0.0277	4.082	0.0553	1.36%
Sn 189.927†	-0.7	-0.00011	mg/L	0.000632	-0.00021	0.001263	600.81%
Sr 421.552†	819514.5	0.8358	mg/L	0.01210	1.672	0.0242	1.45%
Ti 334.903†	550.0	0.02345	mg/L	0.000820	0.04690	0.001641	3.50%
Tl 190.801†	-30.1	0.00483	mg/L	0.002391	0.00966	0.004782	49.51%
V 292.402†	3917.1	0.02056	mg/L	0.000453	0.04112	0.000906	2.20%
Zn 206.200†	141.4	0.03182	mg/L	0.000709	0.06363	0.001418	2.23%

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Sequence No.: 1  
Sample ID: CRI  
Analyst: ALA  
Logged In Analyst (Original) : Metals  
Dilution: 1.000000X

Autosampler Location: 301  
Date Collected: 3/1/2013 2:54:18 PM  
Data Type: Reprocessed on 3/4/2013 9:03:33 AM

Nebulizer Parameters: CRI

Analyte Back Pressure Flow  
All 220.0 kPa 0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3154685.7	104.6	%	0.64			0.61%
ScR 361.383	338999.3	105.9	%	0.20			0.19%
Ag 328.068†	720.3	0.00303	mg/L	0.000102	0.00303 mg/L	0.000102	3.37%
Al 308.215†	72.6	0.05129	mg/L	0.008022	0.05129 mg/L	0.008022	15.64%
As 188.979†	91.8	0.05161	mg/L	0.001255	0.05161 mg/L	0.001255	2.43%
B 249.677†	144.3	0.02045	mg/L	0.001670	0.02045 mg/L	0.001670	8.17%
Ba 233.527†	19.4	0.00307	mg/L	0.000122	0.00307 mg/L	0.000122	3.97%
Be 313.042†	504.9	0.00095	mg/L	0.000030	0.00095 mg/L	0.000030	3.16%
Ca 317.933†	493.5	0.04588	mg/L	0.001323	0.04588 mg/L	0.001323	2.88%
Cd 228.802†	63.4	0.00209	mg/L	0.000111	0.00209 mg/L	0.000111	5.32%
Co 228.616†	159.1	0.00360	mg/L	0.000142	0.00360 mg/L	0.000142	3.96%
Cr 267.716†	42.8	0.00632	mg/L	0.000955	0.00632 mg/L	0.000955	15.12%
Cu 324.752†	473.4	0.00163	mg/L	0.000176	0.00163 mg/L	0.000176	10.75%
Fe 273.955†	82.5	0.05285	mg/L	0.001828	0.05285 mg/L	0.001828	3.46%
K 766.490†	818.4	0.4752	mg/L	0.03728	0.4752 mg/L	0.03728	7.85%
Mg 279.077†	50.3	0.04747	mg/L	0.004782	0.04747 mg/L	0.004782	10.08%
Mn 257.610†	39.5	0.00080	mg/L	0.000031	0.00080 mg/L	0.000031	3.85%
Mo 202.031†	113.3	0.00501	mg/L	0.000350	0.00501 mg/L	0.000350	6.99%
Na 589.592†	6508.8	0.4879	mg/L	0.00349	0.4879 mg/L	0.00349	0.72%
Na 330.237†	33.9	1.092	mg/L	0.1147	1.092 mg/L	0.1147	10.51%
Ni 231.604†	46.2	0.01064	mg/L	0.001312	0.01064 mg/L	0.001312	12.33%
Pb 220.353†	196.1	0.01986	mg/L	0.000781	0.01986 mg/L	0.000781	3.93%
Sb 206.836†	180.2	0.05042	mg/L	0.001911	0.05042 mg/L	0.001911	3.79%
Se 196.026†	82.3	0.04697	mg/L	0.001316	0.04697 mg/L	0.001316	2.80%
Si 288.158†	108.8	0.05978	mg/L	0.004053	0.05978 mg/L	0.004053	6.78%
Sn 189.927†	51.3	0.01008	mg/L	0.000523	0.01008 mg/L	0.000523	5.19%
Sr 421.552†	1006.1	0.00103	mg/L	0.000012	0.00103 mg/L	0.000012	1.16%
Ti 334.903†	123.9	0.00528	mg/L	0.000989	0.00528 mg/L	0.000989	18.75%
Tl 190.801†	118.4	0.04867	mg/L	0.001709	0.04867 mg/L	0.001709	3.51%
V 292.402†	403.1	0.00281	mg/L	0.000084	0.00281 mg/L	0.000084	2.99%
Zn 206.200†	41.6	0.00928	mg/L	0.000234	0.00928 mg/L	0.000234	2.52%

Sequence No.: 2  
Sample ID: ICSA  
Analyst: ALA  
Logged In Analyst (Original) : Metals  
Dilution: 1.000000X

Autosampler Location: 302  
Date Collected: 3/1/2013 2:58:35 PM  
Data Type: Reprocessed on 3/4/2013 9:03:33 AM

Nebulizer Parameters: ICSA

Analyte Back Pressure Flow  
All 221.0 kPa 0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3091588.2	102.5	%	0.21			0.20%
ScR 361.383	331376.6	103.6	%	0.29			0.28%
Ag 328.068†	-211.0	-0.00025	mg/L	0.000224	-0.00025 mg/L	0.000224	88.44%
Al 308.215†	272360.6	193.0	mg/L	0.42	193.0 mg/L	0.42	0.22%
As 188.979†	60.6	0.02536	mg/L	0.002402	0.02536 mg/L	0.002402	9.47%
B 249.677†	-19.4	-0.00274	mg/L	0.001780	-0.00274 mg/L	0.001780	64.88%
Ba 233.527†	150.3	-0.00353	mg/L	0.000561	-0.00353 mg/L	0.000561	15.91%

Be 313.042†	55.3	0.00010 mg/L	0.000007	0.00010 mg/L	0.000007	6.99%
Ca 317.933†	1053437.9	97.93 mg/L	0.338	97.93 mg/L	0.338	0.34%
Cd 228.802†	63.1	0.00217 mg/L	0.000068	0.00217 mg/L	0.000068	3.12%
Co 228.616†	70.4	0.00158 mg/L	0.000101	0.00158 mg/L	0.000101	6.39%
Cr 267.716†	41.7	0.00124 mg/L	0.000831	0.00124 mg/L	0.000831	66.89%
Cu 324.752†	-2188.6	0.00109 mg/L	0.000119	0.00109 mg/L	0.000119	10.95%
Fe 273.955†	291480.9	186.8 mg/L	0.59	186.8 mg/L	0.59	0.32%
K 766.490†	17.1	0.00992 mg/L	0.015900	0.00992 mg/L	0.015900	160.32%
Mg 279.077†	106784.8	100.7 mg/L	0.78	100.7 mg/L	0.78	0.78%
Mn 257.610†	53.3	-0.00027 mg/L	0.000071	-0.00027 mg/L	0.000071	25.95%
Mo 202.031†	99.3	0.00324 mg/L	0.000062	0.00324 mg/L	0.000062	1.90%
Na 589.592†	253.2	0.01898 mg/L	0.002644	0.01898 mg/L	0.002644	13.93%
Na 330.237†	3.0	0.1002 mg/L	0.10148	0.1002 mg/L	0.10148	101.33%
Ni 231.604†	3.1	0.00071 mg/L	0.000781	0.00071 mg/L	0.000781	109.95%
Pb 220.353†	-549.2	-0.01330 mg/L	0.001401	-0.01330 mg/L	0.001401	10.54%
Sb 206.836†	14.6	0.00388 mg/L	0.001746	0.00388 mg/L	0.001746	44.95%
Se 196.026†	26.2	-0.00725 mg/L	0.002086	-0.00725 mg/L	0.002086	28.79%
Si 288.158†	-23.6	-0.00150 mg/L	0.003440	-0.00150 mg/L	0.003440	230.03%
Sn 189.927†	-95.4	-0.01048 mg/L	0.000988	-0.01048 mg/L	0.000988	9.43%
Sr 421.552†	3919.4	0.00400 mg/L	0.000040	0.00400 mg/L	0.000040	1.01%
Ti 334.903†	249.6	0.00482 mg/L	0.000154	0.00482 mg/L	0.000154	3.18%
Tl 190.801†	-30.3	0.01231 mg/L	0.002679	0.01231 mg/L	0.002679	21.75%
V 292.402†	916.5	-0.00302 mg/L	0.000166	-0.00302 mg/L	0.000166	5.51%
Zn 206.200†	-5.3	-0.00119 mg/L	0.000122	-0.00119 mg/L	0.000122	10.27%

Sequence No.: 92  
Sample ID: ICSAB  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 303  
Date Collected: 3/1/2013 3:02:52 PM  
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte Back Pressure Flow  
All 220.0 kPa 0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3038405.6	100.7 %	0.07			0.07%
ScR 361.383	329302.3	102.9 %	0.46			0.45%
Ag 328.068†	250834.1	1.056 mg/L	0.0059	1.056 mg/L	0.0059	0.56%
Al 308.215†	274689.7	194.7 mg/L	0.53	194.7 mg/L	0.53	0.27%
As 188.979†	1876.7	1.043 mg/L	0.0031	1.043 mg/L	0.0031	0.30%
B 249.677†	-50.9	-0.00945 mg/L	0.000487	-0.00945 mg/L	0.000487	5.16%
Ba 233.527†	6502.1	1.007 mg/L	0.0026	1.007 mg/L	0.0026	0.26%
Be 313.042†	512020.0	0.9644 mg/L	0.00531	0.9644 mg/L	0.00531	0.55%
Ca 317.933†	1055923.9	98.16 mg/L	0.518	98.16 mg/L	0.518	0.53%
Cd 228.802†	27365.9	1.018 mg/L	0.0042	1.018 mg/L	0.0042	0.41%
Co 228.616†	42390.9	0.9606 mg/L	0.00142	0.9606 mg/L	0.00142	0.15%
Cr 267.716†	6873.6	1.009 mg/L	0.0024	1.009 mg/L	0.0024	0.24%
Cu 324.752†	301007.7	1.048 mg/L	0.0014	1.048 mg/L	0.0014	0.14%
Fe 273.955†	297685.6	190.8 mg/L	1.15	190.8 mg/L	1.15	0.60%
K 766.490†	-10.1	-0.00588 mg/L	0.002031	-0.00588 mg/L	0.002031	34.55%
Mg 279.077†	103071.4	97.16 mg/L	0.260	97.16 mg/L	0.260	0.27%
Mn 257.610†	46809.8	0.9436 mg/L	0.00629	0.9436 mg/L	0.00629	0.67%
Mo 202.031†	98.4	0.00314 mg/L	0.000068	0.00314 mg/L	0.000068	2.18%
Na 589.592†	303.0	0.02271 mg/L	0.003444	0.02271 mg/L	0.003444	15.16%
Na 330.237†	12.6	0.1306 mg/L	0.07376	0.1306 mg/L	0.07376	56.49%
Ni 231.604†	4146.2	0.9547 mg/L	0.00502	0.9547 mg/L	0.00502	0.53%
Pb 220.353†	8996.4	0.9531 mg/L	0.00119	0.9531 mg/L	0.00119	0.12%
Sb 206.836†	3673.0	1.017 mg/L	0.0030	1.017 mg/L	0.0030	0.30%
Se 196.026†	1788.8	0.9981 mg/L	0.00245	0.9981 mg/L	0.00245	0.25%
Si 288.158†	-37.5	-0.00616 mg/L	0.002606	-0.00616 mg/L	0.002606	42.28%
Sn 189.927†	-97.7	-0.01039 mg/L	0.000408	-0.01039 mg/L	0.000408	3.93%
Sr 421.552†	3929.2	0.00401 mg/L	0.000040	0.00401 mg/L	0.000040	0.99%
Ti 334.903†	243.4	0.00435 mg/L	0.000546	0.00435 mg/L	0.000546	12.54%
Tl 190.801†	2280.1	0.9529 mg/L	0.00231	0.9529 mg/L	0.00231	0.24%
V 292.402†	144549.0	0.9941 mg/L	0.00257	0.9941 mg/L	0.00257	0.26%
Zn 206.200†	4231.2	0.9418 mg/L	0.00507	0.9418 mg/L	0.00507	0.54%



Sequence No.: 93  
 Sample ID: CV 1  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 3/1/2013 3:06:56 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3155437.6	104.6	%	0.35			0.33%
ScR 361.383	336477.4	105.2	%	0.29			0.28%
Ag 328.068†	242116.1	1.019	mg/L	0.0024	1.019 mg/L	0.0024	0.24%
Al 308.215†	2794.6	1.947	mg/L	0.0104	1.947 mg/L	0.0104	0.53%
As 188.979†	3520.7	2.003	mg/L	0.0073	2.003 mg/L	0.0073	0.37%
B 249.677†	6841.4	0.9685	mg/L	0.00519	0.9685 mg/L	0.00519	0.54%
Ba 233.527†	6308.1	1.004	mg/L	0.0026	1.004 mg/L	0.0026	0.26%
Be 313.042†	501534.4	0.9446	mg/L	0.00701	0.9446 mg/L	0.00701	0.74%
Ca 317.933†	20656.2	1.920	mg/L	0.0093	1.920 mg/L	0.0093	0.48%
Cd 228.802†	26991.2	0.9994	mg/L	0.00490	0.9994 mg/L	0.00490	0.49%
Co 228.616†	43676.3	0.9882	mg/L	0.00589	0.9882 mg/L	0.00589	0.60%
Cr 267.716†	6825.9	1.007	mg/L	0.0026	1.007 mg/L	0.0026	0.26%
Cu 324.752†	290626.8	1.003	mg/L	0.0029	1.003 mg/L	0.0029	0.29%
Fe 273.955†	3130.9	2.001	mg/L	0.0069	2.001 mg/L	0.0069	0.34%
K 766.490†	34427.8	19.99	mg/L	0.075	19.99 mg/L	0.075	0.38%
Mg 279.077†	2091.8	1.980	mg/L	0.0062	1.980 mg/L	0.0062	0.32%
Mn 257.610†	47114.7	0.9513	mg/L	0.00715	0.9513 mg/L	0.00715	0.75%
Mo 202.031†	22228.8	0.9827	mg/L	0.00477	0.9827 mg/L	0.00477	0.49%
Na 589.592†	667505.1	50.04	mg/L	0.279	50.04 mg/L	0.279	0.56%
Na 330.237†	1593.3	51.29	mg/L	0.085	51.29 mg/L	0.085	0.17%
Ni 231.604†	4287.0	0.9871	mg/L	0.00199	0.9871 mg/L	0.00199	0.20%
Pb 220.353†	19536.1	1.977	mg/L	0.0088	1.977 mg/L	0.0088	0.45%
Sb 206.836†	7271.0	2.032	mg/L	0.0124	2.032 mg/L	0.0124	0.61%
Se 196.026†	3442.2	1.964	mg/L	0.0106	1.964 mg/L	0.0106	0.54%
Si 288.158†	3569.1	1.958	mg/L	0.0158	1.958 mg/L	0.0158	0.81%
Sn 189.927†	4926.9	0.9663	mg/L	0.00468	0.9663 mg/L	0.00468	0.48%
Sr 421.552†	952053.1	0.9709	mg/L	0.00412	0.9709 mg/L	0.00412	0.42%
Ti 334.903†	22774.5	0.9703	mg/L	0.00418	0.9703 mg/L	0.00418	0.43%
Tl 190.801†	4797.0	1.964	mg/L	0.0069	1.964 mg/L	0.0069	0.35%
V 292.402†	144975.0	1.007	mg/L	0.0026	1.007 mg/L	0.0026	0.26%
Zn 206.200†	4569.1	1.017	mg/L	0.0037	1.017 mg/L	0.0037	0.37%

Sequence No.: 94  
 Sample ID: CB<sup>9</sup>  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 3/1/2013 3:11:01 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 221.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	3196286.3	106.0	%	0.24				0.23%
ScR 361.383	340967.9	106.6	%	0.57				0.54%
Ag 328.068†	-6.4	-0.00003	mg/L	0.000085	-0.00003	mg/L	0.000085	312.67%
Al 308.215†	-1.4	-0.00100	mg/L	0.003961	-0.00100	mg/L	0.003961	396.90%
As 188.979†	3.2	0.00182	mg/L	0.002065	0.00182	mg/L	0.002065	113.73%
B 249.677†	20.6	0.00293	mg/L	0.001135	0.00293	mg/L	0.001135	38.79%
Ba 233.527†	2.8	0.00044	mg/L	0.000474	0.00044	mg/L	0.000474	107.26%
Be 313.042†	4.9	0.00001	mg/L	0.000028	0.00001	mg/L	0.000028	295.73%
Ca 317.933†	-20.7	-0.00192	mg/L	0.000430	-0.00192	mg/L	0.000430	22.40%
Cd 228.802†	-1.1	-0.00005	mg/L	0.000031	-0.00005	mg/L	0.000031	63.10%
Co 228.616†	3.8	0.00008	mg/L	0.000069	0.00008	mg/L	0.000069	81.20%
Cr 267.716†	9.4	0.00139	mg/L	0.000391	0.00139	mg/L	0.000391	28.25%
Cu 324.752†	-110.4	-0.00038	mg/L	0.000202	-0.00038	mg/L	0.000202	52.88%
Fe 273.955†	-0.3	-0.00022	mg/L	0.002423	-0.00022	mg/L	0.002423	>999.9%
K 766.490†	38.8	0.02252	mg/L	0.026958	0.02252	mg/L	0.026958	119.73%
Mg 279.077†	-6.1	-0.00574	mg/L	0.001632	-0.00574	mg/L	0.001632	28.42%
Mn 257.610†	-10.8	-0.00022	mg/L	0.000109	-0.00022	mg/L	0.000109	49.94%
Mo 202.031†	27.7	0.00122	mg/L	0.000139	0.00122	mg/L	0.000139	11.36%
Na 589.592†	88.5	0.00663	mg/L	0.001735	0.00663	mg/L	0.001735	26.16%
Na 330.237†	0.5	0.01473	mg/L	0.112691	0.01473	mg/L	0.112691	765.03%
Ni 231.604†	5.1	0.00117	mg/L	0.000229	0.00117	mg/L	0.000229	19.53%
Pb 220.353†	-1.9	-0.00019	mg/L	0.000187	-0.00019	mg/L	0.000187	100.44%
Sb 206.836†	15.4	0.00430	mg/L	0.000327	0.00430	mg/L	0.000327	7.62%
Se 196.026†	1.0	0.00054	mg/L	0.002453	0.00054	mg/L	0.002453	451.72%
Si 288.158†	0.7	0.00038	mg/L	0.001875	0.00038	mg/L	0.001875	489.81%
Sn 189.927†	4.3	0.00084	mg/L	0.000566	0.00084	mg/L	0.000566	67.09%
Sr 421.552†	39.2	0.00004	mg/L	0.000009	0.00004	mg/L	0.000009	21.89%
Ti 334.903†	10.7	0.00045	mg/L	0.000332	0.00045	mg/L	0.000332	73.24%
Tl 190.801†	7.6	0.00313	mg/L	0.001362	0.00313	mg/L	0.001362	43.49%
V 292.402†	-57.5	-0.00039	mg/L	0.000109	-0.00039	mg/L	0.000109	27.90%
Zn 206.200†	0.7	0.00016	mg/L	0.000180	0.00016	mg/L	0.000180	116.33%

**Metals Data Review Checklist**

Method: ICP ICP-MS GFA CVA

Analysis Date: 3-1-13

MSI	Analyst	Peer	Comment
Logbook	BA 3-4-13	K3417	
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See log
Carry-over	✓	✓	
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	See log
Post Spikes/Serial Dilutions	✓	✓	WE81, WE82
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	WE81, WE82
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Notes	✓	✓	CAF - WE81, WE82



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 3-1-13 Analyst: BA Page: 1 of 5

All corrections made by analyst unless otherwise noted. BA 3-4-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3009-6
		1			3016-4
		2			↓ -5
		3			3019-1
		↓ 4			3016-6
		Rinse sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low Check			
		zzzzzz			
		<del>ICSA</del>			
		zzzzzz			
		<del>ICSAB</del>			Li, Tb↑ <sup>67,68</sup> Zn, As2, <sup>TB</sup> Se, Mo↓
		LR200			
		LR300			
		CCV2			
		CCB2			
		ICSA			
		ICSAB			Remade
		CCV3			
		CCB3			
		WE81 MBI	SWN	20	
		B			
		↓ C	↓	↓	



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 3-1-13 Analyst: BA Page: 2 of 5

All corrections made by analyst unless otherwise noted. BA 3-4-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE81 D	SWN	20	As>LR (RR 50x)
		↓ E	↓	↓	As>LR (RR 100x) Set (RR, V)
		WE83 A-L		250	C <sub>r</sub>
		↓ A		50	↓
		↓ ADUP		↓	↓
		↓ ASPK		↓	↓
		WE81 MBISPK	↓	20	↓
4		CCV4			B <sub>cl</sub>
↓		CCB4			
		WE81 MB2	SWN	20	
		↓ F	↓	↓	
		↓ G		↓	
		↓ H		↓	
		↓ A-L		100	V=10% → CAF
		↓ A		20	
		↓ ADUP		↓	
		↓ ASPK		↓	AST, sb↓ ASSTL
		↓ APOST		↓	0.06 mL ICPMS Spk #1 Z9991-12 0.06 mL ICPMS Spk #2 Z9996-7 AS, sbok
		↓ MB2SPK	↓	↓	
		CCV5			
		CCB5			
		WE81 I	SWN	20	
		↓ J	↓	↓	
		↓ K	↓	↓	Set (RR, V, C <sub>r</sub> 50x)



Analysis Date: 3-1-13 Analyst: BA Page: 3 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE81 L	SWN	20	Sc1 (RR V, Cr Sox)
		M			
		N			(RR Sox), As > LR
		O			
		P			
		Q			
		R			
		CCV6			
		CCB6			
		WF55 MB	REN	2	
		A			
		B			
		MBSPK			
		CCV7			
		CCB7			
		WE82 MBI	SWN	20	
		WE81 S			As > LR (RR Sox)
		T			
		U			
		V			
		W			As > LR (RR Sox)
		X			
		D		50	As
		E		100	As, Cr, V



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 3-1-13 Analyst: BA Page: 4 of 5

All corrections made by analyst unless otherwise noted. BA 3-4-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE82 MB1SPK	SWN	20	✓
		CCV8			
		CCB8			
		WE82 MB2	SWN	20	
		B			
		C			
		D			
		A-L		100	✓
		A		20	✓
		ADVP			
		ASPK			✓ AS STL AS sb ↓ (CAF)
		APOST			✓ 0.00 ml ICPMS Spk #1 2499-12 0.00 ml ICPMS Spk #2 2456-7
		MB2SPK			AS sb OK
		CCV9			
		CCB9			
		WE82 F	SWN	20	As > LB (RR 50x)
		F			
		G			
		H			
		I			
		J			
		K			
		L			
		M			



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 3-1-13 Analyst: BA Page: 5 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE82 N	SWN	20	
		CCV10			
		CCB10			
		WE82 O	SWN	20	
		↓ P	↓	↓	
		Q			Sc↑ (RRV, Cr Sox)
		R			Sc↑ (RRV, Cr Sox)
		S			
		T			
		U			
		V			
		↓ W	↓	↓	
		CCV11			
		CCB11			End WE82
		WE81 K	SWN	50	Cr, V
		↓ L	↓	↓	↓
		M			
		↓ N	↓	↓	As, Cr, V
		O			Cr, V
		CCV12			
		CCB12			End Pkg
		Rinse/DI			
		BA			
		3/1/13			



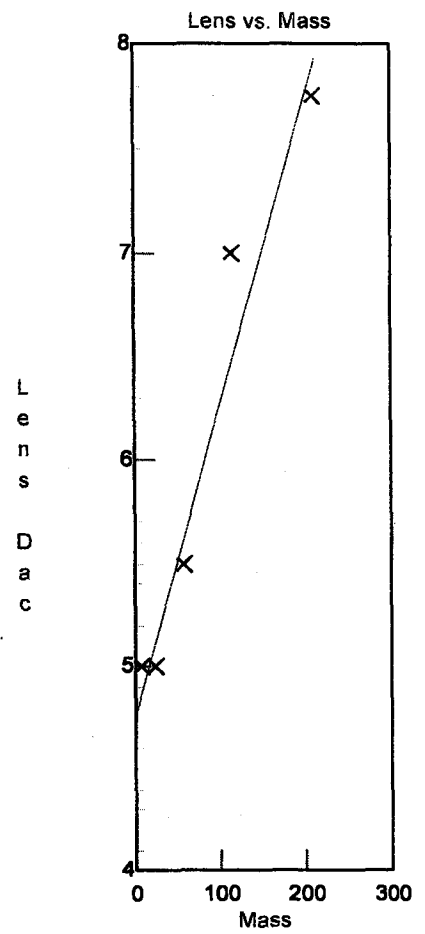
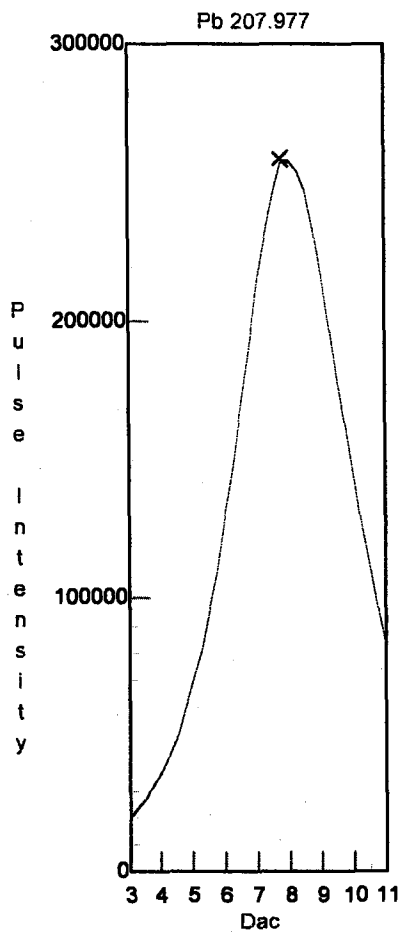
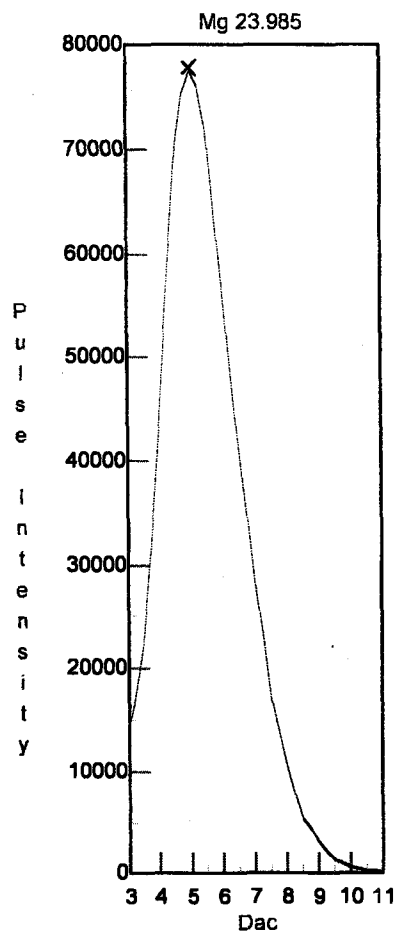
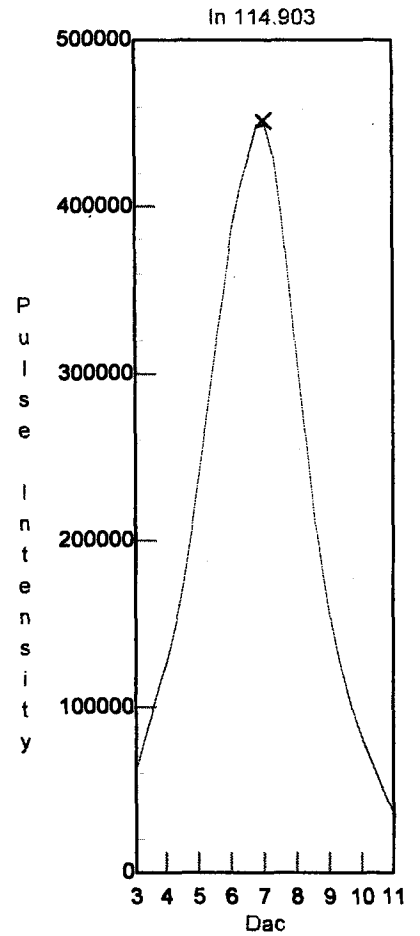
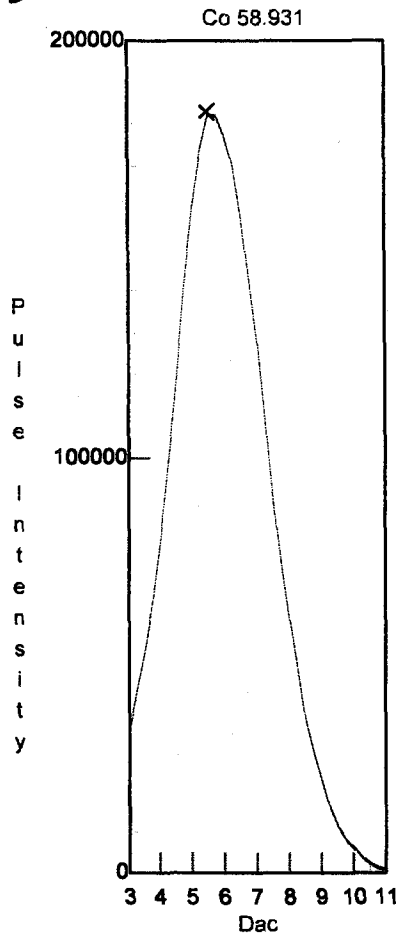
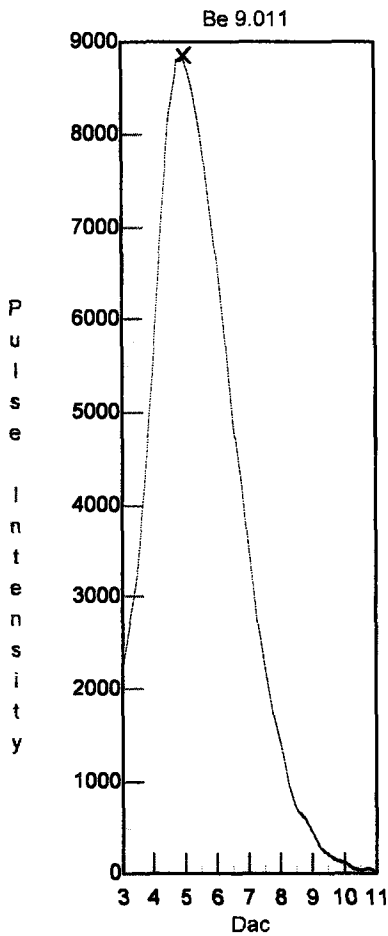
Int. Std	Blank Value	Lower Limit	Upper Limit
<b>Li</b>	320083	<b>192049.8</b>	<b>384099.6</b>
<b>Sc</b>	212115	<b>127269.0</b>	<b>254538.0</b>
<b>Ge</b>	228607	<b>137164.2</b>	<b>274328.4</b>
<b>In</b>	230726	<b>138435.6</b>	<b>276871.2</b>
<b>Tb</b>	290754	<b>174452.4</b>	<b>348904.8</b>
		<b>#VALUE!</b>	<b>#VALUE!</b>

# Instrument Tuning Report

File Name: Default.tun  
File Path: C:\Elandata\Tuning\Default.tun

Analyte	Exact Mass	Meas. Mass ✓	Mass DAC	Res. DAC	Meas. Pk. Width ✓	Custom Res.
Be	9.012	9.025	2034	2152	0.685	
Mg	23.985	23.929	5654	2262	0.680	
Co	58.933	58.929	14160	2530	0.671	
In	114.904	114.929	27802	2970	0.690	
Pb	207.977	207.974	50438	3725	0.676	

3-1-13



# Daily Performance Report

Sample ID: Sample

Sample Date/Time: Friday, March 01, 2013 08:17:41

Sample Description:

Sample File: 1119.sam

Method File: C:\Elandata\Method\aridailyperf.mth

Dataset File: C:\Elandata\Dataset\daily performance\Sample.1413

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\Default.dac

Number of Replicates: 5

Dual Detector Mode: Dual

Neb 0.91

Discrim 15

## Summary

Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Mg	24	34586.894 -	722.723	2.090
In	115	236783.909 ~	1626.425	0.687
Pb	208	156401.062 ✓	1923.646	1.230
[> Ba	138	180682.199	707.563	0.392
[ Ba++	69	0.012 ✓	0.000	0.700
[> Ce	140	219663.408	729.640	0.332
[ CeO	156	0.030 ✓	0.001	1.848
Bkgd	220	15.502 ✓	5.124	33.055

Mg, In w/in PE specs.

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:01:11

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L				320083	0
[ Be	9		ug/L				32	37
C	13		mg/L				5382	1
Cl	37		mg/L				1968149	0
[> Sc	45		ug/L				212115	0
V	51		ug/L				1289	6
V-1	51		ug/L				2538	1
Cr	52		ug/L				3869	1
Cr	53		ug/L				836	3
Mn	55		ug/L				386	5
[ Co	59		ug/L				61	13
[> Ge	72		ug/L				228607	1
Ni	60		ug/L				47	14
Ni	62		ug/L				56	29
Cu	63		ug/L				178	10
Cu	65		ug/L				90	5
Zn	66		ug/L				229	0
Zn	67		ug/L				104	3
Zn	68		ug/L				4281	0
As	75		ug/L				352	3
As-1	75		ug/L				5658	0
Se	82		ug/L				0	1923
Se	78		ug/L				5765	0
[ Mo	98		ug/L				135	16
Y	89		ug/L				218720	0
Kr	83		ug/L				189	3
[> In	115		ug/L				230726	0
Ag	107		ug/L				39	6
Cd	111		ug/L				121	10
Cd	114		ug/L				20	3
Sb	121		ug/L				20	33
Sb	123		ug/L				20	11
Ba	135		ug/L				18	40
[ Ba	137		ug/L				25	31
[> Tb	159		ug/L				290754	0
Tl	205		ug/L				29	17
Pb	208		ug/L				225	20
Bi	209		ug/L				234649	0
Th	232		ug/L				71	13
[ U	238		ug/L				12	26

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:07:19

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	309527	0
[ Be	9	10.000	ug/L	0.215	2	32	3830	2
C	13		mg/L			5382	4357	0
Cl	37		mg/L			1968149	1970098	0
[> Sc	45		ug/L			212115	210159	1
V	51	10.000	ug/L	0.141	1	1289	91174	0
V-1	51	10.000	ug/L	0.096	0	2538	93900	0
Cr	52	10.000	ug/L	0.186	1	3869	82678	0
Cr	53	10.000	ug/L	0.154	1	836	10214	1
Mn	55	10.000	ug/L	0.099	0	386	130229	1
[ Co	59	10.000	ug/L	0.144	1	61	93791	1
[> Ge	72		ug/L			228607	224220	0
Ni	60	10.000	ug/L	0.081	0	47	20054	0
Ni	62	10.000	ug/L	0.132	1	56	3050	1
Cu	63	10.000	ug/L	0.023	0	178	43881	0
Cu	65	10.000	ug/L	0.251	2	90	20439	2
Zn	66	10.000	ug/L	0.166	1	229	13893	0
Zn	67	10.000	ug/L	0.355	3	104	2399	3
Zn	68	10.000	ug/L	0.229	2	4281	13715	0
As	75	10.000	ug/L	0.036	0	352	13428	0
As-1	75	10.000	ug/L	0.058	0	5658	18374	0
Se	82	10.000	ug/L	0.157	1	0	1421	2
Se	78	10.000	ug/L	0.182	1	5765	9036	0
[ Mo	98	10.000	ug/L	0.183	1	135	46757	1
Y	89		ug/L			218720	215843	0
Kr	83		ug/L			189	196	2
[> In	115		ug/L			230726	229564	0
Ag	107	10.000	ug/L	0.043	0	39	74926	0
Cd	111	10.000	ug/L	0.065	0	121	19239	0
Cd	114	10.000	ug/L	0.096	0	20	43344	1
Sb	121	10.000	ug/L	0.123	1	20	66186	0
Sb	123	10.000	ug/L	0.155	1	20	50265	1
Ba	135	10.000	ug/L	0.157	1	18	16059	1
[ Ba	137	10.000	ug/L	0.129	1	25	27547	1
[> Tb	159		ug/L			290754	289664	0
Tl	205	10.000	ug/L	0.153	1	29	199727	0
Pb	208	10.000	ug/L	0.107	1	225	274156	0
Bi	209		ug/L			234649	232071	0
Th	232	10.000	ug/L	0.281	2	71	346801	2
[ U	238	10.000	ug/L	0.169	1	12	355589	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:13:28

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	314809	2
[ Be	9	19.949	ug/L	0.614	3	32	7658	1
C	13		mg/L			5382	4547	2
Cl	37		mg/L			1968149	1963374	0
[> Sc	45		ug/L			212115	209226	0
V	51	20.102	ug/L	0.101	0	1289	184929	0
V-1	51	20.101	ug/L	0.081	0	2538	189168	0
Cr	52	20.034	ug/L	0.048	0	3869	162187	0
Cr	53	20.036	ug/L	0.140	0	836	19682	0
Mn	55	19.986	ug/L	0.058	0	386	257996	0
Co	59	20.007	ug/L	0.077	0	61	187027	0
[> Ge	72		ug/L			228607	225897	1
Ni	60	19.961	ug/L	0.550	2	47	39963	1
Ni	62	19.818	ug/L	0.287	1	56	5824	1
Cu	63	19.926	ug/L	0.343	1	178	86624	0
Cu	65	19.964	ug/L	0.373	1	90	40726	0
Zn	66	19.796	ug/L	0.411	2	229	26416	0
Zn	67	19.799	ug/L	0.019	0	104	4508	1
Zn	68	19.859	ug/L	0.187	0	4281	22750	1
As	75	19.943	ug/L	0.260	1	352	26332	0
As-1	75	19.946	ug/L	0.376	1	5658	31085	0
Se	82	19.943	ug/L	0.297	1	0	2823	1
Se	78	19.953	ug/L	0.690	3	5765	12428	0
[ Mo	98	19.989	ug/L	0.194	0	135	93835	1
Y	89		ug/L			218720	216877	1
Kr	83		ug/L			189	205	4
[> In	115		ug/L			230726	227824	1
Ag	107	20.085	ug/L	0.534	2	39	151864	1
Cd	111	20.094	ug/L	0.213	1	121	38969	0
Cd	114	20.087	ug/L	0.129	0	20	87911	0
Sb	121	20.087	ug/L	0.268	1	20	134233	0
Sb	123	20.034	ug/L	0.294	1	20	100597	0
Ba	135	20.004	ug/L	0.178	0	18	31888	1
[ Ba	137	20.112	ug/L	0.185	0	25	56209	0
[> Tb	159		ug/L			290754	290548	0
Tl	205	20.003	ug/L	0.084	0	29	400937	0
Pb	208	20.024	ug/L	0.202	1	225	553045	1
Bi	209		ug/L			234649	234012	1
Th	232	20.037	ug/L	0.119	0	71	702239	0
[ U	238	20.049	ug/L	0.309	1	12	722175	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:19:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	311621	0
[ Be	9	50.000	ug/L	0.703	1	32	18959	1
C	13		mg/L			5382	3247	0
Cl	37		mg/L			1968149	1956924	0
[> Sc	45		ug/L			212115	214273	0
V	51	49.906	ug/L	1.339	2	1289	463855	1
V-1	51	49.878	ug/L	0.923	1	2538	471151	1
Cr	52	49.927	ug/L	1.135	2	3869	405113	1
Cr	53	49.837	ug/L	0.209	0	836	48110	1
Mn	55	49.895	ug/L	0.793	1	386	652230	1
[ Co	59	49.802	ug/L	0.270	0	61	467432	0
[> Ge	72		ug/L			228607	229909	0
Ni	60	49.720	ug/L	0.509	1	47	98510	1
Ni	62	49.827	ug/L	0.931	1	56	14569	2
Cu	63	49.769	ug/L	0.840	1	178	215019	1
Cu	65	49.767	ug/L	0.651	1	90	100867	1
Zn	66	49.709	ug/L	0.156	0	229	65285	0
Zn	67	49.689	ug/L	0.358	0	104	11017	0
Zn	68	49.673	ug/L	0.263	0	4281	49961	0
As	75	49.845	ug/L	0.294	0	352	65457	0
As-1	75	49.819	ug/L	0.277	0	5658	69362	0
Se	82	49.914	ug/L	0.796	1	0	7133	1
Se	78	49.771	ug/L	0.323	0	5765	22513	0
[ Mo	98	49.908	ug/L	0.201	0	135	236084	0
Y	89		ug/L			218720	221152	1
Kr	83		ug/L			189	198	3
[> In	115		ug/L			230726	233863	1
Ag	107	49.809	ug/L	0.082	0	39	379381	1
Cd	111	49.810	ug/L	0.415	0	121	97145	0
Cd	114	49.849	ug/L	0.826	1	20	220618	2
Sb	121	49.720	ug/L	0.302	0	20	331798	1
Sb	123	49.780	ug/L	0.206	0	20	251051	0
Ba	135	49.937	ug/L	0.601	1	18	81178	1
[ Ba	137	49.791	ug/L	0.659	1	25	139872	0
[> Tb	159		ug/L			290754	296563	1
Tl	205	49.873	ug/L	0.489	0	29	1007463	1
Pb	208	49.801	ug/L	0.100	0	225	1376176	1
Bi	209		ug/L			234649	235197	1
Th	232	49.932	ug/L	0.590	1	71	1773969	1
[ U	238	49.816	ug/L	0.328	0	12	1798295	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:25:45

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	292341	0
[ Be	9	100.934	ug/L	1.056	1	32	37027	0
C	13		mg/L			5382	3981	2
Cl	37		mg/L			1968149	1965235	0
[> Sc	45		ug/L			212115	214838	1
V	51	99.962	ug/L	0.994	0	1289	929161	1
V-1	51	99.963	ug/L	0.831	0	2538	943076	1
Cr	52	99.662	ug/L	1.823	1	3869	797922	0
Cr	53	99.678	ug/L	1.113	1	836	94615	0
Mn	55	99.833	ug/L	1.445	1	386	1300697	0
[ Co	59	100.139	ug/L	1.603	1	61	946618	1
[> Ge	72		ug/L			228607	227908	0
Ni	60	99.894	ug/L	1.607	1	47	195454	1
Ni	62	100.087	ug/L	0.798	0	56	29038	1
Cu	63	99.767	ug/L	0.730	0	178	423798	0
Cu	65	100.085	ug/L	0.720	0	90	201567	1
Zn	66	100.039	ug/L	0.267	0	229	130176	0
Zn	67	100.056	ug/L	1.827	1	104	21926	1
Zn	68	100.067	ug/L	0.517	0	4281	95644	0
As	75	100.110	ug/L	0.888	0	352	130439	0
As-1	75	100.040	ug/L	0.611	0	5658	132552	0
Se	82	99.955	ug/L	0.687	0	0	14140	0
Se	78	99.660	ug/L	1.090	1	5765	38554	1
[ Mo	98	100.497	ug/L	2.170	2	135	479069	2
Y	89		ug/L			218720	218800	1
Kr	83		ug/L			189	211	3
[> In	115		ug/L			230726	231255	0
[ Ag	107	100.051	ug/L	1.693	1	39	754859	2
Cd	111	99.790	ug/L	1.138	1	121	191007	1
Cd	114	100.033	ug/L	1.359	1	20	438209	1
Sb	121	100.230	ug/L	0.152	0	20	666475	0
Sb	123	100.411	ug/L	0.690	0	20	507680	0
Ba	135	99.746	ug/L	1.142	1	18	158958	0
[ Ba	137	99.710	ug/L	1.158	1	25	274314	0
[> Tb	159		ug/L			290754	286595	1
Tl	205	100.975	ug/L	3.952	3	29	2037456	3
Pb	208	100.234	ug/L	0.649	0	225	2697570	1
Bi	209		ug/L			234649	229610	0
Th	232	101.825	ug/L	0.979	0	71	3722559	1
[ U	238	102.027	ug/L	0.859	0	12	3817264	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:32:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	304891	1
[ Be	9	0.008	ug/L	0.010	115	32	34	11
C	13		mg/L			5382	5247	3
Cl	37		mg/L			1968149	2008266	2
[> Sc	45		ug/L			212115	219129	0
V	51	0.003	ug/L	0.006	191	1289	1361	4
V-1	51	-0.024	ug/L	0.009	35	2538	2393	3
Cr	52	0.021	ug/L	0.006	30	3869	4169	1
Cr	53	-0.066	ug/L	0.021	32	836	800	2
Mn	55	0.011	ug/L	0.005	41	386	542	10
[ Co	59	0.006	ug/L	0.001	21	61	118	10
[> Ge	72		ug/L			228607	234317	0
Ni	60	0.004	ug/L	0.007	156	47	57	23
Ni	62	0.047	ug/L	0.025	52	56	71	9
Cu	63	0.014	ug/L	0.008	56	178	242	13
Cu	65	0.009	ug/L	0.005	49	90	112	7
Zn	66	0.011	ug/L	0.016	153	229	249	9
Zn	67	-0.002	ug/L	0.057	2773	104	106	11
Zn	68	0.073	ug/L	0.113	155	4281	4455	1
As	75	0.012	ug/L	0.021	171	352	377	6
As-1	75	0.020	ug/L	0.022	109	5658	5825	0
Se	82	-0.038	ug/L	0.077	202	0	-6	177
Se	78	0.039	ug/L	0.084	216	5765	5922	0
[ Mo	98	0.010	ug/L	0.009	99	135	185	24
Y	89		ug/L			218720	226918	2
Kr	83		ug/L			189	201	1
[> In	115		ug/L			230726	243176	1
Ag	107	0.016	ug/L	0.004	26	39	169	19
Cd	111	0.005	ug/L	0.004	80	121	136	4
Cd	114	0.005	ug/L	0.003	63	20	44	32
Sb	121	0.180	ug/L	0.051	28	20	1276	26
Sb	123	0.176	ug/L	0.045	25	20	955	24
Ba	135	0.012	ug/L	0.011	85	18	40	42
[ Ba	137	0.009	ug/L	0.003	36	25	53	16
[> Tb	159		ug/L			290754	296803	1
Tl	205	0.014	ug/L	0.005	33	29	322	29
Pb	208	0.010	ug/L	0.003	25	225	515	14
Bi	209		ug/L			234649	242510	2
Th	232	0.092	ug/L	0.025	27	71	3550	26
[ U	238	0.008	ug/L	0.003	35	12	315	33

## Quantitative Analysis - Calibration Report

Sample Date/Time: Friday, March 01, 2013 09:25:45

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	0.9999	0.0013	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	1.0000	0.0432	10	20	50	100	
V-1	51	1.0000	0.0438	10	20	50	100	
Cr	52	1.0000	0.0371	10	20	50	100	
Cr	53	1.0000	0.0044	10	20	50	100	
Mn	55	1.0000	0.0606	10	20	50	100	
Co	59	1.0000	0.0440	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0086	10	20	50	100	
Ni	62	1.0000	0.0013	10	20	50	100	
Cu	63	1.0000	0.0186	10	20	50	100	
Cu	65	1.0000	0.0088	10	20	50	100	
Zn	66	1.0000	0.0057	10	20	50	100	
Zn	67	1.0000	0.0010	10	20	50	100	
Zn	68	1.0000	0.0040	10	20	50	100	
As	75	1.0000	0.0057	10	20	50	100	
As-1	75	1.0000	0.0056	10	20	50	100	
Se	82	1.0000	0.0006	10	20	50	100	
Se	78	1.0000	0.0014	10	20	50	100	
Mo	98	1.0000	0.0209	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0326	10	20	50	100	
Cd	111	1.0000	0.0083	10	20	50	100	
Cd	114	1.0000	0.0189	10	20	50	100	
Sb	121	1.0000	0.0288	10	20	50	100	
Sb	123	1.0000	0.0219	10	20	50	100	
Ba	135	1.0000	0.0069	10	20	50	100	
Ba	137	1.0000	0.0119	10	20	50	100	
Tb	159							
Tl	205	0.9998	0.0704	10	20	50	100	
Pb	208	1.0000	0.0939	10	20	50	100	
Bi	209							
Th	232	0.9994	0.1276	10	20	50	100	
U	238	0.9993	0.1305	10	20	50	100	

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:39:01

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	323072	0
[ Be	9	49.472	ug/L	0.537	1	32	20073	1
C	13		mg/L			5382	9435	2
Cl	37		mg/L			1968149	1956796	0
[> Sc	45		ug/L			212115	226792	0
V	51	50.622	ug/L	0.690	1	1289	497382	0
V-1	51	50.487	ug/L	0.773	1	2538	504135	1
Cr	52	49.857	ug/L	0.240	0	3869	423494	0
Cr	53	49.460	ug/L	0.386	0	836	50014	1
Mn	55	50.622	ug/L	0.590	1	386	696471	0
[ Co	59	50.866	ug/L	0.765	1	61	507657	1
[> Ge	72		ug/L			228607	241195	0
Ni	60	50.619	ug/L	0.793	1	47	104839	1
Ni	62	49.609	ug/L	0.398	0	56	15262	1
Cu	63	50.659	ug/L	0.092	0	178	227833	1
Cu	65	50.569	ug/L	0.828	1	90	107817	1
Zn	66	49.884	ug/L	0.269	0	229	68818	1
Zn	67	49.546	ug/L	1.034	2	104	11545	1
Zn	68	49.293	ug/L	0.954	1	4281	52149	1
As	75	51.504	ug/L	0.120	0	352	71201	0
As-1	75	50.720	ug/L	0.505	0	5658	74060	0
Se	82	80.018	ug/L	0.515	0	0	11980	1
Se	78	79.595	ug/L	1.311	1	5765	33809	0
[ Mo	98	50.340	ug/L	0.580	1	135	254006	0
Y	89		ug/L			218720	234562	1
Kr	83		ug/L			189	210	3
[> In	115		ug/L			230726	248579	0
Ag	107	50.475	ug/L	0.504	0	39	409324	0
Cd	111	50.756	ug/L	0.259	0	121	104488	0
Cd	114	49.891	ug/L	0.669	1	20	234932	0
Sb	121	49.801	ug/L	0.125	0	20	355971	0
Sb	123	49.596	ug/L	0.940	1	20	269548	1
Ba	135	49.639	ug/L	0.810	1	18	85049	1
[ Ba	137	49.535	ug/L	0.389	0	25	146512	1
[> Tb	159		ug/L			290754	313261	1
Tl	205	48.975	ug/L	1.106	2	29	1079978	0
Pb	208	50.249	ug/L	0.732	1	225	1478080	0
Bi	209		ug/L			234649	252615	1
Th	232	48.243	ug/L	1.109	2	71	1927449	1
[ U	238	49.709	ug/L	2.789	5	12	2031838	4

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:45:19

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	309663	1
[ Be	9	-0.004	ug/L	0.004	96	32	30	4
C	13		mg/L			5382	5322	3
Cl	37		mg/L			1968149	2007635	2
[> Sc	45		ug/L			212115	220028	1
V	51	0.004	ug/L	0.024	573	1289	1376	15
V-1	51	-0.035	ug/L	0.008	23	2538	2297	2
Cr	52	0.008	ug/L	0.012	146	3869	4078	1
Cr	53	-0.117	ug/L	0.040	34	836	755	6
Mn	55	0.002	ug/L	0.001	31	386	425	1
Co	59	0.004	ug/L	0.002	51	61	102	18
[> Ge	72		ug/L			228607	232244	0
Ni	60	0.002	ug/L	0.003	126	47	52	9
Ni	62	0.030	ug/L	0.034	113	56	65	14
Cu	63	0.010	ug/L	0.005	45	178	224	8
Cu	65	-0.001	ug/L	0.003	345	90	90	6
Zn	66	0.006	ug/L	0.019	331	229	240	10
Zn	67	-0.045	ug/L	0.063	140	104	96	13
Zn	68	0.078	ug/L	0.156	199	4281	4421	2
As	75	0.012	ug/L	0.021	173	352	374	7
As-1	75	0.027	ug/L	0.047	175	5658	5782	0
Se	82	0.028	ug/L	0.022	77	0	3	93
Se	78	0.063	ug/L	0.223	351	5765	5877	0
[ Mo	98	-0.002	ug/L	0.006	289	135	126	23
Y	89		ug/L			218720	226147	1
Kr	83		ug/L			189	189	1
[> In	115		ug/L			230726	241487	0
Ag	107	0.011	ug/L	0.006	52	39	125	35
Cd	111	0.007	ug/L	0.010	146	121	141	14
Cd	114	0.001	ug/L	0.001	83	20	27	17
Sb	121	0.044	ug/L	0.009	19	20	328	17
Sb	123	0.042	ug/L	0.013	31	20	242	28
Ba	135	0.002	ug/L	0.002	61	18	23	10
[ Ba	137	0.003	ug/L	0.006	179	25	36	45
[> Tb	159		ug/L			290754	298819	2
Tl	205	0.005	ug/L	0.002	42	29	137	31
Pb	208	0.005	ug/L	0.002	40	225	380	15
Bi	209		ug/L			234649	247895	0
Th	232	0.059	ug/L	0.015	26	71	2317	24
[ U	238	0.004	ug/L	0.001	32	12	158	28

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:50:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	307686	2
[ Be	9	50.054	ug/L	1.121	2	32	19334	0
C	13		mg/L			5382	3244	0
Cl	37		mg/L			1968149	1971686	1
[> Sc	45		ug/L			212115	221385	0
V	51	49.916	ug/L	0.361	0	1289	478812	0
V-1	51	50.039	ug/L	0.532	1	2538	487802	1
Cr	52	50.224	ug/L	0.442	0	3869	416417	0
Cr	53	50.603	ug/L	0.556	1	836	49930	0
Mn	55	50.631	ug/L	0.628	1	386	680012	1
[ Co	59	50.596	ug/L	0.945	1	61	492905	1
[> Ge	72		ug/L			228607	237756	1
Ni	60	49.815	ug/L	0.804	1	47	101695	0
Ni	62	50.037	ug/L	0.962	1	56	15172	1
Cu	63	50.213	ug/L	0.461	0	178	222594	0
Cu	65	49.316	ug/L	0.377	0	90	103659	1
Zn	66	49.699	ug/L	0.079	0	229	67586	1
Zn	67	49.933	ug/L	0.457	0	104	11469	0
Zn	68	50.014	ug/L	0.607	1	4281	52092	0
As	75	49.457	ug/L	0.478	0	352	67407	0
As-1	75	49.350	ug/L	0.447	0	5658	71192	0
Se	82	50.350	ug/L	0.932	1	0	7429	0
Se	78	49.918	ug/L	0.847	1	5765	23135	0
[ Mo	98	49.592	ug/L	0.794	1	135	246651	0
Y	89		ug/L			218720	228237	0
Kr	83		ug/L			189	195	2
[> In	115		ug/L			230726	243295	0
Ag	107	49.766	ug/L	0.199	0	39	395006	0
Cd	111	49.814	ug/L	0.775	1	121	100375	1
Cd	114	50.330	ug/L	1.154	2	20	231972	2
Sb	121	49.606	ug/L	0.867	1	20	347041	1
Sb	123	48.841	ug/L	0.215	0	20	259818	0
Ba	135	49.718	ug/L	0.188	0	18	83373	0
[ Ba	137	49.949	ug/L	0.600	1	25	144593	1
[> Tb	159		ug/L			290754	306072	1
Tl	205	49.261	ug/L	0.598	1	29	1061487	0
Pb	208	50.056	ug/L	0.968	1	225	1438624	1
Bi	209		ug/L			234649	243746	0
Th	232	47.084	ug/L	1.090	2	71	1837969	1
[ U	238	47.191	ug/L	0.342	0	12	1885582	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:57:06

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	312714	1
[ Be	9	0.025	ug/L	0.008	33	32	42	9
C	13		mg/L			5382	5098	0
Cl	37		mg/L			1968149	1976841	0
[> Sc	45		ug/L			212115	217070	0
V	51	0.005	ug/L	0.004	86	1289	1368	3
V-1	51	-0.028	ug/L	0.007	26	2538	2331	3
Cr	52	0.012	ug/L	0.011	91	3869	4060	2
Cr	53	-0.094	ug/L	0.009	9	836	766	1
Mn	55	0.004	ug/L	0.003	83	386	446	9
Co	59	0.003	ug/L	0.000	8	61	93	2
[> Ge	72		ug/L			228607	231225	0
Ni	60	-0.000	ug/L	0.002	328	47	47	6
Ni	62	0.004	ug/L	0.032	900	56	57	15
Cu	63	0.007	ug/L	0.009	123	178	210	17
Cu	65	-0.004	ug/L	0.007	196	90	84	17
Zn	66	0.011	ug/L	0.003	30	229	245	1
Zn	67	-0.062	ug/L	0.123	199	104	92	29
Zn	68	0.053	ug/L	0.040	74	4281	4379	0
As	75	-0.002	ug/L	0.019	812	352	353	7
As-1	75	0.052	ug/L	0.047	90	5658	5789	0
Se	82	-0.062	ug/L	0.069	110	0	-9	102
Se	78	0.191	ug/L	0.192	100	5765	5895	0
Mo	98	-0.003	ug/L	0.004	166	135	124	16
Y	89		ug/L			218720	228074	0
Kr	83		ug/L			189	198	4
[> In	115		ug/L			230726	242462	0
Ag	107	0.009	ug/L	0.004	48	39	112	30
Cd	111	0.006	ug/L	0.010	162	121	139	14
Cd	114	0.002	ug/L	0.001	31	20	30	8
Sb	121	0.108	ug/L	0.027	25	20	771	24
Sb	123	0.100	ug/L	0.015	15	20	550	14
Ba	135	0.005	ug/L	0.003	60	18	27	18
Ba	137	0.005	ug/L	0.004	75	25	42	26
[> Tb	159		ug/L			290754	298794	0
Tl	205	0.005	ug/L	0.001	21	29	141	16
Pb	208	0.005	ug/L	0.002	28	225	385	11
Bi	209		ug/L			234649	243774	2
Th	232	0.066	ug/L	0.017	25	71	2590	24
U	238	0.003	ug/L	0.001	37	12	132	33

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:02:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	305016	1
[ Be	9	0.204	ug/L	0.029	14	32	109	9
C	13		mg/L			5382	4016	1
Cl	37		mg/L			1968149	2020750	2
[> Sc	45		ug/L			212115	213552	0
V	51	0.206	ug/L	0.008	3	1289	3203	2
V-1	51	0.183	ug/L	0.006	3	2538	4267	1
Cr	52	0.509	ug/L	0.012	2	3869	7930	1
Cr	53	0.421	ug/L	0.052	12	836	1236	3
Mn	55	0.521	ug/L	0.005	1	386	7129	0
Co	59	0.212	ug/L	0.008	3	61	2052	3
[> Ge	72		ug/L			228607	230384	0
Ni	60	0.525	ug/L	0.004	0	47	1086	1
Ni	62	0.533	ug/L	0.080	15	56	212	10
Cu	63	0.543	ug/L	0.019	3	178	2511	2
Cu	65	0.540	ug/L	0.017	3	90	1189	2
Zn	66	4.295	ug/L	0.062	1	229	5869	0
Zn	67	3.781	ug/L	0.207	5	104	938	4
Zn	68	4.173	ug/L	0.109	2	4281	8165	0
As	75	0.209	ug/L	0.031	14	352	630	5
As-1	75	0.275	ug/L	0.052	18	5658	6054	0
Se	82	0.411	ug/L	0.114	27	0	57	27
Se	78	0.768	ug/L	0.213	27	5765	6065	0
[ Mo	98	0.185	ug/L	0.008	4	135	1028	3
Y	89		ug/L			218720	223518	0
Kr	83		ug/L			189	202	6
[> In	115		ug/L			230726	238204	1
Ag	107	0.218	ug/L	0.002	0	39	1732	1
Cd	111	0.098	ug/L	0.008	8	121	319	3
Cd	114	0.101	ug/L	0.007	6	20	476	6
Sb	121	0.235	ug/L	0.006	2	20	1629	4
Sb	123	0.229	ug/L	0.014	6	20	1214	7
Ba	135	0.496	ug/L	0.031	6	18	833	4
Ba	137	0.502	ug/L	0.016	3	25	1448	1
[> Tb	159		ug/L			290754	291000	0
Tl	205	0.210	ug/L	0.003	1	29	4325	1
Pb	208	0.112	ug/L	0.000	0	225	3279	0
Bi	209		ug/L			234649	238996	1
Th	232	0.225	ug/L	0.004	1	71	8430	1
[ U	238	0.202	ug/L	0.003	1	12	7669	1



ZZZZZZ ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~10SA~~ PA 3/4/13  
 Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:08:02

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	347085	0
[ Be	9	0.025	ug/L	0.024	94	32	46	21
C	13		mg/L			5382	14544	1
Cl	37		mg/L			1968149	3288982	0
[> Sc	45		ug/L			212115	228905	1
V	51	0.038	ug/L	0.018	47	1289	1764	10
V-1	51	0.332	ug/L	0.008	2	2538	6065	1
Cr	52	0.334	ug/L	0.011	3	3869	7016	2
Cr	53	1.263	ug/L	0.035	2	836	2168	1
Mn	55	0.089	ug/L	0.006	7	386	1645	3
Co	59	0.019	ug/L	0.001	5	61	261	2
[> Ge	72		ug/L			228607	245660	0
Ni	60	0.408	ug/L	0.018	4	47	910	3
Ni	62	3.667	ug/L	0.170	4	56	1205	4
Cu	63	0.416	ug/L	0.026	6	178	2095	5
Cu	65	0.592	ug/L	0.023	3	90	1382	3
Zn	66	1.360	ug/L	0.041	3	229	2151	3
Zn	67	1.202	ug/L	0.101	8	104	395	6
Zn	68	0.166	ug/L	0.075	44	4281	4763	2
As	75	0.085	ug/L	0.017	19	352	498	5
As-1	75	-0.324	ug/L	0.081	25	5658	5637	2
Se	82	-0.104	ug/L	0.042	40	0	-16	38
Se	78	-1.608	ug/L	0.330	20	5765	5624	2
[ Mo	98	361.742	ug/L	3.389	0	135	1858272	1
Y	89		ug/L			218720	235620	1
Kr	83		ug/L			189	215	1
[> In	115		ug/L			230726	248130	2
Ag	107	0.020	ug/L	0.002	8	39	204	9
Cd	111	0.059	ug/L	0.019	31	121	250	13
Cd	114	0.598	ug/L	0.003	0	20	2833	2
Sb	121	0.082	ug/L	0.002	2	20	607	4
Sb	123	0.083	ug/L	0.004	4	20	471	2
Ba	135	0.045	ug/L	0.008	17	18	96	13
[ Ba	137	0.041	ug/L	0.007	16	25	148	12
[> Tb	159		ug/L			290754	317273	1
Tl	205	0.024	ug/L	0.002	8	29	563	8
Pb	208	0.034	ug/L	0.001	1	225	1244	2
Bi	209		ug/L			234649	253433	0
Th	232	0.081	ug/L	0.014	16	71	3346	18
[ U	238	0.001	ug/L	0.000	4	12	50	5

222222 ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~IC6AB~~ <sup>7A</sup>

Sample Dil Factor: <sup>3/4</sup> 13

Comments:

Sample Date/Time: Friday, March 01, 2013 10:14:00

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	390500	2
[ Be	9	0.006	ug/L	0.011	198	32	42	11
C	13		mg/L			5382	14096	0
Cl	37		mg/L			1968149	3178069	0
[> Sc	45		ug/L			212115	246170	2
V	51	-0.232	ug/L	0.032	13	1289	-971	36
V-1	51	0.335	ug/L	0.018	5	2538	6559	2
Cr	52	16.592	ug/L	0.411	2	3869	155927	0
Cr	53	17.683	ug/L	0.322	1	836	20028	0
Mn	55	16.676	ug/L	0.152	0	386	249366	2
Co	59	16.545	ug/L	0.592	3	61	179212	2
[> Ge	72		ug/L			228607	264389	0
Ni	60	16.402	ug/L	0.070	0	47	37275	0
Ni	62	18.946	ug/L	0.379	2	56	6430	2
Cu	63	16.511	ug/L	0.171	1	178	81528	0
Cu	65	16.249	ug/L	0.085	0	90	38049	0
Zn	66	17.211	ug/L	0.254	1	229	26202	2
Zn	67	15.048	ug/L	0.257	1	104	3927	0
Zn	68	15.289	ug/L	0.178	1	4281	21148	1
As	75	16.060	ug/L	0.250	1	352	24614	0
As-1	75	15.703	ug/L	0.323	2	5658	29651	0
Se	82	-0.103	ug/L	0.035	34	0	-17	32
Se	78	-3.027	ug/L	0.291	9	5765	5511	1
[ Mo	98	334.071	ug/L	5.039	1	135	1846812	0
Y	89		ug/L			218720	257223	0
Kr	83		ug/L			189	212	2
[> In	115		ug/L			230726	273195	1
Ag	107	16.140	ug/L	0.210	1	39	143870	0
Cd	111	16.658	ug/L	0.216	1	121	37782	0
Cd	114	17.123	ug/L	0.042	0	20	88637	1
Sb	121	0.064	ug/L	0.003	4	20	529	3
Sb	123	0.063	ug/L	0.002	3	20	403	3
Ba	135	0.034	ug/L	0.004	12	18	85	9
[ Ba	137	0.031	ug/L	0.004	12	25	131	8
[> Tb	159		ug/L			290754	353197	0
Tl	205	0.020	ug/L	0.001	4	29	530	4
Pb	208	0.029	ug/L	0.001	2	225	1244	1
Bi	209		ug/L			234649	276759	0
Th	232	0.038	ug/L	0.002	6	71	1794	6
[ U	238	0.000	ug/L	0.000	31	12	32	17

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:19:57

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	316143 ✓	2
[ Be	9	193.097	ug/L	4.400	2	32	76550	0
C	13		mg/L			5382	3974	1
Cl	37		mg/L			1968149	1885258	1
[> Sc	45		ug/L			212115	211903 ✓	0
V	51	195.217	ug/L	3.612	1	1289	1788489	1
V-1	51	196.068	ug/L	3.696	1	2538	1821964	1
Cr	52	197.268	ug/L	0.719	0	3869	1554262	1
Cr	53	199.904	ug/L	1.220	0	836	186336	1
Mn	55	201.840	ug/L	3.286	1	386	2593506	1
[ Co	59	197.368	ug/L	3.625	1	61	1840163	1
[> Ge	72		ug/L			228607	227406 ✓	1
Ni	60	192.980	ug/L	2.880	1	47	376688	1
Ni	62	191.444	ug/L	1.633	0	56	55371	1
Cu	63	190.673	ug/L	2.540	1	178	808125	2
Cu	65	188.671	ug/L	1.404	0	90	379065	2
Zn	66	192.745	ug/L	1.169	0	229	250035	1
Zn	67	192.067	ug/L	2.543	1	104	41898	1
Zn	68	192.923	ug/L	2.912	1	4281	180029	1
As	75	198.274	ug/L	2.665	1	352	257428	1
As-1	75	198.665	ug/L	2.954	1	5658	257083	1
Se	82	195.499	ug/L	1.673	0	0	27596	1
Se	78	196.649	ug/L	4.236	2	5765	70310	0
[ Mo	98	205.595	ug/L	0.491	0	135	977709	1
Y	89		ug/L			218720	219240	0
Kr	83		ug/L			189	223	1
[> In	115		ug/L			230726	233325 ✓	0
Ag	107	193.245	ug/L	2.325	1	39	1470940	1
Cd	111	200.942	ug/L	0.598	0	121	387934	0
Cd	114	199.042	ug/L	2.534	1	20	879744	1
Sb	121	205.319	ug/L	1.414	0	20	1377482	1
Sb	123	203.479	ug/L	2.158	1	20	1038049	1
Ba	135	201.013	ug/L	2.108	1	18	323202	0
[ Ba	137	200.294	ug/L	2.401	1	25	555968	1
[> Tb	159		ug/L			290754	299001 ✓	0
Tl	205	203.043	ug/L	0.584	0	29	4274399	0
Pb	208	203.544	ug/L	2.072	1	225	5714912	1
Bi	209		ug/L			234649	233761	1
Th	232	204.816	ug/L	1.044	0	71	7811538	0
[ U	238	208.621	ug/L	4.062	1	12	8143547	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:26:14

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	300795✓	1
[ Be	9	301.140	ug/L	5.792	1	32	113584	1
C	13		mg/L			5382	3941	1
Cl	37		mg/L			1968149	1959700	1
[> Sc	45		ug/L			212115	220043✓	0
V	51	307.036	ug/L	2.740	0	1289	2920503	1
V-1	51	306.260	ug/L	1.071	0	2538	2954020	1
Cr	52	302.155	ug/L	2.240	0	3869	2469989	1
Cr	53	299.881	ug/L	4.716	1	836	289827	1
Mn	55	307.306	ug/L	5.484	1	386	4100279	1
[ Co	59	307.277	ug/L	1.759	0	61	2975064	0
[> Ge	72		ug/L			228607	234628✓	1
Ni	60	292.915	ug/L	4.134	1	47	589918	1
Ni	62	289.445	ug/L	4.654	1	56	86334	1
Cu	63	288.140	ug/L	4.153	1	178	1259614	1
Cu	65	283.832	ug/L	1.302	0	90	588310	1
Zn	66	286.919	ug/L	2.262	0	229	383902	0
Zn	67	287.572	ug/L	1.819	0	104	64673	1
Zn	68	283.823	ug/L	3.627	1	4281	271183	0
As	75	294.972	ug/L	2.557	0	352	394941	0
As-1	75	295.196	ug/L	2.431	0	5658	391312	0
Se	82	289.667	ug/L	4.893	1	0	42182	1
Se	78	289.857	ug/L	4.676	1	5765	104132	0
[ Mo	98	309.656	ug/L	3.227	1	135	1519265	1
Y	89		ug/L			218720	228298	2
Kr	83		ug/L			189	243	3
[> In	115		ug/L			230726	239267✓	1
Ag	107	301.079	ug/L	1.518	0	39	2350060	2
Cd	111	301.474	ug/L	3.411	1	121	596806	2
Cd	114	297.757	ug/L	4.499	1	20	1349642	2
Sb	121	321.820	ug/L	4.560	1	20	2213747	1
Sb	123	303.613	ug/L	5.397	1	20	1587960	0
Ba	135	297.154	ug/L	4.268	1	18	489877	0
[ Ba	137	298.629	ug/L	6.168	2	25	849812	0
[> Tb	159		ug/L			290754	302078✓	0
Tl	205	304.789	ug/L	4.173	1	29	6482790	2
Pb	208	307.687	ug/L	0.709	0	225	8727467	0
Bi	209		ug/L			234649	224288	1
Th	232	305.631	ug/L	4.528	1	71	11776111	1
[ U	238	311.126	ug/L	6.683	2	12	12269911	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:32:32

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	316142 ✓	1
[ Be	9	49.051	ug/L	1.134	2	32	19472	1
C	13		mg/L			5382	3196	2
Cl	37		mg/L			1968149	2067531	3
[> Sc	45		ug/L			212115	228093 ✓	1
V	51	49.042	ug/L	0.306	0	1289	484699	1
V-1	51	49.354	ug/L	0.282	0	2538	495743	1
Cr	52	49.406	ug/L	0.407	0	3869	422087	0
Cr	53	50.390	ug/L	0.375	0	836	51227	0
Mn	55	49.558	ug/L	0.461	0	386	685729	0
[ Co	59	49.377	ug/L	1.009	2	61	495544	0
[> Ge	72		ug/L			228607	239236 ✓	1
Ni	60	50.568	ug/L	0.543	1	47	103876	0
Ni	62	49.479	ug/L	1.112	2	56	15095	0
Cu	63	50.957	ug/L	1.145	2	178	227261	0
Cu	65	49.484	ug/L	0.360	0	90	104650	0
Zn	66	50.924	ug/L	0.569	1	229	69669	0
Zn	67	51.235	ug/L	0.912	1	104	11837	1
Zn	68	50.210	ug/L	0.783	1	4281	52602	1
As	75	49.643	ug/L	0.414	0	352	68079	0
As-1	75	49.580	ug/L	0.347	0	5658	71941	0
Se	82	50.682	ug/L	1.069	2	0	7524	0
Se	78	50.540	ug/L	0.859	1	5765	23493	0
[ Mo	98	50.344	ug/L	0.518	1	135	251953	0
Y	89		ug/L			218720	235487	0
Kr	83		ug/L			189	211	4
[> In	115		ug/L			230726	247631 ✓	0
Ag	107	49.623	ug/L	0.542	1	39	400892	1
Cd	111	50.201	ug/L	0.708	1	121	102951	1
Cd	114	49.938	ug/L	0.192	0	20	234267	0
Sb	121	49.296	ug/L	0.577	1	20	350999	0
Sb	123	48.944	ug/L	0.462	0	20	264994	0
Ba	135	49.674	ug/L	0.716	1	18	84779	0
[ Ba	137	49.393	ug/L	0.594	1	25	145530	1
[> Tb	159		ug/L			290754	308810 ✓	0
Tl	205	49.021	ug/L	0.568	1	29	1065881	1
Pb	208	50.606	ug/L	0.268	0	225	1467619	0
Bi	209		ug/L			234649	249815	1
Th	232	47.947	ug/L	0.668	1	71	1888732	1
[ U	238	47.977	ug/L	0.323	0	12	1934135	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:38:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	318680	0
[ Be	9	0.022	ug/L	0.012	54	32	41	12
C	13		mg/L			5382	5042	1
Cl	37		mg/L			1968149	2118651	0
[> Sc	45		ug/L			212115	220995 ✓	1
V	51	-0.008	ug/L	0.002	26	1289	1265	0
V-1	51	0.022	ug/L	0.008	33	2538	2860	1
Cr	52	0.007	ug/L	0.019	260	3869	4090	3
Cr	53	0.104	ug/L	0.031	29	836	972	1
Mn	55	0.009	ug/L	0.002	16	386	528	2
[ Co	59	0.007	ug/L	0.002	38	61	127	19
[> Ge	72		ug/L			228607	235808 ✓	0
Ni	60	0.005	ug/L	0.004	71	47	59	12
Ni	62	0.036	ug/L	0.010	29	56	68	5
Cu	63	0.027	ug/L	0.007	25	178	303	9
Cu	65	0.017	ug/L	0.013	78	90	129	20
Zn	66	0.012	ug/L	0.010	85	229	252	6
Zn	67	-0.002	ug/L	0.029	1709	104	107	6
Zn	68	0.011	ug/L	0.128	1122	4281	4426	2
As	75	0.001	ug/L	0.015	1606	352	365	6
As-1	75	0.045	ug/L	0.031	67	5658	5895	0
Se	82	-0.047	ug/L	0.101	213	0	-7	193
Se	78	0.110	ug/L	0.128	115	5765	5984	0
[ Mo	98	0.011	ug/L	0.004	37	135	192	9
Y	89		ug/L			218720	228912	1
Kr	83		ug/L			189	194	3
[> In	115		ug/L			230726	245176 ✓	0
Ag	107	0.021	ug/L	0.005	21	39	206	17
Cd	111	0.011	ug/L	0.005	47	121	151	6
Cd	114	0.002	ug/L	0.003	140	20	30	40
Sb	121	0.131	ug/L	0.031	24	20	942	23
Sb	123	0.123	ug/L	0.024	19	20	680	19
Ba	135	0.007	ug/L	0.002	21	18	32	7
[ Ba	137	0.005	ug/L	0.004	73	25	41	25
[> Tb	159		ug/L			290754	299953 ✓	1
Tl	205	0.014	ug/L	0.003	21	29	317	20
Pb	208	0.009	ug/L	0.002	26	225	488	14
Bi	209		ug/L			234649	247578	0
Th	232	0.092	ug/L	0.020	21	71	3616	22
[ U	238	0.006	ug/L	0.001	23	12	246	23

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:54:06

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	322477 ✓	0
[ Be	9	0.018	ug/L	0.016	88	32	40	15
C	13		mg/L			5382	14914	0
Cl	37		mg/L			1968149	3337109	0
> Sc	45		ug/L			212115	208975 ✓	0
V	51	0.030	ug/L	0.012	38	1289	1544	7
V-1	51	0.440	ug/L	0.014	3	2538	6524	1
Cr	52	0.424	ug/L	0.014	3	3869	7095	0
Cr	53	1.716	ug/L	0.094	5	836	2394	2
Mn	55	0.091	ug/L	0.006	6	386	1534	3
Co	59	0.021	ug/L	0.001	2	61	257	1
> Ge	72		ug/L			228607	222774 ✓	0
Ni	60	0.434	ug/L	0.017	4	47	877	3
Ni	62	4.050	ug/L	0.155	3	56	1201	4
Cu	63	0.456	ug/L	0.018	4	178	2066	4
Cu	65	0.620	ug/L	0.010	1	90	1309	1
Zn	66	1.283	ug/L	0.042	3	229	1852	3
Zn	67	1.101	ug/L	0.106	9	104	336	6
Zn	68	0.571	ug/L	0.086	15	4281	4682	2
As	75	0.128	ug/L	0.023	17	352	505	5
As-1	75	0.249	ug/L	0.032	12	5658	5822	1
Se	82	-0.048	ug/L	0.074	156	0	-7	142
Se	78	0.588	ug/L	0.159	27	5765	5807	1
Mo	98	402.581	ug/L	1.200	0	135	1875387	0
Y	89		ug/L			218720	216275	1
Kr	83		ug/L			189	208	4
> In	115		ug/L			230726	229150 ✓	1
Ag	107	0.023	ug/L	0.002	8	39	213	7
Cd	111	0.006	ug/L	0.035	563	121	132	50
Cd	114	0.655	ug/L	0.020	3	20	2863	2
Sb	121	0.084	ug/L	0.005	6	20	573	7
Sb	123	0.076	ug/L	0.005	6	20	400	4
Ba	135	0.040	ug/L	0.012	30	18	80	21
[ Ba	137	0.040	ug/L	0.001	3	25	133	2
> Tb	159		ug/L			290754	293496 ✓	0
Tl	205	0.025	ug/L	0.003	10	29	555	10
Pb	208	0.030	ug/L	0.002	6	225	1048	4
Bi	209		ug/L			234649	233039	1
Th	232	0.108	ug/L	0.010	9	71	4114	9
[ U	238	0.001	ug/L	0.000	12	12	49	9

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 11:00:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			320083	329207✓	1
[ Be	9	0.001	ug/L	0.014	1573	32	34	15
C	13		mg/L			5382	14949	0
Cl	37		mg/L			1968149	3247517	0
[>] Sc	45		ug/L			212115	209241✓	1
V	51	-0.258	ug/L	0.077	29	1289	-1062	67
V-1	51	0.486	ug/L	0.022	4	2538	6956	2
Cr	52	19.861	ug/L	0.441	2	3869	157921	1
Cr	53	21.375	ug/L	0.270	1	836	20409	1
Mn	55	19.695	ug/L	0.423	2	386	250197	1
[ Co	59	19.514	ug/L	0.719	3	61	179665	2
[>] Ge	72		ug/L			228607	226600✓	0
Ni	60	19.389	ug/L	0.076	0	47	37759	0
Ni	62	22.617	ug/L	0.198	0	56	6567	0
Cu	63	19.351	ug/L	0.220	1	178	81873	1
Cu	65	19.237	ug/L	0.138	0	90	38593	1
Zn	66	20.151	ug/L	0.330	1	229	26252	1
Zn	67	17.675	ug/L	0.399	2	104	3936	2
Zn	68	18.882	ug/L	0.225	1	4281	21386	0
As	75	19.020	ug/L	0.121	0	352	24924	1
As-1	75	19.382	ug/L	0.094	0	5658	30055	0
Se	82	-0.037	ug/L	0.053	144	0	-5	126
Se	78	-0.279	ug/L	0.159	56	5765	5623	0
[ Mo	98	394.730	ug/L	4.912	1	135	1870350	0
Y	89		ug/L			218720	219713	0
Kr	83		ug/L			189	207	4
[>] In	115		ug/L			230726	231798✓	2
Ag	107	19.235	ug/L	0.292	1	39	145443	0
Cd	111	19.982	ug/L	0.465	2	121	38424	2
Cd	114	20.170	ug/L	0.359	1	20	88570	2
Sb	121	0.078	ug/L	0.001	1	20	537	1
Sb	123	0.073	ug/L	0.003	4	20	389	5
Ba	135	0.034	ug/L	0.009	26	18	72	21
[ Ba	137	0.035	ug/L	0.003	8	25	123	5
[>] Tb	159		ug/L			290754	301536✓	0
Tl	205	0.022	ug/L	0.001	6	29	487	5
Pb	208	0.028	ug/L	0.001	3	225	1028	2
Bi	209		ug/L			234649	238334	0
Th	232	0.074	ug/L	0.004	4	71	2927	5
[ U	238	0.001	ug/L	0.000	27	12	47	20



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 11:06:01

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	323852 ✓	2
[ Be	9	47.954	ug/L	1.925	4	32	19494	2
C	13		mg/L			5382	3145	1
Cl	37		mg/L			1968149	1930752	0
[> Sc	45		ug/L			212115	211352 ✓	0
V	51	49.555	ug/L	0.905	1	1289	453788	1
V-1	51	49.558	ug/L	0.860	1	2538	461216	1
Cr	52	50.197	ug/L	0.863	1	3869	397306	1
Cr	53	50.179	ug/L	0.931	1	836	47271	1
Mn	55	50.262	ug/L	0.455	0	386	644464	0
[ Co	59	50.110	ug/L	0.655	1	61	466063	1
[> Ge	72		ug/L			228607	228785 ✓	0
Ni	60	49.191	ug/L	0.757	1	47	96639	1
Ni	62	48.927	ug/L	0.535	1	56	14278	0
Cu	63	49.907	ug/L	0.444	0	178	212903	1
Cu	65	48.512	ug/L	0.074	0	90	98121	0
Zn	66	50.848	ug/L	0.753	1	229	66531	1
Zn	67	49.623	ug/L	0.478	0	104	10969	1
Zn	68	49.979	ug/L	0.337	0	4281	50099	0
As	75	49.937	ug/L	0.215	0	352	65493	0
As-1	75	49.803	ug/L	0.153	0	5658	69084	0
Se	82	51.002	ug/L	0.462	0	0	7242	0
Se	78	50.558	ug/L	0.403	0	5765	22475	0
[ Mo	98	49.436	ug/L	0.540	1	135	236622	0
Y	89		ug/L			218720	219819	1
Kr	83		ug/L			189	198	2
[> In	115		ug/L			230726	236458 ✓	1
Ag	107	49.353	ug/L	0.397	0	39	380740	1
Cd	111	50.303	ug/L	0.379	0	121	98505	0
Cd	114	49.315	ug/L	0.630	1	20	220896	1
Sb	121	49.731	ug/L	0.126	0	20	338130	0
Sb	123	49.459	ug/L	0.350	0	20	255715	1
Ba	135	49.645	ug/L	0.828	1	18	80903	1
[ Ba	137	50.244	ug/L	0.867	1	25	141345	0
[> Tb	159		ug/L			290754	299708 ✓	0
Tl	205	49.309	ug/L	0.295	0	29	1040488	0
Pb	208	50.617	ug/L	0.600	1	225	1424602	0
Bi	209		ug/L			234649	239830	1
Th	232	48.138	ug/L	0.880	1	71	1840149	1
[ U	238	48.067	ug/L	1.114	2	12	1880429	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 11:12:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	334254 ✓	0
[ Be	9	-0.002	ug/L	0.014	899	32	33	16
C	13		mg/L			5382	5282	3
Cl	37		mg/L			1968149	2009267	3
[> Sc	45		ug/L			212115	213272 ✓	0
V	51	0.009	ug/L	0.020	228	1289	1376	12
V-1	51	0.098	ug/L	0.014	13	2538	3469	2
Cr	52	0.008	ug/L	0.013	161	3869	3953	1
Cr	53	0.294	ug/L	0.035	11	836	1116	2
Mn	55	0.004	ug/L	0.003	81	386	441	8
Co	59	0.003	ug/L	0.002	73	61	89	22
[> Ge	72		ug/L			228607	228947 ✓	1
Ni	60	-0.003	ug/L	0.003	108	47	42	15
Ni	62	0.024	ug/L	0.035	144	56	63	14
Cu	63	0.007	ug/L	0.004	55	178	210	8
Cu	65	0.005	ug/L	0.009	192	90	100	18
Zn	66	-0.009	ug/L	0.006	66	229	217	2
Zn	67	0.057	ug/L	0.104	181	104	117	18
Zn	68	-0.002	ug/L	0.048	1962	4281	4285	1
As	75	0.001	ug/L	0.006	454	352	354	2
As-1	75	0.024	ug/L	0.093	388	5658	5696	1
Se	82	-0.059	ug/L	0.051	86	0	-9	79
Se	78	0.071	ug/L	0.361	508	5765	5796	1
[ Mo	98	0.015	ug/L	0.008	58	135	204	19
Y	89		ug/L			218720	222843	0
Kr	83		ug/L			189	196	3
[> In	115		ug/L			230726	238378 ✓	1
Ag	107	0.010	ug/L	0.003	28	39	119	18
Cd	111	-0.007	ug/L	0.003	47	121	111	6
Cd	114	0.001	ug/L	0.003	459	20	24	53
Sb	121	0.098	ug/L	0.025	25	20	695	24
Sb	123	0.098	ug/L	0.027	27	20	533	25
Ba	135	0.005	ug/L	0.005	106	18	27	31
[ Ba	137	0.007	ug/L	0.003	44	25	45	18
[> Tb	159		ug/L			290754	298164 ✓	0
Tl	205	0.006	ug/L	0.002	32	29	150	26
Pb	208	0.005	ug/L	0.003	52	225	378	20
Bi	209		ug/L			234649	243039	1
Th	232	0.055	ug/L	0.013	24	71	2185	23
[ U	238	0.004	ug/L	0.002	36	12	184	34

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 MB1 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 11:19:25

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	349083	1
[ Be	9	0.011	ug/L	0.006	48	32	40	4
C	13		mg/L			5382	4821	0
Cl	37		mg/L			1968149	2062747	2
[> Sc	45		ug/L			212115	217910	0
V	51	✓ 0.006	ug/L	0.011	204	1289	1377	7
V-1	51	0.079	ug/L	0.001	1	2538	3365	0
Cr	52	✓ -0.002	ug/L	0.017	872	3869	3960	3
Cr	53	0.235	ug/L	0.025	10	836	1083	1
Mn	55	0.007	ug/L	0.004	53	386	490	10
[ Co	59	0.001	ug/L	0.002	157	61	72	21
[> Ge	72		ug/L			228607	231876	0
Ni	60	0.000	ug/L	0.005	5672	47	48	20
Ni	62	0.014	ug/L	0.048	335	56	61	22
Cu	63	0.008	ug/L	0.004	50	178	217	8
Cu	65	0.011	ug/L	0.005	40	90	115	8
Zn	66	0.450	ug/L	0.024	5	229	827	3
Zn	67	0.487	ug/L	0.046	9	104	214	5
Zn	68	0.414	ug/L	0.066	15	4281	4726	1
As	75	✓ 0.012	ug/L	0.029	237	352	374	10
As-1	75	0.045	ug/L	0.032	70	5658	5796	0
Se	82	✓ 0.002	ug/L	0.082	3740	0	0	2896
Se	78	0.114	ug/L	0.129	112	5765	5885	0
[ Mo	98	-0.008	ug/L	0.002	24	135	98	9
Y	89		ug/L			218720	225419	0
Kr	83		ug/L			189	190	6
[> In	115		ug/L			230726	239121	0
Ag	107	✓ 0.007	ug/L	0.003	42	39	94	24
Cd	111	0.001	ug/L	0.009	1698	121	126	13
Cd	114	-0.001	ug/L	0.000	33	20	17	6
Sb	121	✓ 0.034	ug/L	0.005	14	20	252	12
Sb	123	0.032	ug/L	0.005	15	20	186	13
Ba	135	0.012	ug/L	0.005	43	18	38	22
[ Ba	137	0.009	ug/L	0.003	31	25	52	15
[> Tb	159		ug/L			290754	302275	1
Tl	205	0.002	ug/L	0.000	25	29	71	14
Pb	208	✓ 0.004	ug/L	0.002	34	225	361	10
Bi	209		ug/L			234649	246485	0
Th	232	0.027	ug/L	0.004	14	71	1115	13
[ U	238	0.001	ug/L	0.000	38	12	52	28

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 B SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 11:25:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	344160 ✓	0
[ Be	9	0.224	ug/L	0.083	37	32	132	26
C	13		mg/L			5382	7968	2
Cl	37		mg/L			1968149	1986481	0
[> Sc	45		ug/L			212115	227867 ✓	1
V	51	18.675	ug/L	0.389	2	1289	185202	0
V-1	51	18.518	ug/L	0.379	2	2538	187484	0
Cr	52	5.871	ug/L	0.174	2	3869	53758	0
Cr	53	5.921	ug/L	0.211	3	836	6804	1
Mn	55	247.163	ug/L	4.286	1	386	3414545	0
[ Co	59	2.585	ug/L	0.053	2	61	25976	0
[> Ge	72		ug/L			228607	228514 ✓	0
Ni	60	3.680	ug/L	0.057	1	47	7266	1
Ni	62	5.128	ug/L	0.231	4	56	1544	3
Cu	63	8.723	ug/L	0.063	0	178	37314	0
Cu	65	8.739	ug/L	0.073	0	90	17730	1
Zn	66	19.981	ug/L	0.087	0	229	26253	1
Zn	67	22.213	ug/L	0.431	1	104	4962	2
Zn	68	21.573	ug/L	0.251	1	4281	24030	0
As	75	113.818	ug/L	1.270	1	352	148640	0
As-1	75	116.548	ug/L	1.313	1	5658	153894	0
Se	82	0.593	ug/L	0.126	21	0	83	20
Se	78	0.600	ug/L	0.203	33	5765	5960	0
[ Mo	98	0.149	ug/L	0.009	6	135	846	4
Y	89		ug/L			218720	270231	1
Kr	83		ug/L			189	202	1
[> In	115		ug/L			230726	237243 ✓	2
Ag	107	10.258	ug/L	0.216	2	39	79405	0
Cd	111	0.250	ug/L	0.040	15	121	616	13
Cd	114	0.033	ug/L	0.001	2	20	167	4
Sb	121	u 0.067	ug/L	0.001	2	20	480	0
Sb	123	0.062	ug/L	0.002	3	20	343	4
Ba	135	104.391	ug/L	2.456	2	18	170618	0
[ Ba	137	106.113	ug/L	3.512	3	25	299356	1
[> Tb	159		ug/L			290754	300171 ✓	0
Tl	205	0.182	ug/L	0.002	0	29	3880	0
Pb	208	8.135	ug/L	0.039	0	225	229531	0
Bi	209		ug/L			234649	249478	2
Th	232	1.089	ug/L	0.007	0	71	41778	0
[ U	238	0.199	ug/L	0.000	0	12	7828	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 C SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 11:31:19

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	345460 ✓	0
[ Be	9	0.203	ug/L	0.022	11	32	123	8
C	13		mg/L			5382	7771	3
Cl	37		mg/L			1968149	1961757	0
[> Sc	45		ug/L			212115	236261 ✓	0
V	51	17.927	ug/L	0.355	1	1289	184423	1
V-1	51	17.772	ug/L	0.339	1	2538	186695	1
Cr	52	6.526	ug/L	0.128	1	3869	61487	1
Cr	53	6.517	ug/L	0.052	0	836	7674	1
Mn	55	63.154	ug/L	0.937	1	386	905076	1
[ Co	59	1.532	ug/L	0.014	0	61	15998	0
[> Ge	72		ug/L			228607	229134 ✓	0
Ni	60	1.650	ug/L	0.016	0	47	3293	1
Ni	62	1.789	ug/L	0.090	5	56	577	3
Cu	63	13.410	ug/L	0.194	1	178	57424	1
Cu	65	13.506	ug/L	0.150	1	90	27425	0
Zn	66	16.444	ug/L	0.236	1	229	21704	1
Zn	67	18.909	ug/L	0.803	4	104	4250	3
Zn	68	17.737	ug/L	0.045	0	4281	20574	0
As	75	178.765	ug/L	1.072	0	352	233895	0
As-1	75	183.052	ug/L	1.099	0	5658	239135	0
Se	82	1.177	ug/L	0.027	2	0	166	2
Se	78	1.189	ug/L	0.074	6	5765	6172	0
[ Mo	98	0.096	ug/L	0.008	8	135	593	5
Y	89		ug/L			218720	247133	0
Kr	83		ug/L			189	208	2
[> In	115		ug/L			230726	237290 ✓	1
Ag	107	4.992	ug/L	0.138	2	39	38682	2
Cd	111	0.068	ug/L	0.018	27	121	258	13
Cd	114	0.009	ug/L	0.002	19	20	60	12
Sb	121	✓ 0.038	ug/L	0.005	13	20	280	11
Sb	123	0.039	ug/L	0.002	6	20	222	4
Ba	135	76.086	ug/L	1.292	1	18	124412	0
[ Ba	137	76.629	ug/L	1.152	1	25	216309	0
[> Tb	159		ug/L			290754	298680 ✓	0
Tl	205	0.299	ug/L	0.008	2	29	6323	2
Pb	208	10.038	ug/L	0.084	0	225	281740	0
Bi	209		ug/L			234649	243573	0
Th	232	0.915	ug/L	0.017	1	71	34935	1
[ U	238	0.112	ug/L	0.004	3	12	4374	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 D SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 11:37:17

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	335276 ✓	0
[ Be	9	0.186	ug/L	0.014	7	32	112	4
C	13		mg/L			5382	7494	1
Cl	37		mg/L			1968149	1972548	0
> Sc	45		ug/L			212115	245485 ✓	1
V	51	33.730	ug/L	0.085	0	1289	359246	1
V-1	51	33.423	ug/L	0.044	0	2538	362260	0
Cr	52	9.642	ug/L	0.207	2	3869	92263	1
Cr	53	9.695	ug/L	0.147	1	836	11389	0
Mn	55	90.344	ug/L	1.367	1	386	1345113	1
Co	59	2.456	ug/L	0.037	1	61	26594	1
> Ge	72		ug/L			228607	224340 ✓	0
Ni	60	2.944	ug/L	0.122	4	47	5716	4
Ni	62	2.983	ug/L	0.174	5	56	905	5
Cu	63	12.329	ug/L	0.159	1	178	51703	1
Cu	65	12.288	ug/L	0.211	1	90	24437	1
Zn	66	22.769	ug/L	0.546	2	229	29338	2
Zn	67	26.042	ug/L	0.316	1	104	5693	1
Zn	68	23.897	ug/L	0.140	0	4281	25681	0
As	75	728.731	ug/L	2.240	0	352	932482	0
As-1	75	746.516	ug/L	2.235	0	5658	937766	0
Se	82	1.258	ug/L	0.124	9	0	174	10
Se	78	1.799	ug/L	0.182	10	5765	6240	0
Mo	98	0.175	ug/L	0.017	9	135	954	8
Y	89		ug/L			218720	250120	0
Kr	83		ug/L			189	209	6
> In	115		ug/L			230726	227658 ✓	1
Ag	107	2.665	ug/L	0.032	1	39	19831	0
Cd	111	0.052	ug/L	0.010	19	121	217	9
Cd	114	0.010	ug/L	0.000	4	20	63	2
Sb	121	u 0.046	ug/L	0.009	19	20	322	17
Sb	123	0.050	ug/L	0.003	6	20	266	6
Ba	135	80.233	ug/L	1.322	1	18	125873	1
Ba	137	80.270	ug/L	0.912	1	25	217401	0
> Tb	159		ug/L			290754	289841 ✓	0
Tl	205	0.271	ug/L	0.004	1	29	5560	2
Pb	208	6.544	ug/L	0.022	0	225	178308	0
Bi	209		ug/L			234649	233970	0
Th	232	1.291	ug/L	0.029	2	71	47801	2
U	238	0.095	ug/L	0.003	3	12	3607	3

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 E SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 11:43:16

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No As, Cr, V

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	339406 ✓	1
[ Be	9	0.115	ug/L	0.011	9	32	83	6
C	13		mg/L			5382	7024	1
Cl	37		mg/L			1968149	2094361	0
[> Sc	45		ug/L			212115	262645	0
V	51	76.795	ug/L	0.696	0	1289	873088	1
V-1	51	76.019	ug/L	0.662	0	2538	877569	1
Cr	52	15.386	ug/L	0.089	0	3869	154670	1
Cr	53	15.542	ug/L	0.375	2	836	18910	1
Mn	55	59.233	ug/L	0.955	1	386	943761	1
Co	59	2.035	ug/L	0.037	1	61	23598	1
[> Ge	72		ug/L			228607	233969 ✓	0
Ni	60	1.326	ug/L	0.022	1	47	2711	1
Ni	62	1.391	ug/L	0.074	5	56	471	5
Cu	63	18.468	ug/L	0.354	1	178	80680	1
Cu	65	18.399	ug/L	0.270	1	90	38115	1
Zn	66	12.290	ug/L	0.182	1	229	16623	1
Zn	67	20.617	ug/L	0.285	1	104	4722	0
Zn	68	12.995	ug/L	0.048	0	4281	16563	0
As	75	1087.573	ug/L	1.590	0	352	1451198	0
As-1	75	1113.929	ug/L	1.618	0	5658	1456507	0
Se	82	1.482	ug/L	0.108	7	0	214	8
Se	78	1.415	ug/L	0.053	3	5765	6378	1
[ Mo	98	0.154	ug/L	0.004	2	135	892	2
Y	89		ug/L			218720	243839	1
Kr	83		ug/L			189	214	6
[> In	115		ug/L			230726	236241 ✓	0
Ag	107	2.119	ug/L	0.023	1	39	16373	1
Cd	111	0.029	ug/L	0.006	22	121	180	6
Cd	114	0.003	ug/L	0.001	22	20	35	8
Sb	121	0.041	ug/L	0.001	3	20	301	3
Sb	123	0.039	ug/L	0.003	7	20	221	5
Ba	135	40.507	ug/L	0.395	0	18	65960	1
[ Ba	137	40.208	ug/L	0.179	0	25	113026	1
[> Tb	159		ug/L			290754	298885 ✓	1
Tl	205	0.203	ug/L	0.004	1	29	4309	0
Pb	208	3.193	ug/L	0.030	0	225	89827	1
Bi	209		ug/L			234649	241502	0
Th	232	0.519	ug/L	0.006	1	71	19861	2
[ U	238	0.034	ug/L	0.002	4	12	1339	6

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 A-L SWN

Sample Dil Factor: 250

Comments:

Sample Date/Time: Friday, March 01, 2013 11:49:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

C

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	344966 ✓	1
[ Be	9	0.041	ug/L	0.011	27	32	53	8
C	13		mg/L			5382	4432	1
Cl	37		mg/L			1968149	2164245	0
[> Sc	45		ug/L			212115	221434 ✓	1
V	51	2.622	ug/L	0.029	1	1289	26427	1
V-1	51	2.651	ug/L	0.028	1	2538	28359	0
Cr	52	0.890	ug/L	0.012	1	3869	11351	2
Cr	53	1.059	ug/L	0.008	0	836	1900	1
Mn	55	50.707	ug/L	0.411	0	386	681144	0
[ Co	59	0.597	ug/L	0.008	1	61	5878	1
[> Ge	72		ug/L			228607	232805 ✓	0
Ni	60	0.571	ug/L	0.016	2	47	1188	3
Ni	62	0.635	ug/L	0.044	6	56	245	5
Cu	63	0.958	ug/L	0.020	2	178	4335	1
Cu	65	0.993	ug/L	0.028	2	90	2134	2
Zn	66	4.412	ug/L	0.089	2	229	6087	1
Zn	67	4.313	ug/L	0.142	3	104	1067	2
Zn	68	4.457	ug/L	0.082	1	4281	8517	1
As	75	0.534	ug/L	0.026	4	352	1067	2
As-1	75	0.592	ug/L	0.083	14	5658	6528	1
Se	82	0.034	ug/L	0.136	398	0	4	475
Se	78	0.253	ug/L	0.300	118	5765	5955	1
[ Mo	98	-0.006	ug/L	0.002	36	135	106	10
Y	89		ug/L			218720	239438	0
Kr	83		ug/L			189	198	2
[> In	115		ug/L			230726	236278 ✓	2
Ag	107	0.009	ug/L	0.001	7	39	108	3
Cd	111	0.039	ug/L	0.010	24	121	200	10
Cd	114	0.008	ug/L	0.002	24	20	57	13
Sb	121	0.006	ug/L	0.002	32	20	63	19
Sb	123	0.008	ug/L	0.002	21	20	64	16
Ba	135	7.905	ug/L	0.038	0	18	12889	1
[ Ba	137	7.973	ug/L	0.218	2	25	22428	0
[> Tb	159		ug/L			290754	302551 ✓	0
Tl	205	0.005	ug/L	0.001	19	29	134	14
Pb	208	0.849	ug/L	0.007	0	225	24341	0
Bi	209		ug/L			234649	247845	1
Th	232	0.160	ug/L	0.004	2	71	6261	2
[ U	238	0.030	ug/L	0.001	2	12	1193	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 A SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Friday, March 01, 2013 11:55:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Cr

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	316121 ✓	0
[ Be	9	0.136	ug/L	0.017	12	32	86	7
C	13		mg/L			5382	4806	1
Cl	37		mg/L			1968149	2105489	1
[> Sc	45		ug/L			212115	221792 ✓	1
V	51	12.794	ug/L	0.122	0	1289	123938	0
V-1	51	12.711	ug/L	0.066	0	2538	126111	0
Cr	52	4.618	ug/L	0.090	1	3869	42030	0
Cr	53	4.704	ug/L	0.125	2	836	5444	3
Mn	55	255.161	ug/L	2.949	1	386	3431501	0
[ Co	59	2.895	ug/L	0.040	1	61	28315	2
[> Ge	72		ug/L			228607	217397 ✓	0
Ni	60	3.008	ug/L	0.052	1	47	5658	2
Ni	62	3.394	ug/L	0.059	1	56	990	2
Cu	63	5.054	ug/L	0.027	0	178	20640	0
Cu	65	5.073	ug/L	0.128	2	90	9828	3
Zn	66	21.796	ug/L	0.138	0	229	27223	0
Zn	67	21.688	ug/L	0.219	1	104	4611	1
Zn	68	22.273	ug/L	0.140	0	4281	23471	0
As	75	2.339	ug/L	0.037	1	352	3235	1
As-1	75	2.612	ug/L	0.066	2	5658	8542	1
Se	82	0.008	ug/L	0.132	1688	0	0	5916
Se	78	1.037	ug/L	0.164	15	5765	5808	1
[ Mo	98	0.032	ug/L	0.004	11	135	274	6
Y	89		ug/L			218720	282652	1
Kr	83		ug/L			189	204	4
[> In	115		ug/L			230726	225477 ✓	0
Ag	107	0.035	ug/L	0.006	16	39	293	13
Cd	111	0.185	ug/L	0.004	1	121	463	1
Cd	114	0.043	ug/L	0.005	11	20	205	10
Sb	121	0.009	ug/L	0.001	14	20	78	11
Sb	123	0.009	ug/L	0.001	10	20	62	7
Ba	135	40.813	ug/L	0.339	0	18	63432	1
[ Ba	137	40.817	ug/L	0.733	1	25	109508	1
[> Tb	159		ug/L			290754	280939 ✓	1
Tl	205	0.023	ug/L	0.001	5	29	482	5
Pb	208	4.461	ug/L	0.049	1	225	117874	0
Bi	209		ug/L			234649	227308	0
Th	232	0.844	ug/L	0.014	1	71	30330	1
[ U	238	0.158	ug/L	0.005	3	12	5794	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 ADUP SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Friday, March 01, 2013 12:01:11

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Cr

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	339539 ✓	1
[ Be	9	0.123	ug/L	0.017	13	32	87	9
C	13		mg/L			5382	5009	0
Cl	37		mg/L			1968149	2120701	0
[> Sc	45		ug/L			212115	231362 ✓	1
V	51	12.269	ug/L	0.309	2	1289	124030	1
V-1	51	12.178	ug/L	0.313	2	2538	126130	1
Cr	52	4.319	ug/L	0.082	1	3869	41271	0
Cr	53	4.366	ug/L	0.110	2	836	5335	1
Mn	55	255.973	ug/L	4.183	1	386	3590893	1
[ Co	59	2.848	ug/L	0.052	1	61	29059	2
[> Ge	72		ug/L			228607	226871 ✓	1
Ni	60	2.848	ug/L	0.027	0	47	5593	1
Ni	62	3.102	ug/L	0.103	3	56	949	2
Cu	63	4.867	ug/L	0.053	1	178	20749	1
Cu	65	4.870	ug/L	0.014	0	90	9849	1
Zn	66	21.217	ug/L	0.122	0	229	27661	0
Zn	67	20.805	ug/L	0.520	2	104	4619	1
Zn	68	21.516	ug/L	0.262	1	4281	23804	0
As	75	2.307	ug/L	0.052	2	352	3333	0
As-1	75	2.255	ug/L	0.094	4	5658	8462	0
Se	82	-0.016	ug/L	0.064	387	0	-3	293
Se	78	-0.294	ug/L	0.193	65	5765	5624	0
[ Mo	98	0.028	ug/L	0.005	17	135	267	7
Y	89		ug/L			218720	298164	0
Kr	83		ug/L			189	206	0
[> In	115		ug/L			230726	232685 ✓	0
Ag	107	0.035	ug/L	0.001	2	39	303	2
Cd	111	0.176	ug/L	0.010	5	121	461	4
Cd	114	0.049	ug/L	0.005	10	20	238	9
Sb	121	0.009	ug/L	0.000	5	20	77	4
Sb	123	0.009	ug/L	0.001	6	20	64	4
Ba	135	38.685	ug/L	0.146	0	18	62047	0
[ Ba	137	39.083	ug/L	0.424	1	25	108210	1
[> Tb	159		ug/L			290754	298113 ✓	0
Tl	205	0.021	ug/L	0.001	3	29	478	3
Pb	208	4.071	ug/L	0.057	1	225	114175	1
Bi	209		ug/L			234649	239300	0
Th	232	0.819	ug/L	0.004	0	71	31216	0
[ U	238	0.150	ug/L	0.003	1	12	5854	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 ASPK SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Friday, March 01, 2013 12:07:09

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Cr

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	342055✓	0
[ Be	9	9.079	ug/L	0.225	2	32	3929	2
C	13		mg/L			5382	4823	1
Cl	37		mg/L			1968149	1971081	0
[> Sc	45		ug/L			212115	229300✓	0
V	51	22.771	ug/L	0.463	2	1289	226979	1
V-1	51	22.625	ug/L	0.397	1	2538	229941	1
Cr	52	13.706	ug/L	0.131	0	3869	120743	0
Cr	53	13.631	ug/L	0.137	1	836	14591	1
Mn	55	265.451	ug/L	3.848	1	386	3690896	1
[ Co	59	11.774	ug/L	0.166	1	61	118859	1
[> Ge	72		ug/L			228607	223089✓	0
Ni	60	12.727	ug/L	0.095	0	47	24417	1
Ni	62	13.211	ug/L	0.171	1	56	3799	0
Cu	63	14.774	ug/L	0.097	0	178	61577	0
Cu	65	14.672	ug/L	0.316	2	90	29000	2
Zn	66	53.749	ug/L	0.296	0	229	68566	0
Zn	67	51.256	ug/L	0.974	1	104	11044	2
Zn	68	53.281	ug/L	0.415	0	4281	51802	0
As	75	12.683	ug/L	0.064	0	352	16476	0
As-1	75	12.361	ug/L	0.136	1	5658	20870	1
Se	82	31.629	ug/L	0.152	0	0	4379	0
Se	78	32.226	ug/L	0.423	1	5765	16009	0
[ Mo	98	7.617	ug/L	0.073	0	135	35661	0
Y	89		ug/L			218720	288905	1
Kr	83		ug/L			189	200	3
[> In	115		ug/L			230726	231036✓	1
Ag	107	8.230	ug/L	0.173	2	39	62047	0
Cd	111	10.212	ug/L	0.130	1	121	19634	0
Cd	114	9.962	ug/L	0.220	2	20	43609	1
Sb	121	0.355	ug/L	0.017	4	20	2376	3
Sb	123	0.350	ug/L	0.006	1	20	1788	2
Ba	135	50.060	ug/L	1.207	2	18	79697	1
[ Ba	137	50.741	ug/L	1.034	2	25	139453	0
[> Tb	159		ug/L			290754	297491✓	0
Tl	205	9.428	ug/L	0.076	0	29	197501	0
Pb	208	14.305	ug/L	0.065	0	225	399828	0
Bi	209		ug/L			234649	240260	1
Th	232	10.269	ug/L	0.252	2	71	389750	2
[ U	238	9.663	ug/L	0.081	0	12	375306	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 MB1SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 12:13:07

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	341517 ✓	0
[ Be	9	22.375	ug/L	0.224	0	32	9616	0
C	13		mg/L			5382	4474	0
Cl	37		mg/L			1968149	2022951	2
> Sc	45		ug/L			212115	203206 ✓	0
V	51	24.752	ug/L	0.414	1	1289	218551	1
V-1	51	24.729	ug/L	0.338	1	2538	222500	1
Cr	52	25.522	ug/L	0.215	0	3869	196055	0
Cr	53	25.415	ug/L	0.065	0	836	23417	0
Mn	55	25.801	ug/L	0.348	1	386	318257	1
Co	59	25.368	ug/L	0.144	0	61	226879	0
> Ge	72		ug/L			228607	218156 ✓	1
Ni	60	25.158	ug/L	0.587	2	47	47145	1
Ni	62	25.486	ug/L	0.331	1	56	7117	1
Cu	63	26.211	ug/L	0.018	0	178	106702	1
Cu	65	25.633	ug/L	0.360	1	90	49472	0
Zn	66	81.395	ug/L	0.628	0	229	101418	0
Zn	67	75.064	ug/L	0.659	0	104	15769	0
Zn	68	80.255	ug/L	0.911	1	4281	74234	1
As	75	27.135	ug/L	0.533	1	352	34084	1
As-1	75	25.874	ug/L	0.553	2	5658	36813	0
Se	82	82.076	ug/L	1.695	2	0	11112	1
Se	78	82.317	ug/L	2.216	2	5765	31433	0
[ Mo	98	25.048	ug/L	0.246	0	135	114378	0
Y	89		ug/L			218720	213217	1
Kr	83		ug/L			189	193	2
> In	115		ug/L			230726	229595 ✓	1
Ag	107	25.124	ug/L	0.693	2	39	188140	0
Cd	111	24.947	ug/L	0.207	0	121	47499	2
Cd	114	24.864	ug/L	0.443	1	20	108131	0
Sb	121	25.287	ug/L	0.321	1	20	166938	1
Sb	123	25.066	ug/L	0.234	0	20	125831	1
Ba	135	25.279	ug/L	0.497	1	18	40002	0
[ Ba	137	25.410	ug/L	0.088	0	25	69424	1
> Tb	159		ug/L			290754	290442 ✓	1
Tl	205	25.618	ug/L	0.249	0	29	523853	0
Pb	208	26.095	ug/L	0.284	1	225	711824	0
Bi	209		ug/L			234649	242104	1
Th	232	24.509	ug/L	0.157	0	71	908036	0
[ U	238	24.675	ug/L	0.316	1	12	935503	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV<sup>4</sup> 3A  
 Sample Dil Factor: 3/1/13

Comments:

Sample Date/Time: Friday, March 01, 2013 12:19:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	345636 ✓	1
[ Be	9	44.763	ug/L	0.963	2	32	19431	0
C	13		mg/L			5382	3261	3
Cl	37		mg/L			1968149	2023196	2
[> Sc	45		ug/L			212115	209576 ✓	1
V	51	48.927	ug/L	0.527	1	1289	444276	0
V-1	51	48.983	ug/L	0.493	1	2538	452056	0
Cr	52	49.150	ug/L	0.357	0	3869	385855	1
Cr	53	49.320	ug/L	0.568	1	836	46089	1
Mn	55	48.991	ug/L	0.825	1	386	622872	1
[ Co	59	48.884	ug/L	0.566	1	61	450893	2
[> Ge	72		ug/L			228607	225020 ✓	0
Ni	60	48.439	ug/L	0.907	1	47	93592	1
Ni	62	48.524	ug/L	0.464	0	56	13927	0
Cu	63	49.257	ug/L	0.354	0	178	206668	0
Cu	65	48.697	ug/L	0.634	1	90	96870	0
Zn	66	50.521	ug/L	0.416	0	229	65017	0
Zn	67	50.430	ug/L	0.873	1	104	10962	2
Zn	68	49.948	ug/L	0.369	0	4281	49247	1
As	75	49.813	ug/L	0.106	0	352	64256	0
As-1	75	49.906	ug/L	0.095	0	5658	68077	0
Se	82	50.399	ug/L	1.106	2	0	7038	1
Se	78	50.786	ug/L	1.059	2	5765	22178	0
[ Mo	98	49.083	ug/L	0.346	0	135	231079	1
Y	89		ug/L			218720	217084	1
Kr	83		ug/L			189	195	2
[> In	115		ug/L			230726	230170 ✓	0
Ag	107	49.462	ug/L	0.502	1	39	371403	0
Cd	111	50.467	ug/L	0.312	0	121	96200	0
Cd	114	50.286	ug/L	0.386	0	20	219257	0
Sb	121	50.204	ug/L	0.308	0	20	332281	1
Sb	123	49.836	ug/L	0.459	0	20	250801	0
Ba	135	50.528	ug/L	0.636	1	18	80154	0
[ Ba	137	50.814	ug/L	0.270	0	25	139165	1
[> Tb	159		ug/L			290754	296242 ✓	0
Tl	205	49.629	ug/L	0.762	1	29	1035153	1
Pb	208	50.799	ug/L	0.426	0	225	1413280	0
Bi	209		ug/L			234649	239051	1
Th	232	48.497	ug/L	0.442	0	71	1832585	0
[ U	238	47.974	ug/L	0.149	0	12	1855338	0

4  
**ICP-MS Quantitative Analysis - Summary Report**

Sample ID: CCB3 <sup>2A</sup>

Sample Dil Factor: 3/13

Comments:

Sample Date/Time: Friday, March 01, 2013 12:25:24

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	342921 ✓	1
[ Be	9	0.030	ug/L	0.031	104	32	47	26
C	13		mg/L			5382	5084	3
Cl	37		mg/L			1968149	2120075	0
[> Sc	45		ug/L			212115	207635 ✓	0
V	51	0.000	ug/L	0.016	13747	1289	1263	11
V-1	51	0.012	ug/L	0.004	36	2538	2594	0
Cr	52	-0.001	ug/L	0.010	860	3869	3779	2
Cr	53	0.037	ug/L	0.046	125	836	852	4
Mn	55	0.004	ug/L	0.004	92	386	427	11
[ Co	59	0.005	ug/L	0.002	32	61	105	14
[> Ge	72		ug/L			228607	223088 ✓	0
Ni	60	-0.001	ug/L	0.004	299	47	44	17
Ni	62	0.012	ug/L	0.035	286	56	58	16
Cu	63	-0.001	ug/L	0.002	235	178	170	4
Cu	65	0.001	ug/L	0.007	757	90	90	14
Zn	66	-0.004	ug/L	0.007	147	229	217	3
Zn	67	0.096	ug/L	0.045	47	104	122	8
Zn	68	-0.140	ug/L	0.064	45	4281	4052	2
As	75	0.028	ug/L	0.015	53	352	379	4
As-1	75	-0.009	ug/L	0.010	114	5658	5510	0
Se	82	0.043	ug/L	0.094	220	0	5	250
Se	78	-0.078	ug/L	0.054	69	5765	5600	0
[ Mo	98	-0.008	ug/L	0.004	55	135	96	19
Y	89		ug/L			218720	214592	0
Kr	83		ug/L			189	187	4
[> In	115		ug/L			230726	230268 ✓	0
Ag	107	0.008	ug/L	0.003	33	39	101	20
Cd	111	-0.002	ug/L	0.007	357	121	117	11
Cd	114	0.001	ug/L	0.001	102	20	25	20
Sb	121	0.102	ug/L	0.031	30	20	694	29
Sb	123	0.102	ug/L	0.022	21	20	534	20
Ba	135	0.004	ug/L	0.003	74	18	24	17
[ Ba	137	0.007	ug/L	0.006	84	25	46	37
[> Tb	159		ug/L			290754	290120 ✓	0
Tl	205	0.007	ug/L	0.002	31	29	177	27
Pb	208	0.008	ug/L	0.003	37	225	430	18
Bi	209		ug/L			234649	237165	0
Th	232	0.062	ug/L	0.017	26	71	2352	26
[ U	238	0.004	ug/L	0.001	27	12	147	25

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 MB2 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 12:31:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	350645 ✓	0
[ Be	9	0.013	ug/L	0.024	192	32	41	26
C	13		mg/L			5382	4831	1
Cl	37		mg/L			1968149	2136228	0
[> Sc	45		ug/L			212115	207453 ✓	0
V	51	u 0.005	ug/L	0.020	401	1289	1215	15
V-1	51	0.012	ug/L	0.012	99	2538	2591	3
Cr	52	u 0.015	ug/L	0.000	1	3869	3899	0
Cr	53	0.069	ug/L	0.049	70	836	880	4
Mn	55	0.015	ug/L	0.003	20	386	563	6
[ Co	59	0.007	ug/L	0.001	19	61	120	9
[> Ge	72		ug/L			228607	223372 ✓	0
Ni	60	0.008	ug/L	0.006	74	47	61	17
Ni	62	0.019	ug/L	0.032	165	56	60	14
Cu	63	0.010	ug/L	0.006	56	178	215	9
Cu	65	0.016	ug/L	0.007	40	90	120	10
Zn	66	0.478	ug/L	0.011	2	229	832	1
Zn	67	0.487	ug/L	0.071	14	104	206	6
Zn	68	0.379	ug/L	0.142	37	4281	4521	2
As	75	u 0.046	ug/L	0.016	33	352	403	5
As-1	75	0.050	ug/L	0.087	174	5658	5589	1
Se	82	u 0.035	ug/L	0.046	130	0	4	150
Se	78	0.023	ug/L	0.350	1502	5765	5640	1
[ Mo	98	-0.016	ug/L	0.002	10	135	59	13
Y	89		ug/L			218720	219097	0
Kr	83		ug/L			189	182	0
[> In	115		ug/L			230726	232001 ✓	1
[ Ag	107	u 0.005	ug/L	0.002	35	39	76	17
Cd	111	0.010	ug/L	0.003	27	121	140	2
Cd	114	0.005	ug/L	0.002	42	20	42	22
Sb	121	u 0.040	ug/L	0.005	12	20	286	13
Sb	123	0.040	ug/L	0.008	19	20	226	19
Ba	135	0.019	ug/L	0.009	46	18	49	30
[ Ba	137	0.016	ug/L	0.002	11	25	70	8
[> Tb	159		ug/L			290754	294929 ✓	0
Tl	205	0.018	ug/L	0.001	3	29	412	2
Pb	208	u 0.014	ug/L	0.001	7	225	621	5
Bi	209		ug/L			234649	240122	1
Th	232	0.061	ug/L	0.005	8	71	2378	8
[ U	238	0.006	ug/L	0.001	10	12	235	9

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 F SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 12:37:12

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	337076✓	2
[ Be	9	0.056	ug/L	0.018	32	32	58	11
C	13		mg/L			5382	7567	1
Cl	37		mg/L			1968149	2115933	0
[> Sc	45		ug/L			212115	217635✓	0
V	51	13.686	ug/L	0.294	2	1289	130011	2
V-1	51	13.550	ug/L	0.266	1	2538	131751	1
Cr	52	3.939	ug/L	0.028	0	3869	35768	0
Cr	53	3.924	ug/L	0.067	1	836	4598	1
Mn	55	31.852	ug/L	0.528	1	386	420694	1
[ Co	59	1.087	ug/L	0.008	0	61	10473	0
[> Ge	72		ug/L			228607	211838✓	0
Ni	60	0.537	ug/L	0.020	3	47	1020	3
Ni	62	0.782	ug/L	0.111	14	56	262	10
Cu	63	13.453	ug/L	0.054	0	178	53261	0
Cu	65	13.468	ug/L	0.137	1	90	25285	1
Zn	66	15.172	ug/L	0.114	0	229	18531	0
Zn	67	16.813	ug/L	0.407	2	104	3505	2
Zn	68	16.367	ug/L	0.184	1	4281	17858	0
As	75	202.531	ug/L	2.530	1	352	244950	1
As-1	75	207.522	ug/L	2.646	1	5658	249945	1
Se	82	2.742	ug/L	0.170	6	0	359	6
Se	78	3.352	ug/L	0.145	4	5765	6367	0
[ Mo	98	0.076	ug/L	0.005	6	135	461	3
Y	89		ug/L			218720	218772	0
Kr	83		ug/L			189	188	7
[> In	115		ug/L			230726	220038✓	0
Ag	107	12.026	ug/L	0.164	1	39	86355	1
Cd	111	0.083	ug/L	0.017	20	121	266	11
Cd	114	0.005	ug/L	0.001	14	20	42	8
Sb	121	0.057	ug/L	0.006	11	20	377	10
Sb	123	0.060	ug/L	0.006	10	20	308	9
Ba	135	69.538	ug/L	0.563	0	18	105456	0
[ Ba	137	71.057	ug/L	0.334	0	25	186022	0
[> Tb	159		ug/L			290754	280692✓	1
Tl	205	0.286	ug/L	0.010	3	29	5683	2
Pb	208	9.674	ug/L	0.182	1	225	255136	0
Bi	209		ug/L			234649	237504	2
Th	232	0.273	ug/L	0.008	2	71	9853	1
[ U	238	0.022	ug/L	0.001	5	12	814	3



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 G SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 12:43:09

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	333458 ✓	1
[ Be	9	0.176	ug/L	0.014	8	32	107	5
C	13		mg/L			5382	8277	1
Cl	37		mg/L			1968149	2100309	0
[> Sc	45		ug/L			212115	211680 ✓	1
V	51	17.660	ug/L	0.281	1	1289	162780	0
V-1	51	17.493	ug/L	0.251	1	2538	164681	0
Cr	52	6.874	ug/L	0.083	1	3869	57826	0
Cr	53	6.804	ug/L	0.163	2	836	7142	2
Mn	55	220.042	ug/L	2.100	0	386	2824406	1
[ Co	59	2.523	ug/L	0.024	0	61	23559	0
[> Ge	72		ug/L			228607	210705 ✓	0
Ni	60	3.623	ug/L	0.038	1	47	6595	1
Ni	62	3.749	ug/L	0.085	2	56	1055	2
Cu	63	6.912	ug/L	0.091	1	178	27298	0
Cu	65	6.922	ug/L	0.035	0	90	12966	0
Zn	66	20.482	ug/L	0.234	1	229	24808	1
Zn	67	22.484	ug/L	0.601	2	104	4629	2
Zn	68	22.302	ug/L	0.446	1	4281	22773	1
As	75	116.105	ug/L	1.867	1	352	139802	1
As-1	75	119.102	ug/L	1.952	1	5658	144895	1
Se	82	0.673	ug/L	0.054	7	0	87	7
Se	78	1.657	ug/L	0.272	16	5765	5817	0
[ Mo	98	0.132	ug/L	0.004	3	135	704	2
Y	89		ug/L			218720	248207	0
Kr	83		ug/L			189	205	3
[> In	115		ug/L			230726	219241 ✓	0
Ag	107	12.138	ug/L	0.116	0	39	86845	1
Cd	111	0.136	ug/L	0.021	15	121	362	10
Cd	114	0.042	ug/L	0.004	8	20	195	7
Sb	121	✓ 0.037	ug/L	0.004	11	20	250	10
Sb	123	0.030	ug/L	0.006	19	20	161	17
Ba	135	89.865	ug/L	1.115	1	18	135778	0
[ Ba	137	90.616	ug/L	1.344	1	25	236354	1
[> Tb	159		ug/L			290754	283565 ✓	0
Tl	205	0.189	ug/L	0.005	2	29	3797	1
Pb	208	11.722	ug/L	0.053	0	225	312316	0
Bi	209		ug/L			234649	234634	0
Th	232	0.907	ug/L	0.009	0	71	32862	0
[ U	238	0.161	ug/L	0.002	1	12	5975	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 H SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 12:49:06

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	331045 ✓	0
[	Be	9	0.272	ug/L	0.041	14	32	146	10
	C	13		mg/L			5382	7497	0
	Cl	37		mg/L			1968149	2066998	2
[>	Sc	45		ug/L			212115	213681 ✓	1
	V	51	19.752	ug/L	0.156	0	1289	183651	0
	V-1	51	19.551	ug/L	0.148	0	2538	185509	0
	Cr	52	7.270	ug/L	0.095	1	3869	61508	0
	Cr	53	7.163	ug/L	0.073	1	836	7544	0
	Mn	55	461.129	ug/L	1.721	0	386	5974733	1
[	Co	59	6.359	ug/L	0.032	0	61	59854	1
[>	Ge	72		ug/L			228607	211661 ✓	1
	Ni	60	5.648	ug/L	0.108	1	47	10304	1
	Ni	62	6.121	ug/L	0.098	1	56	1698	2
	Cu	63	6.718	ug/L	0.095	1	178	26651	0
	Cu	65	6.693	ug/L	0.101	1	90	12594	0
	Zn	66	31.702	ug/L	0.472	1	229	38451	0
	Zn	67	33.881	ug/L	0.224	0	104	6959	1
	Zn	68	33.932	ug/L	1.025	3	4281	32734	1
	As	75	123.381	ug/L	1.108	0	352	149213	0
	As-1	75	126.454	ug/L	1.183	0	5658	154210	0
	Se	82	0.311 ✓	ug/L	0.129	41	0	40	41
	Se	78	0.861	ug/L	0.241	28	5765	5600	0
[	Mo	98	0.134	ug/L	0.008	5	135	716	5
	Y	89		ug/L			218720	289682	0
	Kr	83		ug/L			189	205	4
[>	In	115		ug/L			230726	219058 ✓	0
	Ag	107	3.887	ug/L	0.020	0	39	27814	0
	Cd	111	0.270	ug/L	0.031	11	121	604	9
	Cd	114	0.088	ug/L	0.004	4	20	383	4
	Sb	121	0.036 ✓	ug/L	0.004	11	20	245	9
	Sb	123	0.031	ug/L	0.001	3	20	165	2
	Ba	135	136.045	ug/L	0.478	0	18	205376	0
[	Ba	137	135.350	ug/L	3.035	2	25	352736	2
[>	Tb	159		ug/L			290754	284692 ✓	2
	Tl	205	0.139	ug/L	0.002	1	29	2820	1
	Pb	208	9.681	ug/L	0.171	1	225	258922	0
	Bi	209		ug/L			234649	228970	0
	Th	232	1.278	ug/L	0.042	3	71	46466	1
[	U	238	0.234	ug/L	0.004	1	12	8709	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 A-L SWN

Sample Dil Factor: 100

Comments:

Sample Date/Time: Friday, March 01, 2013 12:55:02

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	346843 ✓	0
[ Be	9	0.033	ug/L	0.007	20	32	50	6
C	13		mg/L			5382	5164	1
Cl	37		mg/L			1968149	2157650	0
[> Sc	45		ug/L			212115	209831 ✓	0
V	51	2.378	ug/L	0.029	1	1289	22832	1
V-1	51	2.381	ug/L	0.030	1	2538	24390	1
Cr	52	0.741	ug/L	0.015	2	3869	9596	0
Cr	53	0.821	ug/L	0.064	7	836	1582	4
Mn	55	5.980	ug/L	0.048	0	386	76467	0
[ Co	59	0.157	ug/L	0.001	0	61	1508	0
[> Ge	72		ug/L			228607	223701 ✓	0
Ni	60	0.086	ug/L	0.012	14	47	212	11
Ni	62	0.199	ug/L	0.011	5	56	111	2
Cu	63	2.345	ug/L	0.028	1	178	9949	1
Cu	65	2.321	ug/L	0.040	1	90	4675	2
Zn	66	1.485	ug/L	0.051	3	229	2117	2
Zn	67	1.859	ug/L	0.077	4	104	500	3
Zn	68	1.341	ug/L	0.065	4	4281	5391	0
As	75	40.437	ug/L	0.286	0	352	51923	1
As-1	75	41.236	ug/L	0.252	0	5658	56884	1
Se	82	0.546	ug/L	0.128	23	0	75	23
Se	78	✓ -0.075	ug/L	0.267	357	5765	5617	1
[ Mo	98	-0.000	ug/L	0.003	7135	135	131	10
Y	89		ug/L			218720	216413	1
Kr	83		ug/L			189	190	4
[> In	115		ug/L			230726	229334 ✓	1
Ag	107	2.436	ug/L	0.014	0	39	18266	1
Cd	111	0.022	ug/L	0.008	33	121	163	9
Cd	114	-0.000	ug/L	0.001	2152	20	20	26
Sb	121	✓ 0.015	ug/L	0.001	6	20	120	5
Sb	123	0.016	ug/L	0.001	8	20	101	5
Ba	135	14.680	ug/L	0.330	2	18	23214	1
Ba	137	14.480	ug/L	0.326	2	25	39525	1
[> Tb	159		ug/L			290754	291940 ✓	0
Tl	205	0.060	ug/L	0.004	5	29	1257	5
Pb	208	2.007	ug/L	0.022	1	225	55232	0
Bi	209		ug/L			234649	240812	1
Th	232	0.060	ug/L	0.001	1	71	2315	2
[ U	238	0.004	ug/L	0.000	7	12	160	6

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 A SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 13:00:59

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	358353✓	1
[ Be	9	0.085	ug/L	0.016	19	32	75	8
C	13		mg/L			5382	6796	2
Cl	37		mg/L			1968149	2165884	0
[> Sc	45		ug/L			212115	235180✓	1
V	51	10.767	ug/L	0.063	0	1289	110831	0
V-1	51	10.672	ug/L	0.057	0	2538	112726	0
Cr	52	3.411	ug/L	0.026	0	3869	34038	0
Cr	53	3.423	ug/L	0.111	3	836	4452	2
Mn	55	26.606	ug/L	0.274	1	386	379795	0
Co	59	0.705	ug/L	0.010	1	61	7364	2
[> Ge	72		ug/L			228607	231890✓	1
Ni	60	0.431	ug/L	0.019	4	47	905	3
Ni	62	0.672	ug/L	0.047	7	56	255	5
Cu	63	11.397	ug/L	0.007	0	178	49420	1
Cu	65	11.237	ug/L	0.272	2	90	23103	1
Zn	66	5.996	ug/L	0.076	1	229	8156	0
Zn	67	8.530	ug/L	0.134	1	104	1998	0
Zn	68	6.963	ug/L	0.123	1	4281	10812	1
As	75	195.867	ug/L	1.450	0	352	259309	0
As-1	75	200.277	ug/L	1.458	0	5658	264236	0
Se	82	2.570	ug/L	0.132	5	0	369	3
Se	78	u 1.490	ug/L	0.141	9	5765	6346	1
[ Mo	98	0.070	ug/L	0.003	4	135	477	4
Y	89		ug/L			218720	231599	1
Kr	83		ug/L			189	197	0
[> In	115		ug/L			230726	238511✓	1
Ag	107	11.663	ug/L	0.025	0	39	90783	0
Cd	111	0.068	ug/L	0.011	16	121	259	9
Cd	114	0.004	ug/L	0.001	21	20	37	8
Sb	121	u 0.042	ug/L	0.002	4	20	311	2
Sb	123	0.044	ug/L	0.005	11	20	250	9
Ba	135	69.843	ug/L	0.207	0	18	114812	1
[ Ba	137	70.574	ug/L	0.435	0	25	200266	0
[> Tb	159		ug/L			290754	302644✓	1
Tl	205	0.272	ug/L	0.003	1	29	5835	1
Pb	208	9.719	ug/L	0.102	1	225	276435	2
Bi	209		ug/L			234649	251919	1
Th	232	0.259	ug/L	0.006	2	71	10060	3
[ U	238	0.019	ug/L	0.000	1	12	743	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 ADUP SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 13:06:58

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	355845 ✓	0
[ Be	9	0.094	ug/L	0.011	12	32	78	6
C	13		mg/L			5382	8136	1
Cl	37		mg/L			1968149	2177248	0
> Sc	45		ug/L			212115	238144 ✓	1
V	51	12.550	ug/L	0.182	1	1289	130562	0
V-1	51	12.438	ug/L	0.164	1	2538	132557	0
Cr	52	3.810	ug/L	0.078	2	3869	37987	0
Cr	53	3.828	ug/L	0.057	1	836	4930	1
Mn	55	28.038	ug/L	0.590	2	386	405197	0
[ Co	59	0.736	ug/L	0.026	3	61	7776	1
> Ge	72		ug/L			228607	235215 ✓	0
Ni	60	0.434	ug/L	0.020	4	47	926	4
Ni	62	0.551	ug/L	0.045	8	56	222	5
Cu	63	11.627	ug/L	0.146	1	178	51133	1
Cu	65	11.594	ug/L	0.078	0	90	24181	0
Zn	66	6.104	ug/L	0.102	1	229	8419	1
Zn	67	8.831	ug/L	0.178	2	104	2095	1
Zn	68	6.974	ug/L	0.132	1	4281	10976	0
As	75	194.939	ug/L	0.392	0	352	261800	0
As-1	75	199.335	ug/L	0.339	0	5658	266808	0
Se	82	2.743	ug/L	0.098	3	0	399	3
Se	78	u 1.631	ug/L	0.177	10	5765	6485	0
[ Mo	98	0.069	ug/L	0.008	12	135	477	8
Y	89		ug/L			218720	234143	0
Kr	83		ug/L			189	189	2
> In	115		ug/L			230726	240140 ✓	0
Ag	107	13.020	ug/L	0.137	1	39	102036	1
Cd	111	0.064	ug/L	0.010	15	121	252	7
Cd	114	0.005	ug/L	0.003	51	20	45	27
Sb	121	u 0.049	ug/L	0.003	5	20	362	4
Sb	123	0.049	ug/L	0.007	15	20	276	13
Ba	135	69.851	ug/L	1.683	2	18	115604	2
[ Ba	137	69.773	ug/L	0.633	0	25	199348	0
> Tb	159		ug/L			290754	304022 ✓	0
Tl	205	0.285	ug/L	0.005	1	29	6134	2
Pb	208	9.607	ug/L	0.046	0	225	274490	0
Bi	209		ug/L			234649	255538	1
Th	232	0.263	ug/L	0.004	1	71	10258	1
[ U	238	0.019	ug/L	0.001	2	12	778	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 ASPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 13:12:58

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			320083	353830 ✓	1
[ ] Be	9	21.416	ug/L	0.438	2	32	9536	1
[ ] C	13		mg/L			5382	4959	1
[ ] Cl	37		mg/L			1968149	2193077	0
[>] Sc	45		ug/L			212115	241636 ✓	0
[ ] V	51	33.939	ug/L	0.880	2	1289	355768	2
[ ] V-1	51	33.807	ug/L	0.850	2	2538	360622	2
[ ] Cr	52	25.986	ug/L	0.611	2	3869	237275	1
[ ] Cr	53	25.907	ug/L	0.540	2	836	28364	1
[ ] Mn	55	47.699	ug/L	0.734	1	386	699225	0
[ ] Co	59	21.813	ug/L	0.424	1	61	231967	1
[>] Ge	72		ug/L			228607	234850 ✓	0
[ ] Ni	60	23.689	ug/L	0.198	0	47	47800	0
[ ] Ni	62	24.034	ug/L	0.409	1	56	7229	1
[ ] Cu	63	33.123	ug/L	0.500	1	178	145110	1
[ ] Cu	65	33.305	ug/L	0.344	1	90	69177	0
[ ] Zn	66	82.002	ug/L	0.899	1	229	109994	0
[ ] Zn	67	78.497	ug/L	0.509	0	104	17749	1
[ ] Zn	68	81.542	ug/L	0.854	1	4281	81127	1
[ ] As	75	229.651	ug/L	0.759	0	352	307874	0
[ ] As-1	75	232.936	ug/L	0.503	0	5658	310319	0
[ ] Se	82	78.299	ug/L	0.918	1	0	11413	0
[ ] Se	78	76.677	ug/L	0.511	0	5765	31931	0
[ ] Mo	98	17.546	ug/L	0.130	0	135	86300	0
[ ] Y	89		ug/L			218720	235036	1
[ ] Kr	83		ug/L			189	200	1
[>] In	115		ug/L			230726	239440 ✓	0
[ ] Ag	107	35.470	ug/L	0.044	0	39	277083	0
[ ] Cd	111	23.887	ug/L	0.306	1	121	47434	1
[ ] Cd	114	24.000	ug/L	0.235	0	20	108872	0
[ ] Sb	121	0.249	ug/L	0.015	6	20	1738	5
[ ] Sb	123	0.257	ug/L	0.027	10	20	1368	10
[ ] Ba	135	97.045	ug/L	1.041	1	18	160140	1
[ ] Ba	137	95.805	ug/L	0.453	0	25	272919	0
[>] Tb	159		ug/L			290754	301603 ✓	0
[ ] Tl	205	23.663	ug/L	0.085	0	29	502505	0
[ ] Pb	208	34.306	ug/L	0.205	0	225	971762	0
[ ] Bi	209		ug/L			234649	258230	1
[ ] Th	232	23.762	ug/L	0.088	0	71	914200	0
[ ] U	238	23.527	ug/L	0.362	1	12	926348	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 APOST SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 13:18:57

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	353252 ✓	1
[ Be	9	22.492	ug/L	0.736	3	32	9996	2
C	13		mg/L			5382	6963	2
Cl	37		mg/L			1968149	2191981	0
[> Sc	45		ug/L			212115	234039 ✓	0
V	51	33.744	ug/L	0.370	1	1289	342634	0
V-1	51	33.665	ug/L	0.458	1	2538	347841	0
Cr	52	26.373	ug/L	0.267	1	3869	233181	0
Cr	53	26.436	ug/L	0.576	2	836	28014	1
Mn	55	50.584	ug/L	0.444	0	386	718206	0
Co	59	23.584	ug/L	0.221	0	61	242935	0
[> Ge	72		ug/L			228607	236929 ✓	0
Ni	60	24.826	ug/L	0.080	0	47	50535	0
Ni	62	24.855	ug/L	0.224	0	56	7540	1
Cu	63	36.148	ug/L	0.369	1	178	159746	1
Cu	65	35.999	ug/L	0.140	0	90	75429	0
Zn	66	86.246	ug/L	1.091	1	229	116697	0
Zn	67	83.075	ug/L	1.771	2	104	18942	1
Zn	68	86.378	ug/L	1.112	1	4281	86436	1
As	75	223.881	ug/L	3.011	1	352	302793	0
As-1	75	227.074	ug/L	3.121	1	5658	305319	0
Se	82	83.598	ug/L	0.470	0	0	12294	0
Se	78	82.594	ug/L	0.510	0	5765	34238	0
[ Mo	98	23.554	ug/L	0.404	1	135	116831	2
Y	89		ug/L			218720	233184	0
Kr	83		ug/L			189	195	5
[> In	115		ug/L			230726	239713 ✓	0
Ag	107	36.298	ug/L	0.592	1	39	283855	1
Cd	111	25.005	ug/L	0.440	1	121	49701	1
Cd	114	24.988	ug/L	0.388	1	20	113478	0
Sb	121	24.853	ug/L	0.301	1	20	171310	0
Sb	123	24.741	ug/L	0.396	1	20	129678	0
Ba	135	97.903	ug/L	0.266	0	18	161739	0
[ Ba	137	97.732	ug/L	1.187	1	25	278716	0
[> Tb	159		ug/L			290754	304863 ✓	1
Tl	205	25.382	ug/L	0.411	1	29	544742	0
Pb	208	35.726	ug/L	0.250	0	225	1022859	0
Bi	209		ug/L			234649	256266	1
Th	232	24.313	ug/L	0.444	1	71	945354	0
[ U	238	24.211	ug/L	0.073	0	12	963549	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 MB2SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 13:24:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	349094 ✓	1
[	Be	9	21.199	ug/L	0.502	2	32	9312	0
	C	13		mg/L			5382	4126	2
	Cl	37		mg/L			1968149	2235886	0
[>	Sc	45		ug/L			212115	216311 ✓	1
	V	51	23.087	ug/L	0.225	0	1289	217075	0
	V-1	51	23.142	ug/L	0.262	1	2538	221797	0
	Cr	52	23.651	ug/L	0.366	1	3869	193669	0
	Cr	53	23.801	ug/L	0.485	2	836	23394	0
	Mn	55	24.318	ug/L	0.458	1	386	319295	0
[	Co	59	23.809	ug/L	0.418	1	61	226644	0
[>	Ge	72		ug/L			228607	233856 ✓	1
	Ni	60	23.635	ug/L	0.203	0	47	47487	1
	Ni	62	23.699	ug/L	0.709	2	56	7097	1
	Cu	63	24.324	ug/L	0.166	0	178	106168	1
	Cu	65	24.032	ug/L	0.127	0	90	49730	0
	Zn	66	76.788	ug/L	0.091	0	229	102585	1
	Zn	67	71.328	ug/L	1.359	1	104	16067	1
	Zn	68	75.534	ug/L	1.438	1	4281	75147	1
	As	75	25.292	ug/L	0.389	1	352	34080	0
	As-1	75	23.906	ug/L	0.239	1	5658	36905	0
	Se	82	77.067	ug/L	0.953	1	0	11185	0
	Se	78	76.518	ug/L	0.716	0	5765	31742	1
[	Mo	98	23.347	ug/L	0.343	1	135	114288	0
	Y	89		ug/L			218720	222011	1
	Kr	83		ug/L			189	204	4
[>	In	115		ug/L			230726	241007 ✓	1
	Ag	107	24.071	ug/L	0.226	0	39	189271	0
	Cd	111	23.996	ug/L	0.250	1	121	47958	0
	Cd	114	23.691	ug/L	0.288	1	20	108169	1
	Sb	121	24.070	ug/L	0.228	0	20	166809	0
	Sb	123	23.975	ug/L	0.459	1	20	126340	1
	Ba	135	24.197	ug/L	0.508	2	18	40200	1
[	Ba	137	24.193	ug/L	0.460	1	25	69384	1
[>	Tb	159		ug/L			290754	302303 ✓	1
	Tl	205	23.859	ug/L	0.348	1	29	507895	2
	Pb	208	24.540	ug/L	0.263	1	225	696762	0
	Bi	209		ug/L			234649	249404	0
	Th	232	22.959	ug/L	0.347	1	71	885260	0
[	U	238	23.135	ug/L	0.122	0	12	912975	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 13:30:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			320083	340287 ✓	0
[	Be	9	ug/L	0.975	2	32	19362	2
	C	13	mg/L			5382	3260	1
	Cl	37	mg/L			1968149	2197551	0
[>	Sc	45	ug/L			212115	211846 ✓	1
	V	51	ug/L	0.355	0	1289	447162	1
	V-1	51	ug/L	0.381	0	2538	455564	0
	Cr	52	ug/L	0.549	1	3869	388622	2
	Cr	53	ug/L	1.183	2	836	46601	1
	Mn	55	ug/L	0.647	1	386	639502	0
[	Co	59	ug/L	0.516	1	61	457502	0
[>	Ge	72	ug/L			228607	229588 ✓	0
	Ni	60	ug/L	0.066	0	47	94631	0
	Ni	62	ug/L	0.139	0	56	14053	0
	Cu	63	ug/L	0.346	0	178	206650	0
	Cu	65	ug/L	0.301	0	90	97434	0
	Zn	66	ug/L	0.504	1	229	64824	0
	Zn	67	ug/L	1.035	2	104	10913	1
	Zn	68	ug/L	0.815	1	4281	49614	1
	As	75	ug/L	0.960	1	352	64963	1
	As-1	75	ug/L	0.712	1	5658	68879	1
	Se	82	ug/L	1.009	2	0	7143	2
	Se	78	ug/L	0.523	1	5765	22539	0
[	Mo	98	ug/L	0.803	1	135	233554	1
	Y	89	ug/L			218720	219710	0
	Kr	83	ug/L			189	195	2
[>	In	115	ug/L			230726	234491 ✓	2
	Ag	107	ug/L	1.552	3	39	372085	1
	Cd	111	ug/L	1.537	3	121	97034	0
	Cd	114	ug/L	1.248	2	20	219282	1
	Sb	121	ug/L	1.343	2	20	335033	1
	Sb	123	ug/L	1.364	2	20	251886	1
	Ba	135	ug/L	1.242	2	18	81429	0
[	Ba	137	ug/L	0.862	1	25	140793	1
[>	Tb	159	ug/L			290754	298537 ✓	1
	Tl	205	ug/L	0.888	1	29	1035037	0
	Pb	208	ug/L	0.774	1	225	1403733	0
	Bi	209	ug/L			234649	238234	0
	Th	232	ug/L	0.356	0	71	1799636	0
[	U	238	ug/L	0.837	1	12	1847929	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 13:37:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	334613 ✓	0
[ Be	9	0.026	ug/L	0.013	48	32	45	11
C	13		mg/L			5382	4978	2
Cl	37		mg/L			1968149	2234034	0
[> Sc	45		ug/L			212115	209281 ✓	1
V	51	-0.006	ug/L	0.018	323	1289	1224	14
V-1	51	-0.009	ug/L	0.003	34	2538	2423	2
Cr	52	-0.010	ug/L	0.013	127	3869	3739	1
Cr	53	-0.021	ug/L	0.062	300	836	805	5
Mn	55	0.010	ug/L	0.005	52	386	510	11
[ Co	59	0.005	ug/L	0.002	33	61	102	12
[> Ge	72		ug/L			228607	224378 ✓	0
Ni	60	0.000	ug/L	0.002	708	47	47	6
Ni	62	0.043	ug/L	0.030	68	56	67	13
Cu	63	0.008	ug/L	0.002	21	178	206	2
Cu	65	0.002	ug/L	0.005	313	90	92	11
Zn	66	-0.011	ug/L	0.012	103	229	210	6
Zn	67	0.015	ug/L	0.034	235	104	105	7
Zn	68	-0.157	ug/L	0.045	28	4281	4060	0
As	75	0.016	ug/L	0.034	215	352	366	11
As-1	75	0.004	ug/L	0.058	1452	5658	5558	0
Se	82	-0.025	ug/L	0.074	294	0	-4	243
Se	78	-0.038	ug/L	0.198	514	5765	5645	1
[ Mo	98	-0.008	ug/L	0.004	54	135	97	19
Y	89		ug/L			218720	215898	1
Kr	83		ug/L			189	190	0
[> In	115		ug/L			230726	231812 ✓	1
Ag	107	0.010	ug/L	0.004	42	39	112	28
Cd	111	0.013	ug/L	0.004	32	121	147	5
Cd	114	0.002	ug/L	0.001	47	20	29	14
Sb	121	0.106	ug/L	0.027	25	20	726	25
Sb	123	0.105	ug/L	0.024	23	20	554	23
Ba	135	0.009	ug/L	0.001	6	18	32	3
[ Ba	137	0.008	ug/L	0.001	17	25	46	8
[> Tb	159		ug/L			290754	292366 ✓	2
Tl	205	0.009	ug/L	0.002	19	29	208	17
Pb	208	0.007	ug/L	0.002	29	225	412	11
Bi	209		ug/L			234649	240048	0
Th	232	0.061	ug/L	0.016	26	71	2350	25
[ U	238	0.003	ug/L	0.001	34	12	128	31

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 | SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 13:42:41

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	358224 ✓	0
[ Be	9	0.140	ug/L	0.047	33	32	99	20
C	13		mg/L			5382	7593	2
Cl	37		mg/L			1968149	2182684	0
[> Sc	45		ug/L			212115	231923 ✓	0
V	51	14.993	ug/L	0.025	0	1289	151646	0
V-1	51	14.831	ug/L	0.014	0	2538	153415	0
Cr	52	5.142	ug/L	0.018	0	3869	48460	0
Cr	53	5.048	ug/L	0.043	0	836	6041	1
Mn	55	204.157	ug/L	1.620	0	386	2871297	1
[ Co	59	2.251	ug/L	0.035	1	61	23041	1
[> Ge	72		ug/L			228607	233375 ✓	1
Ni	60	2.927	ug/L	0.051	1	47	5910	0
Ni	62	3.170	ug/L	0.100	3	56	997	2
Cu	63	5.232	ug/L	0.071	1	178	22929	0
Cu	65	5.328	ug/L	0.190	3	90	11074	2
Zn	66	17.265	ug/L	0.392	2	229	23195	1
Zn	67	19.615	ug/L	0.250	1	104	4486	0
Zn	68	18.543	ug/L	0.069	0	4281	21709	1
As	75	89.301	ug/L	0.611	0	352	119182	0
As-1	75	91.209	ug/L	0.641	0	5658	124255	0
Se	82	✓ 0.306	ug/L	0.011	3	0	43	4
Se	78	-0.526	ug/L	0.264	50	5765	5707	0
[ Mo	98	0.083	ug/L	0.004	5	135	540	4
Y	89		ug/L			218720	263873	0
Kr	83		ug/L			189	213	2
[> In	115		ug/L			230726	239110 ✓	1
Ag	107	6.129	ug/L	0.054	0	39	47839	0
Cd	111	0.194	ug/L	0.034	17	121	508	14
Cd	114	0.061	ug/L	0.001	1	20	296	2
Sb	121	✓ 0.063	ug/L	0.009	14	20	456	15
Sb	123	0.060	ug/L	0.008	13	20	334	13
Ba	135	92.608	ug/L	2.024	2	18	152576	0
[ Ba	137	94.095	ug/L	0.987	1	25	267657	0
[> Tb	159		ug/L			290754	304991 ✓	1
Tl	205	0.125	ug/L	0.006	4	29	2719	4
Pb	208	8.764	ug/L	0.097	1	225	251195	0
Bi	209		ug/L			234649	253628	0
Th	232	0.814	ug/L	0.009	1	71	31751	0
[ U	238	0.130	ug/L	0.003	2	12	5175	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 J SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 13:48:39

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	363566 ✓	1
[ Be	9	0.091	ug/L	0.055	60	32	78	31
C	13		mg/L			5382	7131	1
Cl	37		mg/L			1968149	2147403	0
[> Sc	45		ug/L			212115	248964 ✓	1
V	51	24.661	ug/L	0.272	1	1289	266778	0
V-1	51	24.324	ug/L	0.249	1	2538	268180	0
Cr	52	2.289	ug/L	0.059	2	3869	25680	2
Cr	53	2.172	ug/L	0.027	1	836	3350	1
Mn	55	13.433	ug/L	0.072	0	386	203234	1
Co	59	0.881	ug/L	0.015	1	61	9723	2
[> Ge	72		ug/L			228607	236475 ✓	0
Ni	60	0.528	ug/L	0.034	6	47	1121	5
Ni	62	0.432	ug/L	0.041	9	56	187	6
Cu	63	2.432	ug/L	0.021	0	178	10899	0
Cu	65	2.602	ug/L	0.052	1	90	5528	1
Zn	66	6.689	ug/L	0.113	1	229	9253	2
Zn	67	11.301	ug/L	0.330	2	104	2665	3
Zn	68	7.751	ug/L	0.147	1	4281	11772	1
As	75	27.142	ug/L	0.073	0	352	36961	0
As-1	75	27.507	ug/L	0.063	0	5658	42059	0
Se	82	u 0.193	ug/L	0.105	54	0	27	55
Se	78	-0.933	ug/L	0.070	7	5765	5644	0
[ Mo	98	0.251	ug/L	0.008	3	135	1379	3
Y	89		ug/L			218720	255809	0
Kr	83		ug/L			189	195	8
[> In	115		ug/L			230726	240419 ✓	1
Ag	107	u 0.115	ug/L	0.003	2	39	944	1
Cd	111	0.060	ug/L	0.012	20	121	246	11
Cd	114	0.006	ug/L	0.002	29	20	50	16
Sb	121	u 0.044	ug/L	0.011	24	20	323	23
Sb	123	0.041	ug/L	0.003	7	20	238	5
Ba	135	96.542	ug/L	2.411	2	18	159911	0
[ Ba	137	97.441	ug/L	1.776	1	25	278657	1
[> Tb	159		ug/L			290754	305721 ✓	2
Tl	205	0.147	ug/L	0.002	1	29	3195	1
Pb	208	5.231	ug/L	0.111	2	225	150362	0
Bi	209		ug/L			234649	245461	1
Th	232	0.470	ug/L	0.009	1	71	18394	0
[ U	238	0.043	ug/L	0.001	3	12	1729	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 K SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 13:54:37

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No V, Cr

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	362274 ✓	1
[ Be	9	0.023	ug/L	0.013	53	32	47	12
C	13		mg/L			5382	7249	0
Cl	37		mg/L			1968149	2206777	0
[> Sc	45		ug/L			212115	260288	0
V	51	14.616	ug/L	0.133	0	1289	165958	0
V-1	51	14.418	ug/L	0.149	1	2538	167466	0
Cr	52	3.629	ug/L	0.017	0	3869	39782	0
Cr	53	3.466	ug/L	0.062	1	836	4977	1
Mn	55	5.928	ug/L	0.010	0	386	94023	0
Co	59	0.184	ug/L	0.003	1	61	2177	1
[> Ge	72		ug/L			228607	240007 ✓	0
Ni	60	0.165	ug/L	0.011	6	47	390	5
Ni	62	0.230	ug/L	0.039	17	56	129	9
Cu	63	4.132	ug/L	0.027	0	178	18661	0
Cu	65	4.139	ug/L	0.061	1	90	8869	1
Zn	66	2.877	ug/L	0.082	2	229	4176	2
Zn	67	7.586	ug/L	0.152	1	104	1852	1
Zn	68	5.045	ug/L	0.192	3	4281	9346	1
As	75	47.703	ug/L	0.407	0	352	65648	0
As-1	75	48.527	ug/L	0.422	0	5658	70769	0
Se	82	0.072	ug/L	0.045	62	0	9	66
Se	78	-1.147	ug/L	0.014	1	5765	5655	0
[ Mo	98	0.089	ug/L	0.005	5	135	590	4
Y	89		ug/L			218720	239300	0
Kr	83		ug/L			189	208	3
[> In	115		ug/L			230726	242500 ✓	1
Ag	107	0.094	ug/L	0.004	3	39	781	4
Cd	111	0.051	ug/L	0.009	17	121	229	6
Cd	114	0.004	ug/L	0.003	66	20	41	30
Sb	121	0.030	ug/L	0.002	8	20	229	7
Sb	123	0.026	ug/L	0.000	1	20	159	1
Ba	135	124.089	ug/L	1.776	1	18	207357	0
[ Ba	137	123.763	ug/L	1.450	1	25	357024	0
[> Tb	159		ug/L			290754	303811 ✓	0
Tl	205	0.142	ug/L	0.002	1	29	3057	1
Pb	208	8.306	ug/L	0.079	0	225	237175	1
Bi	209		ug/L			234649	245331	1
Th	232	0.352	ug/L	0.003	0	71	13708	0
[ U	238	0.026	ug/L	0.001	5	12	1046	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 L SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 14:00:34

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No V, Cr

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	360725 ✓	0
[ Be	9	0.109	ug/L	0.024	22	32	86	11
C	13		mg/L			5382	6514	1
Cl	37		mg/L			1968149	2203383	0
> Sc	45		ug/L			212115	307614	0
V	51	16.124	ug/L	0.028	0	1289	216177	0
V-1	51	15.876	ug/L	0.032	0	2538	217560	0
Cr	52	1.905	ug/L	0.019	1	3869	27350	1
Cr	53	1.722	ug/L	0.033	1	836	3532	0
Mn	55	15.370	ug/L	0.226	1	386	287219	1
Co	59	0.648	ug/L	0.016	2	61	8857	2
> Ge	72		ug/L			228607	237200 ✓	0
Ni	60	0.522	ug/L	0.006	1	47	1112	0
Ni	62	0.582	ug/L	0.085	14	56	233	11
Cu	63	2.907	ug/L	0.041	1	178	13032	1
Cu	65	2.871	ug/L	0.027	0	90	6108	0
Zn	66	5.360	ug/L	0.076	1	229	7484	1
Zn	67	11.427	ug/L	0.191	1	104	2702	1
Zn	68	8.160	ug/L	0.053	0	4281	12197	0
As	75	71.176	ug/L	0.058	0	352	96626	0
As-1	75	72.663	ug/L	0.065	0	5658	101809	0
Se	82	u -0.027	ug/L	0.124	454	0	-4	380
Se	78	-0.749	ug/L	0.049	6	5765	5725	0
Mo	98	0.107	ug/L	0.006	5	135	672	3
Y	89		ug/L			218720	263058	0
Kr	83		ug/L			189	226	4
> In	115		ug/L			230726	241124 ✓	0
Ag	107	u 0.141	ug/L	0.008	5	39	1151	5
Cd	111	0.053	ug/L	0.011	20	121	231	9
Cd	114	0.009	ug/L	0.001	9	20	62	6
Sb	121	u 0.033	ug/L	0.001	3	20	248	3
Sb	123	0.035	ug/L	0.001	2	20	207	2
Ba	135	157.556	ug/L	3.744	2	18	261792	2
Ba	137	159.487	ug/L	3.485	2	25	457488	1
> Tb	159		ug/L			290754	306961 ✓	2
Tl	205	0.109	ug/L	0.005	4	29	2379	3
Pb	208	5.599	ug/L	0.139	2	225	161566	0
Bi	209		ug/L			234649	247570	0
Th	232	0.549	ug/L	0.013	2	71	21583	1
U	238	0.053	ug/L	0.001	2	12	2123	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 M SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 14:06:30

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

*No V, Cr*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			320083	355879 ✓	1
[ ] Be	9	0.117	ug/L	0.015	12	32	88	6
[ ] C	13		mg/L			5382	6838	1
[ ] Cl	37		mg/L			1968149	2185041	1
[>] Sc	45		ug/L			212115	261546	0
[ ] V	51	23.089	ug/L	0.181	0	1289	262512	1
[ ] V-1	51	22.782	ug/L	0.167	0	2538	264082	1
[ ] Cr	52	2.077	ug/L	0.039	1	3869	24922	1
[ ] Cr	53	1.996	ug/L	0.036	1	836	3318	1
[ ] Mn	55	26.633	ug/L	0.097	0	386	422830	0
[ ] Co	59	0.803	ug/L	0.013	1	61	9322	2
[>] Ge	72		ug/L			228607	236924 ✓	1
[ ] Ni	60	0.664	ug/L	0.019	2	47	1400	2
[ ] Ni	62	0.786	ug/L	0.028	3	56	295	2
[ ] Cu	63	4.099	ug/L	0.022	0	178	18278	1
[ ] Cu	65	4.036	ug/L	0.025	0	90	8540	1
[ ] Zn	66	9.178	ug/L	0.098	1	229	12631	1
[ ] Zn	67	14.402	ug/L	0.230	1	104	3373	2
[ ] Zn	68	11.344	ug/L	0.401	3	4281	15201	1
[ ] As	75	71.365	ug/L	1.218	1	352	96755	0
[ ] As-1	75	72.838	ug/L	1.309	1	5658	101906	0
[ ] Se	82	✓ 0.101	ug/L	0.070	68	0	14	72
[ ] Se	78	-0.801	ug/L	0.287	35	5765	5699	0
[ ] Mo	98	0.162	ug/L	0.011	7	135	941	5
[ ] Y	89		ug/L			218720	254338	0
[ ] Kr	83		ug/L			189	209	5
[>] In	115		ug/L			230726	239404 ✓	1
[ ] Ag	107	✓ 0.146	ug/L	0.004	2	39	1183	3
[ ] Cd	111	0.056	ug/L	0.005	8	121	237	3
[ ] Cd	114	0.006	ug/L	0.001	13	20	47	6
[ ] Sb	121	✓ 0.028	ug/L	0.001	2	20	215	2
[ ] Sb	123	0.021	ug/L	0.002	9	20	130	7
[ ] Ba	135	130.832	ug/L	1.123	0	18	215841	0
[ ] Ba	137	131.766	ug/L	2.375	1	25	375249	0
[>] Tb	159		ug/L			290754	302561 ✓	1
[ ] Tl	205	0.116	ug/L	0.001	0	29	2508	1
[ ] Pb	208	6.082	ug/L	0.018	0	225	173028	0
[ ] Bi	209		ug/L			234649	246410	0
[ ] Th	232	0.739	ug/L	0.014	1	71	28604	0
[ ] U	238	0.067	ug/L	0.002	2	12	2648	2

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 N SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 14:12:27

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No V, C

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	356668 ✓	1
[ Be	9	0.191	ug/L	0.027	14	32	122	9
C	13		mg/L			5382	7440	0
Cl	37		mg/L			1968149	2179890	0
[> Sc	45		ug/L			212115	264968	1
V	51	15.843	ug/L	0.206	1	1289	182975	0
V-1	51	15.646	ug/L	0.186	1	2538	184721	0
Cr	52	2.821	ug/L	0.029	1	3869	32556	1
Cr	53	2.750	ug/L	0.064	2	836	4237	2
Mn	55	85.439	ug/L	1.447	1	386	1373072	1
[ Co	59	2.168	ug/L	0.003	0	61	25357	1
[> Ge	72		ug/L			228607	233482 ✓	1
Ni	60	1.572	ug/L	0.016	1	47	3199	1
Ni	62	1.622	ug/L	0.056	3	56	538	2
Cu	63	6.250	ug/L	0.062	0	178	27367	0
Cu	65	6.202	ug/L	0.063	1	90	12881	0
Zn	66	23.395	ug/L	0.312	1	229	31364	0
Zn	67	25.776	ug/L	0.141	0	104	5866	1
Zn	68	24.998	ug/L	0.087	0	4281	27757	0
As	75	402.800	ug/L	2.034	0	352	536579	0
As-1	75	412.344	ug/L	2.074	0	5658	541670	0
Se	82	0.215	ug/L	0.086	40	0	30	40
Se	78	-0.561	ug/L	0.117	20	5765	5698	0
[ Mo	98	0.157	ug/L	0.007	4	135	906	4
Y	89		ug/L			218720	259216	0
Kr	83		ug/L			189	216	4
[> In	115		ug/L			230726	237858 ✓	0
[ Ag	107	0.364	ug/L	0.007	1	39	2867	1
[ Cd	111	0.057	ug/L	0.010	17	121	238	8
[ Cd	114	0.010	ug/L	0.003	26	20	67	17
[ Sb	121	0.024	ug/L	0.002	7	20	186	7
[ Sb	123	0.024	ug/L	0.001	4	20	145	3
[ Ba	135	109.354	ug/L	0.930	0	18	179256	1
[ Ba	137	108.662	ug/L	1.229	1	25	307503	1
[> Tb	159		ug/L			290754	304883 ✓	0
[ Tl	205	0.115	ug/L	0.004	3	29	2489	2
[ Pb	208	8.191	ug/L	0.063	0	225	234727	0
[ Bi	209		ug/L			234649	245896	1
[ Th	232	1.315	ug/L	0.026	1	71	51220	1
[ U	238	0.106	ug/L	0.004	3	12	4232	3



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 O SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 14:18:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No V, Cr

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	356083 ✓	1
[ Be	9	0.095	ug/L	0.021	22	32	79	12
C	13		mg/L			5382	6950	1
Cl	37		mg/L			1968149	2174408	0
> Sc	45		ug/L			212115	323727	2
V	51	16.399	ug/L	0.348	2	1289	231283	1
V-1	51	16.157	ug/L	0.327	2	2538	232892	1
Cr	52	1.691	ug/L	0.025	1	3869	26205	1
Cr	53	1.551	ug/L	0.042	2	836	3476	3
Mn	55	15.571	ug/L	0.274	1	386	306143	0
Co	59	0.510	ug/L	0.005	1	61	7353	1
> Ge	72		ug/L			228607	233567 ✓	0
Ni	60	0.517	ug/L	0.010	2	47	1084	1
Ni	62	0.580	ug/L	0.068	11	56	229	8
Cu	63	2.935	ug/L	0.029	0	178	12952	1
Cu	65	2.991	ug/L	0.035	1	90	6262	0
Zn	66	5.191	ug/L	0.073	1	229	7145	1
Zn	67	10.782	ug/L	0.416	3	104	2517	4
Zn	68	7.855	ug/L	0.046	0	4281	11724	0
As	75	90.371	ug/L	0.685	0	352	120706	0
As-1	75	92.287	ug/L	0.716	0	5658	125760	0
Se	82	0.028	ug/L	0.035	126	0	3	153
Se	78	-0.905	ug/L	0.143	15	5765	5584	0
[ Mo	98	0.136	ug/L	0.008	5	135	801	4
Y	89		ug/L			218720	258480	0
Kr	83		ug/L			189	213	5
> In	115		ug/L			230726	238840 ✓	0
Ag	107	0.153	ug/L	0.008	5	39	1234	5
Cd	111	0.068	ug/L	0.003	3	121	259	1
Cd	114	0.007	ug/L	0.002	34	20	52	20
Sb	121	0.037	ug/L	0.002	4	20	273	3
Sb	123	0.035	ug/L	0.001	2	20	203	1
Ba	135	152.878	ug/L	2.568	1	18	251631	1
Ba	137	151.581	ug/L	2.015	1	25	430711	1
> Tb	159		ug/L			290754	302439 ✓	0
Tl	205	0.145	ug/L	0.002	1	29	3110	1
Pb	208	6.607	ug/L	0.077	1	225	187852	1
Bi	209		ug/L			234649	244981	0
Th	232	0.635	ug/L	0.012	1	71	24580	1
U	238	0.055	ug/L	0.001	2	12	2166	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 P SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 14:24:19

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	351007 ✓	2
[ Be	9	0.549	ug/L	0.069	12	32	277	9
C	13		mg/L			5382	7214	2
Cl	37		mg/L			1968149	2150941	0
[> Sc	45		ug/L			212115	234151 ✓	1
V	51	15.411	ug/L	0.291	1	1289	157311	0
V-1	51	15.256	ug/L	0.273	1	2538	159223	0
Cr	52	4.608	ug/L	0.105	2	3869	44282	0
Cr	53	4.576	ug/L	0.053	1	836	5615	0
Mn	55	216.638	ug/L	3.509	1	386	3075697	0
[ Co	59	4.193	ug/L	0.087	2	61	43260	1
[> Ge	72		ug/L			228607	231913 ✓	0
Ni	60	3.912	ug/L	0.076	1	47	7835	1
Ni	62	4.008	ug/L	0.171	4	56	1237	3
Cu	63	4.988	ug/L	0.050	0	178	21733	0
Cu	65	4.918	ug/L	0.045	0	90	10166	1
Zn	66	40.860	ug/L	0.401	0	229	54239	0
Zn	67	41.304	ug/L	0.132	0	104	9272	0
Zn	68	42.051	ug/L	0.782	1	4281	43416	1
As	75	239.483	ug/L	0.997	0	352	317023	0
As-1	75	244.957	ug/L	1.050	0	5658	321953	0
Se	82	u 0.056	ug/L	0.087	154	0	7	168
Se	78	-0.986	ug/L	0.229	23	5765	5517	0
[ Mo	98	0.051	ug/L	0.002	3	135	384	1
Y	89		ug/L			218720	325790	1
Kr	83		ug/L			189	231	5
[> In	115		ug/L			230726	231647 ✓	1
Ag	107	0.283	ug/L	0.005	1	39	2177	1
Cd	111	0.073	ug/L	0.003	3	121	261	1
Cd	114	0.028	ug/L	0.005	16	20	144	15
Sb	121	u 0.015	ug/L	0.001	7	20	120	5
Sb	123	0.013	ug/L	0.002	17	20	86	13
Ba	135	131.935	ug/L	2.573	1	18	210596	1
[ Ba	137	134.493	ug/L	3.146	2	25	370590	1
[> Tb	159		ug/L			290754	304200 ✓	0
Tl	205	0.070	ug/L	0.001	1	29	1533	2
Pb	208	7.104	ug/L	0.129	1	225	203144	1
Bi	209		ug/L			234649	242942	2
Th	232	1.812	ug/L	0.013	0	71	70397	0
[ U	238	0.180	ug/L	0.001	0	12	7160	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 Q SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 14:30:18

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	355684 ✓	0
[ Be	9	0.565	ug/L	0.041	7	32	288	6
C	13		mg/L			5382	7741	0
Cl	37		mg/L			1968149	2130918	0
[> Sc	45		ug/L			212115	231953 ✓	0
V	51	16.779	ug/L	0.108	0	1289	169575	1
V-1	51	16.604	ug/L	0.088	0	2538	171451	0
Cr	52	5.196	ug/L	0.010	0	3869	48935	0
Cr	53	5.134	ug/L	0.088	1	836	6129	1
Mn	55	291.692	ug/L	1.196	0	386	4102747	0
Co	59	6.190	ug/L	0.097	1	61	63251	2
[> Ge	72		ug/L			228607	231157 ✓	0
Ni	60	5.450	ug/L	0.103	1	47	10861	1
Ni	62	5.560	ug/L	0.047	0	56	1689	0
Cu	63	5.823	ug/L	0.093	1	178	25256	0
Cu	65	5.831	ug/L	0.136	2	90	11996	1
Zn	66	53.261	ug/L	0.136	0	229	70402	0
Zn	67	53.062	ug/L	0.479	0	104	11843	1
Zn	68	54.425	ug/L	1.208	2	4281	54730	1
As	75	261.992	ug/L	1.449	0	352	345649	0
As-1	75	267.988	ug/L	1.509	0	5658	350529	0
Se	82	✓ 0.116	ug/L	0.098	84	0	15	87
Se	78	-1.060	ug/L	0.208	19	5765	5475	0
Mo	98	0.030	ug/L	0.005	16	135	282	8
Y	89		ug/L			218720	346637	0
Kr	83		ug/L			189	225	3
[> In	115		ug/L			230726	235008 ✓	1
Ag	107	0.422	ug/L	0.008	1	39	3277	3
Cd	111	0.118	ug/L	0.010	8	121	353	6
Cd	114	0.041	ug/L	0.002	4	20	202	5
Sb	121	✓ 0.015	ug/L	0.002	16	20	121	12
Sb	123	0.022	ug/L	0.012	56	20	132	48
Ba	135	138.242	ug/L	2.005	1	18	223870	0
Ba	137	137.485	ug/L	2.281	1	25	384347	0
[> Tb	159		ug/L			290754	308534 ✓	0
Tl	205	0.077	ug/L	0.002	2	29	1709	3
Pb	208	8.213	ug/L	0.067	0	225	238151	0
Bi	209		ug/L			234649	244066	0
Th	232	1.888	ug/L	0.029	1	71	74372	1
U	238	0.236	ug/L	0.001	0	12	9505	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 R SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 14:36:18

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	355726 ✓	1
[ Be	9	0.446	ug/L	0.028	6	32	235	5
C	13		mg/L			5382	8467	1
Cl	37		mg/L			1968149	2143177	0
[> Sc	45		ug/L			212115	229942 ✓	1
V	51	16.016	ug/L	0.184	1	1289	160511	1
V-1	51	15.870	ug/L	0.150	0	2538	162560	1
Cr	52	4.736	ug/L	0.105	2	3869	44579	1
Cr	53	4.753	ug/L	0.036	0	836	5692	0
Mn	55	241.341	ug/L	5.019	2	386	3364868	1
[ Co	59	4.480	ug/L	0.113	2	61	45386	1
[> Ge	72		ug/L			228607	229892 ✓	0
Ni	60	4.288	ug/L	0.075	1	47	8508	2
Ni	62	4.307	ug/L	0.164	3	56	1314	4
Cu	63	4.814	ug/L	0.061	1	178	20797	1
Cu	65	4.771	ug/L	0.014	0	90	9778	0
Zn	66	45.287	ug/L	0.722	1	229	59567	1
Zn	67	44.562	ug/L	1.415	3	104	9907	2
Zn	68	46.163	ug/L	0.524	1	4281	46824	0
As	75	202.875	ug/L	1.445	0	352	266276	0
As-1	75	207.471	ug/L	1.513	0	5658	271180	0
Se	82	0.075	ug/L	0.032	43	0	9	46
Se	78	-0.979	ug/L	0.257	26	5765	5472	0
[ Mo	98	0.051	ug/L	0.009	17	135	381	11
Y	89		ug/L			218720	323565	1
Kr	83		ug/L			189	221	5
[> In	115		ug/L			230726	232258 ✓	1
Ag	107	0.306	ug/L	0.005	1	39	2358	1
Cd	111	0.126	ug/L	0.007	5	121	363	2
Cd	114	0.044	ug/L	0.003	7	20	215	5
Sb	121	0.017	ug/L	0.001	3	20	135	4
Sb	123	0.016	ug/L	0.002	11	20	102	7
Ba	135	124.714	ug/L	1.915	1	18	199608	1
[ Ba	137	126.397	ug/L	1.900	1	25	349215	1
[> Tb	159		ug/L			290754	309972 ✓	2
Tl	205	0.068	ug/L	0.002	3	29	1516	1
Pb	208	8.785	ug/L	0.231	2	225	255821	0
Bi	209		ug/L			234649	245764	0
Th	232	1.716	ug/L	0.017	0	71	67917	1
[ U	238	0.194	ug/L	0.002	1	12	7863	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 14:42:18

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	341746✓	0
[	Be	9	45.609	ug/L	0.365	0	32	19578	0
	C	13		mg/L			5382	3272	0
	Cl	37		mg/L			1968149	2190057	0
[>	Sc	45		ug/L			212115	207600✓	1
	V	51	48.978	ug/L	0.397	0	1289	440550	0
	V-1	51	48.824	ug/L	0.505	1	2538	446346	0
	Cr	52	48.993	ug/L	0.421	0	3869	380992	0
	Cr	53	48.501	ug/L	0.792	1	836	44905	0
	Mn	55	49.585	ug/L	0.453	0	386	624510	1
[	Co	59	48.486	ug/L	0.299	0	61	442945	0
[>	Ge	72		ug/L			228607	225359✓	0
	Ni	60	48.219	ug/L	1.223	2	47	93304	1
	Ni	62	47.582	ug/L	0.793	1	56	13679	1
	Cu	63	48.139	ug/L	0.567	1	178	202290	1
	Cu	65	47.449	ug/L	0.418	0	90	94533	0
	Zn	66	49.724	ug/L	0.318	0	229	64091	0
	Zn	67	49.632	ug/L	0.408	0	104	10806	0
	Zn	68	49.345	ug/L	0.424	0	4281	48777	1
	As	75	49.706	ug/L	0.274	0	352	64215	0
	As-1	75	49.603	ug/L	0.308	0	5658	67798	0
	Se	82	50.329	ug/L	0.865	1	0	7039	1
	Se	78	49.974	ug/L	1.295	2	5765	21947	1
[	Mo	98	47.845	ug/L	0.371	0	135	225589	1
	Y	89		ug/L			218720	215407	0
	Kr	83		ug/L			189	196	3
[>	In	115		ug/L			230726	228642✓	0
	Ag	107	48.875	ug/L	0.089	0	39	364568	0
	Cd	111	49.974	ug/L	0.114	0	121	94631	0
	Cd	114	49.490	ug/L	0.537	1	20	214361	1
	Sb	121	50.009	ug/L	0.573	1	20	328787	1
	Sb	123	50.170	ug/L	0.334	0	20	250815	0
	Ba	135	50.107	ug/L	0.743	1	18	78964	1
[	Ba	137	50.622	ug/L	0.647	1	25	137715	1
[>	Tb	159		ug/L			290754	295365✓	1
	Tl	205	48.696	ug/L	0.182	0	29	1012707	1
	Pb	208	50.356	ug/L	0.655	1	225	1396642	0
	Bi	209		ug/L			234649	239642	1
	Th	232	47.775	ug/L	1.016	2	71	1799597	0
[	U	238	48.208	ug/L	0.927	1	12	1858554	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 14:48:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	335992 ✓	1
[ Be	9	0.044	ug/L	0.019	42	32	53	15
C	13		mg/L			5382	4822	3
Cl	37		mg/L			1968149	2235916	0
[> Sc	45		ug/L			212115	200169 ✓	0
V	51	0.003	ug/L	0.020	603	1289	1246	14
V-1	51	0.006	ug/L	0.007	118	2538	2450	2
Cr	52	-0.026	ug/L	0.011	41	3869	3456	2
Cr	53	-0.016	ug/L	0.052	324	836	775	5
Mn	55	0.019	ug/L	0.002	9	386	592	4
Co	59	0.002	ug/L	0.000	22	61	76	5
[> Ge	72		ug/L			228607	219054 ✓	0
Ni	60	0.005	ug/L	0.002	34	47	56	6
Ni	62	0.040	ug/L	0.043	107	56	65	18
Cu	63	-0.000	ug/L	0.005	1090	178	169	12
Cu	65	0.009	ug/L	0.004	40	90	104	6
Zn	66	0.008	ug/L	0.013	166	229	229	6
Zn	67	0.039	ug/L	0.069	177	104	108	13
Zn	68	-0.396	ug/L	0.108	27	4281	3754	2
As	75	0.031	ug/L	0.017	53	352	376	5
As-1	75	-0.157	ug/L	0.069	43	5658	5230	0
Se	82	-0.076	ug/L	0.064	84	0	-11	79
Se	78	-0.617	ug/L	0.214	34	5765	5328	0
[ Mo	98	-0.007	ug/L	0.005	73	135	95	26
Y	89		ug/L			218720	208832	1
Kr	83		ug/L			189	205	1
[> In	115		ug/L			230726	223451 ✓	0
Ag	107	0.008	ug/L	0.003	41	39	96	24
Cd	111	0.007	ug/L	0.005	73	121	129	6
Cd	114	0.001	ug/L	0.000	50	20	23	7
Sb	121	0.115	ug/L	0.033	28	20	756	28
Sb	123	0.109	ug/L	0.024	21	20	554	21
Ba	135	0.006	ug/L	0.004	69	18	27	23
[ Ba	137	0.008	ug/L	0.003	31	25	46	14
[> Tb	159		ug/L			290754	283699 ✓	1
Tl	205	0.007	ug/L	0.002	31	29	177	25
Pb	208	0.006	ug/L	0.003	61	225	371	23
Bi	209		ug/L			234649	233721	1
Th	232	0.052	ug/L	0.015	28	71	1954	26
[ U	238	0.003	ug/L	0.001	39	12	135	35

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WF55 MB REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Friday, March 01, 2013 14:56:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	338828 ✓	0
[ Be	9	0.018	ug/L	0.032	173	32	42	30
C	13		mg/L			5382	4382	3
Cl	37		mg/L			1968149	2225354	0
[> Sc	45		ug/L			212115	200485 ✓	0
V	51	-0.010	ug/L	0.016	157	1289	1133	12
V-1	51	-0.006	ug/L	0.006	89	2538	2345	2
Cr	52	-0.006	ug/L	0.008	135	3869	3613	1
Cr	53	0.006	ug/L	0.027	465	836	795	2
Mn	55	0.060	ug/L	0.003	5	386	1100	2
[ Co	59	0.003	ug/L	0.001	27	61	80	8
[> Ge	72		ug/L			228607	218388 ✓	0
Ni	60	0.022	ug/L	0.011	48	47	86	23
Ni	62	0.069	ug/L	0.013	18	56	72	5
✓ Cu	63	0.170	ug/L	0.008	4	178	863	3
✓ Cu	65	0.182	ug/L	0.015	8	90	438	6
Zn	66	0.851	ug/L	0.055	6	229	1278	4
Zn	67	0.650	ug/L	0.137	20	104	235	12
Zn	68	0.487	ug/L	0.230	47	4281	4515	3
As	75	0.035	ug/L	0.022	63	352	380	7
As-1	75	-0.078	ug/L	0.017	22	5658	5309	0
Se	82	-0.046	ug/L	0.072	158	0	-6	142
Se	78	-0.329	ug/L	0.071	21	5765	5403	0
[ Mo	98	-0.005	ug/L	0.001	29	135	106	6
Y	89		ug/L			218720	209609	1
Kr	83		ug/L			189	200	3
[> In	115		ug/L			230726	222880 ✓	1
Ag	107	0.005	ug/L	0.001	12	39	73	4
Cd	111	0.004	ug/L	0.005	130	121	123	5
Cd	114	0.001	ug/L	0.001	192	20	23	27
Sb	121	0.035	ug/L	0.006	17	20	242	14
Sb	123	0.031	ug/L	0.005	17	20	170	13
Ba	135	0.085	ug/L	0.007	8	18	147	6
[ Ba	137	0.089	ug/L	0.006	6	25	260	4
[> Tb	159		ug/L			290754	281059 ✓	1
Tl	205	0.003	ug/L	0.001	32	29	88	23
✓ Pb	208	0.018	ug/L	0.000	2	225	693	1
Bi	209		ug/L			234649	229933	1
Th	232	0.029	ug/L	0.007	25	71	1118	25
[ U	238	0.001	ug/L	0.000	7	12	43	6

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WF55 A REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Friday, March 01, 2013 15:02:30

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	335678 ✓	1
[ Be	9	0.032	ug/L	0.035	108	32	47	29
C	13		mg/L			5382	5693	0
Cl	37		mg/L			1968149	2488892	0
[> Sc	45		ug/L			212115	209807 ✓	0
V	51	2.287	ug/L	0.021	0	1289	22010	1
V-1	51	2.332	ug/L	0.008	0	2538	23935	1
Cr	52	0.663	ug/L	0.007	1	3869	8983	0
Cr	53	0.874	ug/L	0.051	5	836	1630	2
Mn	55	72.983	ug/L	0.490	0	386	928813	1
[ Co	59	0.143	ug/L	0.006	4	61	1384	5
[> Ge	72		ug/L			228607	222024 ✓	0
Ni	60	2.110	ug/L	0.030	1	47	4067	1
Ni	62	1.940	ug/L	0.110	5	56	601	4
Cu	63	11.252	ug/L	0.049	0	178	46714	0
Cu	65	11.001	ug/L	0.110	1	90	21660	0
Zn	66	11.020	ug/L	0.123	1	229	14167	1
Zn	67	10.859	ug/L	0.549	5	104	2408	4
Zn	68	11.236	ug/L	0.227	2	4281	14152	0
As	75	0.623	ug/L	0.037	5	352	1131	3
As-1	75	0.445	ug/L	0.001	0	5658	6044	0
Se	82	0.203	ug/L	0.099	49	0	27	50
Se	78	-0.348	ug/L	0.106	30	5765	5487	1
[ Mo	98	6.601	ug/L	0.103	1	135	30773	1
Y	89		ug/L			218720	214280	0
Kr	83		ug/L			189	206	3
[> In	115		ug/L			230726	221776 ✓	1
Ag	107	0.005	ug/L	0.001	25	39	72	13
Cd	111	0.055	ug/L	0.006	11	121	217	6
Cd	114	0.063	ug/L	0.005	8	20	285	7
Sb	121	1.837	ug/L	0.029	1	20	11731	1
Sb	123	1.800	ug/L	0.047	2	20	8745	2
Ba	135	36.125	ug/L	0.412	1	18	55219	0
[ Ba	137	36.436	ug/L	0.194	0	25	96149	1
[> Tb	159		ug/L			290754	288209 ✓	0
Tl	205	0.004	ug/L	0.001	27	29	100	19
Pb	208	0.633	ug/L	0.012	1	225	17356	1
Bi	209		ug/L			234649	228689	2
Th	232	0.028	ug/L	0.003	10	71	1086	9
[ U	238	0.048	ug/L	0.001	1	12	1836	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WF55 B REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Friday, March 01, 2013 15:08:29

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	328505 ✓	0
[ Be	9	0.018	ug/L	0.019	103	32	41	18
C	13		mg/L			5382	6043	4
Cl	37		mg/L			1968149	2754836	0
[> Sc	45		ug/L			212115	212965 ✓	0
V	51	0.054	ug/L	0.010	19	1289	1794	5
V-1	51	0.200	ug/L	0.019	9	2538	4411	3
Cr	52	0.059	ug/L	0.022	37	3869	4352	4
Cr	53	0.524	ug/L	0.023	4	836	1328	2
Mn	55	354.193	ug/L	9.219	2	386	4573454	2
[ Co	59	0.626	ug/L	0.014	2	61	5930	1
[> Ge	72		ug/L			228607	221238 ✓	1
Ni	60	8.132	ug/L	0.123	1	47	15486	1
Ni	62	8.114	ug/L	0.298	3	56	2334	2
Cu	63	3.432	ug/L	0.105	3	178	14319	3
Cu	65	3.090	ug/L	0.019	0	90	6125	0
Zn	66	134.041	ug/L	1.629	1	229	169233	0
Zn	67	121.274	ug/L	2.288	1	104	25775	1
Zn	68	133.399	ug/L	1.288	0	4281	122390	1
As	75	0.484	ug/L	0.018	3	352	952	1
As-1	75	0.359	ug/L	0.078	21	5658	5916	0
Se	82	0.362	ug/L	0.059	16	0	49	16
Se	78	-0.015	ug/L	0.226	1456	5765	5574	0
[ Mo	98	12.756	ug/L	0.248	1	135	59131	1
Y	89		ug/L			218720	211904	1
Kr	83		ug/L			189	198	3
[> In	115		ug/L			230726	221734 ✓	1
Ag	107	0.003	ug/L	0.001	17	39	62	8
Cd	111	0.057	ug/L	0.023	40	121	221	20
Cd	114	0.122	ug/L	0.010	8	20	533	8
Sb	121	1.036	ug/L	0.011	1	20	6622	1
Sb	123	1.014	ug/L	0.010	0	20	4934	1
Ba	135	72.824	ug/L	1.015	1	18	111275	0
[ Ba	137	73.116	ug/L	1.992	2	25	192881	2
[> Tb	159		ug/L			290754	289215 ✓	0
Tl	205	0.005	ug/L	0.001	18	29	140	15
Pb	208	u 0.041	ug/L	0.001	2	225	1345	1
Bi	209		ug/L			234649	224390	2
Th	232	0.017	ug/L	0.002	9	71	709	7
[ U	238	0.045	ug/L	0.001	3	12	1691	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WF55 MBSPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Friday, March 01, 2013 15:14:28

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			320083	331317✓	1
[ ] Be	9	22.838	ug/L	0.340	1	32	9520	0
[ ] C	13		mg/L			5382	4995	2
[ ] Cl	37		mg/L			1968149	2327356	0
[>] Sc	45		ug/L			212115	199354✓	1
[ ] V	51	24.455	ug/L	0.440	1	1289	211807	0
[ ] V-1	51	24.510	ug/L	0.448	1	2538	216325	0
[ ] Cr	52	24.923	ug/L	0.080	0	3869	187912	1
[ ] Cr	53	25.079	ug/L	0.082	0	836	22678	1
[ ] Mn	55	25.171	ug/L	0.289	1	386	304568	0
[ ] Co	59	24.950	ug/L	0.580	2	61	218852	0
[>] Ge	72		ug/L			228607	216685✓	1
[ ] Ni	60	24.293	ug/L	0.814	3	47	45214	2
[ ] Ni	62	24.785	ug/L	0.761	3	56	6874	1
[ ] Cu	63	25.944	ug/L	0.518	1	178	104885	0
[ ] Cu	65	25.631	ug/L	0.367	1	90	49134	0
[ ] Zn	66	79.922	ug/L	1.368	1	229	98906	0
[ ] Zn	67	72.956	ug/L	0.932	1	104	15225	0
[ ] Zn	68	77.922	ug/L	1.075	1	4281	71700	0
[ ] As	75	26.687	ug/L	0.370	1	352	33300	0
[ ] As-1	75	25.365	ug/L	0.640	2	5658	35949	0
[ ] Se	82	78.804	ug/L	1.071	1	0	10597	0
[ ] Se	78	78.646	ug/L	2.402	3	5765	30070	1
[ ] Mo	98	-0.011	ug/L	0.002	20	135	78	14
[ ] Y	89		ug/L			218720	205574	0
[ ] Kr	83		ug/L			189	203	4
[>] In	115		ug/L			230726	223024✓	0
[ ] Ag	107	25.226	ug/L	0.685	2	39	183542	2
[ ] Cd	111	24.721	ug/L	0.438	1	121	45718	1
[ ] Cd	114	24.253	ug/L	0.354	1	20	102471	0
[ ] Sb	121	0.015	ug/L	0.002	11	20	115	9
[ ] Sb	123	0.014	ug/L	0.004	26	20	89	20
[ ] Ba	135	25.509	ug/L	0.050	0	18	39222	0
[ ] Ba	137	25.584	ug/L	0.236	0	25	67904	1
[>] Tb	159		ug/L			290754	282390✓	0
[ ] Tl	205	24.770	ug/L	0.267	1	29	492481	0
[ ] Pb	208	25.244	ug/L	0.116	0	225	669572	0
[ ] Bi	209		ug/L			234649	225641	1
[ ] Th	232	23.660	ug/L	0.398	1	71	852225	1
[ ] U	238	23.827	ug/L	0.416	1	12	878309	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 15:20:26

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	347162 ✓	1
[	Be	9	45.599	ug/L	1.164	2	32	19879	1
	C	13		mg/L			5382	3488	0
	Cl	37		mg/L			1968149	2307229	0
[>	Sc	45		ug/L			212115	206560 ✓	0
[	V	51	48.595	ug/L	0.732	1	1289	434928	0
	V-1	51	48.492	ug/L	0.687	1	2538	441115	0
	Cr	52	48.922	ug/L	0.108	0	3869	378562	0
	Cr	53	48.579	ug/L	0.498	1	836	44756	1
	Mn	55	49.143	ug/L	0.757	1	386	615818	1
[	Co	59	48.787	ug/L	0.268	0	61	443475	0
[>	Ge	72		ug/L			228607	228155 ✓	0
[	Ni	60	47.165	ug/L	0.529	1	47	92407	0
	Ni	62	47.206	ug/L	0.507	1	56	13740	0
	Cu	63	48.272	ug/L	0.711	1	178	205359	1
	Cu	65	47.884	ug/L	0.704	1	90	96582	1
	Zn	66	49.503	ug/L	0.876	1	229	64598	1
	Zn	67	50.103	ug/L	1.884	3	104	11043	3
	Zn	68	48.995	ug/L	0.498	1	4281	49060	0
	As	75	50.129	ug/L	0.594	1	352	65562	0
	As-1	75	49.932	ug/L	0.466	0	5658	69059	0
	Se	82	50.376	ug/L	1.075	2	0	7133	1
	Se	78	49.705	ug/L	0.681	1	5765	22132	0
[	Mo	98	48.442	ug/L	0.713	1	135	231231	1
	Y	89		ug/L			218720	213272	1
	Kr	83		ug/L			189	209	1
[>	In	115		ug/L			230726	227643 ✓	0
[	Ag	107	49.299	ug/L	1.065	2	39	366105	1
	Cd	111	51.039	ug/L	1.274	2	121	96211	1
	Cd	114	50.076	ug/L	0.336	0	20	215945	0
	Sb	121	50.680	ug/L	0.738	1	20	331730	1
	Sb	123	50.685	ug/L	0.581	1	20	252279	1
	Ba	135	50.800	ug/L	0.647	1	18	79707	1
[	Ba	137	50.961	ug/L	0.380	0	25	138028	0
[>	Tb	159		ug/L			290754	289323 ✓	1
[	Tl	205	48.842	ug/L	0.222	0	29	994921	0
	Pb	208	50.234	ug/L	0.931	1	225	1364749	1
	Bi	209		ug/L			234649	232434	1
	Th	232	47.371	ug/L	0.144	0	71	1748214	0
[	U	238	47.861	ug/L	0.560	1	12	1807609	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 15:26:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	342298 ✓	2
[	Be	9	0.040	ug/L	0.003	7	32	52	
	C	13		mg/L			5382	4885	2
	Cl	37		mg/L			1968149	2329385	0
[>	Sc	45		ug/L			212115	204015 ✓	1
	V	51	-0.016	ug/L	0.021	130	1289	1098	18
	V-1	51	0.017	ug/L	0.007	42	2538	2591	3
	Cr	52	-0.020	ug/L	0.006	28	3869	3572	2
	Cr	53	0.086	ug/L	0.047	54	836	881	3
	Mn	55	0.011	ug/L	0.003	28	386	508	7
[	Co	59	0.004	ug/L	0.002	51	61	97	20
[>	Ge	72		ug/L			228607	225837 ✓	1
	Ni	60	0.004	ug/L	0.003	60	47	55	9
	Ni	62	0.056	ug/L	0.035	62	56	71	13
	Cu	63	0.004	ug/L	0.006	141	178	195	13
	Cu	65	-0.007	ug/L	0.005	67	90	75	11
	Zn	66	0.043	ug/L	0.034	78	229	281	14
	Zn	67	0.035	ug/L	0.054	154	104	110	9
	Zn	68	-0.286	ug/L	0.092	32	4281	3970	0
	As	75	0.027	ug/L	0.016	58	352	383	4
	As-1	75	-0.139	ug/L	0.046	33	5658	5413	0
	Se	82	-0.023	ug/L	0.079	336	0	-3	279
	Se	78	-0.559	ug/L	0.170	30	5765	5512	0
[	Mo	98	-0.009	ug/L	0.006	69	135	90	34
	Y	89		ug/L			218720	215623	0
	Kr	83		ug/L			189	201	6
[>	In	115		ug/L			230726	227148 ✓	1
	Ag	107	0.010	ug/L	0.003	29	39	114	20
	Cd	111	0.011	ug/L	0.005	50	121	139	7
	Cd	114	0.000	ug/L	0.002	8709	20	20	38
	Sb	121	0.110	ug/L	0.029	26	20	741	26
	Sb	123	0.111	ug/L	0.034	30	20	573	30
	Ba	135	0.008	ug/L	0.000	4	18	31	2
[	Ba	137	0.010	ug/L	0.005	46	25	51	24
[>	Tb	159		ug/L			290754	288530 ✓	1
	Tl	205	0.008	ug/L	0.003	45	29	185	37
	Pb	208	0.007	ug/L	0.002	20	225	426	9
	Bi	209		ug/L			234649	232449	1
	Th	232	0.070	ug/L	0.020	28	71	2657	27
[	U	238	0.003	ug/L	0.001	41	12	132	36

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 MB1 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 15:32:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	333091 ✓	1
[ Be	9	0.028	ug/L	0.015	55	32	45	15
C	13		mg/L			5382	3918	1
Cl	37		mg/L			1968149	2343253	0
[> Sc	45		ug/L			212115	198618 ✓	1
V	51	u -0.012	ug/L	0.018	147	1289	1101	15
V-1	51	0.022	ug/L	0.004	16	2538	2567	0
Cr	52	u -0.001	ug/L	0.018	1756	3869	3616	3
Cr	53	0.108	ug/L	0.057	52	836	877	4
Mn	55	0.015	ug/L	0.001	3	386	539	2
Co	59	0.004	ug/L	0.001	28	61	92	9
[> Ge	72		ug/L			228607	216070 ✓	0
Ni	60	0.003	ug/L	0.006	160	47	51	19
Ni	62	0.025	ug/L	0.007	27	56	60	3
Cu	63	0.031	ug/L	0.004	13	178	293	5
Cu	65	0.024	ug/L	0.003	13	90	130	5
Zn	66	0.518	ug/L	0.027	5	229	854	3
Zn	67	0.461	ug/L	0.043	9	104	194	4
Zn	68	0.393	ug/L	0.058	14	4281	4386	0
As	75	u 0.043	ug/L	0.010	22	352	386	3
As-1	75	0.084	ug/L	0.067	78	5658	5449	0
Se	82	u -0.126	ug/L	0.118	94	0	-17	90
Se	78	0.297	ug/L	0.227	76	5765	5541	0
Mo	98	-0.018	ug/L	0.002	8	135	48	15
Y	89		ug/L			218720	207075	0
Kr	83		ug/L			189	213	2
[> In	115		ug/L			230726	219454 ✓	1
Ag	107	u 0.005	ug/L	0.003	51	39	76	25
Cd	111	0.005	ug/L	0.004	83	121	123	4
Cd	114	0.000	ug/L	0.001	256	20	21	21
Sb	121	u 0.041	ug/L	0.008	19	20	276	18
Sb	123	0.041	ug/L	0.003	8	20	216	8
Ba	135	0.015	ug/L	0.003	17	18	40	9
Ba	137	0.010	ug/L	0.006	58	25	49	30
[> Tb	159		ug/L			290754	277510 ✓	0
Tl	205	0.004	ug/L	0.000	3	29	103	1
Pb	208	u 0.004	ug/L	0.000	10	225	310	3
Bi	209		ug/L			234649	221000	0
Th	232	0.037	ug/L	0.006	15	71	1391	14
U	238	0.001	ug/L	0.000	31	12	48	24

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 S SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 15:38:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			320083	343851 ✓	2
[	Be	9	0.132	ug/L	0.021	15	32	92	7
	C	13		mg/L			5382	9474	1
	Cl	37		mg/L			1968149	2273154	0
>	Sc	45		ug/L			212115	212775 ✓	0
	V	51	10.589	ug/L	0.096	0	1289	98636	0
	V-1	51	10.488	ug/L	0.067	0	2538	100274	0
	Cr	52	4.542	ug/L	0.070	1	3869	39720	0
	Cr	53	4.479	ug/L	0.158	3	836	5012	2
	Mn	55	65.991	ug/L	1.123	1	386	851646	0
	Co	59	0.964	ug/L	0.017	1	61	9082	0
>	Ge	72		ug/L			228607	221203 ✓	1
	Ni	60	2.287	ug/L	0.100	4	47	4386	3
	Ni	62	2.329	ug/L	0.097	4	56	708	3
	Cu	63	8.838	ug/L	0.193	2	178	36587	1
	Cu	65	8.888	ug/L	0.159	1	90	17450	1
	Zn	66	11.817	ug/L	0.182	1	229	15118	0
	Zn	67	16.627	ug/L	0.342	2	104	3620	0
	Zn	68	15.159	ug/L	0.272	1	4281	17575	0
	As	75	330.249	ug/L	2.461	0	352	416833	0
	As-1	75	338.127	ug/L	2.596	0	5658	421777	0
	Se	82	1.563	ug/L	0.139	8	0	213	8
	Se	78	1.395	ug/L	0.354	25	5765	6023	0
	Mo	98	0.264	ug/L	0.009	3	135	1349	1
	Y	89		ug/L			218720	240416	1
	Kr	83		ug/L			189	218	4
>	In	115		ug/L			230726	223601 ✓	0
	Ag	107	9.698	ug/L	0.086	0	39	70771	1
	Cd	111	0.173	ug/L	0.004	2	121	438	2
	Cd	114	0.040	ug/L	0.000	0	20	187	1
	Sb	121	0.107	ug/L	0.002	1	20	710	2
	Sb	123	0.101	ug/L	0.007	7	20	513	8
	Ba	135	170.915	ug/L	2.937	1	18	263338	0
	Ba	137	174.263	ug/L	3.617	2	25	463505	1
>	Tb	159		ug/L			290754	284410 ✓	0
	Tl	205	0.336	ug/L	0.008	2	29	6756	1
	Pb	208	24.560	ug/L	0.354	1	225	656073	1
	Bi	209		ug/L			234649	230216	2
	Th	232	1.374	ug/L	0.014	0	71	49924	0
	U	238	0.165	ug/L	0.004	2	12	6121	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 T SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 15:44:33

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	359249 ✓	0
[ Be	9	0.249	ug/L	0.024	9	32	149	6
C	13		mg/L			5382	9933	0
Cl	37		mg/L			1968149	2258950	0
[> Sc	45		ug/L			212115	225930 ✓	1
V	51	16.660	ug/L	0.146	0	1289	164000	1
V-1	51	16.539	ug/L	0.168	1	2538	166340	1
Cr	52	7.352	ug/L	0.155	2	3869	65719	1
Cr	53	7.362	ug/L	0.094	1	836	8174	0
Mn	55	145.726	ug/L	6.795	4	386	1997331	5
Co	59	2.795	ug/L	0.017	0	61	27853	1
[> Ge	72		ug/L			228607	236737 ✓	0
Ni	60	4.978	ug/L	0.070	1	47	10165	1
Ni	62	5.852	ug/L	0.062	1	56	1818	0
Cu	63	9.958	ug/L	0.125	1	178	44104	0
Cu	65	9.885	ug/L	0.110	1	90	20763	1
Zn	66	18.710	ug/L	0.272	1	229	25481	0
Zn	67	24.122	ug/L	0.468	1	104	5573	1
Zn	68	22.499	ug/L	0.427	1	4281	25773	1
As	75	271.994	ug/L	0.959	0	352	367500	0
As-1	75	278.144	ug/L	0.960	0	5658	372383	0
Se	82	1.749	ug/L	0.048	2	0	256	2
Se	78	0.362	ug/L	0.184	50	5765	6093	0
[ Mo	98	0.185	ug/L	0.004	2	135	1056	1
Y	89		ug/L			218720	278410	1
Kr	83		ug/L			189	228	6
[> In	115		ug/L			230726	233535 ✓	0
Ag	107	9.035	ug/L	0.097	1	39	68867	0
Cd	111	0.391	ug/L	0.026	6	121	877	6
Cd	114	0.043	ug/L	0.004	9	20	211	7
Sb	121	0.213	ug/L	0.006	2	20	1449	2
Sb	123	0.213	ug/L	0.007	3	20	1107	2
Ba	135	214.271	ug/L	4.675	2	18	344798	1
[ Ba	137	213.602	ug/L	4.893	2	25	593372	1
[> Tb	159		ug/L			290754	294683 ✓	1
Tl	205	0.521	ug/L	0.009	1	29	10833	1
Pb	208	12.325	ug/L	0.169	1	225	341225	0
Bi	209		ug/L			234649	242796	0
Th	232	1.856	ug/L	0.036	1	71	69818	1
[ U	238	0.251	ug/L	0.006	2	12	9679	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 U SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 15:50:29

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	335811 ✓	2
[ Be	9	0.266	ug/L	0.011	4	32	146	3
C	13		mg/L			5382	7905	1
[ Cl	37		mg/L			1968149	2263496	0
> Sc	45		ug/L			212115	215289 ✓	0
V	51	17.347	ug/L	0.228	1	1289	162661	0
V-1	51	17.219	ug/L	0.259	1	2538	164918	1
Cr	52	7.537	ug/L	0.110	1	3869	64108	0
Cr	53	7.549	ug/L	0.211	2	836	7965	2
Mn	55	182.825	ug/L	0.729	0	386	2386863	0
[ Co	59	2.841	ug/L	0.035	1	61	26980	1
> Ge	72		ug/L			228607	224323 ✓	1
Ni	60	4.804	ug/L	0.025	0	47	9296	0
Ni	62	5.591	ug/L	0.176	3	56	1648	2
Cu	63	10.407	ug/L	0.052	0	178	43668	0
Cu	65	10.339	ug/L	0.049	0	90	20574	0
Zn	66	21.257	ug/L	0.205	0	229	27402	0
Zn	67	26.454	ug/L	0.380	1	104	5781	1
Zn	68	24.919	ug/L	0.409	1	4281	26599	2
As	75	286.787	ug/L	2.124	0	352	367153	1
As-1	75	293.493	ug/L	2.179	0	5658	372022	1
Se	82	1.670	ug/L	0.094	5	0	231	6
Se	78	✓ 1.100	ug/L	0.248	22	5765	6012	0
[ Mo	98	0.191	ug/L	0.001	0	135	1028	1
Y	89		ug/L			218720	269823	0
Kr	83		ug/L			189	225	1
> In	115		ug/L			230726	222095 ✓	1
Ag	107	8.428	ug/L	0.051	0	39	61095	0
Cd	111	0.394	ug/L	0.031	7	121	839	5
Cd	114	0.049	ug/L	0.003	5	20	227	5
Sb	121	✓ 0.159	ug/L	0.002	1	20	1035	0
Sb	123	0.153	ug/L	0.006	3	20	764	3
Ba	135	211.846	ug/L	1.972	0	18	324219	0
[ Ba	137	211.498	ug/L	4.172	1	25	558743	0
> Tb	159		ug/L			290754	282897 ✓	1
Tl	205	0.451	ug/L	0.005	1	29	9005	2
Pb	208	12.290	ug/L	0.170	1	225	326635	0
Bi	209		ug/L			234649	232414	0
Th	232	2.340	ug/L	0.036	1	71	84485	0
[ U	238	0.261	ug/L	0.007	2	12	9644	2



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 V SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 15:56:25

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	353738 ✓	1
[ Be	9	0.192	ug/L	0.016	8	32	121	6
C	13		mg/L			5382	8826	2
Cl	37		mg/L			1968149	2261819	0
[> Sc	45		ug/L			212115	226468 ✓	1
V	51	11.039	ug/L	0.076	0	1289	109385	1
V-1	51	10.965	ug/L	0.105	0	2538	111447	0
Cr	52	5.055	ug/L	0.035	0	3869	46593	1
Cr	53	5.075	ug/L	0.177	3	836	5924	1
Mn	55	95.444	ug/L	0.653	0	386	1311000	1
[ Co	59	1.529	ug/L	0.040	2	61	15298	1
[> Ge	72		ug/L			228607	235876 ✓	1
Ni	60	3.172	ug/L	0.097	3	47	6471	2
Ni	62	3.302	ug/L	0.116	3	56	1047	2
Cu	63	9.185	ug/L	0.082	0	178	40547	0
Cu	65	9.081	ug/L	0.022	0	90	19012	1
Zn	66	15.445	ug/L	0.231	1	229	21001	2
Zn	67	19.713	ug/L	0.274	1	104	4557	2
Zn	68	18.321	ug/L	0.483	2	4281	21729	1
As	75	248.967	ug/L	2.225	0	352	335178	0
As-1	75	254.590	ug/L	2.339	0	5658	340085	0
Se	82	1.411	ug/L	0.028	1	0	205	2
Se	78	u 0.121	ug/L	0.221	183	5765	5989	0
[ Mo	98	0.140	ug/L	0.011	7	135	829	5
Y	89		ug/L			218720	261975	0
Kr	83		ug/L			189	227	5
[> In	115		ug/L			230726	234444 ✓	0
Ag	107	8.729	ug/L	0.128	1	39	66791	0
Cd	111	0.253	ug/L	0.013	5	121	612	4
Cd	114	0.058	ug/L	0.004	6	20	279	6
Sb	121	u 0.122	ug/L	0.005	4	20	843	4
Sb	123	0.110	ug/L	0.005	4	20	586	4
Ba	135	166.099	ug/L	0.694	0	18	268353	0
[ Ba	137	168.513	ug/L	1.367	0	25	469994	0
[> Tb	159		ug/L			290754	300062 ✓	0
Tl	205	0.342	ug/L	0.010	2	29	7255	2
Pb	208	22.190	ug/L	0.364	1	225	625389	1
Bi	209		ug/L			234649	245080	0
Th	232	1.639	ug/L	0.028	1	71	62791	0
[ U	238	0.186	ug/L	0.003	1	12	7309	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 W SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 16:02:21

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

*No As*

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	351519 ✓	1
[	Be	9	0.109	ug/L	0.019	17	32	84	9
	C	13		mg/L			5382	8975	2
	Cl	37		mg/L			1968149	2275922	0
[>	Sc	45		ug/L			212115	219681 ✓	0
	V	51	8.244	ug/L	0.093	1	1289	79591	1
	V-1	51	8.187	ug/L	0.078	0	2538	81395	1
	Cr	52	2.927	ug/L	0.023	0	3869	27854	0
	Cr	53	2.971	ug/L	0.092	3	836	3724	2
	Mn	55	48.955	ug/L	0.741	1	386	652454	1
[	Co	59	0.651	ug/L	0.010	1	61	6355	1
[>	Ge	72		ug/L			228607	232964 ✓	1
	Ni	60	1.519	ug/L	0.035	2	47	3085	1
	Ni	62	1.541	ug/L	0.041	2	56	513	2
	Cu	63	8.137	ug/L	0.029	0	178	35499	1
	Cu	65	8.156	ug/L	0.123	1	90	16874	1
	Zn	66	9.916	ug/L	0.108	1	229	13399	1
	Zn	67	13.413	ug/L	0.154	1	104	3097	2
	Zn	68	12.151	ug/L	0.305	2	4281	15703	1
	As	75	324.746	ug/L	3.107	0	352	431698	0
	As-1	75	332.294	ug/L	3.228	0	5658	436652	0
	Se	82	1.801	ug/L	0.148	8	0	259	7
	Se	78	<i>u</i> 0.752	ug/L	0.164	21	5765	6127	0
[	Mo	98	0.224	ug/L	0.012	5	135	1228	5
	Y	89		ug/L			218720	245192	1
	Kr	83		ug/L			189	210	3
[>	In	115		ug/L			230726	236314 ✓	0
	Ag	107	7.679	ug/L	0.074	0	39	59233	1
	Cd	111	0.109	ug/L	0.011	9	121	337	5
	Cd	114	0.029	ug/L	0.001	1	20	150	2
	Sb	121	<i>u</i> 0.066	ug/L	0.002	2	20	471	2
	Sb	123	0.065	ug/L	0.007	10	20	354	9
	Ba	135	136.125	ug/L	2.712	1	18	221659	1
[	Ba	137	136.474	ug/L	2.030	1	25	383670	1
[>	Tb	159		ug/L			290754	298791 ✓	1
	Tl	205	0.325	ug/L	0.005	1	29	6875	1
	Pb	208	25.139	ug/L	0.590	2	225	705326	0
	Bi	209		ug/L			234649	240758	0
	Th	232	1.207	ug/L	0.042	3	71	46041	1
[	U	238	0.108	ug/L	0.004	4	12	4216	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 X SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 16:08:21

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	351619 ✓	1
[ Be	9	0.134	ug/L	0.032	23	32	95	14
C	13		mg/L			5382	8017	2
Cl	37		mg/L			1968149	2269369	0
[> Sc	45		ug/L			212115	221977 ✓	0
V	51	9.574	ug/L	0.130	1	1289	93171	1
V-1	51	9.482	ug/L	0.146	1	2538	94841	1
Cr	52	3.508	ug/L	0.013	0	3869	32926	0
Cr	53	3.476	ug/L	0.060	1	836	4254	1
Mn	55	59.421	ug/L	0.774	1	386	800151	1
[ Co	59	0.800	ug/L	0.023	2	61	7873	3
[> Ge	72		ug/L			228607	232190 ✓	0
Ni	60	1.785	ug/L	0.025	1	47	3605	0
Ni	62	1.791	ug/L	0.165	9	56	585	8
Cu	63	8.284	ug/L	0.101	1	178	36013	0
Cu	65	8.451	ug/L	0.118	1	90	17423	0
Zn	66	10.109	ug/L	0.214	2	229	13609	1
Zn	67	14.876	ug/L	0.325	2	104	3411	1
Zn	68	13.178	ug/L	0.230	1	4281	16608	1
As	75	371.377	ug/L	3.490	0	352	492005	0
As-1	75	380.018	ug/L	3.572	0	5658	496888	0
Se	82	1.706	ug/L	0.075	4	0	245	3
Se	78	u 0.514	ug/L	0.181	35	5765	6027	0
[ Mo	98	0.263	ug/L	0.016	6	135	1413	5
Y	89		ug/L			218720	243753	1
Kr	83		ug/L			189	212	4
[> In	115		ug/L			230726	236570 ✓	1
Ag	107	8.554	ug/L	0.212	2	39	66037	1
Cd	111	0.155	ug/L	0.005	3	121	428	3
Cd	114	0.038	ug/L	0.004	11	20	191	9
Sb	121	u 0.079	ug/L	0.004	5	20	558	6
Sb	123	0.077	ug/L	0.013	16	20	416	14
Ba	135	180.161	ug/L	0.961	0	18	293703	1
[ Ba	137	180.814	ug/L	1.244	0	25	508853	0
[> Tb	159		ug/L			290754	295410 ✓	1
Tl	205	0.328	ug/L	0.006	1	29	6847	0
Pb	208	23.121	ug/L	0.423	1	225	641454	0
Bi	209		ug/L			234649	242310	0
Th	232	1.126	ug/L	0.011	0	71	42494	0
[ U	238	0.127	ug/L	0.005	3	12	4913	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 D SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Friday, March 01, 2013 16:14:21

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	344997 ✓	1
[ Be	9	0.073	ug/L	0.039	53	32	67	26
C	13		mg/L			5382	4941	1
Cl	37		mg/L			1968149	2278010	0
[> Sc	45		ug/L			212115	221964 ✓	0
V	51	13.681	ug/L	0.122	0	1289	132554	0
V-1	51	13.554	ug/L	0.088	0	2538	134415	0
Cr	52	3.902	ug/L	0.043	1	3869	36169	1
Cr	53	3.916	ug/L	0.083	2	836	4682	1
Mn	55	36.548	ug/L	0.509	1	386	492270	1
[ Co	59	0.976	ug/L	0.009	0	61	9596	0
[> Ge	72		ug/L			228607	229918 ✓	0
Ni	60	1.031	ug/L	0.037	3	47	2082	2
Ni	62	0.988	ug/L	0.118	11	56	345	9
Cu	63	4.531	ug/L	0.114	2	178	19585	1
Cu	65	4.492	ug/L	0.114	2	90	9211	1
Zn	66	8.412	ug/L	0.044	0	229	11253	0
Zn	67	9.853	ug/L	0.079	0	104	2273	0
Zn	68	8.403	ug/L	0.046	0	4281	12046	0
As	75	269.494	ug/L	1.801	0	352	353634	0
As-1	75	275.746	ug/L	1.841	0	5658	358584	0
Se	82	0.425	ug/L	0.005	1	0	59	2
Se	78	-0.475	ug/L	0.200	42	5765	5640	0
[ Mo	98	0.044	ug/L	0.004	10	135	346	5
Y	89		ug/L			218720	229381	0
Kr	83		ug/L			189	219	1
[> In	115		ug/L			230726	230156 ✓	1
Ag	107	0.958	ug/L	0.007	0	39	7235	1
Cd	111	0.027	ug/L	0.008	29	121	172	10
Cd	114	0.002	ug/L	0.001	63	20	30	22
Sb	121	0.017	ug/L	0.003	18	20	133	14
Sb	123	0.017	ug/L	0.005	26	20	107	21
Ba	135	29.215	ug/L	0.668	2	18	46342	1
[ Ba	137	29.443	ug/L	0.649	2	25	80621	0
[> Tb	159		ug/L			290754	291079 ✓	1
Tl	205	0.100	ug/L	0.002	2	29	2083	1
Pb	208	2.348	ug/L	0.027	1	225	64406	0
Bi	209		ug/L			234649	240258	1
Th	232	0.470	ug/L	0.002	0	71	17508	1
[ U	238	0.034	ug/L	0.001	2	12	1297	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 E SWN

Sample Dil Factor: 100

Comments:

Sample Date/Time: Friday, March 01, 2013 16:20:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

AS, V, Cr

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	338398 ✓	0
[	Be	9	0.043	ug/L	0.024	56	32	52	19
	C	13		mg/L			5382	3824	1
	Cl	37		mg/L			1968149	2278006	0
[>	Sc	45		ug/L			212115	214168 ✓	0
[	V	51	17.301	ug/L	0.146	0	1289	161397	0
	V-1	51	17.098	ug/L	0.144	0	2538	162926	0
	Cr	52	3.541	ug/L	0.061	1	3869	32030	1
	Cr	53	3.480	ug/L	0.045	1	836	4108	0
	Mn	55	13.354	ug/L	0.233	1	386	173806	2
	Co	59	0.465	ug/L	0.011	2	61	4444	2
[>	Ge	72		ug/L			228607	228478 ✓	1
[	Ni	60	0.247	ug/L	0.008	3	47	531	3
	Ni	62	0.248	ug/L	0.071	28	56	128	16
	Cu	63	3.567	ug/L	0.021	0	178	15359	0
	Cu	65	3.586	ug/L	0.074	2	90	7327	2
	Zn	66	2.505	ug/L	0.032	1	229	3491	2
	Zn	67	4.091	ug/L	0.184	4	104	999	5
	Zn	68	2.238	ug/L	0.101	4	4281	6327	1
	As	75	213.210	ug/L	2.395	1	352	278083	0
	As-1	75	218.149	ug/L	2.461	1	5658	283072	0
	Se	82	0.281	ug/L	0.057	20	0	39	19
	Se	78	-0.421	ug/L	0.208	49	5765	5622	0
[	Mo	98	0.009	ug/L	0.002	15	135	180	5
	Y	89		ug/L			218720	220720	0
	Kr	83		ug/L			189	217	0
[>	In	115		ug/L			230726	227717 ✓	1
[	Ag	107	0.409	ug/L	0.007	1	39	3077	0
	Cd	111	0.002	ug/L	0.007	429	121	122	9
	Cd	114	0.002	ug/L	0.001	39	20	28	9
	Sb	121	0.010	ug/L	0.004	40	20	86	31
	Sb	123	0.008	ug/L	0.000	4	20	60	3
	Ba	135	7.837	ug/L	0.116	1	18	12315	2
[	Ba	137	7.820	ug/L	0.110	1	25	21206	1
[>	Tb	159		ug/L			290754	289851 ✓	1
[	Tl	205	0.041	ug/L	0.002	5	29	857	6
	Pb	208	0.608	ug/L	0.007	1	225	16784	1
	Bi	209		ug/L			234649	235361	0
	Th	232	0.102	ug/L	0.002	1	71	3841	0
[	U	238	0.006	ug/L	0.000	5	12	249	4

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 MB1SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 16:26:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	310247 ✓	2
[ Be	9	24.452	ug/L	0.899	3	32	9537	1
C	13		mg/L			5382	3536	3
Cl	37		mg/L			1968149	2278624	0
[> Sc	45		ug/L			212115	188625 ✓	1
V	51	26.176	ug/L	0.491	1	1289	214435	1
V-1	51	26.305	ug/L	0.508	1	2538	219512	1
Cr	52	26.477	ug/L	0.621	2	3869	188614	0
Cr	53	26.876	ug/L	0.612	2	836	22937	0
Mn	55	26.884	ug/L	0.506	1	386	307737	0
[ Co	59	26.576	ug/L	0.388	1	61	220585	0
[> Ge	72		ug/L			228607	207398 ✓	1
Ni	60	26.313	ug/L	0.591	2	47	46875	1
Ni	62	25.933	ug/L	0.574	2	56	6883	0
Cu	63	27.011	ug/L	0.655	2	178	104510	1
Cu	65	27.049	ug/L	0.461	1	90	49625	1
Zn	66	85.125	ug/L	1.800	2	229	100815	1
Zn	67	77.255	ug/L	2.379	3	104	15423	1
Zn	68	83.887	ug/L	2.126	2	4281	73581	1
As	75	28.156	ug/L	0.538	1	352	33608	0
As-1	75	27.346	ug/L	0.497	1	5658	36697	0
Se	82	83.827	ug/L	1.630	1	0	10789	1
Se	78	86.096	ug/L	0.983	1	5765	31017	0
[ Mo	98	25.849	ug/L	0.433	1	135	112210	1
Y	89		ug/L			218720	198472	0
Kr	83		ug/L			189	211	1
[> In	115		ug/L			230726	210047 ✓	2
Ag	107	26.663	ug/L	0.621	2	39	182672	0
Cd	111	26.260	ug/L	0.544	2	121	45721	0
Cd	114	26.242	ug/L	0.551	2	20	104400	0
Sb	121	27.235	ug/L	0.570	2	20	164457	0
Sb	123	27.138	ug/L	0.740	2	20	124600	0
Ba	135	27.113	ug/L	0.683	2	18	39249	1
[ Ba	137	27.166	ug/L	0.451	1	25	67889	0
[> Tb	159		ug/L			290754	265700 ✓	1
Tl	205	26.407	ug/L	0.584	2	29	493934	0
Pb	208	26.957	ug/L	0.712	2	225	672597	1
Bi	209		ug/L			234649	217763	2
Th	232	25.474	ug/L	0.757	2	71	863186	1
[ U	238	25.516	ug/L	0.543	2	12	884898	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: **CCV8**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, March 01, 2013 16:32:19**

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			320083	337778 ✓	1
[	Be	9	ug/L	1.371	2	32	19472	2
	C	13	mg/L			5382	3209	2
	Cl	37	mg/L			1968149	2230492	0
[>	Sc	45	ug/L			212115	202613 ✓	0
	V	51	ug/L	0.286	0	1289	426169	0
	V-1	51	ug/L	0.388	0	2538	434432	0
	Cr	52	ug/L	0.278	0	3869	373131	0
	Cr	53	ug/L	0.236	0	836	44806	0
	Mn	55	ug/L	0.278	0	386	612795	0
[	Co	59	ug/L	0.481	0	61	437036	0
[>	Ge	72	ug/L			228607	225596 ✓	0
	Ni	60	ug/L	1.048	2	47	92217	2
	Ni	62	ug/L	0.151	0	56	13755	0
	Cu	63	ug/L	0.446	0	178	201779	1
	Cu	65	ug/L	0.931	1	90	95422	2
	Zn	66	ug/L	0.545	1	229	63769	1
	Zn	67	ug/L	0.947	1	104	10733	2
	Zn	68	ug/L	0.120	0	4281	48812	0
	As	75	ug/L	0.157	0	352	64098	0
	As-1	75	ug/L	0.233	0	5658	67878	0
	Se	82	ug/L	0.333	0	0	6924	0
	Se	78	ug/L	0.116	0	5765	21897	0
[	Mo	98	ug/L	0.121	0	135	225443	0
	Y	89	ug/L			218720	211892	1
	Kr	83	ug/L			189	214	5
[>	In	115	ug/L			230726	224683 ✓	1
	Ag	107	ug/L	1.017	2	39	361321	1
	Cd	111	ug/L	0.752	1	121	92816	1
	Cd	114	ug/L	0.813	1	20	210395	1
	Sb	121	ug/L	0.775	1	20	327752	0
	Sb	123	ug/L	1.067	2	20	246394	1
	Ba	135	ug/L	0.583	1	18	78871	0
[	Ba	137	ug/L	0.620	1	25	136428	0
[>	Tb	159	ug/L			290754	286286 ✓	1
	Tl	205	ug/L	0.293	0	29	978314	1
	Pb	208	ug/L	0.494	0	225	1342159	0
	Bi	209	ug/L			234649	227214	0
	Th	232	ug/L	1.046	2	71	1741273	0
[	U	238	ug/L	0.756	1	12	1767198	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 16:38:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			320083	332355 ✓	0
[	Be	9	ug/L	0.003	6	32	57	2
	C	13	mg/L			5382	4981	1
	Cl	37	mg/L			1968149	2283148	0
[>	Sc	45	ug/L			212115	199306 ✓	1
	V	51	ug/L	0.008	220	1289	1180	6
	V-1	51	ug/L	0.014	252	2538	2432	3
	Cr	52	ug/L	0.008	44	3869	3495	2
	Cr	53	ug/L	0.058	524	836	795	5
	Mn	55	ug/L	0.002	13	386	508	4
[	Co	59	ug/L	0.001	26	61	100	10
[>	Ge	72	ug/L			228607	220295 ✓	0
	Ni	60	ug/L	0.006	213	47	51	22
	Ni	62	ug/L	0.017	55	56	62	6
	Cu	63	ug/L	0.008	83	178	208	14
	Cu	65	ug/L	0.002	35	90	98	3
	Zn	66	ug/L	0.007	157	229	215	4
	Zn	67	ug/L	0.042	125	104	107	8
	Zn	68	ug/L	0.133	37	4281	3812	3
	As	75	ug/L	0.038	45	352	444	10
	As-1	75	ug/L	0.090	405	5658	5478	1
	Se	82	ug/L	0.154	381	0	-6	337
	Se	78	ug/L	0.344	1207	5765	5546	1
[	Mo	98	ug/L	0.005	51	135	83	28
	Y	89	ug/L			218720	205932	1
	Kr	83	ug/L			189	215	3
[>	In	115	ug/L			230726	223750 ✓	0
	Ag	107	ug/L	0.004	37	39	117	25
	Cd	111	ug/L	0.005	100	121	126	7
	Cd	114	ug/L	0.002	113	20	26	28
	Sb	121	ug/L	0.025	23	20	717	22
	Sb	123	ug/L	0.032	29	20	550	28
	Ba	135	ug/L	0.005	66	18	29	25
[	Ba	137	ug/L	0.003	39	25	45	17
[>	Tb	159	ug/L			290754	280893 ✓	0
	Tl	205	ug/L	0.002	27	29	173	22
	Pb	208	ug/L	0.001	20	225	377	8
	Bi	209	ug/L			234649	227663	2
	Th	232	ug/L	0.018	27	71	2418	26
[	U	238	ug/L	0.002	49	12	138	45



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 MB2 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 16:44:06

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	351866 ✓	0
[ Be	9	0.028	ug/L	0.010	33	32	48	8
C	13		mg/L			5382	4188	0
Cl	37		mg/L			1968149	2297550	1
[> Sc	45		ug/L			212115	209536 ✓	0
V	51	u 0.011	ug/L	0.018	166	1289	1371	11
V-1	51	0.010	ug/L	0.004	42	2538	2601	0
Cr	52	u -0.013	ug/L	0.016	123	3869	3724	3
Cr	53	-0.014	ug/L	0.047	342	836	814	6
Mn	55	0.035	ug/L	0.001	4	386	827	2
[ Co	59	0.018	ug/L	0.001	6	61	230	3
[> Ge	72		ug/L			228607	229253 ✓	0
Ni	60	0.017	ug/L	0.004	20	47	82	8
Ni	62	0.068	ug/L	0.020	28	56	76	7
Cu	63	0.023	ug/L	0.002	7	178	275	2
Cu	65	0.020	ug/L	0.004	18	90	132	5
Zn	66	0.399	ug/L	0.021	5	229	750	3
Zn	67	0.396	ug/L	0.067	16	104	191	7
Zn	68	-0.161	ug/L	0.024	14	4281	4145	0
As	75	u 0.066	ug/L	0.016	24	352	439	4
As-1	75	-0.148	ug/L	0.017	11	5658	5485	0
Se	82	u -0.003	ug/L	0.005	167	0	-1	58
Se	78	-0.674	ug/L	0.078	11	5765	5558	0
[ Mo	98	0.004	ug/L	0.003	73	135	153	8
Y	89		ug/L			218720	217350	0
Kr	83		ug/L			189	210	0
[> In	115		ug/L			230726	232537 ✓	0
[ Ag	107	u 0.024	ug/L	0.001	2	39	220	1
Cd	111	0.016	ug/L	0.004	22	121	153	4
Cd	114	0.020	ug/L	0.001	4	20	109	3
Sb	121	u 0.064	ug/L	0.007	10	20	448	10
Sb	123	0.060	ug/L	0.004	6	20	325	6
Ba	135	0.038	ug/L	0.002	5	18	79	4
[ Ba	137	0.037	ug/L	0.001	3	25	128	3
[> Tb	159		ug/L			290754	294409 ✓	0
Tl	205	0.027	ug/L	0.002	7	29	581	6
Pb	208	u 0.024	ug/L	0.002	8	225	895	6
Bi	209		ug/L			234649	235732	0
Th	232	0.054	ug/L	0.007	13	71	2103	13
[ U	238	0.019	ug/L	0.001	3	12	743	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 B SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 16:50:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	353126 ✓	0
[ Be	9	0.267	ug/L	0.021	7	32	154	5
C	13		mg/L			5382	7494	0
Cl	37		mg/L			1968149	2218658	0
> Sc	45		ug/L			212115	225030 ✓	1
V	51	17.163	ug/L	0.399	2	1289	168208	1
V-1	51	17.002	ug/L	0.312	1	2538	170222	1
Cr	52	6.802	ug/L	0.203	2	3869	60857	1
Cr	53	6.731	ug/L	0.124	1	836	7520	2
Mn	55	167.345	ug/L	1.513	0	386	2283831	2
Co	59	2.864	ug/L	0.033	1	61	28419	0
> Ge	72		ug/L			228607	228046 ✓	0
Ni	60	5.049	ug/L	0.137	2	47	9930	2
Ni	62	5.858	ug/L	0.208	3	56	1753	2
Cu	63	9.281	ug/L	0.034	0	178	39609	0
Cu	65	9.200	ug/L	0.184	1	90	18621	2
Zn	66	24.602	ug/L	0.163	0	229	32205	1
Zn	67	27.873	ug/L	0.500	1	104	6187	2
Zn	68	26.659	ug/L	0.311	1	4281	28627	0
As	75	167.649	ug/L	1.510	0	352	218330	0
As-1	75	171.367	ug/L	1.538	0	5658	223166	0
Se	82	1.033	ug/L	0.169	16	0	145	15
Se	78	u 0.016	ug/L	0.077	493	5765	5756	1
Mo	98	0.122	ug/L	0.001	1	135	714	1
Y	89		ug/L			218720	283253	0
Kr	83		ug/L			189	223	1
> In	115		ug/L			230726	230672 ✓	0
Ag	107	5.956	ug/L	0.051	0	39	44858	0
Cd	111	0.314	ug/L	0.045	14	121	719	11
Cd	114	0.052	ug/L	0.003	5	20	247	4
Sb	121	u 0.088	ug/L	0.001	1	20	600	1
Sb	123	0.077	ug/L	0.004	5	20	406	6
Ba	135	156.671	ug/L	3.987	2	18	249022	1
[ Ba	137	156.167	ug/L	2.966	1	25	428525	1
> Tb	159		ug/L			290754	293816 ✓	0
Tl	205	0.319	ug/L	0.001	0	29	6618	0
Pb	208	11.382	ug/L	0.030	0	225	314242	0
Bi	209		ug/L			234649	239659	2
Th	232	1.700	ug/L	0.012	0	71	63770	0
[ U	238	0.237	ug/L	0.003	1	12	9097	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 C SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 16:56:02

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	333542 ✓	2
[ Be	9	0.209	ug/L	0.050	24	32	121	15
C	13		mg/L			5382	6080	0
Cl	37		mg/L			1968149	2212915	0
[> Sc	45		ug/L			212115	204653 ✓	0
V	51	10.200	ug/L	0.143	1	1289	91436	1
V-1	51	10.131	ug/L	0.158	1	2538	93251	1
Cr	52	5.221	ug/L	0.054	1	3869	43364	1
Cr	53	5.214	ug/L	0.129	2	836	5480	2
Mn	55	194.700	ug/L	0.207	0	386	2416312	0
[ Co	59	4.676	ug/L	0.023	0	61	42163	0
[> Ge	72		ug/L			228607	210484 ✓	1
Ni	60	4.569	ug/L	0.077	1	47	8298	1
Ni	62	4.738	ug/L	0.126	2	56	1318	1
Cu	63	51.747	ug/L	0.466	0	178	203079	0
Cu	65	50.887	ug/L	0.618	1	90	94682	0
Zn	66	30.948	ug/L	0.374	1	229	37337	1
Zn	67	32.066	ug/L	0.148	0	104	6555	1
Zn	68	32.165	ug/L	0.653	2	4281	31065	1
As	75	279.198	ug/L	1.769	0	352	335381	0
As-1	75	285.846	ug/L	1.837	0	5658	340100	0
Se	82	3.064	ug/L	0.106	3	0	399	2
Se	78	3.147	ug/L	0.165	5	5765	6264	0
[ Mo	98	0.319	ug/L	0.017	5	135	1530	4
Y	89		ug/L			218720	255077	0
Kr	83		ug/L			189	216	5
[> In	115		ug/L			230726	213551 ✓	0
Ag	107	26.879	ug/L	0.298	1	39	187278	1
Cd	111	0.179	ug/L	0.001	0	121	429	0
Cd	114	0.040	ug/L	0.002	5	20	180	5
Sb	121	0.162	ug/L	0.004	2	20	1011	2
Sb	123	0.153	ug/L	0.005	3	20	732	3
Ba	135	108.627	ug/L	0.936	0	18	159869	1
[ Ba	137	107.124	ug/L	0.433	0	25	272169	0
[> Tb	159		ug/L			290754	274205 ✓	1
Tl	205	0.415	ug/L	0.007	1	29	8043	2
Pb	208	12.710	ug/L	0.188	1	225	327430	1
Bi	209		ug/L			234649	224170	1
Th	232	1.363	ug/L	0.019	1	71	47735	1
[ U	238	0.213	ug/L	0.003	1	12	7634	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 D SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 17:01:58

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	345366 ✓	0
[	Be	9	0.129	ug/L	0.009	7	32	91	4
	C	13		mg/L			5382	5519	0
	Cl	37		mg/L			1968149	2229753	0
[>	Sc	45		ug/L			212115	208357 ✓	1
[	V	51	6.027	ug/L	0.140	2	1289	55518	1
	V-1	51	5.982	ug/L	0.135	2	2538	57076	1
	Cr	52	2.872	ug/L	0.058	2	3869	25995	2
	Cr	53	2.865	ug/L	0.126	4	836	3435	2
	Mn	55	47.358	ug/L	0.629	1	386	598605	0
[	Co	59	1.061	ug/L	0.021	1	61	9786	2
[>	Ge	72		ug/L			228607	218424 ✓	1
[	Ni	60	1.334	ug/L	0.064	4	47	2545	4
	Ni	62	1.428	ug/L	0.077	5	56	450	4
	Cu	63	18.734	ug/L	0.260	1	178	76399	0
	Cu	65	18.520	ug/L	0.104	0	90	35816	1
	Zn	66	10.063	ug/L	0.020	0	229	12746	1
	Zn	67	12.941	ug/L	0.407	3	104	2804	3
	Zn	68	11.990	ug/L	0.260	2	4281	14581	0
	As	75	331.596	ug/L	4.906	1	352	413245	0
	As-1	75	339.407	ug/L	5.045	1	5658	418006	0
	Se	82	3.195	ug/L	0.088	2	0	432	3
	Se	78	2.758	ug/L	0.109	3	5765	6378	0
[	Mo	98	0.253	ug/L	0.001	0	135	1283	1
	Y	89		ug/L			218720	233802	1
	Kr	83		ug/L			189	211	2
[>	In	115		ug/L			230726	226059 ✓	0
[	Ag	107	16.354	ug/L	0.306	1	39	120633	1
	Cd	111	0.095	ug/L	0.007	7	121	297	4
	Cd	114	0.022	ug/L	0.002	9	20	112	7
	Sb	121	0.147	ug/L	0.010	7	20	978	6
	Sb	123	0.147	ug/L	0.003	1	20	747	1
	Ba	135	122.401	ug/L	0.799	0	18	190687	0
[	Ba	137	122.922	ug/L	0.575	0	25	330587	0
[>	Tb	159		ug/L			290754	288196 ✓	0
[	Tl	205	0.389	ug/L	0.006	1	29	7924	1
	Pb	208	10.757	ug/L	0.047	0	225	291316	0
	Bi	209		ug/L			234649	233312	1
	Th	232	0.875	ug/L	0.005	0	71	32230	0
[	U	238	0.104	ug/L	0.001	0	12	3907	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 A-L SWN

Sample Dil Factor: 100

Comments:

Sample Date/Time: Friday, March 01, 2013 17:07:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			320083	344404 ✓	1
[	Be	9	ug/L	0.017	26	32	64	11
	C	13	mg/L			5382	3709	2
	Cl	37	mg/L			1968149	2248464	0
[>	Sc	45	ug/L			212115	207736 ✓	1
	V	51	ug/L	0.076	2	1289	33259	0
	V-1	51	ug/L	0.086	2	2538	34642	0
	Cr	52	ug/L	0.016	1	3869	15427	1
	Cr	53	ug/L	0.055	3	836	2185	0
	Mn	55	ug/L	0.188	0	386	452402	1
[	Co	59	ug/L	0.010	1	61	5807	1
[>	Ge	72	ug/L			228607	221343 ✓	0
	Ni	60	ug/L	0.035	3	47	2093	2
	Ni	62	ug/L	0.085	5	56	471	4
	Cu	63	ug/L	0.051	2	178	9769	1
	Cu	65	ug/L	0.012	0	90	4670	0
	Zn	66	ug/L	0.077	1	229	5699	1
	Zn	67	ug/L	0.115	2	104	1258	2
	Zn	68	ug/L	0.184	3	4281	8445	1
	As	75	ug/L	0.495	0	352	65507	0
	As-1	75	ug/L	0.572	1	5658	70432	0
	Se	82	ug/L	0.307	18	0	41	18
	Se	78	ug/L	-0.105	253	5765	5548	0
[	Mo	98	ug/L	0.014	13	135	197	4
	Y	89	ug/L			218720	225294	1
	Kr	83	ug/L			189	211	1
[>	In	115	ug/L			230726	228561 ✓	0
	Ag	107	ug/L	0.032	1	39	13034	2
	Cd	111	ug/L	0.016	18	121	288	10
	Cd	114	ug/L	0.003	27	20	66	18
	Sb	121	ug/L	0.003	4	20	398	3
	Sb	123	ug/L	0.010	16	20	300	15
	Ba	135	ug/L	0.302	0	18	75319	0
[	Ba	137	ug/L	0.563	1	25	132072	0
[>	Tb	159	ug/L			290754	286078 ✓	0
	Tl	205	ug/L	0.002	2	29	1651	1
	Pb	208	ug/L	0.016	0	225	67273	0
	Bi	209	ug/L			234649	239173	0
	Th	232	ug/L	0.010	2	71	13489	2
[	U	238	ug/L	0.001	2	12	1940	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 A SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 17:13:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	331487 ✓	0
[ Be	9	0.266	ug/L	0.063	23	32	144	18
C	13		mg/L			5382	6265	1
Cl	37		mg/L			1968149	2213167	0
[> Sc	45		ug/L			212115	212463 ✓	0
V	51	17.755	ug/L	0.137	0	1289	164271	0
V-1	51	17.586	ug/L	0.123	0	2538	166171	0
Cr	52	7.785	ug/L	0.071	0	3869	65217	0
Cr	53	7.673	ug/L	0.043	0	836	7977	0
Mn	55	181.478	ug/L	4.622	2	386	2338014	2
Co	59	3.090	ug/L	0.066	2	61	28946	1
[> Ge	72		ug/L			228607	215885 ✓	0
Ni	60	5.462	ug/L	0.041	0	47	10165	0
Ni	62	6.609	ug/L	0.098	1	56	1865	1
Cu	63	11.657	ug/L	0.093	0	178	47057	1
Cu	65	11.713	ug/L	0.149	1	90	22420	1
Zn	66	21.284	ug/L	0.200	0	229	26406	1
Zn	67	27.570	ug/L	0.498	1	104	5794	2
Zn	68	25.628	ug/L	0.398	1	4281	26211	1
As	75	264.878	ug/L	2.259	0	352	326377	1
As-1	75	271.186	ug/L	2.278	0	5658	331227	1
Se	82	1.640	ug/L	0.126	7	0	219	7
Se	78	1.627	ug/L	0.094	5	5765	5951	0
[ Mo	98	0.172	ug/L	0.006	3	135	903	2
Y	89		ug/L			218720	267254	0
Kr	83		ug/L			189	221	6
[> In	115		ug/L			230726	217314 ✓	0
Ag	107	9.210	ug/L	0.146	1	39	65321	1
Cd	111	0.480	ug/L	0.045	9	121	976	9
Cd	114	0.054	ug/L	0.003	5	20	241	5
Sb	121	0.260	ug/L	0.015	5	20	1641	5
Sb	123	0.265	ug/L	0.019	7	20	1276	6
Ba	135	255.609	ug/L	3.132	1	18	382761	0
[ Ba	137	256.361	ug/L	2.064	0	25	662741	0
[> Tb	159		ug/L			290754	280576 ✓	1
Tl	205	0.417	ug/L	0.002	0	29	8275	1
Pb	208	12.850	ug/L	0.108	0	225	338724	1
Bi	209		ug/L			234649	232555	0
Th	232	1.853	ug/L	0.048	2	71	66380	1
[ U	238	0.275	ug/L	0.005	1	12	10079	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 ADUP SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 17:19:46

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	340264 ✓	2
[ Be	9	0.299	ug/L	0.051	16	32	162	11
C	13		mg/L			5382	7002	2
Cl	37		mg/L			1968149	2196972	0
[> Sc	45		ug/L			212115	218234 ✓	0
V	51	18.277	ug/L	0.007	0	1289	173665	0
V-1	51	18.116	ug/L	0.048	0	2538	175754	0
Cr	52	8.067	ug/L	0.056	0	3869	69273	0
Cr	53	7.989	ug/L	0.114	1	836	8496	1
Mn	55	179.795	ug/L	1.001	0	386	2379427	0
[ Co	59	3.012	ug/L	0.012	0	61	28983	0
[> Ge	72		ug/L			228607	222043 ✓	0
Ni	60	5.635	ug/L	0.146	2	47	10786	2
Ni	62	6.605	ug/L	0.116	1	56	1918	2
Cu	63	11.593	ug/L	0.125	1	178	48129	0
Cu	65	11.648	ug/L	0.184	1	90	22933	1
Zn	66	21.950	ug/L	0.260	1	229	28002	1
Zn	67	26.601	ug/L	1.118	4	104	5754	4
Zn	68	25.436	ug/L	0.274	1	4281	26787	0
As	75	271.485	ug/L	2.389	0	352	344044	0
As-1	75	277.815	ug/L	2.443	0	5658	348861	0
Se	82	1.531	ug/L	0.099	6	0	210	6
Se	78	0.983	ug/L	0.182	18	5765	5914	0
[ Mo	98	0.172	ug/L	0.003	1	135	932	1
Y	89		ug/L			218720	273737	0
Kr	83		ug/L			189	229	1
[> In	115		ug/L			230726	222630 ✓	0
Ag	107	9.049	ug/L	0.086	0	39	65753	0
Cd	111	0.464	ug/L	0.035	7	121	971	6
Cd	114	0.052	ug/L	0.003	4	20	239	4
Sb	121	0.163	ug/L	0.003	1	20	1061	1
Sb	123	0.168	ug/L	0.007	4	20	838	3
Ba	135	214.595	ug/L	3.758	1	18	329202	0
[ Ba	137	215.998	ug/L	3.320	1	25	572040	0
[> Tb	159		ug/L			290754	288600 ✓	0
Tl	205	0.448	ug/L	0.003	0	29	9133	0
Pb	208	13.224	ug/L	0.162	1	225	358545	0
Bi	209		ug/L			234649	237580	1
Th	232	2.009	ug/L	0.036	1	71	74022	1
[ U	238	0.277	ug/L	0.005	1	12	10437	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 ASPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 17:25:43

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	323314 ✓	1
[	Be	9	23.280	ug/L	0.284	1	32	9469	0
	C	13		mg/L			5382	4652	0
	Cl	37		mg/L			1968149	2176836	0
[>	Sc	45		ug/L			212115	214464 ✓	0
	V	51	41.505	ug/L	0.130	0	1289	385895	0
	V-1	51	41.363	ug/L	0.106	0	2538	391064	0
	Cr	52	31.511	ug/L	0.648	2	3869	254540	1
	Cr	53	31.487	ug/L	0.455	1	836	30415	0
	Mn	55	217.391	ug/L	2.105	0	386	2827285	1
[	Co	59	25.764	ug/L	0.200	0	61	243192	0
[>	Ge	72		ug/L			228607	211074 ✓	1
	Ni	60	30.662	ug/L	0.365	1	47	55591	1
	Ni	62	32.240	ug/L	0.508	1	56	8697	0
	Cu	63	37.906	ug/L	0.789	2	178	149201	0
	Cu	65	37.811	ug/L	0.387	1	90	70571	1
	Zn	66	104.543	ug/L	0.871	0	229	125978	1
	Zn	67	103.750	ug/L	1.323	1	104	21051	0
	Zn	68	106.434	ug/L	0.827	0	4281	93967	1
	As	75	275.519	ug/L	3.004	1	352	331878	0
	As-1	75	280.564	ug/L	3.267	1	5658	334831	0
	Se	82	80.535	ug/L	1.811	2	0	10549	1
	Se	78	82.037	ug/L	1.767	2	5765	30328	0
[	Mo	98	20.314	ug/L	0.167	0	135	89772	0
	Y	89		ug/L			218720	271206	1
	Kr	83		ug/L			189	234	1
[>	In	115		ug/L			230726	216089 ✓	0
	Ag	107	34.464	ug/L	0.376	1	39	242961	0
	Cd	111	26.044	ug/L	0.148	0	121	46664	1
	Cd	114	25.449	ug/L	0.226	0	20	104188	0
	Sb	121	0.627	ug/L	0.023	3	20	3912	3
	Sb	123	0.614	ug/L	0.010	1	20	2921	2
	Ba	135	238.754	ug/L	3.299	1	18	355525	1
[	Ba	137	239.627	ug/L	2.594	1	25	616026	1
[>	Tb	159		ug/L			290754	279614 ✓	0
	Tl	205	24.689	ug/L	0.268	1	29	486053	0
	Pb	208	38.897	ug/L	0.573	1	225	1021404	1
	Bi	209		ug/L			234649	229041	1
	Th	232	26.557	ug/L	0.451	1	71	947142	0
[	U	238	25.032	ug/L	0.672	2	12	913591	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 APOST SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 17:31:43

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	342487 ✓	0
[ Be	9	22.567	ug/L	0.173	0	32	9726	1
C	13		mg/L			5382	6265	1
Cl	37		mg/L			1968149	2189473	0
> Sc	45		ug/L			212115	220397 ✓	0
V	51	40.015	ug/L	0.235	0	1289	382375	0
V-1	51	39.848	ug/L	0.364	0	2538	387248	0
Cr	52	30.666	ug/L	0.238	0	3869	254685	0
Cr	53	30.536	ug/L	0.664	2	836	30337	1
Mn	55	204.451	ug/L	2.758	1	386	2732348	0
[ Co	59	26.033	ug/L	0.280	1	61	252507	0
> Ge	72		ug/L			228607	223560 ✓	2
Ni	60	29.221	ug/L	0.701	2	47	56098	0
Ni	62	30.626	ug/L	0.565	1	56	8752	0
Cu	63	36.007	ug/L	1.075	2	178	150088	1
Cu	65	35.771	ug/L	1.018	2	90	70695	0
Zn	66	101.308	ug/L	2.196	2	229	129271	0
Zn	67	101.715	ug/L	1.822	1	104	21858	0
Zn	68	105.142	ug/L	1.324	1	4281	98350	0
As	75	285.907	ug/L	3.380	1	352	364722	0
As-1	75	290.846	ug/L	3.561	1	5658	367401	0
Se	82	82.595	ug/L	1.648	1	0	11458	1
Se	78	82.734	ug/L	1.968	2	5765	32343	0
[ Mo	98	23.782	ug/L	0.123	0	135	111300	2
Y	89		ug/L			218720	274054	1
Kr	83		ug/L			189	225	3
> In	115		ug/L			230726	227854 ✓	0
Ag	107	33.357	ug/L	0.238	0	39	247979	1
Cd	111	25.687	ug/L	0.255	0	121	48530	0
Cd	114	25.181	ug/L	0.202	0	20	108703	0
Sb	121	25.227	ug/L	0.089	0	20	165290	0
Sb	123	25.062	ug/L	0.410	1	20	124861	1
Ba	135	275.677	ug/L	3.858	1	18	432846	1
[ Ba	137	278.684	ug/L	0.203	0	25	755422	0
> Tb	159		ug/L			290754	292441 ✓	1
Tl	205	25.413	ug/L	0.364	1	29	523214	0
Pb	208	38.363	ug/L	0.325	0	225	1053574	0
Bi	209		ug/L			234649	242312	1
Th	232	26.303	ug/L	0.623	2	71	981063	1
[ U	238	24.652	ug/L	0.434	1	12	941034	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 MB2SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 17:37:42

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	317158 ✓	1
[	Be	9	22.966	ug/L	0.756	3	32	9163	2
	C	13		mg/L			5382	3492	2
	Cl	37		mg/L			1968149	2246078	0
[>	Sc	45		ug/L			212115	192083 ✓	1
[	V	51	24.715	ug/L	0.410	1	1289	206253	0
	V-1	51	24.828	ug/L	0.429	1	2538	211123	0
	Cr	52	25.498	ug/L	0.432	1	3869	185121	0
	Cr	53	25.825	ug/L	0.500	1	836	22476	0
	Mn	55	25.964	ug/L	0.863	3	386	302658	2
[	Co	59	25.430	ug/L	0.054	0	61	214981	1
[>	Ge	72		ug/L			228607	208874 ✓	1
[	Ni	60	25.054	ug/L	0.364	1	47	44955	0
	Ni	62	24.847	ug/L	0.628	2	56	6644	1
	Cu	63	26.086	ug/L	0.341	1	178	101666	0
	Cu	65	25.689	ug/L	0.512	1	90	47469	1
	Zn	66	81.612	ug/L	1.718	2	229	97355	1
	Zn	67	75.180	ug/L	0.803	1	104	15121	0
	Zn	68	80.114	ug/L	0.712	0	4281	70954	0
	As	75	27.221	ug/L	0.461	1	352	32736	0
	As-1	75	26.266	ug/L	0.313	1	5658	35705	0
	Se	82	81.081	ug/L	2.179	2	0	10510	1
	Se	78	82.636	ug/L	1.705	2	5765	30194	0
[	Mo	98	25.147	ug/L	0.392	1	135	109940	0
	Y	89		ug/L			218720	199911	0
	Kr	83		ug/L			189	213	3
[>	In	115		ug/L			230726	211170 ✓	1
[	Ag	107	26.188	ug/L	0.506	1	39	180405	0
	Cd	111	25.684	ug/L	0.268	1	121	44970	0
	Cd	114	25.756	ug/L	0.156	0	20	103042	1
	Sb	121	26.625	ug/L	0.092	0	20	161679	1
	Sb	123	26.315	ug/L	0.353	1	20	121504	0
	Ba	135	25.935	ug/L	0.354	1	18	37755	1
[	Ba	137	26.773	ug/L	0.795	2	25	67274	2
[>	Tb	159		ug/L			290754	270190 ✓	1
[	Tl	205	25.860	ug/L	0.421	1	29	491902	0
	Pb	208	26.582	ug/L	0.497	1	225	674484	0
	Bi	209		ug/L			234649	222779	1
	Th	232	25.033	ug/L	0.412	1	71	862695	0
[	U	238	24.852	ug/L	0.381	1	12	876486	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 17:43:42

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	331144 ✓	1
[	Be	9	46.411	ug/L	0.404	0	32	19304	1
	C	13		mg/L			5382	3154	1
	Cl	37		mg/L			1968149	2226010	0
[>	Sc	45		ug/L			212115	203337 ✓	0
[	V	51	48.192	ug/L	0.395	0	1289	424630	1
	V-1	51	48.127	ug/L	0.476	0	2538	431019	1
	Cr	52	48.511	ug/L	0.356	0	3869	369548	0
	Cr	53	48.293	ug/L	0.303	0	836	43802	0
	Mn	55	48.910	ug/L	1.035	2	386	603341	1
[	Co	59	48.252	ug/L	0.224	0	61	431766	0
[>	Ge	72		ug/L			228607	222119 ✓	1
[	Ni	60	47.512	ug/L	0.890	1	47	90613	0
	Ni	62	46.592	ug/L	0.469	1	56	13202	1
	Cu	63	47.748	ug/L	0.099	0	178	197763	1
	Cu	65	46.940	ug/L	0.286	0	90	92181	1
	Zn	66	48.753	ug/L	0.485	0	229	61947	2
	Zn	67	49.424	ug/L	0.898	1	104	10606	1
	Zn	68	49.123	ug/L	0.149	0	4281	47877	1
	As	75	49.449	ug/L	0.852	1	352	62959	1
	As-1	75	49.538	ug/L	0.848	1	5658	66738	1
	Se	82	49.428	ug/L	0.805	1	0	6813	0
	Se	78	49.932	ug/L	0.667	1	5765	21618	0
[	Mo	98	48.143	ug/L	0.079	0	135	223729	1
	Y	89		ug/L			218720	210403	0
	Kr	83		ug/L			189	216	2
[>	In	115		ug/L			230726	220883 ✓	0
[	Ag	107	49.888	ug/L	0.719	1	39	359474	1
	Cd	111	50.489	ug/L	0.675	1	121	92360	1
	Cd	114	50.147	ug/L	0.797	1	20	209827	1
	Sb	121	50.659	ug/L	0.936	1	20	321724	1
	Sb	123	50.278	ug/L	0.982	1	20	242801	1
	Ba	135	50.854	ug/L	0.556	1	18	77417	0
[	Ba	137	51.402	ug/L	0.568	1	25	135086	0
[>	Tb	159		ug/L			290754	282784 ✓	1
[	Tl	205	48.788	ug/L	0.646	1	29	971297	0
	Pb	208	50.324	ug/L	0.546	1	225	1336363	0
	Bi	209		ug/L			234649	226871	0
	Th	232	47.939	ug/L	0.257	0	71	1729167	0
[	U	238	48.337	ug/L	0.300	0	12	1784356	0

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 17:50:01

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	329261✓	0
[	Be	9	0.004	ug/L	0.018	470	32	35	20
	C	13		mg/L			5382	4792	3
	Cl	37		mg/L			1968149	2260353	0
[>	Sc	45		ug/L			212115	200458✓	0
	V	51	-0.028	ug/L	0.005	18	1289	979	4
	V-1	51	-0.018	ug/L	0.003	18	2538	2240	1
	Cr	52	-0.018	ug/L	0.019	107	3869	3525	4
	Cr	53	0.012	ug/L	0.007	60	836	801	1
	Mn	55	0.017	ug/L	0.001	8	386	566	2
[	Co	59	0.004	ug/L	0.001	32	61	91	11
[>	Ge	72		ug/L			228607	220974✓	1
	Ni	60	0.002	ug/L	0.004	179	47	50	15
	Ni	62	0.089	ug/L	0.065	73	56	79	22
	Cu	63	0.009	ug/L	0.005	55	178	208	8
	Cu	65	0.004	ug/L	0.006	151	90	95	11
	Zn	66	0.020	ug/L	0.012	61	229	246	5
	Zn	67	0.027	ug/L	0.083	307	104	106	15
	Zn	68	-0.203	ug/L	0.029	14	4281	3958	1
	As	75	0.047	ug/L	0.031	65	352	400	8
	As-1	75	0.005	ug/L	0.074	1530	5658	5474	1
	Se	82	-0.096	ug/L	0.032	33	0	-13	32
	Se	78	-0.018	ug/L	0.236	1337	5765	5566	1
[	Mo	98	-0.010	ug/L	0.007	70	135	84	36
	Y	89		ug/L			218720	208296	0
	Kr	83		ug/L			189	215	1
[>	In	115		ug/L			230726	222579✓	1
	Ag	107	0.011	ug/L	0.003	24	39	115	16
	Cd	111	0.007	ug/L	0.008	115	121	130	12
	Cd	114	0.002	ug/L	0.003	136	20	28	41
	Sb	121	0.123	ug/L	0.032	26	20	804	25
	Sb	123	0.118	ug/L	0.035	29	20	593	28
	Ba	135	0.009	ug/L	0.004	48	18	31	20
[	Ba	137	0.008	ug/L	0.004	48	25	46	22
[>	Tb	159		ug/L			290754	281275✓	0
	Tl	205	0.008	ug/L	0.002	28	29	177	24
	Pb	208	0.007	ug/L	0.001	21	225	392	9
	Bi	209		ug/L			234649	230721	1
	Th	232	0.065	ug/L	0.018	27	71	2395	26
[	U	238	0.004	ug/L	0.001	33	12	140	31

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 E SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 17:55:29

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	345161 ✓	1
[	Be	9	0.040	ug/L	0.002	4	32	52	2
	C	13		mg/L			5382	5588	0
	Cl	37		mg/L			1968149	2258585	0
[>	Sc	45		ug/L			212115	214928 ✓	0
	V	51	2.346	ug/L	0.039	1	1289	23095	1
	V-1	51	2.297	ug/L	0.042	1	2538	24192	1
	Cr	52	0.962	ug/L	0.019	1	3869	11593	1
	Cr	53	0.864	ug/L	0.017	2	836	1660	1
	Mn	55	8.164	ug/L	0.075	0	386	106789	1
[	Co	59	0.292	ug/L	0.002	0	61	2820	0
[>	Ge	72		ug/L			228607	229051 ✓	0
	Ni	60	0.421	ug/L	0.011	2	47	875	2
	Ni	62	0.412	ug/L	0.024	5	56	176	4
	Cu	63	7.997	ug/L	0.072	0	178	34305	0
	Cu	65	8.082	ug/L	0.201	2	90	16441	2
	Zn	66	4.194	ug/L	0.036	0	229	5704	1
	Zn	67	7.371	ug/L	0.118	1	104	1720	1
	Zn	68	6.327	ug/L	0.111	1	4281	10096	1
	As	75	333.153	ug/L	2.207	0	352	435436	0
	As-1	75	340.964	ug/L	2.291	0	5658	440380	0
	Se	82	3.129	ug/L	0.104	3	0	444	2
	Se	78	2.485	ug/L	0.111	4	5765	6598	0
[	Mo	98	0.146	ug/L	0.009	6	135	833	4
	Y	89		ug/L			218720	235770	1
	Kr	83		ug/L			189	214	4
[>	In	115		ug/L			230726	230991 ✓	1
	Ag	107	9.136	ug/L	0.095	1	39	68877	0
	Cd	111	0.039	ug/L	0.010	26	121	196	10
	Cd	114	0.007	ug/L	0.001	14	20	51	9
	Sb	121	0.156	ug/L	0.002	1	20	1056	1
	Sb	123	0.160	ug/L	0.009	5	20	827	5
	Ba	135	128.441	ug/L	1.578	1	18	204447	1
[	Ba	137	130.692	ug/L	3.563	2	25	359072	1
[>	Tb	159		ug/L			290754	291895 ✓	1
	Tl	205	0.205	ug/L	0.003	1	29	4241	0
	Pb	208	17.168	ug/L	0.322	1	225	470668	0
	Bi	209		ug/L			234649	241020	0
	Th	232	0.685	ug/L	0.023	3	71	25578	3
[	U	238	0.047	ug/L	0.000	1	12	1792	2

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 F SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 18:01:28

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	318024 ✓	1
[ Be	9	0.070	ug/L	0.008	11	32	60	4
C	13		mg/L			5382	6728	2
Cl	37		mg/L			1968149	2277212	0
[> Sc	45		ug/L			212115	200216 ✓	1
V	51	3.470	ug/L	0.083	2	1289	31223	0
V-1	51	3.438	ug/L	0.058	1	2538	32537	0
Cr	52	1.574	ug/L	0.054	3	3869	15332	0
Cr	53	1.554	ug/L	0.080	5	836	2152	3
Mn	55	10.032	ug/L	0.185	1	386	122119	0
Co	59	0.213	ug/L	0.016	7	61	1937	5
[> Ge	72		ug/L			228607	212410 ✓	0
Ni	60	0.627	ug/L	0.036	5	47	1187	5
Ni	62	0.705	ug/L	0.049	6	56	242	5
Cu	63	10.554	ug/L	0.099	0	178	41932	1
Cu	65	10.680	ug/L	0.068	0	90	20120	1
Zn	66	5.075	ug/L	0.038	0	229	6357	0
Zn	67	7.888	ug/L	0.567	7	104	1700	6
Zn	68	7.070	ug/L	0.105	1	4281	9994	0
As	75	299.134	ug/L	4.310	1	352	362589	0
As-1	75	306.405	ug/L	4.411	1	5658	367514	0
Se	82	2.716	ug/L	0.055	2	0	357	1
Se	78	3.271	ug/L	0.039	1	5765	6360	0
[ Mo	98	0.135	ug/L	0.005	4	135	723	3
Y	89		ug/L			218720	220155	0
Kr	83		ug/L			189	215	1
[> In	115		ug/L			230726	216351 ✓	2
Ag	107	8.021	ug/L	0.220	2	39	56623	1
Cd	111	0.060	ug/L	0.013	22	121	220	9
Cd	114	0.013	ug/L	0.002	15	20	72	13
Sb	121	u 0.101	ug/L	0.007	6	20	648	6
Sb	123	0.092	ug/L	0.005	5	20	454	4
Ba	135	102.783	ug/L	2.665	2	18	153201	0
[ Ba	137	103.319	ug/L	3.289	3	25	265824	1
[> Tb	159		ug/L			290754	271835 ✓	1
Tl	205	0.210	ug/L	0.007	3	29	4047	4
Pb	208	15.206	ug/L	0.139	0	225	388324	0
Bi	209		ug/L			234649	223969	0
Th	232	0.654	ug/L	0.006	0	71	22733	0
[ U	238	0.048	ug/L	0.002	5	12	1706	3

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 G SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 18:07:28

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	338519 ✓	1
[ Be	9	0.067	ug/L	0.010	14	32	63	4
C	13		mg/L			5382	6001	1
Cl	37		mg/L			1968149	2257102	0
[> Sc	45		ug/L			212115	209602 ✓	0
V	51	4.098	ug/L	0.030	0	1289	38389	0
V-1	51	4.035	ug/L	0.036	0	2538	39548	0
Cr	52	1.483	ug/L	0.011	0	3869	15349	0
Cr	53	1.393	ug/L	0.031	2	836	2105	0
Mn	55	11.786	ug/L	0.116	0	386	150162	0
[ Co	59	0.253	ug/L	0.006	2	61	2392	2
[> Ge	72		ug/L			228607	223799 ✓	0
Ni	60	0.435	ug/L	0.033	7	47	881	6
Ni	62	0.496	ug/L	0.072	14	56	196	11
Cu	63	7.262	ug/L	0.243	3	178	30451	2
Cu	65	7.387	ug/L	0.023	0	90	14690	0
Zn	66	4.615	ug/L	0.004	0	229	6111	0
Zn	67	7.660	ug/L	0.058	0	104	1742	0
Zn	68	6.621	ug/L	0.043	0	4281	10127	0
As	75	325.252	ug/L	1.584	0	352	415380	0
As-1	75	332.996	ug/L	1.576	0	5658	420367	0
Se	82	2.849	ug/L	0.056	1	0	395	1
Se	78	2.677	ug/L	0.284	10	5765	6508	0
[ Mo	98	0.129	ug/L	0.013	9	135	734	8
Y	89		ug/L			218720	230345	1
Kr	83		ug/L			189	211	3
[> In	115		ug/L			230726	225323 ✓	0
Ag	107	8.147	ug/L	0.066	0	39	59918	0
Cd	111	0.042	ug/L	0.007	16	121	196	5
Cd	114	0.004	ug/L	0.002	67	20	35	29
Sb	121	0.116	ug/L	0.003	2	20	774	1
Sb	123	0.118	ug/L	0.004	3	20	599	2
Ba	135	115.738	ug/L	1.090	0	18	179712	0
[ Ba	137	115.916	ug/L	2.388	2	25	310703	1
[> Tb	159		ug/L			290754	286352 ✓	1
Tl	205	0.285	ug/L	0.001	0	29	5769	1
Pb	208	19.771	ug/L	0.431	2	225	531698	0
Bi	209		ug/L			234649	235594	0
Th	232	0.777	ug/L	0.018	2	71	28425	0
[ U	238	0.047	ug/L	0.002	3	12	1763	2

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 H SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 18:13:26

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	318190 ✓	0
[ Be	9	0.072	ug/L	0.040	56	32	61	25
C	13		mg/L			5382	5879	1
Cl	37		mg/L			1968149	2254602	0
[> Sc	45		ug/L			212115	197856 ✓	1
V	51	2.640	ug/L	0.048	1	1289	23768	0
V-1	51	2.608	ug/L	0.038	1	2538	24961	0
Cr	52	1.141	ug/L	0.017	1	3869	11979	1
Cr	53	1.102	ug/L	0.033	2	836	1735	2
Mn	55	8.878	ug/L	0.038	0	386	106864	1
[ Co	59	0.192	ug/L	0.005	2	61	1731	1
[> Ge	72		ug/L			228607	212700 ✓	0
Ni	60	0.282	ug/L	0.022	7	47	560	7
Ni	62	0.372	ug/L	0.061	16	56	152	10
Cu	63	9.069	ug/L	0.104	1	178	36106	1
Cu	65	8.997	ug/L	0.087	0	90	16986	1
Zn	66	4.199	ug/L	0.045	1	229	5303	0
Zn	67	7.314	ug/L	0.100	1	104	1586	1
Zn	68	6.498	ug/L	0.281	4	4281	9520	2
As	75	331.645	ug/L	0.893	0	352	402529	0
As-1	75	339.705	ug/L	0.923	0	5658	407458	0
Se	82	3.229	ug/L	0.120	3	0	425	3
Se	78	3.819	ug/L	0.226	5	5765	6537	1
[ Mo	98	0.142	ug/L	0.002	1	135	756	0
Y	89		ug/L			218720	222383	0
Kr	83		ug/L			189	214	4
[> In	115		ug/L			230726	214650 ✓	1
Ag	107	9.701	ug/L	0.142	1	39	67953	0
Cd	111	0.048	ug/L	0.004	8	121	197	3
Cd	114	0.007	ug/L	0.001	7	20	47	3
Sb	121	✓ 0.156	ug/L	0.005	3	20	979	3
Sb	123	0.142	ug/L	0.012	8	20	686	7
Ba	135	124.759	ug/L	2.065	1	18	184527	0
[ Ba	137	125.174	ug/L	1.698	1	25	319622	0
[> Tb	159		ug/L			290754	274457 ✓	1
Tl	205	0.212	ug/L	0.003	1	29	4124	1
Pb	208	14.288	ug/L	0.118	0	225	368399	0
Bi	209		ug/L			234649	220527	0
Th	232	0.617	ug/L	0.013	2	71	21670	0
[ U	238	0.046	ug/L	0.001	3	12	1663	3



# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 | SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 18:19:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	321637 ✓	0
[ Be	9	0.532	ug/L	0.029	5	32	247	4
C	13		mg/L			5382	6719	2
Cl	37		mg/L			1968149	2192611	1
[> Sc	45		ug/L			212115	221835 ✓	0
V	51	26.171	ug/L	0.339	1	1289	252181	0
V-1	51	25.892	ug/L	0.327	1	2538	254197	0
Cr	52	7.898	ug/L	0.168	2	3869	69020	1
Cr	53	7.792	ug/L	0.163	2	836	8443	1
Mn	55	276.271	ug/L	1.175	0	386	3716283	0
[ Co	59	5.192	ug/L	0.100	1	61	50742	1
[> Ge	72		ug/L			228607	210884 ✓	1
Ni	60	6.311	ug/L	0.064	1	47	11467	1
Ni	62	6.541	ug/L	0.116	1	56	1804	2
Cu	63	8.059	ug/L	0.110	1	178	31827	1
Cu	65	8.180	ug/L	0.116	1	90	15320	1
Zn	66	55.235	ug/L	0.478	0	229	66599	1
Zn	67	55.369	ug/L	0.336	0	104	11271	1
Zn	68	57.578	ug/L	0.818	1	4281	52594	0
As	75	24.788	ug/L	0.400	1	352	30126	0
As-1	75	25.410	ug/L	0.427	1	5658	35043	0
Se	82	✓ 0.009	ug/L	0.088	931	0	0	2303
Se	78	0.648	ug/L	0.208	32	5765	5515	0
[ Mo	98	0.074	ug/L	0.010	13	135	450	9
Y	89		ug/L			218720	326516	2
Kr	83		ug/L			189	242	3
[> In	115		ug/L			230726	212349 ✓	1
Ag	107	0.647	ug/L	0.017	2	39	4515	1
Cd	111	0.199	ug/L	0.019	9	121	460	7
Cd	114	0.057	ug/L	0.005	8	20	248	7
Sb	121	✓ 0.014	ug/L	0.001	7	20	104	7
Sb	123	0.015	ug/L	0.002	14	20	89	12
Ba	135	126.453	ug/L	2.616	2	18	185008	0
[ Ba	137	127.220	ug/L	2.236	1	25	321334	0
[> Tb	159		ug/L			290754	279241 ✓	0
Tl	205	0.127	ug/L	0.005	3	29	2528	3
Pb	208	9.115	ug/L	0.075	0	225	239219	0
Bi	209		ug/L			234649	223661	0
Th	232	1.735	ug/L	0.035	2	71	61879	1
[ U	238	0.337	ug/L	0.004	1	12	12296	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 J SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 18:25:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	320104 ✓	0
[ Be	9	0.592	ug/L	0.093	15	32	270	13
C	13		mg/L			5382	6246	1
Cl	37		mg/L			1968149	2162162	0
[> Sc	45		ug/L			212115	223767 ✓	1
V	51	28.039	ug/L	0.316	1	1289	272427	0
V-1	51	27.754	ug/L	0.400	1	2538	274641	1
Cr	52	9.092	ug/L	0.076	0	3869	79538	0
Cr	53	8.995	ug/L	0.317	3	836	9695	2
Mn	55	283.043	ug/L	4.858	1	386	3840464	1
[ Co	59	5.441	ug/L	0.005	0	61	53632	1
[> Ge	72		ug/L			228607	210222 ✓	1
Ni	60	8.130	ug/L	0.119	1	47	14712	0
Ni	62	8.487	ug/L	0.167	1	56	2318	2
Cu	63	8.758	ug/L	0.136	1	178	34462	0
Cu	65	8.647	ug/L	0.211	2	90	16136	1
Zn	66	53.892	ug/L	0.757	1	229	64775	0
Zn	67	54.729	ug/L	1.514	2	104	11104	2
Zn	68	55.522	ug/L	0.579	1	4281	50699	0
As	75	13.915	ug/L	0.036	0	352	17002	1
As-1	75	14.225	ug/L	0.125	0	5658	21847	0
Se	82	0.075	ug/L	0.130	172	0	9	181
Se	78	0.498	ug/L	0.327	65	5765	5451	0
[ Mo	98	0.054	ug/L	0.002	3	135	361	1
Y	89		ug/L			218720	336532	0
Kr	83		ug/L			189	237	4
[> In	115		ug/L			230726	213673 ✓	0
Ag	107	0.581	ug/L	0.015	2	39	4086	3
Cd	111	0.236	ug/L	0.020	8	121	530	7
Cd	114	0.048	ug/L	0.003	6	20	213	5
Sb	121	0.014	ug/L	0.004	25	20	105	20
Sb	123	0.012	ug/L	0.002	16	20	75	12
Ba	135	123.908	ug/L	1.491	1	18	182450	0
[ Ba	137	124.401	ug/L	1.395	1	25	316224	0
[> Tb	159		ug/L			290754	280130 ✓	1
Tl	205	0.121	ug/L	0.001	0	29	2411	1
Pb	208	6.781	ug/L	0.080	1	225	178559	0
Bi	209		ug/L			234649	223160	1
Th	232	1.871	ug/L	0.027	1	71	66921	1
[ U	238	0.353	ug/L	0.002	0	12	12928	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 K SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 18:31:16

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cai

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	348934 ✓	1
[ Be	9	0.480	ug/L	0.028	5	32	245	4
C	13		mg/L			5382	5242	1
Cl	37		mg/L			1968149	2155663	0
[> Sc	45		ug/L			212115	234196 ✓	0
V	51	25.630	ug/L	0.231	0	1289	260751	0
V-1	51	25.393	ug/L	0.243	0	2538	263231	0
Cr	52	8.265	ug/L	0.094	1	3869	76054	0
Cr	53	8.253	ug/L	0.164	1	836	9387	1
Mn	55	266.166	ug/L	4.765	1	386	3779556	0
[ Co	59	5.104	ug/L	0.041	0	61	52658	0
[> Ge	72		ug/L			228607	224311 ✓	2
Ni	60	7.319	ug/L	0.117	1	47	14136	0
Ni	62	7.433	ug/L	0.163	2	56	2173	2
Cu	63	7.248	ug/L	0.168	2	178	30454	0
Cu	65	7.189	ug/L	0.228	3	90	14327	1
Zn	66	47.890	ug/L	1.415	2	229	61427	1
Zn	67	48.246	ug/L	0.768	1	104	10457	1
Zn	68	48.467	ug/L	0.540	1	4281	47754	1
As	75	8.076	ug/L	0.169	2	352	10671	0
As-1	75	7.956	ug/L	0.249	3	5658	15481	0
Se	82	u -0.017	ug/L	0.098	559	0	-3	412
Se	78	-0.772	ug/L	0.392	50	5765	5404	0
[ Mo	98	0.029	ug/L	0.004	13	135	267	8
Y	89		ug/L			218720	340758	0
Kr	83		ug/L			189	244	2
[> In	115		ug/L			230726	226126 ✓	0
Ag	107	0.278	ug/L	0.009	3	39	2090	3
Cd	111	0.211	ug/L	0.007	3	121	514	2
Cd	114	0.047	ug/L	0.003	5	20	221	4
Sb	121	u 0.008	ug/L	0.001	9	20	75	7
Sb	123	0.007	ug/L	0.002	23	20	53	14
Ba	135	117.990	ug/L	0.536	0	18	183871	0
[ Ba	137	119.451	ug/L	0.381	0	25	321353	0
[> Tb	159		ug/L			290754	300795 ✓	1
Tl	205	0.094	ug/L	0.004	4	29	2015	3
Pb	208	6.942	ug/L	0.069	0	225	196290	0
Bi	209		ug/L			234649	237742	0
Th	232	1.576	ug/L	0.010	0	71	60554	0
[ U	238	0.256	ug/L	0.010	3	12	10059	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 L SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 18:37:12

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	326072 ✓	0
[	Be	9	0.433	ug/L	0.038	8	32	210	7
	C	13		mg/L			5382	6025	2
	Cl	37		mg/L			1968149	2189250	0
[>	Sc	45		ug/L			212115	245608 ✓	0
[	V	51	34.644	ug/L	0.412	1	1289	369104	0
	V-1	51	34.306	ug/L	0.381	1	2538	371923	0
	Cr	52	11.041	ug/L	0.215	1	3869	105044	1
	Cr	53	10.974	ug/L	0.120	1	836	12771	0
	Mn	55	493.255	ug/L	9.096	1	386	7345015	0
[	Co	59	8.864	ug/L	0.047	0	61	95864	1
[>	Ge	72		ug/L			228607	209805 ✓	1
[	Ni	60	11.669	ug/L	0.228	1	47	21055	1
	Ni	62	20.668	ug/L	0.483	2	56	5560	1
	Cu	63	16.750	ug/L	0.058	0	178	65634	1
	Cu	65	17.299	ug/L	0.021	0	90	32140	1
	Zn	66	59.148	ug/L	0.744	1	229	70936	1
	Zn	67	59.606	ug/L	1.266	2	104	12061	1
	Zn	68	60.068	ug/L	0.630	1	4281	54421	1
	As	75	2.537	ug/L	0.012	0	352	3357	0
	As-1	75	2.488	ug/L	0.017	0	5658	8098	1
	Se	82	u -0.056	ug/L	0.019	34	0	-7	30
	Se	78	0.020	ug/L	0.054	264	5765	5297	1
[	Mo	98	0.138	ug/L	0.008	5	135	729	4
	Y	89		ug/L			218720	391341	1
	Kr	83		ug/L			189	234	1
[>	In	115		ug/L			230726	210252 ✓	1
[	Ag	107	u 0.146	ug/L	0.009	5	39	1037	4
	Cd	111	0.950	ug/L	0.044	4	121	1762	5
	Cd	114	0.128	ug/L	0.006	4	20	528	3
	Sb	121	u 0.012	ug/L	0.001	10	20	89	7
	Sb	123	0.010	ug/L	0.002	16	20	64	11
[	Ba	135	143.921	ug/L	1.886	1	18	208533	1
[	Ba	137	145.118	ug/L	2.224	1	25	362958	0
[>	Tb	159		ug/L			290754	280596 ✓	0
	Tl	205	0.117	ug/L	0.001	1	29	2333	0
	Pb	208	10.646	ug/L	0.170	1	225	280700	1
	Bi	209		ug/L			234649	223357	2
	Th	232	2.204	ug/L	0.045	2	71	78959	1
[	U	238	0.493	ug/L	0.013	2	12	18058	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 M SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 18:43:07

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	324433 ✓	2
[ Be	9	0.438	ug/L	0.040	9	32	211	5
C	13		mg/L			5382	5621	1
Cl	37		mg/L			1968149	2176912	0
[> Sc	45		ug/L			212115	245341 ✓	1
V	51	36.563	ug/L	0.599	1	1289	389005	1
V-1	51	36.286	ug/L	0.628	1	2538	392744	1
Cr	52	12.418	ug/L	0.268	2	3869	117441	0
Cr	53	12.568	ug/L	0.292	2	836	14466	0
Mn	55	508.862	ug/L	16.140	3	386	7566983	1
[ Co	59	8.046	ug/L	0.201	2	61	86902	0
[> Ge	72		ug/L			228607	211586 ✓	0
Ni	60	13.854	ug/L	0.231	1	47	25202	1
Ni	62	17.456	ug/L	0.173	0	56	4744	0
Cu	63	15.671	ug/L	0.149	0	178	61938	0
Cu	65	15.696	ug/L	0.132	0	90	29417	0
Zn	66	52.132	ug/L	0.161	0	229	63080	0
Zn	67	53.026	ug/L	0.771	1	104	10833	1
Zn	68	51.993	ug/L	0.763	1	4281	48039	1
As	75	3.938	ug/L	0.029	0	352	5077	1
As-1	75	3.875	ug/L	0.010	0	5658	9801	0
Se	82	✓ -0.092	ug/L	0.145	157	0	-12	149
Se	78	-0.085	ug/L	0.212	248	5765	5309	0
[ Mo	98	0.088	ug/L	0.006	6	135	513	4
Y	89		ug/L			218720	406180	2
Kr	83		ug/L			189	250	2
[> In	115		ug/L			230726	212694 ✓	0
Ag	107	✓ 0.146	ug/L	0.005	3	39	1048	3
Cd	111	0.830	ug/L	0.022	2	121	1571	2
Cd	114	0.092	ug/L	0.002	2	20	390	2
Sb	121	✓ 0.009	ug/L	0.002	22	20	73	17
Sb	123	0.010	ug/L	0.004	43	20	65	30
Ba	135	102.235	ug/L	1.744	1	18	149855	1
[ Ba	137	102.753	ug/L	1.892	1	25	259996	1
[> Tb	159		ug/L			290754	285188 ✓	1
Ti	205	0.122	ug/L	0.004	3	29	2485	1
Pb	208	6.755	ug/L	0.034	0	225	181096	1
Bi	209		ug/L			234649	224347	1
Th	232	2.526	ug/L	0.047	1	71	91924	1
[ U	238	0.408	ug/L	0.006	1	12	15215	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 N SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 18:49:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	331555 ✓	2
[	Be	9	0.520	ug/L	0.033	6	32	250	3
	C	13		mg/L			5382	6080	0
	Cl	37		mg/L			1968149	2167732	1
[>	Sc	45		ug/L			212115	229046 ✓	1
[	V	51	28.129	ug/L	0.502	1	1289	279708	0
	V-1	51	27.923	ug/L	0.493	1	2538	282776	0
	Cr	52	14.775	ug/L	0.200	1	3869	129670	1
	Cr	53	14.688	ug/L	0.204	1	836	15633	1
	Mn	55	402.756	ug/L	3.036	0	386	5593793	2
[	Co	59	6.755	ug/L	0.175	2	61	68120	0
[>	Ge	72		ug/L			228607	209883 ✓	0
[	Ni	60	12.008	ug/L	0.061	0	47	21675	0
	Ni	62	17.665	ug/L	0.189	1	56	4762	0
	Cu	63	12.889	ug/L	0.308	2	178	50561	2
	Cu	65	13.189	ug/L	0.202	1	90	24533	1
	Zn	66	53.397	ug/L	0.623	1	229	64086	1
	Zn	67	53.955	ug/L	1.047	1	104	10932	1
	Zn	68	53.877	ug/L	0.815	1	4281	49236	1
	As	75	10.445	ug/L	0.029	0	352	12823	0
	As-1	75	10.634	ug/L	0.049	0	5658	17617	0
	Se	82	u -0.043	ug/L	0.050	114	0	-6	102
	Se	78	0.277	ug/L	0.127	45	5765	5377	1
[	Mo	98	0.123	ug/L	0.008	6	135	663	5
	Y	89		ug/L			218720	332107	2
	Kr	83		ug/L			189	242	1
[>	In	115		ug/L			230726	215241 ✓	0
[	Ag	107	0.544	ug/L	0.014	2	39	3857	2
	Cd	111	0.845	ug/L	0.059	6	121	1617	7
	Cd	114	0.101	ug/L	0.003	3	20	430	2
	Sb	121	u 0.012	ug/L	0.002	13	20	91	10
	Sb	123	0.012	ug/L	0.003	28	20	74	20
	Ba	135	139.477	ug/L	1.527	1	18	206881	0
[	Ba	137	138.207	ug/L	1.052	0	25	353901	0
[>	Tb	159		ug/L			290754	282288 ✓	0
	Tl	205	0.137	ug/L	0.002	1	29	2758	1
	Pb	208	8.333	ug/L	0.059	0	225	221094	0
	Bi	209		ug/L			234649	227283	0
	Th	232	2.526	ug/L	0.030	1	71	91027	0
[	U	238	0.617	ug/L	0.017	2	12	22750	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV10

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 18:55:02

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	331656 ✓	1
[ Be	9	46.097	ug/L	1.080	2	32	19204	3
C	13		mg/L			5382	3222	3
Cl	37		mg/L			1968149	2215162	0
[> Sc	45		ug/L			212115	202538 ✓	0
V	51	48.704	ug/L	0.843	1	1289	427409	1
V-1	51	48.828	ug/L	1.002	2	2538	435496	1
Cr	52	49.134	ug/L	0.331	0	3869	372784	1
Cr	53	49.511	ug/L	1.009	2	836	44710	2
Mn	55	49.296	ug/L	0.306	0	386	605739	0
Co	59	48.649	ug/L	1.052	2	61	433578	1
[> Ge	72		ug/L			228607	221095 ✓	0
Ni	60	47.216	ug/L	0.474	1	47	89645	0
Ni	62	47.491	ug/L	0.265	0	56	13395	0
Cu	63	47.711	ug/L	0.564	1	178	196698	0
Cu	65	46.990	ug/L	0.329	0	90	91852	0
Zn	66	50.028	ug/L	0.518	1	229	63263	0
Zn	67	49.201	ug/L	0.584	1	104	10511	1
Zn	68	49.009	ug/L	0.552	1	4281	47555	0
As	75	49.458	ug/L	0.598	1	352	62687	0
As-1	75	49.294	ug/L	0.842	1	5658	66135	1
Se	82	50.266	ug/L	0.297	0	0	6898	0
Se	78	49.914	ug/L	1.451	2	5765	21514	1
[ Mo	98	47.814	ug/L	0.920	1	135	221177	2
Y	89		ug/L			218720	207590	0
Kr	83		ug/L			189	220	5
[> In	115		ug/L			230726	223156 ✓	1
Ag	107	48.812	ug/L	0.981	2	39	355277	0
Cd	111	50.285	ug/L	0.695	1	121	92919	0
Cd	114	49.602	ug/L	0.327	0	20	209678	1
Sb	121	49.978	ug/L	1.214	2	20	320627	1
Sb	123	50.048	ug/L	0.709	1	20	244178	1
Ba	135	50.833	ug/L	1.150	2	18	78164	0
Ba	137	51.640	ug/L	0.766	1	25	137088	0
[> Tb	159		ug/L			290754	284713 ✓	1
Tl	205	49.059	ug/L	0.961	1	29	983265	0
Pb	208	50.694	ug/L	1.037	2	225	1355281	1
Bi	209		ug/L			234649	232448	0
Th	232	48.706	ug/L	1.638	3	71	1768333	2
[ U	238	47.964	ug/L	1.776	3	12	1782501	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB10

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 19:01:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			320083	340457 ✓	1
[	Be	9	0.038	ug/L	0.014	37	32	51	13
	C	13		mg/L			5382	4521	2
	Cl	37		mg/L			1968149	2234332	0
[>	Sc	45		ug/L			212115	200958 ✓	1
	V	51	0.001	ug/L	0.004	335	1289	1233	4
	V-1	51	-0.033	ug/L	0.007	20	2538	2111	3
	Cr	52	-0.031	ug/L	0.009	28	3869	3437	0
	Cr	53	-0.140	ug/L	0.031	22	836	669	3
	Mn	55	0.036	ug/L	0.003	9	386	803	3
	Co	59	0.003	ug/L	0.001	46	61	84	14
[>	Ge	72		ug/L			228607	216377 ✓	0
	Ni	60	0.007	ug/L	0.004	53	47	57	12
	Ni	62	0.047	ug/L	0.058	123	56	66	24
	Cu	63	-0.003	ug/L	0.002	84	178	158	5
	Cu	65	0.015	ug/L	0.009	58	90	114	14
	Zn	66	0.011	ug/L	0.013	121	229	230	7
	Zn	67	-0.017	ug/L	0.028	159	104	95	6
	Zn	68	-0.329	ug/L	0.080	24	4281	3766	2
	As	75	0.056	ug/L	0.014	25	352	402	3
	As-1	75	-0.042	ug/L	0.029	68	5658	5304	0
	Se	82	-0.068	ug/L	0.097	142	0	-9	132
	Se	78	-0.181	ug/L	0.120	66	5765	5400	0
[	Mo	98	-0.009	ug/L	0.005	57	135	87	25
	Y	89		ug/L			218720	206119	1
	Kr	83		ug/L			189	213	5
[>	In	115		ug/L			230726	220421 ✓	1
	Ag	107	0.010	ug/L	0.002	24	39	109	16
	Cd	111	0.009	ug/L	0.001	15	121	132	0
	Cd	114	0.002	ug/L	0.002	87	20	29	27
	Sb	121	0.124	ug/L	0.029	23	20	802	23
	Sb	123	0.120	ug/L	0.030	25	20	598	24
	Ba	135	0.009	ug/L	0.003	31	18	32	13
[	Ba	137	0.012	ug/L	0.002	18	25	56	11
[>	Tb	159		ug/L			290754	279531 ✓	1
	Tl	205	0.006	ug/L	0.002	32	29	148	26
	Pb	208	0.006	ug/L	0.003	46	225	366	18
	Bi	209		ug/L			234649	229258	0
	Th	232	0.051	ug/L	0.016	30	71	1895	28
[	U	238	0.003	ug/L	0.001	40	12	136	36



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 O SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 19:06:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	352581 ✓	2
[ Be	9	0.325	ug/L	0.040	12	32	179	8
C	13		mg/L			5382	6116	2
Cl	37		mg/L			1968149	2197556	0
[> Sc	45		ug/L			212115	222615 ✓	0
V	51	20.341	ug/L	0.290	1	1289	197005	1
V-1	51	20.147	ug/L	0.194	0	2538	199084	1
Cr	52	11.119	ug/L	0.348	3	3869	95862	3
Cr	53	10.893	ug/L	0.265	2	836	11497	2
Mn	55	214.301	ug/L	0.967	0	386	2892960	0
[ Co	59	3.493	ug/L	0.007	0	61	34275	0
[> Ge	72		ug/L			228607	221392 ✓	0
Ni	60	6.666	ug/L	0.075	1	47	12713	1
Ni	62	7.589	ug/L	0.029	0	56	2189	0
Cu	63	5.156	ug/L	0.055	1	178	21438	1
Cu	65	5.186	ug/L	0.098	1	90	10228	1
Zn	66	37.538	ug/L	0.487	1	229	47588	1
Zn	67	37.607	ug/L	0.337	0	104	8068	0
Zn	68	37.935	ug/L	0.232	0	4281	37796	0
As	75	4.271	ug/L	0.064	1	352	5732	1
As-1	75	4.039	ug/L	0.062	1	5658	10456	0
Se	82	u -0.008	ug/L	0.075	928	0	-1	573
Se	78	-0.930	ug/L	0.171	18	5765	5285	0
[ Mo	98	0.117	ug/L	0.005	4	135	671	3
Y	89		ug/L			218720	299328	0
Kr	83		ug/L			189	230	5
[> In	115		ug/L			230726	224474 ✓	1
Ag	107	u 0.030	ug/L	0.002	5	39	260	4
Cd	111	0.131	ug/L	0.013	10	121	360	5
Cd	114	0.045	ug/L	0.003	6	20	212	5
Sb	121	u 0.045	ug/L	0.002	4	20	311	5
Sb	123	0.044	ug/L	0.004	9	20	236	8
Ba	135	64.590	ug/L	0.055	0	18	99927	1
[ Ba	137	64.364	ug/L	0.318	0	25	171902	1
[> Tb	159		ug/L			290754	294613 ✓	0
Tl	205	0.049	ug/L	0.001	2	29	1038	2
Pb	208	7.436	ug/L	0.019	0	225	205929	0
Bi	209		ug/L			234649	240348	1
Th	232	2.247	ug/L	0.037	1	71	84500	1
[ U	238	0.322	ug/L	0.004	1	12	12402	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 P SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 19:12:46

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	339936 ✓	1
[ Be	9	0.466	ug/L	0.013	2	32	233	3
C	13		mg/L			5382	5818	1
Cl	37		mg/L			1968149	2194380	0
[> Sc	45		ug/L			212115	227405 ✓	1
V	51	25.710	ug/L	0.413	1	1289	253963	0
V-1	51	25.437	ug/L	0.390	1	2538	256024	0
Cr	52	5.216	ug/L	0.018	0	3869	48137	0
Cr	53	5.223	ug/L	0.049	0	836	6098	1
Mn	55	304.638	ug/L	1.758	0	386	4200582	0
[ Co	59	4.974	ug/L	0.092	1	61	49834	2
[> Ge	72		ug/L			228607	217496 ✓	2
Ni	60	5.487	ug/L	0.178	3	47	10284	1
Ni	62	5.646	ug/L	0.160	2	56	1613	0
Cu	63	4.268	ug/L	0.061	1	178	17463	1
Cu	65	4.236	ug/L	0.050	1	90	8224	3
Zn	66	50.605	ug/L	1.208	2	229	62929	0
Zn	67	50.629	ug/L	0.609	1	104	10636	2
Zn	68	50.933	ug/L	0.656	1	4281	48454	1
As	75	4.806	ug/L	0.087	1	352	6293	0
As-1	75	4.688	ug/L	0.119	2	5658	11056	0
Se	82	u -0.050	ug/L	0.045	90	0	-7	83
Se	78	-0.486	ug/L	0.163	33	5765	5331	1
[ Mo	98	0.038	ug/L	0.003	7	135	301	2
Y	89		ug/L			218720	381640	0
Kr	83		ug/L			189	238	0
[> In	115		ug/L			230726	219000 ✓	0
Ag	107	u 0.027	ug/L	0.004	14	39	233	13
Cd	111	0.165	ug/L	0.012	7	121	414	4
Cd	114	0.047	ug/L	0.004	8	20	216	7
Sb	121	u 0.023	ug/L	0.002	7	20	162	6
Sb	123	0.024	ug/L	0.001	3	20	133	4
Ba	135	73.584	ug/L	1.134	1	18	111057	1
[ Ba	137	74.334	ug/L	0.072	0	25	193685	1
[> Tb	159		ug/L			290754	288658 ✓	0
Tl	205	0.037	ug/L	0.001	3	29	772	3
Pb	208	8.898	ug/L	0.087	0	225	241375	0
Bi	209		ug/L			234649	228734	1
Th	232	2.329	ug/L	0.028	1	71	85819	1
[ U	238	0.274	ug/L	0.012	4	12	10323	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 Q SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 19:18:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No V, C

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	335584 ✓	2
[ Be	9	0.559	ug/L	0.058	10	32	269	7
C	13		mg/L			5382	5542	2
Cl	37		mg/L			1968149	2256392	0
[> Sc	45		ug/L			212115	263909	1
V	51	40.632	ug/L	0.246	0	1289	464899	0
V-1	51	40.311	ug/L	0.290	0	2538	469044	0
Cr	52	15.072	ug/L	0.121	0	3869	152339	1
Cr	53	15.143	ug/L	0.168	1	836	18539	0
Mn	55	396.179	ug/L	1.127	0	386	6339767	0
[ Co	59	8.545	ug/L	0.037	0	61	99305	1
[> Ge	72		ug/L			228607	218265 ✓	1
Ni	60	19.801	ug/L	0.283	1	47	37141	1
Ni	62	23.283	ug/L	0.266	1	56	6510	0
Cu	63	17.359	ug/L	0.168	0	178	70761	1
Cu	65	17.533	ug/L	0.183	1	90	33889	2
Zn	66	67.812	ug/L	0.307	0	229	84579	1
Zn	67	67.426	ug/L	0.915	1	104	14184	2
Zn	68	67.457	ug/L	0.621	0	4281	63076	0
As	75	5.806	ug/L	0.093	1	352	7561	0
As-1	75	5.812	ug/L	0.115	1	5658	12462	0
Se	82	u 0.061	ug/L	0.071	117	0	7	128
Se	78	-0.036	ug/L	0.103	285	5765	5492	0
[ Mo	98	0.066	ug/L	0.009	14	135	430	9
Y	89		ug/L			218720	391671	1
Kr	83		ug/L			189	233	3
[> In	115		ug/L			230726	219496 ✓	1
Ag	107	u 0.061	ug/L	0.003	4	39	471	3
Cd	111	0.462	ug/L	0.031	6	121	954	6
Cd	114	0.110	ug/L	0.007	6	20	475	7
Sb	121	u 0.015	ug/L	0.001	9	20	112	8
Sb	123	0.015	ug/L	0.003	21	20	90	18
Ba	135	91.288	ug/L	0.302	0	18	138093	1
[ Ba	137	92.597	ug/L	0.923	0	25	241795	0
[> Tb	159		ug/L			290754	290335 ✓	0
Ti	205	0.155	ug/L	0.003	1	29	3201	1
Pb	208	12.626	ug/L	0.193	1	225	344429	1
Bi	209		ug/L			234649	229584	1
Th	232	2.433	ug/L	0.057	2	71	90168	2
[ U	238	0.498	ug/L	0.009	1	12	18879	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 R SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 19:24:41

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No V, Cr

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	339113 ✓	0
[ Be	9	0.553	ug/L	0.046	8	32	270	6
C	13		mg/L			5382	6170	2
Cl	37		mg/L			1968149	2215364	0
[> Sc	45		ug/L			212115	267618	1
V	51	43.612	ug/L	0.734	1	1289	505835	0
V-1	51	43.168	ug/L	0.724	1	2538	509065	0
Cr	52	12.890	ug/L	0.192	1	3869	132805	0
Cr	53	12.787	ug/L	0.197	1	836	16039	1
Mn	55	399.415	ug/L	2.105	0	386	6481287	1
[ Co	59	8.477	ug/L	0.196	2	61	99881	1
[> Ge	72		ug/L			228607	219561 ✓	0
Ni	60	13.713	ug/L	0.258	1	47	25889	2
Ni	62	18.318	ug/L	0.394	2	56	5164	2
Cu	63	14.977	ug/L	0.241	1	178	61436	1
Cu	65	15.251	ug/L	0.209	1	90	29662	1
Zn	66	58.265	ug/L	0.098	0	229	73132	0
Zn	67	59.983	ug/L	0.809	1	104	12703	1
Zn	68	59.066	ug/L	0.268	0	4281	56074	0
As	75	3.360	ug/L	0.032	0	352	4545	1
As-1	75	3.234	ug/L	0.052	1	5658	9386	1
Se	82	u -0.079	ug/L	0.041	51	0	-11	48
Se	78	-0.351	ug/L	0.079	22	5765	5425	0
[ Mo	98	0.076	ug/L	0.002	2	135	478	1
Y	89		ug/L			218720	409555	1
Kr	83		ug/L			189	249	4
[> In	115		ug/L			230726	218166 ✓	1
Ag	107	u 0.102	ug/L	0.002	2	39	766	3
Cd	111	0.619	ug/L	0.027	4	121	1232	2
Cd	114	0.085	ug/L	0.003	3	20	370	3
Sb	121	u 0.014	ug/L	0.002	12	20	107	9
Sb	123	0.012	ug/L	0.002	13	20	77	9
Ba	135	127.041	ug/L	1.164	0	18	190996	1
[ Ba	137	128.235	ug/L	3.141	2	25	332767	1
[> Tb	159		ug/L			290754	290962 ✓	2
Tl	205	0.096	ug/L	0.002	2	29	2005	0
Pb	208	6.708	ug/L	0.156	2	225	183432	1
Bi	209		ug/L			234649	229934	0
Th	232	2.976	ug/L	0.041	1	71	110486	0
[ U	238	0.411	ug/L	0.011	2	12	15612	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 S SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 19:30:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	342922 ✓	0
[ Be	9	0.566	ug/L	0.011	2	32	278	1
C	13		mg/L			5382	6651	0
Cl	37		mg/L			1968149	2201538	0
> Sc	45		ug/L			212115	240981 ✓	1
V	51	32.892	ug/L	0.191	0	1289	343935	1
V-1	51	32.543	ug/L	0.075	0	2538	346330	1
Cr	52	9.458	ug/L	0.129	1	3869	88918	0
Cr	53	9.347	ug/L	0.344	3	836	10813	3
Mn	55	343.482	ug/L	4.288	1	386	5018676	0
[ Co	59	6.963	ug/L	0.093	1	61	73897	0
> Ge	72		ug/L			228607	220348 ✓	0
Ni	60	7.576	ug/L	0.073	0	47	14374	0
Ni	62	7.834	ug/L	0.127	1	56	2247	2
Cu	63	7.298	ug/L	0.184	2	178	30132	2
Cu	65	7.336	ug/L	0.118	1	90	14366	2
Zn	66	58.638	ug/L	0.466	0	229	73867	1
Zn	67	58.691	ug/L	0.126	0	104	12476	0
Zn	68	59.738	ug/L	1.347	2	4281	56868	2
As	75	2.683	ug/L	0.029	1	352	3709	0
As-1	75	2.538	ug/L	0.119	4	5658	8566	1
Se	82	u -0.003	ug/L	0.061	2359	0	-1	811
Se	78	-0.362	ug/L	0.379	104	5765	5441	1
Mo	98	0.064	ug/L	0.005	7	135	425	4
Y	89		ug/L			218720	352351	1
Kr	83		ug/L			189	238	0
> In	115		ug/L			230726	223187 ✓	0
Ag	107	u 0.042	ug/L	0.004	9	39	342	8
Cd	111	0.175	ug/L	0.011	6	121	440	4
Cd	114	0.056	ug/L	0.001	1	20	255	1
Sb	121	u 0.007	ug/L	0.001	12	20	67	8
Sb	123	0.008	ug/L	0.001	11	20	60	8
Ba	135	105.526	ug/L	1.074	1	18	162319	1
Ba	137	106.511	ug/L	0.775	0	25	282809	0
> Tb	159		ug/L			290754	293241 ✓	0
Tl	205	0.048	ug/L	0.003	6	29	1026	6
Pb	208	9.684	ug/L	0.124	1	225	266863	0
Bi	209		ug/L			234649	233423	1
Th	232	1.481	ug/L	0.016	1	71	55478	1
U	238	0.208	ug/L	0.002	0	12	7971	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 T SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 19:36:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	348650 ✓	1
[ Be	9	0.511	ug/L	0.022	4	32	259	4
C	13		mg/L			5382	6733	1
Cl	37		mg/L			1968149	2191909	0
[> Sc	45		ug/L			212115	246353 ✓	1
V	51	32.356	ug/L	0.264	0	1289	345870	1
V-1	51	32.080	ug/L	0.187	0	2538	349041	1
Cr	52	14.932	ug/L	0.144	0	3869	140913	0
Cr	53	14.799	ug/L	0.185	1	836	16937	2
Mn	55	380.547	ug/L	5.549	1	386	5683711	0
Co	59	6.579	ug/L	0.139	2	61	71364	0
[> Ge	72		ug/L			228607	222351 ✓	1
Ni	60	14.063	ug/L	0.170	1	47	26883	0
Ni	62	21.673	ug/L	0.416	1	56	6178	2
Cu	63	13.926	ug/L	0.222	1	178	57859	1
Cu	65	14.204	ug/L	0.107	0	90	27981	0
Zn	66	51.288	ug/L	0.394	0	229	65216	0
Zn	67	52.473	ug/L	1.150	2	104	11264	0
Zn	68	52.038	ug/L	0.726	1	4281	50517	0
As	75	6.548	ug/L	0.037	0	352	8644	1
As-1	75	6.345	ug/L	0.049	0	5658	13356	1
Se	82	↘ -0.024	ug/L	0.081	333	0	-4	275
Se	78	-0.905	ug/L	0.146	16	5765	5316	1
[ Mo	98	0.139	ug/L	0.002	1	135	779	2
Y	89		ug/L			218720	379036	1
Kr	83		ug/L			189	249	0
[> In	115		ug/L			230726	222865 ✓	1
Ag	107	0.210	ug/L	0.007	3	39	1561	2
Cd	111	0.781	ug/L	0.037	4	121	1556	3
Cd	114	0.088	ug/L	0.001	0	20	390	1
Sb	121	↘ 0.025	ug/L	0.005	19	20	180	17
Sb	123	0.026	ug/L	0.004	14	20	146	13
Ba	135	138.438	ug/L	3.864	2	18	212580	1
[ Ba	137	138.050	ug/L	2.072	1	25	365988	0
[> Tl	159		ug/L			290754	295157 ✓	0
Tl	205	0.123	ug/L	0.003	2	29	2594	2
Pb	208	6.846	ug/L	0.065	0	225	189955	1
Bi	209		ug/L			234649	236048	0
Th	232	3.062	ug/L	0.036	1	71	115355	1
[ U	238	0.620	ug/L	0.002	0	12	23905	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 U SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 19:42:32

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	345399 ✓	0
[ Be	9	0.393	ug/L	0.016	4	32	205	2
C	13		mg/L			5382	6470	0
Cl	37		mg/L			1968149	2188191	0
[> Sc	45		ug/L			212115	220425 ✓	0
V	51	19.542	ug/L	0.223	1	1289	187459	1
V-1	51	19.343	ug/L	0.184	0	2538	189374	1
Cr	52	7.381	ug/L	0.049	0	3869	64365	1
Cr	53	7.270	ug/L	0.149	2	836	7885	1
Mn	55	308.811	ug/L	5.321	1	386	4127298	1
[ Co	59	5.006	ug/L	0.085	1	61	48609	0
[> Ge	72		ug/L			228607	217319 ✓	0
Ni	60	5.657	ug/L	0.149	2	47	10595	2
Ni	62	6.001	ug/L	0.229	3	56	1710	3
Cu	63	7.213	ug/L	0.049	0	178	29374	0
Cu	65	7.184	ug/L	0.136	1	90	13875	1
Zn	66	48.753	ug/L	0.389	0	229	60603	0
Zn	67	48.385	ug/L	0.486	1	104	10161	0
Zn	68	49.764	ug/L	0.817	1	4281	47398	1
As	75	49.827	ug/L	0.332	0	352	62075	0
As-1	75	50.778	ug/L	0.306	0	5658	66802	0
Se	82	∩ -0.023	ug/L	0.091	398	0	-3	328
Se	78	-0.583	ug/L	0.266	45	5765	5297	1
[ Mo	98	0.117	ug/L	0.008	6	135	660	5
Y	89		ug/L			218720	306415	1
Kr	83		ug/L			189	235	2
[> In	115		ug/L			230726	219941 ✓	0
Ag	107	∩ 0.175	ug/L	0.005	2	39	1294	2
Cd	111	0.356	ug/L	0.020	5	121	762	5
Cd	114	0.078	ug/L	0.003	4	20	344	3
Sb	121	∩ 0.035	ug/L	0.002	5	20	243	5
Sb	123	0.035	ug/L	0.005	15	20	185	13
Ba	135	110.800	ug/L	1.218	1	18	167950	1
[ Ba	137	110.317	ug/L	1.389	1	25	288663	1
[> Tb	159		ug/L			290754	289918 ✓	2
Tl	205	0.083	ug/L	0.004	4	29	1717	3
Pb	208	7.157	ug/L	0.082	1	225	195027	1
Bi	209		ug/L			234649	229680	1
Th	232	1.829	ug/L	0.057	3	71	67669	1
[ U	238	0.352	ug/L	0.006	1	12	13322	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 V SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 19:48:29

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	336757 ✓	2
[ Be	9	0.241	ug/L	0.016	6	32	136	6
C	13		mg/L			5382	5362	3
Cl	37		mg/L			1968149	2174538	0
[> Sc	45		ug/L			212115	250926 ✓	0
V	51	23.600	ug/L	0.259	1	1289	257378	0
V-1	51	23.314	ug/L	0.231	0	2538	259193	0
Cr	52	8.170	ug/L	0.236	2	3869	80600	2
Cr	53	7.917	ug/L	0.147	1	836	9688	0
Mn	55	431.389	ug/L	7.121	1	386	6563044	0
[ Co	59	5.390	ug/L	0.047	0	61	59586	0
[> Ge	72		ug/L			228607	216454 ✓	0
Ni	60	5.563	ug/L	0.091	1	47	10382	2
Ni	62	5.502	ug/L	0.201	3	56	1566	4
Cu	63	8.640	ug/L	0.027	0	178	35010	1
Cu	65	8.577	ug/L	0.077	0	90	16484	1
Zn	66	41.993	ug/L	0.414	0	229	52024	1
Zn	67	43.612	ug/L	0.815	1	104	9132	1
Zn	68	44.380	ug/L	0.506	1	4281	42541	0
As	75	4.371	ug/L	0.038	0	352	5728	0
As-1	75	4.304	ug/L	0.035	0	5658	10542	0
Se	82	✓ -0.120	ug/L	0.102	85	0	-16	83
Se	78	-0.182	ug/L	0.030	16	5765	5401	0
[ Mo	98	-0.003	ug/L	0.002	44	135	112	6
Y	89		ug/L			218720	465664	1
Kr	83		ug/L			189	255	3
[> In	115		ug/L			230726	216824 ✓	1
Ag	107	✓ 0.093	ug/L	0.007	7	39	694	6
Cd	111	0.489	ug/L	0.066	13	121	989	10
Cd	114	0.063	ug/L	0.002	3	20	277	3
Sb	121	✓ 0.007	ug/L	0.002	23	20	65	15
Sb	123	0.006	ug/L	0.003	46	20	45	28
Ba	135	131.992	ug/L	3.489	2	18	197159	0
[ Ba	137	133.595	ug/L	2.914	2	25	344518	0
[> Tb	159		ug/L			290754	292128 ✓	0
Tl	205	0.031	ug/L	0.001	2	29	675	2
Pb	208	12.669	ug/L	0.104	0	225	347737	1
Bi	209		ug/L			234649	231556	1
Th	232	2.475	ug/L	0.039	1	71	92297	1
[ U	238	0.516	ug/L	0.009	1	12	19708	2



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 W SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 19:54:26

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	349991 ✓	0
[ Be	9	0.347	ug/L	0.031	8	32	188	7
C	13		mg/L			5382	5692	1
Cl	37		mg/L			1968149	2177659	0
[> Sc	45		ug/L			212115	250033 ✓	0
V	51	22.829	ug/L	0.131	0	1289	248139	0
V-1	51	22.598	ug/L	0.105	0	2538	250441	0
Cr	52	9.881	ug/L	0.022	0	3869	96193	0
Cr	53	9.699	ug/L	0.185	1	836	11606	1
Mn	55	468.453	ug/L	3.768	0	386	7102193	0
[ Co	59	5.232	ug/L	0.044	0	61	57630	0
[> Ge	72		ug/L			228607	225540 ✓	0
Ni	60	7.858	ug/L	0.183	2	47	15258	1
Ni	62	10.206	ug/L	0.175	1	56	2980	2
Cu	63	11.922	ug/L	0.126	1	178	50269	0
Cu	65	11.852	ug/L	0.059	0	90	23700	0
Zn	66	52.631	ug/L	0.383	0	229	67883	1
Zn	67	52.687	ug/L	1.016	1	104	11473	1
Zn	68	53.191	ug/L	0.089	0	4281	52291	0
As	75	5.187	ug/L	0.041	0	352	7018	0
As-1	75	4.923	ug/L	0.106	2	5658	11762	0
Se	82	✓ -0.075	ug/L	0.127	169	0	-11	159
Se	78	-1.052	ug/L	0.347	32	5765	5344	1
[ Mo	98	0.089	ug/L	0.010	11	135	552	9
Y	89		ug/L			218720	386580	1
Kr	83		ug/L			189	255	4
[> In	115		ug/L			230726	224897 ✓	0
Ag	107	✓ 0.143	ug/L	0.005	3	39	1085	2
Cd	111	0.806	ug/L	0.028	3	121	1616	2
Cd	114	0.128	ug/L	0.012	9	20	566	9
Sb	121	✓ 0.009	ug/L	0.000	5	20	76	4
Sb	123	0.007	ug/L	0.001	19	20	55	13
Ba	135	146.049	ug/L	2.440	1	18	226337	0
[ Ba	137	147.529	ug/L	1.691	1	25	394703	0
[> Tb	159		ug/L			290754	294204 ✓	1
Tl	205	0.080	ug/L	0.001	1	29	1678	2
Pb	208	8.185	ug/L	0.082	1	225	226331	0
Bi	209		ug/L			234649	236511	1
Th	232	2.085	ug/L	0.035	1	71	78321	0
[ U	238	0.343	ug/L	0.006	1	12	13174	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV11

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 20:00:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	336370 ✓	1
[ Be	9	45.304	ug/L	0.716	1	32	19140	0
C	13		mg/L			5382	3130	0
Cl	37		mg/L			1968149	2212448	0
[> Sc	45		ug/L			212115	200701 ✓	0
V	51	48.791	ug/L	1.214	2	1289	424253	1
V-1	51	48.982	ug/L	0.898	1	2538	432888	0
Cr	52	48.896	ug/L	0.965	1	3869	367588	1
Cr	53	49.502	ug/L	0.612	1	836	44298	1
Mn	55	50.046	ug/L	0.347	0	386	609350	0
Co	59	48.362	ug/L	0.565	1	61	427127	0
[> Ge	72		ug/L			228607	217617 ✓	0
Ni	60	48.157	ug/L	1.040	2	47	89985	1
Ni	62	47.993	ug/L	0.155	0	56	13323	0
Cu	63	48.056	ug/L	0.829	1	178	194987	0
Cu	65	48.039	ug/L	0.652	1	90	92417	0
Zn	66	50.099	ug/L	0.111	0	229	62357	0
Zn	67	49.869	ug/L	1.087	2	104	10483	1
Zn	68	49.413	ug/L	0.603	1	4281	47159	1
As	75	49.724	ug/L	0.324	0	352	62032	0
As-1	75	49.453	ug/L	0.520	1	5658	65289	1
Se	82	50.615	ug/L	0.466	0	0	6836	0
Se	78	49.917	ug/L	0.673	1	5765	21176	0
[ Mo	98	48.580	ug/L	0.346	0	135	221181	1
Y	89		ug/L			218720	208590	1
Kr	83		ug/L			189	224	2
[> In	115		ug/L			230726	219451 ✓	0
Ag	107	49.066	ug/L	0.946	1	39	351263	1
Cd	111	49.428	ug/L	0.754	1	121	89831	1
Cd	114	49.801	ug/L	0.301	0	20	207041	1
Sb	121	50.289	ug/L	0.389	0	20	317340	1
Sb	123	50.451	ug/L	0.135	0	20	242080	0
Ba	135	51.025	ug/L	0.464	0	18	77182	1
[ Ba	137	51.336	ug/L	0.789	1	25	134034	1
[> Tb	159		ug/L			290754	282072 ✓	0
Tl	205	49.286	ug/L	0.759	1	29	978861	1
Pb	208	50.767	ug/L	0.240	0	225	1344791	0
Bi	209		ug/L			234649	229034	0
Th	232	48.493	ug/L	0.855	1	71	1744666	1
[ U	238	48.114	ug/L	0.899	1	12	1771606	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB11

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 20:06:41

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	337395 ✓	0
[ Be	9	0.029	ug/L	0.017	57	32	47	14
C	13		mg/L			5382	4480	5
Cl	37		mg/L			1968149	2232786	0
[> Sc	45		ug/L			212115	199381 ✓	0
V	51	-0.005	ug/L	0.002	37	1289	1165	2
V-1	51	-0.040	ug/L	0.004	9	2538	2033	2
Cr	52	-0.025	ug/L	0.009	37	3869	3449	1
Cr	53	-0.137	ug/L	0.007	5	836	667	1
Mn	55	0.040	ug/L	0.005	12	386	847	6
[ Co	59	0.002	ug/L	0.001	40	61	77	10
[> Ge	72		ug/L			228607	214639 ✓	0
Ni	60	0.008	ug/L	0.001	14	47	59	3
Ni	62	0.080	ug/L	0.064	79	56	74	23
Cu	63	0.001	ug/L	0.003	172	178	173	5
Cu	65	0.003	ug/L	0.006	192	90	91	12
Zn	66	0.016	ug/L	0.011	68	229	235	5
Zn	67	0.019	ug/L	0.016	86	104	102	3
Zn	68	-0.243	ug/L	0.020	8	4281	3810	0
As	75	0.065	ug/L	0.015	23	352	410	4
As-1	75	-0.046	ug/L	0.058	127	5658	5257	1
Se	82	-0.024	ug/L	0.046	193	0	-3	159
Se	78	-0.172	ug/L	0.227	132	5765	5359	1
[ Mo	98	-0.009	ug/L	0.003	36	135	87	16
Y	89		ug/L			218720	204365	1
Kr	83		ug/L			189	213	5
[> In	115		ug/L			230726	220301 ✓	0
Ag	107	0.010	ug/L	0.004	42	39	108	27
Cd	111	0.013	ug/L	0.014	105	121	139	17
Cd	114	0.001	ug/L	0.002	140	20	25	31
Sb	121	0.127	ug/L	0.035	28	20	820	27
Sb	123	0.132	ug/L	0.041	30	20	655	29
Ba	135	0.010	ug/L	0.001	13	18	33	6
Ba	137	0.013	ug/L	0.004	32	25	57	18
[> Tb	159		ug/L			290754	279209 ✓	0
Tl	205	0.006	ug/L	0.001	23	29	140	18
Pb	208	0.006	ug/L	0.002	35	225	362	14
Bi	209		ug/L			234649	227226	2
Th	232	0.050	ug/L	0.019	38	71	1839	36
[ U	238	0.003	ug/L	0.001	43	12	119	38

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 K SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Friday, March 01, 2013 20:12:08

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

C-1 ✓

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	345174 ✓	1
[ Be	9	0.055	ug/L	0.027	48	32	59	18
C	13		mg/L			5382	4020	2
Cl	37		mg/L			1968149	2237949	0
[> Sc	45		ug/L			212115	211306 ✓	1
V	51	6.914	ug/L	0.008	0	1289	64411	1
V-1	51	6.814	ug/L	0.039	0	2538	65590	1
Cr	52	1.679	ug/L	0.025	1	3869	17013	0
Cr	53	1.585	ug/L	0.109	6	836	2299	3
Mn	55	2.856	ug/L	0.072	2	386	36971	1
[ Co	59	0.092	ug/L	0.002	2	61	920	3
[> Ge	72		ug/L			228607	209569 ✓	1
Ni	60	0.071	ug/L	0.000	0	47	172	1
Ni	62	0.151	ug/L	0.011	7	56	91	2
Cu	63	1.780	ug/L	0.042	2	178	7110	1
Cu	65	1.829	ug/L	0.063	3	90	3468	3
Zn	66	1.383	ug/L	0.015	1	229	1862	1
Zn	67	3.748	ug/L	0.145	3	104	847	3
Zn	68	2.159	ug/L	0.061	2	4281	5736	0
As	75	20.794	ug/L	0.265	1	352	25168	1
As-1	75	21.202	ug/L	0.330	1	5658	29918	1
Se	82	-0.062	ug/L	0.080	129	0	-8	119
Se	78	-0.090	ug/L	0.234	258	5765	5257	1
[ Mo	98	0.027	ug/L	0.005	16	135	243	8
Y	89		ug/L			218720	206130	0
Kr	83		ug/L			189	215	4
[> In	115		ug/L			230726	212961 ✓	0
Ag	107	0.048	ug/L	0.003	6	39	368	6
Cd	111	0.016	ug/L	0.004	27	121	140	4
Cd	114	0.001	ug/L	0.001	54	20	25	12
Sb	121	0.050	ug/L	0.006	11	20	323	11
Sb	123	0.047	ug/L	0.006	12	20	235	11
Ba	135	54.433	ug/L	0.768	1	18	79892	0
[ Ba	137	54.564	ug/L	0.722	1	25	138246	0
[> Tb	159		ug/L			290754	275435 ✓	0
Tl	205	0.061	ug/L	0.004	5	29	1209	5
Pb	208	3.597	ug/L	0.059	1	225	93246	1
Bi	209		ug/L			234649	226231	0
Th	232	0.182	ug/L	0.006	3	71	6454	3
[ U	238	0.012	ug/L	0.001	4	12	451	3

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 L SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Friday, March 01, 2013 20:18:04

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

C.V.

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	346182 ✓	0
[ Be	9	0.050	ug/L	0.020	39	32	57	15
C	13		mg/L			5382	3842	1
Cl	37		mg/L			1968149	2240323	0
[> Sc	45		ug/L			212115	234585 ✓	0
V	51	8.073	ug/L	0.075	0	1289	83250	0
V-1	51	7.942	ug/L	0.084	1	2538	84397	0
Cr	52	0.905	ug/L	0.028	3	3869	12155	1
Cr	53	0.794	ug/L	0.051	6	836	1740	2
Mn	55	7.810	ug/L	0.062	0	386	111507	0
Co	59	0.336	ug/L	0.010	2	61	3533	2
[> Ge	72		ug/L			228607	216511 ✓	0
Ni	60	0.210	ug/L	0.005	2	47	435	1
Ni	62	0.309	ug/L	0.042	13	56	138	8
Cu	63	1.194	ug/L	0.021	1	178	4986	2
Cu	65	1.215	ug/L	0.033	2	90	2409	2
Zn	66	2.304	ug/L	0.035	1	229	3060	1
Zn	67	4.861	ug/L	0.296	6	104	1106	5
Zn	68	3.299	ug/L	0.087	2	4281	6916	0
As	75	29.470	ug/L	0.097	0	352	36714	0
As-1	75	29.910	ug/L	0.157	0	5658	41404	0
Se	82	-0.029	ug/L	0.053	181	0	-4	154
Se	78	-0.794	ug/L	0.225	28	5765	5211	0
[ Mo	98	0.034	ug/L	0.007	21	135	281	12
Y	89		ug/L			218720	218698	0
Kr	83		ug/L			189	216	2
[> In	115		ug/L			230726	220067 ✓	0
Ag	107	0.062	ug/L	0.001	1	39	482	1
Cd	111	0.032	ug/L	0.007	20	121	173	7
Cd	114	0.004	ug/L	0.003	66	20	36	31
Sb	121	0.032	ug/L	0.004	11	20	220	9
Sb	123	0.029	ug/L	0.007	23	20	160	20
Ba	135	66.143	ug/L	1.000	1	18	100315	1
[ Ba	137	66.715	ug/L	0.642	0	25	174675	0
[> Tb	159		ug/L			290754	281835 ✓	0
Tl	205	0.046	ug/L	0.001	2	29	945	2
Pb	208	2.368	ug/L	0.017	0	225	62884	0
Bi	209		ug/L			234649	230412	1
Th	232	0.241	ug/L	0.003	1	71	8750	1
[ U	238	0.024	ug/L	0.001	6	12	876	5

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 M SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Friday, March 01, 2013 20:24:00

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

C, V

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	347070 ✓	0
[ Be	9	0.069	ug/L	0.015	21	32	65	8
C	13		mg/L			5382	3825	1
Cl	37		mg/L			1968149	2256913	0
[> Sc	45		ug/L			212115	219825 ✓	0
V	51	10.574	ug/L	0.223	2	1289	101764	1
V-1	51	10.404	ug/L	0.220	2	2538	102794	1
Cr	52	0.891	ug/L	0.003	0	3869	11273	0
Cr	53	0.765	ug/L	0.045	5	836	1603	2
Mn	55	12.584	ug/L	0.077	0	386	168119	0
[ Co	59	0.358	ug/L	0.009	2	61	3530	2
[> Ge	72		ug/L			228607	219393 ✓	0
Ni	60	0.293	ug/L	0.008	2	47	597	1
Ni	62	0.389	ug/L	0.067	17	56	162	12
Cu	63	1.661	ug/L	0.022	1	178	6958	0
Cu	65	1.727	ug/L	0.018	1	90	3433	1
Zn	66	4.586	ug/L	0.182	3	229	5952	3
Zn	67	6.734	ug/L	0.428	6	104	1514	6
Zn	68	5.238	ug/L	0.094	1	4281	8712	1
As	75	29.465	ug/L	0.138	0	352	37195	0
As-1	75	29.908	ug/L	0.197	0	5658	41953	0
Se	82	-0.041	ug/L	0.040	98	0	-6	86
Se	78	-0.764	ug/L	0.268	35	5765	5290	1
[ Mo	98	0.052	ug/L	0.000	0	135	367	0
Y	89		ug/L			218720	219987	1
Kr	83		ug/L			189	223	1
[> In	115		ug/L			230726	220460 ✓	0
Ag	107	0.060	ug/L	0.003	5	39	470	4
Cd	111	0.035	ug/L	0.007	20	121	178	6
Cd	114	0.004	ug/L	0.001	16	20	36	7
Sb	121	0.022	ug/L	0.001	3	20	157	3
Sb	123	0.022	ug/L	0.004	17	20	124	15
Ba	135	55.414	ug/L	0.929	1	18	84195	1
[ Ba	137	54.981	ug/L	0.787	1	25	144217	1
[> Tb	159		ug/L			290754	279945 ✓	0
Tl	205	0.051	ug/L	0.001	1	29	1024	1
Pb	208	2.569	ug/L	0.009	0	225	67741	0
Bi	209		ug/L			234649	231406	1
Th	232	0.313	ug/L	0.002	0	71	11257	0
[ U	238	0.027	ug/L	0.001	3	12	993	3

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 N SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Friday, March 01, 2013 20:29:58

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

As C ✓

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	344063 ✓	0
[ Be	9	0.109	ug/L	0.021	19	32	82	10
C	13		mg/L			5382	3778	1
Cl	37		mg/L			1968149	2266718	0
[> Sc	45		ug/L			212115	220483 ✓	1
V	51	7.437	ug/L	0.006	0	1289	72185	1
V-1	51	7.330	ug/L	0.016	0	2538	73419	1
Cr	52	1.274	ug/L	0.012	0	3869	14437	0
Cr	53	1.198	ug/L	0.050	4	836	2026	1
Mn	55	40.292	ug/L	0.180	0	386	539052	1
[ Co	59	1.043	ug/L	0.020	1	61	10185	0
[> Ge	72		ug/L			228607	219942 ✓	1
Ni	60	0.666	ug/L	0.028	4	47	1303	3
Ni	62	0.671	ug/L	0.072	10	56	241	8
Cu	63	2.546	ug/L	0.074	2	178	10603	2
Cu	65	2.585	ug/L	0.037	1	90	5109	1
Zn	66	9.827	ug/L	0.078	0	229	12539	1
Zn	67	10.621	ug/L	0.228	2	104	2336	3
Zn	68	10.168	ug/L	0.032	0	4281	13079	0
As	75	166.013	ug/L	1.683	1	352	208510	0
As-1	75	169.846	ug/L	1.804	1	5658	213364	0
Se	82	0.021	ug/L	0.071	337	0	2	430
Se	78	-0.443	ug/L	0.327	73	5765	5405	1
[ Mo	98	0.048	ug/L	0.007	14	135	349	8
Y	89		ug/L			218720	221088	0
Kr	83		ug/L			189	222	3
[> In	115		ug/L			230726	222215 ✓	0
Ag	107	0.150	ug/L	0.003	2	39	1125	1
Cd	111	0.032	ug/L	0.003	10	121	175	3
Cd	114	0.004	ug/L	0.003	59	20	38	28
Sb	121	0.019	ug/L	0.003	13	20	144	11
Sb	123	0.016	ug/L	0.001	4	20	98	3
Ba	135	45.461	ug/L	0.814	1	18	69626	1
[ Ba	137	45.701	ug/L	0.352	0	25	120833	0
[> Tb	159		ug/L			290754	284820 ✓	0
Tl	205	0.048	ug/L	0.001	1	29	992	1
Pb	208	3.433	ug/L	0.051	1	225	92018	0
Bi	209		ug/L			234649	231843	1
Th	232	0.555	ug/L	0.004	0	71	20250	1
[ U	238	0.045	ug/L	0.001	2	12	1689	2

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 O SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Friday, March 01, 2013 20:35:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

CE ✓

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	339720 ✓	1
[ Be	9	0.055	ug/L	0.013	23	32	58	10
C	13		mg/L			5382	3827	2
Cl	37		mg/L			1968149	2277830	0
> Sc	45		ug/L			212115	243806 ✓	1
V	51	8.418	ug/L	0.044	0	1289	90165	1
V-1	51	8.286	ug/L	0.044	0	2538	91396	1
Cr	52	0.830	ug/L	0.034	4	3869	11954	1
Cr	53	0.733	ug/L	0.040	5	836	1744	2
Mn	55	8.162	ug/L	0.231	2	386	121080	1
Co	59	0.267	ug/L	0.006	2	61	2934	0
> Ge	72		ug/L			228607	221622 ✓	1
Ni	60	0.211	ug/L	0.014	6	47	448	6
Ni	62	0.321	ug/L	0.023	7	56	145	5
Cu	63	1.196	ug/L	0.030	2	178	5110	1
Cu	65	1.246	ug/L	0.033	2	90	2526	2
Zn	66	2.202	ug/L	0.041	1	229	3003	2
Zn	67	4.483	ug/L	0.079	1	104	1052	2
Zn	68	2.960	ug/L	0.053	1	4281	6779	1
As	75	37.006	ug/L	0.294	0	352	47102	1
As-1	75	37.651	ug/L	0.349	0	5658	51929	0
Se	82	0.125	ug/L	0.107	86	0	16	89
Se	78	-0.612	ug/L	0.298	48	5765	5392	0
[ Mo	98	0.046	ug/L	0.014	29	135	345	18
Y	89		ug/L			218720	222916	0
Kr	83		ug/L			189	213	4
> In	115		ug/L			230726	220895 ✓	1
Ag	107	0.070	ug/L	0.004	5	39	539	5
Cd	111	0.038	ug/L	0.007	19	121	185	6
Cd	114	0.004	ug/L	0.001	37	20	34	15
Sb	121	0.022	ug/L	0.002	11	20	157	10
Sb	123	0.020	ug/L	0.003	13	20	116	12
Ba	135	64.097	ug/L	1.121	1	18	97575	1
[ Ba	137	64.348	ug/L	0.322	0	25	169114	0
> Tb	159		ug/L			290754	284322 ✓	0
Tl	205	0.058	ug/L	0.001	1	29	1183	2
Pb	208	2.733	ug/L	0.036	1	225	73172	1
Bi	209		ug/L			234649	233780	0
Th	232	0.262	ug/L	0.005	1	71	9555	1
[ U	238	0.023	ug/L	0.001	4	12	850	4



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV12

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 20:41:54

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	334593 ✓	0
[ Be	9	45.411	ug/L	0.674	1	32	19084	0
C	13		mg/L			5382	3160	1
Cl	37		mg/L			1968149	2260925	0
> Sc	45		ug/L			212115	200183 ✓	1
V	51	49.239	ug/L	0.013	0	1289	427095	1
V-1	51	49.156	ug/L	0.387	0	2538	433326	0
Cr	52	48.578	ug/L	0.424	0	3869	364343	1
Cr	53	48.344	ug/L	0.871	1	836	43163	1
Mn	55	49.092	ug/L	0.502	1	386	596188	1
[ Co	59	48.516	ug/L	0.589	1	61	427383	1
> Ge	72		ug/L			228607	216159 ✓	0
Ni	60	47.846	ug/L	0.752	1	47	88814	1
Ni	62	48.688	ug/L	0.189	0	56	13424	0
Cu	63	48.145	ug/L	0.403	0	178	194059	1
Cu	65	48.103	ug/L	0.499	1	90	91926	1
Zn	66	50.195	ug/L	0.574	1	229	62059	1
Zn	67	49.484	ug/L	0.770	1	104	10334	1
Zn	68	49.893	ug/L	0.377	0	4281	47260	0
As	75	49.914	ug/L	0.131	0	352	61851	0
As-1	75	49.940	ug/L	0.191	0	5658	65438	0
Se	82	50.203	ug/L	0.687	1	0	6735	1
Se	78	50.589	ug/L	0.611	1	5765	21245	0
[ Mo	98	48.448	ug/L	0.478	0	135	219100	1
Y	89		ug/L			218720	206177	0
Kr	83		ug/L			189	222	1
> In	115		ug/L			230726	217219 ✓	0
Ag	107	49.084	ug/L	0.145	0	39	347831	0
Cd	111	50.370	ug/L	0.299	0	121	90616	1
Cd	114	49.845	ug/L	0.477	0	20	205107	0
Sb	121	50.672	ug/L	0.982	1	20	316512	2
Sb	123	50.276	ug/L	0.300	0	20	238794	1
Ba	135	51.190	ug/L	0.710	1	18	76636	0
[ Ba	137	51.380	ug/L	0.779	1	25	132785	0
> Tb	159		ug/L			290754	281520 ✓	0
Tl	205	50.109	ug/L	0.989	1	29	993165	1
Pb	208	50.325	ug/L	0.356	0	225	1330467	0
Bi	209		ug/L			234649	224026	1
Th	232	48.134	ug/L	0.323	0	71	1728493	0
[ U	238	47.618	ug/L	0.555	1	12	1750083	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB12

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 20:48:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			320083	330508 ✓	1
[ ] Be	9	0.034	ug/L	0.013	38	32	47	10
[ ] C	13		mg/L			5382	4411	4
[ ] Cl	37		mg/L			1968149	2280065	0
[>] Sc	45		ug/L			212115	198938 ✓	1
[ ] V	51	-0.009	ug/L	0.025	274	1289	1133	19
[ ] V-1	51	-0.035	ug/L	0.010	27	2538	2079	4
[ ] Cr	52	-0.024	ug/L	0.009	37	3869	3452	1
[ ] Cr	53	-0.106	ug/L	0.047	44	836	692	5
[ ] Mn	55	0.018	ug/L	0.004	23	386	575	8
[ ] Co	59	0.004	ug/L	0.002	41	61	94	15
[>] Ge	72		ug/L			228607	215230 ✓	1
[ ] Ni	60	0.004	ug/L	0.006	140	47	52	20
[ ] Ni	62	0.059	ug/L	0.034	57	56	69	14
[ ] Cu	63	0.003	ug/L	0.005	164	178	179	9
[ ] Cu	65	0.001	ug/L	0.004	429	90	87	6
[ ] Zn	66	0.015	ug/L	0.007	48	229	234	4
[ ] Zn	67	-0.051	ug/L	0.070	138	104	87	15
[ ] Zn	68	-0.279	ug/L	0.047	16	4281	3789	1
[ ] As	75	0.080	ug/L	0.018	22	352	430	5
[ ] As-1	75	0.007	ug/L	0.067	903	5658	5335	0
[ ] Se	82	0.039	ug/L	0.048	122	0	4	139
[ ] Se	78	0.024	ug/L	0.251	1056	5765	5434	0
[ ] Mo	98	-0.011	ug/L	0.006	49	135	77	30
[ ] Y	89		ug/L			218720	205897	1
[ ] Kr	83		ug/L			189	211	3
[>] In	115		ug/L			230726	218932 ✓	1
[ ] Ag	107	0.007	ug/L	0.003	38	39	84	20
[ ] Cd	111	0.009	ug/L	0.004	41	121	131	3
[ ] Cd	114	0.000	ug/L	0.001	212	20	21	18
[ ] Sb	121	0.129	ug/L	0.032	24	20	830	23
[ ] Sb	123	0.129	ug/L	0.035	27	20	634	25
[ ] Ba	135	0.008	ug/L	0.005	57	18	30	23
[ ] Ba	137	0.006	ug/L	0.006	96	25	40	38
[>] Tb	159		ug/L			290754	278045 ✓	0
[ ] Tl	205	0.005	ug/L	0.002	39	29	134	30
[ ] Pb	208	0.006	ug/L	0.002	35	225	377	14
[ ] Bi	209		ug/L			234649	226087	1
[ ] Th	232	0.057	ug/L	0.017	30	71	2071	28
[ ] U	238	0.003	ug/L	0.001	36	12	123	32

**Metals Data Review Checklist**

Method: ICP ICP-MS GFA CVA

Analysis Date: 3-4-13

MI (ELAN)	Analyst AA 3-5	Peer BA 3-5-13	Comment
<b>Logbook</b>			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
<b>Calibration</b>			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
<b>Calculateds</b>			
ICV/CCV	✓	✓	see log
ICB/CCB	✓	✓	↓
<b>Samples</b>			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	see log
Carry-over	✓	✓	
<b>Method QC</b>			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
<b>Matrix QC</b>			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	WF WF25 M35
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
<b>Data QC</b>			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analytical Software and QA's	✓	✓	CAF WF25



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 3-4-13

Analyst: FA

Page: 1 of 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		ST00			3019-8
		1			3016-4
		2			3016-5
		3			3019-1
		↓ 4			3016-6
		Rinse Sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			
		LR200			
		LR300			<sup>21</sup> So high
		CCV2			
		CCB2			
		WE81 S	SWN	50	As
		W			
		X			
		WE82 D			
		E			
		F			
		↓ G	↓	↓	↓



Analysis Date: 3-4-13 Analyst: MC Page: 2 of 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		W602 H	SWW	50	As
		↓ Q	↓	↓	CrV
		↓ R	↓	↓	CrV <sub>2</sub>
		CCV3			
		CCB3			end pkg
<del>SWW</del>		WF38 A	SWW	20	
		W603 S			info only from bottle
		↓ U			↓ ↓
		CCV4			
		CCB4			
	✓	WF59 MB	REN	2	214.2 RR
		↓ A	↓	↓	
		↓ B	↓	↓	
		↓ C	↓	↓	
		WF18 ADup	SWW	20	✓
		↓ A	↓	↓	
		↓ ASPK	↓	↓	✓
		↓ R6	↓	50	✓
		WF59 MBSPL	REN	2	✓
		↓ MBSRD	↓	↓	✓
		CCV5			
		CCB5			
		WF18 MB	SWW	20	
		WF25 MB	↓	↓	

~~MC 3-5-13~~

# Daily Performance Report

Sample ID: Sample

Sample Date/Time: Monday, March 04, 2013 08:34:41

Sample Description:

Sample File: 1119.sam

Method File: C:\Elandata\Method\aridailyperf.mth

Dataset File: C:\Elandata\Dataset\daily performance\Sample.1416

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\Default.dac

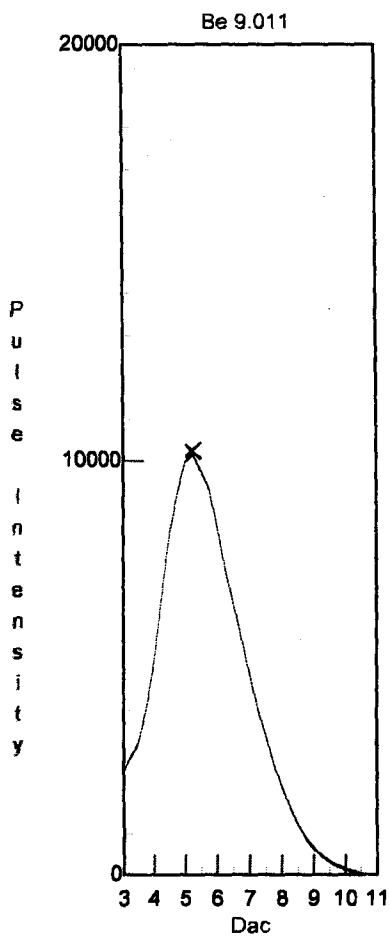
Number of Replicates: 5

Dual Detector Mode: Dual

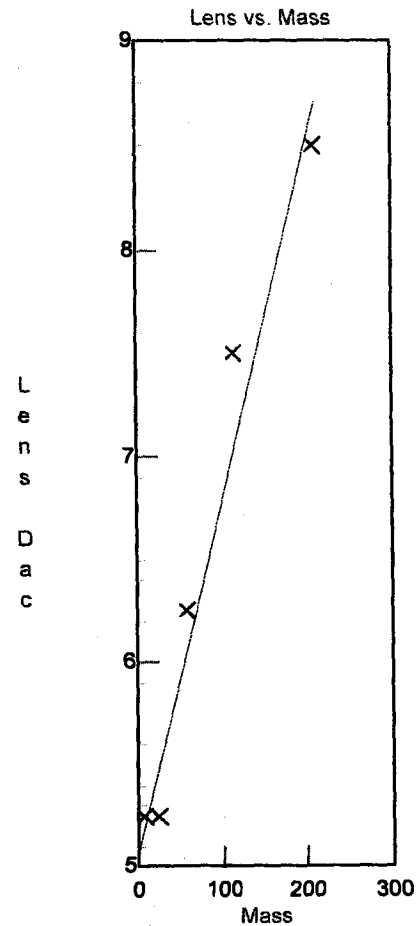
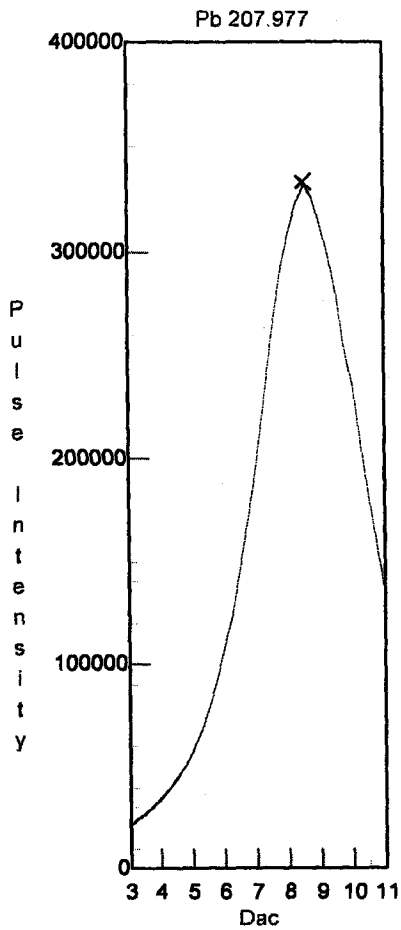
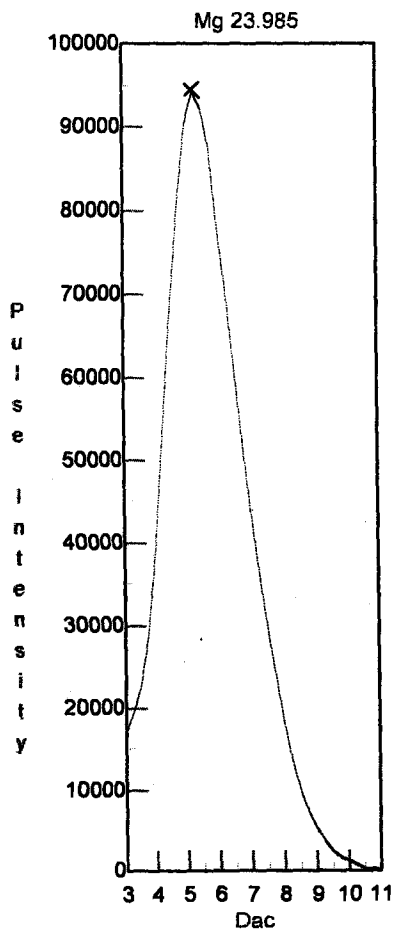
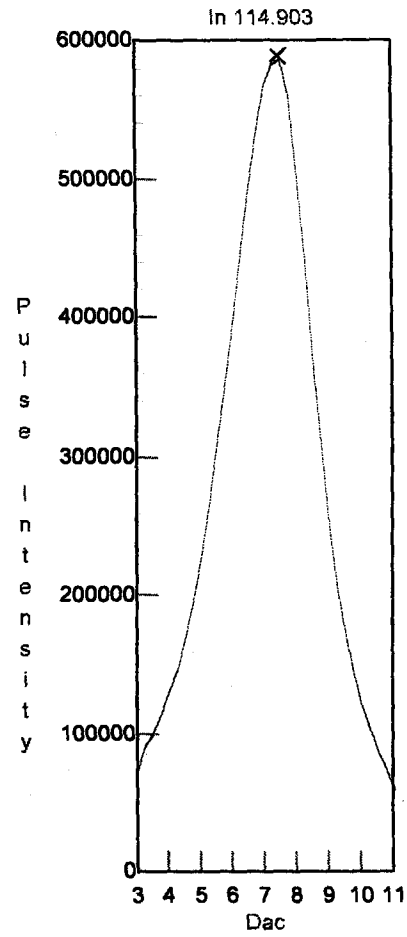
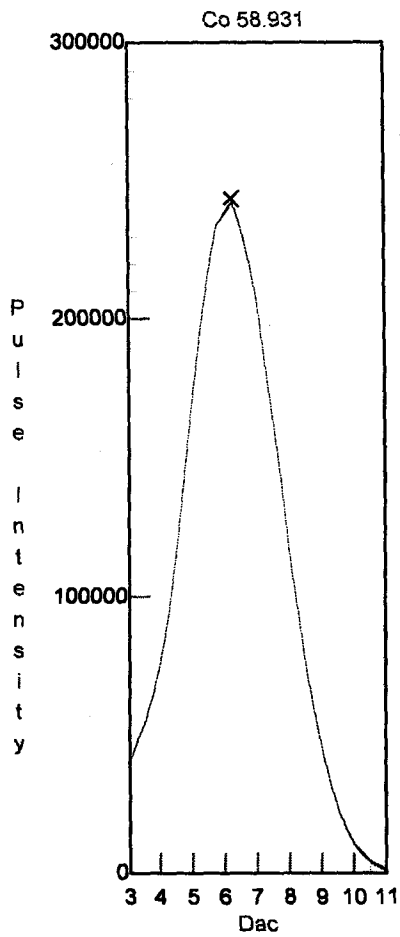
0.92

## Summary

Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Mg	24	43725.044 ✓	836.772	1.914
In	115	310038.253 ✓	1809.152	0.584
Pb	208	184970.190 ✓	2702.538	1.461
[> Ba	138	216663.824	2094.273	0.967
[ Ba++	69	0.014	0.000	2.909
[> Ce	140	265898.952	2011.994	0.757
[ CeO	156	0.029 ✓	0.001	1.899
Bkgd	220	6.251 ✓	1.977	31.623



3-4-53



2

# Instrument Tuning Report

File Name: Default.tun  
File Path: C:\Elandata\Tuning\Default.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.974	2025	2152	0.693	
Mg	23.985	23.979	5652	2262	0.684	
Co	58.933	58.879	14146	2527	0.681	
In	114.904	114.879	27795	2970	0.694	
Pb	207.977	208.027	50450	3720	0.683	



# Instrument Tuning Report

File Name: Default.tun  
File Path: C:\Elandata\Tuning\Default.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.974	2025	2152	0.691	
Mg	23.985	23.979	5652	2262	0.686	
Co	58.933	58.879	14146	2530	0.678	
In	114.904	114.879	27795	2970	0.713	
Pb	207.977	208.027	50450	3725	0.668	

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 09:19:09

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L				328612	1
[ Be	9		ug/L				14	43
C	13		mg/L				3091	2
Cl	37		mg/L				2248348	0
[> Sc	45		ug/L				250576	0
V	51		ug/L				1571	3
V-1	51		ug/L				2441	2
Cr	52		ug/L				4889	2
Cr	53		ug/L				830	3
Mn	55		ug/L				381	18
[ Co	59		ug/L				63	9
[> Ge	72		ug/L				269725	0
Ni	60		ug/L				52	39
Ni	62		ug/L				62	18
Cu	63		ug/L				143	5
Cu	65		ug/L				92	20
Zn	66		ug/L				344	8
Zn	67		ug/L				123	13
Zn	68		ug/L				6370	1
As	75		ug/L				232	9
As-1	75		ug/L				7206	0
Se	82		ug/L				-12	182
Se	78		ug/L				7350	0
[ Mo	98		ug/L				144	9
Y	89		ug/L				257911	0
Kr	83		ug/L				170	5
[> In	115		ug/L				277060	1
Ag	107		ug/L				38	10
Cd	111		ug/L				155	3
Cd	114		ug/L				32	12
Sb	121		ug/L				34	20
Sb	123		ug/L				26	12
Ba	135		ug/L				26	20
[ Ba	137		ug/L				47	6
[> Tb	159		ug/L				323483	1
Tl	205		ug/L				37	23
Pb	208		ug/L				280	23
Bi	209		ug/L				272126	0
Th	232		ug/L				80	7
[ U	238		ug/L				9	67

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 09:24:57

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	324888	1
[ Be	9	10.000	ug/L	0.219	2	14	4645	2
C	13		mg/L			3091	4547	1
Cl	37		mg/L			2248348	2248722	0
[> Sc	45		ug/L			250576	242416	0
V	51	10.000	ug/L	0.135	1	1571	109416	1
V-1	51	10.000	ug/L	0.067	0	2441	112266	0
Cr	52	10.000	ug/L	0.152	1	4889	98011	1
Cr	53	10.000	ug/L	0.074	0	830	11986	0
Mn	55	10.000	ug/L	0.167	1	381	153642	1
[ Co	59	10.000	ug/L	0.111	1	63	113398	0
[> Ge	72		ug/L			269725	263440	0
Ni	60	10.000	ug/L	0.069	0	52	24021	0
Ni	62	10.000	ug/L	0.181	1	62	3597	1
Cu	63	10.000	ug/L	0.105	1	143	53877	1
Cu	65	10.000	ug/L	0.079	0	92	24983	0
Zn	66	10.000	ug/L	0.064	0	344	16528	0
Zn	67	10.000	ug/L	0.135	1	123	2778	1
Zn	68	10.000	ug/L	0.259	2	6370	17777	1
As	75	10.000	ug/L	0.043	0	232	15261	0
As-1	75	10.000	ug/L	0.075	0	7206	22004	0
Se	82	10.000	ug/L	0.229	2	-12	1645	2
Se	78	10.000	ug/L	0.166	1	7350	11307	0
[ Mo	98	10.000	ug/L	0.080	0	144	55100	0
Y	89		ug/L			257911	252763	1
Kr	83		ug/L			170	161	7
[> In	115		ug/L			277060	266527	0
Ag	107	10.000	ug/L	0.122	1	38	89761	0
Cd	111	10.000	ug/L	0.164	1	155	22466	1
Cd	114	10.000	ug/L	0.262	2	32	51588	1
Sb	121	10.000	ug/L	0.104	1	34	74185	0
Sb	123	10.000	ug/L	0.313	3	26	56034	2
Ba	135	10.000	ug/L	0.146	1	26	17763	1
[ Ba	137	10.000	ug/L	0.214	2	47	30593	1
[> Tb	159		ug/L			323483	316239	0
Tl	205	10.000	ug/L	0.143	1	37	229465	1
Pb	208	10.000	ug/L	0.092	0	280	317328	0
Bi	209		ug/L			272126	265428	1
Th	232	10.000	ug/L	0.071	0	80	378956	0
[ U	238	10.000	ug/L	0.143	1	9	420162	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 09:30:46

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> LI	6		ug/L			328612	328496	2
[ Be	9	19.914	ug/L	0.580	2	14	9178	1
C	13		mg/L			3091	4443	2
Cl	37		mg/L			2248348	2270895	0
[> Sc	45		ug/L			250576	246543	1
V	51	19.978	ug/L	0.061	0	1571	219832	0
V-1	51	19.974	ug/L	0.102	0	2441	224500	0
Cr	52	19.980	ug/L	0.205	1	4889	193609	0
Cr	53	19.966	ug/L	0.332	1	830	23370	0
Mn	55	19.900	ug/L	0.336	1	381	304480	0
[ Co	59	19.961	ug/L	0.276	1	63	228369	0
[> Ge	72		ug/L			269725	264768	0
Ni	60	20.008	ug/L	0.355	1	52	48325	0
Ni	62	19.981	ug/L	0.051	0	62	7135	0
Cu	63	19.913	ug/L	0.365	1	143	105833	0
Cu	65	19.939	ug/L	0.134	0	92	49371	0
Zn	66	19.843	ug/L	0.082	0	344	31643	0
Zn	67	19.962	ug/L	0.556	2	123	5412	1
Zn	68	19.737	ug/L	0.035	0	6370	28027	0
As	75	20.015	ug/L	0.210	1	232	30560	0
As-1	75	19.980	ug/L	0.270	1	7206	37006	0
Se	82	20.015	ug/L	0.083	0	-12	3331	0
Se	78	19.894	ug/L	0.330	1	7350	15298	0
[ Mo	98	20.002	ug/L	0.266	1	144	110660	0
Y	89		ug/L			257911	250642	0
Kr	83		ug/L			170	163	4
[> In	115		ug/L			277060	269951	1
Ag	107	19.979	ug/L	0.342	1	38	180839	0
Cd	111	19.993	ug/L	0.351	1	155	45274	1
Cd	114	19.946	ug/L	0.104	0	32	103075	0
Sb	121	19.973	ug/L	0.103	0	34	149251	1
Sb	123	19.975	ug/L	0.057	0	26	112797	1
Ba	135	19.989	ug/L	0.246	1	26	35860	0
[ Ba	137	20.002	ug/L	0.231	1	47	61954	0
[> Tb	159		ug/L			323483	316449	1
Tl	205	19.972	ug/L	0.584	2	37	455824	1
Pb	208	20.014	ug/L	0.427	2	280	636863	0
Bi	209		ug/L			272126	262254	0
Th	232	19.964	ug/L	0.336	1	80	751531	0
[ U	238	19.958	ug/L	0.482	2	9	832041	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 09:36:34

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	324553	0
[ Be	9	50.186	ug/L	0.570	1	14	23272	1
C	13		mg/L			3091	4063	2
Cl	37		mg/L			2248348	2301441	0
[> Sc	45		ug/L			250576	247791	1
V	51	49.970	ug/L	0.658	1	1571	548631	0
V-1	51	49.965	ug/L	0.744	1	2441	558801	0
Cr	52	49.869	ug/L	0.625	1	4889	472343	1
Cr	53	49.857	ug/L	0.958	1	830	56626	0
Mn	55	49.802	ug/L	0.784	1	381	750492	1
Co	59	49.904	ug/L	0.414	0	63	568265	0
[> Ge	72		ug/L			269725	265708	0
Ni	60	49.885	ug/L	0.833	1	52	119480	1
Ni	62	49.961	ug/L	0.204	0	62	17741	0
Cu	63	49.908	ug/L	0.259	0	143	263573	0
Cu	65	49.901	ug/L	0.528	1	92	122656	1
Zn	66	49.783	ug/L	0.360	0	344	77488	0
Zn	67	49.780	ug/L	0.136	0	123	13079	0
Zn	68	49.849	ug/L	0.207	0	6370	60641	0
As	75	50.033	ug/L	0.052	0	232	76576	0
As-1	75	49.964	ug/L	0.139	0	7206	81956	0
Se	82	49.971	ug/L	0.170	0	-12	8341	0
Se	78	49.723	ug/L	0.306	0	7350	26971	0
Mo	98	49.988	ug/L	0.579	1	144	276999	1
Y	89		ug/L			257911	251673	0
Kr	83		ug/L			170	167	2
[> In	115		ug/L			277060	270723	1
Ag	107	49.897	ug/L	0.776	1	38	448311	2
Cd	111	49.870	ug/L	0.670	1	155	111585	1
Cd	114	49.882	ug/L	0.995	1	32	255421	1
Sb	121	49.965	ug/L	0.549	1	34	373053	0
Sb	123	49.919	ug/L	0.757	1	26	280354	1
Ba	135	50.021	ug/L	1.080	2	26	90131	1
Ba	137	50.009	ug/L	0.340	0	47	155411	0
[> Tb	159		ug/L			323483	318484	0
Tl	205	49.842	ug/L	0.565	1	37	1127390	1
Pb	208	49.779	ug/L	0.153	0	280	1559630	0
Bi	209		ug/L			272126	262692	0
Th	232	49.912	ug/L	0.549	1	80	1874534	0
[ U	238	50.503	ug/L	0.627	1	9	2231607	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 09:42:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	315836	0
[ Be	9	100.416	ug/L	2.302	2	14	45931	1
C	13		mg/L			3091	4498	2
Cl	37		mg/L			2248348	2327651	0
[> Sc	45		ug/L			250576	248864	1
V	51	99.844	ug/L	1.881	1	1571	1093686	1
V-1	51	99.876	ug/L	1.403	1	2441	1114807	1
Cr	52	100.153	ug/L	1.355	1	4889	952657	1
Cr	53	100.234	ug/L	0.286	0	830	114404	1
Mn	55	99.907	ug/L	0.509	0	381	1507185	2
[ Co	59	99.921	ug/L	0.797	0	63	1139652	1
[> Ge	72		ug/L			269725	268754	1
Ni	60	99.828	ug/L	1.837	1	52	240406	2
Ni	62	99.602	ug/L	1.157	1	62	35242	0
Cu	63	99.228	ug/L	0.905	0	143	516667	2
Cu	65	99.555	ug/L	0.776	0	92	243812	2
Zn	66	99.583	ug/L	0.583	0	344	154292	1
Zn	67	99.660	ug/L	0.749	0	123	26069	2
Zn	68	99.383	ug/L	1.046	1	6370	113773	2
As	75	99.653	ug/L	1.064	1	232	152268	0
As-1	75	99.653	ug/L	0.859	0	7206	156459	0
Se	82	99.447	ug/L	2.167	2	-12	16495	0
Se	78	99.445	ug/L	1.532	1	7350	46509	1
[ Mo	98	100.077	ug/L	1.541	1	144	562144	0
Y	89		ug/L			257911	253476	1
Kr	83		ug/L			170	173	2
[> In	115		ug/L			277060	270811	1
Ag	107	100.025	ug/L	2.002	2	38	899506	0
Cd	111	99.843	ug/L	2.058	2	155	222133	1
Cd	114	100.198	ug/L	2.557	2	32	516554	1
Sb	121	99.901	ug/L	1.850	1	34	743621	1
Sb	123	99.970	ug/L	1.575	1	26	561033	1
Ba	135	99.938	ug/L	0.971	0	26	179747	0
[ Ba	137	100.011	ug/L	1.644	1	47	310937	0
[> Tb	159		ug/L			323483	319426	0
Tl	205	101.501	ug/L	1.435	1	37	2423708	0
Pb	208	99.527	ug/L	0.999	1	280	3078623	0
Bi	209		ug/L			272126	259983	1
Th	232	101.716	ug/L	1.929	1	80	4064108	2
[ U	238	100.334	ug/L	1.127	1	9	4496775	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 09:48:41

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	324555	1
[ Be	9	0.005	ug/L	0.004	77	14	16	11
C	13		mg/L			3091	4331	3
Cl	37		mg/L			2248348	2381374	0
[> Sc	45		ug/L			250576	252415	0
V	51	0.015	ug/L	0.015	101	1571	1748	10
V-1	51	-0.009	ug/L	0.005	60	2441	2363	3
Cr	52	0.033	ug/L	0.005	14	4889	5246	1
Cr	53	-0.041	ug/L	0.034	82	830	789	4
Mn	55	0.007	ug/L	0.002	31	381	489	7
[ Co	59	0.004	ug/L	0.001	21	63	115	9
[> Ge	72		ug/L			269725	268105	0
Ni	60	0.009	ug/L	0.004	44	52	75	13
Ni	62	0.030	ug/L	0.022	74	62	72	10
Cu	63	0.014	ug/L	0.002	11	143	213	4
Cu	65	0.005	ug/L	0.004	81	92	103	9
Zn	66	0.116	ug/L	0.008	7	344	522	2
Zn	67	0.099	ug/L	0.038	38	123	148	6
Zn	68	0.114	ug/L	0.034	29	6370	6455	1
As	75	0.008	ug/L	0.011	136	232	243	7
As-1	75	0.108	ug/L	0.041	38	7206	7324	0
Se	82	0.081	ug/L	0.054	66	-12	1	691
Se	78	0.413	ug/L	0.190	46	7350	7467	0
[ Mo	98	0.014	ug/L	0.008	53	144	222	19
Y	89		ug/L			257911	253164	0
Kr	83		ug/L			170	161	4
[> In	115		ug/L			277060	272813	0
Ag	107	0.015	ug/L	0.004	27	38	172	21
Cd	111	0.002	ug/L	0.003	174	155	157	5
Cd	114	0.003	ug/L	0.003	96	32	48	31
Sb	121	0.143	ug/L	0.047	32	34	1108	31
Sb	123	0.147	ug/L	0.045	30	26	857	30
Ba	135	0.011	ug/L	0.006	53	26	45	23
[ Ba	137	0.006	ug/L	0.003	48	47	67	13
[> Tb	159		ug/L			323483	316698	1
Tl	205	0.009	ug/L	0.003	35	37	248	30
Pb	208	0.007	ug/L	0.003	47	280	498	22
Bi	209		ug/L			272126	263302	0
Th	232	0.076	ug/L	0.021	28	80	3080	28
[ U	238	0.005	ug/L	0.003	54	9	247	53

## Quantitative Analysis - Calibration Report

Sample Date/Time: Monday, March 04, 2013 09:42:23

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	1.0000	0.0014	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	1.0000	0.0440	10	20	50	100	
V-1	51	1.0000	0.0448	10	20	50	100	
Cr	52	1.0000	0.0380	10	20	50	100	
Cr	53	1.0000	0.0046	10	20	50	100	
Mn	55	1.0000	0.0606	10	20	50	100	
Co	59	1.0000	0.0458	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0090	10	20	50	100	
Ni	62	1.0000	0.0013	10	20	50	100	
Cu	63	0.9999	0.0194	10	20	50	100	
Cu	65	1.0000	0.0091	10	20	50	100	
Zn	66	1.0000	0.0058	10	20	50	100	
Zn	67	1.0000	0.0010	10	20	50	100	
Zn	68	0.9999	0.0040	10	20	50	100	
As	75	1.0000	0.0057	10	20	50	100	
As-1	75	1.0000	0.0056	10	20	50	100	
Se	82	0.9999	0.0006	10	20	50	100	
Se	78	0.9999	0.0015	10	20	50	100	
Mo	98	1.0000	0.0209	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0332	10	20	50	100	
Cd	111	1.0000	0.0082	10	20	50	100	
Cd	114	1.0000	0.0190	10	20	50	100	
Sb	121	1.0000	0.0275	10	20	50	100	
Sb	123	1.0000	0.0207	10	20	50	100	
Ba	135	1.0000	0.0066	10	20	50	100	
Ba	137	1.0000	0.0115	10	20	50	100	
Tb	159							
Tl	205	0.9996	0.0748	10	20	50	100	
Pb	208	1.0000	0.0968	10	20	50	100	
Bi	209							
Th	232	0.9995	0.1251	10	20	50	100	
U	238	0.9999	0.1403	10	20	50	100	



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 09:55:39

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	332870	0
[ Be	9	49.907	ug/L	0.164	0	14	24070	1
C	13		mg/L			3091	10467	4
Cl	37		mg/L			2248348	2381261	0
[> Sc	45		ug/L			250576	269701	1
V	51	48.861	ug/L	0.896	1	1571	580871	0
V-1	51	48.886	ug/L	0.926	1	2441	592649	0
Cr	52	48.347	ug/L	0.668	1	4889	501106	1
Cr	53	48.454	ug/L	0.800	1	830	60391	1
Mn	55	49.376	ug/L	0.774	1	381	807469	2
[ Co	59	49.017	ug/L	0.260	0	63	605927	1
[> Ge	72		ug/L			269725	282066	0
Ni	60	49.483	ug/L	0.721	1	52	125098	1
Ni	62	50.357	ug/L	0.695	1	62	18735	1
Cu	63	50.098	ug/L	0.272	0	143	273825	0
Cu	65	50.458	ug/L	0.155	0	92	129733	0
Zn	66	49.960	ug/L	0.578	1	344	81424	1
Zn	67	49.666	ug/L	0.539	1	123	13699	0
Zn	68	49.137	ug/L	0.056	0	6370	62403	0
As	75	50.961	ug/L	0.265	0	232	81852	0
As-1	75	50.108	ug/L	0.222	0	7206	86320	0
Se	82	78.867	ug/L	0.998	1	-12	13730	1
Se	78	77.565	ug/L	0.670	0	7350	39767	0
[ Mo	98	49.685	ug/L	0.491	0	144	293035	1
Y	89		ug/L			257911	267649	1
Kr	83		ug/L			170	175	9
[> In	115		ug/L			277060	288153	0
Ag	107	49.987	ug/L	0.862	1	38	478446	2
Cd	111	50.519	ug/L	0.102	0	155	119694	0
Cd	114	49.782	ug/L	0.419	0	32	273162	0
Sb	121	49.459	ug/L	0.414	0	34	391789	0
Sb	123	50.296	ug/L	0.516	1	26	300395	1
Ba	135	48.539	ug/L	0.432	0	26	92914	0
[ Ba	137	48.420	ug/L	0.392	0	47	160232	0
[> Tb	159		ug/L			323483	338470	0
Tl	205	46.831	ug/L	0.035	0	37	1185012	0
Pb	208	49.562	ug/L	0.791	1	280	1624685	1
Bi	209		ug/L			272126	281341	1
Th	232	48.630	ug/L	3.362	6	80	2058910	7
[ U	238	51.315	ug/L	0.545	1	9	2437059	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 10:01:57

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	323227	1
[ Be	9	0.009	ug/L	0.012	128	14	18	30
C	13		mg/L			3091	3298	3
Cl	37		mg/L			2248348	2404530	0
[> Sc	45		ug/L			250576	258070	0
V	51	0.012	ug/L	0.006	50	1571	1753	4
V-1	51	-0.018	ug/L	0.009	50	2441	2303	3
Cr	52	0.013	ug/L	0.012	93	4889	5161	1
Cr	53	-0.082	ug/L	0.059	71	830	758	8
Mn	55	0.020	ug/L	0.008	42	381	699	18
[ Co	59	0.002	ug/L	0.001	51	63	94	15
[> Ge	72		ug/L			269725	274127	0
Ni	60	0.033	ug/L	0.009	26	52	135	14
Ni	62	0.044	ug/L	0.028	63	62	80	13
Cu	63	0.017	ug/L	0.003	18	143	235	7
Cu	65	0.006	ug/L	0.004	62	92	108	9
Zn	66	0.095	ug/L	0.008	8	344	499	3
Zn	67	0.027	ug/L	0.031	115	123	132	7
Zn	68	-0.003	ug/L	0.124	3871	6370	6471	2
As	75	-0.002	ug/L	0.009	373	232	232	6
As-1	75	0.045	ug/L	0.067	147	7206	7392	0
Se	82	0.002	ug/L	0.028	1716	-12	-12	39
Se	78	0.175	ug/L	0.254	144	7350	7540	0
[ Mo	98	0.004	ug/L	0.007	197	144	167	24
Y	89		ug/L			257911	262721	0
Kr	83		ug/L			170	172	4
[> In	115		ug/L			277060	281398	0
Ag	107	0.008	ug/L	0.003	42	38	111	27
Cd	111	-0.008	ug/L	0.004	53	155	139	6
Cd	114	0.001	ug/L	0.001	49	32	41	9
Sb	121	0.036	ug/L	0.003	7	34	314	6
Sb	123	0.037	ug/L	0.004	11	26	244	10
Ba	135	0.011	ug/L	0.005	46	26	47	21
[ Ba	137	0.006	ug/L	0.002	44	47	66	12
[> Tb	159		ug/L			323483	321424	0
Tl	205	0.005	ug/L	0.002	37	37	155	29
Pb	208	0.008	ug/L	0.001	14	280	542	7
Bi	209		ug/L			272126	272089	1
Th	232	0.046	ug/L	0.011	23	80	1939	23
[ U	238	0.003	ug/L	0.001	44	9	129	42

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 10:07:26

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	317676	1
[ Be	9	51.425	ug/L	0.363	0	14	23667	0
C	13		mg/L			3091	4223	0
Cl	37		mg/L			2248348	2429678	0
[> Sc	45		ug/L			250576	254278	0
V	51	50.459	ug/L	0.555	1	1571	565587	0
V-1	51	50.398	ug/L	0.518	1	2441	576054	0
Cr	52	50.269	ug/L	0.387	0	4889	491057	0
Cr	53	50.090	ug/L	0.334	0	830	58836	0
Mn	55	50.927	ug/L	0.467	0	381	785134	0
[ Co	59	50.185	ug/L	0.201	0	63	584920	0
[> Ge	72		ug/L			269725	275165	0
Ni	60	50.397	ug/L	0.579	1	52	124281	0
Ni	62	50.627	ug/L	0.349	0	62	18373	0
Cu	63	50.818	ug/L	0.558	1	143	270944	0
Cu	65	50.723	ug/L	0.605	1	92	127216	0
Zn	66	50.945	ug/L	0.344	0	344	80988	0
Zn	67	50.692	ug/L	0.370	0	123	13637	1
Zn	68	50.641	ug/L	0.479	0	6370	62537	0
As	75	50.131	ug/L	0.597	1	232	78545	0
As-1	75	50.216	ug/L	0.725	1	7206	84366	0
Se	82	49.895	ug/L	0.405	0	-12	8468	0
Se	78	50.178	ug/L	0.902	1	7350	27742	0
[ Mo	98	49.987	ug/L	0.487	0	144	287575	0
Y	89		ug/L			257911	259385	1
Kr	83		ug/L			170	170	3
[> In	115		ug/L			277060	278500	0
Ag	107	50.351	ug/L	1.265	2	38	465761	2
Cd	111	50.427	ug/L	0.057	0	155	115473	0
Cd	114	49.697	ug/L	0.555	1	32	263561	1
Sb	121	49.881	ug/L	0.844	1	34	381896	1
Sb	123	50.000	ug/L	0.302	0	26	288610	0
Ba	135	49.866	ug/L	0.882	1	26	92259	1
[ Ba	137	49.522	ug/L	0.229	0	47	158390	0
[> Tb	159		ug/L			323483	322813	0
Tl	205	47.962	ug/L	0.523	1	37	1157507	1
Pb	208	50.859	ug/L	0.263	0	280	1590092	0
Bi	209		ug/L			272126	266996	1
Th	232	46.704	ug/L	0.226	0	80	1885802	0
[ U	238	50.724	ug/L	0.988	1	9	2297670	2

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 10:13:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	321593	0
[ Be	9	-0.007	ug/L	0.007	94	14	10	29
C	13		mg/L			3091	3192	1
Cl	37		mg/L			2248348	2436298	0
[> Sc	45		ug/L			250576	260084	0
V	51	-0.005	ug/L	0.005	98	1571	1577	3
V-1	51	-0.021	ug/L	0.002	8	2441	2289	0
Cr	52	-0.004	ug/L	0.013	345	4889	5036	2
Cr	53	-0.055	ug/L	0.014	25	830	796	1
Mn	55	0.013	ug/L	0.003	19	381	604	7
[ Co	59	0.002	ug/L	0.001	24	63	92	6
[> Ge	72		ug/L			269725	276403	1
Ni	60	0.028	ug/L	0.004	15	52	123	8
Ni	62	0.047	ug/L	0.030	63	62	81	13
Cu	63	0.016	ug/L	0.003	18	143	231	5
Cu	65	0.013	ug/L	0.008	61	92	126	14
Zn	66	0.079	ug/L	0.015	19	344	478	5
Zn	67	0.057	ug/L	0.061	105	123	142	10
Zn	68	-0.081	ug/L	0.070	85	6370	6437	0
As	75	0.020	ug/L	0.004	18	232	269	1
As-1	75	-0.005	ug/L	0.061	1197	7206	7376	0
Se	82	0.109	ug/L	0.032	29	-12	6	90
Se	78	-0.027	ug/L	0.225	827	7350	7520	0
[ Mo	98	0.002	ug/L	0.006	281	144	159	20
Y	89		ug/L			257911	264041	0
Kr	83		ug/L			170	166	3
[> In	115		ug/L			277060	284967	1
Ag	107	0.009	ug/L	0.004	43	38	121	30
Cd	111	-0.007	ug/L	0.007	92	155	142	9
Cd	114	-0.000	ug/L	0.001	370	32	32	19
Sb	121	0.072	ug/L	0.016	21	34	597	22
Sb	123	0.068	ug/L	0.018	26	26	430	26
Ba	135	0.007	ug/L	0.010	148	26	39	48
[ Ba	137	0.004	ug/L	0.002	59	47	61	13
[> Tb	159		ug/L			323483	326407	1
Tl	205	0.006	ug/L	0.001	24	37	180	20
Pb	208	0.008	ug/L	0.001	13	280	547	7
Bi	209		ug/L			272126	275025	0
Th	232	0.054	ug/L	0.015	28	80	2280	28
[ U	238	0.003	ug/L	0.001	50	9	136	48

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 10:19:12

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	313701	1
[ Be	9	0.204 ✓	ug/L	0.008	3	14	106	4
C	13		mg/L			3091	4902	2
Cl	37		mg/L			2248348	2417553	0
[> Sc	45		ug/L			250576	252935	0
V	51	0.214 ✓	ug/L	0.019	8	1571	3968	5
V-1	51	0.189	ug/L	0.009	4	2441	4602	1
Cr	52	0.543 ✓	ug/L	0.016	2	4889	10159	1
Cr	53	0.445	ug/L	0.030	6	830	1350	2
Mn	55	0.517 ✓	ug/L	0.009	1	381	8310	0
[ Co	59	0.208 ✓	ug/L	0.009	4	63	2472	3
[> Ge	72		ug/L			269725	269229	0
Ni	60	0.516 ✓	ug/L	0.004	0	52	1298	1
Ni	62	0.488	ug/L	0.075	15	62	235	11
Cu	63	0.555 ✓	ug/L	0.004	0	143	3034	0
Cu	65	0.547	ug/L	0.022	3	92	1434	3
Zn	66	4.223 ✓	ug/L	0.080	1	344	6884	1
Zn	67	3.621	ug/L	0.188	5	123	1067	4
Zn	68	4.098	ug/L	0.272	6	6370	10795	2
As	75	0.241 ✓	ug/L	0.010	4	232	600	2
As-1	75	0.372 ✓	ug/L	0.042	11	7206	7751	0
Se	82	0.627 ✓	ug/L	0.088	14	-12	92	15
Se	78	1.123	ug/L	0.187	16	7350	7779	0
[ Mo	98	0.198 ✓	ug/L	0.001	0	144	1256	1
Y	89		ug/L			257911	255197	1
Kr	83		ug/L			170	165	5
[> In	115		ug/L			277060	275147	1
Ag	107	0.226 ✓	ug/L	0.006	2	38	2102	2
Cd	111	0.098 ✓	ug/L	0.004	3	155	375	2
Cd	114	0.108	ug/L	0.009	8	32	599	6
Sb	121	0.226 ✓	ug/L	0.003	1	34	1744	1
Sb	123	0.229	ug/L	0.007	2	26	1334	4
Ba	135	0.488 ✓	ug/L	0.020	4	26	918	2
[ Ba	137	0.492	ug/L	0.006	1	47	1600	1
[> Tb	159		ug/L			323483	317219	0
Tl	205	0.204 ✓	ug/L	0.004	1	37	4879	2
Pb	208	0.111 ✓	ug/L	0.003	3	280	3678	3
Bi	209		ug/L			272126	271937	1
Th	232	0.214 ✓	ug/L	0.003	1	80	8559	0
[ U	238	0.193 ✓	ug/L	0.003	1	9	8603	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 10:24:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	321998	1
[ Be	9	0.002	ug/L	0.003	184	14	15	8
C	13		mg/L			3091	17783	1
Cl	37		mg/L			2248348	3907693	1
[> Sc	45		ug/L			250576	238057	1
[ V	51	0.085	ug/L	0.009	10	1571	2385	3
[ V-1	51	0.447	ug/L	0.013	2	2441	7077	0
[ Cr	52	0.510	ug/L	0.027	5	4889	9262	2
[ Cr	53	1.622	ug/L	0.041	2	830	2547	0
[ Mn	55	0.086	ug/L	0.002	2	381	1608	3
[ Co	59	0.022	ug/L	0.002	10	63	298	6
[> Ge	72		ug/L			269725	254792	1
[ Ni	60	0.441	ug/L	0.018	4	52	1057	4
[ Ni	62	3.803	ug/L	0.174	4	62	1333	5
[ Cu	63	0.473	ug/L	0.016	3	143	2472	4
[ Cu	65	0.604	ug/L	0.021	3	92	1489	3
[ Zn	66	1.191	ug/L	0.017	1	344	2070	2
[ Zn	67	1.493	ug/L	0.036	2	123	485	3
[ Zn	68	0.409	ug/L	0.079	19	6370	6436	2
[ As	75	0.077	ug/L	0.015	18	232	331	8
[ As-1	75	0.257	ug/L	0.066	25	7206	7171	2
[ Se	82	-0.083	ug/L	0.064	77	-12	-24	38
[ Se	78	0.837	ug/L	0.246	29	7350	7255	1
[ Mo	98	426.151	ug/L	10.097	2	144	2269171	2
[ Y	89		ug/L			257911	241977	1
[ Kr	83		ug/L			170	197	3
[> In	115		ug/L			277060	255131	1
[ Ag	107	0.026	ug/L	0.002	8	38	257	8
[ Cd	111	0.069	ug/L	0.034	49	155	287	24
[ Cd	114	0.687	ug/L	0.010	1	32	3369	2
[ Sb	121	0.074	ug/L	0.002	2	34	547	3
[ Sb	123	0.075	ug/L	0.005	6	26	422	7
[ Ba	135	0.039	ug/L	0.008	19	26	90	14
[ Ba	137	0.035	ug/L	0.004	12	47	147	9
[> Tb	159		ug/L			323483	308084	2
[ Tl	205	0.021	ug/L	0.001	4	37	513	5
[ Pb	208	0.028	ug/L	0.001	4	280	1113	5
[ Bi	209		ug/L			272126	247846	1
[ Th	232	0.070	ug/L	0.008	11	80	2762	13
[ U	238	0.001	ug/L	0.000	13	9	40	9

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 10:30:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	339340	0
[ Be	9	-0.003	ug/L	0.004	154	14	13	15
C	13		mg/L			3091	17757	0
Cl	37		mg/L			2248348	3773176	0
[> Sc	45		ug/L			250576	236117	0
V	51	-0.259	ug/L	0.078	30	1571	-1207	67
V-1	51	0.458	ug/L	0.023	5	2441	7143	3
Cr	52	19.470	ug/L	0.239	1	4889	179424	0
Cr	53	20.615	ug/L	0.315	1	830	22945	1
Mn	55	19.425	ug/L	0.138	0	381	278305	0
[ Co	59	19.046	ug/L	0.154	0	63	206166	0
[> Ge	72		ug/L			269725	257900	0
Ni	60	19.031	ug/L	0.088	0	52	44021	1
Ni	62	22.090	ug/L	0.177	0	62	7548	1
Cu	63	19.194	ug/L	0.201	1	143	96014	1
Cu	65	19.407	ug/L	0.116	0	92	45680	1
Zn	66	19.735	ug/L	0.254	1	344	29605	0
Zn	67	17.605	ug/L	0.183	1	123	4516	0
Zn	68	18.332	ug/L	0.251	1	6370	25104	0
As	75	19.064	ug/L	0.117	0	232	28136	1
As-1	75	19.384	ug/L	0.130	0	7206	34756	1
Se	82	0.055	ug/L	0.030	55	-12	-2	166
Se	78	0.036	ug/L	0.071	198	7350	7041	0
[ Mo	98	407.853	ug/L	2.373	0	144	2198308	0
Y	89		ug/L			257911	240548	2
Kr	83		ug/L			170	178	2
[> In	115		ug/L			277060	258612	1
Ag	107	18.852	ug/L	0.195	1	38	161942	0
Cd	111	19.551	ug/L	0.238	1	155	41657	0
Cd	114	20.292	ug/L	0.100	0	32	99945	1
Sb	121	0.068	ug/L	0.005	7	34	512	6
Sb	123	0.069	ug/L	0.006	9	26	394	9
Ba	135	0.036	ug/L	0.004	10	26	86	6
[ Ba	137	0.026	ug/L	0.004	14	47	123	9
[> Tb	159		ug/L			323483	314926	0
Tl	205	0.019	ug/L	0.001	4	37	488	4
Pb	208	0.028	ug/L	0.002	5	280	1112	4
Bi	209		ug/L			272126	254094	0
Th	232	0.037	ug/L	0.001	2	80	1554	2
[ U	238	0.000	ug/L	0.000	38	9	29	27

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 10:36:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			328612	326772	2
[ Be	9	194.646	ug/L	5.779	2	14	92078	1
C	13		mg/L			3091	5035	4
Cl	37		mg/L			2248348	2305318	2
> Sc	45		ug/L			250576	241981	1
V	51	201.533	ug/L	1.783	0	1571	2145055	1
V-1	51	202.156	ug/L	1.795	0	2441	2191699	1
Cr	52	193.757	ug/L	0.874	0	4889	1787711	1
Cr	53	196.154	ug/L	0.367	0	830	216928	1
Mn	55	204.192	ug/L	0.644	0	381	2994642	1
[ Co	59	202.186	ug/L	0.124	0	63	2242380	1
> Ge	72		ug/L			269725	262745	2
Ni	60	188.965	ug/L	1.333	0	52	444821	1
Ni	62	189.834	ug/L	4.429	2	62	65608	2
Cu	63	191.106	ug/L	1.480	0	143	972644	2
Cu	65	188.832	ug/L	1.868	0	92	451998	2
Zn	66	190.393	ug/L	3.467	1	344	288056	1
Zn	67	192.073	ug/L	4.185	2	123	49013	3
Zn	68	193.775	ug/L	2.796	1	6370	210942	1
As	75	197.328	ug/L	2.098	1	232	294544	1
As-1	75	197.580	ug/L	1.772	0	7206	296362	1
Se	82	191.097	ug/L	0.864	0	-12	31004	1
Se	78	191.824	ug/L	0.829	0	7350	81064	2
[ Mo	98	204.454	ug/L	3.304	1	144	1122538	0
Y	89		ug/L			257911	246636	2
Kr	83		ug/L			170	201	5
> In	115		ug/L			277060	265740	0
Ag	107	193.429	ug/L	1.538	0	38	1707208	1
Cd	111	199.940	ug/L	3.635	1	155	436457	2
Cd	114	197.922	ug/L	3.857	1	32	1001514	2
Sb	121	204.986	ug/L	2.554	1	34	1497388	1
Sb	123	207.087	ug/L	3.094	1	26	1140494	1
Ba	135	199.303	ug/L	2.388	1	26	351759	1
Ba	137	198.042	ug/L	5.234	2	47	604192	2
> Tb	159		ug/L			323483	319024	1
Tl	205	201.372	ug/L	6.483	3	37	4803191	3
Pb	208	200.966	ug/L	3.632	1	280	6207676	0
Bi	209		ug/L			272126	253083	0
Th	232	201.854	ug/L	0.717	0	80	8054731	1
[ U	238	199.998	ug/L	0.835	0	9	8952219	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 10:42:52

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	308727 ✓	2
[ Be	9	303.895	ug/L	9.107	2	14	135802	0
C	13		mg/L			3091	5119	4
Cl	37		mg/L			2248348	2473625	2
[> Sc	45		ug/L			250576	254776 ✓	2
V	51	309.670	ug/L	3.810	1	1571	3470317	3
V-1	51	305.252	ug/L	2.513	0	2441	3483692	2
Cr	52	304.194	ug/L	3.516	1	4889	2952621	3
Cr	53	290.614	ug/L	5.380	1	830	337923	1
Mn	55	307.614	ug/L	2.771	0	381	4749844	2
[ Co	59	300.303	ug/L	2.734	0	63	3506443	2
[> Ge	72		ug/L			269725	275201 ✓	1
Ni	60	282.329	ug/L	3.458	1	52	696197	2
Ni	62	284.334	ug/L	2.248	0	62	102909	1
Cu	63	284.144	ug/L	4.601	1	143	1514457	1
Cu	65	286.832	ug/L	2.796	0	92	719154	2
Zn	66	285.045	ug/L	2.176	0	344	451633	2
Zn	67	285.852	ug/L	5.775	2	123	76336	3
Zn	68	283.875	ug/L	1.998	0	6370	320669	1
As	75	292.833	ug/L	3.247	1	232	457717	1
As-1	75	293.635	ug/L	3.210	1	7206	457765	1
Se	82	277.655	ug/L	1.911	0	-12	47187	1
Se	78	279.886	ug/L	1.438	0	7350	120448	2
[ Mo	98	305.671	ug/L	1.121	0	144	1758214	2
Y	89		ug/L			257911	254707	0
Kr	83		ug/L			170	219	3
[> In	115		ug/L			277060	272586	2
Ag	107	307.420	ug/L	4.365	1	38	2782688	1
Cd	111	300.051	ug/L	0.681	0	155	671747	2
Cd	114	299.665	ug/L	5.784	1	32	1554822	0
Sb	121	335.467	ug/L	3.419	1	34	2513269	1
Sb	123	308.990	ug/L	2.241	0	26	1745375	1
Ba	135	299.420	ug/L	3.533	1	26	541963	1
[ Ba	137	296.508	ug/L	7.747	2	47	927642	1
[> Tb	159		ug/L			323483	320849 ✓	1
Tl	205	298.506	ug/L	6.286	2	37	7158409	0
Pb	208	306.947	ug/L	1.614	0	280	9536191	1
Bi	209		ug/L			272126	244694	2
Th	232	302.537	ug/L	1.772	0	80	12140529	1
[ U	238	297.157	ug/L	6.257	2	9	13374812	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 10:49:09

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	316124	0
[ Be	9	51.164	ug/L	1.260	2	14	23432	2
C	13		mg/L			3091	4370	3
Cl	37		mg/L			2248348	2526184	0
[> Sc	45		ug/L			250576	262778	0
V	51	49.263	ug/L	0.528	1	1571	570658	0
V-1	51	49.302	ug/L	0.552	1	2441	582391	0
Cr	52	49.328	ug/L	0.571	1	4889	498046	0
Cr	53	49.447	ug/L	0.505	1	830	60031	0
Mn	55	50.396	ug/L	0.919	1	381	802866	1
[ Co	59	49.385	ug/L	0.351	0	63	594818	0
[> Ge	72		ug/L			269725	279506	0
Ni	60	49.936	ug/L	0.583	1	52	125096	1
Ni	62	51.003	ug/L	0.577	1	62	18801	0
Cu	63	51.000	ug/L	0.414	0	143	276211	0
Cu	65	50.986	ug/L	0.520	1	92	129900	1
Zn	66	51.234	ug/L	0.551	1	344	82735	1
Zn	67	51.039	ug/L	0.223	0	123	13946	0
Zn	68	51.168	ug/L	0.498	0	6370	64118	0
As	75	50.013	ug/L	0.448	0	232	79602	0
As-1	75	50.178	ug/L	0.424	0	7206	85645	0
Se	82	49.678	ug/L	0.643	1	-12	8564	0
Se	78	50.298	ug/L	0.128	0	7350	28231	0
[ Mo	98	49.996	ug/L	0.321	0	144	292185	1
Y	89		ug/L			257911	262309	2
Kr	83		ug/L			170	180	6
[> In	115		ug/L			277060	284583	1
Ag	107	49.672	ug/L	0.561	1	38	469540	2
Cd	111	50.306	ug/L	1.562	3	155	117674	1
Cd	114	49.525	ug/L	0.743	1	32	268343	0
Sb	121	49.442	ug/L	0.262	0	34	386790	1
Sb	123	50.044	ug/L	0.475	0	26	295146	0
Ba	135	48.993	ug/L	0.767	1	26	92608	0
[ Ba	137	48.988	ug/L	0.827	1	47	160074	0
[> Tb	159		ug/L			323483	321601	0
Tl	205	48.231	ug/L	0.549	1	37	1159530	0
Pb	208	50.660	ug/L	0.548	1	280	1577813	0
Bi	209		ug/L			272126	266122	1
Th	232	46.442	ug/L	0.705	1	80	1868044	0
[ U	238	50.748	ug/L	1.264	2	9	2289918	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 10:55:28

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			328612	322983	1
[	Be	9	0.001	ug/L	0.012	838	14	15	38
	C	13		mg/L			3091	3338	1
	Cl	37		mg/L			2248348	2532746	0
[>	Sc	45		ug/L			250576	262393	0
[	V	51	0.010	ug/L	0.018	183	1571	1755	11
	V-1	51	0.047	ug/L	0.015	31	2441	3104	5
	Cr	52	0.020	ug/L	0.002	12	4889	5318	0
	Cr	53	0.136	ug/L	0.068	50	830	1032	8
	Mn	55	0.019	ug/L	0.001	7	381	699	3
[	Co	59	0.005	ug/L	0.002	34	63	122	15
[>	Ge	72		ug/L			269725	281161	0
[	Ni	60	0.035	ug/L	0.003	9	52	142	5
	Ni	62	0.058	ug/L	0.007	12	62	87	2
	Cu	63	0.033	ug/L	0.006	17	143	327	9
	Cu	65	0.016	ug/L	0.002	13	92	137	3
	Zn	66	0.092	ug/L	0.021	22	344	507	6
	Zn	67	0.097	ug/L	0.008	7	123	155	1
	Zn	68	0.072	ug/L	0.023	31	6370	6721	0
	As	75	0.040	ug/L	0.021	52	232	307	11
	As-1	75	0.144	ug/L	0.055	38	7206	7737	1
	Se	82	0.143	ug/L	0.049	34	-12	12	70
	Se	78	0.486	ug/L	0.243	50	7350	7862	1
[	Mo	98	0.009	ug/L	0.007	76	144	200	19
	Y	89		ug/L			257911	263935	0
	Kr	83		ug/L			170	168	2
[>	In	115		ug/L			277060	284609	1
[	Ag	107	0.015	ug/L	0.005	32	38	183	25
	Cd	111	0.002	ug/L	0.005	309	155	163	6
	Cd	114	0.000	ug/L	0.001	509	32	34	13
	Sb	121	0.095	ug/L	0.025	26	34	780	23
	Sb	123	0.094	ug/L	0.025	26	26	580	23
	Ba	135	0.007	ug/L	0.004	53	26	40	16
[	Ba	137	0.006	ug/L	0.004	59	47	69	16
[>	Tb	159		ug/L			323483	327031	0
[	Tl	205	0.010	ug/L	0.003	33	37	289	29
	Pb	208	0.011	ug/L	0.001	6	280	617	4
	Bi	209		ug/L			272126	271327	2
	Th	232	0.073	ug/L	0.020	27	80	3055	27
[	U	238	0.004	ug/L	0.002	42	9	215	41

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 S SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Monday, March 04, 2013 11:02:33

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	344818	0
[ Be	9	0.049	ug/L	0.016	33	14	39	21
C	13		mg/L			3091	6770	0
Cl	37		mg/L			2248348	2532721	0
[> Sc	45		ug/L			250576	273609	1
V	51	4.382	ug/L	0.030	0	1571	54420	1
V-1	51	4.341	ug/L	0.033	0	2441	55819	1
Cr	52	1.882	ug/L	0.059	3	4889	24912	1
Cr	53	1.891	ug/L	0.068	3	830	3262	2
Mn	55	27.604	ug/L	0.079	0	381	458102	1
[ Co	59	0.399	ug/L	0.008	1	63	5071	1
[> Ge	72		ug/L			269725	286220	0
Ni	60	0.947	ug/L	0.023	2	52	2483	2
Ni	62	1.035	ug/L	0.144	13	62	456	11
Cu	63	3.679	ug/L	0.040	1	143	20543	0
Cu	65	3.658	ug/L	0.027	0	92	9635	0
Zn	66	5.054	ug/L	0.089	1	344	8687	2
Zn	67	7.207	ug/L	0.188	2	123	2129	2
Zn	68	6.475	ug/L	0.165	2	6370	14213	0
As	75	131.225	ug/L	0.560	0	232	213480	0
As-1	75	133.604	ug/L	0.617	0	7206	220802	0
Se	82	0.742	ug/L	0.095	12	-12	118	14
Se	78	0.561	ug/L	0.170	30	7350	8034	0
[ Mo	98	0.112	ug/L	0.006	5	144	821	5
Y	89		ug/L			257911	285019	0
Kr	83		ug/L			170	172	5
[> In	115		ug/L			277060	291185	1
Ag	107	3.814	ug/L	0.016	0	38	36923	1
Cd	111	0.067	ug/L	0.003	4	155	323	2
Cd	114	0.015	ug/L	0.002	16	32	119	11
Sb	121	0.081	ug/L	0.007	8	34	686	8
Sb	123	0.084	ug/L	0.006	6	26	536	8
Ba	135	65.802	ug/L	0.852	1	26	127257	0
Ba	137	65.282	ug/L	0.937	1	47	218256	0
[> Tb	159		ug/L			323483	335072	0
Tl	205	0.133	ug/L	0.001	0	37	3362	0
Pb	208	9.758	ug/L	0.061	0	280	316909	0
Bi	209		ug/L			272126	283567	1
Th	232	0.571	ug/L	0.002	0	80	24027	0
[ U	238	0.064	ug/L	0.001	2	9	3001	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 W SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Monday, March 04, 2013 11:08:30

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	349777	0
[ Be	9	0.057	ug/L	0.009	15	14	44	9
C	13		mg/L			3091	6676	3
Cl	37		mg/L			2248348	2540594	0
[> Sc	45		ug/L			250576	274942	1
V	51	3.572	ug/L	0.034	0	1571	44885	0
V-1	51	3.529	ug/L	0.041	1	2441	46108	0
Cr	52	1.283	ug/L	0.038	2	4889	18772	1
Cr	53	1.279	ug/L	0.064	5	830	2512	1
Mn	55	20.487	ug/L	0.466	2	381	341692	0
[ Co	59	0.281	ug/L	0.005	1	63	3606	2
[> Ge	72		ug/L			269725	288757	0
Ni	60	0.669	ug/L	0.013	1	52	1787	2
Ni	62	0.680	ug/L	0.062	9	62	325	8
Cu	63	3.547	ug/L	0.074	2	143	19989	1
Cu	65	3.515	ug/L	0.005	0	92	9343	0
Zn	66	4.624	ug/L	0.085	1	344	8049	2
Zn	67	6.173	ug/L	0.052	0	123	1859	0
Zn	68	5.695	ug/L	0.026	0	6370	13433	0
As	75	136.594	ug/L	1.153	0	232	224165	0
As-1	75	139.046	ug/L	1.199	0	7206	231508	0
Se	82	0.938	ug/L	0.099	10	-12	154	10
Se	78	0.637	ug/L	0.196	30	7350	8138	0
[ Mo	98	0.097	ug/L	0.006	5	144	737	5
Y	89		ug/L			257911	284382	1
Kr	83		ug/L			170	169	0
[> In	115		ug/L			277060	294720	1
Ag	107	3.232	ug/L	0.047	1	38	31675	1
Cd	111	0.041	ug/L	0.021	51	155	263	18
Cd	114	0.011	ug/L	0.001	9	32	95	6
Sb	121	0.065	ug/L	0.000	0	34	560	1
Sb	123	0.064	ug/L	0.002	2	26	417	2
Ba	135	55.213	ug/L	0.882	1	26	108085	1
[ Ba	137	54.800	ug/L	0.880	1	47	185448	0
[> Tb	159		ug/L			323483	337314	1
Tl	205	0.129	ug/L	0.003	1	37	3303	0
Pb	208	10.561	ug/L	0.127	1	280	345197	0
Bi	209		ug/L			272126	285983	1
Th	232	0.515	ug/L	0.011	2	80	21793	0
[ U	238	0.043	ug/L	0.002	4	9	2060	4

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 X SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Monday, March 04, 2013 11:14:27

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			328612	349178	1
[ Be	9	0.052	ug/L	0.009	18	14	41	12
C	13		mg/L			3091	6435	1
Cl	37		mg/L			2248348	2526050	1
> Sc	45		ug/L			250576	275369	0
V	51	4.119	ug/L	0.018	0	1571	51582	0
V-1	51	4.070	ug/L	0.011	0	2441	52840	0
Cr	52	1.540	ug/L	0.052	3	4889	21495	1
Cr	53	1.530	ug/L	0.053	3	830	2831	1
Mn	55	25.677	ug/L	0.104	0	381	428904	0
[ Co	59	0.356	ug/L	0.008	2	63	4565	1
> Ge	72		ug/L			269725	288394	0
Ni	60	0.791	ug/L	0.035	4	52	2101	4
Ni	62	0.846	ug/L	0.043	5	62	387	4
Cu	63	3.652	ug/L	0.034	0	143	20552	0
Cu	65	3.694	ug/L	0.069	1	92	9802	1
Zn	66	4.508	ug/L	0.083	1	344	7847	1
Zn	67	6.846	ug/L	0.179	2	123	2045	3
Zn	68	6.021	ug/L	0.133	2	6370	13793	0
As	75	156.920	ug/L	1.131	0	232	257167	0
As-1	75	159.800	ug/L	1.121	0	7206	264585	0
Se	82	0.775	ug/L	0.029	3	-12	125	4
Se	78	0.691	ug/L	0.073	10	7350	8151	0
[ Mo	98	0.106	ug/L	0.002	2	144	793	2
Y	89		ug/L			257911	280451	0
Kr	83		ug/L			170	174	3
> In	115		ug/L			277060	290586	1
Ag	107	3.697	ug/L	0.055	1	38	35708	0
Cd	111	0.063	ug/L	0.004	5	155	312	2
Cd	114	0.013	ug/L	0.001	9	32	108	8
Sb	121	0.050	ug/L	0.002	4	34	435	5
Sb	123	0.046	ug/L	0.003	6	26	308	6
Ba	135	75.074	ug/L	0.991	1	26	144893	1
[ Ba	137	74.771	ug/L	1.503	2	47	249436	0
> Tb	159		ug/L			323483	338548	1
Tl	205	0.129	ug/L	0.003	2	37	3301	2
Pb	208	9.696	ug/L	0.116	1	280	318140	0
Bi	209		ug/L			272126	282742	1
Th	232	0.474	ug/L	0.009	1	80	20161	1
[ U	238	0.051	ug/L	0.001	1	9	2425	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 D SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Monday, March 04, 2013 11:20:24

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	344781	0
[ Be	9	0.030	ug/L	0.016	53	14	30	27
C	13		mg/L			3091	5286	1
Cl	37		mg/L			2248348	2520155	0
[> Sc	45		ug/L			250576	261659	0
V	51	2.584	ug/L	0.042	1	1571	31365	1
V-1	51	2.549	ug/L	0.034	1	2441	32397	0
Cr	52	1.274	ug/L	0.027	2	4889	17779	1
Cr	53	1.235	ug/L	0.005	0	830	2339	0
Mn	55	20.026	ug/L	0.198	0	381	317945	0
[ Co	59	0.441	ug/L	0.011	2	63	5350	2
[> Ge	72		ug/L			269725	280031	0
Ni	60	0.539	ug/L	0.003	0	52	1407	1
Ni	62	0.614	ug/L	0.033	5	62	291	4
Cu	63	7.927	ug/L	0.059	0	143	43138	0
Cu	65	7.924	ug/L	0.071	0	92	20307	1
Zn	66	4.256	ug/L	0.025	0	344	7214	1
Zn	67	5.568	ug/L	0.107	1	123	1639	2
Zn	68	5.215	ug/L	0.179	3	6370	12486	1
As	75	136.892	ug/L	1.049	0	232	217868	0
As-1	75	139.465	ug/L	1.090	0	7206	225170	0
Se	82	1.369	ug/L	0.054	3	-12	224	3
Se	78	1.584	ug/L	0.151	9	7350	8281	0
[ Mo	98	0.095	ug/L	0.001	1	144	703	1
Y	89		ug/L			257911	276547	1
Kr	83		ug/L			170	171	3
[> In	115		ug/L			277060	287307	0
Ag	107	6.777	ug/L	0.007	0	38	64711	1
Cd	111	0.026	ug/L	0.002	8	155	222	3
Cd	114	0.001	ug/L	0.001	96	32	38	10
Sb	121	0.070	ug/L	0.005	7	34	586	7
Sb	123	0.066	ug/L	0.006	9	26	421	7
Ba	135	48.801	ug/L	0.390	0	26	93140	0
[ Ba	137	48.595	ug/L	0.452	0	47	160332	0
[> Tb	159		ug/L			323483	333350	0
Tl	205	0.149	ug/L	0.003	1	37	3741	1
Pb	208	4.420	ug/L	0.042	0	280	142956	1
Bi	209		ug/L			272126	276194	1
Th	232	0.358	ug/L	0.003	0	80	15010	1
[ U	238	0.033	ug/L	0.000	0	9	1571	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 E SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Monday, March 04, 2013 11:26:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	344957	0
[ Be	9	0.025	ug/L	0.014	54	14	27	24
C	13		mg/L			3091	5433	2
Cl	37		mg/L			2248348	2548991	0
[> Sc	45		ug/L			250576	257325	0
V	51	1.024	ug/L	0.003	0	1571	13191	0
V-1	51	1.000	ug/L	0.007	0	2441	14026	0
Cr	52	0.452	ug/L	0.010	2	4889	9446	0
Cr	53	0.411	ug/L	0.033	7	830	1334	2
Mn	55	3.471	ug/L	0.091	2	381	54522	2
[ Co	59	0.127	ug/L	0.003	2	63	1557	1
[> Ge	72		ug/L			269725	274689	0
Ni	60	0.185	ug/L	0.001	0	52	509	0
Ni	62	0.190	ug/L	0.063	33	62	132	16
Cu	63	3.537	ug/L	0.035	0	143	18959	0
Cu	65	3.601	ug/L	0.054	1	92	9104	1
Zn	66	1.812	ug/L	0.025	1	344	3213	1
Zn	67	3.287	ug/L	0.132	4	123	1000	2
Zn	68	3.003	ug/L	0.082	2	6370	9804	0
As	75	142.536	ug/L	0.971	0	232	222513	0
As-1	75	145.234	ug/L	1.043	0	7206	229708	0
Se	82	1.417	ug/L	0.163	11	-12	228	12
Se	78	1.708	ug/L	0.119	6	7350	8173	0
[ Mo	98	0.052	ug/L	0.004	7	144	446	4
Y	89		ug/L			257911	270024	0
Kr	83		ug/L			170	167	8
[> In	115		ug/L			277060	282574	1
Ag	107	3.892	ug/L	0.062	1	38	36557	0
Cd	111	0.013	ug/L	0.005	41	155	189	6
Cd	114	0.000	ug/L	0.001	1133	32	34	21
Sb	121	0.056	ug/L	0.001	2	34	466	2
Sb	123	0.060	ug/L	0.005	8	26	376	8
Ba	135	53.317	ug/L	0.677	1	26	100073	0
[ Ba	137	52.526	ug/L	0.804	1	47	170431	0
[> Tb	159		ug/L			323483	328553	1
Tl	205	0.079	ug/L	0.002	2	37	1979	2
Pb	208	7.204	ug/L	0.123	1	280	229453	0
Bi	209		ug/L			272126	275789	0
Th	232	0.266	ug/L	0.005	1	80	11001	0
[ U	238	0.018	ug/L	0.001	5	9	833	4



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 F SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Monday, March 04, 2013 11:32:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	345710	0
[ Be	9	0.006	ug/L	0.006	94	14	18	15
C	13		mg/L			3091	5928	1
Cl	37		mg/L			2248348	2560414	0
[> Sc	45		ug/L			250576	255316	0
V	51	1.401	ug/L	0.010	0	1571	17327	0
V-1	51	1.404	ug/L	0.010	0	2441	18532	0
Cr	52	0.672	ug/L	0.005	0	4889	11504	0
Cr	53	0.721	ug/L	0.031	4	830	1685	1
Mn	55	3.997	ug/L	0.012	0	381	62238	0
[ Co	59	0.087	ug/L	0.002	1	63	1081	1
[> Ge	72		ug/L			269725	274562	0
Ni	60	0.248	ug/L	0.008	3	52	663	2
Ni	62	0.285	ug/L	0.041	14	62	166	8
Cu	63	4.275	ug/L	0.013	0	143	22878	0
Cu	65	4.320	ug/L	0.026	0	92	10897	0
Zn	66	2.096	ug/L	0.040	1	344	3661	1
Zn	67	3.229	ug/L	0.124	3	123	984	2
Zn	68	2.740	ug/L	0.149	5	6370	9511	2
As	75	118.776	ug/L	1.631	1	232	185374	0
As-1	75	120.996	ug/L	1.688	1	7206	192505	0
Se	82	1.092	ug/L	0.032	2	-12	172	3
Se	78	1.279	ug/L	0.240	18	7350	7996	0
[ Mo	98	0.051	ug/L	0.003	5	144	438	4
Y	89		ug/L			257911	268801	1
Kr	83		ug/L			170	178	0
[> In	115		ug/L			277060	277630	1
Ag	107	3.208	ug/L	0.028	0	38	29612	0
Cd	111	0.016	ug/L	0.008	50	155	191	8
Cd	114	0.003	ug/L	0.001	28	32	47	9
Sb	121	0.038	ug/L	0.003	8	34	324	8
Sb	123	0.038	ug/L	0.004	11	26	246	11
Ba	135	39.331	ug/L	0.643	1	26	72537	0
[ Ba	137	39.234	ug/L	0.611	1	47	125101	1
[> Tb	159		ug/L			323483	327364	0
Tl	205	0.080	ug/L	0.001	1	37	1985	1
Pb	208	5.859	ug/L	0.107	1	280	185993	1
Bi	209		ug/L			272126	274808	1
Th	232	0.243	ug/L	0.004	1	80	10025	0
[ U	238	0.018	ug/L	0.000	1	9	823	2

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 G SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Monday, March 04, 2013 11:38:21

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	348330	2
[ Be	9	0.003	ug/L	0.007	206	14	17	21
C	13		mg/L			3091	5917	0
Cl	37		mg/L			2248348	2545026	0
[> Sc	45		ug/L			250576	257412	0
V	51	1.798	ug/L	0.059	3	1571	21959	3
V-1	51	1.772	ug/L	0.040	2	2441	22929	2
Cr	52	0.660	ug/L	0.020	3	4889	11484	1
Cr	53	0.644	ug/L	0.068	10	830	1608	4
Mn	55	5.037	ug/L	0.119	2	381	78956	2
Co	59	0.103	ug/L	0.003	3	63	1281	2
[> Ge	72		ug/L			269725	273602	0
Ni	60	0.178	ug/L	0.012	6	52	490	6
Ni	62	0.221	ug/L	0.023	10	62	143	6
Cu	63	3.180	ug/L	0.100	3	143	16992	2
Cu	65	3.249	ug/L	0.075	2	92	8190	1
Zn	66	1.993	ug/L	0.020	1	344	3486	0
Zn	67	3.347	ug/L	0.044	1	123	1012	2
Zn	68	2.891	ug/L	0.104	3	6370	9641	0
As	75	141.510	ug/L	1.262	0	232	220039	0
As-1	75	144.145	ug/L	1.270	0	7206	227138	0
Se	82	1.364	ug/L	0.154	11	-12	218	11
Se	78	1.525	ug/L	0.202	13	7350	8066	0
[ Mo	98	0.048	ug/L	0.006	13	144	420	7
Y	89		ug/L			257911	261651	0
Kr	83		ug/L			170	173	6
[> In	115		ug/L			277060	277975	1
Ag	107	3.521	ug/L	0.058	1	38	32539	1
Cd	111	0.013	ug/L	0.007	53	155	185	9
Cd	114	0.000	ug/L	0.001	462	32	33	10
Sb	121	0.054	ug/L	0.004	6	34	448	6
Sb	123	0.049	ug/L	0.010	19	26	311	18
Ba	135	47.847	ug/L	0.650	1	26	88348	0
[ Ba	137	47.289	ug/L	0.759	1	47	150948	0
[> Tb	159		ug/L			323483	326561	0
Tl	205	0.111	ug/L	0.004	3	37	2737	4
Pb	208	8.224	ug/L	0.094	1	280	260312	0
Bi	209		ug/L			272126	275240	0
Th	232	0.310	ug/L	0.005	1	80	12750	1
[ U	238	0.019	ug/L	0.000	1	9	862	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 H SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Monday, March 04, 2013 11:44:19

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	351496	1
[ Be	9	0.001	ug/L	0.005	378	14	16	15
C	13		mg/L			3091	5686	2
Cl	37		mg/L			2248348	2545429	0
[> Sc	45		ug/L			250576	259091	1
V	51	1.062	ug/L	0.025	2	1571	13721	0
V-1	51	1.055	ug/L	0.033	3	2441	14756	1
Cr	52	0.467	ug/L	0.022	4	4889	9656	0
Cr	53	0.478	ug/L	0.056	11	830	1422	3
Mn	55	3.579	ug/L	0.048	1	381	56579	0
[ Co	59	0.077	ug/L	0.002	2	63	975	2
[> Ge	72		ug/L			269725	276119	1
Ni	60	0.123	ug/L	0.008	6	52	357	5
Ni	62	0.175	ug/L	0.010	5	62	127	2
Cu	63	3.772	ug/L	0.077	2	143	20318	2
Cu	65	3.778	ug/L	0.052	1	92	9597	2
Zn	66	1.742	ug/L	0.065	3	344	3118	2
Zn	67	3.132	ug/L	0.096	3	123	964	3
Zn	68	2.648	ug/L	0.171	6	6370	9460	1
As	75	135.053	ug/L	1.131	0	232	211935	0
As-1	75	137.597	ug/L	1.202	0	7206	219143	0
Se	82	1.370	ug/L	0.064	4	-12	221	4
Se	78	1.685	ug/L	0.283	16	7350	8205	0
[ Mo	98	0.052	ug/L	0.005	9	144	448	6
Y	89		ug/L			257911	270366	0
Kr	83		ug/L			170	181	8
[> In	115		ug/L			277060	282121	1
Ag	107	3.911	ug/L	0.073	1	38	36681	0
Cd	111	0.014	ug/L	0.008	57	155	189	9
Cd	114	-0.000	ug/L	0.002	337	32	31	26
Sb	121	0.069	ug/L	0.002	2	34	570	2
Sb	123	0.068	ug/L	0.003	4	26	425	4
Ba	135	48.191	ug/L	0.573	1	26	90326	2
[ Ba	137	48.376	ug/L	0.710	1	47	156718	0
[> Tb	159		ug/L			323483	327702	0
Tl	205	0.080	ug/L	0.002	2	37	2007	1
Pb	208	5.757	ug/L	0.045	0	280	182979	0
Bi	209		ug/L			272126	274375	1
Th	232	0.239	ug/L	0.002	1	80	9863	0
[ U	238	0.018	ug/L	0.000	2	9	814	2

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 Q SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Monday, March 04, 2013 11:50:16

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	353379	1
[ Be	9	0.186	ug/L	0.027	14	14	110	10
C	13		mg/L			3091	5813	1
Cl	37		mg/L			2248348	2531339	0
[> Sc	45		ug/L			250576	285961	2
V	51	19.052	ug/L	0.750	3	1571	241141	1
V-1	51	18.810	ug/L	0.720	3	2441	243393	1
Cr	52	7.040	ug/L	0.191	2	4889	82109	1
Cr	53	6.953	ug/L	0.133	1	830	9998	0
Mn	55	185.398	ug/L	2.273	1	381	3212654	1
[ Co	59	3.966	ug/L	0.095	2	63	52035	2
[> Ge	72		ug/L			269725	276384	0
Ni	60	8.117	ug/L	0.079	0	52	20152	1
Ni	62	9.538	ug/L	0.171	1	62	3528	0
Cu	63	7.172	ug/L	0.050	0	143	38535	0
Cu	65	7.226	ug/L	0.104	1	92	18285	1
Zn	66	27.751	ug/L	0.377	1	344	44471	0
Zn	67	27.360	ug/L	0.806	2	123	7451	3
Zn	68	27.390	ug/L	0.472	1	6370	36970	0
As	75	2.343	ug/L	0.003	0	232	3914	0
As-1	75	2.379	ug/L	0.105	4	7206	11048	0
Se	82	0.108	ug/L	0.030	27	-12	5	86
Se	78	0.147	ug/L	0.371	253	7350	7590	1
[ Mo	98	0.022	ug/L	0.005	21	144	275	9
Y	89		ug/L			257911	349999	0
Kr	83		ug/L			170	184	1
[> In	115		ug/L			277060	281553	0
Ag	107	0.030	ug/L	0.002	5	38	319	5
Cd	111	0.199	ug/L	0.016	7	155	619	6
Cd	114	0.037	ug/L	0.003	6	32	232	5
Sb	121	0.004	ug/L	0.001	32	34	67	15
Sb	123	0.005	ug/L	0.001	13	26	55	6
Ba	135	35.538	ug/L	0.415	1	26	66477	1
[ Ba	137	35.185	ug/L	0.531	1	47	113777	1
[> Tb	159		ug/L			323483	332436	1
Tl	205	0.061	ug/L	0.001	0	37	1556	2
Pb	208	5.100	ug/L	0.052	1	280	164451	0
Bi	209		ug/L			272126	273253	1
Th	232	0.943	ug/L	0.017	1	80	39275	0
[ U	238	0.187	ug/L	0.004	2	9	8738	3

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE82 R SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Monday, March 04, 2013 11:56:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	346611	2
[ Be	9	0.197	ug/L	0.023	11	14	114	7
C	13		mg/L			3091	6061	3
Cl	37		mg/L			2248348	2530452	0
[> Sc	45		ug/L			250576	283425	1
V	51	20.597	ug/L	0.066	0	1571	258391	1
V-1	51	20.323	ug/L	0.081	0	2441	260570	0
Cr	52	6.022	ug/L	0.063	1	4889	70441	1
Cr	53	5.980	ug/L	0.063	1	830	8656	0
Mn	55	187.721	ug/L	1.796	0	381	3224473	0
[ Co	59	4.026	ug/L	0.060	1	63	52356	0
[> Ge	72		ug/L			269725	271201	1
Ni	60	5.782	ug/L	0.158	2	52	14105	4
Ni	62	7.446	ug/L	0.194	2	62	2716	1
Cu	63	6.395	ug/L	0.070	1	143	33736	2
Cu	65	6.540	ug/L	0.127	1	92	16244	0
Zn	66	26.993	ug/L	0.227	0	344	42456	1
Zn	67	27.504	ug/L	0.518	1	123	7348	0
Zn	68	27.161	ug/L	0.234	0	6370	36028	1
As	75	1.358	ug/L	0.018	1	232	2324	0
As-1	75	1.499	ug/L	0.044	2	7206	9511	1
Se	82	0.078	ug/L	0.091	116	-12	0	2078
Se	78	0.648	ug/L	0.123	18	7350	7647	1
[ Mo	98	0.024	ug/L	0.005	21	144	281	12
Y	89		ug/L			257911	352705	0
Kr	83		ug/L			170	191	1
[> In	115		ug/L			277060	273203	1
Ag	107	0.044	ug/L	0.003	5	38	439	5
Cd	111	0.254	ug/L	0.015	6	155	723	4
Cd	114	0.034	ug/L	0.005	15	32	211	12
Sb	121	0.006	ug/L	0.001	10	34	80	6
Sb	123	0.007	ug/L	0.001	12	26	65	8
Ba	135	48.583	ug/L	0.634	1	26	88168	0
[ Ba	137	48.303	ug/L	0.739	1	47	151537	0
[> Tb	159		ug/L			323483	323602	1
Tl	205	0.037	ug/L	0.001	2	37	943	1
Pb	208	2.788	ug/L	0.052	1	280	87644	0
Bi	209		ug/L			272126	266496	0
Th	232	1.142	ug/L	0.017	1	80	46309	0
[ U	238	0.155	ug/L	0.001	0	9	7047	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 12:02:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			328612	336290	0
[ Be	9	48.123	ug/L	0.411	0	14	23448	1
C	13		mg/L			3091	4306	1
Cl	37		mg/L			2248348	2518072	0
> Sc	45		ug/L			250576	250134	1
V	51	49.136	ug/L	0.191	0	1571	541806	1
V-1	51	49.186	ug/L	0.378	0	2441	553054	1
Cr	52	48.429	ug/L	0.511	1	4889	465487	0
Cr	53	48.628	ug/L	1.092	2	830	56197	0
Mn	55	49.369	ug/L	0.885	1	381	748634	1
[ Co	59	49.108	ug/L	0.519	1	63	562975	1
> Ge	72		ug/L			269725	270095	1
Ni	60	48.877	ug/L	0.488	0	52	118323	1
Ni	62	49.647	ug/L	1.069	2	62	17685	1
Cu	63	49.781	ug/L	0.737	1	143	260513	0
Cu	65	49.831	ug/L	0.677	1	92	122697	2
Zn	66	50.594	ug/L	0.586	1	344	78947	0
Zn	67	50.259	ug/L	0.119	0	123	13273	1
Zn	68	50.898	ug/L	0.400	0	6370	61669	1
As	75	50.118	ug/L	0.349	0	232	77082	0
As-1	75	50.242	ug/L	0.379	0	7206	82854	0
Se	82	50.225	ug/L	0.535	1	-12	8367	0
Se	78	50.773	ug/L	0.688	1	7350	27466	0
[ Mo	98	48.709	ug/L	0.572	1	144	275097	1
Y	89		ug/L			257911	251082	1
Kr	83		ug/L			170	183	4
> In	115		ug/L			277060	271192	1
Ag	107	50.220	ug/L	0.955	1	38	452298	1
Cd	111	50.386	ug/L	0.694	1	155	112345	1
Cd	114	50.709	ug/L	0.605	1	32	261843	0
Sb	121	50.318	ug/L	0.672	1	34	375102	0
Sb	123	50.661	ug/L	0.573	1	26	284725	0
Ba	135	50.028	ug/L	1.064	2	26	90111	0
Ba	137	49.837	ug/L	0.995	1	47	155184	0
> Tb	159		ug/L			323483	319259	1
Tl	205	48.098	ug/L	1.313	2	37	1147754	1
Pb	208	49.932	ug/L	0.615	1	280	1543777	0
Bi	209		ug/L			272126	258604	2
Th	232	45.993	ug/L	0.654	1	80	1836558	1
[ U	238	48.343	ug/L	3.262	6	9	2165412	6

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 04, 2013 12:08:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030413.cal

*and pkg*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			328612	341563	1
[ Be	9	0.004	ug/L	0.003	78	14	17	8
C	13		mg/L			3091	3566	2
Cl	37		mg/L			2248348	2564855	0
[> Sc	45		ug/L			250576	257830	1
V	51	0.008	ug/L	0.007	88	1571	1701	4
V-1	51	0.003	ug/L	0.003	103	2441	2545	1
Cr	52	0.007	ug/L	0.001	17	4889	5098	0
Cr	53	-0.008	ug/L	0.011	139	830	845	1
Mn	55	0.015	ug/L	0.003	22	381	626	7
[ Co	59	0.002	ug/L	0.002	120	63	84	26
[> Ge	72		ug/L			269725	277841	0
Ni	60	0.030	ug/L	0.004	13	52	130	7
Ni	62	0.045	ug/L	0.016	35	62	81	7
Cu	63	0.015	ug/L	0.003	20	143	230	8
Cu	65	0.004	ug/L	0.005	101	92	106	11
Zn	66	0.095	ug/L	0.004	4	344	506	1
Zn	67	0.095	ug/L	0.050	53	123	152	8
Zn	68	-0.077	ug/L	0.039	51	6370	6476	0
As	75	0.036	ug/L	0.008	23	232	296	4
As-1	75	0.074	ug/L	0.029	38	7206	7537	0
Se	82	0.053	ug/L	0.055	103	-12	-3	265
Se	78	0.236	ug/L	0.127	53	7350	7667	0
[ Mo	98	-0.006	ug/L	0.005	86	144	115	25
Y	89		ug/L			257911	261248	0
Kr	83		ug/L			170	181	2
[> In	115		ug/L			277060	282674	0
Ag	107	0.008	ug/L	0.003	37	38	118	25
Cd	111	0.001	ug/L	0.004	373	155	161	6
Cd	114	-0.000	ug/L	0.002	568	32	31	31
Sb	121	0.065	ug/L	0.017	25	34	541	24
Sb	123	0.059	ug/L	0.013	21	26	376	20
Ba	135	0.009	ug/L	0.002	25	26	43	9
[ Ba	137	0.007	ug/L	0.004	65	47	70	20
[> Tb	159		ug/L			323483	324584	1
Tl	205	0.005	ug/L	0.002	30	37	161	23
Pb	208	0.009	ug/L	0.001	7	280	579	4
Bi	209		ug/L			272126	268130	1
Th	232	0.039	ug/L	0.012	30	80	1653	28
[ U	238	0.003	ug/L	0.001	40	9	131	37

**Metals Data Review Checklist**

Method: ICP ICP-MS GFA CVA

Analysis Date: 3-04-13

	Analyst	Peer	Comment
	CB 3-04-13	BA 3-5-13	
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	✓	✓	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	See log
Matrix Duplicates	✓	✓	See log
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	✓	✓	see CAFS



### Mercury Analysis Log

Analyst: CB  
Instrument: CETAL

Date: 3-04-13  
Page: 2 of 8

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WES9 ASPK	0mm	1x	1.12	CB 3/04/13 %R = 102
" B	↓			
" C	↓			
" D	↓			
" J	↓			
" K	0mm			
WFOG MB2	LEM		0.01	
" A2	↓		0.01	
" Atsup	↓		0.01	No RPD: undetected
" Atspk	LEM		1.02	%R = 102
CCV	Twm		4.11	%R = 103
CCB	Twm		0.08	
WES8 MB2	SPM		0.00	
" CA	↓		0.01	
" Cadup	↓		0.01	No RPD: undetected
" Cospk	↓		1.04	%R = 104
" DA	↓			
" EA	↓			
" FA	SPMV			
CCV	Twm		4.13	%R = 103
CCB	Twm		-0.00	
STD 0.0	Smm			
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV	↓		8.46	Begin LIP %R = 106
ICB	↓		-0.02 0.00	CB 3/5/13

Chemical/Reagent ID:  
10% SnCl<sub>2</sub>: mp2446

14% NH<sub>2</sub>OH/NaCl: mp2436

Standard ID:  
Standard: 3019-5 (Twm)  
3019-4 (Smm)

ICV/CCV: 59-6

### Mercury Analysis Log

Analyst: CB  
 Instrument: CETAC

Date: 3-04-13  
 Page: 3 of 9

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
CCV1	Smm	1X	4.12	%R = 103 ✓
CCB1			-0.01	✓
CRA			0.09	✓
WE82 mB1			0.00	✓
" mB1spk			2.19	%R = 110 ✓
" A			0.48	
" Adys			0.53	✓
" Asok			1.65	%R = 117 ✓
" B				
" C				
" D				
" E				
CCV2			4.17	%R = 104 ✓
CCB2			-0.01	✓
WE82 F				
" G				
" H				
" I				
" J				
" K				
" L				
" M				
" N				
" O				
CCV3			4.14	%R = 104 ✓
CCB3			-0.00	✓
WE82 P				
" Q				
" R				
" S				

Chemical/Reagent ID:  
 10% SnCl<sub>2</sub>: mp2446  
 Standard ID:  
 Standard: 3019-4

14% NH<sub>2</sub>OH/NaCl: mp2436  
 ICV/CCV: 59-6

### Mercury Analysis Log

Analyst: CB  
 Instrument: CETAC

Date: 3-04-13  
 Page: 4 of 8

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WE82 T	SMM	1X		
" MB2			0.00	✓
" mA250K			2.17	%R=109 ✓
" U				
" V				
" W				
CCV4			4.15	%R=104 ✓
CCB4			-0.00	✓
WE81 MB1			0.01	✓
" MB150K			2.06	%R=103 ✓
" A			3.31	
" Adv0			3.49	RAQ=5.30 ✓
" ASDK			4.38	%R=107 ✓
" B				
" C				
" D				
" E				
" F				
CCV5			4.12	%R=103 ✓
CCB5			-0.02	✓
WE81 G				
" H				
" I				
" J			19.42	Sat'd X
" K			19.35	Sat'd X
" L			19.29	Sat'd X
" M			19.31	Sat'd X
" N			19.30	Sat'd X
" O			19.31	Sat'd X
" P	✓	✓	19.29	Sat'd X

Chemical/Reagent ID:  
 10% SnCl<sub>2</sub>: mp2446  
 Standard ID:  
 Standard: 3019-4

14% NH<sub>2</sub>OH/NaCl: mp2436  
 ICV/CCV: 59-6

## Mercury Analysis Log

Analyst: CB  
Instrument: CETAC

Date: 3-04-13  
Page: 5 of 8

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
CCV6	5mm	1x	3.98	Q/R = 100 ✓
CCB6			-0.07	✓
WE81 G				
" R			13.72	High X
" S				
" T				
" MB2			-0.03	✓
" MB2SPK			2.01	Q/R = 101 ✓
" U				
" V				
" W				
" X				
CCV7			3.99	Q/R = 100 ✓
CCB7			-0.05	✓
WE81 J		5x	19.44	Sat'd X
" K			19.38	Sat'd X
" L			19.39	Sat'd X
" M			19.38	Sat'd X
" N			19.40	Sat'd X
" O		↓	19.40	Sat'd X
" P		5x	10.51	High X
" R		2x	6.68	
CCV8		1x	3.95	Q/R = 99 ✓
CCB8		1x	-0.05	✓
WE81 J		10x	19.44	Sat'd X
" K			19.25	Sat'd X
" L			19.41	Sat'd X
" M			19.40	Sat'd X
" N		↓	15.37	High X
" O		↓ 10x	19.41	Sat'd X

Chemical/Reagent ID:  
10% SnCl<sub>2</sub>: m2446  
Standard ID:  
Standard: 3019-4

14% NH<sub>2</sub>OH/NaCl: m2436  
ICV/CCV: 59-6

### Mercury Analysis Log

Analyst: CB  
Instrument: CETAC

Date: 3-04-13  
Page: 6 of 8

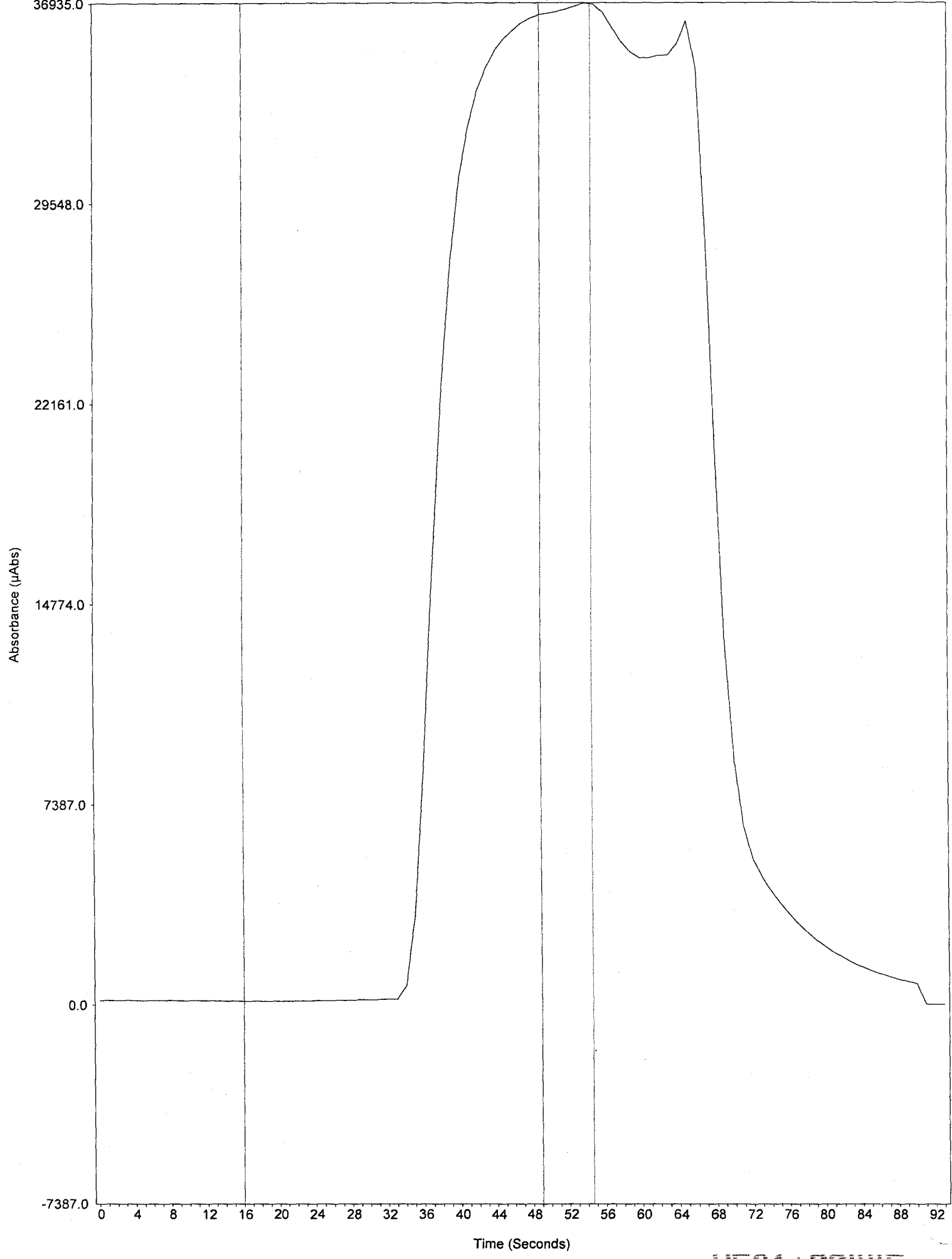
ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WE81 P	SMA	10x	5.20	
CCV9		1x	4.13	%R=103 ↓
CCB9		1x	-0.05	↓
WE81 J		20x	19.43	Sat'd X
" K		↑	9.23	
" L		↓	13.17	High X
" M		↓	12.87	High X
" N		↓	7.45	
" O		20x	15.00	High X
CCV10		1x	4.12	%R=102 ↓
CCB10		1x	-0.05	↓
WE81 J		*50x	16.30	EA 3/04/13 Wrong test tube X
WE81 J		50x	8.36	
" L		40x	6.37	
" M		↓	6.20	
" O		40x	7.84	
CCV11		1x	4.14	%R=104 ↓
CCB11			-0.05	↓
<del>WE53 mBI</del>			<del>-0.04</del>	
<del>" mBISAK</del>			<del>2.04</del>	<del>%R=102 ↓</del>
<del>" G</del>			<del>0.53</del>	
<del>" Gdup</del>			<del>0.69</del>	<del>RPD = 26.2 High X</del>
<del>" GSAK</del>			<del>1.59</del>	<del>%R=106 ↓</del>
<del>" H</del>			<del></del>	
<del>WE74 mBI</del>			<del>-0.03</del>	
<del>" mBISAK</del>			<del>2.05</del>	<del>%R=103 ↓</del>
<del>" A</del>			<del>0.79</del>	
<del>" Adup</del>			<del>0.38</del>	<del>RPD: 70.1 0. Reference High X</del>
CCV12			4.13	%R=103 ↓
CCB12	↓	↓	-0.04	↓

Chemical/Reagent ID:  
10% SnCl<sub>2</sub>: mp244b

14% NH<sub>2</sub>OH/NaCl: mp243b

Standard ID:  
Standard: 3019-4

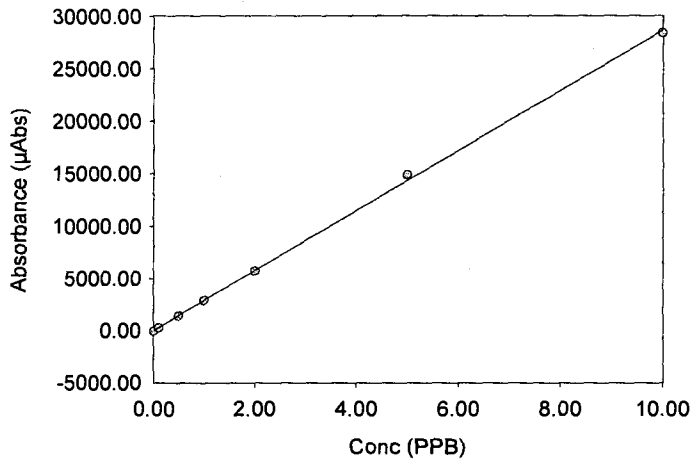
ICV/CCV: 59-b



Analyst  
 Date Started Monday, March 04, 2013, 10:42:49  
 Worksheet ARI 10ppb CALIB  
 Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
Calibration Zero	04-Mar-2013, 10:42	0.00	33.10	-26.50	1.00	
Standard #1	04-Mar-2013, 10:44	0.10	2.97	251.00	1.00	
Standard #2	04-Mar-2013, 10:46	0.50	0.72	1420.00	1.00	
Standard #3	04-Mar-2013, 10:47	1.00	0.49	2890.00	1.00	
Standard #4	04-Mar-2013, 10:49	2.00	0.47	5710.00	1.00	
Standard #5	04-Mar-2013, 10:50	5.00	0.53	14900.00	1.00	
Standard #6	04-Mar-2013, 10:52	10.00	0.45	28400.00	1.00	

Calibration Data



Int. Slope 0.000  
 2867.918  
 SMM  
 Correlation 0.99972

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
ICV	04-Mar-2013, 10:56	8.46	0.69	24300.00	1.00	
ICB	04-Mar-2013, 10:58	-0.02	4.82	-63.40	1.00	Bes in LLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Standard	04-Mar-2013, 10:59	4.12	0.63	11800.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Blank	04-Mar-2013, 11:01	-0.01	4.78	-29.80	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
CRA	04-Mar-2013, 11:02	0.09	2.43	261.00	1.00	
WE82 MB1 SMM	04-Mar-2013, 11:04	0.00	27.60	11.50	1.00	
WE82 MB1SPK SMM	04-Mar-2013, 11:06	2.19	0.76	6280.00	1.00	
WE82 A SMM	04-Mar-2013, 11:07	0.48	1.17	1380.00	1.00	
WE82 ADUP SMM	04-Mar-2013, 11:09	0.53	1.84	1520.00	1.00	
WE82 ASPK SMM	04-Mar-2013, 11:10	1.65	0.79	4730.00	1.00	
WE82 B SMM	04-Mar-2013, 11:12	0.61	0.34	1750.00	1.00	
WE82 C SMM	04-Mar-2013, 11:14	2.26	0.76	6490.00	1.00	
WE82 D SMM	04-Mar-2013, 11:15	1.34	0.63	3860.00	1.00	
WE82 E SMM	04-Mar-2013, 11:17	0.81	0.83	2330.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Standard	04-Mar-2013, 11:19	4.17	0.31	12000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Blank	04-Mar-2013, 11:20	-0.01	22.40	-37.40	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
WE82 F SMM	04-Mar-2013, 11:22	0.45	0.86	1300.00	1.00	
WE82 G SMM	04-Mar-2013, 11:23	0.77	0.83	2210.00	1.00	
WE82 H SMM	04-Mar-2013, 11:25	0.84	0.59	2400.00	1.00	
WE82 I SMM	04-Mar-2013, 11:27	1.02	0.58	2920.00	1.00	

Analyst  
 Date Started Monday, March 04, 2013, 11:28:45  
 Worksheet ARI 10ppb CALIB  
 Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE82 J SMM	04-Mar-2013, 11:28	0.90	0.92	2590.00	1.00	
WE82 K SMM	04-Mar-2013, 11:30	1.65	0.79	4720.00	1.00	
WE82 L SMM	04-Mar-2013, 11:31	0.13	1.92	378.00	1.00	
WE82 M SMM	04-Mar-2013, 11:33	0.33	0.71	942.00	1.00	
WE82 N SMM	04-Mar-2013, 11:35	0.16	1.03	469.00	1.00	
WE82 O SMM	04-Mar-2013, 11:36	0.10	2.24	298.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Mar-2013, 11:38	4.14	0.64	11900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Mar-2013, 11:40	-0.00	20.50	-8.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE82 P SMM	04-Mar-2013, 11:41	0.09	1.01	248.00	1.00	
WE82 Q SMM	04-Mar-2013, 11:43	0.13	0.63	368.00	1.00	
WE82 R SMM	04-Mar-2013, 11:45	0.15	0.48	443.00	1.00	
WE82 S SMM	04-Mar-2013, 11:46	0.68	0.69	1940.00	1.00	
WE82 T SMM	04-Mar-2013, 11:48	0.21	0.18	602.00	1.00	
WE82 MB2 SMM	04-Mar-2013, 11:49	0.00	161.00	1.53	1.00	
WE82 MB2SPK SMM	04-Mar-2013, 11:51	2.17	0.76	6230.00	1.00	
WE82 U SMM	04-Mar-2013, 11:53	0.52	1.13	1510.00	1.00	
WE82 V SMM	04-Mar-2013, 11:54	0.19	1.79	550.00	1.00	
WE82 W SMM	04-Mar-2013, 11:56	0.64	0.55	1850.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Mar-2013, 11:57	4.15	0.49	11900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Mar-2013, 11:59	-0.00	14.30	-7.59	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE81 MB1 SMM	04-Mar-2013, 12:01	0.01	25.70	18.10	1.00	
WE81 MB1SPK SMM	04-Mar-2013, 12:03	2.06	0.21	5910.00	1.00	
WE81 A SMM	04-Mar-2013, 12:04	3.31	0.64	9480.00	1.00	
WE81 ADUP SMM	04-Mar-2013, 12:06	3.49	0.59	10000.00	1.00	
WE81 ASPK SMM	04-Mar-2013, 12:08	4.38	0.65	12600.00	1.00	
WE81 B SMM	04-Mar-2013, 12:09	0.37	0.50	1050.00	1.00	
WE81 C SMM	04-Mar-2013, 12:11	1.16	0.40	3330.00	1.00	
WE81 D SMM	04-Mar-2013, 12:12	1.51	0.35	4320.00	1.00	
WE81 E SMM	04-Mar-2013, 12:14	2.10	0.82	6030.00	1.00	
WE81 F SMM	04-Mar-2013, 12:16	3.16	0.50	9070.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Mar-2013, 12:17	4.12	0.59	11800.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Mar-2013, 12:19	-0.02	2.81	-54.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE81 G SMM	04-Mar-2013, 12:21	0.61	0.48	1740.00	1.00	
WE81 H SMM	04-Mar-2013, 12:22	0.52	0.93	1490.00	1.00	
WE81 I SMM	04-Mar-2013, 12:24	0.51	1.07	1460.00	1.00	
WE81 J SMM	04-Mar-2013, 12:25	Sat'd.	0.00	55700.00	1.00	SO
WE81 K SMM	04-Mar-2013, 12:33	Sat'd.	0.00	55500.00	1.00	SO
WE81 L SMM	04-Mar-2013, 12:38	Sat'd.	0.00	55300.00	1.00	SO
WE81 M SMM	04-Mar-2013, 12:45	Sat'd.	0.00	55400.00	1.00	SO
WE81 N SMM	04-Mar-2013, 12:51	Sat'd.	0.00	55300.00	1.00	SO
WE81 O SMM	04-Mar-2013, 12:56	Sat'd.	0.00	55400.00	1.00	SO
WE81 P SMM	04-Mar-2013, 13:03	Sat'd.	0.00	55300.00	1.00	SO

High Sat'd



Analyst  
 Date Started Monday, March 04, 2013, 13:07:17  
 Worksheet ARI 10ppb CALIB  
 Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Standard	04-Mar-2013, 13:07	3.98	0.57	11400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Blank	04-Mar-2013, 13:08	-0.07	2.24	-193.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
WE81 Q SMM	04-Mar-2013, 13:10	2.10	0.84	6010.00	1.00	
WE81 R SMM	04-Mar-2013, 13:12	13.70	0.53	39400.00	1.00	O High
WE81 S SMM	04-Mar-2013, 13:14	0.58	0.65	1670.00	1.00	
WE81 T SMM	04-Mar-2013, 13:16	0.24	1.87	684.00	1.00	
WE81 MB2 SMM	04-Mar-2013, 13:18	-0.03	9.23	-97.20	1.00	
WE81 MB2SPK SMM	04-Mar-2013, 13:19	2.01	0.76	5760.00	1.00	
WE81 U SMM	04-Mar-2013, 13:21	0.37	1.43	1070.00	1.00	
WE81 V SMM	04-Mar-2013, 13:22	0.52	0.78	1500.00	1.00	
WE81 W SMM	04-Mar-2013, 13:24	0.67	0.85	1920.00	1.00	
WE81 X SMM	04-Mar-2013, 13:26	0.57	0.23	1650.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Standard	04-Mar-2013, 13:27	3.98	0.45	11400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Blank	04-Mar-2013, 13:29	-0.05	2.12	-151.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
WE81 J SMM	04-Mar-2013, 13:31	Sat'd.	0.00	55800.00	5.00	SO
WE81 K SMM	04-Mar-2013, 13:35	Sat'd.	0.00	55600.00	5.00	SO
WE81 L SMM	04-Mar-2013, 13:38	Sat'd.	0.00	55600.00	5.00	SO
WE81 M SMM	04-Mar-2013, 13:41	Sat'd.	0.00	55600.00	5.00	SO
WE81 N SMM	04-Mar-2013, 13:45	Sat'd.	0.00	55600.00	5.00	SO
WE81 O SMM	04-Mar-2013, 13:48	Sat'd.	0.00	55700.00	5.00	SO
WE81 P SMM	04-Mar-2013, 13:52	10.50	0.54	30100.00	5.00	O High
WE81 R SMM	04-Mar-2013, 13:53	6.68	0.76	19200.00	2.00	

High Sat'd

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Standard	04-Mar-2013, 13:55	3.95	0.56	11300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Blank	04-Mar-2013, 13:57	-0.05	4.45	-143.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
WE81 J SMM	04-Mar-2013, 13:59	Sat'd.	0.00	55700.00	10.00	SO
WE81 K SMM	04-Mar-2013, 14:02	Sat'd.	0.51	55200.00	10.00	SO
WE81 L SMM	04-Mar-2013, 14:05	Sat'd.	0.00	55700.00	10.00	SO
WE81 M SMM	04-Mar-2013, 14:08	Sat'd.	0.00	55600.00	10.00	SO
WE81 N SMM	04-Mar-2013, 14:11	15.40	0.64	44100.00	10.00	O High
WE81 O SMM	04-Mar-2013, 14:14	Sat'd.	0.00	55700.00	10.00	SO
WE81 P SMM	04-Mar-2013, 14:17	5.20	0.66	14900.00	10.00	High Sat'd

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Standard	04-Mar-2013, 14:18	4.13	0.60	11900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Blank	04-Mar-2013, 14:20	-0.05	2.24	-143.00	1.00	

Analyst  
 Date Started Monday, March 04, 2013, 14:22:17  
 Worksheet ARI 10ppb CALIB  
 Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE81 J SMM	04-Mar-2013, 14:22	Sat'd.	0.00	55700.00	20.00	SO High Sat'd
WE81 K SMM	04-Mar-2013, 14:25	9.23	0.73	26500.00	20.00	
WE81 L SMM	04-Mar-2013, 14:26	13.20	0.51	37800.00	20.00	O High
WE81 M SMM	04-Mar-2013, 14:29	12.90	0.50	36900.00	20.00	O High
WE81 N SMM	04-Mar-2013, 14:31	7.45	0.82	21400.00	20.00	
WE81 O SMM	04-Mar-2013, 14:33	15.00	0.90	43000.00	20.00	O High

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Mar-2013, 14:36	4.12	0.55	11800.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Mar-2013, 14:37	-0.05	1.47	-142.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE81 J SMM	04-Mar-2013, 14:41	8.36	0.09	24000.00	50.00	
WE81 L SMM	04-Mar-2013, 14:42	6.37	1.08	18300.00	40.00	
WE81 M SMM	04-Mar-2013, 14:44	6.20	0.84	17800.00	40.00	
WE81 O SMM	04-Mar-2013, 14:46	7.84	1.43	22500.00	40.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Mar-2013, 14:47	4.14	0.51	11900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Mar-2013, 14:49	-0.05	2.73	-141.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
<del>WF53 MB1 SMM</del>	<del>04-Mar-2013, 14:51</del>	<del>-0.04</del>	<del>2.25</del>	<del>-110.00</del>	<del>1.00</del>	
<del>WF53 MB1SPK SMM</del>	<del>04-Mar-2013, 14:53</del>	<del>2.04</del>	<del>0.76</del>	<del>5860.00</del>	<del>1.00</del>	
<del>WF53 S SMM</del>	<del>04-Mar-2013, 14:55</del>	<del>0.53</del>	<del>0.72</del>	<del>1530.00</del>	<del>1.00</del>	
<del>WF53 GDUP SMM</del>	<del>04-Mar-2013, 14:56</del>	<del>0.69</del>	<del>1.01</del>	<del>1980.00</del>	<del>1.00</del>	APD High
<del>WF53 GSPK SMM</del>	<del>04-Mar-2013, 14:58</del>	<del>1.59</del>	<del>0.76</del>	<del>4570.00</del>	<del>1.00</del>	
<del>WF53 H SMM</del>	<del>04-Mar-2013, 14:59</del>	<del>0.43</del>	<del>0.49</del>	<del>1240.00</del>	<del>1.00</del>	
<del>WF78 MB1 SMM</del>	<del>04-Mar-2013, 15:01</del>	<del>-0.03</del>	<del>1.89</del>	<del>-75.40</del>	<del>1.00</del>	
<del>WF78 MB1SPK SMM</del>	<del>04-Mar-2013, 15:03</del>	<del>2.05</del>	<del>0.75</del>	<del>5890.00</del>	<del>1.00</del>	
<del>WF78 A SMM</del>	<del>04-Mar-2013, 15:04</del>	<del>0.79</del>	<del>0.78</del>	<del>2250.00</del>	<del>1.00</del>	
<del>WF78 ADUP SMM</del>	<del>04-Mar-2013, 15:06</del>	<del>0.38</del>	<del>0.42</del>	<del>1090.00</del>	<del>1.00</del>	APD High CB 3/4/13 difference 70.1

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Mar-2013, 15:08	4.13	0.48	11900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Mar-2013, 15:09	-0.04	3.47	-122.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WF78 ASPK SMM	04-Mar-2013, 15:11	1.31	0.56	3760.00	1.00	O/R low

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	04-Mar-2013, 15:12	4.17	0.40	12000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	04-Mar-2013, 15:14	-0.04	2.79	-125.00	1.00	End CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WF18 MB SMM	04-Mar-2013, 15:16	-0.02	2.01	-68.10	1.00	
WF18 MBSPK SMM	04-Mar-2013, 15:17	1.91	0.45	5470.00	1.00	
WF18 REF SMM	04-Mar-2013, 15:19	6.69	0.69	19200.00	5.00	

WE81 : 00419

Analyst  
Date Created: Thursday, July 13, 2000  
Worksheet: ARI 10ppb CALIB  
Comment

Sip Duration (Sec.): 30  
Rinse Duration (Sec.): 60  
Read Delay: 49  
Integration Time/Replicate: 1.40  
# of Replicates: 4  
# of Repeats: 1  
Baseline Correction Enabled: True  
Baseline Point 1 Start Time: 10  
Baseline Point 1 End Time: 16  
2-Point Baseline Corr. Enabled: False  
Baseline Point 2 Start Time:  
Baseline Point 2 End Time:

Gas Flow (ml/min): 180

Calibration Algorithm: Linear, Zero Intercept  
Recalibration Frequency: 0  
Reslope Frequency: 0  
Reslope Standard: 5  
Calibration Standard #1 Conc.: 0.10 PPB  
Calibration Standard #2 Conc.: 0.50 PPB  
Calibration Standard #3 Conc.: 1.00 PPB  
Calibration Standard #4 Conc.: 2.00 PPB  
Calibration Standard #5 Conc.: 5.00 PPB  
Calibration Standard #6 Conc.: 10.00 PPB

QC Enabled: True  
QC-RSD Enabled: True  
Limit Condition & Error Action: If %RSD > 5.0%, if  $\mu$ Abs. > 1500, Flag and Continue

QC-Std Enabled: True  
Limit Condition & Error Action: If outside 80% .. 120%, Stop

QC-Blank Enabled: True  
Limit Condition & Error Action: If outside -100 .. 100, Stop



# Mercury Standard Prep Log

Prep Code: SMH

Instrument: CETAC

Analyst: CB

Date: 02-28-03

Bath Temp: 40°C

Start Time: 0923

End Time: 0953

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	-	0.00	50.0	0.0	3
STD1	3019-4	0.01		0.1	2
STD2		0.05		0.5	2
STD3		0.10		1.0	2
STD4		0.20		2.0	2
STD5		0.50		5.0	2
STD6		1.00		10.0	2
CRA	↓	0.01		0.1	1
ICB/CCB	-	0.00		0.0	3
ICV/LCS	59-6	0.08	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:

HNO<sub>3</sub>: 28022

H<sub>2</sub>SO<sub>4</sub>: 27673

HCl: -

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: mp248

5% KMnO<sub>4</sub>: mp2425

Prep Code: \_\_\_\_\_

Instrument: \_\_\_\_\_

Analyst: \_\_\_\_\_

Date: \_\_\_\_\_

Bath Temp: \_\_\_\_\_

Start Time: \_\_\_\_\_

End Time: \_\_\_\_\_

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO<sub>3</sub>: \_\_\_\_\_

H<sub>2</sub>SO<sub>4</sub>: \_\_\_\_\_

HCl: \_\_\_\_\_

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: \_\_\_\_\_

5% KMnO<sub>4</sub>: \_\_\_\_\_



# Mercury Digestion Log

Prep Code: SMM  
Analyst: NB  
Bath Temp: 90°C

Matrix: SOIL  
Date: 02-27-13  
End Time: 1522

Start Time: 1452

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WEB1 A	1	-	0.616	50.0	<sup>03-08</sup> 1	YES	
" ADWP	1	-	0.617		1		
" ASPK	1	-	0.620		1		
" B	1	-	0.717		1		
" C	1	-	0.543		1		
" D	1	-	0.559		1		
" E	1	-	0.716		1		
" F	1	-	0.542		1		
" G	1	-	0.671		1		
" H	1	-	0.605		1		
" I	1	-	0.748		1		
" J	1	-	0.546		1		
" K	1	-	0.544		1		
" L	1	-	0.552		1		
" M	1	-	0.573		1		
" MBI	-	-	-		1		
" MBSPK	-	-	-		1		
" N	1	-	0.589		1		
" O	1	-	0.598		1		
" P	1	-	0.687		1		
" Q	1	-	0.615		1		
" R	1	-	0.675		1		
" S	1	-	0.506	↓	1		
" T	1	-	0.507	50.0	1	↓	
				NB 02-27-13			

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022  
5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2439

H<sub>2</sub>SO<sub>4</sub>: I7677  
5% KMnO<sub>4</sub>: MP2425

HCl: -  
Digest Tube Lot: MF06LKK01



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 02-27-13

Bath Temp: 90°C

Start Time: 1452

End Time: 1522

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) -Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WEB1 U	1	-	0.616	50.0	03-08 1	YES	
" V	1	-	0.592	↓	1	↓	
" W	1	-	0.608	↓	1	↓	
" X	1	-	0.586	↓	1	↓	
" MB2	-	-	-	↓	1	↓	
" MB25PK	-	-	-	50.0	1	↓	
NB 02-27-13							

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022

H<sub>2</sub>SO<sub>4</sub>: I7677

HCl: —

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2439

5% KMnO<sub>4</sub>: MP2425

Digest Tube Lot: MFO6LKK01



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 02-28-13

Bath Temp: 92°C

Start Time: 1433

End Time: 1503

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WEB2 A	1	—	0.643	50.0	53-08 1	YES	
" ADUP	1	—	0.640		1		
" ASPK	1	—	0.642		1		
" B	1	—	0.692		1		
" C	1	—	0.673		1		
" D	1	—	0.594		1		
" E	1	—	0.576		1		
" F	1	—	0.620		1		
" G	1	—	0.663		1		
" H	1	—	0.664		1		
" I	1	—	0.543		1		
" J	1	—	0.573		1		
" K	1	—	0.523		1		
" L	1	—	0.519		1		
" M	1	—	0.685		1		
" MBI	—	—	—		1		
" MBISPK	—	—	—		1		
" N	1	—	0.592		1		
" O	1	—	0.552		1		
" P	1	—	0.566		1		
" Q	1	—	0.645		1		
" R	1	—	0.690		1		
" S	1	—	0.618	↓	1		
" T	1	—	0.581	50.0	1	↓	
			NB 02-28-13				

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022

H<sub>2</sub>SO<sub>4</sub>: I7677

HCl: —

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2439

5% KMnO<sub>4</sub>: MP2425

Digest Tube Lot: MFO6LKK01



# Mercury Digestion Log

Prep Code: SMM

Matrix: SOIL

Analyst: NB

Date: 02-28-13

Bath Temp: 92°C

Start Time: 1433

End Time: 1503

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WE82 U	1	-	0.577	50.0	03-08, 1	YES	
" V	1	-	0.534	↓	1	↓	
" W	1	-	0.614	↓	1	↓	
" MB2	-	-	-	↓	1	↓	
" MB25PK	-	-	-	50.0	1	↓	
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: relative; margin: 0 auto;"> <span style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">NB</span> <span style="position: absolute; top: 60%; left: 50%; transform: translate(-50%, -50%); font-size: 1.2em;">02-28-13</span> </div>							

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022

H<sub>2</sub>SO<sub>4</sub>: I7677

HCl: —

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2439

5% KMnO<sub>4</sub>: MP2425

Digest Tube Lot: MF06LKK01



**General Chemistry Analysis  
Report and Summary QC Forms**

**ARI Job ID: WE81, WE82**

W  
3-1-17

<b>Soil - pH</b>					Date: 2/28/2013		
meter: Orion Model 115					Analyst: KE 11:15		
<b>Conductivity Calibration</b>				<b>pH Calibration</b> Temperature (°C)			
Potassium Chloride standard ARI ID = N/A				pH Buffers 2, 4, 7, 10, 12			
Conductivity = 1413 $\mu\text{S/cm}$		Cal Temp N/A		Verification Buffer		pH	
Input Value $\mu\text{S/cm}$				Source FISHER#		7.00	
<b>Conductivity Verification Standard</b>				Record Certified Values			
Source:				$\mu\text{S/cm} = 1000$			
				TDS (mg/l) =			
ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity		Notes & Flags
					(mS/cm)	( $\mu\text{S/cm}$ )	
pH 7 Buffer			21.2	6.97			OK@ 99.6%
WE79 J1	20	25	21.2	3.53			
WE79 X1	20	25	21.1	5.13			
WE79 X1 dup	20	25	21.2	5.14			pH RPD =0.19%
WE82 C1	20	25	21.2	4.36			
WF00 A1	10	25	21.2	10.69			
WF00 A1 dup	10	25	21.1	10.73			pH RPD =0.37%
WE58 C1	20	25	21.1	7.34			
WE58 C1 dup	20	25	21.1	7.35			pH RPD =0.14%
WE58 D1	20	35	21.2	7.21			
WE58 E1	20	25	21.1	7.46			
pH 7 Buffer			21.3	7.00			OK@ 100%
WE58 F1	20	25	21.3	6.97			
pH 7 Buffer			21.3	7.02			OK@ 100.3%

① 2-28-13 (W)

Soil - pH

meter: Orion Model 115

Date: 2-28-13 (W)

Analyst: (W) #195 11.15

Conductivity Calibration

Potassium Chloride standard ARI ID = N/A

pH Calibration Temperature (°C) 20.7  
pH Buffers 2, 4, 7, 10, 12

Conductivity = 1413  $\mu\text{S/cm}$

Cal Temp N/A

Input Value  $\mu\text{S/cm}$

Verification Buffer pH 7.00  
Source FISHER#

Conductivity Verification Standard

Source: N/A

Record Certified Values

$\mu\text{S/cm} = 1000$

TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity		Notes & Flags
					(mS/cm)	( $\mu\text{S/cm}$ )	
pH 7 Buffer			21.2	6.97			
WE79 J <sup>1</sup>	20	25	21.2	3.53			
X <sub>1</sub>	20	25	21.1	5.13			
✓ n <sup>o</sup> X <sub>1</sub>	20	25	21.2	5.14			
WE92 C <sub>1</sub>	20	25	21.2	4.36			
WFO0 A <sub>1</sub>	10	25	21.2	10.69			
✓ n <sup>o</sup> A <sub>1</sub>	10	25	21.1	10.73			
WE58 C <sub>1</sub>	20	25	21.1	7.34			
n <sup>o</sup> C <sub>1</sub>	20	25	21.1	7.35			
✓ E <sub>1</sub>	20	① 20 35	21.2	7.21			
pH 7 Buffer			21.3	7.00			
WE58 F	20	25	21.3	6.97			
pH 7 Buffer			21.3	7.02			
<p>2-28-13 (W)</p>							
pH 7 Buffer							
pH 7 Buffer							



# pH Logbook

Meter ID: Accumet AR60

## Calibration

Date:	2-28-13	Buffer	Source	Lot #	pH	Temp.
Time:	10:50	2.00	Ricca	1207705	2.00	20.3
Analyst:	GA	4.00	Fisher	115547	4.00	20.9
		7.00	Ricca	1207552	7.02	20.3
		10.00	Fisher	126248	10.06	20.3
		12.00	Ricca	1207132	11.99	20.2
		Verification	Fisher	124864	7.01	20.7

## Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temperature
GA	11:05	ICV	7.01	7.00			20.7
		WF46A3	6.04	6.03			21.3
		CCW	7.02	7.01			20.9
GA	14:45	CCW	6.97	6.97	SOIL		21.2
		WE79J1	3.53	3.53			21.2
		X1	5.12	5.13			21.1
		npX1	5.14	5.14			21.2
		WE82C1	4.35	4.36			21.2
		WF00A1	10.69	10.69			21.2
		npA1	10.72	10.73			21.1
		WE98C1	7.32	7.34			21.1
		CCW	7.35	7.35			21.1
		DS	7.21	7.21			21.2
		ES	7.46	7.46			21.1
		F1	6.97	6.97			21.3
		CCW	7.02	7.02			21.3
		CCW	6.98	6.98			21.1
		WF58A4	6.47	6.47			18.6
		TAMdep	6.48	6.49			18.6
		B4	6.71	6.72			18.5
		CCW	7.00	7.00			20.8
		CCV					

GA CCW 6.99 - 7.00 21.3

Table of Contents: ARI Job WE83

Client: Hart Crowser, Inc.

Project: 17917-00 Saddle Rock

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AV  
Signature

March-04-2013  
Date



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

March 6, 2013

Steve Hughes  
Hart Crowser, Inc.  
1700 Westlake Avenue N. Suite 200  
Seattle, WA 98109-3256

**RE: Client Project: Upper Columbia 17917-00**  
**ARI Job No. WE83**

Dear Steve:

Please find enclosed the chain of custody documentation and data package for samples from the project referenced above

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

A handwritten signature in black ink, appearing to read "Kelly Bottem".

Kelly Bottem  
Client Services Manager  
kellyb@arilabs.com  
206/695-6211

Enclosures

cc: eFile WE83

KFB/kfb

**Chain of Custody Documentation**

**ARI Job ID: WE83**

# Sample Custody Record

Samples Shipped to: ART

JOB 17917-00 LAB NUMBER \_\_\_\_\_

PROJECT NAME SADDLE ROCK

HART CROWSER CONTACT S. Huertas

R. McGinnis, A. Conner

SAMPLED BY: NG

20F2



**HART CROWSER**

Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

OBSERVATIONS/COMMENTS/  
COMPOSITING INSTRUCTIONS

WES3

REQUESTED ANALYSIS		NO. OF CONTAINERS
METALS	TOTAL SOLIDS	
X	X	1
X	X	1
X	X	1
X	X	1
X	X	1
X	X	1
X	X	1
X	X	1
X	X	1
X	X	1
X	X	1
X	X	1
X	X	1
X	X	1
X	X	1
X	X	1

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX
	BG-D13		2/22/13	1339	S
	BG-D14		"	1225	"
	BG-D15		"	1158	"
	BG-D16		2/22/13	0813	"
	BG-D17		2/21/13	1620	"
	BG-D18		2/22/13	1420	"
	BG-D19		2/21/13	1158	"
	BG-D20		"	1026	"
	BG-D21		2/22/13	1022	"
	BG-D22		"	1523	"

RELINQUISHED BY SIGNATURE <u>[Signature]</u> PRINT NAME <u>R. McGinnis</u> COMPANY <u>Hart Crowser</u>		DATE <u>2/25/13</u> TIME <u>1152</u>	RECEIVED BY SIGNATURE <u>[Signature]</u> PRINT NAME <u>R. Huertas</u> COMPANY <u>ART</u>	DATE <u>2/25/13</u> TIME <u>1310</u>
RELINQUISHED BY SIGNATURE _____ PRINT NAME _____ COMPANY _____		DATE _____ TIME _____	RECEIVED BY SIGNATURE _____ PRINT NAME _____ COMPANY _____	DATE _____ TIME _____
SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS: <u>LEVEL II DATA PACKAGE</u>		TOTAL NUMBER OF CONTAINERS <u>10</u>		
SAMPLE RECEIPT INFORMATION CUSTODY SEALS: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A GOOD CONDITION <input type="checkbox"/> YES <input type="checkbox"/> NO TEMPERATURE _____ SHIPMENT METHOD: <input type="checkbox"/> HAND <input type="checkbox"/> COURIER <input type="checkbox"/> OVERNIGHT		TURNAROUND TIME: <input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK <input type="checkbox"/> 48 HOURS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> 72 HOURS <input type="checkbox"/> OTHER _____		
COOLER NO.: _____ STORAGE LOCATION: _____		See Lab Work Order No. _____ for Other Contract Requirements _____		





# Cooler Receipt Form

ARI Client: Hart Crouser

Project Name: Saddle Rock

COC No(s): \_\_\_\_\_ (NA)

Delivered by: Fed-Ex UPS (Courier) Hand Delivered Other: \_\_\_\_\_

Assigned ARI Job No: WES3

Tracking No: \_\_\_\_\_ NA

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of cooler?  YES  NO

Were custody papers included with the cooler?  YES  NO

Were custody papers properly filled out (ink, signed, etc.)  YES  NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) \_\_\_\_\_ 5.1 1.9 4.9

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90877952

Cooler Accepted by: \_\_\_\_\_ Date: 2/25/13 Time: 1310

*Complete custody forms and attach all shipping documents*

**Log-In Phase:**

Was a temperature blank included in the cooler?  YES  NO

What kind of packing material was used? ... Bubble Wrap  Wet Ice  Gel Packs  Baggies  Foam Block  Paper Other: \_\_\_\_\_

Was sufficient ice used (if appropriate)? \_\_\_\_\_ NA  YES  NO

Were all bottles sealed in individual plastic bags?  YES  NO

Did all bottles arrive in good condition (unbroken)?  YES  NO

Were all bottle labels complete and legible?  YES  NO

Did the number of containers listed on COC match with the number of containers received?  YES  NO

Did all bottle labels and tags agree with custody papers?  YES  NO

Were all bottles used correct for the requested analyses?  YES  NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...  NA YES  NO

Were all VOC vials free of air bubbles?  NA YES  NO

Was sufficient amount of sample sent in each bottle?  YES  NO

Date VOC Trip Blank was made at ARI: \_\_\_\_\_  NA

Was Sample Split by ARI:  NA YES Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by: JM Date: 2/25/13 Time: 1420

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**

By: \_\_\_\_\_ Date: \_\_\_\_\_

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WE83



**Case Narrative**

**Project: 17917-00**

**ARI Job No.: WE83**

**March 6, 2013**

**Sample Receipt:**

Please find enclosed the original chain of custody (COC) record and analytical results for the project referenced above. Analytical Resources, Inc. accepted ten soil samples in good condition on February 25, 2013. The samples were received with cooler temperatures between 4.9 and 5.1°C. Please see the Cooler Receipt Form for further details.

**Total Metals by 200.8, 6010C and 7471A**

The samples were digested on 2/26/13 and analyzed between 2/27/13 and 3/1/13 within the method recommended holding time.

***Initial calibration (s):*** All analytes were within method acceptance criteria.

***Continuing calibration (s):*** All analytes were within method acceptance criteria.

***Samples:*** No anomalies were encountered for these samples.

***Method Blank:*** The method blanks were free of contamination.

***LCS:*** Is in control.

***Matrix spike/Sample Duplicate/RPD:*** The matrix spikes in association with samples BG-D13 and BG-D14 are out of control low for antimony. All other QC is in control and no further corrective action was taken.

# Sample ID Cross Reference Report



ARI Job No: WE83  
Client: Hart Crowser, Inc.  
Project Event: 17917-00  
Project Name: Saddle Rock

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. BG-D13	WE83A	13-3626	Soil	02/22/13 13:39	02/25/13 13:10
2. BG-D14	WE83B	13-3627	Soil	02/22/13 12:25	02/25/13 13:10
3. BG-D15	WE83C	13-3628	Soil	02/22/13 11:58	02/25/13 13:10
4. BG-D16	WE83D	13-3629	Soil	02/20/13 08:13	02/25/13 13:10
5. BG-D17	WE83E	13-3630	Soil	02/21/13 16:20	02/25/13 13:10
6. BG-D18	WE83F	13-3631	Soil	02/22/13 14:20	02/25/13 13:10
7. BG-D19	WE83G	13-3632	Soil	02/21/13 11:58	02/25/13 13:10
8. BG-D20	WE83H	13-3633	Soil	02/21/13 10:26	02/25/13 13:10
9. BG-D21	WE83I	13-3634	Soil	02/22/13 10:22	02/25/13 13:10
10. BG-D22	WE83J	13-3635	Soil	02/22/13 15:23	02/25/13 13:10



## Data Reporting Qualifiers

Effective 2/14/2011

### Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- \* Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but  $\geq$  the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is  $\leq 5$  times the Reporting Limit and the replicate control limit defaults to  $\pm 1$  RL instead of the normal 20% RPD

### Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- \* Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria ( $< 20\%$  RSD,  $< 20\%$  Drift or minimum RRF).



- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
- NA The flagged analyte was not analyzed for
- NR Spiked compound recovery is not reported due to chromatographic interference
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
- EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria"  
**(Dioxin/Furan analysis only)**
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by  $\geq 40\%$  RPD with no obvious chromatographic interference
- X Analyte signal includes interference from polychlorinated diphenyl ethers.  
**(Dioxin/Furan analysis only)**
- Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**



## Geotechnical Data

- A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
- F Samples were frozen prior to particle size determination
- SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
- SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
- W Weight of sample in some pipette aliquots was below the level required for accurate weighting



Quality Control Parameters for Mercury Analysis using CVAA EPA Methods 7470A or 245.1 for Aqueous Samples EPA Methods 7471B or 245.5 for Solid Samples						
	Aqueous Samples <sup>2</sup>			Spike Recovery		RPD <sup>5</sup>
	DL <sup>1</sup> µg/L	LOD <sup>1</sup> µg/L	LOQ <sup>1</sup> µg/L	Matrix Spike	LCS	
<b>Mercury</b>	0.0069	0.05	<b>0.10<sup>2</sup></b>	75 – 125	80 – 120	≤ 20
<b>Mercury (low level)</b>	0.0026	0.01	<b>0.02<sup>2</sup></b>	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			Spike Recovery		RPD <sup>5</sup>
	DL <sup>1</sup> mg/kg	LOD <sup>1</sup> mg/kg	LOQ <sup>1</sup> mg/kg	Matrix Spike	LCS	
<b>Mercury</b>	0.0021	0.0125	0.025 <sup>3</sup>	75 – 125	80 – 120	≤ 20
	Tissue Samples			Spike Recovery		RPD <sup>5</sup>
	DL <sup>1</sup> mg/kg	LOD <sup>1</sup> mg/kg	LOQ <sup>1</sup> mg/kg	Matrix Spike	LCS	
<b>Mercury</b>	0.0021	0.0125	0.005 <sup>4</sup>	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S

(2) 20 mL sample with 20 mL final volume

(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.

(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.

(5) Relative Percent Difference between analytes in replicate analyzes. If C<sub>o</sub> and C<sub>D</sub> are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_o - C_D|}{\frac{C_o + C_D}{2}} \times 100$$





**Quality Control Parameters for Metals Analysis ICP-MS EPA  
Methods 200.8 or 6020A**

Analyte	Mass	Aqueous Samples <sup>2</sup>			Spike Recovery		RPD <sup>3</sup>	Solids <sup>2</sup>
		DL <sup>1</sup> µg/L	LOD <sup>1</sup> µg/L	LOQ <sup>1</sup> µg/L	Matrix Spike	LCS		LOQ <sup>1</sup> mg/kg
Aluminum	27	1.601	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Antimony	121	0.010	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
	123	0.011	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Arsenic #1	75	0.048	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Arsenic #2	75	0.092	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Barium	135	0.020	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	137	0.019	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Beryllium	9	0.021	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Cadmium	111	0.010	0.05	0.1	75 – 125	80 – 120	≤ 20	0.1
	114	0.005	0.05	0.1	75 – 125	80 – 120	≤ 20	0.1
Calcium	43	3.983	25	50.0	75 – 125	80 – 120	≤ 20	50.0
Chromium	52	0.045	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	53	0.118	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Cobalt	59	0.011	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Copper	63	0.158	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	65	0.236	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Iron	54	5.753	10	20.0	75 – 125	80 – 120	≤ 20	20.0
	57	3.876	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Lead	208	0.046	0.05	0.1	75 – 125	80 – 120	≤ 20	0.1
Magnesium	24	0.297	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Manganese	55	0.022	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Molybdenum	98	0.013	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Nickel	60	0.079	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	62	0.089	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
Potassium	39	2.944	10	20.0	75 – 125	80 – 120	≤ 20	20.0
Selenium	82	0.127	0.25	0.5	75 – 125	80 – 120	≤ 20	0.5
	78	0.324	0.25	2.0	75 – 125	80 – 120	≤ 20	2.0
Silver	107	0.008	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Sodium	23	2.833	50	100.0	75 – 125	80 – 120	≤ 20	100.0
Thorium <sup>4</sup>	232	0.013	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Thallium	205	0.004	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Uranium <sup>4</sup>	238	0.003	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Vanadium	51	0.043	0.1	0.2	75 – 125	80 – 120	≤ 20	0.2
Zinc	66	0.497	2	4.0	75 – 125	80 – 120	≤ 20	4.0
	67	0.531	2	4.0	75 – 125	80 – 120	≤ 20	4.0
	68	0.524	2	4.0	75 – 125	80 – 120	≤ 20	4.0

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S  
 (2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.

(3) Relative Percent Difference in replicate analyzes.  $RPD = \frac{|C_o - C_D|}{\frac{C_o + C_D}{2}} \times 100$  where C<sub>o</sub>=Original, C<sub>D</sub>=Duplicate

(4) ARI has no accreditation for these elements.



### Quality Control Parameters for Metals Analysis-ICP-OES EPA Methods 200.7 and 6010C

Analyte	Aqueous Samples <sup>2</sup>			Spike Recovery		RPD <sup>5</sup>	Solids <sup>3</sup>	Tissue <sup>4</sup>
	DL <sup>1</sup> µg/L	LOD <sup>1</sup> µg/L	LOQ <sup>1</sup> µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Antimony	6.28	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Arsenic	3.33	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Barium	1.33	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Beryllium	0.16	0.5	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Boron	7.39	10	20	75 – 125	80 – 120	≤ 20	2.0	0.4
Cadmium	0.18	0.5	2.0	75 – 125	80 – 120	≤ 20	0.2	0.04
Calcium	11.27	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Chromium	1.24	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.1
Cobalt	0.27	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Copper	0.92	1.0	2.0	75 – 125	80 – 120	≤ 20	0.2	0.04
Iron	7.50	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Lead	1.55	10	20	75 – 125	80 – 120	≤ 20	2.0	0.4
Magnesium	9.61	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Manganese	0.28	0.5	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Molybdenum	0.79	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.1
Nickel	3.86	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2
Potassium	65.70	250	500	75 – 125	80 – 120	≤ 20	50	10
Selenium	4.99	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Silicon	8.17	30	60	75 – 125	80 – 120	≤ 20	(6)	(6)
Silver	0.43	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Sodium	11.35	250	500	75 – 125	80 – 120	≤ 20	50	10
Strontium	0.09	1.0	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Thallium	3.10	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Tin	1.41	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2
Titanium	2.11	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.01
Vanadium	0.27	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Zinc	1.45	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2

- (1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
- (2) 50 mL sample and 50 mL final volume
- (3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
- (4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
- (5) Relative Percent Difference between analytes in replicate analyzes. If C<sub>O</sub> and C<sub>D</sub> are the concentrations of the

original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} \times 100$$

(6) ARI does not analyze for Silicon in solids or tissue samples

**Metals Analysis  
Report and Summary QC Forms**

**ARI Job ID: WE83**

# Cover Page

## INORGANIC ANALYSIS DATA PACKAGE



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

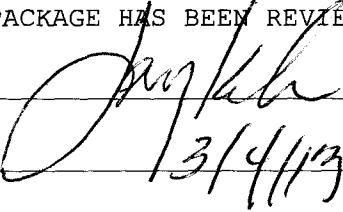
SDG: WE83

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
BG-D13	WE83A	13-3626	
BG-D13D	WE83ADUP	13-3626	
BG-D13S	WE83ASPK	13-3626	
BG-D14	WE83B	13-3627	
BG-D14D	WE83BDUP	13-3627	
BG-D14S	WE83BSPK	13-3627	
BG-D15	WE83C	13-3628	
PBS	WE83MB1	13-3628	
LCSS	WE83MB1SPK	13-3628	
BG-D16	WE83D	13-3629	
BG-D17	WE83E	13-3630	
BG-D18	WE83F	13-3631	
BG-D19	WE83G	13-3632	
BG-D20	WE83H	13-3633	
BG-D21	WE83I	13-3634	
BG-D22	WE83J	13-3635	

Were ICP interelement corrections applied ?                      Yes/No    YES  
Were ICP background corrections applied ?                      Yes/No    YES  
If yes - were raw data generated before  
application of background corrections ?                      Yes/No    NO

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature:                       Name: Jay Kuhn  
Date: 13/4/13                      Title: Inorganics Director

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: **BG-D13**

**SAMPLE**

Lab Sample ID: WE83A

LIMS ID: 13-3626

Matrix: Soil

Data Release Authorized:

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 79.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	11	20	20,200	
3050B	02/26/13	200.8	02/27/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-38-2	Arsenic	0.11	0.2	6.3	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.19	0.9	110	
3050B	02/26/13	200.8	03/01/13	7440-47-3	Chromium	0.12	2	14	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.3	20	27,200	
3050B	02/26/13	200.8	02/27/13	7439-92-1	Lead	0.057	0.1	12.5	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.12	0.3	753	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.02	
3050B	02/26/13	200.8	02/27/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/26/13	200.8	02/27/13	7440-22-4	Silver	0.0098	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-62-2	Vanadium	0.021	0.2	32.8	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

**Sample ID: BG-D13  
DUPLICATE**

Lab Sample ID: WE83A

LIMS ID: 13-3626

Matrix: Soil

Data Release Authorized:

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	20,200	19,500	3.5%	+/- 20%	
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	6.3	6.4	1.6%	+/- 20%	
Barium	6010C	110	115	4.4%	+/- 20%	
Chromium	200.8	14	13	7.4%	+/- 20%	
Iron	6010C	27,200	24,300	11.3%	+/- 20%	
Lead	200.8	12.5	11.9	4.9%	+/- 20%	
Manganese	6010C	753	749	0.5%	+/- 20%	
Mercury	7471A	0.02	0.03	40.0%	+/- 0.01	L
Selenium	200.8	0.6 U	0.6 U	0.0%	+/- 0.6	L
Silver	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Vanadium	200.8	32.8	31.7	3.4%	+/- 20%	

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: BG-D13

MATRIX SPIKE

Lab Sample ID: WE83A

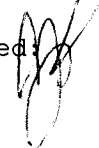
QC Report No: WE83-Hart Crowser, Inc.

LIMS ID: 13-3626

Project: Saddle Rock

Matrix: Soil

17917-00

Data Release Authorized: 

Date Sampled: 02/22/13

Reported: 03/04/13

Date Received: 02/25/13

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	20,200	21,700	247	607%	H
Antimony	200.8	0.2 U	1.0	30.3	3.3%	N
Arsenic	200.8	6.3	36.7	30.3	100%	
Barium	6010C	110	379	247	109%	
Chromium	200.8	14	42	30.3	92.4%	
Iron	6010C	27,200	29,200	247	810%	H
Lead	200.8	12.5	43.2	30.3	101%	
Manganese	6010C	753	864	61.9	179%	H
Mercury	7471A	0.02	0.14	0.112	107%	
Selenium	200.8	0.6 U	90.7	97.1	93.4%	
Silver	200.8	0.2 U	25.0	30.3	82.5%	
Vanadium	200.8	32.8	58.6	30.3	85.1%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: BG-D14  
SAMPLE

Lab Sample ID: WE83B

LIMS ID: 13-3627

Matrix: Soil

Data Release Authorized:

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 80.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	11	10	10,800	
3050B	02/26/13	200.8	02/27/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-38-2	Arsenic	0.10	0.2	4.8	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.18	0.9	89.7	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.046	0.6	8.6	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.2	10	16,000	
3050B	02/26/13	200.8	02/27/13	7439-92-1	Lead	0.057	0.1	4.0	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.12	0.3	662	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.03	
3050B	02/26/13	200.8	02/27/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/26/13	200.8	02/27/13	7440-22-4	Silver	0.0097	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-62-2	Vanadium	0.021	0.2	24.6	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: BG-D14  
DUPLICATE

Lab Sample ID: WE83B

LIMS ID: 13-3627

Matrix: Soil

Data Release Authorized:

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13



**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	10,800	12,200	12.2%	+/- 20%	
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	4.8	4.3	11.0%	+/- 20%	
Barium	6010C	89.7	94.9	5.6%	+/- 20%	
Chromium	200.8	8.6	8.9	3.4%	+/- 20%	
Iron	6010C	16,000	18,000	11.8%	+/- 20%	
Lead	200.8	4.0	3.6	10.5%	+/- 20%	
Manganese	6010C	662	672	1.5%	+/- 20%	
Mercury	7471A	0.03	0.03	0.0%	+/- 0.01	L
Selenium	200.8	0.6 U	0.6 U	0.0%	+/- 0.6	L
Silver	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Vanadium	200.8	24.6	24.9	1.2%	+/- 20%	

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

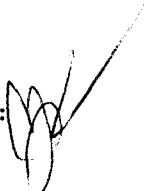
Sample ID: BG-D14

**MATRIX SPIKE**

Lab Sample ID: WE83B

LIMS ID: 13-3627

Matrix: Soil

Data Release Authorized: 

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	10,800	11,600	236	339%	H
Antimony	200.8	0.2 U	1.4	30.3	4.6%	N
Arsenic	200.8	4.8	34.5	30.3	98.0%	
Barium	6010C	89.7	333	236	103%	
Chromium	200.8	8.6	33.9	30.3	83.5%	
Iron	6010C	16,000	16,100	236	42.4%	H
Lead	200.8	4.0	33.6	30.3	97.7%	
Manganese	6010C	662	638	58.9	-40.7%	H
Mercury	7471A	0.03	0.16	0.121	107%	
Selenium	200.8	0.6 U	91.9	96.8	94.9%	
Silver	200.8	0.2 U	23.4	30.3	77.2%	
Vanadium	200.8	24.6	52.2	30.3	91.1%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: BG-D15  
SAMPLE

Lab Sample ID: WE83C

LIMS ID: 13-3628

Matrix: Soil

Data Release Authorized:

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 86.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	9.9	10	17,400	
3050B	02/26/13	200.8	02/27/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-38-2	Arsenic	0.096	0.2	7.1	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.17	0.8	111	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.042	0.6	10.8	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.1	10	24,100	
3050B	02/26/13	200.8	02/27/13	7439-92-1	Lead	0.052	0.1	19.3	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.11	0.3	722	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.02	
3050B	02/26/13	200.8	02/27/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/26/13	200.8	02/27/13	7440-22-4	Silver	0.0089	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-62-2	Vanadium	0.019	0.2	26.2	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: BG-D16  
SAMPLE

Lab Sample ID: WE83D

LIMS ID: 13-3629

Matrix: Soil

Data Release Authorized:

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Percent Total Solids: 82.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	4.0	6	17,700	
3050B	02/26/13	200.8	02/27/13	7440-36-0	Antimony	0.015	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-38-2	Arsenic	0.098	0.2	5.7	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.067	0.3	134	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.043	0.6	15.0	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.83	6	21,400	
3050B	02/26/13	200.8	02/27/13	7439-92-1	Lead	0.053	0.1	11.6	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.045	0.1	399	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.01	
3050B	02/26/13	200.8	02/27/13	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	02/26/13	200.8	02/27/13	7440-22-4	Silver	0.0090	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-62-2	Vanadium	0.019	0.2	37.5	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: **BG-D17**  
SAMPLE

Lab Sample ID: WE83E

LIMS ID: 13-3630

Matrix: Soil

Data Release Authorized: 

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 77.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	4.3	6	22,800	
3050B	02/26/13	200.8	02/27/13	7440-36-0	Antimony	0.016	0.3	0.3	U
3050B	02/26/13	200.8	02/27/13	7440-38-2	Arsenic	0.11	0.3	181	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.073	0.4	141	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.048	0.6	7.6	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.91	6	21,200	
3050B	02/26/13	200.8	02/27/13	7439-92-1	Lead	0.059	0.1	12.8	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.049	0.1	411	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0007	0.01	0.04	
3050B	02/26/13	200.8	02/27/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/26/13	200.8	02/27/13	7440-22-4	Silver	0.010	0.3	0.5	
3050B	02/26/13	200.8	02/27/13	7440-62-2	Vanadium	0.021	0.3	22.3	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: **BG-D18**  
SAMPLE

Lab Sample ID: WE83F

LIMS ID: 13-3631

Matrix: Soil

Data Release Authorized:

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 53.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	15	20	18,800	
3050B	02/26/13	200.8	02/27/13	7440-36-0	Antimony	0.023	0.4	0.4	U
3050B	02/26/13	200.8	02/27/13	7440-38-2	Arsenic	0.15	0.4	14.6	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.26	1	135	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.067	0.9	12.0	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	3.3	20	19,800	
3050B	02/26/13	200.8	02/27/13	7439-92-1	Lead	0.083	0.2	31.1	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.17	0.4	616	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0009	0.02	0.03	
3050B	02/26/13	200.8	02/27/13	7782-49-2	Selenium	0.18	0.9	0.9	U
3050B	02/26/13	200.8	02/27/13	7440-22-4	Silver	0.014	0.4	0.4	U
3050B	02/26/13	200.8	02/27/13	7440-62-2	Vanadium	0.030	0.4	27.6	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: BG-D19  
SAMPLE

Lab Sample ID: WE83G  
LIMS ID: 13-3632  
Matrix: Soil  
Data Release Authorized  
Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.  
Project: Saddle Rock  
17917-00  
Date Sampled: 02/21/13  
Date Received: 02/25/13

Percent Total Solids: 81.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	10	15	24,600	
3050B	02/26/13	200.8	02/27/13	7440-36-0	Antimony	0.016	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-38-2	Arsenic	0.11	0.2	10.2	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.18	0.9	86.3	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.046	0.6	11.8	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.2	10	24,800	
3050B	02/26/13	200.8	02/27/13	7439-92-1	Lead	0.057	0.1	12.5	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.12	0.3	781	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0006	0.01	0.02	
3050B	02/26/13	200.8	02/27/13	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	02/26/13	200.8	02/27/13	7440-22-4	Silver	0.0098	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-62-2	Vanadium	0.021	0.2	37.9	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


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Sample ID: **BG-D20**  
SAMPLE

Lab Sample ID: WE83H

LIMS ID: 13-3633

Matrix: Soil

Data Release Authorized: 

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/21/13

Date Received: 02/25/13

Percent Total Solids: 78.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	11	20	14,100	
3050B	02/26/13	200.8	02/27/13	7440-36-0	Antimony	0.016	0.3	0.3	U
3050B	02/26/13	200.8	02/27/13	7440-38-2	Arsenic	0.11	0.3	2.8	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.19	0.9	118	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.048	0.6	16.0	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	2.3	20	17,300	
3050B	02/26/13	200.8	02/27/13	7439-92-1	Lead	0.059	0.1	7.3	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.12	0.3	529	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0007	0.01	0.01	U
3050B	02/26/13	200.8	02/27/13	7782-49-2	Selenium	0.13	0.6	0.6	U
3050B	02/26/13	200.8	02/27/13	7440-22-4	Silver	0.010	0.3	0.3	U
3050B	02/26/13	200.8	02/27/13	7440-62-2	Vanadium	0.022	0.3	25.4	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

**Sample ID: BG-D21  
SAMPLE**

Lab Sample ID: WE83I

LIMS ID: 13-3634

Matrix: Soil

Data Release Authorized:

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 90.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	3.6	5	12,000	
3050B	02/26/13	200.8	02/27/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-38-2	Arsenic	0.091	0.2	4.6	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.061	0.3	83.3	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.040	0.5	6.1	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.76	5	20,000	
3050B	02/26/13	200.8	02/27/13	7439-92-1	Lead	0.049	0.1	9.7	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.040	0.1	336	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.01	U
3050B	02/26/13	200.8	02/27/13	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	02/26/13	200.8	02/27/13	7440-22-4	Silver	0.0084	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-62-2	Vanadium	0.018	0.2	26.4	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: BG-D22  
SAMPLE

Lab Sample ID: WE83J

LIMS ID: 13-3635

Matrix: Soil

Data Release Authorized

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Percent Total Solids: 87.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	4.1	6	17,900	
3050B	02/26/13	200.8	02/27/13	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-38-2	Arsenic	0.095	0.2	7.4	
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.069	0.3	148	
3050B	02/26/13	200.8	02/28/13	7440-47-3	Chromium	0.042	0.5	15.3	
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.86	6	23,200	
3050B	02/26/13	200.8	02/27/13	7439-92-1	Lead	0.051	0.1	8.1	
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.046	0.1	478	
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.02	
3050B	02/26/13	200.8	02/27/13	7782-49-2	Selenium	0.11	0.5	0.5	U
3050B	02/26/13	200.8	02/27/13	7440-22-4	Silver	0.0087	0.2	0.2	
3050B	02/26/13	200.8	02/27/13	7440-62-2	Vanadium	0.019	0.2	32.8	

Reported in mg/kg-dry (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

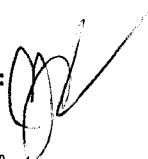
Page 1 of 1

**Sample ID: METHOD BLANK**

Lab Sample ID: WE83MB

LIMS ID: 13-3628

Matrix: Soil

Data Release Authorized: 

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: NA

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	02/26/13	6010C	02/27/13	7429-90-5	Aluminum	3.6	5	5	U
3050B	02/26/13	200.8	02/27/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	02/26/13	6010C	02/27/13	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	02/26/13	200.8	02/27/13	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	02/26/13	6010C	02/27/13	7439-89-6	Iron	0.75	5	5	U
3050B	02/26/13	200.8	02/27/13	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	02/26/13	6010C	02/27/13	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	02/26/13	7471A	02/27/13	7439-97-6	Mercury	0.0005	0.01	0.01	U
3050B	02/26/13	200.8	02/27/13	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	02/26/13	200.8	02/27/13	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	02/26/13	200.8	02/27/13	7440-62-2	Vanadium	0.017	0.2	0.2	U

Reported in mg/kg (ppm).

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

**Sample ID: LAB CONTROL**

Lab Sample ID: WE83LCS

LIMS ID: 13-3628

Matrix: Soil

Data Release Authorized: 

Reported: 03/04/13

QC Report No: WE83-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Aluminum	6010C	205	200	102%	
Antimony	200.8	25.5	25.0	102%	
Arsenic	200.8	26.3	25.0	105%	
Barium	6010C	207	200	104%	
Chromium	200.8	24.8	25.0	99.2%	
Iron	6010C	200	200	100%	
Lead	200.8	25.5	25.0	102%	
Manganese	6010C	49.8	50.0	99.6%	
Mercury	7471A	0.20	0.20	100%	
Selenium	200.8	79.2	80.0	99.0%	
Silver	200.8	25.1	25.0	100%	
Vanadium	200.8	24.5	25.0	98.0%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP022771	2000.0	1992.88	99.6	2000.0	2053.19	102.7	2089.97	104.5	2057.21	102.9	2015.37	100.8	2030.97	101.5
Antimony	SB	PMS	MS022781	50.0	49.96	99.9	50.0	50.87	101.7	51.85	103.7	52.11	104.2	51.81	103.6	52.33	104.7
Arsenic	AS	PMS	MS022781	50.0	51.21	102.4	50.0	50.32	100.6	49.89	99.8	49.33	98.7	48.96	97.9	49.12	98.2
Barium	BA	ICP	IP022771	1000.0	1004.60	100.5	1000.0	1033.33	103.3	1053.57	105.4	1055.07	105.5	1042.55	104.3	1045.32	104.5
Chromium	CR	PMS	MS022781	50.0	49.23	98.5	50.0	50.43	100.9	50.04	100.1	49.46	98.9	48.18	96.4	49.25	98.5
Iron	FE	ICP	IP022771	2000.0	2028.12	101.4	2000.0	2103.63	105.2	2110.30	105.5	2046.12	102.3	2012.70	100.6	2046.13	102.3
Lead	PB	PMS	MS022781	50.0	50.88	101.8	50.0	51.18	102.4	50.71	101.4	49.64	99.3	50.00	100.0	49.20	98.4
Manganese	MN	ICP	IP022771	1000.0	966.39	96.6	1000.0	984.88	98.5	1004.23	100.4	973.57	97.4	963.77	96.4	971.20	97.1
Mercury	HG	CVA	HG022702	8.0	7.81	97.6	4.0	3.96	99.0	3.99	99.8	4.02	100.5				
Selenium	SE	PMS	MS022781	80.0	79.66	99.6	50.0	50.33	100.7	49.64	99.3	49.54	99.1	49.81	99.6	50.04	100.1
Silver	AG	PMS	MS022781	50.0	51.10	102.2	50.0	49.93	99.9	50.64	101.3	49.67	99.3	49.58	99.2	49.64	99.3
Vanadium	V	PMS	MS022781	50.0	49.39	98.8	50.0	50.17	100.3	49.90	99.8	48.70	97.4	48.07	96.1	48.27	96.5

Control Limits: Mercury 80-120; Other Metals 90-110

WE83 : 000002



# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Aluminum	AL	ICP	IP022771	2000.0	2027.18	101.4	2035.08	101.8	2019.41	101.0	2032.49	101.6				
Antimony	SB	PMS	MS022781	50.0	51.98	104.0	52.29	104.6	52.24	104.5	51.73	103.5	51.51	103.0		
Arsenic	AS	PMS	MS022781	50.0	48.94	97.9	48.96	97.9	49.39	98.8	49.37	98.7	49.02	98.0		
Barium	BA	ICP	IP022771	1000.0	1043.84	104.4	1039.20	103.9	1030.95	103.1	1041.95	104.2				
Chromium	CR	PMS	MS022781	50.0	48.36	96.7	49.29	98.6	49.81	99.6	49.76	99.5	49.32	98.6		
Iron	FE	ICP	IP022771	2000.0	2031.15	101.6	2049.05	102.5	2039.58	102.0	2067.49	103.4				
Lead	PB	PMS	MS022781	50.0	50.27	100.5	50.29	100.6	50.21	100.4	50.12	100.2	50.75	101.5		
Manganese	MN	ICP	IP022771	1000.0	964.59	96.5	976.41	97.6	976.31	97.6	984.66	98.5				
Mercury	HG	CVA	HG022702	4.0												
Selenium	SE	PMS	MS022781	50.0	49.16	98.3	49.71	99.4	49.63	99.3	50.46	100.9	49.73	99.5		
Silver	AG	PMS	MS022781	50.0	49.55	99.1	49.22	98.4	49.20	98.4	49.67	99.3	49.52	99.0		
Vanadium	V	PMS	MS022781	50.0	47.54	95.1	49.07	98.1	48.71	97.4	48.58	97.2	48.85	97.7		

Control Limits: Mercury 80-120; Other Metals 90-110

WE83 : 000000

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Chromium	CR	PMS	MS022882	50.0	50.34	100.7	50.0	48.31	96.6	48.55	97.1	48.30	96.6	48.90	97.8	48.74	97.5

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



UNITS: ug/L

ANALYTE	EL	M	RUN	CCVT4	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Chromium	CR	PMS	MS022882	50.0	48.65	97.3	49.11	98.2	48.62	97.2	48.70	97.4	48.57	97.1	48.90	97.8

Control Limits: Mercury 80-120; Other Metals 90-110

WE83 : 000005



# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV12 %R	CCV13 %R	CCV14 %R	CCV15 %R	CCV16 %R	CCV17 %R
Chromium	CR	PMS	MS022882	50.0	48.20	96.4				

Control Limits: Mercury 80-120; Other Metals 90-110

11/23/83

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Chromium	CR	PMS	MS030181	50.0	49.86	99.7	50.0	50.22	100.4	49.41	98.8	50.20	100.4	49.15	98.3		

Control Limits: Mercury 80-120; Other Metals 90-110

WE83 : 00007

# CRDL Standard

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Aluminum	AL	ICP	IP022771	50.0		56.70	113.4	54.24	108.5	62.10	124.2						
Antimony	SB	PMS	MS022781	0.2		0.22	110.0										
Arsenic	AS	PMS	MS022781	0.2		0.26	130.0										
Barium	BA	ICP	IP022771	3.0		3.09	103.0	3.49	116.3	2.88	96.0						
Chromium	CR	PMS	MS022781	0.5		0.50	100.0										
Iron	FE	ICP	IP022771	50.0		54.47	108.9	51.19	102.4	53.28	106.6						
Lead	PB	PMS	MS022781	0.1		0.11	110.0										
Manganese	MN	ICP	IP022771	1.0		1.05	105.0	0.86	86.0	1.00	100.0						
Mercury	HG	CVA	HG022702	0.1		0.11	110.0										
Selenium	SE	PMS	MS022781	0.5		0.59	118.0										
Silver	AG	PMS	MS022781	0.2		0.23	115.0										
Vanadium	V	PMS	MS022781	0.2		0.19	95.0										
Chromium	CR	PMS	MS022882	0.5		0.49	98.0										
Chromium	CR	PMS	MS030181	0.5		0.51	102.0										

Control Limits: no control limits have been established by the EPA at this time.

WE83 : 000000

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	CCB1	CCB2	CCB3	CCB4	CCB5	C
Aluminum	AL	ICP	IP022771	200.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	U
Antimony	SB	PMS	MS022781	60.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U
Arsenic	AS	PMS	MS022781	10.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U
Barium	BA	ICP	IP022771	200.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	U
Chromium	CR	PMS	MS022781	10.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	U
Iron	FE	ICP	IP022771	100.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	U
Lead	PB	PMS	MS022781	3.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	U
Manganese	MN	ICP	IP022771	15.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	U
Mercury	HG	CVA	HG022702	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	U
Selenium	SE	PMS	MS022781	5.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	U
Silver	AG	PMS	MS022781	10.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U
Vanadium	V	PMS	MS022781	50.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U

WE 83 : 000000

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	CCB7	CCB8	CCB9	CCB10	CCB11	C	C	C
Aluminum	AL	ICP	IP022771	200.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	U	U	U
Antimony	SB	PMS	MS022781	60.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U	U	U
Arsenic	AS	PMS	MS022781	10.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U	U	U
Barium	BA	ICP	IP022771	200.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	U	U	U
Chromium	CR	PMS	MS022781	10.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	U	U	U
Iron	FE	ICP	IP022771	100.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	U	U	U
Lead	PB	PMS	MS022781	3.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	U	U	U
Manganese	MN	ICP	IP022771	15.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	U	U	U
Mercury	HG	CVA	HG022702	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	U	U	U
Selenium	SE	PMS	MS022781	5.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	U	U	U
Silver	AG	PMS	MS022781	10.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U	U	U
Vanadium	V	PMS	MS022781	50.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	U	U	U

WE83 : 00010

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Chromium	CR	EMS	MS022882	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

WE83 : 00011

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	CCB7	CCB8	CCB9	CCB10	CCB11	C
Chromium	CR	PMS	MS022882	10.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	U

WE83 : 00012

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB12	C	CCB13	C	CCB14	C	CCB15	C	CCB16	C	CCB17	C
Chromium	CR	PMS	MS022882	10.0	0.5	0.5											

WE83 : 00043



# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Chromium	CR	PMS	MS030181	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

MS030181

# ICP Interference Check Sample



CLIENT: Hart Crowser, Inc.

ICS SOURCE: I.V.

PROJECT: Saddle Rock

RUNID: IP022771

SDG: WE83

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	198296.2	196958.8	98.5	201954.3	198669.0	99.3	201479.2	200257.1	100.1
Antimony	1000	1000	8.6	1003.8	100.4	7.6	997.6	99.8	8.4	1014.6	101.5
Arsenic	1000	1000	19.9	1018.0	101.8	19.4	1012.7	101.3	22.1	1033.4	103.3
Barium	1000	1000	-2.9	981.6	98.2	-2.2	1008.9	100.9	-3.7	1017.6	101.8
Beryllium	1000	1000	0.1	969.0	96.9	0.1	971.1	97.1	0.1	987.6	98.8
Boron			-7.3	-7.6		-9.0	-8.4		-8.3	-9.7	
Cadmium	1000	1000	1.9	1027.8	102.8	2.4	1018.9	101.9	2.1	1037.1	103.7
Calcium	100000	100000	97965.2	97432.7	97.4	100235.9	98855.0	98.9	100289.2	100072.9	100.1
Chromium	1000	1000	-1.0	990.5	99.1	-1.7	999.2	99.9	0.9	1020.7	102.1
Cobalt	1000	1000	1.8	959.9	96.0	1.7	966.6	96.7	1.6	977.0	97.7
Copper	1000	1000	1.1	1044.6	104.5	1.7	1044.5	104.5	1.3	1058.0	105.8
Iron	200000	200000	194545.1	193158.1	96.6	192772.8	191936.4	96.0	196204.1	196316.5	98.2
Lead	1000	1000	-11.6	973.8	97.4	-9.5	967.2	96.7	-10.3	984.1	98.4
Magnesium	100000	100000	101804.3	97714.3	97.7	103888.7	98974.7	99.0	103435.2	100093.5	100.1
Manganese	1000	1000	0.0	940.2	94.0	0.0	938.6	93.9	0.0	965.6	96.6
Molybdenum			3.7	3.9		3.6	3.3		3.0	3.7	
Nickel	1000	1000	0.6	961.6	96.2	-0.8	979.1	97.9	0.8	995.8	99.6
Potassium			15.2	3.7		20.0	3.2		20.0	-21.5	
Selenium	1000	1000	-7.6	984.0	98.4	-15.5	974.6	97.5	-11.5	992.7	99.3
Silicon			-4.3	-4.9		-4.9	-7.4		-3.7	-4.2	
Silver	1000	1000	-0.4	1052.7	105.3	-0.2	1062.7	106.3	-0.4	1073.0	107.3
Sodium			15.7	20.1		9.4	20.0		12.6	15.3	
Strontium			4.1	4.0		4.1	4.0		4.1	4.1	
Thallium	1000	1000	6.6	950.1	95.0	6.8	954.3	95.4	6.5	963.9	96.4
Tin			-8.7	-8.0		-9.1	-9.6		-7.7	-8.6	
Titanium			4.2	3.6		3.6	3.1		3.5	3.3	
Vanadium	1000	1000	0.3	996.5	99.7	-0.9	1001.1	100.1	-0.3	1013.6	101.4
Zinc	1000	1000	-0.8	948.9	94.9	-0.8	958.3	95.8	0.3	979.2	97.9

# ICP Interference Check Sample

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



ICS SOURCE: I.V.

RUNID: MS022781

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1	0.1						
Arsenic		20	0.1	19.5	97.5						
Cadmium		20	0.1	20.0	100.0						
Chromium		20	0.4	20.4	102.0						
Cobalt		20	0.0	20.0	100.0						
Copper		20	0.5	20.0	100.0						
Manganese		20	0.1	20.2	101.0						
Molybdenum	400	400	409.6	410.4	102.6						
Nickel		20	0.6	20.2	101.0						
Silver		20	0.0	19.7	98.5						
Thorium			0.1	0.1							
Vanadium			0.0	-0.3							
Zinc		20	1.4	21.1	105.5						

MS022781

# ICP Interference Check Sample

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83



ICS SOURCE: I.V.

RUNID: MS022882

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1	0.1						
Arsenic		20	0.1	18.9	94.5						
Barium			0.1	0.1	0.1						
Cadmium		20	0.1	20.2	101.0						
Chromium		20	0.5	20.6	103.0						
Cobalt		20	0.0	20.1	100.5						
Copper		20	0.6	20.0	100.0						
Manganese		20	0.1	20.4	102.0						
Molybdenum	400	400	410.7	406.2	101.6						
Nickel		20	1.0	20.4	102.0						
Selenium			-0.1	-0.1							
Silver		20	0.0	19.7	98.5						
Vanadium			0.0	-0.3							
Zinc		20	1.9	20.8	104.0						

WE83 : 08017

# ICP Interference Check Sample

CLIENT: Hart Crowser, Inc.  
PROJECT: Saddle Rock  
SDG: WE83



ICS SOURCE: I.V.  
RUNID: MS030181  
INSTRUMENT ID: PE ELAN 6000  
UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1	0.1						
Arsenic		20	0.1	19.0	95.0						
Cadmium		20	0.0	20.0	100.0						
Chromium		20	0.4	19.9	99.5						
Cobalt		20	0.0	19.5	97.5						
Copper		20	0.5	19.4	97.0						
Manganese		20	0.1	19.7	98.5						
Molybdenum	400	400	402.6	394.7	98.7						
Nickel		20	0.4	19.4	97.0						
Silver		20	0.0	19.2	96.0						
Thorium			0.1	0.1							
Vanadium			0.0	-0.3							
Zinc		20	1.3	20.2	101.0						

WE83 : 000181

# Post Digest Spike Sample Recovery



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: PMS

SDG: WE83

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT C	SAMPLE RESULT C	SPIKE ADDED	MATRIX	%R
Antimony	BG-D13A	WE83APOST	MS022781	510.48 B	1000.00 U	500	Soil	102.1
Antimony	BG-D14A	WE83BPOST	MS022781	506.72 B	1000.00 U	500	Soil	101.3

# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: ICP

SDG: WE83

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFER- ENCE	Q
Aluminum	BG-D13L	WE83A-L	Soil	IP022771	65179.30		63113.90		3.2	
Barium	BG-D13L	WE83A-L	Soil	IP022771	354.70		348.70	B	1.7	
Iron	BG-D13L	WE83A-L	Soil	IP022771	87838.43		84456.70		3.8	
Manganese	BG-D13L	WE83A-L	Soil	IP022771	2435.76		2348.65		3.6	

# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: ICP

SDG: WE83

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFER- ENCE	Q
Aluminum	BG-D14L	WE83B-L	Soil	IP022771	36352.13		36082.45		0.7	
Barium	BG-D14L	WE83B-L	Soil	IP022771	302.97		302.10	B	0.3	
Iron	BG-D14L	WE83B-L	Soil	IP022771	54148.53		54119.00		0.1	
Manganese	BG-D14L	WE83B-L	Soil	IP022771	2238.16		2236.45		0.1	



# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83

ANALYSIS METHOD: PMS

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL	SERIAL	% DIFFER-	Q
					RESULT	DILUTION		
					(I)	(S)		
Antimony	BG-D13L	WE83A-L	Soil	MS022781	0.01 U	0.00 B		
Arsenic	BG-D13L	WE83A-L	Soil	MS022781	5.20 B	5.60 B	7.7	
Lead	BG-D13L	WE83A-L	Soil	MS022781	10.29	11.05 B	7.4	
Selenium	BG-D13L	WE83A-L	Soil	MS022781	0.05 U	-0.15 B		
Silver	BG-D13L	WE83A-L	Soil	MS022781	0.09 U	0.15 B		
Vanadium	BG-D13L	WE83A-L	Soil	MS022781	26.86 B	32.75 B	21.9	

# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: PMS

SDG: WE83

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL	SERIAL	% DIFFER-	
					SAMPLE	DILUTION	ENCE	Q
					RESULT	RESULT		
					(I)	(S)		
Antimony	BG-D14L	WE83B-L	Soil	MS022781	0.01 U	0.05 B		
Arsenic	BG-D14L	WE83B-L	Soil	MS022781	3.98 B	4.05 B	1.8	
Lead	BG-D14L	WE83B-L	Soil	MS022781	3.30	3.30 B	0.0	
Selenium	BG-D14L	WE83B-L	Soil	MS022781	-0.04 U	0.05 B		
Silver	BG-D14L	WE83B-L	Soil	MS022781	0.04 U	0.10 B		
Vanadium	BG-D14L	WE83B-L	Soil	MS022781	20.41 B	22.25 B	9.0	

# ICP Serial Dilutions



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

ANALYSIS METHOD: PMS

SDG: WE83

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFER- ENCE	Q
Chromium	BG-D14L	WE83B-L	Soil	MS022882	7.16	B	7.60	B	6.1	
Chromium	BG-D13L	WE83A-L	Soil	MS030181	4.62	B	4.45	B	3.7	

# IDLs and ICP Linear Ranges



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENGTH (nm)	GFA BACK- GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Aluminum	AL	ICP	OPTIMA ICP 2	308.22		200	50.0	4/1/2012	250000.0	1/22/2013
Antimony	SB	PMS	PE ELAN 6000 MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Barium	BA	ICP	OPTIMA ICP 2	455.50		200	3.0	4/1/2012	100000.0	1/22/2013
Chromium	CR	PMS	PE ELAN 6000 MS	0.00		10	0.5	4/1/2012		
Iron	FE	ICP	OPTIMA ICP 2	259.94		100	50.0	4/1/2012	250000.0	1/22/2013
Lead	PB	PMS	PE ELAN 6000 MS	0.00		3	0.1	4/1/2012		
Manganese	MN	ICP	OPTIMA ICP 2	257.61		15	1.0	4/1/2012	30000.0	1/22/2013
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Selenium	SE	PMS	PE ELAN 6000 MS	0.00		5	0.5	4/1/2012		
Silver	AG	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Vanadium	V	PMS	PE ELAN 6000 MS	0.00		50	0.2	4/1/2012		

# ICP Interelement Correction Factors



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83

IEC DATE: 1/22/2013

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Antimony	206.84	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	13.7020120	0.000000	0.000000
Arsenic	188.98	0.000000	0.000000	0.000000	0.000000	0.0911890	0.000000	-1.1057220	1.4447090	0.000000	0.000000
Barium	233.53	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1795110	0.000000	0.000000	0.1469350
Beryllium	313.04	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Cadmium	228.80	0.000000	5.5964570	0.000000	0.000000	0.000000	0.000000	0.1385480	0.000000	0.000000	0.000000
Calcium	317.93	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Chromium	267.72	0.000000	0.000000	0.0295099	0.000000	0.1250000	0.000000	0.000000	0.000000	0.000000	0.000000
Cobalt	228.62	0.000000	0.000000	0.1133150	0.000000	0.000000	0.000000	0.000000	-0.0333930	0.000000	-0.0309050
Copper	324.75	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1698980	-0.0211960	0.000000	0.000000
Iron	273.96	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.7025550	0.000000	0.000000
Lead	220.35	-0.2707930	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-1.8104440	1.2410760	0.0536970
Magnesium	279.08	0.000000	0.000000	0.000000	0.000000	0.1060020	0.000000	-1.4277330	-1.1381670	0.000000	0.000000
Manganese	257.61	0.0049690	0.000000	0.000000	0.000000	0.0038740	0.000000	0.0125790	0.000000	0.000000	0.000000
Molybdenum	202.03	0.000000	0.000000	0.000000	0.000000	0.0117860	0.000000	0.000000	0.0509920	0.000000	0.000000
Nickel	231.60	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Potassium	766.49	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Selenium	196.03	0.1149780	0.000000	0.000000	0.000000	0.000000	0.000000	0.4775670	0.000000	0.000000	0.000000
Silicon	288.16	0.000000	0.000000	0.000000	0.000000	0.000000	-3.2795240	0.000000	0.000000	0.000000	0.000000
Silver	328.07	0.000000	0.000000	0.000000	0.000000	0.000000	-0.0054570	0.000000	0.000000	0.000000	0.000000
Sodium	589.59	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Thallium	190.80	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.9747620	0.3985520	0.000000	-0.1326730
Tin	189.93	0.000000	0.000000	0.000000	0.000000	-0.0837380	0.000000	0.000000	0.000000	0.000000	0.000000
Titanium	334.90	0.000000	0.000000	0.000000	0.000000	0.0594390	0.000000	0.000000	0.1892210	0.000000	0.000000
Vanadium	292.40	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-4.3335490	0.000000	0.0501910
Zinc	206.20	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1801790	0.000000	0.000000

# ICP Interelement Correction Factors



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83

IEC DATE: 1/22/2013

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	17.5877940	0.0000000	0.0000000	0.0000000	2.0603180	0.0000000	14.5677200	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.7545320	0.0000000	-3.8306350	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.3991370	0.0000000	0.0000000	0.0000000	-34.6204750	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1174000	0.0000000	0.0000000	0.0000000	0.0000000	0.2171460	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0100680	0.0000000	0.2372710	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9200350	0.0000000	0.0000000	0.0000000	0.0000000	0.0629730	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0938730	0.0834700	0.0738780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3293430	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1425980	0.1557020	0.0000000	0.0000000	1.7571760	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0053240	0.0000000	0.3083290	0.0000000	0.0000000	0.0000000	0.1931400	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	6.3157650	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-4.9970650	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.1877320	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5722860	0.0000000
Silicon	288.16	-0.1122540	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.3208460	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	-1.6204090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	3.6226430	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5136310	-0.1873890	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	1.0549050	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1522160	-0.5618640	0.0000000	0.0000000	0.0000000	0.5717940	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2590480	0.0000000	-0.0606610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: ICP

PROJECT: Saddle Rock

ARI PREP CODE: SWC

SDG: WE83

PREPDATE: 2/26/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
BG-D13	WE83A	1.023	0.0	50.0
BG-D13D	WE83ADUP	1.022	0.0	50.0
BG-D13S	WE83ASPK	1.023	0.0	50.0
BG-D14	WE83B	1.053	0.0	50.0
BG-D14D	WE83BDUP	1.058	0.0	50.0
BG-D14S	WE83BSPK	1.058	0.0	50.0
BG-D15	WE83C	1.031	0.0	50.0
BG-D16	WE83D	1.091	0.0	50.0
BG-D17	WE83E	1.061	0.0	50.0
BG-D18	WE83F	1.073	0.0	50.0
BG-D19	WE83G	1.045	0.0	50.0
BG-D20	WE83H	1.039	0.0	50.0
BG-D21	WE83I	1.088	0.0	50.0
BG-D22	WE83J	1.001	0.0	50.0
PBS	WE83MB1	1.000	0.0	50.0
LCSS	WE83MB1SPK	1.000	0.0	50.0

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: PMS

PROJECT: Saddle Rock

ARI PREP CODE: SWN

SDG: WE83

PREPDATE: 2/26/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
BG-D13	WE83A	1.038	0.0	50.0
BG-D13D	WE83ADUP	1.037	0.0	50.0
BG-D13S	WE83ASPK	1.043	0.0	50.0
BG-D14	WE83B	1.033	0.0	50.0
BG-D14D	WE83BDUP	1.032	0.0	50.0
BG-D14S	WE83BSPK	1.030	0.0	50.0
BG-D15	WE83C	1.041	0.0	50.0
BG-D16	WE83D	1.078	0.0	50.0
BG-D17	WE83E	1.025	0.0	50.0
BG-D18	WE83F	1.048	0.0	50.0
BG-D19	WE83G	1.004	0.0	50.0
BG-D20	WE83H	1.014	0.0	50.0
BG-D21	WE83I	1.050	0.0	50.0
BG-D22	WE83J	1.046	0.0	50.0
PBS	WE83MB1	1.000	0.0	50.0
LCSS	WE83MB1SPK	1.000	0.0	50.0



# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: CVA

PROJECT: Saddle Rock

ARI PREP CODE: SMM

SDG: WE83

PREPDATE: 2/26/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
BG-D13	WE83A	0.567	0.0	50.0
BG-D13D	WE83ADUP	0.570	0.0	50.0
BG-D13S	WE83ASPK	0.567	0.0	50.0
BG-D14	WE83B	0.516	0.0	50.0
BG-D14D	WE83BDUP	0.514	0.0	50.0
BG-D14S	WE83BSPK	0.517	0.0	50.0
BG-D15	WE83C	0.590	0.0	50.0
BG-D16	WE83D	0.545	0.0	50.0
BG-D17	WE83E	0.516	0.0	50.0
BG-D18	WE83F	0.530	0.0	50.0
BG-D19	WE83G	0.550	0.0	50.0
BG-D20	WE83H	0.513	0.0	50.0
BG-D21	WE83I	0.577	0.0	50.0
BG-D22	WE83J	0.567	0.0	50.0
PBS	WE83MB1	0.500	0.0	50.0
LCSW	WE83MB1SPK	0.500	0.0	50.0





# Analysis Run Log



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83

INSTRUMENT ID: OPTIMA ICP 2

RUNID: IP022771 METHOD: ICP

START DATE: 2/27/2013

END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	SR	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	Tl	U	V	Zn		
ZZZZZZ	ZZZZZZ	5.00	13173																																
BG-D14L	WE83B-L	25.00	13214	X				X								X																	X		
BG-D14	WE83B	5.00	13255	X				X								X																	X		
BG-D14D	WE83BDUP	5.00	13295	X				X								X																	X		
BG-D14S	WE83BSPK	5.00	13335	X				X								X																	X		
ZZZZZZ	ZZZZZZ	5.00	13375																																
CCV	CCV7	1.00	13420	X				X								X																	X		
CCB	CCB7	1.00	13460	X				X								X																		X	
BG-D17	WE83E	2.00	13502	X				X								X																		X	
BG-D18	WE83F	5.00	13542	X				X								X																		X	
BG-D19	WE83G	5.00	13582	X				X								X																		X	
BG-D20	WE83H	5.00	14022	X				X								X																		X	
BG-D21	WE83I	2.00	14062	X				X								X																		X	
BG-D22	WE83J	2.00	14104	X				X								X																		X	
ZZZZZZ	WE79N	2.00	14144																																
ZZZZZZ	WE79Q	5.00	14190																																
ZZZZZZ	WE79R	5.00	14230																																
ZZZZZZ	D1	1.00	14270																																
CCV	CCV8	1.00	14312	X				X								X																		X	
CCB	CCB8	1.00	14352	X				X								X																			X
CRI	CRI1F1	1.00	14394	X				X								X																			X
ICSA	ICSAF1	1.00	14435	X				X								X																			X
ICSAB	ICSABF1	1.00	14481	X				X								X																			X
CCV	CCV9	1.00	14521	X				X								X																			X
CCB	CCB9	1.00	14562	X				X								X																			X

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# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE83



INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS022781  
 METHOD: PMS  
 START DATE: 2/27/2013  
 END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	EA	BE	CA	CD	CO	CR	CU	FE	FG	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN		
S0			1.00	08550																															X	
S1			1.00	09010																																X
S2			1.00	09070																																X
S3			1.00	09140																																X
S4			1.00	09200																																X
ZZZZZ	Rinse		1.00	09260																															X	
ICV	MICV		1.00	09330																															X	
ICB	ICB		1.00	09390																																X
CCV	MCCV1		1.00	09450																																X
CCB	CCB1		1.00	09510																																X
CRI	MCRI		1.00	09570																																X
ICSA	ICSAI		1.00	10020																																X
ICSAB	ICSABI		1.00	10080																																X
ZZZZZ	LR200		1.00	10140																																X
ZZZZZ	LR300		1.00	10200																																X
CCV	MCCV2		1.00	10270																																X
CCB	CCB2		1.00	10330																																X
ZZZZZ	WE72MB		2.00	10380																																X
ZZZZZ	WE71MB		2.00	10440																																X
ZZZZZ	WE71A		20.00	10500																																X
ZZZZZ	WE71A		2.00	10560																																X
ZZZZZ	WE72A		20.00	11020																																X
ZZZZZ	WE72B		2.00	11090																																X
ZZZZZ	WE72MBSPK		2.00	11150																																X
ZZZZZ	WE71MBSPK		2.00	11210																																X
ZZZZZ	WE68MBSPK		2.00	11270																																X
CCV	MCCV3		1.00	11330																																X
CCB	CCB3		1.00	11390																																X
ZZZZZ	WE63MB1		2.00	11460																																X
ZZZZZ	WE68MB		2.00	11520																																X
ZZZZZ	WE68ADUP		2.00	11580																																X
ZZZZZ	WE68A		2.00	12040																																X
ZZZZZ	WE68ASPK		2.00	12090																																X
ZZZZZ	WE63A		2.00	12150																																X
ZZZZZ	WE63B		2.00	12210																																X

ANALYTICAL RESOURCES



# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE83

INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS022781 METHOD: PMS

START DATE: 2/27/2013  
 END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	EA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN	
ZZZZZZ	WE63D		2.00																															
ZZZZZZ	WE63E		2.00																															X
ZZZZZZ	WE63MB1SPK		2.00																							X		X						X
CCV	MCCV4		1.00				X																											
CCB	CCB4		1.00				X																											X
ZZZZZZ	WE63MB2		2.00																															
ZZZZZZ	WE63F		2.00																															
ZZZZZZ	WE63G		2.00																															
ZZZZZZ	WE63H		2.00																															
ZZZZZZ	WE63I		2.00																															
ZZZZZZ	WE63J		2.00																															
ZZZZZZ	WE63LDUP		2.00																															
ZZZZZZ	WE63L		2.00																															
ZZZZZZ	WE63LSPK		2.00																															
ZZZZZZ	WE63MB2SPK		2.00																															
CCV	MCCV5		1.00				X																											X
CCB	CCB5		1.00				X																											X
ZZZZZZ	WE63MB3		2.00																															
ZZZZZZ	WE63M		2.00																															
ZZZZZZ	WE63N		2.00																															
ZZZZZZ	WE63O		2.00																															
ZZZZZZ	WE63P		2.00																															
ZZZZZZ	WE63S		2.00																															
ZZZZZZ	WE63RDUP		2.00																															
ZZZZZZ	WE63R		2.00																															
ZZZZZZ	WE63RSPK		2.00																															
ZZZZZZ	WE63MB3SPK		2.00																															
CCV	MCCV6		1.00				X																											X
CCB	CCB6		1.00				X																											X
ZZZZZZ	WE63U		2.00																															
ZZZZZZ	WE63V		2.00																															
ZZZZZZ	WE63W		2.00																															
ZZZZZZ	WE63X		2.00																															
ZZZZZZ	WE63Y		2.00																															
ZZZZZZ	WE63Z		2.00																															

# Analysis Run Log



CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE83

INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS022781 METHOD: PMS

START DATE: 2/27/2013  
 END DATE: 2/27/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	EA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN				
ZZZZZ	WE63AA		2.00 15560																																		
ZZZZZ	WE63AC		2.00 16020																																		X
ZZZZZ	WE63AD		2.00 16080																																	X	
ZZZZZ	WE63AE		2.00 16140																																	X	
CCV	MCCV7		1.00 16200	X																																X	
CCB	CCB7		1.00 16260	X																																X	
PBS	WE83MB1		20.00 16320	X																																X	
ZZZZZ	WE63AF		2.00 16380																																		X
ZZZZZ	WE63AG		2.00 16440																																		X
BG-D15	WE83C		20.00 16500	X																																	X
BG-D13L	WE83A-L		100.00 16560	X																																	X
BG-D13	WE83A		20.00 17020	X																																	X
BG-D13D	WE83ADUP		20.00 17080	X																																	X
BG-D13S	WE83ASPK		20.00 17140	X																																	X
BG-D13A	WE83APOST		20.00 17200	X																																	X
LCSS	WE83MB1SPK		20.00 17260	X																																	X
CCV	MCCV8		1.00 17320	X																																	X
CCB	CCB8		1.00 17380	X																																	X
BG-D14L	WE83B-L		100.00 17430	X																																	X
BG-D14	WE83B		20.00 17490	X																																	X
BG-D14D	WE83BDUP		20.00 17550	X																																	X
BG-D14S	WE83BSPK		20.00 18010	X																																	X
BG-D14A	WE83BPOST		20.00 18070	X																																	X
BG-D16	WE83D		20.00 18130	X																																	X
BG-D17	WE83E		20.00 18190	X																																	X
BG-D18	WE83F		20.00 18250	X																																	X
BG-D19	WE83G		20.00 18310	X																																	X
BG-D20	WE83H		20.00 18370	X																																	X
CCV	MCCV9		1.00 18430	X																																	X
CCB	CCB9		1.00 18490	X																																	X
BG-D21	WE83I		20.00 18550	X																																	X
BG-D22	WE83J		20.00 19010	X																																	X
BG-D17	WE83E		50.00 19060	X																																	X
CCV	MCCV10		1.00 19120	X																																	X
CCB	CCB10		1.00 19190	X																																	X

55 2013 FEB 27

# Analysis Run Log



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83

INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS022882 METHOD: PMS

START DATE: 2/28/2013  
 END DATE: 2/28/2013

CLIENT ID	ARI ID	DIL.	TIME	SR	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	FG	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN		
S0			1.00	09530																																
S1			1.00	09590																																
S2			1.00	10060																																
S3			1.00	10120																																
S4			1.00	10180																																
ZZZZZ	Rinse		1.00	10240																																
ICV	MICV		1.00	10310																																
ICB	ICB		1.00	10370																																
CCV	MCCV1		1.00	10430																																
CCB	CCB1		1.00	10490																																
CRI	MCRI		1.00	10550																																
ICSA	ICSAI		1.00	11000																																
ICSAB	ICSABI		1.00	11060																																
ZZZZZ	LR200		1.00	11120																																
ZZZZZ	LR300		1.00	11180																																
CCV	MCCV2		1.00	11250																																
CCB	CCB2		1.00	11310																																
ZZZZZ	WE79MB1		20.00	11410																																
ZZZZZ	WE79B		20.00	11470																																
ZZZZZ	WE79C		20.00	11520																																
ZZZZZ	WE79D		20.00	11580																																
ZZZZZ	WE79A-L		100.00	12040																																
ZZZZZ	WE79A		20.00	12100																																
ZZZZZ	WE79ADUP		20.00	12160																																
ZZZZZ	WE79ASPK		20.00	12220																																
ZZZZZ	WE79APOST		20.00	12280																																
ZZZZZ	WE79MB1SPK		20.00	12340																																
CCV	MCCV3		1.00	12400																																
CCB	CCB3		1.00	12470																																
ZZZZZ	WE79MB2		20.00	12520																																
ZZZZZ	WE79E		20.00	12580																																
ZZZZZ	WE79F		20.00	13040																																
ZZZZZ	WE79G		20.00	13100																																
ZZZZZ	WE79H		20.00	13160																																
ZZZZZ	WE79I		20.00	13220																																

02/28/2013 12:00:00



# Analysis Run Log



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83

INSTRUMENT ID: PE ELAN 6000 MS

RUNID: MS022882 METHOD: PMS

START DATE: 2/28/2013

END DATE: 2/28/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	FG	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN	
ZZZZZZ	WE79J		20.00																																
ZZZZZZ	WE79K		20.00																																
ZZZZZZ	WE79L		20.00																																
ZZZZZZ	WE79MB2SPK		20.00																																
CCV	MCCV4		1.00																																
CCB	CCB4		1.00																																
ZZZZZZ	WE79M		20.00																																
ZZZZZZ	WE79N		20.00																																
ZZZZZZ	WE79O		20.00																																
ZZZZZZ	WE79P		20.00																																
ZZZZZZ	WE79Q		20.00																																
ZZZZZZ	WE79R		20.00																																
ZZZZZZ	WE79R		50.00																																
ZZZZZZ	WE79S		20.00																																
ZZZZZZ	WE79T		20.00																																
ZZZZZZ	WE79U		20.00																																
CCV	MCCV5		1.00																																
CCB	CCB5		1.00																																
ZZZZZZ	WE80MB1		20.00																																
ZZZZZZ	WE79V		20.00																																
ZZZZZZ	WE79X		20.00																																
ZZZZZZ	WE79X		50.00																																
ZZZZZZ	WE80A-L		100.00																																
ZZZZZZ	WE80A		20.00																																
ZZZZZZ	WE80ADUP		20.00																																
ZZZZZZ	WE80ASPK		20.00																																
ZZZZZZ	WE80APOST		20.00																																
ZZZZZZ	WE80MB1SPK		20.00																																
CCV	MCCV6		1.00																																
CCB	CCB6		1.00																																
ZZZZZZ	WE80MB2		20.00																																
ZZZZZZ	WE79W		20.00																																
ZZZZZZ	WE80B		20.00																																
ZZZZZZ	WE80C		20.00																																
ZZZZZZ	WE80D		20.00																																

MS022882

# Analysis Run Log

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83

INSTRUMENT ID: PE ELAN 6000 MS

RUNID: MS022882 METHOD: PMS

START DATE: 2/28/2013

END DATE: 2/28/2013



CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WE80E		20.00	16580																													
ZZZZZZ	WE80F		20.00	17040																													
ZZZZZZ	WE80G		20.00	17100																													
ZZZZZZ	WE80H		20.00	17160																													
ZZZZZZ	WE80MB2SPK		20.00	17220																													
CCV	MCCV7		1.00	17280												X																	
CCB	CCB7		1.00	17340												X																	
ZZZZZZ	WE80I		20.00	17390																													
ZZZZZZ	WE80J		20.00	17450																													
ZZZZZZ	WE80K		20.00	17510																													
ZZZZZZ	WE80L		20.00	17570																													
ZZZZZZ	WE80M		20.00	18030																													
ZZZZZZ	WE80N		20.00	18090																													
ZZZZZZ	WE80O		20.00	18150																													
ZZZZZZ	WE80P		20.00	18210																													
ZZZZZZ	WE80Q		20.00	18270																													
ZZZZZZ	WE80R		20.00	18330																													
CCV	MCCV8		1.00	18390												X																	
CCB	CCB8		1.00	18450												X																	
ZZZZZZ	WE80S		20.00	18510																													
ZZZZZZ	WE80T		20.00	18570																													
ZZZZZZ	WE80U		20.00	19030																													
ZZZZZZ	WE80V		20.00	19090																													
CCV	MCCV9		1.00	19150												X																	
CCB	CCB9		1.00	19210												X																	
S0	S0		1.00	19270												X																	
CCV	MCCV10		1.00	19320												X																	
CCB	CCB10		1.00	19390												X																	
BG-D15	WE83C		20.00	19440												X																	
BG-D16	WE83D		20.00	19500												X																	
BG-D17	WE83E		20.00	19560												X																	
BG-D18	WE83F		20.00	20020												X																	
BG-D19	WE83G		20.00	20080												X																	
ZZZZZZ	ZZZZZZ		100.00	20140																													
BG-D13	WE83A		20.00	20200																													

WE80G : 000000

# Analysis Run Log

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WE83

INSTRUMENT ID: PE ELAN 6000 MS

RUNID: MS022882 METHOD: PMS

START DATE: 2/28/2013

END DATE: 2/28/2013



CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN			
BG-D13D	WE83ADUP	20.00	20260																																	
BG-D13S	WE83ASPK	20.00	20320																																	
ZZZZZZ	ZZZZZZ	20.00	20380																																	
CCV	MCCV11	1.00	20440																																	
CCB	CCB11	1.00	20500																																	
BG-D20	WE83H	20.00	20560																																	
BG-D21	WE83I	20.00	21010																																	
BG-D22	WE83J	20.00	21070																																	
BG-D14L	WE83B-L	100.00	21130																																	
BG-D14	WE83B	20.00	21190																																	
BG-D14D	WE83BDUP	20.00	21250																																	
BG-D14S	WE83BSPK	20.00	21310																																	
ZZZZZZ	ZZZZZZ	20.00	21370																																	
CCV	MCCV12	1.00	21430																																	
CCB	CCB12	1.00	21490																																	

WE83 : 00070



# Analysis Run Log

CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WE83

INSTRUMENT ID: PE ELAN 6000 MS  
 RUNID: MS030181  
 METHOD: PMS  
 START DATE: 3/1/2013  
 END DATE: 3/1/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	%A	%L	%S	%B	%E	%C	%D	%CO	%CR	%CU	%FE	%HG	%K	%MG	%MN	%MO	%NA	%NI	%PB	%SB	%SE	%SI	%SN	%TI	%TL	%U	%V	%ZN	
S0			1.00	09010																													
S1			1.00	09070																													
S2			1.00	09130																													
S3			1.00	09190																													
S4			1.00	09250																													
ZZZZZ			1.00	09320																													
ICV			1.00	09390																													
ICB			1.00	09450																													
CCV			1.00	09500																													
CCB			1.00	09570																													
CRI			1.00	10020																													
ZZZZZ			1.00	10080																													
ZZZZZ			1.00	10140																													
ZZZZZ			1.00	10190																													
ZZZZZ			1.00	10260																													
CCV			1.00	10320																													
CCB			1.00	10380																													
ICSA			1.00	10540																													
ICSAB			1.00	11000																													
CCV			1.00	11060																													
CCB			1.00	11120																													
ZZZZZ			20.00	11190																													
ZZZZZ			20.00	11250																													
ZZZZZ			20.00	11310																													
ZZZZZ			20.00	11370																													
ZZZZZ			20.00	11430																													
BG-D13L			250.00	11490																													
BG-D13			50.00	11550																													
BG-D13D			50.00	12010																													
BG-D13S			50.00	12070																													
ZZZZZ			20.00	12130																													
CCV			1.00	12190																													
CCB			1.00	12250																													

3/1/2013 11:50:00 AM



**Total Solids**

**ARI Job ID: WE83**

Solids Data Entry Report  
Date: 02/27/13

Checked by: CA Date: 2/27/13  
Data Analyst: DM

Solids Determination performed on 02/26/13 by DM

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
WE83	A	BG-D13	0.996	10.137	8.217	79.00
WE83	B	BG-D14	1.010	10.975	9.003	80.21
WE83	C	BG-D15	0.985	10.289	9.044	86.62
WE83	D	BG-D16	1.010	10.743	9.024	82.34
WE83	E	BG-D17	0.966	10.302	8.190	77.38
WE83	F	BG-D18	0.997	10.485	6.096	53.74
WE83	G	BG-D19	1.020	10.642	8.863	81.51
WE83	H	BG-D20	0.989	10.609	8.490	77.97
WE83	I	BG-D21	0.993	10.652	9.764	90.81
WE83	J	BG-D22	1.009	10.672	9.455	87.41



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07 Balance ID: 068755

Samples in Oven: Date: 2-26-13 Time: 1130 Temp: 105°C Analyst: DM

Removed from Oven: Date: 2-27-13 Time: 0630 Temp: 105°C Analyst: DM

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs <sup>1</sup>
WE83 A	0.996	10.137	8.217	-	✓
" B	1.010	10.975	9.003	-	✓
" C	0.985	10.289	9.044	-	✓
" D	1.010	10.743	9.024	-	✓
" E	0.966	10.302	8.190	-	✓
" F	0.997	10.485	6.096	-	✓
" G	1.020	10.642	8.823	-	✓
" H	0.989	10.609	8.490	-	✓
" I	0.993	10.652	9.764	-	✓
" J	1.009	10.672	9.455	-	✓
<div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border: 1px solid black; transform: rotate(45deg); opacity: 0.5;"></div> <p style="position: absolute; top: 10%; left: 30%; transform: rotate(-45deg);">2-26-13 DM</p>					

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2<sup>nd</sup> bench sheet for additional weightings.



**Metals Raw Data  
Preparation Bench Sheets and Notes**

**ARI Job ID: WE83**



### SPIKING LOG

Analyst: DM Sample ID: NESS ASPK, ESPK, MBSPK

Final Volume: 50

Final Volume (Hg): 50

Date: 8-24-13

Precode:	<u>SWL</u>		ICP	ICP	ICP
Spike Solution:	Routine	No GFA	No GFA	GFA	GFA
Standard No.:	<u>3001-10</u>				
Vol Added (mL):	<u>1.0</u>				
Ag	50			2.0	
Al	200	✓	200		
As	200			10	
Ba	200	✓	200		
Be	50		50		
Ca	1000		1000		
Cd	50			2.0	
Co	50		50		
Cr	50		50		
Cu	50		50		
Fe	200	✓	200		
K	1000		1000		
Mg	1000		1000		
Mn	50	✓	50		
Na	1000		1000		
Ni	50		50		
Pb	200			10	
Se	200			10	
Sr	50		50		
Tl	200			10	
V	50		50		
Zn	50		50		

	<u>SWN</u>	<u>SWN</u>	<u>SWN</u>	ICP-MS	ICP-MS	ICP-MS
	ICP-MS #1	ICP-MS #2	ICP-MS #2	Minerals	Minerals	Minerals
Ag	25 ✓		1.0			
Al				500		
As	25 ✓					
Ba	25					
Be	25					
Ca	25			500		
Cd	25					
Co	25					
Cr	25 ✓					
Cu	25					
Fe				500		
K				500		
Mg				500		
Mn	25					
Mo			25			
Na				500		
Ni	25					
Pb	25 ✓					
Sb			25 ✓			
Se	80 ✓					
Tl	25					
U	25					
V	25 ✓					
Zn	80					

Element	Precode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	<u>SMM</u>	CVA	1.0	0.05	507.13
Hg MBSPK	↓	CVA	1.0	0.1	↓
Sb					
Sb		ICP	2000		
		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Precode	Analysis	Stock Conc.	Stock Added	Std. No.



# Mercury Digestion Log

Prep Code: SMM

Matrix: Soil

Analyst: DM

Date: 2-26-13

Bath Temp: 95°C

Start Time: 1155

End Time: 1225

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WEB3 A	1	-	0.567	50.0	<del>3/8</del> 1	Ⓟ	
" ADUP	1	-	0.570		1		
" ASPK	1	-	0.567		1		
" B	1	-	0.516		1		
" BOUP	1	-	0.514		1		
" BSPK	1	-	0.517		1		
" C	1	-	0.590		1		
" D	1	-	0.545		1		
" E	1	-	0.516		1		
" F	1	-	0.530		1		
" G	1	-	0.550		1		
" H	1	-	0.513		1		
" I	1	-	0.571		1		
" J	1	-	0.567		1		
" MBI	-	-	-	↓	1	↓	
" MBISPK	-	-	-	50.0	1	Ⓟ	
<del>2-26-13 DM</del>							

Chemical/Reagent ID:

HNO<sub>3</sub>: J8022

H<sub>2</sub>SO<sub>4</sub>: J1671

HCl: -

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: M2418

5% KMnO<sub>4</sub>: M2425

Digest Tube Lot: MFOCLKK01



# Digestion Log

Analyst: DM Date: 2-2-13 Time: 1140  
Matrix: SDI Block ID: 45 Block Temp: 90°C Thermometer: MP40

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SWC</u>		Prep Code: <u>SWN</u>		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
<del>WEBB A</del>	<del>1</del>	<del>-</del>	<del>1.023</del>	<del>50.0</del>	<del>1.038</del>	<del>50.0</del>	
x ADUP	1	-	1.022		1.037		
" ACPK	1	-	1.023		1.043		
" B	1	-	1.053		1.033		
" BCUP	1	-	1.058		1.032		
" BCPK	1	-	1.058		1.030		
" C	1	-	1.031		1.041		
" D	1	-	1.091		1.078		
" E	1	-	1.061		1.025		
" F	1	-	1.073		1.048		
" G	1	-	1.045		1.004		
" H	1	-	1.059		1.014		
" I	1	-	1.088		1.050		
" J	1	-	1.001		1.046		
" MB1	-	-	-	↓	-	↓	
" MB1SPK	-	-	-	50.0	-	50.0	
<del>2-26-13 DM</del>							

Chemical/Reagent ID:

HNO<sub>3</sub>: MP2435 / 1800 HCl: I7971 H<sub>2</sub>O<sub>2</sub>: I7845 Tube Lot #: 1208259



ARI Job No.: WE83

Client ID: Hart Crowser

Parameter: ICP

Client Project: Saddle Ridge <sup>Rock</sup> #22

List problems, concerns, corrective actions and any other pertinent information

Some samples (A-C, F-H) were diluted 5X based on the color of the digestate which suggested that Fe was over range. This was not always the case but as all the analytes were detected at levels much greater than the R.L. they were not rerun at the ~~low~~ lower dilution.

Analyst Initials:

AA

Date:

2-27-13

**Metals Raw Data  
Run Logs, Calibrations, and Raw Data**

**ARI Job ID: WE83**



# Corrective Actions Inorganic Analyses

Criteria Flagged:

Unacceptable Blank:

Unacceptable Duplicate:

Unacceptable Spike:

Unacceptable Reference:  (Serial Dilution)

ARI Job No.: WE83

Date of Event: 2-27-13

Client ID: Hart Crowser

Method/Element: ICPMS

Prep Code: SWN

Details of Problem/Recommended Corrective Action:

ASPK Sb ↓ } APOST in control  
BSPK Sb ↓ } BPOST ↓

A-L/A  $V > 10\%$

A-L  $6.554 \text{ ug/L} \times 5 = 32.77 \text{ ug/L}$

A  $26.861 \text{ ug/L}$

Samples Affected:

Corrective Action Taken:

Analyst Initials: BA

Date: 2-28-13

Supervisor: [Signature]

Date: 2/28/13

**Metals Data Review Checklist**

Method: ICP ICP-MS GFA CVA

Analysis Date: 2-27-05

<u>I2</u>	Analyst <u>A 2-27</u>	Peer <u>9/2 2-27-05</u>	Comment
<b>Logbook:</b>			
Analyst, Date, Method info	✓	/	
Sample ID's	✓	/	
Standard/QC solution ID's recorded	✓	/	
Prep codes	✓	/	
Dilution factors	✓	/	
Crossouts/Corrections/Deletions	✓	/	
<b>Calibration:</b>			
Blank & Standard intensities	✓	/	
Standard deviations	✓	/	
Curve fit	✓	/	
<b>Calibration Verification:</b>			
ICV/CCV	✓	/	
ICB/CCB	✓	/	
<b>Samples:</b>			
RSD's & SD's	✓	/	
Internal Standards	✓	/	See Log ↓
Carry-over	✓	/	
<b>Method QC:</b>			
CRI/CRA	✓	/	
ICSA/ICSAB	✓	/	
Post Spikes/Serial Dilutions	✓	/	
Analytic Spikes	✓	/	
<b>Matrix QC:</b>			
SRM/LCS	✓	/	
Matrix Spikes	✓	/	
Matrix Duplicates	✓	/	
Method Blanks	✓	/	
<b>Data Distribution:</b>			
Requested elements/isotope identified	✓	/	
Correct samples identified for distribution	✓	/	
Raw data match distributed data	✓	/	
Data filename correct	✓	/	
Necessary Analysts Notes and CAF's	✓	/	A.N. 6E03, 6E19





IEC Date: 1-22-13

Analysis Date: 2-27-13

Analyst: MC

LR Date: 1-22-13

Page: 1 of 4

All corrections made by analyst unless otherwise noted. MA 2-27-13

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			2016-2
		2			-7
		3			-8
		4			-9
		5			-10
		ICV			3004-11
		ICB			
		CR1			
		ICSA			
		ICSAB			
		CCV1			
		CCB1			
		WE77 MB	SWC	2	
		A			
		WE77 B			
222		<del>222222</del> A-E		10	RW 1/25
DIL		A		5	
		ADUP			✓
		ASPK			✓ AL Fe Mn STL
A-L		A-L		25	✓
		WE77 MBSPK		2	✓
		MBSAD			✓
		CCV2			
		CCB2			



IEC Date: \_\_\_\_\_ Analysis Date: 2-27-13 Analyst: JA  
LR Date: \_\_\_\_\_ Page: 2 of 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
	✓	WE79 MBI	Sux	Z	BA 0004
		C		S	A.N.
		D			
		E			
		F			
		G			See A.N.
		H			
		I		→	
		J		Z	↓
		↓ MBIspk	↓	↓	✓
		CCB3			
		CCB3			
		WE79 MBZ	Sux	Z	
79		K			
		L			
79		M			
	✓	N			re 1/2 noisy Sc
		O			
		P			
	✓	Q			re 1/5 (Fe)
	✓	R			↓
		↓ MBZspk	↓	↓	✓
		CCB4			✓
		CCB4			



IEC Date:                     

Analysis Date: 2-27-13

Analyst: WA

LR Date:                     

Page: 3 of 4

All corrections made by analyst unless otherwise noted.

AM 2-27-13

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		WE79 MBI	SWC	2	
		CR1			
		ICSA			
		ICSA3			
		CERS			
		CERS5			
		WE83 MBI	SWC	2	
		WE79 S			
		T			
		U			
		V			
		W			
		X			
		WE83 C		5	See A.N.
		D		2	
503		MBI SPL		b	✓
		CW4			
		CCB6			
		WE83 A-L	SWC	25	✓
		A		5	See A.N.
		ADup			✓
		ASDK			Ad fe mn STL
222		222222			
		APost			
		B-L		25	✓



IEC Date: \_\_\_\_\_

Analysis Date: 2-27-13

Analyst: MA

LR Date: \_\_\_\_\_

Page: 4 of 4

All corrections made by analyst unless otherwise noted.

MA 2-27

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		W883 B	SWC	5	See A.N
		↓ BDup	↓	↓	✓
		↓ B Spk	↓	↓	✓ AI Fe Mn Sr
222		↓ 22222 B Post	↓	↓	
		CCV7			
		CCM7			
		W883 E	SWC	2	
		↓ F	↓	5	See A.N.
		↓ G	↓	↓	↓
		↓ H	↓	↓	↓
		↓ I	↓	2	
		↓ J	↓	↓	
		W879 N		↓	
		↓ Q	↓	5	
		↓ R	↓	5	
		Di			✓ P.O. Check
		CCVFO			
		CCB8			
		CR1			
		ICSA			
		ICSAB			
		CCV9			
		CCB9			
		~~~~~	MA	2-27-13	

Nebulizer Parameters: Hg ReAlign

Analyte Back Pressure Flow
All 217.0 kPa 0.75 L/min

2/27/2013 8:08:41 AM Hg ReAlign... Actual peak offset (nm): 0.003
Drift (nm): -0.000 Slit adjustment: 0

Analysis Begun

Start Time: 2/27/2013 8:11:09 AM Plasma On Time: 2/27/2013 7:22:55 AM
Logged In Analyst: Metals Technique: ICP Continuous
Spectrometer: Optima 7300 DV, S/N 077C8121202 Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\BLKS.sif

Batch ID:

Results Data Set: I2130227

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Method Loaded

Method Name: 7300bcESI2FAST

Method Last Saved: 8/13/2012 7:13:22 AM

IEC File: 012213.iec

MSF File:

Method Description: 12Axial Elements

Table with 6 columns: Analyte, Calibration Equation, Processing, View, Internal Standard, IEC. Lists various elements like Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, V, Zn and their corresponding calibration and processing details.

Sequence No.: 1 Autosampler Location: 1
Sample ID: B1 Date Collected: 2/27/2013 8:11:17 AM
Dilution: 1.000000X Data Type: Original

Nebulizer Parameters: B1
Analyte Back Pressure Flow
All 217.0 kPa 0.75 L/min

Handwritten note: M 2-27-13

=====  
Analysis Begun

Start Time: 2/27/2013 8:32:31 AM  
 Logged In Analyst: Metals  
 Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 2/27/2013 7:22:55 AM  
 Technique: ICP Continuous  
 Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISSET2.sif

Batch ID:

Results Data Set: I2130227

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

=====  
 Sequence No.: 1

Sample ID: Calib Blank 1

Autosampler Location: 1

Date Collected: 2/27/2013 8:32:32 AM

Data Type: Original

-----  
Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

-----  
Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
ScA 357.253	3161867.8	39746.83	1.26%	100.0	%
ScR 361.383	338212.2	1330.20	0.39%	100.0	%
Ag 328.068†	-101.4	36.98	36.47%	[0.00]	mg/L
Al 308.215†	206.3	7.53	3.65%	[0.00]	mg/L
As 188.979†	-18.3	3.28	17.93%	[0.00]	mg/L
B 249.677†	-35.8	3.85	10.76%	[0.00]	mg/L
Ba 233.527†	48.8	3.17	6.48%	[0.00]	mg/L
Be 313.042†	684.4	22.16	3.24%	[0.00]	mg/L
Ca 317.933†	90.5	7.74	8.55%	[0.00]	mg/L
Cd 228.802†	277.4	2.90	1.04%	[0.00]	mg/L
Co 228.616†	-147.0	0.34	0.23%	[0.00]	mg/L
Cr 267.716†	-182.5	5.42	2.97%	[0.00]	mg/L
Cu 324.752†	3043.0	35.80	1.18%	[0.00]	mg/L
Fe 273.955†	13.3	2.90	21.72%	[0.00]	mg/L
K 766.490†	397.7	32.93	8.28%	[0.00]	mg/L
Mg 279.077†	81.1	6.95	8.57%	[0.00]	mg/L
Mn 257.610†	257.7	2.55	0.99%	[0.00]	mg/L
Mo 202.031†	90.4	4.65	5.15%	[0.00]	mg/L
Na 589.592†	-488.3	41.25	8.45%	[0.00]	mg/L
Na 330.237†	-106.5	11.51	10.80%	[0.00]	mg/L
Ni 231.604†	11.6	3.74	32.12%	[0.00]	mg/L
Pb 220.353†	-32.0	5.72	17.88%	[0.00]	mg/L
Sb 206.836†	56.5	3.35	5.92%	[0.00]	mg/L
Se 196.026†	-53.8	4.62	8.58%	[0.00]	mg/L
Si 288.158†	48.5	7.36	15.17%	[0.00]	mg/L
Sn 189.927†	-10.2	4.10	40.10%	[0.00]	mg/L
Sr 421.552†	370.0	17.22	4.65%	[0.00]	mg/L
Ti 334.903†	-65.2	7.98	12.25%	[0.00]	mg/L
Tl 190.801†	-43.6	3.66	8.39%	[0.00]	mg/L
V 292.402†	89.0	11.29	12.68%	[0.00]	mg/L
Zn 206.200†	-14.5	1.46	10.04%	[0.00]	mg/L

=====  
 Sequence No.: 2

Sample ID: STD2

Autosampler Location: 2

Date Collected: 2/27/2013 8:36:47 AM

Data Type: Original

-----  
Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

-----  
Mean Data: STD2

Mean Corrected

Calib

Analyte	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	3184615.7	22277.40	0.70%	100.7	%
ScR 361.383	338740.1	4369.73	1.29%	100.2	%
Ba 233.527†	57274.1	293.96	0.51%	[10]	mg/L
Cd 228.802†	262857.3	1518.10	0.58%	[10]	mg/L
Co 228.616†	418316.0	2467.40	0.59%	[10]	mg/L
Cr 267.716†	64853.4	633.01	0.98%	[10]	mg/L
Cu 324.752†	2776283.7	18942.30	0.68%	[10]	mg/L
Mn 257.610†	486460.6	6461.75	1.33%	[10]	mg/L
V 292.402†	1358819.5	6346.82	0.47%	[10]	mg/L

Sequence No.: 3  
Sample ID: STD3

Autosampler Location: 3  
Date Collected: 2/27/2013 8:38:34 AM  
Data Type: Original

## Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: STD3

Analyte	Mean Corrected			RSD	Calib	
	Intensity	Std.Dev.	Conc.		Units	
ScA 357.253	3161374.3	16626.99	0.53%	99.98	%	
ScR 361.383	339807.8	2849.86	0.84%	100.5	%	
Ag 328.068†	222365.6	1283.58	0.58%	[1.0]	mg/L	
As 188.979†	17424.7	204.86	1.18%	[10]	mg/L	
B 249.677†	66340.9	388.42	0.59%	[10]	mg/L	
Be 313.042†	2606651.7	34858.49	1.34%	[5.0]	mg/L	
Na 589.592†	600527.1	6097.51	1.02%	[50]	mg/L	
Ni 231.604†	39988.1	234.12	0.59%	[10]	mg/L	
Pb 220.353†	93367.3	437.04	0.47%	[10]	mg/L	
Se 196.026†	17062.1	190.04	1.11%	[10]	mg/L	
Sr 421.552†	4577418.7	34074.89	0.74%	[5]	mg/L	
Tl 190.801†	23112.1	212.17	0.92%	[10]	mg/L	
Zn 206.200†	41685.6	311.07	0.75%	[10]	mg/L	

Sequence No.: 4  
Sample ID: STD4

Autosampler Location: 4  
Date Collected: 2/27/2013 8:41:08 AM  
Data Type: Original

## Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

## Mean Data: STD4

Analyte	Mean Corrected			RSD	Calib	
	Intensity	Std.Dev.	Conc.		Units	
ScA 357.253	3196768.0	29888.35	0.93%	101.1	%	
ScR 361.383	343527.6	3300.09	0.96%	101.6	%	
Mo 202.031†	220821.5	2727.74	1.24%	[10]	mg/L	
Sb 206.836†	34818.7	365.61	1.05%	[10]	mg/L	
Si 288.158†	17620.1	308.25	1.75%	[10]	mg/L	
Sn 189.927†	50362.9	752.28	1.49%	[10]	mg/L	
Ti 334.903†	227509.2	1649.94	0.73%	[10]	mg/L	

Sequence No.: 5  
Sample ID: STD5

Autosampler Location: 5  
Date Collected: 2/27/2013 8:43:23 AM  
Data Type: Original

## Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

## Mean Data: STD5

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	2986120.9	11140.03	0.37%	94.44	%
ScR 361.383	338193.0	700.15	0.21%	99.99	%
Al 308.215†	40839.5	119.75	0.29%	[30]	mg/L
Ca 317.933†	313724.9	766.61	0.24%	[30]	mg/L
Fe 273.955†	156352.0	1168.76	0.75%	[100]	mg/L
K 766.490†	161553.7	268.74	0.17%	[100]	mg/L
Mg 279.077†	30384.4	122.52	0.40%	[30]	mg/L
Na 330.237†	3001.8	10.58	0.35%	[100]	mg/L

-----  
Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	222400	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1361	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1742	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	6634	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	5727	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	521300	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	10460	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	26290	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	41830	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	6485	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	277600	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1564	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1616	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1013	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	48650	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	22080	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	12010	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	30.02	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	3999	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	9337	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	3482	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1706	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1762	0.00000	1.000000	
Sr 189.927	1	Lin Thru 0	0.0	5036	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	915500	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	22750	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2311	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	135900	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	4169	0.00000	1.000000	



=====  
Analysis Begun

Start Time: 2/27/2013 8:46:52 AM  
Logged In Analyst: Metals  
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 2/27/2013 7:22:55 AM  
Technique: ICP Continuous  
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISSET2.sif

Batch ID:

Results Data Set: I2130227

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

=====  
Sequence No.: 1

Sample ID: CV

Autosampler Location: 7

Date Collected: 2/27/2013 8:46:53 AM

Data Type: Original

Dilution: 1.000000X

-----  
Nebulizer Parameters: CV

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

-----  
Mean Data: CV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	3172049.3	100.3	%	0.30				0.30%
ScR 361.383	340504.2	100.7	%	0.21				0.20%
Ag 328.068†	232355.8	1.045	mg/L	0.0050	1.045	mg/L	0.0050	0.47%
Al 308.215†	2760.0	1.993	mg/L	0.0040	1.993	mg/L	0.0040	0.20%
As 188.979†	3452.7	2.012	mg/L	0.0046	2.012	mg/L	0.0046	0.23%
B 249.677†	6717.0	1.011	mg/L	0.0030	1.011	mg/L	0.0030	0.30%
Ba 233.527†	5756.4	1.005	mg/L	0.0076	1.005	mg/L	0.0076	0.75%
Be 313.042†	502280.5	0.9632	mg/L	0.00321	0.9632	mg/L	0.00321	0.33%
Ca 317.933†	21226.3	2.030	mg/L	0.0018	2.030	mg/L	0.0018	0.09%
Cd 228.802†	27392.0	1.032	mg/L	0.0084	1.032	mg/L	0.0084	0.81%
Co 228.616†	42259.9	1.008	mg/L	0.0037	1.008	mg/L	0.0037	0.37%
Cr 267.716†	6516.5	1.004	mg/L	0.0032	1.004	mg/L	0.0032	0.32%
Cu 324.752†	286406.7	1.031	mg/L	0.0062	1.031	mg/L	0.0062	0.60%
Fe 273.955†	3180.1	2.028	mg/L	0.0114	2.028	mg/L	0.0114	0.56%
K 766.490†	32074.4	19.85	mg/L	0.057	19.85	mg/L	0.057	0.29%
Mg 279.077†	2032.1	2.013	mg/L	0.0038	2.013	mg/L	0.0038	0.19%
Mn 257.610†	46993.8	0.9664	mg/L	0.00823	0.9664	mg/L	0.00823	0.85%
Mo 202.031†	22047.4	0.9984	mg/L	0.00463	0.9984	mg/L	0.00463	0.46%
Na 589.592†	613561.4	51.09	mg/L	0.059	51.09	mg/L	0.059	0.12%
Na 330.237†	1573.6	52.39	mg/L	0.107	52.39	mg/L	0.107	0.20%
Ni 231.604†	4036.9	1.010	mg/L	0.0040	1.010	mg/L	0.0040	0.40%
Pb 220.353†	19156.5	2.053	mg/L	0.0061	2.053	mg/L	0.0061	0.30%
Sb 206.836†	7158.5	2.054	mg/L	0.0064	2.054	mg/L	0.0064	0.31%
Se 196.026†	3377.9	1.978	mg/L	0.0074	1.978	mg/L	0.0074	0.37%
Si 288.158†	3550.3	2.010	mg/L	0.0116	2.010	mg/L	0.0116	0.58%
Sn 189.927†	4909.5	0.9762	mg/L	0.00629	0.9762	mg/L	0.00629	0.64%
Sr 421.552†	916196.4	1.001	mg/L	0.0018	1.001	mg/L	0.0018	0.18%
Ti 334.903†	22395.4	0.9830	mg/L	0.00347	0.9830	mg/L	0.00347	0.35%
Tl 190.801†	4632.1	1.996	mg/L	0.0052	1.996	mg/L	0.0052	0.26%
V 292.402†	139738.0	1.033	mg/L	0.0054	1.033	mg/L	0.0054	0.52%
Zn 206.200†	4312.5	1.035	mg/L	0.0024	1.035	mg/L	0.0024	0.23%

User canceled analysis.

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Analysis Begun

Start Time: 2/27/2013 8:50:55 AM  
Logged In Analyst: Metals  
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 2/27/2013 7:22:55 AM  
Technique: ICP Continuous  
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISSET2.sif

Batch ID:

Results Data Set: I2130227

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 2  
 Sample ID: CB

Autosampler Location: 1  
 Date Collected: 2/27/2013 8:50:57 AM  
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 217.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3152942.2	99.72	%	0.217			0.22%
ScR 361.383	342036.5	101.1	%	1.02			1.01%
Ag 328.068†	8.3	0.00004	mg/L	0.000016	0.00004 mg/L	0.000016	42.56%
Al 308.215†	2.9	0.00211	mg/L	0.008294	0.00211 mg/L	0.008294	393.79%
As 188.979†	0.3	0.00013	mg/L	0.003892	0.00013 mg/L	0.003892	>999.9%
B 249.677†	25.2	0.00381	mg/L	0.000559	0.00381 mg/L	0.000559	14.70%
Ba 233.527†	-0.4	-0.00007	mg/L	0.000698	-0.00007 mg/L	0.000698	963.45%
Be 313.042†	-21.2	-0.00004	mg/L	0.000032	-0.00004 mg/L	0.000032	79.74%
Ca 317.933†	-3.8	-0.00036	mg/L	0.001927	-0.00036 mg/L	0.001927	528.09%
Cd 228.802†	2.3	0.00009	mg/L	0.000031	0.00009 mg/L	0.000031	35.07%
Co 228.616†	-1.0	-0.00002	mg/L	0.000134	-0.00002 mg/L	0.000134	599.74%
Cr 267.716†	4.4	0.00068	mg/L	0.000156	0.00068 mg/L	0.000156	22.94%
Cu 324.752†	88.4	0.00032	mg/L	0.000146	0.00032 mg/L	0.000146	46.01%
Fe 273.955†	1.2	0.00076	mg/L	0.001285	0.00076 mg/L	0.001285	169.43%
K 766.490†	-30.6	-0.01895	mg/L	0.022582	-0.01895 mg/L	0.022582	119.19%
Mg 279.077†	-4.6	-0.00456	mg/L	0.004753	-0.00456 mg/L	0.004753	104.30%
Mn 257.610†	-4.4	-0.00009	mg/L	0.000041	-0.00009 mg/L	0.000041	45.54%
Mo 202.031†	58.6	0.00266	mg/L	0.000188	0.00266 mg/L	0.000188	7.07%
Na 589.592†	9.2	0.00077	mg/L	0.000517	0.00077 mg/L	0.000517	67.42%
Na 330.237†	11.6	0.3853	mg/L	0.32675	0.3853 mg/L	0.32675	84.81%
Ni 231.604†	-3.8	-0.00094	mg/L	0.001165	-0.00094 mg/L	0.001165	123.34%
Pb 220.353†	6.9	0.00074	mg/L	0.000235	0.00074 mg/L	0.000235	31.85%
Sb 206.836†	23.1	0.00662	mg/L	0.000642	0.00662 mg/L	0.000642	9.70%
Se 196.026†	3.8	0.00221	mg/L	0.000849	0.00221 mg/L	0.000849	38.45%
Si 288.158†	1.8	0.00103	mg/L	0.002486	0.00103 mg/L	0.002486	241.64%
Sn 189.927†	5.1	0.00101	mg/L	0.000724	0.00101 mg/L	0.000724	71.62%
Sr 421.552†	-4.0	-0.00000	mg/L	0.000026	-0.00000 mg/L	0.000026	598.81%
Ti 334.903†	-10.7	-0.00047	mg/L	0.000395	-0.00047 mg/L	0.000395	83.57%
Tl 190.801†	3.1	0.00136	mg/L	0.001542	0.00136 mg/L	0.001542	113.80%
V 292.402†	-0.0	0.00000	mg/L	0.000106	0.00000 mg/L	0.000106	>999.9%
Zn 206.200†	0.2	0.00005	mg/L	0.000468	0.00005 mg/L	0.000468	976.82%

Sequence No.: 3

Autosampler Location: 301

Sample ID: CRI

Date Collected: 2/27/2013 8:55:13 AM

Data Type: Original

Dilution: 1.000000X

## Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3150505.0	99.64 %		0.198			0.20%
ScR 361.383	339861.4	100.5 %		0.46			0.46%
Ag 328.068†	699.2	0.00315 mg/L		0.000051	0.00315 mg/L	0.000051	1.61%
Al 308.215†	77.4	0.05670 mg/L		0.005833	0.05670 mg/L	0.005833	10.29%
As 188.979†	86.9	0.05001 mg/L		0.001192	0.05001 mg/L	0.001192	2.38%
B 249.677†	152.7	0.02302 mg/L		0.000372	0.02302 mg/L	0.000372	1.62%
Ba 233.527†	17.7	0.00309 mg/L		0.000234	0.00309 mg/L	0.000234	7.58%
Be 313.042†	485.0	0.00093 mg/L		0.000014	0.00093 mg/L	0.000014	1.48%
Ca 317.933†	520.3	0.04975 mg/L		0.000761	0.04975 mg/L	0.000761	1.53%
Cd 228.802†	62.7	0.00212 mg/L		0.000164	0.00212 mg/L	0.000164	7.76%
Co 228.616†	147.0	0.00350 mg/L		0.000155	0.00350 mg/L	0.000155	4.43%
Cr 267.716†	31.4	0.00484 mg/L		0.000429	0.00484 mg/L	0.000429	8.87%
Cu 324.752†	585.1	0.00211 mg/L		0.000141	0.00211 mg/L	0.000141	6.67%
Fe 273.955†	85.2	0.05447 mg/L		0.001635	0.05447 mg/L	0.001635	3.00%
K 766.490†	751.2	0.4650 mg/L		0.01365	0.4650 mg/L	0.01365	2.93%
Mg 279.077†	55.7	0.05496 mg/L		0.007408	0.05496 mg/L	0.007408	13.48%
Mn 257.610†	51.1	0.00105 mg/L		0.000046	0.00105 mg/L	0.000046	4.38%
Mo 202.031†	130.9	0.00593 mg/L		0.000064	0.00593 mg/L	0.000064	1.09%
Na 589.592†	5983.4	0.4982 mg/L		0.00671	0.4982 mg/L	0.00671	1.35%
Na 330.237†	23.8	0.7925 mg/L		0.24879	0.7925 mg/L	0.24879	31.39%
Ni 231.604†	42.8	0.01071 mg/L		0.001420	0.01071 mg/L	0.001420	13.26%
Pb 220.353†	194.6	0.02086 mg/L		0.000316	0.02086 mg/L	0.000316	1.51%
Sb 206.836†	184.8	0.05309 mg/L		0.001028	0.05309 mg/L	0.001028	1.94%
Se 196.026†	84.7	0.04963 mg/L		0.000823	0.04963 mg/L	0.000823	1.66%
Si 288.158†	108.5	0.06151 mg/L		0.002302	0.06151 mg/L	0.002302	3.74%
Sn 189.927†	50.8	0.01012 mg/L		0.000694	0.01012 mg/L	0.000694	6.86%
Sr 421.552†	937.9	0.00102 mg/L		0.000021	0.00102 mg/L	0.000021	2.09%
Ti 334.903†	95.1	0.00417 mg/L		0.001618	0.00417 mg/L	0.001618	38.81%
Tl 190.801†	117.6	0.05087 mg/L		0.000290	0.05087 mg/L	0.000290	0.57%
V 292.402†	424.0	0.00314 mg/L		0.000075	0.00314 mg/L	0.000075	2.37%
Zn 206.200†	40.1	0.00962 mg/L		0.000118	0.00962 mg/L	0.000118	1.22%

Sequence No.: 4  
Sample ID: ICSA

Autosampler Location: 302  
Date Collected: 2/27/2013 8:59:30 AM  
Data Type: Original

Dilution: 1.000000X

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Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

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Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3098987.8	98.01	%	0.296			0.30%
ScR 361.383	338990.5	100.2	%	1.28			1.28%
Ag 328.068†	-236.5	-0.00043	mg/L	0.000182	-0.00043 mg/L	0.000182	42.50%
Al 308.215†	269944.3	198.3	mg/L	3.99	198.3 mg/L	3.99	2.01%
As 188.979†	49.6	0.01987	mg/L	0.002154	0.01987 mg/L	0.002154	10.84%
B 249.677†	-48.6	-0.00732	mg/L	0.001917	-0.00732 mg/L	0.001917	26.17%
Ba 233.527†	147.1	-0.00290	mg/L	0.001413	-0.00290 mg/L	0.001413	48.70%
Be 313.042†	41.7	0.00008	mg/L	0.000021	0.00008 mg/L	0.000021	27.23%
Ca 317.933†	1024471.2	97.97	mg/L	1.856	97.97 mg/L	1.856	1.89%
Cd 228.802†	54.7	0.00192	mg/L	0.000079	0.00192 mg/L	0.000079	4.12%
Co 228.616†	76.3	0.00180	mg/L	0.000130	0.00180 mg/L	0.000130	7.23%
Cr 267.716†	24.7	-0.00098	mg/L	0.001421	-0.00098 mg/L	0.001421	145.20%
Cu 324.752†	-2212.1	0.00105	mg/L	0.000119	0.00105 mg/L	0.000119	11.30%
Fe 273.955†	304175.4	194.5	mg/L	4.30	194.5 mg/L	4.30	2.21%
K 766.490†	24.5	0.01520	mg/L	0.006540	0.01520 mg/L	0.006540	43.04%
Mg 279.077†	103228.4	101.8	mg/L	2.55	101.8 mg/L	2.55	2.51%
Mn 257.610†	65.0	-0.00004	mg/L	0.000287	-0.00004 mg/L	0.000287	739.63%
Mo 202.031†	107.5	0.00371	mg/L	0.000287	0.00371 mg/L	0.000287	7.73%
Na 589.592†	189.0	0.01573	mg/L	0.001186	0.01573 mg/L	0.001186	7.54%
Na 330.237†	-2.6	-0.08379	mg/L	0.079134	-0.08379 mg/L	0.079134	94.45%
Ni 231.604†	2.4	0.00062	mg/L	0.001114	0.00062 mg/L	0.001114	179.38%
Pb 220.353†	-511.9	-0.01156	mg/L	0.001103	-0.01156 mg/L	0.001103	9.54%
Sb 206.836†	30.4	0.00859	mg/L	0.001177	0.00859 mg/L	0.001177	13.69%
Se 196.026†	26.0	-0.00758	mg/L	0.000765	-0.00758 mg/L	0.000765	10.09%
Si 288.158†	-28.1	-0.00434	mg/L	0.003033	-0.00434 mg/L	0.003033	69.92%
Sn 189.927†	-85.3	-0.00873	mg/L	0.000217	-0.00873 mg/L	0.000217	2.49%
Sr 421.552†	3709.7	0.00405	mg/L	0.000112	0.00405 mg/L	0.000112	2.75%
Ti 334.903†	227.5	0.00417	mg/L	0.000060	0.00417 mg/L	0.000060	1.44%
Tl 190.801†	-44.4	0.00658	mg/L	0.001185	0.00658 mg/L	0.001185	18.01%
V 292.402†	1365.7	0.00030	mg/L	0.000189	0.00030 mg/L	0.000189	63.00%
Zn 206.200†	-3.3	-0.00081	mg/L	0.000735	-0.00081 mg/L	0.000735	91.24%

Sequence No.: 5  
Sample ID: ICSAB

Autosampler Location: 303  
Date Collected: 2/27/2013 9:03:46 AM  
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSAB

Analyte Back Pressure Flow  
All 217.0 kPa 0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3124950.3	98.83 %		0.657			0.67%
ScR 361.383	341566.3	101.0 %		0.85			0.84%
Ag 328.068†	233876.2	1.053 mg/L		0.0104	1.053 mg/L	0.0104	0.99%
Al 308.215†	268143.2	197.0 mg/L		2.55	197.0 mg/L	2.55	1.29%
As 188.979†	1789.3	1.018 mg/L		0.0049	1.018 mg/L	0.0049	0.48%
B 249.677†	-35.4	-0.00756 mg/L		0.000496	-0.00756 mg/L	0.000496	6.56%
Ba 233.527†	5785.3	0.9816 mg/L		0.01220	0.9816 mg/L	0.01220	1.24%
Be 313.042†	505271.3	0.9690 mg/L		0.01675	0.9690 mg/L	0.01675	1.73%
Ca 317.933†	1018902.6	97.43 mg/L		1.487	97.43 mg/L	1.487	1.53%
Cd 228.802†	27148.6	1.028 mg/L		0.0120	1.028 mg/L	0.0120	1.17%
Co 228.616†	40163.0	0.9599 mg/L		0.01137	0.9599 mg/L	0.01137	1.18%
Cr 267.716†	6455.2	0.9905 mg/L		0.00952	0.9905 mg/L	0.00952	0.96%
Cu 324.752†	287464.0	1.045 mg/L		0.0109	1.045 mg/L	0.0109	1.04%
Fe 273.955†	302015.4	193.2 mg/L		2.55	193.2 mg/L	2.55	1.32%
K 766.490†	6.0	0.00370 mg/L		0.012192	0.00370 mg/L	0.012192	329.07%
Mg 279.077†	99082.7	97.71 mg/L		1.293	97.71 mg/L	1.293	1.32%
Mn 257.610†	45795.4	0.9402 mg/L		0.01339	0.9402 mg/L	0.01339	1.42%
Mo 202.031†	112.2	0.00388 mg/L		0.000221	0.00388 mg/L	0.000221	5.68%
Na 589.592†	241.3	0.02009 mg/L		0.001962	0.02009 mg/L	0.001962	9.76%
Na 330.237†	8.4	0.00054 mg/L		0.171219	0.00054 mg/L	0.171219	>999.9%
Ni 231.604†	3845.0	0.9616 mg/L		0.00522	0.9616 mg/L	0.00522	0.54%
Pb 220.353†	8685.7	0.9738 mg/L		0.00717	0.9738 mg/L	0.00717	0.74%
Sb 206.836†	3529.5	1.004 mg/L		0.0060	1.004 mg/L	0.0060	0.60%
Se 196.026†	1719.4	0.9840 mg/L		0.01063	0.9840 mg/L	0.01063	1.08%
Si 288.158†	-34.2	-0.00488 mg/L		0.003060	-0.00488 mg/L	0.003060	62.70%
Sn 189.927†	-83.8	-0.00795 mg/L		0.000126	-0.00795 mg/L	0.000126	1.59%
Sr 421.552†	3627.4	0.00396 mg/L	cent	0.000034	0.00396 mg/L	0.000034	0.87%
Ti 334.903†	219.1	0.00365 mg/L		0.000432	0.00365 mg/L	0.000432	11.84%
Tl 190.801†	2159.2	0.9501 mg/L		0.00934	0.9501 mg/L	0.00934	0.98%
V 292.402†	136116.5	0.9965 mg/L		0.01047	0.9965 mg/L	0.01047	1.05%
Zn 206.200†	3954.5	0.9489 mg/L		0.00768	0.9489 mg/L	0.00768	0.81%

Sequence No.: 6  
Sample ID: CV {

Autosampler Location: 7  
Date Collected: 2/27/2013 9:07:48 AM  
Data Type: Original

Dilution: 1.000000X

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Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

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Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3171662.8	100.3 %	1.08			1.08%
ScR 361.383	336564.0	99.51 %	0.742			0.75%
Ag 328.068†	233706.5	1.051 mg/L	0.0048	1.051 mg/L	0.0048	0.46%
Al 308.215†	2842.7	2.053 mg/L	0.0249	2.053 mg/L	0.0249	1.21%
As 188.979†	3539.7	2.062 mg/L	0.0203	2.062 mg/L	0.0203	0.98%
B 249.677†	6861.9	1.033 mg/L	0.0050	1.033 mg/L	0.0050	0.49%
Ba 233.527†	5921.0	1.033 mg/L	0.0105	1.033 mg/L	0.0105	1.01%
Be 313.042†	511312.9	0.9805 mg/L	0.01529	0.9805 mg/L	0.01529	1.56%
Ca 317.933†	21848.5	2.089 mg/L	0.0154	2.089 mg/L	0.0154	0.74%
Cd 228.802†	27767.4	1.046 mg/L	0.0049	1.046 mg/L	0.0049	0.47%
Co 228.616†	42946.6	1.025 mg/L	0.0050	1.025 mg/L	0.0050	0.49%
Cr 267.716†	6705.4	1.033 mg/L	0.0066	1.033 mg/L	0.0066	0.64%
Cu 324.752†	288800.3	1.040 mg/L	0.0056	1.040 mg/L	0.0056	0.54%
Fe 273.955†	3298.2	2.104 mg/L	0.0108	2.104 mg/L	0.0108	0.51%
K 766.490†	32009.4	19.81 mg/L	0.308	19.81 mg/L	0.308	1.55%
Mg 279.077†	2113.0	2.093 mg/L	0.0127	2.093 mg/L	0.0127	0.61%
Mn 257.610†	47893.0	0.9849 mg/L	0.01577	0.9849 mg/L	0.01577	1.60%
Mo 202.031†	22433.9	1.016 mg/L	0.0093	1.016 mg/L	0.0093	0.92%
Na 589.592†	621595.2	51.75 mg/L	0.509	51.75 mg/L	0.509	0.98%
Na 330.237†	1601.7	53.32 mg/L	0.545	53.32 mg/L	0.545	1.02%
Ni 231.604†	4174.2	1.044 mg/L	0.0035	1.044 mg/L	0.0035	0.33%
Pb 220.353†	19584.6	2.099 mg/L	0.0197	2.099 mg/L	0.0197	0.94%
Sb 206.836†	7300.5	2.095 mg/L	0.0199	2.095 mg/L	0.0199	0.95%
Se 196.026†	3463.7	2.029 mg/L	0.0175	2.029 mg/L	0.0175	0.86%
Si 288.158†	3649.6	2.066 mg/L	0.0096	2.066 mg/L	0.0096	0.46%
Sn 189.927†	5056.4	1.005 mg/L	0.0100	1.005 mg/L	0.0100	1.00%
Sr 421.552†	926915.8	1.012 mg/L	0.0123	1.012 mg/L	0.0123	1.22%
Ti 334.903†	22713.8	0.9970 mg/L	0.01321	0.9970 mg/L	0.01321	1.33%
Tl 190.801†	4721.1	2.034 mg/L	0.0176	2.034 mg/L	0.0176	0.87%
V 292.402†	140807.9	1.041 mg/L	0.0033	1.041 mg/L	0.0033	0.32%
Zn 206.200†	4471.8	1.073 mg/L	0.0074	1.073 mg/L	0.0074	0.69%

Sequence No.: 7  
Sample ID: CB

Autosampler Location: 1  
Date Collected: 2/27/2013 9:11:52 AM  
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 217.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	3170039.0	100.3	%	0.08				0.08%
ScR 361.383	338089.6	99.96	%	0.231				0.23%
Ag 328.068†	42.3	0.00019	mg/L	0.000146	0.00019	mg/L	0.000146	76.80%
Al 308.215†	5.5	0.00404	mg/L	0.010224	0.00404	mg/L	0.010224	253.03%
As 188.979†	1.8	0.00102	mg/L	0.001757	0.00102	mg/L	0.001757	172.46%
B 249.677†	17.6	0.00266	mg/L	0.000800	0.00266	mg/L	0.000800	30.08%
Ba 233.527†	5.1	0.00089	mg/L	0.000690	0.00089	mg/L	0.000690	77.41%
Be 313.042†	20.7	0.00004	mg/L	0.000032	0.00004	mg/L	0.000032	79.95%
Ca 317.933†	12.0	0.00115	mg/L	0.000795	0.00115	mg/L	0.000795	69.28%
Cd 228.802†	2.7	0.00010	mg/L	0.000084	0.00010	mg/L	0.000084	86.67%
Co 228.616†	1.7	0.00004	mg/L	0.000042	0.00004	mg/L	0.000042	103.55%
Cr 267.716†	-1.2	-0.00018	mg/L	0.000336	-0.00018	mg/L	0.000336	187.24%
Cu 324.752†	49.4	0.00018	mg/L	0.000291	0.00018	mg/L	0.000291	164.15%
Fe 273.955†	4.6	0.00292	mg/L	0.001825	0.00292	mg/L	0.001825	62.59%
K 766.490†	-5.9	-0.00362	mg/L	0.014302	-0.00362	mg/L	0.014302	394.64%
Mg 279.077†	4.9	0.00482	mg/L	0.005371	0.00482	mg/L	0.005371	111.38%
Mn 257.610†	5.9	0.00012	mg/L	0.000113	0.00012	mg/L	0.000113	93.06%
Mo 202.031†	39.7	0.00180	mg/L	0.000044	0.00180	mg/L	0.000044	2.45%
Na 589.592†	23.8	0.00198	mg/L	0.002896	0.00198	mg/L	0.002896	146.30%
Na 330.237†	2.5	0.08439	mg/L	0.111339	0.08439	mg/L	0.111339	131.93%
Ni 231.604†	-1.2	-0.00030	mg/L	0.000542	-0.00030	mg/L	0.000542	180.69%
Pb 220.353†	8.9	0.00096	mg/L	0.000059	0.00096	mg/L	0.000059	6.11%
Sb 206.836†	25.3	0.00728	mg/L	0.001788	0.00728	mg/L	0.001788	24.55%
Se 196.026†	0.3	0.00015	mg/L	0.001640	0.00015	mg/L	0.001640	>999.9%
Si 288.158†	-1.6	-0.00092	mg/L	0.004049	-0.00092	mg/L	0.004049	438.62%
Sn 189.927†	5.7	0.00114	mg/L	0.000907	0.00114	mg/L	0.000907	79.47%
Sr 421.552†	28.5	0.00003	mg/L	0.000036	0.00003	mg/L	0.000036	117.13%
Ti 334.903†	-6.3	-0.00028	mg/L	0.000218	-0.00028	mg/L	0.000218	78.51%
Tl 190.801†	7.3	0.00315	mg/L	0.000415	0.00315	mg/L	0.000415	13.16%
V 292.402†	-3.0	-0.00002	mg/L	0.000153	-0.00002	mg/L	0.000153	706.53%
Zn 206.200†	0.4	0.00011	mg/L	0.001265	0.00011	mg/L	0.001265	>999.9%

Sequence No.: 8  
 Sample ID: WE77 MB SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 304  
 Date Collected: 2/27/2013 9:16:08 AM  
 Data Type: Original

## Nebulizer Parameters: WE77 MB SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE77 MB SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	3251857.8	102.8	%	0.73			0.71%
ScR 361.383	346584.4	102.5	%	0.40			0.39%
Ag 328.068†	40.4	0.00018	mg/L	0.000127	0.00036	mg/L	0.000253 69.60%
Al 308.215†	10.5	0.00768	mg/L	0.001328	0.01535	mg/L	0.002657 17.31%
As 188.979†	2.2	0.00126	mg/L	0.001577	0.00252	mg/L	0.003154 125.25%
B 249.677†	3.6	0.00054	mg/L	0.000864	0.00107	mg/L	0.001729 161.55%
Ba 233.527†	-0.7	-0.00013	mg/L	0.000189	-0.00026	mg/L	0.000379 145.54%
Be 313.042†	-7.0	-0.00001	mg/L	0.000020	-0.00003	mg/L	0.000039 144.21%
Ca 317.933†	169.0	0.01616	mg/L	0.000565	0.03231	mg/L	0.001129 3.49%
Cd 228.802†	-2.5	-0.00010	mg/L	0.000111	-0.00020	mg/L	0.000222 110.29%
Co 228.616†	5.1	0.00012	mg/L	0.000041	0.00024	mg/L	0.000081 33.40%
Cr 267.716†	9.9	0.00152	mg/L	0.000588	0.00304	mg/L	0.001175 38.61%
Cu 324.752†	91.0	0.00033	mg/L	0.000064	0.00066	mg/L	0.000129 19.63%
Fe 273.955†	7.3	0.00466	mg/L	0.001840	0.00932	mg/L	0.003679 39.48%
K 766.490†	-10.1	-0.00623	mg/L	0.007330	-0.01246	mg/L	0.014659 117.64%
Mg 279.077†	4.0	0.00390	mg/L	0.005806	0.00780	mg/L	0.011613 148.86%
Mn 257.610†	1.9	0.00004	mg/L	0.000103	0.00008	mg/L	0.000207 266.09%
Mo 202.031†	5.6	0.00025	mg/L	0.000062	0.00051	mg/L	0.000125 24.68%
Na 589.592†	96.8	0.00806	mg/L	0.000983	0.01611	mg/L	0.001967 12.21%
Na 330.237†	2.3	0.07469	mg/L	0.438449	0.1494	mg/L	0.87690 587.03%
Ni 231.604†	-0.1	-0.00002	mg/L	0.000257	-0.00005	mg/L	0.000514 >999.9%
Pb 220.353†	8.3	0.00090	mg/L	0.000577	0.00180	mg/L	0.001155 64.30%
Sb 206.836†	8.0	0.00229	mg/L	0.001541	0.00459	mg/L	0.003082 67.19%
Se 196.026†	3.0	0.00173	mg/L	0.001565	0.00346	mg/L	0.003131 90.46%
Si 288.158†	4.9	0.00277	mg/L	0.005711	0.00555	mg/L	0.011423 205.82%
Sn 189.927†	4.1	0.00083	mg/L	0.000569	0.00165	mg/L	0.001139 68.98%
Sr 421.552†	25.4	0.00003	mg/L	0.000031	0.00006	mg/L	0.000061 110.13%
Ti 334.903†	10.8	0.00047	mg/L	0.000577	0.00094	mg/L	0.001153 122.09%
Tl 190.801†	3.1	0.00132	mg/L	0.001510	0.00264	mg/L	0.003020 114.30%
V 292.402†	19.5	0.00015	mg/L	0.000034	0.00030	mg/L	0.000067 22.55%
Zn 206.200†	8.5	0.00205	mg/L	0.000428	0.00410	mg/L	0.000856 20.90%



Sequence No.: 9  
 Sample ID: WE77 A SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 305  
 Date Collected: 2/27/2013 9:20:25 AM  
 Data Type: Original

## Nebulizer Parameters: WE77 A SWC

Analyte Back Pressure Flow  
 All 217.0 kPa 0.75 L/min

## Mean Data: WE77 A SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3153488.2	99.73 %		0.271			0.27%
ScR 361.383	341944.8	101.1 %		0.21			0.21%
Ag 328.068†	-134.9	-0.00045 mg/L		0.000148	-0.00089 mg/L	0.000296	33.14%
Al 308.215†	56596.9	41.57 mg/L		0.305	83.14 mg/L	0.610	0.73%
As 188.979†	-131.6	-0.00040 mg/L		0.000283	-0.00081 mg/L	0.000567	70.11%
B 249.677†	7.8	0.00112 mg/L		0.000246	0.00224 mg/L	0.000491	21.90%
Ba 233.527†	2194.9	0.3727 mg/L		0.00232	0.7454 mg/L	0.00465	0.62%
Be 313.042†	413.7	0.00074 mg/L		0.000012	0.00148 mg/L	0.000024	1.61%
Ca 317.933†	186660.2	17.85 mg/L		0.066	35.70 mg/L	0.132	0.37%
Cd 228.802†	26.6	0.00150 mg/L		0.000124	0.00300 mg/L	0.000249	8.30%
Co 228.616†	1093.6	0.02219 mg/L		0.000069	0.04439 mg/L	0.000138	0.31%
Cr 267.716†	88.7	0.01406 mg/L		0.000717	0.02812 mg/L	0.001434	5.10%
Cu 324.752†	20246.0	0.07593 mg/L		0.000447	0.1519 mg/L	0.00089	0.59%
Fe 273.955†	111766.4	71.48 mg/L		0.499	143.0 mg/L	1.00	0.70%
K 766.490†	14911.1	9.230 mg/L		0.0326	18.46 mg/L	0.065	0.35%
Mg 279.077†	16168.4	15.92 mg/L		0.047	31.84 mg/L	0.093	0.29%
Mn 257.610†	33858.5	0.6957 mg/L		0.00400	1.391 mg/L	0.0080	0.57%
Mo 202.031†	45.6	0.00185 mg/L		0.000443	0.00371 mg/L	0.000887	23.93%
Na 589.592†	13019.3	1.084 mg/L		0.0056	2.168 mg/L	0.0112	0.52%
Na 330.237†	17.9	1.168 mg/L		0.1623	2.336 mg/L	0.3246	13.90%
Ni 231.604†	323.6	0.08093 mg/L		0.001286	0.1619 mg/L	0.00257	1.59%
Pb 220.353†	-14.6	0.00579 mg/L		0.000951	0.01158 mg/L	0.001902	16.42%
Sb 206.836†	9.9	0.00483 mg/L		0.001144	0.00966 mg/L	0.002288	23.68%
Se 196.026†	6.8	-0.00087 mg/L		0.000571	-0.00174 mg/L	0.001142	65.58%
Si 288.158†	662.5	0.3778 mg/L		0.00282	0.7556 mg/L	0.00563	0.75%
Sn 189.927†	-29.9	-0.00402 mg/L		0.000310	-0.00805 mg/L	0.000620	7.71%
Sr 421.552†	50103.1	0.05473 mg/L		0.000280	0.1095 mg/L	0.00056	0.51%
Ti 334.903†	50431.6	2.216 mg/L		0.0135	4.431 mg/L	0.0269	0.61%
Tl 190.801†	-11.2	0.00398 mg/L		0.001926	0.00795 mg/L	0.003852	48.43%
V 292.402†	18898.0	0.1344 mg/L		0.00107	0.2688 mg/L	0.00214	0.80%
Zn 206.200†	626.2	0.1503 mg/L		0.00093	0.3006 mg/L	0.00186	0.62%

Sequence No.: 10  
 Sample ID: WE79 B SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 306  
 Date Collected: 2/27/2013 9:24:26 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 B SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: WE79 B SWC

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3158444.9	99.89 %	0.243			0.24%
ScR 361.383	348101.1	102.9 %	1.34			1.30%
Ag 328.068†	1569.6	0.00732 mg/L	0.000316	0.01464 mg/L	0.000632	4.32%
Al 308.215†	193171.1	141.9 mg/L	2.08	283.8 mg/L	4.16	1.46%
As 188.979†	831.6	0.4981 mg/L	0.00293	0.9962 mg/L	0.00585	0.59%
B 249.677†	8.6	0.00107 mg/L	0.001386	0.00214 mg/L	0.002772	129.43%
Ba 233.527†	6317.9	1.072 mg/L	0.0150	2.145 mg/L	0.0300	1.40%
Be 313.042†	3654.3	0.00694 mg/L	0.000075	0.01387 mg/L	0.000150	1.08%
Ca 317.933†	277170.2	26.50 mg/L	0.372	53.01 mg/L	0.745	1.40%
Cd 228.802†	161.6	0.00354 mg/L	0.000160	0.00709 mg/L	0.000320	4.51%
Co 228.616†	4013.4	0.09462 mg/L	0.000578	0.1892 mg/L	0.00116	0.61%
Cr 267.716†	681.7	0.1078 mg/L	0.00178	0.2156 mg/L	0.00356	1.65%
Cu 324.752†	41217.7	0.1584 mg/L	0.00064	0.3168 mg/L	0.00127	0.40%
Fe 273.955†	325427.5	208.1 mg/L	3.49	416.3 mg/L	6.99	1.68%
K 766.490†	51657.3	31.98 mg/L	0.459	63.95 mg/L	0.919	1.44%
Mg 279.077†	31719.8	31.20 mg/L	0.363	62.40 mg/L	0.726	1.16%
Mn 257.610†	223935.4	4.603 mg/L	0.0730	9.205 mg/L	0.1459	1.59%
Mo 202.031†	94.8	0.00398 mg/L	0.000388	0.00795 mg/L	0.000775	9.75%
Na 589.592†	16459.9	1.370 mg/L	0.0238	2.741 mg/L	0.0475	1.73%
Na 330.237†	37.0	1.238 mg/L	0.0441	2.477 mg/L	0.0883	3.56%
Ni 231.604†	431.4	0.1079 mg/L	0.00240	0.2158 mg/L	0.00479	2.22%
Pb 220.353†	721.3	0.1045 mg/L	0.00041	0.2090 mg/L	0.00083	0.40%
Sb 206.836†	68.3	0.01971 mg/L	0.003457	0.03941 mg/L	0.006914	17.54%
Se 196.026†	18.2	-0.00584 mg/L	0.005651	-0.01168 mg/L	0.011303	96.76%
Si 288.158†	5411.2	3.075 mg/L	0.0514	6.149 mg/L	0.1027	1.67%
Sn 189.927†	-39.4	-0.00546 mg/L	0.001078	-0.01092 mg/L	0.002156	19.74%
Sr 421.552†	409754.7	0.4476 mg/L	0.00686	0.8952 mg/L	0.01371	1.53%
Ti 334.903†	15306.8	0.6712 mg/L	0.00850	1.342 mg/L	0.0170	1.27%
Tl 190.801†	-51.6	0.00366 mg/L	0.000604	0.00732 mg/L	0.001208	16.49%
V 292.402†	37831.4	0.2687 mg/L	0.00090	0.5375 mg/L	0.00181	0.34%
Zn 206.200†	2530.1	0.6075 mg/L	0.00638	1.215 mg/L	0.0128	1.05%

Sequence No.: 11  
 Sample ID: ~~WE79 A-L SWC~~ ZZZZZZ  
 Analyst: ALA  
 Dilution: 10.000000X

*2-27-13*  
*RR 1/25*

Autosampler Location: 307  
 Date Collected: 2/27/2013 9:28:28 AM  
 Data Type: Original

Nebulizer Parameters: WE79 A-L SWC  
 Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: WE79 A-L SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3239087.8	102.4 %		0.65			0.63%
ScR 361.383	343131.8	101.5 %		1.30			1.28%
Ag 328.068†	508.1	0.00231 mg/L		0.000077	0.02307 mg/L	0.000768	3.33%
Al 308.215†	39838.4	29.26 mg/L		0.544	292.6 mg/L	5.44	1.86%
As 188.979†	604.9	0.3486 mg/L		0.00453	3.486 mg/L	0.0453	1.30%
B 249.677†	-4.1	-0.00064 mg/L		0.000880	-0.00644 mg/L	0.008803	136.68%
Ba 233.527†	875.4	0.1424 mg/L		0.00109	1.424 mg/L	0.0109	0.77%
Be 313.042†	739.9	0.00141 mg/L		0.000025	0.01407 mg/L	0.000246	1.75%
Ca 317.933†	9531.4	0.9114 mg/L		0.01445	9.114 mg/L	0.1445	1.59%
Cd 228.802†	71.3	0.00077 mg/L		0.000078	0.00774 mg/L	0.000782	10.11%
Co 228.616†	305.2	0.00720 mg/L		0.000146	0.07197 mg/L	0.001459	2.03%
Cr 267.716†	170.6	0.02779 mg/L		0.000641	0.2779 mg/L	0.00641	2.31%
Cu 324.752†	20102.0	0.07587 mg/L		0.000925	0.7587 mg/L	0.00925	1.22%
Fe 273.955†	111561.8	71.35 mg/L		1.142	713.5 mg/L	11.42	1.60%
K 766.490†	11516.9	7.129 mg/L		0.1076	71.29 mg/L	1.076	1.51%
Mg 279.077†	6146.2	6.029 mg/L		0.1149	60.29 mg/L	1.149	1.91%
Mn 257.610†	73347.6	1.508 mg/L		0.0249	15.08 mg/L	0.249	1.65%
Mo 202.031†	6.7	0.00029 mg/L		0.000132	0.00290 mg/L	0.001319	45.41%
Na 589.592†	5572.0	0.4639 mg/L		0.00865	4.639 mg/L	0.0865	1.86%
Na 330.237†	9.2	0.3009 mg/L		0.03053	3.009 mg/L	0.3053	10.15%
Ni 231.604†	43.7	0.01094 mg/L		0.001011	0.1094 mg/L	0.01011	9.24%
Pb 220.353†	202.5	0.02574 mg/L		0.000446	0.2574 mg/L	0.00446	1.73%
Sb 206.836†	16.2	0.00452 mg/L		0.001072	0.04517 mg/L	0.010717	23.73%
Se 196.026†	9.8	0.00236 mg/L		0.001856	0.02364 mg/L	0.018561	78.52%
Si 288.158†	821.6	0.4670 mg/L		0.00641	4.670 mg/L	0.0641	1.37%
Sn 189.927†	-3.8	-0.00066 mg/L		0.001028	-0.00659 mg/L	0.010281	156.05%
Sr 421.552†	35172.8	0.03842 mg/L		0.000667	0.3842 mg/L	0.00667	1.74%
Ti 334.903†	1046.5	0.04594 mg/L		0.000827	0.4594 mg/L	0.00827	1.80%
Tl 190.801†	-15.3	0.00260 mg/L		0.002441	0.02603 mg/L	0.024415	93.78%
V 292.402†	6834.1	0.04703 mg/L		0.000737	0.4703 mg/L	0.00737	1.57%
Zn 206.200†	277.1	0.06656 mg/L		0.000210	0.6656 mg/L	0.00210	0.32%

User canceled analysis.

Analysis Begun

Start Time: 2/27/2013 9:36:33 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 2/27/2013 7:22:55 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\0227.sif

Batch ID:

Results Data Set: I2130227

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 12
Sample ID: WE79 A SWC
Analyst: ALA
Dilution: -2.000000X

Autosampler Location: 308
Date Collected: 2/27/2013 9:36:34 AM
Data Type: Original

Handwritten note: A 2-27-13

Handwritten mark: SX

Nebulizer Parameters: WE79 A SWC

Analyte Back Pressure Flow
All 218.0 kPa 0.75 L/min

Mean Data: WE79 A SWC

Table with 8 columns: Analyte, Mean Corrected Intensity, Conc. Units, Calib. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like ScA, ScR, Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, V, Zn with their respective values.

Sequence No.: 13  
 Sample ID: WE79 ADUP SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 309  
 Date Collected: 2/27/2013 9:40:35 AM  
 Data Type: Original

SX # 2-27-13

Nebulizer Parameters: WE79 ADUP SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: WE79 ADUP SWC

Analyte	Mean Corrected Intensity	Conc.	Units	Calib.	Std.Dev.	Conc.	Units	Sample Std.Dev.	RSD
ScA 357.253	3191848.8	100.9	%		0.59				0.58%
ScR 361.383	345577.6	102.2	%		0.44				0.43%
Ag 328.068†	924.4	0.00420	mg/L		0.000314	0.00841	mg/L	0.000628	7.46%
Al 308.215†	85790.5	63.02	mg/L		0.234	126.0	mg/L	0.47	0.37%
As 188.979†	1337.7	0.7706	mg/L		0.00398	1.541	mg/L	0.0080	0.52%
B 249.677†	-15.4	-0.00236	mg/L		0.000804	-0.00471	mg/L	0.001607	34.10%
Ba 233.527†	1805.6	0.2934	mg/L		0.00334	0.5867	mg/L	0.00667	1.14%
Be 313.042†	1579.9	0.00300	mg/L		0.000036	0.00601	mg/L	0.000072	1.21%
Ca 317.933†	19642.0	1.878	mg/L		0.0135	3.757	mg/L	0.0270	0.72%
Cd 228.802†	159.8	0.00179	mg/L		0.000274	0.00359	mg/L	0.000549	15.30%
Co 228.616†	603.9	0.01424	mg/L		0.000286	0.02848	mg/L	0.000573	2.01%
Cr 267.716†	361.3	0.05879	mg/L		0.000851	0.1176	mg/L	0.00170	1.45%
Cu 324.752†	42657.6	0.1609	mg/L		0.00155	0.3218	mg/L	0.00310	0.96%
Fe 273.955†	232881.9	148.9	mg/L		1.36	297.9	mg/L	2.72	0.91%
K 766.490†	24843.5	15.38	mg/L		0.014	30.76	mg/L	0.029	0.09%
Mg 279.077†	12981.2	12.73	mg/L		0.061	25.47	mg/L	0.123	0.48%
Mn 257.610†	155101.2	3.188	mg/L		0.0216	6.376	mg/L	0.0431	0.68%
Mo 202.031†	4.5	0.00018	mg/L		0.000241	0.00036	mg/L	0.000481	135.11%
Na 589.592†	11138.0	0.9274	mg/L		0.00813	1.855	mg/L	0.0163	0.88%
Na 330.237†	24.4	0.7960	mg/L		0.14594	1.592	mg/L	0.2919	18.33%
Ni 231.604†	84.5	0.02113	mg/L		0.000770	0.04226	mg/L	0.001540	3.64%
Pb 220.353†	376.8	0.04933	mg/L		0.000857	0.09866	mg/L	0.001713	1.74%
Sb 206.836†	32.0	0.00889	mg/L		0.001948	0.01779	mg/L	0.003896	21.90%
Se 196.026†	16.3	0.00226	mg/L		0.000561	0.00452	mg/L	0.001122	24.82%
Si 288.158†	1359.1	0.7728	mg/L		0.02141	1.546	mg/L	0.0428	2.77%
Sn 189.927†	-4.5	-0.00072	mg/L		0.000420	-0.00144	mg/L	0.000839	58.19%
Sr 421.552†	74654.9	0.08155	mg/L		0.000376	0.1631	mg/L	0.00075	0.46%
Ti 334.903†	2078.5	0.09123	mg/L		0.000213	0.1825	mg/L	0.00043	0.23%
Tl 190.801†	-34.9	0.00417	mg/L		0.001288	0.00833	mg/L	0.002576	30.93%
V 292.402†	14598.9	0.1006	mg/L		0.00132	0.2013	mg/L	0.00264	1.31%
Zn 206.200†	583.4	0.1401	mg/L		0.00181	0.2802	mg/L	0.00361	1.29%

Sequence No.: 14  
Sample ID: WE79 ASPK SWC  
Analyst: ALA  
Dilution: ~~2.000000X~~ SX # 2-27-13

Autosampler Location: 310  
Date Collected: 2/27/2013 9:44:36 AM  
Data Type: Original

Nebulizer Parameters: WE79 ASPK SWC  
Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: WE79 ASPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3181517.9	100.6 %		0.95			0.95%
ScR 361.383	346709.4	102.5 %		0.27			0.26%
Ag 328.068†	46855.4	0.2108 mg/L		0.00121	0.4217 mg/L	0.00242	0.57%
Al 308.215†	90292.5	66.32 mg/L <i>SN</i>		0.299	132.6 mg/L	0.60	0.45%
As 188.979†	2727.0	1.567 mg/L		0.0193	3.135 mg/L	0.0386	1.23%
B 249.677†	-8.6	-0.00181 mg/L		0.000603	-0.00362 mg/L	0.001206	33.28%
Ba 233.527†	6379.9	1.092 mg/L		0.0044	2.183 mg/L	0.0088	0.41%
Be 313.042†	102368.2	0.1963 mg/L		0.00139	0.3926 mg/L	0.00279	0.71%
Ca 317.933†	60313.7	5.768 mg/L		0.0407	11.54 mg/L	0.081	0.71%
Cd 228.802†	5902.1	0.2159 mg/L		0.00203	0.4319 mg/L	0.00405	0.94%
Co 228.616†	9302.0	0.2221 mg/L		0.00209	0.4441 mg/L	0.00419	0.94%
Cr 267.716†	1663.3	0.2590 mg/L		0.00179	0.5180 mg/L	0.00357	0.69%
Cu 324.752†	102373.9	0.3761 mg/L		0.00349	0.7522 mg/L	0.00698	0.93%
Fe 273.955†	235955.5	150.9 mg/L <i>SN</i>		0.32	301.8 mg/L	0.65	0.21%
K 766.490†	30810.9	19.07 mg/L		0.055	38.14 mg/L	0.110	0.29%
Mg 279.077†	18128.6	17.82 mg/L		0.061	35.63 mg/L	0.123	0.34%
Mn 257.610†	166041.2	3.413 mg/L <i>SN</i>		0.0042	6.826 mg/L	0.0084	0.12%
Mo 202.031†	13.0	0.00051 mg/L		0.000237	0.00101 mg/L	0.000474	46.79%
Na 589.592†	59014.9	4.914 mg/L		0.0160	9.827 mg/L	0.0320	0.33%
Na 330.237†	144.5	4.739 mg/L		0.0166	9.477 mg/L	0.0333	0.35%
Ni 231.604†	874.6	0.2184 mg/L		0.00030	0.4368 mg/L	0.00061	0.14%
Pb 220.353†	8067.2	0.8739 mg/L		0.00803	1.748 mg/L	0.0161	0.92%
Sb 206.836†	38.7	0.00881 mg/L		0.001092	0.01762 mg/L	0.002184	12.39%
Se 196.026†	1374.4	0.7976 mg/L		0.01069	1.595 mg/L	0.0214	1.34%
Si 288.158†	1365.8	0.7779 mg/L		0.00977	1.556 mg/L	0.0195	1.26%
Sn 189.927†	-8.3	-0.00115 mg/L		0.000624	-0.00230 mg/L	0.001249	54.36%
Sr 421.552†	254575.4	0.2781 mg/L		0.00043	0.5562 mg/L	0.00085	0.15%
Ti 334.903†	1988.1	0.08699 mg/L		0.000293	0.1740 mg/L	0.00059	0.34%
Tl 190.801†	1729.5	0.7658 mg/L		0.00636	1.532 mg/L	0.0127	0.83%
V 292.402†	40606.7	0.2928 mg/L		0.00240	0.5857 mg/L	0.00481	0.82%
Zn 206.200†	1394.3	0.3347 mg/L		0.00286	0.6694 mg/L	0.00572	0.85%

Sequence No.: 15 ~~A-L~~  
Sample ID: WE79 APOST SWC  
Analyst: ALA  
Dilution: 2-000000X

Autosampler Location: 311  
Date Collected: 2/27/2013 9:48:37 AM  
Data Type: Original

ZSV

Nebulizer Parameters: WE79 APOST SWC

Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: WE79 APOST SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3184535.4	100.7	%	0.40				0.40%
ScR 361.383	337371.8	99.75	%	0.063				0.06%
Ag 328.068†	187.6	0.00085	mg/L	0.000283	0.00170	mg/L	0.000566	33.21%
Al 308.215†	16242.8	11.93	mg/L	0.033	23.86	mg/L	0.067	0.28%
As 188.979†	244.5	0.1409	mg/L	0.00067	0.2818	mg/L	0.00135	0.48%
B 249.677†	6.8	0.00102	mg/L	0.001233	0.00205	mg/L	0.002466	120.38%
Ba 233.527†	355.3	0.05777	mg/L	0.000951	0.1155	mg/L	0.00190	1.65%
Be 313.042†	334.5	0.00064	mg/L	0.000014	0.00127	mg/L	0.000028	2.19%
Ca 317.933†	3900.5	0.3730	mg/L	0.00268	0.7460	mg/L	0.00535	0.72%
Cd 228.802†	30.7	0.00039	mg/L	0.000160	0.00077	mg/L	0.000320	41.46%
Co 228.616†	120.6	0.00284	mg/L	0.000178	0.00569	mg/L	0.000357	6.27%
Cr 267.716†	70.0	0.01137	mg/L	0.001171	0.02275	mg/L	0.002341	10.29%
Cu 324.752†	8056.2	0.03042	mg/L	0.000288	0.06085	mg/L	0.000577	0.95%
Fe 273.955†	45281.9	28.96	mg/L	0.228	57.92	mg/L	0.457	0.79%
K 766.490†	4647.8	2.877	mg/L	0.0156	5.754	mg/L	0.0313	0.54%
Mg 279.077†	2653.0	2.603	mg/L	0.0164	5.207	mg/L	0.0328	0.63%
Mn 257.610†	29876.8	0.6141	mg/L	0.00256	1.228	mg/L	0.0051	0.42%
Mo 202.031†	1.6	0.00007	mg/L	0.000040	0.00013	mg/L	0.000081	60.62%
Na 589.592†	2255.2	0.1878	mg/L	0.00124	0.3755	mg/L	0.00248	0.66%
Na 330.237†	2.1	0.06711	mg/L	0.129237	0.1342	mg/L	0.25847	192.57%
Ni 231.604†	18.0	0.00451	mg/L	0.001351	0.00903	mg/L	0.002701	29.92%
Pb 220.353†	84.7	0.01073	mg/L	0.000119	0.02147	mg/L	0.000238	1.11%
Sb 206.836†	9.1	0.00255	mg/L	0.002250	0.00510	mg/L	0.004500	88.24%
Se 196.026†	3.1	0.00046	mg/L	0.000091	0.00092	mg/L	0.000182	19.84%
Si 288.158†	342.6	0.1947	mg/L	0.00377	0.3894	mg/L	0.00753	1.93%
Sn 189.927†	-3.3	-0.00062	mg/L	0.000150	-0.00124	mg/L	0.000301	24.34%
Sr 421.552†	14363.7	0.01569	mg/L	0.000068	0.03138	mg/L	0.000135	0.43%
Ti 334.903†	404.1	0.01774	mg/L	0.000491	0.03548	mg/L	0.000982	2.77%
Tl 190.801†	-4.4	0.00186	mg/L	0.001560	0.00373	mg/L	0.003120	83.74%
V 292.402†	2645.9	0.01815	mg/L	0.000316	0.03630	mg/L	0.000632	1.74%
Zn 206.200†	111.7	0.02684	mg/L	0.000218	0.05368	mg/L	0.000435	0.81%

Sequence No.: 16  
 Sample ID: WE77 MBSPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 312  
 Date Collected: 2/27/2013 9:52:37 AM  
 Data Type: Original

## Nebulizer Parameters: WE77 MBSPK SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE77 MBSPK SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3174944.9	100.4	%	1.23				1.23%
ScR 361.383	344993.5	102.0	%	0.82				0.80%
Ag 328.068†	118193.2	0.5318	mg/L	0.00962	1.064	mg/L	0.0192	1.81%
Al 308.215†	2786.1	2.039	mg/L	0.0196	4.078	mg/L	0.0391	0.96%
As 188.979†	3611.7	2.072	mg/L	0.0213	4.144	mg/L	0.0426	1.03%
B 249.677†	4.8	-0.00047	mg/L	0.000386	-0.00094	mg/L	0.000772	81.93%
Ba 233.527†	11568.4	2.019	mg/L	0.0137	4.039	mg/L	0.0274	0.68%
Be 313.042†	252076.9	0.4834	mg/L	0.00489	0.9669	mg/L	0.00978	1.01%
Ca 317.933†	100770.0	9.636	mg/L	0.0564	19.27	mg/L	0.113	0.58%
Cd 228.802†	14084.3	0.5246	mg/L	0.00923	1.049	mg/L	0.0185	1.76%
Co 228.616†	21400.4	0.5113	mg/L	0.00759	1.023	mg/L	0.0152	1.48%
Cr 267.716†	3286.7	0.5056	mg/L	0.00280	1.011	mg/L	0.0056	0.55%
Cu 324.752†	142718.6	0.5142	mg/L	0.00762	1.028	mg/L	0.0152	1.48%
Fe 273.955†	3156.7	2.016	mg/L	0.0142	4.032	mg/L	0.0284	0.70%
K 766.490†	15700.8	9.719	mg/L	0.0279	19.44	mg/L	0.056	0.29%
Mg 279.077†	10290.5	10.16	mg/L	0.075	20.32	mg/L	0.150	0.74%
Mn 257.610†	24316.9	0.5002	mg/L	0.00433	1.000	mg/L	0.0087	0.87%
Mo 202.031†	33.1	0.00136	mg/L	0.000194	0.00272	mg/L	0.000387	14.24%
Na 589.592†	119952.5	9.987	mg/L	0.0625	19.97	mg/L	0.125	0.63%
Na 330.237†	316.1	10.39	mg/L	0.075	20.77	mg/L	0.150	0.72%
Ni 231.604†	2013.6	0.5026	mg/L	0.00516	1.005	mg/L	0.0103	1.03%
Pb 220.353†	19047.5	2.041	mg/L	0.0321	4.082	mg/L	0.0642	1.57%
Sb 206.836†	17.8	0.00011	mg/L	0.001097	0.00023	mg/L	0.002195	965.89%
Se 196.026†	3512.7	2.058	mg/L	0.0277	4.116	mg/L	0.0554	1.35%
Si 288.158†	-5.5	-0.00017	mg/L	0.001967	-0.00034	mg/L	0.003935	>999.9%
Sn 189.927†	-21.5	-0.00345	mg/L	0.000860	-0.00690	mg/L	0.001720	24.92%
Sr 421.552†	454350.2	0.4963	mg/L	0.00300	0.9926	mg/L	0.00600	0.60%
Ti 334.903†	28.1	0.00056	mg/L	0.000312	0.00113	mg/L	0.000624	55.38%
Tl 190.801†	4780.5	2.064	mg/L	0.0247	4.127	mg/L	0.0493	1.19%
V 292.402†	70012.1	0.5174	mg/L	0.00956	1.035	mg/L	0.0191	1.85%
Zn 206.200†	2052.5	0.4926	mg/L	0.00346	0.9852	mg/L	0.00692	0.70%



Sequence No.: 17  
 Sample ID: WE77 MBSPD SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 313  
 Date Collected: 2/27/2013 9:56:38 AM  
 Data Type: Original

## Nebulizer Parameters: WE77 MBSPD SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE77 MBSPD SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3225329.5	102.0	%	0.88			0.86%
ScR 361.383	345710.4	102.2	%	0.23			0.23%
Ag 328.068†	113409.7	0.5102	mg/L	0.00561	1.020 mg/L	0.0112	1.10%
Al 308.215†	2725.3	1.995	mg/L	0.0069	3.989 mg/L	0.0138	0.35%
As 188.979†	3423.3	1.964	mg/L	0.0261	3.927 mg/L	0.0522	1.33%
B 249.677†	5.6	-0.00030	mg/L	0.000627	-0.00061 mg/L	0.001254	206.74%
Ba 233.527†	11272.9	1.968	mg/L	0.0087	3.936 mg/L	0.0174	0.44%
Be 313.042†	247002.2	0.4737	mg/L	0.00182	0.9473 mg/L	0.00364	0.38%
Ca 317.933†	98309.8	9.401	mg/L	0.0547	18.80 mg/L	0.109	0.58%
Cd 228.802†	13452.3	0.5011	mg/L	0.00725	1.002 mg/L	0.0145	1.45%
Co 228.616†	20570.5	0.4915	mg/L	0.00570	0.9829 mg/L	0.01140	1.16%
Cr 267.716†	3207.3	0.4934	mg/L	0.00149	0.9867 mg/L	0.00298	0.30%
Cu 324.752†	137674.4	0.4960	mg/L	0.00451	0.9921 mg/L	0.00902	0.91%
Fe 273.955†	3072.0	1.962	mg/L	0.0030	3.924 mg/L	0.0060	0.15%
K 766.490†	15305.5	9.474	mg/L	0.0397	18.95 mg/L	0.079	0.42%
Mg 279.077†	10025.1	9.897	mg/L	0.0115	19.79 mg/L	0.023	0.12%
Mn 257.610†	23730.9	0.4881	mg/L	0.00061	0.9763 mg/L	0.00122	0.13%
Mo 202.031†	23.2	0.00092	mg/L	0.000083	0.00183 mg/L	0.000166	9.05%
Na 589.592†	117785.1	9.807	mg/L	0.0798	19.61 mg/L	0.160	0.81%
Na 330.237†	304.0	9.986	mg/L	0.0481	19.97 mg/L	0.096	0.48%
Ni 231.604†	1956.5	0.4884	mg/L	0.00262	0.9768 mg/L	0.00525	0.54%
Pb 220.353†	18275.4	1.958	mg/L	0.0259	3.916 mg/L	0.0518	1.32%
Sb 206.836†	18.7	0.00048	mg/L	0.000299	0.00095 mg/L	0.000597	62.63%
Se 196.026†	3335.1	1.954	mg/L	0.0279	3.908 mg/L	0.0558	1.43%
Si 288.158†	-0.2	0.00269	mg/L	0.003507	0.00537 mg/L	0.007014	130.49%
Sn 189.927†	-18.2	-0.00283	mg/L	0.000298	-0.00566 mg/L	0.000596	10.53%
Sr 421.552†	444727.5	0.4858	mg/L	0.00236	0.9716 mg/L	0.00471	0.49%
Ti 334.903†	17.1	0.00010	mg/L	0.000376	0.00020 mg/L	0.000752	381.45%
Tl 190.801†	4571.3	1.973	mg/L	0.0229	3.946 mg/L	0.0458	1.16%
V 292.402†	67224.0	0.4968	mg/L	0.00529	0.9937 mg/L	0.01058	1.06%
Zn 206.200†	1999.4	0.4798	mg/L	0.00058	0.9597 mg/L	0.00116	0.12%

Sequence No.: 18  
 Sample ID: CV L  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 10:00:39 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3152643.2	99.71 %	0.989			0.99%
ScR 361.383	330626.4	97.76 %	0.768			0.79%
Ag 328.068†	234646.6	1.056 mg/L	0.0118	1.056 mg/L	0.0118	1.12%
Al 308.215†	2892.7	2.090 mg/L	0.0232	2.090 mg/L	0.0232	1.11%
As 188.979†	3495.5	2.037 mg/L	0.0199	2.037 mg/L	0.0199	0.98%
B 249.677†	6984.2	1.052 mg/L	0.0087	1.052 mg/L	0.0087	0.83%
Ba 233.527†	6036.9	1.054 mg/L	0.0092	1.054 mg/L	0.0092	0.87%
Be 313.042†	519427.0	0.9961 mg/L	0.00749	0.9961 mg/L	0.00749	0.75%
Ca 317.933†	22083.9	2.112 mg/L	0.0155	2.112 mg/L	0.0155	0.73%
Cd 228.802†	27667.8	1.042 mg/L	0.0124	1.042 mg/L	0.0124	1.19%
Co 228.616†	42739.4	1.020 mg/L	0.0094	1.020 mg/L	0.0094	0.92%
Cr 267.716†	6794.8	1.047 mg/L	0.0095	1.047 mg/L	0.0095	0.91%
Cu 324.752†	289203.0	1.041 mg/L	0.0102	1.041 mg/L	0.0102	0.98%
Fe 273.955†	3308.6	2.110 mg/L	0.0163	2.110 mg/L	0.0163	0.77%
K 766.490†	33155.8	20.52 mg/L	0.162	20.52 mg/L	0.162	0.79%
Mg 279.077†	2130.7	2.110 mg/L	0.0175	2.110 mg/L	0.0175	0.83%
Mn 257.610†	48834.6	1.004 mg/L	0.0097	1.004 mg/L	0.0097	0.96%
Mo 202.031†	22251.7	1.008 mg/L	0.0110	1.008 mg/L	0.0110	1.09%
Na 589.592†	637106.0	53.05 mg/L	0.351	53.05 mg/L	0.351	0.66%
Na 330.237†	1629.1	54.23 mg/L	0.554	54.23 mg/L	0.554	1.02%
Ni 231.604†	4217.1	1.055 mg/L	0.0095	1.055 mg/L	0.0095	0.90%
Pb 220.353†	19381.7	2.077 mg/L	0.0198	2.077 mg/L	0.0198	0.95%
Sb 206.836†	7222.9	2.072 mg/L	0.0194	2.072 mg/L	0.0194	0.94%
Se 196.026†	3418.7	2.002 mg/L	0.0203	2.002 mg/L	0.0203	1.01%
Si 288.158†	3698.0	2.094 mg/L	0.0103	2.094 mg/L	0.0103	0.49%
Sn 189.927†	4970.6	0.9884 mg/L	0.00523	0.9884 mg/L	0.00523	0.53%
Sr 421.552†	951600.3	1.039 mg/L	0.0070	1.039 mg/L	0.0070	0.67%
Ti 334.903†	23232.4	1.020 mg/L	0.0053	1.020 mg/L	0.0053	0.52%
Tl 190.801†	4714.1	2.031 mg/L	0.0200	2.031 mg/L	0.0200	0.99%
V 292.402†	140947.0	1.042 mg/L	0.0112	1.042 mg/L	0.0112	1.07%
Zn 206.200†	4509.9	1.082 mg/L	0.0070	1.082 mg/L	0.0070	0.65%

Sequence No.: 19  
Sample ID: CB ✓  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 1  
Date Collected: 2/27/2013 10:04:43 AM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3152436.1	99.70 %		0.973			0.98%
ScR 361.383	332571.4	98.33 %		0.546			0.56%
Ag 328.068†	29.4	0.00013 mg/L		0.000090	0.00013 mg/L	0.000090	68.02%
Al 308.215†	8.8	0.00642 mg/L		0.007834	0.00642 mg/L	0.007834	122.09%
As 188.979†	2.2	0.00123 mg/L		0.000487	0.00123 mg/L	0.000487	39.67%
B 249.677†	12.6	0.00190 mg/L		0.000275	0.00190 mg/L	0.000275	14.45%
Ba 233.527†	0.2	0.00003 mg/L		0.000529	0.00003 mg/L	0.000529	>999.9%
Be 313.042†	36.7	0.00007 mg/L		0.000035	0.00007 mg/L	0.000035	49.27%
Ca 317.933†	4.7	0.00045 mg/L		0.000878	0.00045 mg/L	0.000878	193.60%
Cd 228.802†	4.1	0.00015 mg/L		0.000216	0.00015 mg/L	0.000216	143.65%
Co 228.616†	-2.2	-0.00005 mg/L		0.000111	-0.00005 mg/L	0.000111	216.12%
Cr 267.716†	-0.8	-0.00012 mg/L		0.000221	-0.00012 mg/L	0.000221	185.07%
Cu 324.752†	103.5	0.00037 mg/L		0.000210	0.00037 mg/L	0.000210	56.46%
Fe 273.955†	4.0	0.00259 mg/L		0.000378	0.00259 mg/L	0.000378	14.62%
K 766.490†	11.3	0.00701 mg/L		0.005930	0.00701 mg/L	0.005930	84.56%
Mg 279.077†	2.6	0.00255 mg/L		0.007308	0.00255 mg/L	0.007308	286.35%
Mn 257.610†	7.9	0.00016 mg/L		0.000169	0.00016 mg/L	0.000169	103.90%
Mo 202.031†	42.4	0.00192 mg/L		0.000079	0.00192 mg/L	0.000079	4.09%
Na 589.592†	52.2	0.00434 mg/L		0.004425	0.00434 mg/L	0.004425	101.84%
Na 330.237†	-7.4	-0.2466 mg/L		0.42007	-0.2466 mg/L	0.42007	170.38%
Ni 231.604†	4.9	0.00122 mg/L		0.000286	0.00122 mg/L	0.000286	23.47%
Pb 220.353†	0.3	0.00003 mg/L		0.000299	0.00003 mg/L	0.000299	989.96%
Sb 206.836†	17.8	0.00513 mg/L		0.001578	0.00513 mg/L	0.001578	30.74%
Se 196.026†	-1.8	-0.00106 mg/L		0.003426	-0.00106 mg/L	0.003426	324.18%
Si 288.158†	4.3	0.00241 mg/L		0.003400	0.00241 mg/L	0.003400	141.22%
Sn 189.927†	4.9	0.00098 mg/L		0.000403	0.00098 mg/L	0.000403	40.91%
Sr 421.552†	47.3	0.00005 mg/L		0.000034	0.00005 mg/L	0.000034	65.93%
Ti 334.903†	0.5	0.00002 mg/L		0.000653	0.00002 mg/L	0.000653	>999.9%
Tl 190.801†	1.7	0.00073 mg/L		0.001430	0.00073 mg/L	0.001430	196.87%
V 292.402†	8.4	0.00006 mg/L		0.000254	0.00006 mg/L	0.000254	408.06%
Zn 206.200†	1.7	0.00040 mg/L		0.000354	0.00040 mg/L	0.000354	88.24%

Sequence No.: 20  
 Sample ID: WE79 MB1 SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 314  
 Date Collected: 2/27/2013 10:08:59 AM  
 Data Type: Original

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 Nebulizer Parameters: WE79 MB1 SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

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 Mean Data: WE79 MB1 SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3208318.0	101.5 %		0.40			0.40%
ScR 361.383	345503.9	102.2 %		0.89			0.87%
Ag 328.068†	56.8	0.00026 mg/L		0.000302	0.00051 mg/L	0.000604	118.30%
Al 308.215†	3.3	0.00241 mg/L		0.003364	0.00483 mg/L	0.006727	139.39%
As 188.979†	0.7	0.00040 mg/L		0.000465	0.00081 mg/L	0.000931	115.29%
B 249.677†	5.8	0.00087 mg/L		0.000928	0.00174 mg/L	0.001856	106.36%
Ba 233.527†	25.1	0.00438 mg/L		0.000540	0.00876 mg/L	0.001080	12.34%
Be 313.042†	-7.7	-0.00001 mg/L		0.000016	-0.00003 mg/L	0.000032	107.84%
Ca 317.933†	36.6	0.00350 mg/L		0.000841	0.00700 mg/L	0.001682	24.02%
Cd 228.802†	-2.5	-0.00010 mg/L		0.000087	-0.00020 mg/L	0.000173	88.58%
Co 228.616†	-0.8	-0.00002 mg/L		0.000173	-0.00004 mg/L	0.000345	868.97%
Cr 267.716†	5.2	0.00080 mg/L		0.000523	0.00160 mg/L	0.001046	65.25%
Cu 324.752†	76.9	0.00028 mg/L		0.000215	0.00055 mg/L	0.000430	77.47%
Fe 273.955†	12.4	0.00790 mg/L		0.000133	0.01581 mg/L	0.000266	1.68%
K 766.490†	-15.5	-0.00957 mg/L		0.001313	-0.01915 mg/L	0.002626	13.71%
Mg 279.077†	0.3	0.00026 mg/L		0.002562	0.00052 mg/L	0.005123	987.79%
Mn 257.610†	-1.4	-0.00003 mg/L		0.000079	-0.00006 mg/L	0.000158	283.23%
Mo 202.031†	2.9	0.00013 mg/L		0.000144	0.00027 mg/L	0.000288	108.23%
Na 589.592†	57.0	0.00475 mg/L		0.002906	0.00949 mg/L	0.005812	61.23%
Na 330.237†	-2.2	-0.07220 mg/L		0.278451	-0.1444 mg/L	0.55690	385.65%
Ni 231.604†	0.8	0.00020 mg/L		0.000547	0.00039 mg/L	0.001095	278.65%
Pb 220.353†	5.6	0.00060 mg/L		0.000205	0.00120 mg/L	0.000410	34.21%
Sb 206.836†	2.1	0.00058 mg/L		0.001573	0.00116 mg/L	0.003146	271.41%
Se 196.026†	3.0	0.00177 mg/L		0.004068	0.00353 mg/L	0.008137	230.45%
Si 288.158†	0.8	0.00046 mg/L		0.000850	0.00091 mg/L	0.001699	186.30%
Sn 189.927†	1.1	0.00022 mg/L		0.000360	0.00045 mg/L	0.000720	161.02%
Sr 421.552†	64.9	0.00007 mg/L		0.000033	0.00014 mg/L	0.000066	46.36%
Ti 334.903†	-10.7	-0.00047 mg/L		0.000349	-0.00095 mg/L	0.000698	73.76%
Tl 190.801†	-1.1	-0.00046 mg/L		0.001647	-0.00091 mg/L	0.003294	361.31%
V 292.402†	-6.5	-0.00004 mg/L		0.000158	-0.00009 mg/L	0.000316	353.90%
Zn 206.200†	1.8	0.00044 mg/L		0.000121	0.00089 mg/L	0.000243	27.34%

Sequence No.: 21  
Sample ID: WE79 C SWC  
Analyst: ALA  
Dilution: 5.000000X

Autosampler Location: 315  
Date Collected: 2/27/2013 10:13:16 AM  
Data Type: Original

Nebulizer Parameters: WE79 C SWC

Analyte Back Pressure Flow  
All 217.0 kPa 0.75 L/min

Mean Data: WE79 C SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3214972.4	101.7	%	0.51			0.50%
ScR 361.383	342167.5	101.2	%	0.61			0.61%
Ag 328.068†	7680.9	0.03457	mg/L	0.000317	0.1728	0.00159	0.92%
Al 308.215†	41019.9	30.13	mg/L	0.091	150.7	0.46	0.30%
As 188.979†	1355.1	0.7798	mg/L	0.00251	3.899	0.0125	0.32%
B 249.677†	2.8	0.00040	mg/L	0.000860	0.00199	0.004300	215.56%
Ba 233.527†	1616.5	0.2680	mg/L	0.00502	1.340	0.0251	1.87%
Be 313.042†	466.6	0.00088	mg/L	0.000029	0.00441	0.000146	3.32%
Ca 317.933†	17364.4	1.660	mg/L	0.0025	8.302	0.0123	0.15%
Cd 228.802†	150.7	0.00138	mg/L	0.000238	0.00692	0.001191	17.22%
Co 228.616†	268.0	0.00626	mg/L	0.000142	0.03131	0.000708	2.26%
Cr 267.716†	188.4	0.03150	mg/L	0.000880	0.1575	0.00440	2.79%
Cu 324.752†	24794.6	0.09403	mg/L	0.000640	0.4701	0.00320	0.68%
Fe 273.955†	151269.6	96.75	mg/L	0.185	483.7	0.93	0.19%
K 766.490†	21039.4	13.02	mg/L	0.041	65.12	0.205	0.32%
Mg 279.077†	4953.7	4.837	mg/L	0.0369	24.19	0.185	0.76%
Mn 257.610†	27228.3	0.5596	mg/L	0.00118	2.798	0.0059	0.21%
Mo 202.031†	7.5	0.00032	mg/L	0.000248	0.00160	0.001238	77.52%
Na 589.592†	14446.4	1.203	mg/L	0.0006	6.014	0.0030	0.05%
Na 330.237†	35.8	1.188	mg/L	0.2099	5.938	1.0497	17.68%
Ni 231.604†	30.9	0.00773	mg/L	0.000759	0.03865	0.003797	9.83%
Pb 220.353†	455.6	0.05170	mg/L	0.000682	0.2585	0.00341	1.32%
Sb 206.836†	45.1	0.01282	mg/L	0.000667	0.06410	0.003337	5.21%
Se 196.026†	15.9	0.00582	mg/L	0.003607	0.02910	0.018037	61.98%
Si 288.158†	1542.6	0.8760	mg/L	0.01625	4.380	0.0812	1.85%
Sn 189.927†	4.2	0.00098	mg/L	0.000900	0.00491	0.004501	91.67%
Sr 421.552†	152201.5	0.1663	mg/L	0.00029	0.8313	0.00146	0.18%
Ti 334.903†	1473.3	0.06466	mg/L	0.001500	0.3233	0.00750	2.32%
Tl 190.801†	-21.9	0.00313	mg/L	0.001061	0.01563	0.005307	33.96%
V 292.402†	7269.5	0.04882	mg/L	0.000354	0.2441	0.00177	0.73%
Zn 206.200†	318.2	0.07650	mg/L	0.000719	0.3825	0.00359	0.94%

Sequence No.: 22  
 Sample ID: WE79 D SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 316  
 Date Collected: 2/27/2013 10:17:17 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 D SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 D SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3160907.1	99.97 %		0.196			0.20%
ScR 361.383	340771.7	100.8 %		0.41			0.41%
Ag 328.068†	780.1	0.00355 mg/L		0.000034	0.01775 mg/L	0.000172	0.97%
Al 308.215†	86374.6	63.45 mg/L		0.220	317.2 mg/L	1.10	0.35%
As 188.979†	1215.6	0.7009 mg/L		0.00156	3.504 mg/L	0.0078	0.22%
B 249.677†	-5.3	-0.00084 mg/L		0.000306	-0.00420 mg/L	0.001530	36.39%
Ba 233.527†	2245.7	0.3743 mg/L		0.00070	1.871 mg/L	0.0035	0.19%
Be 313.042†	1422.9	0.00271 mg/L		0.000019	0.01353 mg/L	0.000096	0.71%
Ca 317.933†	15786.1	1.510 mg/L		0.0076	7.548 mg/L	0.0381	0.51%
Cd 228.802†	146.0	0.00166 mg/L		0.000070	0.00830 mg/L	0.000352	4.24%
Co 228.616†	606.5	0.01428 mg/L		0.000076	0.07139 mg/L	0.000380	0.53%
Cr 267.716†	314.9	0.05095 mg/L		0.000661	0.2547 mg/L	0.00331	1.30%
Cu 324.752†	35064.5	0.1322 mg/L		0.000058	0.6608 mg/L	0.00290	0.44%
Fe 273.955†	189115.4	121.0 mg/L		0.15	604.8 mg/L	0.76	0.13%
K 766.490†	21982.1	13.61 mg/L		0.038	68.03 mg/L	0.192	0.28%
Mg 279.077†	11863.1	11.65 mg/L		0.048	58.23 mg/L	0.241	0.41%
Mn 257.610†	116632.4	2.397 mg/L		0.0019	11.99 mg/L	0.010	0.08%
Mo 202.031†	8.1	0.00035 mg/L		0.000123	0.00173 mg/L	0.000614	35.57%
Na 589.592†	8034.8	0.6690 mg/L		0.00163	3.345 mg/L	0.0082	0.24%
Na 330.237†	16.1	0.5134 mg/L		0.20299	2.567 mg/L	1.0149	39.54%
Ni 231.604†	76.7	0.01919 mg/L		0.000848	0.09595 mg/L	0.004240	4.42%
Pb 220.353†	401.1	0.05358 mg/L		0.000664	0.2679 mg/L	0.00332	1.24%
Sb 206.836†	27.2	0.00759 mg/L		0.001771	0.03795 mg/L	0.008853	23.32%
Se 196.026†	21.5	0.00524 mg/L		0.005584	0.02620 mg/L	0.027919	106.57%
Si 288.158†	1462.3	0.8312 mg/L		0.00825	4.156 mg/L	0.0412	0.99%
Sn 189.927†	-5.5	-0.00094 mg/L		0.000592	-0.00471 mg/L	0.002958	62.80%
Sr 421.552†	138343.7	0.1511 mg/L		0.00033	0.7556 mg/L	0.00167	0.22%
Ti 334.903†	2269.3	0.09965 mg/L		0.000941	0.4982 mg/L	0.00470	0.94%
Tl 190.801†	-33.4	0.00114 mg/L		0.003668	0.00570 mg/L	0.018341	321.94%
V 292.402†	13279.5	0.09218 mg/L		0.000123	0.4609 mg/L	0.00062	0.13%
Zn 206.200†	711.8	0.1709 mg/L		0.00071	0.8545 mg/L	0.00355	0.42%

Sequence No.: 23  
 Sample ID: WE79 E SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 317  
 Date Collected: 2/27/2013 10:21:18 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 E SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 E SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3183181.4	100.7	%	0.45			0.45%
ScR 361.383	341482.2	101.0	%	0.21			0.21%
Ag 328.068†	641.3	0.00292	mg/L	0.000407	0.01462 mg/L	0.002033	13.90%
Al 308.215†	86782.5	63.75	mg/L	0.228	318.7 mg/L	1.14	0.36%
As 188.979†	1059.4	0.6109	mg/L	0.00380	3.054 mg/L	0.0190	0.62%
B 249.677†	-8.5	-0.00132	mg/L	0.002012	-0.00659 mg/L	0.010059	152.75%
Ba 233.527†	2184.8	0.3618	mg/L	0.00107	1.809 mg/L	0.0053	0.30%
Be 313.042†	1220.2	0.00231	mg/L	0.000020	0.01157 mg/L	0.000099	0.86%
Ca 317.933†	11768.9	1.125	mg/L	0.0043	5.627 mg/L	0.0213	0.38%
Cd 228.802†	142.2	0.00202	mg/L	0.000239	0.01009 mg/L	0.001194	11.83%
Co 228.616†	589.4	0.01389	mg/L	0.000039	0.06944 mg/L	0.000196	0.28%
Cr 267.716†	349.1	0.05638	mg/L	0.001311	0.2819 mg/L	0.00655	2.32%
Cu 324.752†	33528.9	0.1272	mg/L	0.00052	0.6362 mg/L	0.00261	0.41%
Fe 273.955†	208689.2	133.5	mg/L	0.51	667.4 mg/L	2.55	0.38%
K 766.490†	25567.2	15.83	mg/L	0.035	79.13 mg/L	0.176	0.22%
Mg 279.077†	13540.3	13.29	mg/L	0.054	66.47 mg/L	0.270	0.41%
Mn 257.610†	156741.2	3.222	mg/L	0.0091	16.11 mg/L	0.046	0.28%
Mo 202.031†	14.2	0.00063	mg/L	0.000128	0.00314 mg/L	0.000638	20.33%
Na 589.592†	7666.0	0.6383	mg/L	0.00531	3.191 mg/L	0.0265	0.83%
Na 330.237†	14.9	0.4854	mg/L	0.12199	2.427 mg/L	0.6100	25.13%
Ni 231.604†	82.3	0.02059	mg/L	0.000457	0.1030 mg/L	0.00229	2.22%
Pb 220.353†	301.4	0.04233	mg/L	0.000550	0.2116 mg/L	0.00275	1.30%
Sb 206.836†	32.4	0.00902	mg/L	0.002010	0.04509 mg/L	0.010051	22.29%
Se 196.026†	14.2	0.00095	mg/L	0.002911	0.00475 mg/L	0.014553	306.52%
Si 288.158†	1477.0	0.8398	mg/L	0.00902	4.199 mg/L	0.0451	1.07%
Sn 189.927†	-2.9	-0.00046	mg/L	0.000698	-0.00230 mg/L	0.003492	152.03%
Sr 421.552†	85130.2	0.09299	mg/L	0.000344	0.4649 mg/L	0.00172	0.37%
Ti 334.903†	2030.8	0.08918	mg/L	0.002164	0.4459 mg/L	0.01082	2.43%
Tl 190.801†	-37.5	0.00101	mg/L	0.001537	0.00504 mg/L	0.007685	152.62%
V 292.402†	14183.5	0.09835	mg/L	0.000401	0.4918 mg/L	0.00200	0.41%
Zn 206.200†	510.2	0.1226	mg/L	0.00051	0.6128 mg/L	0.00257	0.42%

Sequence No.: 24  
 Sample ID: WE79 F SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 318  
 Date Collected: 2/27/2013 10:25:19 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 F SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 F SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3192853.5	101.0 %		0.55			0.55%
ScR 361.383	344608.4	101.9 %		0.25			0.25%
Ag 328.068†	805.7	0.00367 mg/L		0.000151	0.01834 mg/L	0.000754	4.11%
Al 308.215†	87471.8	64.25 mg/L		0.315	321.3 mg/L	1.57	0.49%
As 188.979†	979.0	0.5647 mg/L		0.00304	2.823 mg/L	0.0152	0.54%
B 249.677†	-12.6	-0.00194 mg/L		0.000739	-0.00970 mg/L	0.003694	38.09%
Ba 233.527†	1788.2	0.2921 mg/L		0.00072	1.461 mg/L	0.0036	0.25%
Be 313.042†	1673.0	0.00318 mg/L		0.000004	0.01592 mg/L	0.000020	0.12%
Ca 317.933†	20230.6	1.935 mg/L		0.0170	9.673 mg/L	0.0852	0.88%
Cd 228.802†	130.1	0.00182 mg/L		0.000098	0.00909 mg/L	0.000492	5.41%
Co 228.616†	625.9	0.01477 mg/L		0.000061	0.07385 mg/L	0.000306	0.41%
Cr 267.716†	358.8	0.05793 mg/L		0.000894	0.2896 mg/L	0.00447	1.54%
Cu 324.752†	44726.0	0.1677 mg/L		0.00073	0.8386 mg/L	0.00366	0.44%
Fe 273.955†	213568.4	136.6 mg/L		1.31	683.0 mg/L	6.54	0.96%
K 766.490†	25246.3	15.63 mg/L		0.033	78.14 mg/L	0.164	0.21%
Mg 279.077†	14006.2	13.75 mg/L		0.023	68.77 mg/L	0.115	0.17%
Mn 257.610†	159236.0	3.273 mg/L		0.0312	16.37 mg/L	0.156	0.95%
Mo 202.031†	13.2	0.00057 mg/L		0.000344	0.00286 mg/L	0.001722	60.12%
Na 589.592†	10836.3	0.9022 mg/L		0.00263	4.511 mg/L	0.0132	0.29%
Na 330.237†	25.5	0.8335 mg/L		0.32750	4.167 mg/L	1.6375	39.29%
Ni 231.604†	93.4	0.02337 mg/L		0.000956	0.1169 mg/L	0.00478	4.09%
Pb 220.353†	379.2	0.05058 mg/L		0.000990	0.2529 mg/L	0.00495	1.96%
Sb 206.836†	32.8	0.00910 mg/L		0.002047	0.04551 mg/L	0.010236	22.49%
Se 196.026†	17.7	0.00290 mg/L		0.004158	0.01448 mg/L	0.020792	143.63%
Si 288.158†	1233.0	0.7013 mg/L		0.00714	3.507 mg/L	0.0357	1.02%
Sn 189.927†	-4.3	-0.00067 mg/L		0.000844	-0.00335 mg/L	0.004218	125.98%
Sr 421.552†	68620.3	0.07496 mg/L		0.000340	0.3748 mg/L	0.00170	0.45%
Ti 334.903†	2016.5	0.08851 mg/L		0.000810	0.4425 mg/L	0.00405	0.91%
Tl 190.801†	-32.8	0.00346 mg/L		0.000442	0.01728 mg/L	0.002210	12.79%
V 292.402†	13589.3	0.09384 mg/L		0.000504	0.4692 mg/L	0.00252	0.54%
Zn 206.200†	587.9	0.1412 mg/L		0.00062	0.7058 mg/L	0.00311	0.44%



Sequence No.: 25  
 Sample ID: WE79 G SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 319  
 Date Collected: 2/27/2013 10:29:20 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 G SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 G SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3230375.6	102.2 %		0.54			0.53%
ScR 361.383	345813.8	102.2 %		0.31			0.30%
Ag 328.068†	1733.5	0.00786 mg/L		0.000125	0.03931 mg/L	0.000626	1.59%
Al 308.215†	62766.0	46.11 mg/L		0.165	230.5 mg/L	0.82	0.36%
As 188.979†	1022.8	0.5926 mg/L		0.00374	2.963 mg/L	0.0187	0.63%
B 249.677†	22.0	0.00327 mg/L		0.000574	0.01633 mg/L	0.002869	17.58%
Ba 233.527†	2021.4	0.3401 mg/L		0.00206	1.700 mg/L	0.0103	0.61%
Be 313.042†	895.6	0.00170 mg/L		0.000030	0.00848 mg/L	0.000149	1.76%
Ca 317.933†	63557.8	6.078 mg/L		0.0305	30.39 mg/L	0.153	0.50%
Cd 228.802†	128.7	0.00163 mg/L		0.000029	0.00814 mg/L	0.000147	1.81%
Co 228.616†	760.3	0.01782 mg/L		0.000110	0.08909 mg/L	0.000551	0.62%
Cr 267.716†	277.7	0.04440 mg/L		0.000410	0.2220 mg/L	0.00205	0.92%
Cu 324.752†	26135.4	0.09836 mg/L		0.000568	0.4918 mg/L	0.00284	0.58%
Fe 273.955†	136836.1	87.52 mg/L		0.313	437.6 mg/L	1.57	0.36%
K 766.490†	19734.0	12.22 mg/L		0.071	61.08 mg/L	0.354	0.58%
Mg 279.077†	9559.0	9.389 mg/L		0.0404	46.94 mg/L	0.202	0.43%
Mn 257.610†	80797.3	1.661 mg/L		0.0057	8.303 mg/L	0.0287	0.35%
Mo 202.031†	26.4	0.00112 mg/L		0.000197	0.00560 mg/L	0.000983	17.55%
Na 589.592†	8698.6	0.7242 mg/L		0.00441	3.621 mg/L	0.0221	0.61%
Na 330.237†	15.1	0.5042 mg/L		0.05077	2.521 mg/L	0.2539	10.07%
Ni 231.604†	105.8	0.02648 mg/L		0.001998	0.1324 mg/L	0.00999	7.55%
Pb 220.353†	325.9	0.04265 mg/L		0.000872	0.2132 mg/L	0.00436	2.05%
Sb 206.836†	26.8	0.00757 mg/L		0.001007	0.03785 mg/L	0.005035	13.30%
Se 196.026†	9.8	0.00040 mg/L		0.004708	0.00199 mg/L	0.023542	>999.9%
Si 288.158†	2458.6	1.396 mg/L		0.0114	6.982 mg/L	0.0568	0.81%
Sn 189.927†	3.7	0.00127 mg/L		0.000182	0.00636 mg/L	0.000911	14.34%
Sr 421.552†	150551.1	0.1644 mg/L		0.00053	0.8222 mg/L	0.00267	0.32%
Ti 334.903†	4076.1	0.1788 mg/L		0.00115	0.8940 mg/L	0.00577	0.65%
Tl 190.801†	-16.9	0.00385 mg/L		0.002259	0.01927 mg/L	0.011294	58.61%
V 292.402†	11387.4	0.07975 mg/L		0.000320	0.3987 mg/L	0.00160	0.40%
Zn 206.200†	682.4	0.1640 mg/L		0.00089	0.8198 mg/L	0.00447	0.54%

Sequence No.: 26  
 Sample ID: WE79 H SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 320  
 Date Collected: 2/27/2013 10:33:21 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 H SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 H SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3197635.3	101.1	%	0.12			0.12%
ScR 361.383	345157.5	102.1	%	0.13			0.13%
Ag 328.068†	1951.0	0.00890	mg/L	0.000071	0.04449 mg/L	0.000354	0.80%
Al 308.215†	80404.1	59.06	mg/L	0.061	295.3 mg/L	0.31	0.10%
As 188.979†	523.8	0.3114	mg/L	0.00278	1.557 mg/L	0.0139	0.89%
B 249.677†	17.9	0.00262	mg/L	0.000159	0.01311 mg/L	0.000794	6.06%
Ba 233.527†	2647.6	0.4493	mg/L	0.00199	2.247 mg/L	0.0100	0.44%
Be 313.042†	1258.8	0.00239	mg/L	0.000024	0.01193 mg/L	0.000119	0.99%
Ca 317.933†	145439.3	13.91	mg/L	0.014	69.54 mg/L	0.071	0.10%
Cd 228.802†	87.6	0.00169	mg/L	0.000131	0.00845 mg/L	0.000654	7.74%
Co 228.616†	1324.9	0.03100	mg/L	0.000132	0.1550 mg/L	0.00066	0.43%
Cr 267.716†	336.8	0.05307	mg/L	0.000146	0.2654 mg/L	0.00073	0.28%
Cu 324.752†	25689.2	0.09673	mg/L	0.000158	0.4836 mg/L	0.00079	0.16%
Fe 273.955†	137587.8	88.00	mg/L	0.376	440.0 mg/L	1.88	0.43%
K 766.490†	23988.6	14.85	mg/L	0.028	74.24 mg/L	0.140	0.19%
Mg 279.077†	13077.8	12.86	mg/L	0.002	64.31 mg/L	0.011	0.02%
Mn 257.610†	89736.0	1.844	mg/L	0.0065	9.222 mg/L	0.0324	0.35%
Mo 202.031†	55.7	0.00235	mg/L	0.000193	0.01177 mg/L	0.000964	8.19%
Na 589.592†	12358.5	1.029	mg/L	0.0007	5.145 mg/L	0.0035	0.07%
Na 330.237†	25.6	0.8835	mg/L	0.13948	4.417 mg/L	0.6974	15.79%
Ni 231.604†	227.6	0.05693	mg/L	0.001056	0.2846 mg/L	0.00528	1.85%
Pb 220.353†	291.0	0.04242	mg/L	0.000932	0.2121 mg/L	0.00466	2.20%
Sb 206.836†	27.3	0.00778	mg/L	0.001703	0.03891 mg/L	0.008513	21.88%
Se 196.026†	6.1	-0.00327	mg/L	0.003791	-0.01635 mg/L	0.018956	115.92%
Si 288.158†	2252.8	1.280	mg/L	0.0049	6.400 mg/L	0.0243	0.38%
Sn 189.927†	-11.6	-0.00106	mg/L	0.000516	-0.00530 mg/L	0.002582	48.68%
Sr 421.552†	225892.4	0.2467	mg/L	0.00005	1.234 mg/L	0.0002	0.02%
Ti 334.903†	7942.5	0.3483	mg/L	0.00213	1.741 mg/L	0.0107	0.61%
Tl 190.801†	-14.8	0.00465	mg/L	0.002158	0.02327 mg/L	0.010791	46.38%
V 292.402†	14689.5	0.1040	mg/L	0.00021	0.5200 mg/L	0.00103	0.20%
Zn 206.200†	950.7	0.2283	mg/L	0.00057	1.141 mg/L	0.0029	0.25%

Sequence No.: 27  
 Sample ID: WE79 I SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 321  
 Date Collected: 2/27/2013 10:37:22 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 I SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 I SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3228472.1	102.1 %		0.42			0.41%
ScR 361.383	347640.4	102.8 %		0.10			0.10%
Ag 328.068†	1070.2	0.00493 mg/L		0.000196	0.02466 mg/L	0.000981	3.98%
Al 308.215†	77378.8	56.84 mg/L		0.245	284.2 mg/L	1.23	0.43%
As 188.979†	305.9	0.1964 mg/L		0.00278	0.9819 mg/L	0.01389	1.41%
B 249.677†	19.6	0.00287 mg/L		0.000972	0.01434 mg/L	0.004859	33.88%
Ba 233.527†	2713.0	0.4622 mg/L		0.00247	2.311 mg/L	0.0123	0.53%
Be 313.042†	1195.0	0.00226 mg/L		0.000011	0.01129 mg/L	0.000055	0.49%
Ca 317.933†	131127.3	12.54 mg/L		0.035	62.70 mg/L	0.173	0.28%
Cd 228.802†	68.5	0.00165 mg/L		0.000045	0.00824 mg/L	0.000227	2.75%
Co 228.616†	1449.0	0.03346 mg/L		0.000366	0.1673 mg/L	0.00183	1.09%
Cr 267.716†	312.2	0.04891 mg/L		0.000921	0.2446 mg/L	0.00460	1.88%
Cu 324.752†	20296.6	0.07676 mg/L		0.000495	0.3838 mg/L	0.00247	0.64%
Fe 273.955†	122338.4	78.24 mg/L		0.485	391.2 mg/L	2.42	0.62%
K 766.490†	21841.0	13.52 mg/L		0.030	67.60 mg/L	0.149	0.22%
Mg 279.077†	14016.7	13.79 mg/L		0.056	68.97 mg/L	0.282	0.41%
Mn 257.610†	85517.9	1.758 mg/L		0.0053	8.788 mg/L	0.0267	0.30%
Mo 202.031†	44.2	0.00185 mg/L		0.000096	0.00925 mg/L	0.000479	5.18%
Na 589.592†	9291.0	0.7736 mg/L		0.00509	3.868 mg/L	0.0254	0.66%
Na 330.237†	18.9	0.7353 mg/L		0.12884	3.677 mg/L	0.6442	17.52%
Ni 231.604†	154.7	0.03870 mg/L		0.001658	0.1935 mg/L	0.00829	4.29%
Pb 220.353†	420.4	0.05621 mg/L		0.000096	0.2811 mg/L	0.00048	0.17%
Sb 206.836†	21.0	0.00629 mg/L		0.000190	0.03146 mg/L	0.000949	3.02%
Se 196.026†	12.2	0.00055 mg/L		0.000831	0.00277 mg/L	0.004153	149.81%
Si 288.158†	3207.7	1.822 mg/L		0.0042	9.110 mg/L	0.0210	0.23%
Sn 189.927†	-20.7	-0.00293 mg/L		0.000472	-0.01465 mg/L	0.002360	16.11%
Sr 421.552†	206283.0	0.2253 mg/L		0.00065	1.127 mg/L	0.0032	0.29%
Ti 334.903†	14465.3	0.6351 mg/L		0.00153	3.175 mg/L	0.0076	0.24%
Tl 190.801†	-16.2	0.00270 mg/L		0.002143	0.01352 mg/L	0.010715	79.23%
V 292.402†	16130.5	0.1149 mg/L		0.00029	0.5745 mg/L	0.00145	0.25%
Zn 206.200†	1023.0	0.2457 mg/L		0.00121	1.229 mg/L	0.0060	0.49%

Sequence No.: 28  
 Sample ID: WE79 J SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 322  
 Date Collected: 2/27/2013 10:41:23 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 J SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: WE79 J SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	3219131.9	101.8	%	0.31			0.31%
ScR 361.383	343878.2	101.7	%	0.62			0.61%
Ag 328.068†	25270.8	0.1137	mg/L	0.00031	0.2274	0.00063	0.28%
Al 308.215†	17212.7	12.64	mg/L	0.139	25.29	0.278	1.10%
As 188.979†	1297.0	0.7448	mg/L	0.00709	1.490	0.0142	0.95%
B 249.677†	-0.9	-0.00014	mg/L	0.001212	-0.00027	0.002424	887.69%
Ba 233.527†	3279.1	0.5559	mg/L	0.00468	1.112	0.0094	0.84%
Be 313.042†	133.6	0.00025	mg/L	0.000044	0.00049	0.000088	17.84%
Ca 317.933†	46166.2	4.415	mg/L	0.0467	8.829	0.0934	1.06%
Cd 228.802†	150.7	0.00157	mg/L	0.000255	0.00313	0.000510	16.28%
Co 228.616†	84.8	0.00192	mg/L	0.000083	0.00384	0.000166	4.34%
Cr 267.716†	84.9	0.01638	mg/L	0.000139	0.03275	0.000279	0.85%
Cu 324.752†	19336.2	0.07519	mg/L	0.000341	0.1504	0.00068	0.45%
Fe 273.955†	176695.7	113.0	mg/L	1.29	226.0	2.58	1.14%
K 766.490†	43195.1	26.74	mg/L	0.161	53.47	0.323	0.60%
Mg 279.077†	1457.0	1.375	mg/L	0.0086	2.751	0.0172	0.62%
Mn 257.610†	1278.6	0.02621	mg/L	0.000454	0.05242	0.000907	1.73%
Mo 202.031†	57.4	0.00255	mg/L	0.000139	0.00509	0.000278	5.47%
Na 589.592†	6569.5	0.5470	mg/L	0.00586	1.094	0.0117	1.07%
Na 330.237†	8.2	0.2752	mg/L	0.19167	0.5503	0.38334	69.66%
Ni 231.604†	7.2	0.00180	mg/L	0.001518	0.00361	0.003036	84.15%
Pb 220.353†	403.6	0.04052	mg/L	0.000684	0.08104	0.001369	1.69%
Sb 206.836†	84.0	0.02412	mg/L	0.001053	0.04825	0.002105	4.36%
Se 196.026†	22.8	0.01191	mg/L	0.000975	0.02381	0.001950	8.19%
Si 288.158†	3671.5	2.084	mg/L	0.0551	4.168	0.1103	2.65%
Sn 189.927†	-2.5	-0.00012	mg/L	0.001069	-0.00023	0.002138	912.66%
Sr 421.552†	105204.1	0.1149	mg/L	0.00055	0.2298	0.00109	0.47%
Ti 334.903†	585.8	0.02548	mg/L	0.001743	0.05096	0.003485	6.84%
Tl 190.801†	-23.3	0.00474	mg/L	0.002667	0.00947	0.005334	56.33%
V 292.402†	6038.6	0.03882	mg/L	0.000342	0.07763	0.000684	0.88%
Zn 206.200†	75.0	0.01836	mg/L	0.000729	0.03672	0.001459	3.97%

Sequence No.: 29  
 Sample ID: WE79 MB1SPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 323  
 Date Collected: 2/27/2013 10:45:39 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 MB1SPK SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 MB1SPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3200434.8	101.2 %		0.35			0.35%
ScR 361.383	340025.8	100.5 %		0.05			0.05%
Ag 328.068†	118505.4	0.5332 mg/L		0.00031	1.066 mg/L	0.0006	0.06%
Al 308.215†	2857.2	2.091 mg/L		0.0080	4.183 mg/L	0.0160	0.38%
As 188.979†	3566.1	2.046 mg/L		0.0125	4.091 mg/L	0.0250	0.61%
B 249.677†	8.9	0.00015 mg/L		0.001625	0.00030 mg/L	0.003250	>999.9%
Ba 233.527†	12064.9	2.106 mg/L		0.0058	4.212 mg/L	0.0117	0.28%
Be 313.042†	253910.9	0.4869 mg/L		0.00339	0.9738 mg/L	0.00679	0.70%
Ca 317.933†	102909.0	9.841 mg/L		0.0612	19.68 mg/L	0.122	0.62%
Cd 228.802†	13822.7	0.5148 mg/L		0.00053	1.030 mg/L	0.0011	0.10%
Co 228.616†	21395.1	0.5112 mg/L		0.00222	1.022 mg/L	0.0044	0.43%
Cr 267.716†	3368.0	0.5181 mg/L		0.00073	1.036 mg/L	0.0015	0.14%
Cu 324.752†	141775.9	0.5108 mg/L		0.00154	1.022 mg/L	0.0031	0.30%
Fe 273.955†	3175.2	2.028 mg/L		0.0099	4.056 mg/L	0.0197	0.49%
K 766.490†	15980.7	9.892 mg/L		0.0523	19.78 mg/L	0.105	0.53%
Mg 279.077†	10553.7	10.42 mg/L		0.016	20.84 mg/L	0.032	0.15%
Mn 257.610†	24557.3	0.5051 mg/L		0.00091	1.010 mg/L	0.0018	0.18%
Mo 202.031†	19.9	0.00076 mg/L		0.000223	0.00152 mg/L	0.000446	29.40%
Na 589.592†	122388.7	10.19 mg/L		0.099	20.38 mg/L	0.198	0.97%
Na 330.237†	316.9	10.41 mg/L		0.343	20.81 mg/L	0.687	3.30%
Ni 231.604†	2071.3	0.5171 mg/L		0.00156	1.034 mg/L	0.0031	0.30%
Pb 220.353†	18943.9	2.030 mg/L		0.0076	4.059 mg/L	0.0153	0.38%
Sb 206.836†	13.9	-0.00118 mg/L		0.001620	-0.00236 mg/L	0.003241	137.10%
Se 196.026†	3442.5	2.017 mg/L		0.0100	4.034 mg/L	0.0200	0.50%
Si 288.158†	-0.0	0.00291 mg/L		0.000174	0.00583 mg/L	0.000348	5.97%
Sn 189.927†	-21.9	-0.00353 mg/L		0.000729	-0.00706 mg/L	0.001457	20.64%
Sr 421.552†	462741.6	0.5055 mg/L		0.00280	1.011 mg/L	0.0056	0.55%
Ti 334.903†	30.5	0.00066 mg/L		0.000568	0.00132 mg/L	0.001136	86.38%
Tl 190.801†	4780.7	2.064 mg/L		0.0091	4.127 mg/L	0.0182	0.44%
V 292.402†	69953.6	0.5170 mg/L		0.00067	1.034 mg/L	0.0013	0.13%
Zn 206.200†	2106.1	0.5054 mg/L		0.00113	1.011 mg/L	0.0023	0.22%

Sequence No.: 30  
 Sample ID: CV3  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 10:49:40 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3183599.7	100.7 %	0.57			0.57%
ScR 361.383	335171.8	99.10 %	0.619			0.62%
Ag 328.068†	233847.7	1.052 mg/L	0.0083	1.052 mg/L	0.0083	0.79%
Al 308.215†	2847.5	2.057 mg/L	0.0092	2.057 mg/L	0.0092	0.45%
As 188.979†	3436.9	2.003 mg/L	0.0093	2.003 mg/L	0.0093	0.46%
B 249.677†	6902.8	1.039 mg/L	0.0035	1.039 mg/L	0.0035	0.34%
Ba 233.527†	6045.5	1.055 mg/L	0.0001	1.055 mg/L	0.0001	0.01%
Be 313.042†	506420.5	0.9711 mg/L	0.00921	0.9711 mg/L	0.00921	0.95%
Ca 317.933†	21739.3	2.079 mg/L	0.0101	2.079 mg/L	0.0101	0.48%
Cd 228.802†	27062.0	1.019 mg/L	0.0053	1.019 mg/L	0.0053	0.52%
Co 228.616†	42245.5	1.008 mg/L	0.0085	1.008 mg/L	0.0085	0.84%
Cr 267.716†	6717.3	1.035 mg/L	0.0027	1.035 mg/L	0.0027	0.26%
Cu 324.752†	286701.6	1.032 mg/L	0.0057	1.032 mg/L	0.0057	0.55%
Fe 273.955†	3208.2	2.046 mg/L	0.0064	2.046 mg/L	0.0064	0.31%
K 766.490†	32821.2	20.32 mg/L	0.058	20.32 mg/L	0.058	0.28%
Mg 279.077†	2096.9	2.077 mg/L	0.0140	2.077 mg/L	0.0140	0.68%
Mn 257.610†	47343.0	0.9736 mg/L	0.00390	0.9736 mg/L	0.00390	0.40%
Mo 202.031†	21972.7	0.9950 mg/L	0.00516	0.9950 mg/L	0.00516	0.52%
Na 589.592†	631432.5	52.57 mg/L	0.216	52.57 mg/L	0.216	0.41%
Na 330.237†	1605.9	53.46 mg/L	0.280	53.46 mg/L	0.280	0.52%
Ni 231.604†	4188.2	1.047 mg/L	0.0028	1.047 mg/L	0.0028	0.27%
Pb 220.353†	19107.7	2.048 mg/L	0.0091	2.048 mg/L	0.0091	0.45%
Sb 206.836†	7126.9	2.045 mg/L	0.0110	2.045 mg/L	0.0110	0.54%
Se 196.026†	3354.0	1.964 mg/L	0.0131	1.964 mg/L	0.0131	0.67%
Si 288.158†	3637.9	2.060 mg/L	0.0155	2.060 mg/L	0.0155	0.75%
Sn 189.927†	4865.0	0.9674 mg/L	0.00653	0.9674 mg/L	0.00653	0.67%
Sr 421.552†	937381.3	1.024 mg/L	0.0044	1.024 mg/L	0.0044	0.43%
Ti 334.903†	22798.6	1.001 mg/L	0.0029	1.001 mg/L	0.0029	0.29%
Tl 190.801†	4673.8	2.014 mg/L	0.0130	2.014 mg/L	0.0130	0.65%
V 292.402†	139653.6	1.032 mg/L	0.0068	1.032 mg/L	0.0068	0.66%
Zn 206.200†	4426.2	1.062 mg/L	0.0040	1.062 mg/L	0.0040	0.38%

Sequence No.: 31  
 Sample ID: CB 3  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 2/27/2013 10:53:44 AM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3198267.9	101.2 %		0.24			0.24%
ScR 361.383	343808.7	101.7 %		0.45			0.45%
Ag 328.068†	62.7	0.00028 mg/L		0.000093	0.00028 mg/L	0.000093	32.94%
Al 308.215†	5.2	0.00375 mg/L		0.007419	0.00375 mg/L	0.007419	197.59%
As 188.979†	1.6	0.00092 mg/L		0.002711	0.00092 mg/L	0.002711	295.08%
B 249.677†	9.9	0.00150 mg/L		0.000682	0.00150 mg/L	0.000682	45.59%
Ba 233.527†	2.8	0.00048 mg/L		0.000851	0.00048 mg/L	0.000851	175.91%
Be 313.042†	10.5	0.00002 mg/L		0.000038	0.00002 mg/L	0.000038	189.49%
Ca 317.933†	-0.8	-0.00008 mg/L		0.000460	-0.00008 mg/L	0.000460	567.26%
Cd 228.802†	3.6	0.00013 mg/L		0.000015	0.00013 mg/L	0.000015	11.26%
Co 228.616†	-4.6	-0.00011 mg/L		0.000134	-0.00011 mg/L	0.000134	120.76%
Cr 267.716†	1.8	0.00027 mg/L		0.000243	0.00027 mg/L	0.000243	89.70%
Cu 324.752†	81.6	0.00029 mg/L		0.000143	0.00029 mg/L	0.000143	48.89%
Fe 273.955†	3.8	0.00242 mg/L		0.000960	0.00242 mg/L	0.000960	39.76%
K 766.490†	-37.1	-0.02298 mg/L		0.025552	-0.02298 mg/L	0.025552	111.20%
Mg 279.077†	-0.4	-0.00043 mg/L		0.001117	-0.00043 mg/L	0.001117	260.39%
Mn 257.610†	-3.4	-0.00007 mg/L		0.000083	-0.00007 mg/L	0.000083	119.87%
Mo 202.031†	34.5	0.00156 mg/L		0.000225	0.00156 mg/L	0.000225	14.40%
Na 589.592†	9.6	0.00080 mg/L		0.004352	0.00080 mg/L	0.004352	543.41%
Na 330.237†	5.4	0.1786 mg/L		0.28643	0.1786 mg/L	0.28643	160.36%
Ni 231.604†	-0.9	-0.00022 mg/L		0.000128	-0.00022 mg/L	0.000128	58.05%
Pb 220.353†	-2.4	-0.00025 mg/L		0.000482	-0.00025 mg/L	0.000482	191.34%
Sb 206.836†	18.5	0.00530 mg/L		0.002038	0.00530 mg/L	0.002038	38.48%
Se 196.026†	2.8	0.00162 mg/L		0.001676	0.00162 mg/L	0.001676	103.42%
Si 288.158†	4.5	0.00258 mg/L		0.002835	0.00258 mg/L	0.002835	109.87%
Sn 189.927†	-1.3	-0.00026 mg/L		0.000651	-0.00026 mg/L	0.000651	249.69%
Sr 421.552†	15.5	0.00002 mg/L		0.000026	0.00002 mg/L	0.000026	155.60%
Ti 334.903†	5.8	0.00025 mg/L		0.000456	0.00025 mg/L	0.000456	180.40%
Tl 190.801†	3.5	0.00153 mg/L		0.000496	0.00153 mg/L	0.000496	32.46%
V 292.402†	8.9	0.00007 mg/L		0.000136	0.00007 mg/L	0.000136	202.00%
Zn 206.200†	1.3	0.00031 mg/L		0.000234	0.00031 mg/L	0.000234	75.73%

Sequence No.: 32  
 Sample ID: WE79 MB2 SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 324  
 Date Collected: 2/27/2013 10:58:00 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 MB2 SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 MB2 SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3237263.8	102.4 %		0.07			0.07%
ScR 361.383	345319.6	102.1 %		0.46			0.45%
Ag 328.068†	50.0	0.00022 mg/L		0.000109	0.00045 mg/L	0.000217	48.26%
Al 308.215†	6.6	0.00487 mg/L		0.001814	0.00974 mg/L	0.003628	37.25%
As 188.979†	0.5	0.00027 mg/L		0.001553	0.00054 mg/L	0.003107	572.38%
B 249.677†	7.7	0.00115 mg/L		0.000781	0.00231 mg/L	0.001562	67.72%
Ba 233.527†	5.8	0.00102 mg/L		0.000157	0.00204 mg/L	0.000314	15.44%
Be 313.042†	-9.0	-0.00002 mg/L		0.000010	-0.00003 mg/L	0.000019	55.45%
Ca 317.933†	69.0	0.00659 mg/L		0.000632	0.01319 mg/L	0.001263	9.58%
Cd 228.802†	2.2	0.00008 mg/L		0.000094	0.00016 mg/L	0.000187	114.85%
Co 228.616†	-3.3	-0.00008 mg/L		0.000095	-0.00016 mg/L	0.000189	118.99%
Cr 267.716†	-1.3	-0.00021 mg/L		0.000985	-0.00041 mg/L	0.001969	480.05%
Cu 324.752†	101.0	0.00036 mg/L		0.000180	0.00073 mg/L	0.000360	49.41%
Fe 273.955†	5.3	0.00336 mg/L		0.001591	0.00673 mg/L	0.003181	47.30%
K 766.490†	-20.8	-0.01285 mg/L		0.027070	-0.02570 mg/L	0.054140	210.66%
Mg 279.077†	2.2	0.00216 mg/L		0.003526	0.00433 mg/L	0.007053	163.03%
Mn 257.610†	-1.7	-0.00004 mg/L		0.000070	-0.00007 mg/L	0.000140	197.26%
Mo 202.031†	0.5	0.00002 mg/L		0.000047	0.00004 mg/L	0.000094	229.08%
Na 589.592†	59.0	0.00491 mg/L		0.001052	0.00983 mg/L	0.002105	21.42%
Na 330.237†	1.0	0.03165 mg/L		0.112133	0.06330 mg/L	0.224266	354.28%
Ni 231.604†	0.2	0.00005 mg/L		0.000383	0.00009 mg/L	0.000766	839.58%
Pb 220.353†	2.0	0.00021 mg/L		0.000503	0.00042 mg/L	0.001007	238.26%
Sb 206.836†	-4.0	-0.00116 mg/L		0.000314	-0.00231 mg/L	0.000629	27.22%
Se 196.026†	3.1	0.00181 mg/L		0.001745	0.00362 mg/L	0.003490	96.39%
Si 288.158†	0.3	0.00020 mg/L		0.004401	0.00040 mg/L	0.008803	>999.9%
Sn 189.927†	0.1	0.00003 mg/L		0.000955	0.00005 mg/L	0.001910	>999.9%
Sr 421.552†	-16.3	-0.00002 mg/L		0.000014	-0.00004 mg/L	0.000028	77.71%
Ti 334.903†	-3.5	-0.00015 mg/L		0.000625	-0.00031 mg/L	0.001249	405.89%
Tl 190.801†	1.2	0.00052 mg/L		0.000257	0.00105 mg/L	0.000514	49.18%
V 292.402†	13.9	0.00010 mg/L		0.000200	0.00020 mg/L	0.000399	196.91%
Zn 206.200†	5.3	0.00128 mg/L		0.000204	0.00256 mg/L	0.000407	15.89%



Sequence No.: 33  
 Sample ID: WE70 K SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 325  
 Date Collected: 2/27/2013 11:02:16 AM  
 Data Type: Original

*Handwritten:* X 2-27-13

Nebulizer Parameters: WE70 K SWC  
 Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: WE70 K SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3263914.2	103.2 %	%	0.88			0.85%
ScR 361.383	351466.7	103.9 %	%	0.08			0.08%
Ag 328.068†	25610.9	0.1152 mg/L	mg/L	0.00119	0.2304 mg/L	0.00238	1.04%
Al 308.215†	21452.8	15.76 mg/L	mg/L	0.016	31.52 mg/L	0.031	0.10%
As 188.979†	2319.8	1.332 mg/L	mg/L	0.0123	2.664 mg/L	0.0246	0.92%
B 249.677†	33.7	0.00507 mg/L	mg/L	0.000667	0.01014 mg/L	0.001335	13.17%
Ba 233.527†	2670.2	0.4574 mg/L	mg/L	0.00228	0.9148 mg/L	0.00457	0.50%
Be 313.042†	170.3	0.00032 mg/L	mg/L	0.000008	0.00065 mg/L	0.000015	2.36%
Ca 317.933†	1904.8	0.1821 mg/L	mg/L	0.00117	0.3643 mg/L	0.00233	0.64%
Cd 228.802†	234.5	0.00147 mg/L	mg/L	0.000305	0.00295 mg/L	0.000610	20.68%
Co 228.616†	99.6	0.00229 mg/L	mg/L	0.000080	0.00458 mg/L	0.000161	3.51%
Cr 267.716†	77.8	0.01372 mg/L	mg/L	0.001178	0.02743 mg/L	0.002356	8.59%
Cu 324.752†	3765.4	0.01650 mg/L	mg/L	0.000216	0.03300 mg/L	0.000433	1.31%
Fe 273.955†	93712.1	59.94 mg/L	mg/L	0.247	119.9 mg/L	0.49	0.41%
K 766.490†	29215.0	18.08 mg/L	mg/L	0.083	36.17 mg/L	0.166	0.46%
Mg 279.077†	1398.5	1.348 mg/L	mg/L	0.0078	2.695 mg/L	0.0156	0.58%
Mn 257.610†	1225.7	0.02514 mg/L	mg/L	0.000070	0.05028 mg/L	0.000139	0.28%
Mo 202.031†	23.4	0.00106 mg/L	mg/L	0.000020	0.00212 mg/L	0.000041	1.92%
Na 589.592†	3379.5	0.2814 mg/L	mg/L	0.00490	0.5628 mg/L	0.00980	1.74%
Na 330.237†	10.5	0.3460 mg/L	mg/L	0.11787	0.6919 mg/L	0.23575	34.07%
Ni 231.604†	12.4	0.00311 mg/L	mg/L	0.001050	0.00622 mg/L	0.002100	33.75%
Pb 220.353†	967.1	0.1046 mg/L	mg/L	0.00070	0.2093 mg/L	0.00139	0.66%
Sb 206.836†	50.7	0.01447 mg/L	mg/L	0.000971	0.02893 mg/L	0.001942	6.71%
Se 196.026†	16.7	0.00794 mg/L	mg/L	0.002565	0.01588 mg/L	0.005129	32.30%
Si 288.158†	3395.9	1.927 mg/L	mg/L	0.0023	3.855 mg/L	0.0046	0.12%
Sn 189.927†	4.2	0.00085 mg/L	mg/L	0.000166	0.00171 mg/L	0.000331	19.41%
Sr 421.552†	201360.5	0.2199 mg/L	mg/L	0.00011	0.4399 mg/L	0.00022	0.05%
Ti 334.903†	511.3	0.02246 mg/L	mg/L	0.000794	0.04492 mg/L	0.001587	3.53%
Tl 190.801†	-8.1	0.00436 mg/L	mg/L	0.001222	0.00872 mg/L	0.002443	28.01%
V 292.402†	1958.0	0.01144 mg/L	mg/L	0.000016	0.02289 mg/L	0.000032	0.14%
Zn 206.200†	143.0	0.03465 mg/L	mg/L	0.000439	0.06929 mg/L	0.000879	1.27%

Sequence No.: 34  
 Sample ID: WE79 L SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 326  
 Date Collected: 2/27/2013 11:06:16 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 L SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 L SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3256673.1	103.0	%	0.71			0.69%
ScR 361.383	350449.1	103.6	%	0.58			0.56%
Ag 328.068†	21083.8	0.09485	mg/L	0.000803	0.1897 mg/L	0.00161	0.85%
Al 308.215†	39736.2	29.19	mg/L	0.067	58.38 mg/L	0.135	0.23%
As 188.979†	3499.4	2.019	mg/L	0.0147	4.038 mg/L	0.0294	0.73%
B 249.677†	4.2	0.00061	mg/L	0.001511	0.00122 mg/L	0.003022	248.22%
Ba 233.527†	2962.6	0.4988	mg/L	0.00364	0.9976 mg/L	0.00728	0.73%
Be 313.042†	275.3	0.00051	mg/L	0.000008	0.00101 mg/L	0.000017	1.63%
Ca 317.933†	11517.6	1.101	mg/L	0.0025	2.203 mg/L	0.0050	0.23%
Cd 228.802†	360.7	0.00249	mg/L	0.000171	0.00498 mg/L	0.000342	6.87%
Co 228.616†	389.6	0.00869	mg/L	0.000098	0.01739 mg/L	0.000196	1.13%
Cr 267.716†	194.4	0.03330	mg/L	0.000494	0.06660 mg/L	0.000989	1.48%
Cu 324.752†	19179.3	0.07517	mg/L	0.000739	0.1503 mg/L	0.00148	0.98%
Fe 273.955†	196458.3	125.7	mg/L	0.65	251.3 mg/L	1.30	0.52%
K 766.490†	35588.0	22.03	mg/L	0.046	44.06 mg/L	0.092	0.21%
Mg 279.077†	5491.2	5.352	mg/L	0.0440	10.70 mg/L	0.088	0.82%
Mn 257.610†	8366.8	0.1719	mg/L	0.00011	0.3438 mg/L	0.00022	0.06%
Mo 202.031†	28.3	0.00127	mg/L	0.000190	0.00253 mg/L	0.000380	15.04%
Na 589.592†	14119.5	1.176	mg/L	0.0069	2.351 mg/L	0.0138	0.59%
Na 330.237†	27.9	0.9940	mg/L	0.17852	1.988 mg/L	0.3570	17.96%
Ni 231.604†	57.7	0.01445	mg/L	0.000992	0.02889 mg/L	0.001984	6.87%
Pb 220.353†	1658.5	0.1788	mg/L	0.00059	0.3575 mg/L	0.00117	0.33%
Sb 206.836†	80.3	0.02318	mg/L	0.001216	0.04637 mg/L	0.002432	5.25%
Se 196.026†	22.0	0.00947	mg/L	0.002593	0.01895 mg/L	0.005187	27.38%
Si 288.158†	3360.9	1.908	mg/L	0.0132	3.816 mg/L	0.0263	0.69%
Sn 189.927†	2.3	0.00061	mg/L	0.000618	0.00123 mg/L	0.001236	100.87%
Sr 421.552†	183258.6	0.2002	mg/L	0.00035	0.4004 mg/L	0.00071	0.18%
Ti 334.903†	7255.4	0.3188	mg/L	0.00251	0.6377 mg/L	0.00503	0.79%
Tl 190.801†	-17.8	0.00863	mg/L	0.002495	0.01726 mg/L	0.004989	28.91%
V 292.402†	10380.3	0.07006	mg/L	0.001094	0.1401 mg/L	0.00219	1.56%
Zn 206.200†	346.8	0.08353	mg/L	0.000884	0.1671 mg/L	0.00177	1.06%

Sequence No.: 35  
 Sample ID: WE89 M SWC  
 Analyst: ALA 79  
 Dilution: 2.000000X

*M227-3*

Autosampler Location: 327  
 Date Collected: 2/27/2013 11:10:17 AM  
 Data Type: Original

Nebulizer Parameters: WE89 M SWC  
 Analyte Back Pressure Flow  
 All 217.0 kPa 0.75 L/min

Mean Data: WE89 M SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3172983.9	100.4 %		0.58			0.58%
ScR 361.383	345445.3	102.1 %		0.35			0.34%
Ag 328.068†	37801.4	0.1700 mg/L		0.00315	0.3400 mg/L	0.00630	1.85%
Al 308.215†	34152.8	25.09 mg/L		0.002	50.17 mg/L	0.004	0.01%
As 188.979†	3499.1	2.014 mg/L		0.0201	4.028 mg/L	0.0401	1.00%
B 249.677†	23.1	0.00347 mg/L		0.000503	0.00694 mg/L	0.001005	14.48%
Ba 233.527†	3348.9	0.5688 mg/L		0.00500	1.138 mg/L	0.0100	0.88%
Be 313.042†	285.9	0.00053 mg/L		0.000009	0.00107 mg/L	0.000018	1.65%
Ca 317.933†	17081.9	1.633 mg/L		0.0061	3.267 mg/L	0.0122	0.37%
Cd 228.802†	354.0	0.00223 mg/L		0.000020	0.00447 mg/L	0.000040	0.89%
Co 228.616†	276.3	0.00623 mg/L		0.000201	0.01246 mg/L	0.000402	3.23%
Cr 267.716†	110.4	0.01984 mg/L		0.000320	0.03968 mg/L	0.000641	1.62%
Cu 324.752†	31197.8	0.1176 mg/L		0.00194	0.2353 mg/L	0.00388	1.65%
Fe 273.955†	168984.7	108.1 mg/L		0.81	216.2 mg/L	1.62	0.75%
K 766.490†	35456.1	21.95 mg/L		0.084	43.89 mg/L	0.167	0.38%
Mg 279.077†	5077.8	4.953 mg/L		0.0239	9.907 mg/L	0.0478	0.48%
Mn 257.610†	7444.0	0.1529 mg/L		0.00099	0.3058 mg/L	0.00198	0.65%
Mo 202.031†	33.6	0.00150 mg/L		0.000703	0.00300 mg/L	0.001406	46.82%
Na 589.592†	15718.2	1.309 mg/L		0.0054	2.617 mg/L	0.0107	0.41%
Na 330.237†	34.0	1.164 mg/L		0.2680	2.328 mg/L	0.5359	23.02%
Ni 231.604†	28.4	0.00712 mg/L		0.000183	0.01424 mg/L	0.000365	2.56%
Pb 220.353†	1609.9	0.1733 mg/L		0.00149	0.3466 mg/L	0.00298	0.86%
Sb 206.836†	116.5	0.03357 mg/L		0.000492	0.06714 mg/L	0.000985	1.47%
Se 196.026†	36.8	0.01867 mg/L		0.003188	0.03733 mg/L	0.006376	17.08%
Si 288.158†	2844.7	1.615 mg/L		0.0062	3.230 mg/L	0.0124	0.38%
Sn 189.927†	0.5	0.00029 mg/L		0.000527	0.00059 mg/L	0.001053	179.64%
Sr 421.552†	291718.9	0.3186 mg/L		0.00059	0.6373 mg/L	0.00118	0.18%
Ti 334.903†	4009.9	0.1761 mg/L		0.00137	0.3523 mg/L	0.00274	0.78%
Tl 190.801†	-15.1	0.00755 mg/L		0.000768	0.01511 mg/L	0.001535	10.16%
V 292.402†	7055.8	0.04650 mg/L		0.000412	0.09300 mg/L	0.000824	0.89%
Zn 206.200†	241.9	0.05831 mg/L		0.000531	0.1166 mg/L	0.00106	0.91%

Sequence No.: 36  
 Sample ID: WE79 N SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 328  
 Date Collected: 2/27/2013 11:14:18 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 N SWC

Analyte Back Pressure Flow  
 All 216.0 kPa 0.75 L/min

## Mean Data: WE79 N SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3254508.3	102.9 %		1.68			1.63%
ScR 361.383	365013.4	107.9 %		6.45			5.98%
Ag 328.068†	29043.1	0.1306 mg/L		0.00320	0.2613 mg/L	0.00639	2.45%
Al 308.215†	39881.0	29.29 mg/L		4.810	58.59 mg/L	9.619	16.42%
As 188.979†	3336.6	1.922 mg/L		0.0363	3.843 mg/L	0.0727	1.89%
B 249.677†	19.1	0.00286 mg/L		0.000730	0.00572 mg/L	0.001460	25.55%
Ba 233.527†	3356.7	0.5704 mg/L		0.03642	1.141 mg/L	0.0728	6.39%
Be 313.042†	288.9	0.00054 mg/L		0.000134	0.00108 mg/L	0.000268	24.89%
Ca 317.933†	11748.4	1.123 mg/L		0.1853	2.247 mg/L	0.3706	16.49%
Cd 228.802†	346.2	0.00246 mg/L		0.000241	0.00492 mg/L	0.000483	9.82%
Co 228.616†	305.1	0.00687 mg/L		0.000077	0.01374 mg/L	0.000154	1.12%
Cr 267.716†	180.8	0.03074 mg/L		0.001200	0.06148 mg/L	0.002400	3.90%
Cu 324.752†	26113.5	0.09925 mg/L		0.001792	0.1985 mg/L	0.00358	1.80%
Fe 273.955†	167145.5	106.9 mg/L		17.63	213.8 mg/L	35.27	16.50%
K 766.490†	32911.6	20.37 mg/L		3.385	40.74 mg/L	6.770	16.62%
Mg 279.077†	4338.2	4.224 mg/L		0.2904	8.448 mg/L	0.5809	6.88%
Mn 257.610†	6416.2	0.1319 mg/L		0.00829	0.2637 mg/L	0.01659	6.29%
Saturated within auto integration window (code 4)							
Mo 202.031†	40.8	0.00183 mg/L		0.000487	0.00367 mg/L	0.000973	26.52%
Na 589.592†	20463.6	1.704 mg/L		0.2786	3.408 mg/L	0.5572	16.35%
Na 330.237†	51.5	1.747 mg/L		0.2748	3.494 mg/L	0.5497	15.73%
Ni 231.604†	42.2	0.01058 mg/L		0.001776	0.02115 mg/L	0.003552	16.79%
Pb 220.353†	6041.4	0.6492 mg/L		0.01195	1.298 mg/L	0.0239	1.84%
Sb 206.836†	83.8	0.02408 mg/L		0.002238	0.04815 mg/L	0.004476	9.30%
Se 196.026†	31.2	0.01490 mg/L		0.004438	0.02980 mg/L	0.008876	29.78%
Si 288.158†	3509.7	1.992 mg/L		0.1277	3.985 mg/L	0.2554	6.41%
Sn 189.927†	6.4	0.00142 mg/L		0.001059	0.00284 mg/L	0.002119	74.72%
Sr 421.552†	316230.5	0.3454 mg/L		0.05625	0.6908 mg/L	0.11250	16.28%
Ti 334.903†	4604.1	0.2023 mg/L		0.03350	0.4046 mg/L	0.06701	16.56%
Tl 190.801†	-14.6	0.00760 mg/L		0.004328	0.01519 mg/L	0.008657	56.97%
V 292.402†	7881.7	0.05266 mg/L		0.002265	0.1053 mg/L	0.00453	4.30%
Zn 206.200†	357.3	0.08610 mg/L		0.006191	0.1722 mg/L	0.01238	7.19%

Sequence No.: 37  
 Sample ID: WE79 O SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 329  
 Date Collected: 2/27/2013 11:18:18 AM  
 Data Type: Original

Nebulizer Parameters: WE79 O SWC  
 Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 O SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3382611.4	107.0	%	1.03			0.97%
ScR 361.383	342368.0	101.2	%	1.61			1.59%
Ag 328.068†	39732.8	0.1787	mg/L	0.00250	0.3574 mg/L	0.00501	1.40%
Al 308.215†	14818.6	10.89	mg/L	0.265	21.77 mg/L	0.530	2.43%
As 188.979†	1657.6	0.9533	mg/L	0.01447	1.907 mg/L	0.0289	1.52%
B 249.677†	5.6	0.00084	mg/L	0.001905	0.00168 mg/L	0.003810	227.01%
Ba 233.527†	2359.9	0.4016	mg/L	0.00827	0.8032 mg/L	0.01653	2.06%
Be 313.042†	132.9	0.00025	mg/L	0.000023	0.00050 mg/L	0.000046	9.32%
Ca 317.933†	1771.7	0.1694	mg/L	0.00429	0.3388 mg/L	0.00857	2.53%
Cd 228.802†	167.4	0.00105	mg/L	0.000081	0.00209 mg/L	0.000161	7.70%
Co 228.616†	70.0	0.00152	mg/L	0.000077	0.00305 mg/L	0.000154	5.06%
Cr 267.716†	61.1	0.01151	mg/L	0.000364	0.02302 mg/L	0.000728	3.16%
Cu 324.752†	14127.7	0.05436	mg/L	0.000887	0.1087 mg/L	0.00177	1.63%
Fe 273.955†	111059.5	71.03	mg/L	1.064	142.1 mg/L	2.13	1.50%
K 766.490†	28133.2	17.41	mg/L	0.263	34.83 mg/L	0.526	1.51%
Mg 279.077†	934.0	0.8827	mg/L	0.02483	1.765 mg/L	0.0497	2.81%
Mn 257.610†	1039.5	0.02133	mg/L	0.000549	0.04266 mg/L	0.001098	2.57%
Mo 202.031†	18.9	0.00085	mg/L	0.000141	0.00170 mg/L	0.000283	16.60%
Na 589.592†	8154.8	0.6790	mg/L	0.01549	1.358 mg/L	0.0310	2.28%
Na 330.237†	15.4	0.5237	mg/L	0.15930	1.047 mg/L	0.3186	30.42%
Ni 231.604†	4.3	0.00108	mg/L	0.000280	0.00215 mg/L	0.000559	26.02%
Pb 220.353†	815.1	0.08639	mg/L	0.000737	0.1728 mg/L	0.00147	0.85%
Sb 206.836†	66.3	0.01905	mg/L	0.001984	0.03810 mg/L	0.003968	10.42%
Se 196.026†	28.0	0.01514	mg/L	0.003774	0.03028 mg/L	0.007548	24.92%
Si 288.158†	3308.0	1.878	mg/L	0.0463	3.755 mg/L	0.0926	2.47%
Sn 189.927†	3.4	0.00072	mg/L	0.000202	0.00143 mg/L	0.000404	28.17%
Sr 421.552†	214306.4	0.2341	mg/L	0.00438	0.4682 mg/L	0.00875	1.87%
Ti 334.903†	1351.4	0.05939	mg/L	0.002309	0.1188 mg/L	0.00462	3.89%
Tl 190.801†	-6.6	0.00649	mg/L	0.002659	0.01298 mg/L	0.005318	40.96%
V 292.402†	2907.3	0.01784	mg/L	0.000235	0.03568 mg/L	0.000470	1.32%
Zn 206.200†	67.0	0.01640	mg/L	0.000575	0.03279 mg/L	0.001149	3.51%

Sequence No.: 38  
 Sample ID: WE79 P SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 330  
 Date Collected: 2/27/2013 11:22:33 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 P SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 P SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3224848.9	102.0	%	0.50			0.49%
ScR 361.383	350014.8	103.5	%	0.16			0.15%
Ag 328.068†	36750.8	0.1653	mg/L	0.00126	0.3306 mg/L	0.00252	0.76%
Al 308.215†	30236.1	22.21	mg/L	0.160	44.42 mg/L	0.320	0.72%
As 188.979†	3686.5	2.116	mg/L	0.0234	4.233 mg/L	0.0467	1.10%
B 249.677†	43.8	0.00660	mg/L	0.001305	0.01321 mg/L	0.002610	19.76%
Ba 233.527†	1920.5	0.3274	mg/L	0.00156	0.6549 mg/L	0.00313	0.48%
Be 313.042†	334.1	0.00064	mg/L	0.000030	0.00127 mg/L	0.000060	4.70%
Ca 317.933†	1855.2	0.1774	mg/L	0.00155	0.3548 mg/L	0.00311	0.88%
Cd 228.802†	354.9	0.00166	mg/L	0.000123	0.00332 mg/L	0.000246	7.40%
Co 228.616†	76.5	0.00175	mg/L	0.000140	0.00349 mg/L	0.000280	8.02%
Cr 267.716†	57.9	0.01045	mg/L	0.000507	0.02089 mg/L	0.001015	4.86%
Cu 324.752†	8337.9	0.03265	mg/L	0.000200	0.06531 mg/L	0.000399	0.61%
Fe 273.955†	83770.2	53.58	mg/L	0.451	107.2 mg/L	0.90	0.84%
K 766.490†	35533.8	22.00	mg/L	0.057	43.99 mg/L	0.113	0.26%
Mg 279.077†	1337.3	1.291	mg/L	0.0091	2.581 mg/L	0.0182	0.70%
Mn 257.610†	1454.3	0.02982	mg/L	0.000359	0.05963 mg/L	0.000719	1.21%
Mo 202.031†	20.7	0.00093	mg/L	0.000258	0.00187 mg/L	0.000517	27.67%
Na 589.592†	1912.3	0.1592	mg/L	0.00314	0.3184 mg/L	0.00627	1.97%
Na 330.237†	-2.1	-0.06827	mg/L	0.348460	-0.1365 mg/L	0.69692	510.41%
Ni 231.604†	2.8	0.00073	mg/L	0.001042	0.00146 mg/L	0.002085	143.23%
Pb 220.353†	1591.5	0.1736	mg/L	0.00031	0.3471 mg/L	0.00062	0.18%
Sb 206.836†	236.4	0.06784	mg/L	0.001466	0.1357 mg/L	0.00293	2.16%
Se 196.026†	71.8	0.03954	mg/L	0.003158	0.07908 mg/L	0.006316	7.99%
Si 288.158†	3168.8	1.799	mg/L	0.0144	3.597 mg/L	0.0288	0.80%
Sn 189.927†	1.4	0.00034	mg/L	0.000497	0.00068 mg/L	0.000993	146.73%
Sr 421.552†	125530.2	0.1371	mg/L	0.00050	0.2742 mg/L	0.00101	0.37%
Ti 334.903†	562.6	0.02472	mg/L	0.003600	0.04943 mg/L	0.007199	14.56%
Tl 190.801†	7.0	0.01009	mg/L	0.001780	0.02017 mg/L	0.003560	17.65%
V 292.402†	1829.9	0.01081	mg/L	0.000138	0.02161 mg/L	0.000275	1.27%
Zn 206.200†	69.5	0.01700	mg/L	0.000667	0.03399 mg/L	0.001334	3.92%

Sequence No.: 39  
 Sample ID: WE79 Q SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 331  
 Date Collected: 2/27/2013 11:26:48 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 Q SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 Q SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3364064.2	106.4 %		0.75			0.70%
ScR 361.383	352417.5	104.2 %		1.58			1.52%
Ag 328.068†	6400.2	0.02892 mg/L		0.000245	0.05783 mg/L	0.000490	0.85%
Al 308.215†	209511.2	153.9 mg/L		2.37	307.8 mg/L	4.73	1.54%
As 188.979†	1887.8	1.109 mg/L		0.0119	2.219 mg/L	0.0237	1.07%
B 249.677†	-18.0	-0.00284 mg/L		0.000923	-0.00568 mg/L	0.001847	32.49%
Ba 233.527†	5932.9	0.9969 mg/L		0.01975	1.994 mg/L	0.0395	1.98%
Be 313.042†	2494.9	0.00471 mg/L		0.000100	0.00942 mg/L	0.000199	2.11%
Ca 317.933†	73186.7	6.998 mg/L		0.0833	14.00 mg/L	0.167	1.19%
Cd 228.802†	257.8	0.00379 mg/L		0.000299	0.00758 mg/L	0.000597	7.88%
Co 228.616†	1961.4	0.04541 mg/L		0.000725	0.09081 mg/L	0.001450	1.60%
Cr 267.716†	994.1	0.1588 mg/L		0.00284	0.3176 mg/L	0.00568	1.79%
Cu 324.752†	126184.1	0.4673 mg/L		0.00382	0.9345 mg/L	0.00764	0.82%
Fe 273.955†	414180.4	264.9 mg/L		3.99	529.8 mg/L	7.97	1.50%
K 766.490†	45233.9	28.00 mg/L		0.309	56.00 mg/L	0.618	1.10%
Mg 279.077†	24615.6	24.16 mg/L		0.430	48.31 mg/L	0.860	1.78%
Mn 257.610†	130651.6	2.685 mg/L		0.0378	5.370 mg/L	0.0756	1.41%
Mo 202.031†	96.3	0.00427 mg/L		0.000231	0.00854 mg/L	0.000462	5.41%
Na 589.592†	18962.6	1.579 mg/L		0.0185	3.158 mg/L	0.0371	1.17%
Na 330.237†	41.1	1.407 mg/L		0.1013	2.814 mg/L	0.2026	7.20%
Ni 231.604†	305.9	0.07651 mg/L		0.002259	0.1530 mg/L	0.00452	2.95%
Pb 220.353†	757.7	0.1083 mg/L		0.00144	0.2166 mg/L	0.00287	1.33%
Sb 206.836†	75.0	0.02108 mg/L		0.001181	0.04217 mg/L	0.002361	5.60%
Se 196.026†	35.8	0.00313 mg/L		0.000690	0.00626 mg/L	0.001379	22.02%
Si 288.158†	7753.1	4.403 mg/L		0.1017	8.806 mg/L	0.2034	2.31%
Sn 189.927†	-11.8	-0.00160 mg/L		0.000627	-0.00320 mg/L	0.001255	39.17%
Sr 421.552†	433015.6	0.4730 mg/L		0.00735	0.9460 mg/L	0.01471	1.55%
Ti 334.903†	17591.4	0.7728 mg/L		0.01008	1.546 mg/L	0.0202	1.30%
Tl 190.801†	-61.2	0.00731 mg/L		0.004000	0.01463 mg/L	0.008000	54.69%
V 292.402†	37820.7	0.2657 mg/L		0.00296	0.5313 mg/L	0.00592	1.11%
Zn 206.200†	2470.0	0.5933 mg/L		0.01206	1.187 mg/L	0.0241	2.03%

Sequence No.: 40  
 Sample ID: WE79 R SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 332  
 Date Collected: 2/27/2013 11:30:50 AM  
 Data Type: Original

*DL*

## Nebulizer Parameters: WE79 R SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 R SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3318838.9	105.0	%	0.49				0.47%
ScR 361.383	350098.0	103.5	%	0.35				0.34%
Ag 328.068†	11041.0	0.04974	mg/L	0.000574	0.09948	mg/L	0.001148	1.15%
Al 308.215†	195033.6	143.3	mg/L	1.30	286.5	mg/L	2.61	0.91%
As 188.979†	8361.6	4.805	mg/L	0.0195	9.609	mg/L	0.0390	0.41%
B 249.677†	-74.4	-0.01127	mg/L	0.001677	-0.02255	mg/L	0.003353	14.87%
Ba 233.527†	9546.7	1.613	mg/L	0.0029	3.226	mg/L	0.0057	0.18%
Be 313.042†	1592.2	0.00300	mg/L	0.000017	0.00600	mg/L	0.000034	0.56%
Ca 317.933†	19422.2	1.857	mg/L	0.0178	3.715	mg/L	0.0356	0.96%
Cd 228.802†	856.1	0.00572	mg/L	0.000148	0.01145	mg/L	0.000296	2.58%
Co 228.616†	935.0	0.02184	mg/L	0.000144	0.04368	mg/L	0.000287	0.66%
Cr 267.716†	624.1	0.1058	mg/L	0.00118	0.2116	mg/L	0.00237	1.12%
Cu 324.752†	167995.3	0.6230	mg/L	0.00505	1.246	mg/L	0.0101	0.81%
Fe 273.955†	573467.1	366.8	mg/L	2.73	733.6	mg/L	5.45	0.74%
K 766.490†	53030.9	32.83	mg/L	0.248	65.65	mg/L	0.496	0.76%
Mg 279.077†	17378.9	16.96	mg/L	0.167	33.91	mg/L	0.335	0.99%
Mn 257.610†	46949.2	0.9644	mg/L	0.00648	1.929	mg/L	0.0130	0.67%
Mo 202.031†	94.5	0.00425	mg/L	0.000396	0.00850	mg/L	0.000792	9.31%
Na 589.592†	39930.6	3.325	mg/L	0.0292	6.649	mg/L	0.0583	0.88%
Na 330.237†	90.0	2.956	mg/L	0.0963	5.912	mg/L	0.1925	3.26%
Ni 231.604†	122.2	0.03059	mg/L	0.001489	0.06118	mg/L	0.002977	4.87%
Pb 220.353†	2177.2	0.2517	mg/L	0.00157	0.5034	mg/L	0.00314	0.62%
Sb 206.836†	138.6	0.03949	mg/L	0.002326	0.07898	mg/L	0.004652	5.89%
Se 196.026†	66.2	0.02219	mg/L	0.003614	0.04439	mg/L	0.007228	16.28%
Si 288.158†	3757.4	2.134	mg/L	0.0065	4.269	mg/L	0.0131	0.31%
Sn 189.927†	-2.1	-0.00020	mg/L	0.001010	-0.00041	mg/L	0.002020	497.71%
Sr 421.552†	275887.0	0.3014	mg/L	0.00237	0.6027	mg/L	0.00474	0.79%
Ti 334.903†	4157.1	0.1826	mg/L	0.00326	0.3652	mg/L	0.00653	1.79%
Tl 190.801†	-84.7	0.01104	mg/L	0.004413	0.02208	mg/L	0.008825	39.98%
V 292.402†	30997.6	0.2102	mg/L	0.00145	0.4203	mg/L	0.00289	0.69%
Zn 206.200†	1287.9	0.3093	mg/L	0.00204	0.6187	mg/L	0.00408	0.66%



Sequence No.: 41

Sample ID: WE79 MB2SPK SWC

Analyst: ALA

Dilution: 2.000000X

Autosampler Location: 333

Date Collected: 2/27/2013 11:34:52 AM

Data Type: Original

Nebulizer Parameters: WE79 MB2SPK SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: WE79 MB2SPK SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3291836.6	104.1 %		1.41			1.35%
ScR 361.383	344343.1	101.8 %		0.30			0.29%
Ag 328.068†	115060.3	0.5177 mg/L		0.00859	1.035 mg/L	0.0172	1.66%
Al 308.215†	2810.6	2.057 mg/L		0.0070	4.115 mg/L	0.0139	0.34%
As 188.979†	3457.3	1.983 mg/L		0.0325	3.966 mg/L	0.0651	1.64%
B 249.677†	9.1	0.00021 mg/L		0.001164	0.00041 mg/L	0.002329	564.19%
Ba 233.527†	11941.3	2.085 mg/L		0.0104	4.169 mg/L	0.0208	0.50%
Be 313.042†	251041.0	0.4814 mg/L		0.00315	0.9628 mg/L	0.00629	0.65%
Ca 317.933†	102423.5	9.794 mg/L		0.0573	19.59 mg/L	0.115	0.59%
Cd 228.802†	13442.8	0.5007 mg/L		0.00683	1.001 mg/L	0.0137	1.36%
Co 228.616†	20818.5	0.4974 mg/L		0.00834	0.9947 mg/L	0.01667	1.68%
Cr 267.716†	3326.6	0.5117 mg/L		0.00275	1.023 mg/L	0.0055	0.54%
Cu 324.752†	137167.6	0.4942 mg/L		0.00734	0.9884 mg/L	0.01468	1.49%
Fe 273.955†	3147.2	2.010 mg/L		0.0095	4.020 mg/L	0.0190	0.47%
K 766.490†	15889.4	9.835 mg/L		0.0695	19.67 mg/L	0.139	0.71%
Mg 279.077†	10444.2	10.31 mg/L		0.051	20.62 mg/L	0.101	0.49%
Mn 257.610†	24204.3	0.4979 mg/L		0.00097	0.9958 mg/L	0.00193	0.19%
Mo 202.031†	22.5	0.00088 mg/L		0.000099	0.00175 mg/L	0.000199	11.34%
Na 589.592†	121630.9	10.13 mg/L		0.015	20.25 mg/L	0.030	0.15%
Na 330.237†	306.4	10.06 mg/L		0.226	20.11 mg/L	0.452	2.24%
Ni 231.604†	2059.6	0.5142 mg/L		0.00450	1.028 mg/L	0.0090	0.88%
Pb 220.353†	18504.3	1.983 mg/L		0.0283	3.965 mg/L	0.0566	1.43%
Sb 206.836†	15.0	-0.00083 mg/L		0.000577	-0.00165 mg/L	0.001154	69.95%
Se 196.026†	3340.9	1.957 mg/L		0.0241	3.915 mg/L	0.0483	1.23%
Si 288.158†	-1.8	0.00185 mg/L		0.003242	0.00370 mg/L	0.006484	175.47%
Sn 189.927†	-17.6	-0.00267 mg/L		0.000376	-0.00534 mg/L	0.000752	14.09%
Sr 421.552†	455999.8	0.4981 mg/L		0.00064	0.9962 mg/L	0.00127	0.13%
Ti 334.903†	25.7	0.00045 mg/L		0.000642	0.00090 mg/L	0.001284	142.37%
Tl 190.801†	4634.0	2.000 mg/L		0.0318	4.001 mg/L	0.0636	1.59%
V 292.402†	68111.0	0.5034 mg/L		0.00867	1.007 mg/L	0.0173	1.72%
Zn 206.200†	2092.8	0.5023 mg/L		0.00309	1.005 mg/L	0.0062	0.61%

Sequence No.: 42  
 Sample ID: CV  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 11:38:53 AM  
 Data Type: Original

Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3222264.7	101.9 %	0.30			0.30%
ScR 361.383	343990.0	101.7 %	1.31			1.28%
Ag 328.068†	233440.3	1.050 mg/L	0.0045	1.050 mg/L	0.0045	0.43%
Al 308.215†	2790.5	2.015 mg/L	0.0301	2.015 mg/L	0.0301	1.49%
As 188.979†	3447.1	2.009 mg/L	0.0131	2.009 mg/L	0.0131	0.65%
B 249.677†	6779.3	1.021 mg/L	0.0159	1.021 mg/L	0.0159	1.56%
Ba 233.527†	5973.8	1.043 mg/L	0.0174	1.043 mg/L	0.0174	1.66%
Be 313.042†	498687.6	0.9563 mg/L	0.01676	0.9563 mg/L	0.01676	1.75%
Ca 317.933†	21523.1	2.058 mg/L	0.0381	2.058 mg/L	0.0381	1.85%
Cd 228.802†	26966.3	1.016 mg/L	0.0058	1.016 mg/L	0.0058	0.58%
Co 228.616†	42533.7	1.015 mg/L	0.0040	1.015 mg/L	0.0040	0.39%
Cr 267.716†	6627.8	1.021 mg/L	0.0167	1.021 mg/L	0.0167	1.64%
Cu 324.752†	285077.0	1.027 mg/L	0.0023	1.027 mg/L	0.0023	0.22%
Fe 273.955†	3155.9	2.013 mg/L	0.0400	2.013 mg/L	0.0400	1.99%
K 766.490†	32388.8	20.05 mg/L	0.353	20.05 mg/L	0.353	1.76%
Mg 279.077†	2069.9	2.050 mg/L	0.0481	2.050 mg/L	0.0481	2.35%
Mn 257.610†	46866.4	0.9638 mg/L	0.01728	0.9638 mg/L	0.01728	1.79%
Mo 202.031†	21956.4	0.9942 mg/L	0.00469	0.9942 mg/L	0.00469	0.47%
Na 589.592†	618325.1	51.48 mg/L	0.680	51.48 mg/L	0.680	1.32%
Na 330.237†	1573.8	52.39 mg/L	0.890	52.39 mg/L	0.890	1.70%
Ni 231.604†	4156.1	1.039 mg/L	0.0164	1.039 mg/L	0.0164	1.57%
Pb 220.353†	19180.6	2.055 mg/L	0.0111	2.055 mg/L	0.0111	0.54%
Sb 206.836†	7133.1	2.047 mg/L	0.0090	2.047 mg/L	0.0090	0.44%
Se 196.026†	3367.6	1.972 mg/L	0.0087	1.972 mg/L	0.0087	0.44%
Si 288.158†	3575.8	2.025 mg/L	0.0279	2.025 mg/L	0.0279	1.38%
Sn 189.927†	4865.3	0.9675 mg/L	0.00275	0.9675 mg/L	0.00275	0.28%
Sr 421.552†	919394.3	1.004 mg/L	0.0152	1.004 mg/L	0.0152	1.51%
Ti 334.903†	22431.3	0.9846 mg/L	0.01521	0.9846 mg/L	0.01521	1.55%
Tl 190.801†	4690.4	2.021 mg/L	0.0094	2.021 mg/L	0.0094	0.47%
V 292.402†	139888.3	1.034 mg/L	0.0036	1.034 mg/L	0.0036	0.35%
Zn 206.200†	4406.7	1.058 mg/L	0.0196	1.058 mg/L	0.0196	1.85%

Sequence No.: 43  
Sample ID: CB  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 1  
Date Collected: 2/27/2013 11:42:57 AM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3267988.7	103.4	%	0.59			0.57%
ScR 361.383	349291.9	103.3	%	0.94			0.91%
Ag 328.068†	6.6	0.00003	mg/L	0.000111	0.00003 mg/L	0.000111	374.57%
Al 308.215†	3.3	0.00236	mg/L	0.000634	0.00236 mg/L	0.000634	26.82%
As 188.979†	2.5	0.00145	mg/L	0.001067	0.00145 mg/L	0.001067	73.34%
B 249.677†	11.2	0.00169	mg/L	0.000333	0.00169 mg/L	0.000333	19.73%
Ba 233.527†	-0.4	-0.00007	mg/L	0.000406	-0.00007 mg/L	0.000406	555.58%
Be 313.042†	0.6	0.00000	mg/L	0.000007	0.00000 mg/L	0.000007	605.18%
Ca 317.933†	11.7	0.00112	mg/L	0.000511	0.00112 mg/L	0.000511	45.86%
Cd 228.802†	6.6	0.00024	mg/L	0.000035	0.00024 mg/L	0.000035	14.22%
Co 228.616†	5.0	0.00012	mg/L	0.000027	0.00012 mg/L	0.000027	23.02%
Cr 267.716†	1.2	0.00018	mg/L	0.000735	0.00018 mg/L	0.000735	414.92%
Cu 324.752†	82.1	0.00030	mg/L	0.000093	0.00030 mg/L	0.000093	31.35%
Fe 273.955†	5.8	0.00371	mg/L	0.001535	0.00371 mg/L	0.001535	41.42%
K 766.490†	-3.0	-0.00183	mg/L	0.005133	-0.00183 mg/L	0.005133	280.41%
Mg 279.077†	1.5	0.00150	mg/L	0.013512	0.00150 mg/L	0.013512	901.61%
Mn 257.610†	-2.3	-0.00005	mg/L	0.000144	-0.00005 mg/L	0.000144	305.77%
Mo 202.031†	32.1	0.00146	mg/L	0.000075	0.00146 mg/L	0.000075	5.17%
Na 589.592†	-22.2	-0.00184	mg/L	0.003661	-0.00184 mg/L	0.003661	198.50%
Na 330.237†	12.9	0.4296	mg/L	0.33347	0.4296 mg/L	0.33347	77.62%
Ni 231.604†	-1.5	-0.00037	mg/L	0.000508	-0.00037 mg/L	0.000508	138.60%
Pb 220.353†	8.5	0.00091	mg/L	0.000630	0.00091 mg/L	0.000630	69.01%
Sb 206.836†	17.3	0.00496	mg/L	0.001222	0.00496 mg/L	0.001222	24.61%
Se 196.026†	1.7	0.00102	mg/L	0.003300	0.00102 mg/L	0.003300	325.14%
Si 288.158†	5.6	0.00319	mg/L	0.001387	0.00319 mg/L	0.001387	43.47%
Sn 189.927†	3.9	0.00078	mg/L	0.000415	0.00078 mg/L	0.000415	52.98%
Sr 421.552†	-0.6	-0.00000	mg/L	0.000033	-0.00000 mg/L	0.000033	>999.9%
Ti 334.903†	-0.2	-0.00001	mg/L	0.000266	-0.00001 mg/L	0.000266	>999.9%
Tl 190.801†	-0.5	-0.00022	mg/L	0.000824	-0.00022 mg/L	0.000824	370.34%
V 292.402†	8.6	0.00006	mg/L	0.000093	0.00006 mg/L	0.000093	143.85%
Zn 206.200†	2.2	0.00052	mg/L	0.000789	0.00052 mg/L	0.000789	152.11%

Sequence No.: 44  
 Sample ID: WE79 MB1 SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 334  
 Date Collected: 2/27/2013 11:47:13 AM  
 Data Type: Original

## Nebulizer Parameters: WE79 MB1 SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3255939.0	103.0 %	0.45			0.43%
ScR 361.383	349945.5	103.5 %	0.48			0.46%
Ag 328.068†	32.0	0.00014 mg/L	0.000230	0.00029 mg/L	0.000460	159.48%
Al 308.215†	6.6	0.00488 mg/L	0.004073	0.00976 mg/L	0.008146	83.50%
As 188.979†	2.7	0.00157 mg/L	0.001275	0.00314 mg/L	0.002551	81.26%
B 249.677†	1.1	0.00017 mg/L	0.000443	0.00034 mg/L	0.000886	258.06%
Ba 233.527†	-0.7	-0.00013 mg/L	0.000081	-0.00025 mg/L	0.000161	64.36%
Be 313.042†	6.6	0.00001 mg/L	0.000007	0.00003 mg/L	0.000014	55.83%
Ca 317.933†	92.2	0.00882 mg/L	0.000466	0.01764 mg/L	0.000932	5.28%
Cd 228.802†	4.5	0.00016 mg/L	0.000269	0.00032 mg/L	0.000538	166.50%
Co 228.616†	1.8	0.00004 mg/L	0.000033	0.00008 mg/L	0.000066	77.54%
Cr 267.716†	0.6	0.00009 mg/L	0.000780	0.00017 mg/L	0.001561	915.26%
Cu 324.752†	112.9	0.00041 mg/L	0.000127	0.00081 mg/L	0.000254	31.25%
Fe 273.955†	7.8	0.00501 mg/L	0.003729	0.01002 mg/L	0.007457	74.42%
K 766.490†	9.0	0.00559 mg/L	0.027918	0.01118 mg/L	0.055836	499.39%
Mg 279.077†	-2.8	-0.00278 mg/L	0.007465	-0.00556 mg/L	0.014930	268.35%
Mn 257.610†	-0.6	-0.00001 mg/L	0.000135	-0.00003 mg/L	0.000270	>999.9%
Mo 202.031†	-0.0	-0.00000 mg/L	0.000164	-0.00000 mg/L	0.000329	>999.9%
Na 589.592†	50.6	0.00422 mg/L	0.001151	0.00843 mg/L	0.002302	27.29%
Na 330.237†	-1.8	-0.05969 mg/L	0.337613	-0.1194 mg/L	0.67523	565.63%
Ni 231.604†	3.7	0.00093 mg/L	0.000989	0.00187 mg/L	0.001978	106.00%
Pb 220.353†	7.8	0.00084 mg/L	0.000653	0.00167 mg/L	0.001306	78.08%
Sb 206.836†	1.3	0.00038 mg/L	0.000873	0.00077 mg/L	0.001745	228.03%
Se 196.026†	5.6	0.00330 mg/L	0.002231	0.00661 mg/L	0.004462	67.54%
Si 288.158†	6.0	0.00342 mg/L	0.001916	0.00685 mg/L	0.003832	55.98%
Sn 189.927†	0.9	0.00018 mg/L	0.000361	0.00036 mg/L	0.000721	199.91%
Sr 421.552†	-3.5	-0.00000 mg/L	0.000013	-0.00001 mg/L	0.000026	343.35%
Ti 334.903†	8.4	0.00037 mg/L	0.001358	0.00074 mg/L	0.002715	368.31%
Tl 190.801†	1.3	0.00056 mg/L	0.001988	0.00112 mg/L	0.003977	356.36%
V 292.402†	11.3	0.00008 mg/L	0.000018	0.00017 mg/L	0.000036	21.87%
Zn 206.200†	3.9	0.00095 mg/L	0.000766	0.00189 mg/L	0.001533	80.97%

Sequence No.: 45  
 Sample ID: CRI  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 301  
 Date Collected: 2/27/2013 11:51:30 AM  
 Data Type: Original

## Nebulizer Parameters: CRI

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3263069.8	103.2	%	0.34			0.33%
ScR 361.383	350332.9	103.6	%	2.10			2.03%
Ag 328.068†	730.8	0.00329	mg/L	0.000084	0.00329 mg/L	0.000084	2.56%
Al 308.215†	74.0	0.05424	mg/L	0.000597	0.05424 mg/L	0.000597	1.10%
As 188.979†	84.6	0.04872	mg/L	0.002183	0.04872 mg/L	0.002183	4.48%
B 249.677†	141.7	0.02136	mg/L	0.000924	0.02136 mg/L	0.000924	4.33%
Ba 233.527†	20.1	0.00349	mg/L	0.000551	0.00349 mg/L	0.000551	15.78%
Be 313.042†	480.0	0.00092	mg/L	0.000047	0.00092 mg/L	0.000047	5.13%
Ca 317.933†	510.1	0.04878	mg/L	0.001247	0.04878 mg/L	0.001247	2.56%
Cd 228.802†	63.9	0.00217	mg/L	0.000105	0.00217 mg/L	0.000105	4.82%
Co 228.616†	149.4	0.00356	mg/L	0.000173	0.00356 mg/L	0.000173	4.85%
Cr 267.716†	37.7	0.00580	mg/L	0.001199	0.00580 mg/L	0.001199	20.67%
Cu 324.752†	563.0	0.00203	mg/L	0.000011	0.00203 mg/L	0.000011	0.54%
Fe 273.955†	80.1	0.05119	mg/L	0.001195	0.05119 mg/L	0.001195	2.33%
K 766.490†	763.2	0.4724	mg/L	0.01732	0.4724 mg/L	0.01732	3.67%
Mg 279.077†	51.5	0.05087	mg/L	0.003863	0.05087 mg/L	0.003863	7.59%
Mn 257.610†	41.6	0.00086	mg/L	0.000118	0.00086 mg/L	0.000118	13.69%
Mo 202.031†	106.6	0.00483	mg/L	0.000089	0.00483 mg/L	0.000089	1.84%
Na 589.592†	5951.4	0.4955	mg/L	0.01491	0.4955 mg/L	0.01491	3.01%
Na 330.237†	12.6	0.4173	mg/L	0.36668	0.4173 mg/L	0.36668	87.88%
Ni 231.604†	40.6	0.01015	mg/L	0.001136	0.01015 mg/L	0.001136	11.20%
Pb 220.353†	192.4	0.02063	mg/L	0.000654	0.02063 mg/L	0.000654	3.17%
Sb 206.836†	178.4	0.05125	mg/L	0.001021	0.05125 mg/L	0.001021	1.99%
Se 196.026†	85.8	0.05028	mg/L	0.003802	0.05028 mg/L	0.003802	7.56%
Si 288.158†	101.2	0.05736	mg/L	0.001426	0.05736 mg/L	0.001426	2.49%
Sn 189.927†	48.4	0.00964	mg/L	0.000322	0.00964 mg/L	0.000322	3.34%
Sr 421.552†	890.3	0.00097	mg/L	0.000057	0.00097 mg/L	0.000057	5.82%
Ti 334.903†	112.0	0.00491	mg/L	0.000280	0.00491 mg/L	0.000280	5.69%
Tl 190.801†	116.0	0.05017	mg/L	0.002579	0.05017 mg/L	0.002579	5.14%
V 292.402†	418.4	0.00310	mg/L	0.000097	0.00310 mg/L	0.000097	3.13%
Zn 206.200†	40.4	0.00970	mg/L	0.001129	0.00970 mg/L	0.001129	11.64%

Sequence No.: 46  
 Sample ID: ICSA  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 302  
 Date Collected: 2/27/2013 11:55:47 AM  
 Data Type: Original

## Nebulizer Parameters: ICSA

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3145738.3	99.49 %	%	0.665			0.67%
ScR 361.383	336098.9	99.38 %	%	0.069			0.07%
Ag 328.068†	-197.1	-0.00024 mg/L	mg/L	0.000098	-0.00024 mg/L	0.000098	41.46%
Al 308.215†	274924.0	202.0 mg/L	mg/L	0.43	202.0 mg/L	0.43	0.21%
As 188.979†	49.1	0.01937 mg/L	mg/L	0.003386	0.01937 mg/L	0.003386	17.48%
B 249.677†	-59.7	-0.00900 mg/L	mg/L	0.003197	-0.00900 mg/L	0.003197	35.53%
Ba 233.527†	149.8	-0.00218 mg/L	mg/L	0.000737	-0.00218 mg/L	0.000737	33.83%
Be 313.042†	57.7	0.00011 mg/L	mg/L	0.000007	0.00011 mg/L	0.000007	6.39%
Ca 317.933†	1048216.4	100.2 mg/L	mg/L	0.52	100.2 mg/L	0.52	0.52%
Cd 228.802†	67.7	0.00242 mg/L	mg/L	0.000339	0.00242 mg/L	0.000339	14.03%
Co 228.616†	73.6	0.00174 mg/L	mg/L	0.000112	0.00174 mg/L	0.000112	6.43%
Cr 267.716†	21.6	-0.00172 mg/L	mg/L	0.000483	-0.00172 mg/L	0.000483	28.05%
Cu 324.752†	-2012.7	0.00167 mg/L	mg/L	0.000130	0.00167 mg/L	0.000130	7.81%
Fe 273.955†	301404.3	192.8 mg/L	mg/L	1.21	192.8 mg/L	1.21	0.63%
K 766.490†	32.4	0.02002 mg/L	mg/L	0.032935	0.02002 mg/L	0.032935	164.47%
Mg 279.077†	105338.8	103.9 mg/L	mg/L	0.54	103.9 mg/L	0.54	0.52%
Mn 257.610†	67.3	-0.00002 mg/L	mg/L	0.000293	-0.00002 mg/L	0.000293	>999.9%
Mo 202.031†	105.9	0.00361 mg/L	mg/L	0.000063	0.00361 mg/L	0.000063	1.74%
Na 589.592†	112.7	0.00939 mg/L	mg/L	0.003114	0.00939 mg/L	0.003114	33.17%
Na 330.237†	-0.4	-0.00983 mg/L	mg/L	0.164432	-0.00983 mg/L	0.164432	>999.9%
Ni 231.604†	-3.2	-0.00079 mg/L	mg/L	0.000749	-0.00079 mg/L	0.000749	95.18%
Pb 220.353†	-502.9	-0.00951 mg/L	mg/L	0.000784	-0.00951 mg/L	0.000784	8.25%
Sb 206.836†	27.0	0.00760 mg/L	mg/L	0.003165	0.00760 mg/L	0.003165	41.62%
Se 196.026†	13.2	-0.01547 mg/L	mg/L	0.004176	-0.01547 mg/L	0.004176	27.00%
Si 288.158†	-29.5	-0.00493 mg/L	mg/L	0.001037	-0.00493 mg/L	0.001037	21.05%
Sn 189.927†	-88.0	-0.00907 mg/L	mg/L	0.000939	-0.00907 mg/L	0.000939	10.36%
Sr 421.552†	3739.3	0.00408 mg/L	mg/L <sup>Co<sup>x</sup></sup>	0.000066	0.00408 mg/L	0.000066	1.61%
Ti 334.903†	218.1	0.00362 mg/L	mg/L	0.000612	0.00362 mg/L	0.000612	16.90%
Tl 190.801†	-43.4	0.00677 mg/L	mg/L	0.001275	0.00677 mg/L	0.001275	18.85%
V 292.402†	1187.4	-0.00093 mg/L	mg/L	0.000182	-0.00093 mg/L	0.000182	19.63%
Zn 206.200†	-3.2	-0.00078 mg/L	mg/L	0.000653	-0.00078 mg/L	0.000653	83.32%

Sequence No.: 47  
 Sample ID: ICSAB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 303  
 Date Collected: 2/27/2013 12:00:04 PM  
 Data Type: Original

## Nebulizer Parameters: ICSAB

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3163737.0	100.1 %	0.59			0.59%
ScR 361.383	345714.1	102.2 %	0.89			0.87%
Ag 328.068†	236104.8	1.063 mg/L	0.0108	1.063 mg/L	0.0108	1.02%
Al 308.215†	270471.5	198.7 mg/L	1.06	198.7 mg/L	1.06	0.53%
As 188.979†	1780.4	1.013 mg/L	0.0033	1.013 mg/L	0.0033	0.33%
B 249.677†	-41.1	-0.00844 mg/L	0.000878	-0.00844 mg/L	0.000878	10.40%
Ba 233.527†	5941.0	1.009 mg/L	0.0076	1.009 mg/L	0.0076	0.75%
Be 313.042†	506387.1	0.9711 mg/L	0.00617	0.9711 mg/L	0.00617	0.64%
Ca 317.933†	1033776.2	98.86 mg/L	0.704	98.86 mg/L	0.704	0.71%
Cd 228.802†	26914.5	1.019 mg/L	0.0135	1.019 mg/L	0.0135	1.33%
Co 228.616†	40444.5	0.9666 mg/L	0.00740	0.9666 mg/L	0.00740	0.77%
Cr 267.716†	6512.8	0.9992 mg/L	0.00692	0.9992 mg/L	0.00692	0.69%
Cu 324.752†	287453.1	1.044 mg/L	0.0069	1.044 mg/L	0.0069	0.66%
Fe 273.955†	300105.4	191.9 mg/L	1.93	191.9 mg/L	1.93	1.00%
K 766.490†	5.2	0.00324 mg/L	0.006552	0.00324 mg/L	0.006552	202.08%
Mg 279.077†	100358.7	98.97 mg/L	0.481	98.97 mg/L	0.481	0.49%
Mn 257.610†	45717.7	0.9386 mg/L	0.00775	0.9386 mg/L	0.00775	0.83%
Mo 202.031†	100.0	0.00331 mg/L	0.000091	0.00331 mg/L	0.000091	2.75%
Na 589.592†	240.6	0.02004 mg/L	0.000832	0.02004 mg/L	0.000832	4.15%
Na 330.237†	6.1	-0.07889 mg/L	0.065660	-0.07889 mg/L	0.065660	83.24%
Ni 231.604†	3915.0	0.9791 mg/L	0.00740	0.9791 mg/L	0.00740	0.76%
Pb 220.353†	8619.4	0.9672 mg/L	0.00352	0.9672 mg/L	0.00352	0.36%
Sb 206.836†	3508.5	0.9976 mg/L	0.00528	0.9976 mg/L	0.00528	0.53%
Se 196.026†	1703.7	0.9746 mg/L	0.00339	0.9746 mg/L	0.00339	0.35%
Si 288.158†	-38.9	-0.00743 mg/L	0.001836	-0.00743 mg/L	0.001836	24.71%
Sn 189.927†	-92.6	-0.00958 mg/L	0.000785	-0.00958 mg/L	0.000785	8.19%
Sr 421.552†	3639.5	0.00398 mg/L	0.000025	0.00398 mg/L	0.000025	0.63%
Ti 334.903†	209.4	0.00313 mg/L	0.000353	0.00313 mg/L	0.000353	11.26%
Tl 190.801†	2169.4	0.9543 mg/L	0.00122	0.9543 mg/L	0.00122	0.13%
V 292.402†	136727.0	1.001 mg/L	0.0104	1.001 mg/L	0.0104	1.04%
Zn 206.200†	3993.9	0.9583 mg/L	0.00688	0.9583 mg/L	0.00688	0.72%

Sequence No.: 48  
 Sample ID: CV 5  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 12:04:06 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
					Conc.	Units		
ScA 357.253	3258382.7	103.1	%	0.99				0.96%
ScR 361.383	340225.6	100.6	%	1.11				1.10%
Ag 328.068†	230464.6	1.037	mg/L	0.0151	1.037	mg/L	0.0151	1.45%
Al 308.215†	2811.3	2.031	mg/L	0.0205	2.031	mg/L	0.0205	1.01%
As 188.979†	3421.4	1.994	mg/L	0.0157	1.994	mg/L	0.0157	0.79%
B 249.677†	6825.1	1.028	mg/L	0.0079	1.028	mg/L	0.0079	0.77%
Ba 233.527†	5989.7	1.045	mg/L	0.0101	1.045	mg/L	0.0101	0.96%
Be 313.042†	506326.0	0.9710	mg/L	0.01241	0.9710	mg/L	0.01241	1.28%
Ca 317.933†	21684.5	2.074	mg/L	0.0194	2.074	mg/L	0.0194	0.93%
Cd 228.802†	26824.5	1.010	mg/L	0.0133	1.010	mg/L	0.0133	1.32%
Co 228.616†	41875.2	0.9992	mg/L	0.01470	0.9992	mg/L	0.01470	1.47%
Cr 267.716†	6680.0	1.029	mg/L	0.0092	1.029	mg/L	0.0092	0.89%
Cu 324.752†	281682.3	1.014	mg/L	0.0165	1.014	mg/L	0.0165	1.63%
Fe 273.955†	3208.1	2.046	mg/L	0.0172	2.046	mg/L	0.0172	0.84%
K 766.490†	32634.0	20.20	mg/L	0.364	20.20	mg/L	0.364	1.80%
Mg 279.077†	2101.1	2.081	mg/L	0.0218	2.081	mg/L	0.0218	1.05%
Mn 257.610†	47227.9	0.9712	mg/L	0.01528	0.9712	mg/L	0.01528	1.57%
Mo 202.031†	21742.8	0.9846	mg/L	0.00797	0.9846	mg/L	0.00797	0.81%
Na 589.592†	627058.2	52.21	mg/L	0.967	52.21	mg/L	0.967	1.85%
Na 330.237†	1593.0	53.03	mg/L	0.749	53.03	mg/L	0.749	1.41%
Ni 231.604†	4174.6	1.044	mg/L	0.0064	1.044	mg/L	0.0064	0.61%
Pb 220.353†	19005.4	2.037	mg/L	0.0171	2.037	mg/L	0.0171	0.84%
Sb 206.836†	7082.5	2.032	mg/L	0.0189	2.032	mg/L	0.0189	0.93%
Se 196.026†	3344.2	1.959	mg/L	0.0087	1.959	mg/L	0.0087	0.44%
Si 288.158†	3605.0	2.041	mg/L	0.0145	2.041	mg/L	0.0145	0.71%
Sn 189.927†	4847.2	0.9639	mg/L	0.00416	0.9639	mg/L	0.00416	0.43%
Sr 421.552†	928371.5	1.014	mg/L	0.0161	1.014	mg/L	0.0161	1.59%
Ti 334.903†	22591.7	0.9916	mg/L	0.01484	0.9916	mg/L	0.01484	1.50%
Tl 190.801†	4615.7	1.989	mg/L	0.0173	1.989	mg/L	0.0173	0.87%
V 292.402†	138016.5	1.020	mg/L	0.0166	1.020	mg/L	0.0166	1.63%
Zn 206.200†	4430.0	1.063	mg/L	0.0106	1.063	mg/L	0.0106	1.00%



Sequence No.: 49  
 Sample ID: CB  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 2/27/2013 12:08:11 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3251259.9	102.8	%	1.11			1.08%
ScR 361.383	350523.1	103.6	%	0.40			0.39%
Ag 328.068†	53.2	0.00024	mg/L	0.000113	0.00024 mg/L	0.000113	47.36%
Al 308.215†	6.2	0.00450	mg/L	0.002850	0.00450 mg/L	0.002850	63.33%
As 188.979†	5.4	0.00310	mg/L	0.000900	0.00310 mg/L	0.000900	29.04%
B 249.677†	12.2	0.00184	mg/L	0.001257	0.00184 mg/L	0.001257	68.37%
Ba 233.527†	1.0	0.00018	mg/L	0.000417	0.00018 mg/L	0.000417	227.93%
Be 313.042†	6.8	0.00001	mg/L	0.000037	0.00001 mg/L	0.000037	285.65%
Ca 317.933†	-1.4	-0.00013	mg/L	0.000406	-0.00013 mg/L	0.000406	307.07%
Cd 228.802†	1.8	0.00005	mg/L	0.000160	0.00005 mg/L	0.000160	325.40%
Co 228.616†	2.3	0.00006	mg/L	0.000073	0.00006 mg/L	0.000073	132.60%
Cr 267.716†	1.7	0.00027	mg/L	0.001345	0.00027 mg/L	0.001345	498.64%
Cu 324.752†	59.1	0.00021	mg/L	0.000040	0.00021 mg/L	0.000040	18.77%
Fe 273.955†	4.2	0.00269	mg/L	0.001155	0.00269 mg/L	0.001155	42.96%
K 766.490†	-39.8	-0.02466	mg/L	0.013367	-0.02466 mg/L	0.013367	54.20%
Mg 279.077†	-2.6	-0.00255	mg/L	0.004532	-0.00255 mg/L	0.004532	177.93%
Mn 257.610†	-2.1	-0.00004	mg/L	0.000043	-0.00004 mg/L	0.000043	100.00%
Mo 202.031†	31.2	0.00141	mg/L	0.000231	0.00141 mg/L	0.000231	16.39%
Na 589.592†	9.2	0.00076	mg/L	0.001788	0.00076 mg/L	0.001788	234.17%
Na 330.237†	9.9	0.3312	mg/L	0.39831	0.3312 mg/L	0.39831	120.26%
Ni 231.604†	0.1	0.00002	mg/L	0.000413	0.00002 mg/L	0.000413	>999.9%
Pb 220.353†	8.9	0.00095	mg/L	0.000295	0.00095 mg/L	0.000295	31.11%
Sb 206.836†	19.7	0.00566	mg/L	0.001531	0.00566 mg/L	0.001531	27.03%
Se 196.026†	1.7	0.00097	mg/L	0.002975	0.00097 mg/L	0.002975	306.83%
Si 288.158†	5.2	0.00293	mg/L	0.000564	0.00293 mg/L	0.000564	19.28%
Sn 189.927†	5.5	0.00110	mg/L	0.001126	0.00110 mg/L	0.001126	102.30%
Sr 421.552†	8.8	0.00001	mg/L	0.000025	0.00001 mg/L	0.000025	259.87%
Ti 334.903†	0.3	0.00001	mg/L	0.000488	0.00001 mg/L	0.000488	>999.9%
Tl 190.801†	2.4	0.00105	mg/L	0.001823	0.00105 mg/L	0.001823	172.88%
V 292.402†	-5.7	-0.00004	mg/L	0.000102	-0.00004 mg/L	0.000102	255.52%
Zn 206.200†	1.6	0.00039	mg/L	0.000859	0.00039 mg/L	0.000859	221.54%

Sequence No.: 50  
 Sample ID: WE83 MB1 SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 335  
 Date Collected: 2/27/2013 12:12:27 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 MB1 SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3288953.7	104.0 %	0.37			0.36%
ScR 361.383	350875.1	103.7 %	0.41			0.40%
Ag 328.068†	15.6	0.00007 mg/L	0.000114	0.00014 mg/L	0.000229	162.51%
Al 308.215†	9.1	0.00665 mg/L	0.007042	0.01330 mg/L	0.014084	105.91%
As 188.979†	2.3	0.00135 mg/L	0.001201	0.00270 mg/L	0.002402	89.06%
B 249.677†	12.3	0.00186 mg/L	0.001480	0.00372 mg/L	0.002960	79.66%
Ba 233.527†	-4.1	-0.00072 mg/L	0.000328	-0.00143 mg/L	0.000655	45.75%
Be 313.042†	-14.6	-0.00003 mg/L	0.000057	-0.00006 mg/L	0.000114	202.92%
Ca 317.933†	63.1	0.00603 mg/L	0.001262	0.01207 mg/L	0.002523	20.91%
Cd 228.802†	1.5	0.00005 mg/L	0.000215	0.00010 mg/L	0.000431	424.13%
Co 228.616†	-3.0	-0.00007 mg/L	0.000109	-0.00014 mg/L	0.000219	150.92%
Cr 267.716†	7.1	0.00109 mg/L	0.000301	0.00218 mg/L	0.000602	27.60%
Cu 324.752†	54.2	0.00020 mg/L	0.000075	0.00039 mg/L	0.000150	38.53%
Fe 273.955†	7.5	0.00480 mg/L	0.000990	0.00959 mg/L	0.001979	20.63%
K 766.490†	-5.2	-0.00323 mg/L	0.020014	-0.00647 mg/L	0.040028	618.91%
Mg 279.077†	-2.0	-0.00194 mg/L	0.004421	-0.00389 mg/L	0.008842	227.40%
Mn 257.610†	-1.6	-0.00003 mg/L	0.000036	-0.00006 mg/L	0.000071	111.52%
Mo 202.031†	-1.0	-0.00005 mg/L	0.000176	-0.00009 mg/L	0.000352	379.64%
Na 589.592†	-8.2	-0.00068 mg/L	0.002921	-0.00137 mg/L	0.005843	427.94%
Na 330.237†	2.2	0.07267 mg/L	0.149416	0.1453 mg/L	0.29883	205.60%
Ni 231.604†	-1.9	-0.00048 mg/L	0.001015	-0.00096 mg/L	0.002030	211.98%
Pb 220.353†	2.8	0.00030 mg/L	0.000272	0.00060 mg/L	0.000545	91.01%
Sb 206.836†	1.9	0.00053 mg/L	0.000852	0.00105 mg/L	0.001703	161.53%
Se 196.026†	5.6	0.00329 mg/L	0.002325	0.00658 mg/L	0.004651	70.73%
Si 288.158†	5.3	0.00302 mg/L	0.004408	0.00603 mg/L	0.008817	146.10%
Sn 189.927†	2.5	0.00050 mg/L	0.001523	0.00100 mg/L	0.003047	305.61%
Sr 421.552†	-34.6	-0.00004 mg/L	0.000044	-0.00008 mg/L	0.000089	117.15%
Ti 334.903†	14.2	0.00062 mg/L	0.000800	0.00125 mg/L	0.001601	128.42%
Tl 190.801†	0.5	0.00022 mg/L	0.001068	0.00044 mg/L	0.002135	484.21%
V 292.402†	14.8	0.00011 mg/L	0.000122	0.00023 mg/L	0.000244	107.96%
Zn 206.200†	7.0	0.00167 mg/L	0.000569	0.00335 mg/L	0.001139	34.02%

Sequence No.: 51  
 Sample ID: WE79 S SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 336  
 Date Collected: 2/27/2013 12:16:44 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 S SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: WE79 S SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3208794.4	101.5	%	0.51			0.50%
ScR 361.383	351241.8	103.9	%	0.42			0.41%
Ag 328.068†	33101.4	0.1489	mg/L	0.00120	0.2977 mg/L	0.00240	0.81%
Al 308.215†	27958.5	20.54	mg/L	0.083	41.07 mg/L	0.167	0.41%
As 188.979†	2343.1	1.346	mg/L	0.0040	2.692 mg/L	0.0081	0.30%
B 249.677†	41.9	0.00631	mg/L	0.000951	0.01262 mg/L	0.001903	15.07%
Ba 233.527†	2341.0	0.4003	mg/L	0.00257	0.8005 mg/L	0.00515	0.64%
Be 313.042†	261.3	0.00050	mg/L	0.000049	0.00099 mg/L	0.000098	9.83%
Ca 317.933†	4474.2	0.4278	mg/L	0.00160	0.8557 mg/L	0.00320	0.37%
Cd 228.802†	236.4	0.00147	mg/L	0.000091	0.00294 mg/L	0.000182	6.18%
Co 228.616†	102.1	0.00233	mg/L	0.000148	0.00465 mg/L	0.000296	6.36%
Cr 267.716†	125.4	0.02094	mg/L	0.000121	0.04188 mg/L	0.000241	0.58%
Cu 324.752†	8842.9	0.03467	mg/L	0.000310	0.06934 mg/L	0.000621	0.90%
Fe 273.955†	90081.9	57.61	mg/L	0.319	115.2 mg/L	0.64	0.55%
K 766.490†	31922.3	19.76	mg/L	0.123	39.52 mg/L	0.246	0.62%
Mg 279.077†	1772.5	1.718	mg/L	0.0077	3.436 mg/L	0.0155	0.45%
Mn 257.610†	3300.2	0.06777	mg/L	0.000454	0.1355 mg/L	0.00091	0.67%
Mo 202.031†	21.0	0.00094	mg/L	0.000152	0.00189 mg/L	0.000304	16.12%
Na 589.592†	7432.0	0.6188	mg/L	0.00770	1.238 mg/L	0.0154	1.24%
Na 330.237†	19.3	0.6440	mg/L	0.40640	1.288 mg/L	0.8128	63.11%
Ni 231.604†	14.3	0.00358	mg/L	0.001503	0.00716 mg/L	0.003006	41.97%
Pb 220.353†	1584.3	0.1721	mg/L	0.00176	0.3443 mg/L	0.00352	1.02%
Sb 206.836†	104.4	0.02983	mg/L	0.000973	0.05966 mg/L	0.001947	3.26%
Se 196.026†	44.0	0.02342	mg/L	0.001512	0.04685 mg/L	0.003024	6.46%
Si 288.158†	3562.0	2.022	mg/L	0.0342	4.044 mg/L	0.0684	1.69%
Sn 189.927†	0.5	0.00016	mg/L	0.000277	0.00033 mg/L	0.000554	168.49%
Sr 421.552†	167967.6	0.1835	mg/L	0.00067	0.3669 mg/L	0.00135	0.37%
Ti 334.903†	863.0	0.03790	mg/L	0.001510	0.07581 mg/L	0.003021	3.98%
Tl 190.801†	-0.8	0.00722	mg/L	0.001862	0.01444 mg/L	0.003724	25.79%
V 292.402†	2785.4	0.01768	mg/L	0.000178	0.03536 mg/L	0.000355	1.00%
Zn 206.200†	127.1	0.03085	mg/L	0.001402	0.06170 mg/L	0.002804	4.55%

Sequence No.: 52  
Sample ID: WE79 T SWC  
Analyst: ALA  
Dilution: 2.000000X

Autosampler Location: 337  
Date Collected: 2/27/2013 12:20:59 PM  
Data Type: Original

Nebulizer Parameters: WE79 T SWC

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: WE79 T SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3201834.5	101.3	%	0.85			0.84%
ScR 361.383	345030.5	102.0	%	0.44			0.43%
Ag 328.068†	22745.3	0.1023	mg/L	0.00127	0.2046 mg/L	0.00254	1.24%
Al 308.215†	40230.9	29.55	mg/L	0.108	59.10 mg/L	0.217	0.37%
As 188.979†	3771.9	2.170	mg/L	0.0446	4.340 mg/L	0.0892	2.06%
B 249.677†	18.1	0.00271	mg/L	0.002253	0.00542 mg/L	0.004505	83.17%
Ba 233.527†	2834.6	0.4766	mg/L	0.00309	0.9532 mg/L	0.00619	0.65%
Be 313.042†	267.6	0.00050	mg/L	0.000012	0.00100 mg/L	0.000024	2.38%
Ca 317.933†	6900.8	0.6599	mg/L	0.00105	1.320 mg/L	0.0021	0.16%
Cd 228.802†	377.8	0.00226	mg/L	0.000040	0.00452 mg/L	0.000080	1.78%
Co 228.616†	214.0	0.00477	mg/L	0.000053	0.00955 mg/L	0.000107	1.12%
Cr 267.716†	119.0	0.02183	mg/L	0.000840	0.04366 mg/L	0.001681	3.85%
Cu 324.752†	14529.6	0.05841	mg/L	0.000902	0.1168 mg/L	0.00180	1.54%
Fe 273.955†	194899.5	124.7	mg/L	0.36	249.3 mg/L	0.73	0.29%
K 766.490†	42153.6	26.09	mg/L	0.129	52.19 mg/L	0.258	0.49%
Mg 279.077†	3682.0	3.566	mg/L	0.0309	7.132 mg/L	0.0618	0.87%
Mn 257.610†	4577.6	0.09398	mg/L	0.000712	0.1880 mg/L	0.00142	0.76%
Mo 202.031†	36.8	0.00166	mg/L	0.000139	0.00331 mg/L	0.000278	8.39%
Na 589.592†	17871.8	1.488	mg/L	0.0030	2.976 mg/L	0.0060	0.20%
Na 330.237†	37.3	1.277	mg/L	0.0168	2.555 mg/L	0.0336	1.32%
Ni 231.604†	27.5	0.00690	mg/L	0.000929	0.01380 mg/L	0.001858	13.46%
Pb 220.353†	1265.5	0.1368	mg/L	0.00231	0.2736 mg/L	0.00463	1.69%
Sb 206.836†	94.2	0.02712	mg/L	0.001634	0.05423 mg/L	0.003267	6.02%
Se 196.026†	34.8	0.01699	mg/L	0.003005	0.03397 mg/L	0.006011	17.69%
Si 288.158†	4115.9	2.336	mg/L	0.0094	4.673 mg/L	0.0189	0.40%
Sn 189.927†	0.1	0.00012	mg/L	0.000375	0.00024 mg/L	0.000750	310.48%
Sr 421.552†	207438.1	0.2266	mg/L	0.00049	0.4532 mg/L	0.00099	0.22%
Ti 334.903†	3713.5	0.1632	mg/L	0.00275	0.3264 mg/L	0.00550	1.69%
Tl 190.801†	-21.1	0.00717	mg/L	0.002003	0.01434 mg/L	0.004006	27.93%
V 292.402†	7125.8	0.04619	mg/L	0.001061	0.09237 mg/L	0.002122	2.30%
Zn 206.200†	171.5	0.04155	mg/L	0.001110	0.08310 mg/L	0.002220	2.67%

Sequence No.: 53  
 Sample ID: WE79 U SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 338  
 Date Collected: 2/27/2013 12:25:00 PM  
 Data Type: Original

Nebulizer Parameters: WE79 U SWC

Analyte Back Pressure Flow  
 All 217.0 kPa 0.75 L/min

Mean Data: WE79 U SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3256234.8	103.0	%	1.27			1.24%
ScR 361.383	344449.4	101.8	%	0.18			0.18%
Ag 328.068†	668.1	0.00324	mg/L	0.000137	0.00648 mg/L	0.000274	4.22%
Al 308.215†	204069.0	149.9	mg/L	1.47	299.8 mg/L	2.94	0.98%
As 188.979†	285.8	0.2581	mg/L	0.00326	0.5162 mg/L	0.00653	1.26%
B 249.677†	28.7	0.00408	mg/L	0.000927	0.00816 mg/L	0.001854	22.73%
Ba 233.527†	6770.5	1.154	mg/L	0.0100	2.309 mg/L	0.0200	0.86%
Be 313.042†	3327.0	0.00628	mg/L	0.000022	0.01257 mg/L	0.000043	0.35%
Ca 317.933†	229108.5	21.91	mg/L	0.311	43.82 mg/L	0.623	1.42%
Cd 228.802†	134.8	0.00429	mg/L	0.000051	0.00857 mg/L	0.000103	1.20%
Co 228.616†	4381.0	0.09970	mg/L	0.001427	0.1994 mg/L	0.00285	1.43%
Cr 267.716†	846.8	0.1329	mg/L	0.00064	0.2658 mg/L	0.00128	0.48%
Cu 324.752†	68325.5	0.2547	mg/L	0.00352	0.5094 mg/L	0.00703	1.38%
Fe 273.955†	295252.3	188.8	mg/L	1.46	377.7 mg/L	2.91	0.77%
K 766.490†	46875.6	29.02	mg/L	0.071	58.03 mg/L	0.143	0.25%
Mg 279.077†	29426.6	28.95	mg/L	0.096	57.90 mg/L	0.192	0.33%
Mn 257.610†	232575.3	4.780	mg/L	0.0406	9.560 mg/L	0.0813	0.85%
Mo 202.031†	95.5	0.00406	mg/L	0.000210	0.00812 mg/L	0.000420	5.18%
Na 589.592†	25436.9	2.118	mg/L	0.0266	4.236 mg/L	0.0531	1.25%
Na 330.237†	43.0	2.016	mg/L	0.2040	4.031 mg/L	0.4081	10.12%
Ni 231.604†	471.6	0.1180	mg/L	0.00100	0.2359 mg/L	0.00199	0.85%
Pb 220.353†	601.6	0.09482	mg/L	0.001527	0.1896 mg/L	0.00305	1.61%
Sb 206.836†	43.8	0.01402	mg/L	0.001636	0.02804 mg/L	0.003273	11.67%
Se 196.026†	22.0	-0.00455	mg/L	0.002714	-0.00911 mg/L	0.005427	59.61%
Si 288.158†	8354.2	4.745	mg/L	0.0086	9.489 mg/L	0.0173	0.18%
Sn 189.927†	-35.1	-0.00460	mg/L	0.000533	-0.00920 mg/L	0.001066	11.59%
Sr 421.552†	341399.0	0.3729	mg/L	0.00317	0.7458 mg/L	0.00635	0.85%
Ti 334.903†	63183.0	2.776	mg/L	0.0293	5.552 mg/L	0.0586	1.06%
Tl 190.801†	-40.7	0.00567	mg/L	0.001803	0.01134 mg/L	0.003607	31.82%
V 292.402†	40767.6	0.2903	mg/L	0.00468	0.5805 mg/L	0.00936	1.61%
Zn 206.200†	2682.5	0.6443	mg/L	0.00289	1.289 mg/L	0.0058	0.45%

Sequence No.: 54  
 Sample ID: WE79 V SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 339  
 Date Collected: 2/27/2013 12:29:01 PM  
 Data Type: Original

Nebulizer Parameters: WE79 V SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

Mean Data: WE79 V SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3257368.5	103.0	%	0.46			0.45%
ScR 361.383	354281.3	104.8	%	0.38			0.36%
Ag 328.068†	1095.6	0.00522	mg/L	0.000099	0.01044 mg/L	0.000198	1.90%
Al 308.215†	191311.3	140.5	mg/L	0.71	281.0 mg/L	1.42	0.51%
As 188.979†	267.4	0.2652	mg/L	0.00463	0.5304 mg/L	0.00926	1.75%
B 249.677†	50.7	0.00737	mg/L	0.000191	0.01474 mg/L	0.000382	2.59%
Ba 233.527†	6879.2	1.174	mg/L	0.0143	2.349 mg/L	0.0285	1.22%
Be 313.042†	3483.1	0.00657	mg/L	0.000035	0.01314 mg/L	0.000069	0.53%
Ca 317.933†	309701.1	29.62	mg/L	0.150	59.23 mg/L	0.301	0.51%
Cd 228.802†	181.1	0.00612	mg/L	0.000229	0.01225 mg/L	0.000457	3.73%
Co 228.616†	5042.3	0.1146	mg/L	0.00068	0.2291 mg/L	0.00137	0.60%
Cr 267.716†	933.0	0.1453	mg/L	0.00098	0.2906 mg/L	0.00197	0.68%
Cu 324.752†	60639.9	0.2265	mg/L	0.00203	0.4531 mg/L	0.00406	0.90%
Fe 273.955†	283838.3	181.5	mg/L	0.54	363.1 mg/L	1.08	0.30%
K 766.490†	49920.2	30.90	mg/L	0.152	61.80 mg/L	0.303	0.49%
Mg 279.077†	33984.9	33.45	mg/L	0.261	66.90 mg/L	0.521	0.78%
Mn 257.610†	327211.3	6.726	mg/L	0.0173	13.45 mg/L	0.035	0.26%
Mo 202.031†	140.5	0.00601	mg/L	0.000184	0.01202 mg/L	0.000369	3.07%
Na 589.592†	43285.5	3.604	mg/L	0.0188	7.208 mg/L	0.0377	0.52%
Na 330.237†	84.8	3.528	mg/L	0.0959	7.055 mg/L	0.1919	2.72%
Ni 231.604†	565.5	0.1414	mg/L	0.00027	0.2828 mg/L	0.00053	0.19%
Pb 220.353†	1365.0	0.1745	mg/L	0.00094	0.3490 mg/L	0.00188	0.54%
Sb 206.836†	47.8	0.01546	mg/L	0.001500	0.03091 mg/L	0.003000	9.71%
Se 196.026†	26.5	-0.00084	mg/L	0.003586	-0.00169 mg/L	0.007171	424.65%
Si 288.158†	4588.7	2.608	mg/L	0.0166	5.216 mg/L	0.0332	0.64%
Sn 189.927†	-41.7	-0.00516	mg/L	0.000941	-0.01033 mg/L	0.001883	18.23%
Sr 421.552†	411880.2	0.4499	mg/L	0.00148	0.8998 mg/L	0.00296	0.33%
Ti 334.903†	75250.0	3.306	mg/L	0.0124	6.612 mg/L	0.0247	0.37%
Tl 190.801†	-39.4	0.00511	mg/L	0.001647	0.01022 mg/L	0.003294	32.23%
V 292.402†	43302.1	0.3093	mg/L	0.00304	0.6186 mg/L	0.00608	0.98%
Zn 206.200†	3081.9	0.7398	mg/L	0.00633	1.480 mg/L	0.0127	0.86%

Sequence No.: 55  
 Sample ID: WE79 W SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 340  
 Date Collected: 2/27/2013 12:33:03 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 W SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 W SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3258941.4	103.1 %	0.53			0.51%
ScR 361.383	349384.2	103.3 %	0.67			0.64%
Ag 328.068†	493.2	0.00253 mg/L	0.000149	0.00506 mg/L	0.000297	5.88%
Al 308.215†	225863.0	165.9 mg/L	1.13	331.8 mg/L	2.27	0.68%
As 188.979†	134.6	0.2203 mg/L	0.00309	0.4407 mg/L	0.00619	1.40%
B 249.677†	29.0	0.00412 mg/L	0.000784	0.00823 mg/L	0.001568	19.05%
Ba 233.527†	7670.6	1.308 mg/L	0.0124	2.617 mg/L	0.0248	0.95%
Be 313.042†	3932.6	0.00742 mg/L	0.000099	0.01484 mg/L	0.000199	1.34%
Ca 317.933†	323054.6	30.89 mg/L	0.171	61.78 mg/L	0.342	0.55%
Cd 228.802†	148.3	0.00530 mg/L	0.000053	0.01059 mg/L	0.000107	1.01%
Co 228.616†	4497.9	0.09995 mg/L	0.000349	0.1999 mg/L	0.00070	0.35%
Cr 267.716†	996.7	0.1558 mg/L	0.00197	0.3116 mg/L	0.00395	1.27%
Cu 324.752†	58094.3	0.2186 mg/L	0.00142	0.4372 mg/L	0.00284	0.65%
Fe 273.955†	328142.0	209.9 mg/L	1.73	419.7 mg/L	3.47	0.83%
K 766.490†	52783.2	32.67 mg/L	0.217	65.34 mg/L	0.434	0.66%
Mg 279.077†	36491.2	35.91 mg/L	0.182	71.82 mg/L	0.364	0.51%
Mn 257.610†	271001.0	5.570 mg/L	0.0369	11.14 mg/L	0.074	0.66%
Mo 202.031†	104.2	0.00435 mg/L	0.000222	0.00870 mg/L	0.000443	5.10%
Na 589.592†	43037.0	3.583 mg/L	0.0099	7.167 mg/L	0.0198	0.28%
Na 330.237†	74.0	3.424 mg/L	0.0335	6.848 mg/L	0.0669	0.98%
Ni 231.604†	542.0	0.1356 mg/L	0.00199	0.2711 mg/L	0.00398	1.47%
Pb 220.353†	417.8	0.07842 mg/L	0.000523	0.1568 mg/L	0.00105	0.67%
Sb 206.836†	38.1	0.01334 mg/L	0.002247	0.02668 mg/L	0.004495	16.84%
Se 196.026†	20.9	-0.00709 mg/L	0.004031	-0.01419 mg/L	0.008062	56.82%
Si 288.158†	3554.4	2.021 mg/L	0.0144	4.043 mg/L	0.0289	0.71%
Sn 189.927†	-45.7	-0.00569 mg/L	0.000289	-0.01137 mg/L	0.000577	5.08%
Sr 421.552†	452579.2	0.4944 mg/L	0.00295	0.9887 mg/L	0.00590	0.60%
Ti 334.903†	95971.9	4.217 mg/L	0.0266	8.433 mg/L	0.0533	0.63%
Tl 190.801†	-49.6	0.00443 mg/L	0.003791	0.00887 mg/L	0.007581	85.51%
V 292.402†	47711.8	0.3397 mg/L	0.00254	0.6794 mg/L	0.00508	0.75%
Zn 206.200†	3050.0	0.7320 mg/L	0.00924	1.464 mg/L	0.0185	1.26%

Sequence No.: 56  
 Sample ID: WE79 X SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 341  
 Date Collected: 2/27/2013 12:37:05 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 X SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 X SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3197846.6	101.1 %	0.93			0.92%
ScR 361.383	349121.7	103.2 %	0.84			0.82%
Ag 328.068†	19674.6	0.08856 mg/L	0.000239	0.1771 mg/L	0.00048	0.27%
Al 308.215†	60128.2	44.17 mg/L	0.467	88.34 mg/L	0.934	1.06%
As 188.979†	7631.7	4.380 mg/L	0.0364	8.761 mg/L	0.0727	0.83%
B 249.677†	-12.2	-0.00185 mg/L	0.000562	-0.00371 mg/L	0.001125	30.33%
Ba 233.527†	5215.1	0.8980 mg/L	0.00711	1.796 mg/L	0.0142	0.79%
Be 313.042†	393.4	0.00075 mg/L	0.000017	0.00149 mg/L	0.000034	2.27%
Ca 317.933†	106500.6	10.18 mg/L	0.140	20.37 mg/L	0.279	1.37%
Cd 228.802†	711.3	0.00255 mg/L	0.000065	0.00510 mg/L	0.000130	2.56%
Co 228.616†	175.9	0.00403 mg/L	0.000178	0.00805 mg/L	0.000355	4.41%
Cr 267.716†	352.4	0.05629 mg/L	0.000556	0.1126 mg/L	0.00111	0.99%
Cu 324.752†	11177.2	0.04442 mg/L	0.000354	0.08883 mg/L	0.000708	0.80%
Fe 273.955†	133384.7	85.31 mg/L	1.162	170.6 mg/L	2.32	1.36%
K 766.490†	33869.6	20.96 mg/L	0.211	41.93 mg/L	0.421	1.01%
Mg 279.077†	5872.8	5.750 mg/L	0.0377	11.50 mg/L	0.075	0.66%
Mn 257.610†	6134.1	0.1258 mg/L	0.00143	0.2517 mg/L	0.00286	1.14%
Mo 202.031†	61.3	0.00265 mg/L	0.000463	0.00531 mg/L	0.000927	17.47%
Na 589.592†	6187.6	0.5152 mg/L	0.00592	1.030 mg/L	0.0118	1.15%
Na 330.237†	13.7	0.4569 mg/L	0.07325	0.9138 mg/L	0.14649	16.03%
Ni 231.604†	26.8	0.00673 mg/L	0.000621	0.01345 mg/L	0.001242	9.23%
Pb 220.353†	507.0	0.06173 mg/L	0.000886	0.1235 mg/L	0.00177	1.44%
Sb 206.836†	104.0	0.02926 mg/L	0.002071	0.05852 mg/L	0.004142	7.08%
Se 196.026†	48.5	0.02331 mg/L	0.000985	0.04662 mg/L	0.001970	4.23%
Si 288.158†	3635.8	2.064 mg/L	0.0187	4.128 mg/L	0.0375	0.91%
Sn 189.927†	-19.9	-0.00307 mg/L	0.000935	-0.00614 mg/L	0.001870	30.47%
Sr 421.552†	183793.1	0.2008 mg/L	0.00187	0.4015 mg/L	0.00374	0.93%
Ti 334.903†	992.0	0.04299 mg/L	0.000919	0.08597 mg/L	0.001838	2.14%
Tl 190.801†	-13.7	0.00522 mg/L	0.002698	0.01043 mg/L	0.005396	51.73%
V 292.402†	4707.3	0.03059 mg/L	0.000330	0.06118 mg/L	0.000661	1.08%
Zn 206.200†	164.6	0.03985 mg/L	0.000736	0.07970 mg/L	0.001471	1.85%



Sequence No.: 57  
 Sample ID: WE83 C SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 342  
 Date Collected: 2/27/2013 12:41:06 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 C SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE83 C SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3245568.0	102.6	%	0.35			0.34%
ScR 361.383	351829.0	104.0	%	0.34			0.33%
Ag 328.068†	-178.3	-0.00064	mg/L	0.000195	-0.00320 mg/L	0.000975	30.49%
Al 308.215†	84449.3	62.03	mg/L	0.280	310.2 mg/L	1.40	0.45%
As 188.979†	51.6	0.03503	mg/L	0.002783	0.1751 mg/L	0.01391	7.94%
B 249.677†	8.8	0.00125	mg/L	0.000728	0.00627 mg/L	0.003640	58.03%
Ba 233.527†	2351.5	0.3979	mg/L	0.00295	1.990 mg/L	0.0148	0.74%
Be 313.042†	639.9	0.00120	mg/L	0.000023	0.00598 mg/L	0.000114	1.91%
Ca 317.933†	197654.6	18.90	mg/L	0.117	94.50 mg/L	0.584	0.62%
Cd 228.802†	43.6	0.00151	mg/L	0.000106	0.00753 mg/L	0.000528	7.01%
Co 228.616†	1295.0	0.03054	mg/L	0.000124	0.1527 mg/L	0.00062	0.41%
Cr 267.716†	326.8	0.04942	mg/L	0.000476	0.2471 mg/L	0.00238	0.96%
Cu 324.752†	10653.4	0.04239	mg/L	0.000302	0.2119 mg/L	0.00151	0.71%
Fe 273.955†	134376.3	85.94	mg/L	0.401	429.7 mg/L	2.01	0.47%
K 766.490†	23050.8	14.27	mg/L	0.034	71.34 mg/L	0.169	0.24%
Mg 279.077†	33806.1	33.33	mg/L	0.109	166.6 mg/L	0.55	0.33%
Mn 257.610†	125537.9	2.580	mg/L	0.0131	12.90 mg/L	0.066	0.51%
Mo 202.031†	46.4	0.00188	mg/L	0.000212	0.00938 mg/L	0.001060	11.31%
Na 589.592†	7869.0	0.6552	mg/L	0.00149	3.276 mg/L	0.0074	0.23%
Na 330.237†	15.0	0.4893	mg/L	0.05689	2.446 mg/L	0.2845	11.63%
Ni 231.604†	111.1	0.02779	mg/L	0.001127	0.1389 mg/L	0.00564	4.06%
Pb 220.353†	463.9	0.06192	mg/L	0.000857	0.3096 mg/L	0.00428	1.38%
Sb 206.836†	13.1	0.00366	mg/L	0.002265	0.01831 mg/L	0.011326	61.85%
Se 196.026†	9.0	-0.00195	mg/L	0.003473	-0.00976 mg/L	0.017365	177.90%
Si 288.158†	2583.4	1.470	mg/L	0.0067	7.350 mg/L	0.0335	0.46%
Sn 189.927†	-33.7	-0.00507	mg/L	0.001267	-0.02537 mg/L	0.006334	24.96%
Sr 421.552†	92901.5	0.1015	mg/L	0.00033	0.5074 mg/L	0.00167	0.33%
Ti 334.903†	4719.0	0.2063	mg/L	0.00110	1.031 mg/L	0.0055	0.53%
Tl 190.801†	-17.5	0.00318	mg/L	0.001217	0.01589 mg/L	0.006084	38.29%
V 292.402†	17021.0	0.1214	mg/L	0.00066	0.6072 mg/L	0.00332	0.55%
Zn 206.200†	968.6	0.2326	mg/L	0.00218	1.163 mg/L	0.0109	0.94%

Sequence No.: 58  
Sample ID: ~~WE84 D SWC~~ WE83 DSWC  
Analyst: ALA  
Dilution: 2.000000X *AK 2-27-13*

Autosampler Location: 343  
Date Collected: 2/27/2013 12:45:07 PM  
Data Type: Original

Nebulizer Parameters: WE84 D SWC  
Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: WE84 D SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3202490.2	101.3	%	0.71				0.70%
ScR 361.383	348813.8	103.1	%	0.53				0.51%
Ag 328.068†	-463.7	-0.00170	mg/L	0.000230	-0.00340	mg/L	0.000459	13.50%
Al 308.215†	216519.9	159.0	mg/L	0.96	318.1	mg/L	1.91	0.60%
As 188.979†	-290.6	0.03380	mg/L	0.003165	0.06761	mg/L	0.006329	9.36%
B 249.677†	21.8	0.00305	mg/L	0.000218	0.00610	mg/L	0.000436	7.15%
Ba 233.527†	7081.4	1.208	mg/L	0.0064	2.416	mg/L	0.0129	0.53%
Be 313.042†	2382.8	0.00441	mg/L	0.000036	0.00882	mg/L	0.000072	0.81%
Ca 317.933†	398264.5	38.08	mg/L	0.043	76.17	mg/L	0.085	0.11%
Cd 228.802†	85.2	0.00425	mg/L	0.000076	0.00849	mg/L	0.000152	1.80%
Co 228.616†	4036.2	0.08597	mg/L	0.000570	0.1719	mg/L	0.00114	0.66%
Cr 267.716†	1122.8	0.1734	mg/L	0.00024	0.3469	mg/L	0.00047	0.14%
Cu 324.752†	26199.4	0.1024	mg/L	0.00049	0.2049	mg/L	0.00099	0.48%
Fe 273.955†	300408.1	192.1	mg/L	0.93	384.3	mg/L	1.85	0.48%
K 766.490†	57800.3	35.78	mg/L	0.179	71.56	mg/L	0.358	0.50%
Mg 279.077†	50919.6	50.17	mg/L	0.169	100.3	mg/L	0.34	0.34%
Mn 257.610†	174392.4	3.584	mg/L	0.0166	7.168	mg/L	0.0331	0.46%
Mo 202.031†	96.7	0.00392	mg/L	0.000376	0.00784	mg/L	0.000751	9.58%
Nb 589.592†	28065.5	2.337	mg/L	0.0044	4.673	mg/L	0.0088	0.19%
Na 330.237†	26.3	2.376	mg/L	0.1712	4.752	mg/L	0.3424	7.21%
Ni 231.604†	484.6	0.1212	mg/L	0.00099	0.2424	mg/L	0.00197	0.81%
Pb 220.353†	498.7	0.08636	mg/L	0.000707	0.1727	mg/L	0.00141	0.82%
Sb 206.836†	11.5	0.00701	mg/L	0.000619	0.01402	mg/L	0.001239	8.84%
Se 196.026†	20.2	-0.00672	mg/L	0.006536	-0.01344	mg/L	0.013071	97.23%
Si 288.158†	5060.7	2.878	mg/L	0.0170	5.756	mg/L	0.0339	0.59%
Sn 189.927†	-57.8	-0.00717	mg/L	0.001208	-0.01435	mg/L	0.002416	16.83%
Sr 421.552†	458422.4	0.5007	mg/L	0.00217	1.001	mg/L	0.0043	0.43%
Ti 334.903†	134211.8	5.897	mg/L	0.0287	11.79	mg/L	0.057	0.49%
Tl 190.801†	-41.0	0.00557	mg/L	0.001749	0.01113	mg/L	0.003497	31.42%
V 292.402†	58784.8	0.4209	mg/L	0.00296	0.8418	mg/L	0.00593	0.70%
Zn 206.200†	2045.0	0.4911	mg/L	0.00354	0.9822	mg/L	0.00708	0.72%

Sequence No.: 59  
 Sample ID: WE83 MB1SPK SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 344  
 Date Collected: 2/27/2013 12:49:09 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 MB1SPK SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 MB1SPK SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3251856.7	102.8	%	0.23				0.22%
ScR 361.383	346534.9	102.5	%	0.53				0.52%
Ag 328.068†	117355.2	0.5280	mg/L	0.00324	1.056	mg/L	0.0065	0.61%
Al 308.215†	2805.4	2.053	mg/L	0.0086	4.107	mg/L	0.0172	0.42%
As 188.979†	3542.1	2.032	mg/L	0.0031	4.064	mg/L	0.0062	0.15%
B 249.677†	12.9	0.00076	mg/L	0.000901	0.00152	mg/L	0.001802	118.42%
Ba 233.527†	11881.3	2.074	mg/L	0.0042	4.148	mg/L	0.0084	0.20%
Be 313.042†	250801.3	0.4810	mg/L	0.00519	0.9619	mg/L	0.01039	1.08%
Ca 317.933†	101533.9	9.709	mg/L	0.1112	19.42	mg/L	0.222	1.14%
Cd 228.802†	13757.2	0.5124	mg/L	0.00134	1.025	mg/L	0.0027	0.26%
Co 228.616†	21270.8	0.5082	mg/L	0.00247	1.016	mg/L	0.0049	0.49%
Cr 267.716†	3329.1	0.5121	mg/L	0.00138	1.024	mg/L	0.0028	0.27%
Cu 324.752†	140678.7	0.5069	mg/L	0.00128	1.014	mg/L	0.0026	0.25%
Fe 273.955†	3138.4	2.004	mg/L	0.0179	4.009	mg/L	0.0359	0.90%
K 766.490†	15910.2	9.848	mg/L	0.0723	19.70	mg/L	0.145	0.73%
Mg 279.077†	10405.0	10.27	mg/L	0.035	20.55	mg/L	0.070	0.34%
Mn 257.610†	24210.1	0.4980	mg/L	0.00310	0.9960	mg/L	0.00619	0.62%
Mo 202.031†	19.2	0.00073	mg/L	0.000087	0.00145	mg/L	0.000174	11.97%
Na 589.592†	120815.9	10.06	mg/L	0.066	20.12	mg/L	0.132	0.66%
Na 330.237†	314.9	10.34	mg/L	0.119	20.69	mg/L	0.238	1.15%
Ni 231.604†	2051.8	0.5122	mg/L	0.00177	1.024	mg/L	0.0035	0.35%
Pb 220.353†	18915.0	2.027	mg/L	0.0032	4.053	mg/L	0.0064	0.16%
Sb 206.836†	21.4	0.00105	mg/L	0.001010	0.00210	mg/L	0.002020	96.37%
Se 196.026†	3420.4	2.004	mg/L	0.0037	4.008	mg/L	0.0074	0.18%
Si 288.158†	0.6	0.00323	mg/L	0.001931	0.00646	mg/L	0.003862	59.80%
Sn 189.927†	-18.8	-0.00291	mg/L	0.000385	-0.00582	mg/L	0.000770	13.22%
Sr 421.552†	455281.3	0.4973	mg/L	0.00399	0.9946	mg/L	0.00798	0.80%
Ti 334.903†	64.7	0.00217	mg/L	0.000436	0.00434	mg/L	0.000873	20.11%
Tl 190.801†	4735.1	2.044	mg/L	0.0072	4.088	mg/L	0.0144	0.35%
V 292.402†	69776.1	0.5157	mg/L	0.00260	1.031	mg/L	0.0052	0.50%
Zn 206.200†	2085.4	0.5005	mg/L	0.00251	1.001	mg/L	0.0050	0.50%

Sequence No.: 60  
 Sample ID: CV 6  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 12:53:10 PM  
 Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3206309.2	101.4	%	0.32				0.32%
ScR 361.383	341611.1	101.0	%	0.44				0.43%
Ag 328.068†	234217.2	1.054	mg/L	0.0035	1.054	mg/L	0.0035	0.33%
Al 308.215†	2806.7	2.027	mg/L	0.0131	2.027	mg/L	0.0131	0.64%
As 188.979†	3450.1	2.010	mg/L	0.0073	2.010	mg/L	0.0073	0.36%
B 249.677†	6792.9	1.023	mg/L	0.0036	1.023	mg/L	0.0036	0.36%
Ba 233.527†	5981.1	1.044	mg/L	0.0042	1.044	mg/L	0.0042	0.40%
Be 313.042†	500231.8	0.9593	mg/L	0.00891	0.9593	mg/L	0.00891	0.93%
Ca 317.933†	21647.3	2.070	mg/L	0.0096	2.070	mg/L	0.0096	0.46%
Cd 228.802†	27182.8	1.024	mg/L	0.0020	1.024	mg/L	0.0020	0.20%
Co 228.616†	42595.3	1.016	mg/L	0.0053	1.016	mg/L	0.0053	0.52%
Cr 267.716†	6654.3	1.025	mg/L	0.0044	1.025	mg/L	0.0044	0.43%
Cu 324.752†	286207.0	1.031	mg/L	0.0036	1.031	mg/L	0.0036	0.35%
Fe 273.955†	3184.8	2.031	mg/L	0.0079	2.031	mg/L	0.0079	0.39%
K 766.490†	32534.1	20.14	mg/L	0.067	20.14	mg/L	0.067	0.33%
Mg 279.077†	2083.2	2.063	mg/L	0.0035	2.063	mg/L	0.0035	0.17%
Mn 257.610†	46906.3	0.9646	mg/L	0.00516	0.9646	mg/L	0.00516	0.54%
Mo 202.031†	21986.5	0.9956	mg/L	0.00320	0.9956	mg/L	0.00320	0.32%
Na 589.592†	623681.7	51.93	mg/L	0.472	51.93	mg/L	0.472	0.91%
Na 330.237†	1582.3	52.67	mg/L	0.358	52.67	mg/L	0.358	0.68%
Ni 231.604†	4157.9	1.040	mg/L	0.0014	1.040	mg/L	0.0014	0.14%
Pb 220.353†	19179.6	2.055	mg/L	0.0046	2.055	mg/L	0.0046	0.23%
Sb 206.836†	7139.0	2.048	mg/L	0.0043	2.048	mg/L	0.0043	0.21%
Se 196.026†	3373.7	1.976	mg/L	0.0072	1.976	mg/L	0.0072	0.37%
Si 288.158†	3595.2	2.036	mg/L	0.0117	2.036	mg/L	0.0117	0.58%
Sn 189.927†	4886.8	0.9717	mg/L	0.00434	0.9717	mg/L	0.00434	0.45%
Sr 421.552†	921993.2	1.007	mg/L	0.0059	1.007	mg/L	0.0059	0.58%
Ti 334.903†	22510.6	0.9881	mg/L	0.00375	0.9881	mg/L	0.00375	0.38%
Ti 190.801†	4677.5	2.015	mg/L	0.0064	2.015	mg/L	0.0064	0.32%
V 292.402†	140164.6	1.036	mg/L	0.0031	1.036	mg/L	0.0031	0.30%
Zn 206.200†	4431.6	1.063	mg/L	0.0028	1.063	mg/L	0.0028	0.27%

Sequence No.: 61  
 Sample ID: CB U  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 2/27/2013 12:57:14 PM  
 Data Type: Original

## Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3244220.3	102.6 %	0.21			0.20%
ScR 361.383	347338.9	102.7 %	0.56			0.54%
Ag 328.068†	37.7	0.00017 mg/L	0.000133	0.00017 mg/L	0.000133	78.34%
Al 308.215†	8.6	0.00628 mg/L	0.001037	0.00628 mg/L	0.001037	16.51%
As 188.979†	3.3	0.00192 mg/L	0.002712	0.00192 mg/L	0.002712	141.41%
B 249.677†	11.4	0.00173 mg/L	0.000469	0.00173 mg/L	0.000469	27.14%
Ba 233.527†	1.9	0.00034 mg/L	0.000391	0.00034 mg/L	0.000391	114.92%
Be 313.042†	12.0	0.00002 mg/L	0.000038	0.00002 mg/L	0.000038	167.61%
Ca 317.933†	3.1	0.00030 mg/L	0.000960	0.00030 mg/L	0.000960	322.69%
Cd 228.802†	4.0	0.00014 mg/L	0.000035	0.00014 mg/L	0.000035	24.16%
Co 228.616†	-0.8	-0.00002 mg/L	0.000055	-0.00002 mg/L	0.000055	279.19%
Cr 267.716†	-2.1	-0.00032 mg/L	0.000845	-0.00032 mg/L	0.000845	266.50%
Cu 324.752†	42.5	0.00015 mg/L	0.000048	0.00015 mg/L	0.000048	31.41%
Fe 273.955†	4.3	0.00274 mg/L	0.001266	0.00274 mg/L	0.001266	46.22%
K 766.490†	-6.6	-0.00408 mg/L	0.028116	-0.00408 mg/L	0.028116	689.13%
Mg 279.077†	-6.1	-0.00602 mg/L	0.000675	-0.00602 mg/L	0.000675	11.21%
Mn 257.610†	-0.4	-0.00001 mg/L	0.000017	-0.00001 mg/L	0.000017	210.99%
Mo 202.031†	34.1	0.00154 mg/L	0.000197	0.00154 mg/L	0.000197	12.78%
Na 589.592†	-35.0	-0.00292 mg/L	0.001303	-0.00292 mg/L	0.001303	44.68%
Na 330.237†	3.8	0.1249 mg/L	0.42764	0.1249 mg/L	0.42764	342.38%
Ni 231.604†	0.2	0.00006 mg/L	0.001036	0.00006 mg/L	0.001036	>999.9%
Pb 220.353†	6.0	0.00065 mg/L	0.000293	0.00065 mg/L	0.000293	45.36%
Sb 206.836†	17.8	0.00511 mg/L	0.000161	0.00511 mg/L	0.000161	3.16%
Se 196.026†	3.0	0.00173 mg/L	0.000952	0.00173 mg/L	0.000952	54.97%
Si 288.158†	-6.1	-0.00345 mg/L	0.002913	-0.00345 mg/L	0.002913	84.55%
Sn 189.927†	2.6	0.00051 mg/L	0.000228	0.00051 mg/L	0.000228	44.30%
Sr 421.552†	-26.2	-0.00003 mg/L	0.000026	-0.00003 mg/L	0.000026	89.60%
Ti 334.903†	3.5	0.00015 mg/L	0.000356	0.00015 mg/L	0.000356	237.37%
Tl 190.801†	2.5	0.00108 mg/L	0.000839	0.00108 mg/L	0.000839	77.64%
V 292.402†	8.4	0.00006 mg/L	0.000175	0.00006 mg/L	0.000175	287.21%
Zn 206.200†	1.9	0.00045 mg/L	0.000566	0.00045 mg/L	0.000566	124.65%

Sequence No.: 62  
Sample ID: WE83 A-L SWC  
Analyst: ALA  
Dilution: 25.000000X

Autosampler Location: 345  
Date Collected: 2/27/2013 1:01:30 PM  
Data Type: Original

Nebulizer Parameters: WE83 A-L SWC

Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: WE83 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3261965.7	103.2 %	0.56			0.54%
ScR 361.383	349874.8	103.4 %	0.36			0.35%
Ag 328.068†	9.8	0.00008 mg/L	0.000276	0.00191 mg/L	0.006889	361.62%
Al 308.215†	17184.6	12.62 mg/L	0.010	315.6 mg/L	0.24	0.08%
As 188.979†	4.9	0.00682 mg/L	0.001517	0.1704 mg/L	0.03792	22.25%
B 249.677†	8.5	0.00126 mg/L	0.000755	0.03151 mg/L	0.018887	59.94%
Ba 233.527†	413.7	0.06974 mg/L	0.000117	1.744 mg/L	0.0029	0.17%
Be 313.042†	115.6	0.00021 mg/L	0.000006	0.00532 mg/L	0.000139	2.61%
Ca 317.933†	35543.1	3.399 mg/L	0.0198	84.97 mg/L	0.496	0.58%
Cd 228.802†	11.6	0.00043 mg/L	0.000152	0.01073 mg/L	0.003812	35.53%
Co 228.616†	276.0	0.00637 mg/L	0.000093	0.1592 mg/L	0.00233	1.46%
Cr 267.716†	80.2	0.01234 mg/L	0.000936	0.3086 mg/L	0.02340	7.58%
Cu 324.752†	2301.4	0.00907 mg/L	0.000069	0.2268 mg/L	0.00173	0.76%
Fe 273.955†	26410.2	16.89 mg/L	0.075	422.3 mg/L	1.87	0.44%
K 766.490†	4541.9	2.811 mg/L	0.0312	70.28 mg/L	0.781	1.11%
Mg 279.077†	4901.0	4.829 mg/L	0.0244	120.7 mg/L	0.61	0.51%
Mn 257.610†	22854.3	0.4697 mg/L	0.00128	11.74 mg/L	0.032	0.27%
Mo 202.031†	15.4	0.00066 mg/L	0.000300	0.01643 mg/L	0.007488	45.58%
Na 589.592†	3241.3	0.2699 mg/L	0.00401	6.747 mg/L	0.1004	1.49%
Na 330.237†	7.1	0.2591 mg/L	0.23412	6.477 mg/L	5.8531	90.37%
Ni 231.604†	25.9	0.00647 mg/L	0.000823	0.1618 mg/L	0.02057	12.72%
Pb 220.353†	46.1	0.00746 mg/L	0.000837	0.1864 mg/L	0.02092	11.22%
Sb 206.836†	0.6	0.00022 mg/L	0.000855	0.00557 mg/L	0.021369	383.51%
Se 196.026†	9.2	0.00390 mg/L	0.003217	0.09761 mg/L	0.080413	82.38%
Si 288.158†	678.7	0.3858 mg/L	0.00080	9.644 mg/L	0.0199	0.21%
Sn 189.927†	-4.6	-0.00061 mg/L	0.000871	-0.01537 mg/L	0.021781	141.74%
Sr 421.552†	61464.2	0.06714 mg/L	0.000073	1.678 mg/L	0.0018	0.11%
Ti 334.903†	2857.4	0.1254 mg/L	0.00141	3.135 mg/L	0.0353	1.13%
Tl 190.801†	-4.1	0.00029 mg/L	0.000752	0.00726 mg/L	0.018800	258.79%
V 292.402†	4262.7	0.03058 mg/L	0.000250	0.7644 mg/L	0.00624	0.82%
Zn 206.200†	172.4	0.04142 mg/L	0.000675	1.035 mg/L	0.0169	1.63%

Sequence No.: 63  
 Sample ID: WE83 A SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 346  
 Date Collected: 2/27/2013 1:05:32 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 A SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE83 A SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3263051.1	103.2	%	0.37			0.36%
ScR 361.383	355451.0	105.1	%	0.41			0.39%
Ag 328.068†	-150.0	-0.00051	mg/L	0.000100	-0.00254 mg/L	0.000501	19.73%
Al 308.215†	88734.7	65.18	mg/L	0.350	325.9 mg/L	1.75	0.54%
As 188.979†	12.1	0.02735	mg/L	0.002013	0.1368 mg/L	0.01006	7.36%
B 249.677†	7.6	0.00106	mg/L	0.000479	0.00532 mg/L	0.002394	45.04%
Ba 233.527†	2105.6	0.3547	mg/L	0.00141	1.773 mg/L	0.0070	0.40%
Be 313.042†	503.0	0.00092	mg/L	0.000012	0.00460 mg/L	0.000059	1.27%
Ca 317.933†	186130.2	17.80	mg/L	0.216	88.99 mg/L	1.079	1.21%
Cd 228.802†	44.3	0.00166	mg/L	0.000184	0.00828 mg/L	0.000919	11.09%
Co 228.616†	1404.0	0.03240	mg/L	0.000111	0.1620 mg/L	0.00055	0.34%
Cr 267.716†	404.7	0.06244	mg/L	0.000555	0.3122 mg/L	0.00277	0.89%
Cu 324.752†	11987.3	0.04725	mg/L	0.000051	0.2363 mg/L	0.00025	0.11%
Fe 273.955†	137338.7	87.84	mg/L	0.345	439.2 mg/L	1.72	0.39%
K 766.490†	23750.9	14.70	mg/L	0.066	73.51 mg/L	0.329	0.45%
Mg 279.077†	23837.7	23.49	mg/L	0.158	117.4 mg/L	0.79	0.67%
Mn 257.610†	118509.2	2.436	mg/L	0.0095	12.18 mg/L	0.048	0.39%
Mo 202.031†	49.5	0.00203	mg/L	0.000062	0.01014 mg/L	0.000310	3.06%
Na 589.592†	16612.7	1.383	mg/L	0.0120	6.916 mg/L	0.0601	0.87%
Na 330.237†	41.3	1.492	mg/L	0.1582	7.462 mg/L	0.7912	10.60%
Ni 231.604†	114.8	0.02870	mg/L	0.001003	0.1435 mg/L	0.00502	3.50%
Pb 220.353†	214.9	0.03601	mg/L	0.000157	0.1800 mg/L	0.00078	0.43%
Sb 206.836†	6.6	0.00211	mg/L	0.001424	0.01053 mg/L	0.007119	67.63%
Se 196.026†	14.0	0.00059	mg/L	0.004306	0.00296 mg/L	0.021530	726.31%
Si 288.158†	3190.9	1.814	mg/L	0.0086	9.068 mg/L	0.0428	0.47%
Sn 189.927†	-25.8	-0.00352	mg/L	0.000683	-0.01759 mg/L	0.003413	19.41%
Sr 421.552†	314283.8	0.3433	mg/L	0.00129	1.716 mg/L	0.0064	0.37%
Ti 334.903†	14503.7	0.6364	mg/L	0.00386	3.182 mg/L	0.0193	0.61%
Tl 190.801†	-15.7	0.00406	mg/L	0.000477	0.02032 mg/L	0.002383	11.73%
V 292.402†	21872.5	0.1568	mg/L	0.00047	0.7842 mg/L	0.00236	0.30%
Zn 206.200†	851.8	0.2047	mg/L	0.00068	1.023 mg/L	0.0034	0.33%

Sequence No.: 64  
 Sample ID: WE83 ADUP SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 347  
 Date Collected: 2/27/2013 1:09:34 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 ADUP SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: WE83 ADUP SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3245999.9	102.7	%	0.98				0.96%
ScR 361.383	350045.1	103.5	%	0.27				0.27%
Ag 328.068†	-123.4	-0.00039	mg/L	0.000119	-0.00197	mg/L	0.000596	30.27%
Al 308.215†	85523.2	62.82	mg/L	0.375	314.1	mg/L	1.88	0.60%
As 188.979†	14.3	0.03007	mg/L	0.003109	0.1504	mg/L	0.01554	10.34%
B 249.677†	13.3	0.00193	mg/L	0.001006	0.00963	mg/L	0.005032	52.26%
Ba 233.527†	2195.2	0.3717	mg/L	0.00048	1.859	mg/L	0.0024	0.13%
Be 313.042†	501.7	0.00092	mg/L	0.000004	0.00460	mg/L	0.000019	0.41%
Ca 317.933†	183989.5	17.59	mg/L	0.076	87.97	mg/L	0.379	0.43%
Cd 228.802†	41.6	0.00155	mg/L	0.000040	0.00774	mg/L	0.000198	2.56%
Co 228.616†	1390.0	0.03199	mg/L	0.000157	0.1599	mg/L	0.00078	0.49%
Cr 267.716†	334.7	0.05164	mg/L	0.001447	0.2582	mg/L	0.00724	2.80%
Cu 324.752†	12531.2	0.04875	mg/L	0.000422	0.2438	mg/L	0.00211	0.87%
Fe 273.955†	122498.2	78.35	mg/L	0.592	391.7	mg/L	2.96	0.76%
K 766.490†	22445.0	13.89	mg/L	0.071	69.47	mg/L	0.355	0.51%
Mg 279.077†	20714.7	20.41	mg/L	0.068	102.0	mg/L	0.34	0.33%
Mn 257.610†	117690.5	2.419	mg/L	0.0072	12.09	mg/L	0.036	0.30%
Mo 202.031†	54.2	0.00225	mg/L	0.000131	0.01123	mg/L	0.000653	5.82%
Na 589.592†	16784.6	1.397	mg/L	0.0142	6.987	mg/L	0.0708	1.01%
Na 330.237†	37.8	1.389	mg/L	0.1064	6.947	mg/L	0.5321	7.66%
Ni 231.604†	110.9	0.02773	mg/L	0.000404	0.1386	mg/L	0.00202	1.46%
Pb 220.353†	373.7	0.05287	mg/L	0.000899	0.2644	mg/L	0.00450	1.70%
Sb 206.836†	4.4	0.00160	mg/L	0.001110	0.00801	mg/L	0.005548	69.23%
Se 196.026†	11.2	-0.00074	mg/L	0.002813	-0.00372	mg/L	0.014064	378.55%
Si 288.158†	3411.0	1.938	mg/L	0.0152	9.691	mg/L	0.0758	0.78%
Sn 189.927†	-28.5	-0.00405	mg/L	0.000509	-0.02027	mg/L	0.002544	12.55%
Sr 421.552†	341563.7	0.3731	mg/L	0.00231	1.865	mg/L	0.0116	0.62%
Ti 334.903†	15441.9	0.6777	mg/L	0.00346	3.388	mg/L	0.0173	0.51%
Tl 190.801†	-11.8	0.00455	mg/L	0.003721	0.02275	mg/L	0.018607	81.79%
V 292.402†	20205.8	0.1450	mg/L	0.00108	0.7249	mg/L	0.00540	0.74%
Zn 206.200†	832.0	0.1999	mg/L	0.00083	0.9996	mg/L	0.00417	0.42%



Sequence No.: 65  
 Sample ID: WE83 ASPK SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 348  
 Date Collected: 2/27/2013 1:13:35 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 ASPK SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 ASPK SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3240127.9	102.5	%	0.04			0.04%
ScR 361.383	352603.5	104.3	%	0.68			0.65%
Ag 328.068†	44279.1	0.1994	mg/L	0.00132	0.9970 mg/L	0.00659	0.66%
Al 308.215†	95679.1	70.28	mg/L	0.453	351.4 mg/L	2.26	0.64%
As 188.979†	1429.9	0.8408	mg/L	0.00404	4.204 mg/L	0.0202	0.48%
B 249.677†	12.7	0.00134	mg/L	0.000445	0.00672 mg/L	0.002223	33.11%
Ba 233.527†	7099.3	1.226	mg/L	0.0054	6.128 mg/L	0.0269	0.44%
Be 313.042†	102081.3	0.1957	mg/L	0.00180	0.9786 mg/L	0.00898	0.92%
Ca 317.933†	237156.8	22.68	mg/L	0.158	113.4 mg/L	0.79	0.70%
Cd 228.802†	5769.5	0.2151	mg/L	0.00028	1.075 mg/L	0.0014	0.13%
Co 228.616†	10205.9	0.2427	mg/L	0.00065	1.213 mg/L	0.0033	0.27%
Cr 267.716†	1665.3	0.2563	mg/L	0.00177	1.281 mg/L	0.0088	0.69%
Cu 324.752†	70909.9	0.2598	mg/L	0.00107	1.299 mg/L	0.0054	0.41%
Fe 273.955†	147456.7	94.31	mg/L	1.098	471.5 mg/L	5.49	1.16%
K 766.490†	32353.2	20.03	mg/L	0.083	100.1 mg/L	0.42	0.42%
Mg 279.077†	29811.9	29.38	mg/L	0.180	146.9 mg/L	0.90	0.61%
Mn 257.610†	135855.3	2.792	mg/L	0.0277	13.96 mg/L	0.139	0.99%
Mo 202.031†	60.0	0.00244	mg/L	0.000025	0.01219 mg/L	0.000126	1.03%
Na 589.592†	66698.0	5.553	mg/L	0.0133	27.77 mg/L	0.067	0.24%
Na 330.237†	166.6	5.606	mg/L	0.1661	28.03 mg/L	0.831	2.96%
Ni 231.604†	929.9	0.2322	mg/L	0.00098	1.161 mg/L	0.0049	0.42%
Pb 220.353†	8170.9	0.8893	mg/L	0.00093	4.446 mg/L	0.0047	0.10%
Sb 206.836†	20.5	0.00422	mg/L	0.000647	0.02112 mg/L	0.003234	15.31%
Se 196.026†	1393.4	0.8083	mg/L	0.00644	4.041 mg/L	0.0322	0.80%
Si 288.158†	2924.3	1.664	mg/L	0.0128	8.319 mg/L	0.0640	0.77%
Sn 189.927†	-34.4	-0.00480	mg/L	0.000720	-0.02401 mg/L	0.003602	15.00%
Sr 421.552†	562936.6	0.6149	mg/L	0.00353	3.075 mg/L	0.0177	0.57%
Ti 334.903†	14653.3	0.6427	mg/L	0.00517	3.213 mg/L	0.0259	0.80%
Tl 190.801†	1838.8	0.8052	mg/L	0.00162	4.026 mg/L	0.0081	0.20%
V 292.402†	50216.8	0.3660	mg/L	0.00206	1.830 mg/L	0.0103	0.56%
Zn 206.200†	1754.9	0.4214	mg/L	0.00313	2.107 mg/L	0.0157	0.74%

Sequence No.: 66

Autosampler Location: 349

Sample ID: ~~WE83 APOST SWC~~ ZZZZZZ

Date Collected: 2/27/2013 1:17:37 PM

Analyst: ALA

Data Type: Original

Dilution: 5.000000X

# 2-27-13

Nebulizer Parameters: WE83 APOST SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: WE83 APOST SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3231242.3	102.2	%	0.19			0.19%
ScR 361.383	344951.0	102.0	%	0.08			0.08%
Ag 328.068†	118078.8	0.5314	mg/L	0.00285	2.657 mg/L	0.0142	0.54%
Al 308.215†	91600.5	67.28	mg/L	0.107	336.4 mg/L	0.54	0.16%
As 188.979†	3602.9	2.087	mg/L	0.0100	10.44 mg/L	0.050	0.48%
B 249.677†	8.5	0.00003	mg/L	0.001018	0.00017 mg/L	0.005091	>999.9%
Ba 233.527†	14094.8	2.448	mg/L	0.0114	12.24 mg/L	0.057	0.46%
Be 313.042†	254077.3	0.4872	mg/L	0.00106	2.436 mg/L	0.0053	0.22%
Ca 317.933†	285802.9	27.33	mg/L	0.068	136.6 mg/L	0.34	0.25%
Cd 228.802†	13918.4	0.5183	mg/L	0.00197	2.592 mg/L	0.0098	0.38%
Co 228.616†	22462.4	0.5355	mg/L	0.00203	2.678 mg/L	0.0102	0.38%
Cr 267.716†	3743.4	0.5758	mg/L	0.00096	2.879 mg/L	0.0048	0.17%
Cu 324.752†	157757.3	0.5724	mg/L	0.00054	2.862 mg/L	0.0027	0.09%
Fe 273.955†	138566.6	88.62	mg/L	0.409	443.1 mg/L	2.05	0.46%
K 766.490†	40611.5	25.14	mg/L	0.071	125.7 mg/L	0.36	0.28%
Mg 279.077†	35827.7	35.32	mg/L	0.031	176.6 mg/L	0.16	0.09%
Mn 257.610†	140884.6	2.896	mg/L	0.0105	14.48 mg/L	0.053	0.36%
Mo 202.031†	69.5	0.00279	mg/L	0.000211	0.01397 mg/L	0.001053	7.54%
Na 589.592†	140314.8	11.68	mg/L	0.060	58.41 mg/L	0.300	0.51%
Na 330.237†	351.4	11.68	mg/L	0.070	58.38 mg/L	0.349	0.60%
Ni 231.604†	2158.8	0.5390	mg/L	0.00308	2.695 mg/L	0.0154	0.57%
Pb 220.353†	18912.3	2.039	mg/L	0.0105	10.20 mg/L	0.053	0.52%
Sb 206.836†	21.6	0.00132	mg/L	0.002473	0.00660 mg/L	0.012366	187.50%
Se 196.026†	3503.9	2.045	mg/L	0.0067	10.23 mg/L	0.033	0.33%
Si 288.158†	3251.1	1.851	mg/L	0.0051	9.254 mg/L	0.0257	0.28%
Sn 189.927†	-42.3	-0.00599	mg/L	0.000268	-0.02994 mg/L	0.001341	4.48%
Sr 421.552†	783358.4	0.8557	mg/L	0.00215	4.278 mg/L	0.0108	0.25%
Ti 334.903†	14594.2	0.6397	mg/L	0.00345	3.199 mg/L	0.0173	0.54%
Tl 190.801†	4640.6	2.014	mg/L	0.0049	10.07 mg/L	0.025	0.24%
V 292.402†	92249.2	0.6770	mg/L	0.00362	3.385 mg/L	0.0181	0.53%
Zn 206.200†	2944.9	0.7070	mg/L	0.00050	3.535 mg/L	0.0025	0.07%

Sequence No.: 67  
 Sample ID: WE83 B-L SWC  
 Analyst: ALA  
 Dilution: 25.000000X

Autosampler Location: 350  
 Date Collected: 2/27/2013 1:21:41 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 B-L SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 B-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3235831.9	102.3 %	0.64			0.63%
ScR 361.383	348384.3	103.0 %	0.31			0.30%
Ag 328.068†	28.9	0.00015 mg/L	0.000221	0.00386 mg/L	0.005523	143.23%
Al 308.215†	9824.7	7.216 mg/L	0.0079	180.4 mg/L	0.20	0.11%
As 188.979†	2.2	0.00471 mg/L	0.001509	0.1179 mg/L	0.03773	32.02%
B 249.677†	6.2	0.00092 mg/L	0.000526	0.02296 mg/L	0.013154	57.28%
Ba 233.527†	355.2	0.06042 mg/L	0.001074	1.511 mg/L	0.0268	1.78%
Be 313.042†	70.9	0.00013 mg/L	0.000023	0.00324 mg/L	0.000573	17.67%
Ca 317.933†	28190.8	2.696 mg/L	0.0053	67.39 mg/L	0.132	0.20%
Cd 228.802†	10.8	0.00041 mg/L	0.000083	0.01015 mg/L	0.002078	20.48%
Co 228.616†	211.8	0.00487 mg/L	0.000163	0.1217 mg/L	0.00407	3.34%
Cr 267.716†	51.9	0.00795 mg/L	0.000039	0.1986 mg/L	0.00098	0.49%
Cu 324.752†	2378.4	0.00906 mg/L	0.000132	0.2265 mg/L	0.00329	1.45%
Fe 273.955†	16923.4	10.82 mg/L	0.085	270.6 mg/L	2.12	0.78%
K 766.490†	2574.8	1.594 mg/L	0.0244	39.85 mg/L	0.609	1.53%
Mg 279.077†	3451.8	3.402 mg/L	0.0032	85.05 mg/L	0.080	0.09%
Mn 257.610†	21761.2	0.4473 mg/L	0.00172	11.18 mg/L	0.043	0.38%
Mo 202.031†	2.4	0.00008 mg/L	0.000156	0.00191 mg/L	0.003904	204.44%
Na 589.592†	2664.0	0.2218 mg/L	0.00201	5.545 mg/L	0.0502	0.91%
Na 330.237†	2.0	0.08680 mg/L	0.237717	2.170 mg/L	5.9429	273.86%
Ni 231.604†	22.3	0.00556 mg/L	0.001196	0.1391 mg/L	0.02990	21.49%
Pb 220.353†	9.5	0.00240 mg/L	0.000455	0.05990 mg/L	0.011372	18.99%
Sb 206.836†	-1.9	-0.00049 mg/L	0.001574	-0.01237 mg/L	0.039344	317.98%
Se 196.026†	-0.5	-0.00113 mg/L	0.004294	-0.02832 mg/L	0.107340	378.99%
Si 288.158†	459.6	0.2612 mg/L	0.00480	6.530 mg/L	0.1200	1.84%
Sn 189.927†	-2.5	-0.00026 mg/L	0.000742	-0.00650 mg/L	0.018557	285.35%
Sr 421.552†	19012.0	0.02077 mg/L	0.000077	0.5192 mg/L	0.00193	0.37%
Ti 334.903†	2422.0	0.1063 mg/L	0.00095	2.657 mg/L	0.0237	0.89%
Tl 190.801†	-2.1	0.00041 mg/L	0.001296	0.01016 mg/L	0.032393	318.74%
V 292.402†	2967.5	0.02134 mg/L	0.000076	0.5334 mg/L	0.00190	0.36%
Zn 206.200†	127.3	0.03057 mg/L	0.000218	0.7643 mg/L	0.00544	0.71%

Sequence No.: 72  
 Sample ID: CV 7  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 1:42:01 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3207168.9	101.4	%	0.42				0.41%
ScR 361.383	341968.7	101.1	%	0.19				0.19%
Ag 328.068†	234128.6	1.053	mg/L	0.0040	1.053	mg/L	0.0040	0.38%
Al 308.215†	2817.6	2.035	mg/L	0.0071	2.035	mg/L	0.0071	0.35%
As 188.979†	3476.7	2.026	mg/L	0.0113	2.026	mg/L	0.0113	0.56%
B 249.677†	6818.5	1.027	mg/L	0.0026	1.027	mg/L	0.0026	0.25%
Ba 233.527†	5954.6	1.039	mg/L	0.0009	1.039	mg/L	0.0009	0.09%
Be 313.042†	504041.4	0.9666	mg/L	0.00299	0.9666	mg/L	0.00299	0.31%
Ca 317.933†	21626.1	2.068	mg/L	0.0025	2.068	mg/L	0.0025	0.12%
Cd 228.802†	27320.3	1.029	mg/L	0.0078	1.029	mg/L	0.0078	0.76%
Co 228.616†	42591.5	1.016	mg/L	0.0058	1.016	mg/L	0.0058	0.57%
Cr 267.716†	6665.3	1.027	mg/L	0.0014	1.027	mg/L	0.0014	0.14%
Cu 324.752†	287296.1	1.035	mg/L	0.0051	1.035	mg/L	0.0051	0.49%
Fe 273.955†	3212.8	2.049	mg/L	0.0051	2.049	mg/L	0.0051	0.25%
K 766.490†	32600.1	20.18	mg/L	0.108	20.18	mg/L	0.108	0.53%
Mg 279.077†	2079.9	2.060	mg/L	0.0059	2.060	mg/L	0.0059	0.29%
Mn 257.610†	47481.3	0.9764	mg/L	0.00430	0.9764	mg/L	0.00430	0.44%
Mo 202.031†	22091.1	1.000	mg/L	0.0084	1.000	mg/L	0.0084	0.84%
Na 589.592†	625030.2	52.04	mg/L	0.077	52.04	mg/L	0.077	0.15%
Na 330.237†	1586.7	52.82	mg/L	0.139	52.82	mg/L	0.139	0.26%
Ni 231.604†	4162.0	1.041	mg/L	0.0009	1.041	mg/L	0.0009	0.09%
Pb 220.353†	19262.9	2.064	mg/L	0.0140	2.064	mg/L	0.0140	0.68%
Sb 206.836†	7173.6	2.058	mg/L	0.0137	2.058	mg/L	0.0137	0.67%
Se 196.026†	3393.5	1.988	mg/L	0.0153	1.988	mg/L	0.0153	0.77%
Si 288.158†	3605.3	2.041	mg/L	0.0034	2.041	mg/L	0.0034	0.16%
Sn 189.927†	4932.1	0.9807	mg/L	0.00618	0.9807	mg/L	0.00618	0.63%
Sr 421.552†	928056.3	1.014	mg/L	0.0012	1.014	mg/L	0.0012	0.11%
Ti 334.903†	22636.0	0.9936	mg/L	0.00235	0.9936	mg/L	0.00235	0.24%
Tl 190.801†	4690.5	2.021	mg/L	0.0155	2.021	mg/L	0.0155	0.77%
V 292.402†	140199.1	1.036	mg/L	0.0051	1.036	mg/L	0.0051	0.49%
Zn 206.200†	4427.1	1.062	mg/L	0.0027	1.062	mg/L	0.0027	0.26%

Sequence No.: 68  
 Sample ID: WE83 B SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 351  
 Date Collected: 2/27/2013 1:25:56 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 B SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: WE83 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3243404.4	102.6 %	0.43			0.42%
ScR 361.383	349646.7	103.4 %	0.85			0.82%
Ag 328.068†	-125.9	-0.00044 mg/L	0.000160	-0.00222 mg/L	0.000800	36.07%
Al 308.215†	49490.5	36.35 mg/L	0.345	181.8 mg/L	1.73	0.95%
As 188.979†	6.1	0.02071 mg/L	0.002011	0.1035 mg/L	0.01005	9.71%
B 249.677†	17.5	0.00258 mg/L	0.000663	0.01288 mg/L	0.003315	25.73%
Ba 233.527†	1780.9	0.3030 mg/L	0.00198	1.515 mg/L	0.0099	0.65%
Be 313.042†	371.9	0.00068 mg/L	0.000027	0.00341 mg/L	0.000136	3.98%
Ca 317.933†	140703.1	13.45 mg/L	0.071	67.27 mg/L	0.357	0.53%
Cd 228.802†	32.5	0.00123 mg/L	0.000109	0.00614 mg/L	0.000545	8.88%
Co 228.616†	1068.5	0.02457 mg/L	0.000412	0.1228 mg/L	0.00206	1.68%
Cr 267.716†	240.0	0.03668 mg/L	0.000237	0.1834 mg/L	0.00118	0.64%
Cu 324.752†	12212.4	0.04646 mg/L	0.000086	0.2323 mg/L	0.00043	0.18%
Fe 273.955†	84663.4	54.15 mg/L	0.481	270.7 mg/L	2.41	0.89%
K 766.490†	13174.2	8.155 mg/L	0.0920	40.77 mg/L	0.460	1.13%
Mg 279.077†	17367.5	17.12 mg/L	0.109	85.58 mg/L	0.545	0.64%
Mn 257.610†	108888.7	2.238 mg/L	0.0163	11.19 mg/L	0.082	0.73%
Mo 202.031†	37.0	0.00151 mg/L	0.000342	0.00757 mg/L	0.001712	22.60%
Na 589.592†	13749.3	1.145 mg/L	0.0066	5.724 mg/L	0.0330	0.58%
Na 330.237†	31.4	1.148 mg/L	0.2034	5.740 mg/L	1.0170	17.72%
Ni 231.604†	94.8	0.02370 mg/L	0.000463	0.1185 mg/L	0.00231	1.95%
Pb 220.353†	34.9	0.01069 mg/L	0.000301	0.05344 mg/L	0.001507	2.82%
Sb 206.836†	3.0	0.00116 mg/L	0.001852	0.00582 mg/L	0.009258	158.98%
Se 196.026†	1.9	-0.00312 mg/L	0.002820	-0.01562 mg/L	0.014099	90.23%
Si 288.158†	2357.8	1.340 mg/L	0.0233	6.701 mg/L	0.1166	1.74%
Sn 189.927†	-21.5	-0.00305 mg/L	0.000464	-0.01525 mg/L	0.002322	15.23%
Sr 421.552†	97235.8	0.1062 mg/L	0.00088	0.5311 mg/L	0.00438	0.82%
Ti 334.903†	12134.1	0.5325 mg/L	0.00521	2.663 mg/L	0.0260	0.98%
Tl 190.801†	-10.9	0.00188 mg/L	0.002490	0.00940 mg/L	0.012450	132.38%
V 292.402†	15157.3	0.1090 mg/L	0.00065	0.5451 mg/L	0.00323	0.59%
Zn 206.200†	649.3	0.1560 mg/L	0.00196	0.7800 mg/L	0.00979	1.25%

Sequence No.: 69  
 Sample ID: WE83 BDUP SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 352  
 Date Collected: 2/27/2013 1:29:57 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 BDUP SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE83 BDUP SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3230479.1	102.2	%	0.77			0.75%
ScR 361.383	350016.3	103.5	%	0.14			0.14%
Ag 328.068†	-121.7	-0.00041	mg/L	0.000078	-0.00207 mg/L	0.000389	18.78%
Al 308.215†	56496.3	41.50	mg/L	0.010	207.5 mg/L	0.05	0.03%
As 188.979†	5.6	0.02090	mg/L	0.001173	0.1045 mg/L	0.00587	5.61%
B 249.677†	17.5	0.00257	mg/L	0.000750	0.01284 mg/L	0.003749	29.20%
Ba 233.527†	1897.2	0.3222	mg/L	0.00180	1.611 mg/L	0.0090	0.56%
Be 313.042†	411.5	0.00075	mg/L	0.000008	0.00376 mg/L	0.000042	1.11%
Ca 317.933†	147132.4	14.07	mg/L	0.024	70.35 mg/L	0.118	0.17%
Cd 228.802†	39.3	0.00149	mg/L	0.000238	0.00744 mg/L	0.001191	16.01%
Co 228.616†	1148.1	0.02644	mg/L	0.000354	0.1322 mg/L	0.00177	1.34%
Cr 267.716†	282.0	0.04320	mg/L	0.000529	0.2160 mg/L	0.00264	1.22%
Cu 324.752†	12574.0	0.04809	mg/L	0.000718	0.2405 mg/L	0.00359	1.49%
Fe 273.955†	95566.0	61.12	mg/L	0.228	305.6 mg/L	1.14	0.37%
K 766.490†	14965.6	9.264	mg/L	0.0186	46.32 mg/L	0.093	0.20%
Mg 279.077†	19063.8	18.79	mg/L	0.016	93.94 mg/L	0.079	0.08%
Mn 257.610†	111019.1	2.282	mg/L	0.0084	11.41 mg/L	0.042	0.37%
Mo 202.031†	43.1	0.00178	mg/L	0.000100	0.00891 mg/L	0.000500	5.61%
Na 589.592†	14650.0	1.220	mg/L	0.0049	6.099 mg/L	0.0244	0.40%
Na 330.237†	32.6	1.189	mg/L	0.0893	5.944 mg/L	0.4466	7.51%
Ni 231.604†	105.7	0.02645	mg/L	0.001498	0.1322 mg/L	0.00749	5.66%
Pb 220.353†	32.5	0.01146	mg/L	0.000811	0.05730 mg/L	0.004054	7.07%
Sb 206.836†	6.0	0.00203	mg/L	0.000829	0.01015 mg/L	0.004144	40.82%
Se 196.026†	3.4	-0.00289	mg/L	0.005731	-0.01445 mg/L	0.028653	198.23%
Si 288.158†	2184.7	1.242	mg/L	0.0155	6.210 mg/L	0.0776	1.25%
Sn 189.927†	-20.4	-0.00278	mg/L	0.000985	-0.01388 mg/L	0.004925	35.48%
Sr 421.552†	100326.2	0.1096	mg/L	0.00020	0.5479 mg/L	0.00099	0.18%
Ti 334.903†	12477.6	0.5476	mg/L	0.00064	2.738 mg/L	0.0032	0.12%
Tl 190.801†	-13.1	0.00179	mg/L	0.000071	0.00896 mg/L	0.000354	3.95%
V 292.402†	17801.9	0.1282	mg/L	0.00182	0.6408 mg/L	0.00910	1.42%
Zn 206.200†	707.8	0.1700	mg/L	0.00116	0.8500 mg/L	0.00582	0.68%

Sequence No.: 70  
 Sample ID: WE83 BSPK SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 353  
 Date Collected: 2/27/2013 1:33:58 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 BSPK SWC

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WE83 BSPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3238303.1	102.4 %	0.14			0.14%
ScR 361.383	348369.6	103.0 %	0.73			0.70%
Ag 328.068†	43517.9	0.1959 mg/L	0.00127	0.9796 mg/L	0.00635	0.65%
Al 308.215†	53638.1	39.40 mg/L	0.264	197.0 mg/L	1.32	0.67%
As 188.979†	1436.9	0.8408 mg/L	0.00233	4.204 mg/L	0.0117	0.28%
B 249.677†	18.0	0.00217 mg/L	0.000541	0.01085 mg/L	0.002707	24.95%
Ba 233.527†	6514.3	1.129 mg/L	0.0145	5.647 mg/L	0.0724	1.28%
Be 313.042†	104618.5	0.2006 mg/L	0.00196	1.003 mg/L	0.0098	0.98%
Ca 317.933†	181704.7	17.38 mg/L	0.172	86.88 mg/L	0.861	0.99%
Cd 228.802†	5804.5	0.2164 mg/L	0.00021	1.082 mg/L	0.0010	0.10%
Co 228.616†	9878.7	0.2351 mg/L	0.00027	1.175 mg/L	0.0013	0.11%
Cr 267.716†	1615.4	0.2481 mg/L	0.00188	1.241 mg/L	0.0094	0.76%
Cu 324.752†	69766.8	0.2538 mg/L	0.00110	1.269 mg/L	0.0055	0.43%
Fe 273.955†	85250.6	54.52 mg/L	0.212	272.6 mg/L	1.06	0.39%
K 766.490†	19708.2	12.20 mg/L	0.099	61.00 mg/L	0.496	0.81%
Mg 279.077†	22910.3	22.59 mg/L	0.194	112.9 mg/L	0.97	0.86%
Mn 257.610†	105409.9	2.167 mg/L	0.0064	10.83 mg/L	0.032	0.30%
Mo 202.031†	50.9	0.00209 mg/L	0.000101	0.01043 mg/L	0.000505	4.84%
Na 589.592†	64158.7	5.342 mg/L	0.0627	26.71 mg/L	0.313	1.17%
Na 330.237†	166.7	5.590 mg/L	0.2270	27.95 mg/L	1.135	4.06%
Ni 231.604†	919.7	0.2296 mg/L	0.00281	1.148 mg/L	0.0140	1.22%
Pb 220.353†	7848.0	0.8484 mg/L	0.00041	4.242 mg/L	0.0020	0.05%
Sb 206.836†	20.6	0.00406 mg/L	0.000189	0.02029 mg/L	0.000945	4.66%
Se 196.026†	1410.5	0.8218 mg/L	0.00334	4.109 mg/L	0.0167	0.41%
Si 288.158†	2269.4	1.291 mg/L	0.0094	6.456 mg/L	0.0469	0.73%
Sn 189.927†	-30.9	-0.00458 mg/L	0.000478	-0.02291 mg/L	0.002390	10.43%
Sr 421.552†	283664.4	0.3099 mg/L	0.00219	1.549 mg/L	0.0109	0.71%
Ti 334.903†	11730.5	0.5145 mg/L	0.00228	2.573 mg/L	0.0114	0.44%
Tl 190.801†	1892.6	0.8235 mg/L	0.00093	4.117 mg/L	0.0047	0.11%
V 292.402†	43101.1	0.3156 mg/L	0.00137	1.578 mg/L	0.0069	0.43%
Zn 206.200†	1486.3	0.3569 mg/L	0.00257	1.784 mg/L	0.0129	0.72%

Sequence No.: 71

Sample ID: ~~WE83-BPOST-SWC~~ ZZZZZZ

Analyst: ALA

Dilution: 5.000000X

Autosampler Location: 354

Date Collected: 2/27/2013 1:37:59 PM

Data Type: Original

11 2-27-13

Nebulizer Parameters: WE83 BPOST SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: WE83 BPOST SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3207345.4	101.4	%	0.41			0.40%
ScR 361.383	345256.5	102.1	%	0.29			0.28%
Ag 328.068†	118625.9	0.5338	mg/L	0.00345	2.669 mg/L	0.0172	0.65%
Al 308.215†	51885.0	38.10	mg/L	0.074	190.5 mg/L	0.37	0.19%
As 188.979†	3604.3	2.084	mg/L	0.0019	10.42 mg/L	0.010	0.09%
B 249.677†	23.8	0.00235	mg/L	0.000323	0.01174 mg/L	0.001614	13.74%
Ba 233.527†	13703.2	2.384	mg/L	0.0200	11.92 mg/L	0.100	0.84%
Be 313.042†	258287.4	0.4953	mg/L	0.00158	2.476 mg/L	0.0079	0.32%
Ca 317.933†	243092.9	23.25	mg/L	0.065	116.2 mg/L	0.33	0.28%
Cd 228.802†	14008.6	0.5217	mg/L	0.00355	2.609 mg/L	0.0178	0.68%
Co 228.616†	22285.9	0.5315	mg/L	0.00326	2.657 mg/L	0.0163	0.61%
Cr 267.716†	3587.0	0.5514	mg/L	0.00193	2.757 mg/L	0.0097	0.35%
Cu 324.752†	157602.4	0.5702	mg/L	0.00272	2.851 mg/L	0.0136	0.48%
Fe 273.955†	85726.1	54.83	mg/L	0.510	274.1 mg/L	2.55	0.93%
K 766.490†	29363.1	18.18	mg/L	0.053	90.88 mg/L	0.264	0.29%
Mg 279.077†	28629.0	28.24	mg/L	0.134	141.2 mg/L	0.67	0.47%
Mn 257.610†	130356.4	2.680	mg/L	0.0188	13.40 mg/L	0.094	0.70%
Mo 202.031†	63.9	0.00259	mg/L	0.000117	0.01297 mg/L	0.000584	4.50%
Na 589.592†	137553.5	11.45	mg/L	0.019	57.26 mg/L	0.095	0.17%
Na 330.237†	348.6	11.56	mg/L	0.139	57.82 mg/L	0.694	1.20%
Ni 231.604†	2138.9	0.5340	mg/L	0.00190	2.670 mg/L	0.0095	0.36%
Pb 220.353†	18830.3	2.024	mg/L	0.0156	10.12 mg/L	0.078	0.77%
Sb 206.836†	21.9	0.00147	mg/L	0.001165	0.00734 mg/L	0.005827	79.37%
Se 196.026†	3502.1	2.048	mg/L	0.0038	10.24 mg/L	0.019	0.18%
Si 288.158†	2304.3	1.313	mg/L	0.0123	6.564 mg/L	0.0617	0.94%
Sn 189.927†	-43.8	-0.00665	mg/L	0.001306	-0.03327 mg/L	0.006528	19.62%
Sr 421.552†	561393.8	0.6132	mg/L	0.00113	3.066 mg/L	0.0057	0.18%
Ti 334.903†	12017.9	0.5267	mg/L	0.00161	2.634 mg/L	0.0081	0.31%
Tl 190.801†	4690.5	2.031	mg/L	0.0076	10.16 mg/L	0.038	0.38%
V 292.402†	85889.1	0.6318	mg/L	0.00450	3.159 mg/L	0.0225	0.71%
Zn 206.200†	2722.1	0.6534	mg/L	0.00338	3.267 mg/L	0.0169	0.52%



Sequence No.: 73  
Sample ID: CB  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 1  
Date Collected: 2/27/2013 1:46:05 PM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3266477.8	103.3	%	0.40			0.39%
ScR 361.383	350372.8	103.6	%	0.53			0.51%
Ag 328.068†	49.0	0.00022	mg/L	0.000075	0.00022 mg/L	0.000075	33.91%
Al 308.215†	7.8	0.00574	mg/L	0.006132	0.00574 mg/L	0.006132	106.89%
As 188.979†	3.3	0.00189	mg/L	0.001678	0.00189 mg/L	0.001678	88.57%
B 249.677†	13.4	0.00202	mg/L	0.000884	0.00202 mg/L	0.000884	43.73%
Ba 233.527†	0.8	0.00014	mg/L	0.000697	0.00014 mg/L	0.000697	508.07%
Be 313.042†	7.0	0.00001	mg/L	0.000019	0.00001 mg/L	0.000019	140.63%
Ca 317.933†	4.4	0.00042	mg/L	0.000706	0.00042 mg/L	0.000706	168.61%
Cd 228.802†	2.6	0.00009	mg/L	0.000033	0.00009 mg/L	0.000033	37.35%
Co 228.616†	3.6	0.00009	mg/L	0.000090	0.00009 mg/L	0.000090	104.70%
Cr 267.716†	4.6	0.00071	mg/L	0.000390	0.00071 mg/L	0.000390	54.95%
Cu 324.752†	25.3	0.00009	mg/L	0.000159	0.00009 mg/L	0.000159	175.59%
Fe 273.955†	3.4	0.00220	mg/L	0.000502	0.00220 mg/L	0.000502	22.87%
K 766.490†	-18.5	-0.01145	mg/L	0.037255	-0.01145 mg/L	0.037255	325.40%
Mg 279.077†	-3.0	-0.00295	mg/L	0.003397	-0.00295 mg/L	0.003397	114.99%
Mn 257.610†	-3.2	-0.00007	mg/L	0.000036	-0.00007 mg/L	0.000036	55.95%
Mo 202.031†	32.9	0.00149	mg/L	0.000265	0.00149 mg/L	0.000265	17.81%
Na 589.592†	21.6	0.00180	mg/L	0.004463	0.00180 mg/L	0.004463	247.87%
Na 330.237†	4.3	0.1442	mg/L	0.30156	0.1442 mg/L	0.30156	209.09%
Ni 231.604†	3.1	0.00078	mg/L	0.000368	0.00078 mg/L	0.000368	47.34%
Pb 220.353†	5.2	0.00056	mg/L	0.000332	0.00056 mg/L	0.000332	59.04%
Sb 206.836†	15.2	0.00435	mg/L	0.000947	0.00435 mg/L	0.000947	21.76%
Se 196.026†	4.8	0.00279	mg/L	0.001247	0.00279 mg/L	0.001247	44.64%
Si 288.158†	0.5	0.00028	mg/L	0.002907	0.00028 mg/L	0.002907	>999.9%
Sn 189.927†	4.4	0.00088	mg/L	0.000325	0.00088 mg/L	0.000325	36.71%
Sr 421.552†	1.7	0.00000	mg/L	0.000065	0.00000 mg/L	0.000065	>999.9%
Ti 334.903†	9.0	0.00039	mg/L	0.000774	0.00039 mg/L	0.000774	197.38%
Tl 190.801†	1.2	0.00050	mg/L	0.001156	0.00050 mg/L	0.001156	230.70%
V 292.402†	8.0	0.00006	mg/L	0.000035	0.00006 mg/L	0.000035	55.34%
Zn 206.200†	0.7	0.00017	mg/L	0.000128	0.00017 mg/L	0.000128	74.98%

Sequence No.: 74  
 Sample ID: WE83 E SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 355  
 Date Collected: 2/27/2013 1:50:21 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 E SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 E SWC

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	3209294.4	101.5	%	1.34				1.32%
ScR 361.383	351798.3	104.0	%	0.86				0.82%
Ag 328.068†	211.6	0.00134	mg/L	0.000235	0.00269	mg/L	0.000469	17.48%
Al 308.215†	254665.7	187.1	mg/L	0.64	374.1	mg/L	1.28	0.34%
As 188.979†	2943.3	1.693	mg/L	0.0227	3.386	mg/L	0.0453	1.34%
B 249.677†	38.4	0.00565	mg/L	0.001176	0.01130	mg/L	0.002352	20.82%
Ba 233.527†	6787.6	1.159	mg/L	0.0166	2.319	mg/L	0.0333	1.43%
Be 313.042†	2622.1	0.00497	mg/L	0.000028	0.00995	mg/L	0.000057	0.57%
Ca 317.933†	513959.2	49.15	mg/L	0.164	98.29	mg/L	0.327	0.33%
Cd 228.802†	323.7	0.00289	mg/L	0.000203	0.00578	mg/L	0.000407	7.04%
Co 228.616†	2461.5	0.05827	mg/L	0.000688	0.1165	mg/L	0.00138	1.18%
Cr 267.716†	604.2	0.09325	mg/L	0.001242	0.1865	mg/L	0.00248	1.33%
Cu 324.752†	16936.4	0.06930	mg/L	0.001335	0.1386	mg/L	0.00267	1.93%
Fe 273.955†	272710.0	174.4	mg/L	0.92	348.8	mg/L	1.84	0.53%
K 766.490†	58269.8	36.07	mg/L	0.188	72.14	mg/L	0.376	0.52%
Mg 279.077†	46853.9	46.16	mg/L	0.247	92.32	mg/L	0.495	0.54%
Mn 257.610†	164363.5	3.378	mg/L	0.0114	6.755	mg/L	0.0229	0.34%
Mo 202.031†	100.7	0.00398	mg/L	0.000433	0.00795	mg/L	0.000865	10.88%
Na 589.592†	19348.9	1.611	mg/L	0.0075	3.222	mg/L	0.0150	0.47%
Na 330.237†	47.4	1.505	mg/L	0.1418	3.009	mg/L	0.2836	9.42%
Ni 231.604†	221.0	0.05528	mg/L	0.000578	0.1106	mg/L	0.00116	1.05%
Pb 220.353†	414.1	0.08573	mg/L	0.000182	0.1715	mg/L	0.00036	0.21%
Sb 206.836†	45.8	0.01285	mg/L	0.000736	0.02570	mg/L	0.001473	5.73%
Se 196.026†	25.2	-0.00691	mg/L	0.003238	-0.01382	mg/L	0.006475	46.86%
Si 288.158†	6951.2	3.950	mg/L	0.0300	7.901	mg/L	0.0601	0.76%
Sn 189.927†	-67.2	-0.00917	mg/L	0.000979	-0.01834	mg/L	0.001957	10.67%
Sr 421.552†	497476.9	0.5434	mg/L	0.00146	1.087	mg/L	0.0029	0.27%
Ti 334.903†	5550.1	0.2410	mg/L	0.00174	0.4820	mg/L	0.00348	0.72%
Tl 190.801†	-42.3	0.00363	mg/L	0.002919	0.00725	mg/L	0.005838	80.49%
V 292.402†	31116.7	0.2210	mg/L	0.00391	0.4421	mg/L	0.00781	1.77%
Zn 206.200†	1997.9	0.4800	mg/L	0.00345	0.9599	mg/L	0.00691	0.72%

Sequence No.: 75  
 Sample ID: WE83 F SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 356  
 Date Collected: 2/27/2013 1:54:24 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 F SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3265039.1	103.3 %	0.24			0.23%
ScR 361.383	352391.5	104.2 %	0.61			0.59%
Ag 328.068†	-78.6	-0.00023 mg/L	0.000166	-0.00114 mg/L	0.000832	73.11%
Al 308.215†	58997.8	43.34 mg/L	0.331	216.7 mg/L	1.65	0.76%
As 188.979†	56.5	0.04404 mg/L	0.002214	0.2202 mg/L	0.01107	5.03%
B 249.677†	38.5	0.00576 mg/L	0.000986	0.02878 mg/L	0.004932	17.14%
Ba 233.527†	1827.0	0.3123 mg/L	0.00418	1.561 mg/L	0.0209	1.34%
Be 313.042†	309.6	0.00057 mg/L	0.000011	0.00286 mg/L	0.000056	1.97%
Ca 317.933†	163555.7	15.64 mg/L	0.193	78.20 mg/L	0.967	1.24%
Cd 228.802†	35.0	0.00116 mg/L	0.000113	0.00582 mg/L	0.000565	9.72%
Co 228.616†	775.5	0.01784 mg/L	0.000113	0.08919 mg/L	0.000565	0.63%
Cr 267.716†	282.3	0.04327 mg/L	0.000160	0.2164 mg/L	0.00080	0.37%
Cu 324.752†	8780.0	0.03373 mg/L	0.000114	0.1686 mg/L	0.00057	0.34%
Fe 273.955†	71500.8	45.73 mg/L	0.511	228.7 mg/L	2.56	1.12%
K 766.490†	21696.6	13.43 mg/L	0.003	67.15 mg/L	0.016	0.02%
Mg 279.077†	14288.8	14.08 mg/L	0.119	70.41 mg/L	0.593	0.84%
Mn 257.610†	69150.7	1.421 mg/L	0.0145	7.106 mg/L	0.0724	1.02%
Mo 202.031†	55.0	0.00230 mg/L	0.000118	0.01151 mg/L	0.000588	5.11%
Na 589.592†	11276.7	0.9389 mg/L	0.00470	4.694 mg/L	0.0235	0.50%
Na 330.237†	28.1	0.9918 mg/L	0.21756	4.959 mg/L	1.0878	21.94%
Ni 231.604†	84.5	0.02113 mg/L	0.000604	0.1056 mg/L	0.00302	2.86%
Pb 220.353†	593.5	0.07289 mg/L	0.000583	0.3644 mg/L	0.00292	0.80%
Sb 206.836†	3.7	0.00101 mg/L	0.002725	0.00504 mg/L	0.013625	270.58%
Se 196.026†	5.8	-0.00166 mg/L	0.001561	-0.00829 mg/L	0.007807	94.21%
Si 288.158†	3347.7	1.902 mg/L	0.0130	9.508 mg/L	0.0650	0.68%
Sn 189.927†	-23.8	-0.00335 mg/L	0.000867	-0.01676 mg/L	0.004337	25.87%
Sr 421.552†	231309.8	0.2527 mg/L	0.00165	1.263 mg/L	0.0082	0.65%
Ti 334.903†	8589.5	0.3766 mg/L	0.00488	1.883 mg/L	0.0244	1.30%
Tl 190.801†	-2.3	0.00467 mg/L	0.000930	0.02336 mg/L	0.004651	19.91%
V 292.402†	10581.8	0.07577 mg/L	0.000412	0.3789 mg/L	0.00206	0.54%
Zn 206.200†	690.1	0.1659 mg/L	0.00212	0.8294 mg/L	0.01061	1.28%

Sequence No.: 76  
 Sample ID: WE83 G SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 357  
 Date Collected: 2/27/2013 1:58:25 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 G SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE83 G SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3231547.7	102.2	%	0.56			0.55%
ScR 361.383	352146.8	104.1	%	0.41			0.39%
Ag 328.068†	-189.6	-0.00058	mg/L	0.000240	-0.00292 mg/L	0.001202	41.21%
Al 308.215†	113895.1	83.66	mg/L	0.070	418.3 mg/L	0.35	0.08%
As 188.979†	48.4	0.04738	mg/L	0.001877	0.2369 mg/L	0.00939	3.96%
B 249.677†	20.0	0.00291	mg/L	0.001102	0.01455 mg/L	0.005510	37.86%
Ba 233.527†	1755.3	0.2940	mg/L	0.00239	1.470 mg/L	0.0119	0.81%
Be 313.042†	702.2	0.00130	mg/L	0.000035	0.00648 mg/L	0.000176	2.71%
Ca 317.933†	340080.0	32.52	mg/L	0.102	162.6 mg/L	0.51	0.31%
Cd 228.802†	46.9	0.00164	mg/L	0.000044	0.00820 mg/L	0.000221	2.70%
Co 228.616†	1775.1	0.04125	mg/L	0.000139	0.2062 mg/L	0.00070	0.34%
Cr 267.716†	377.2	0.05753	mg/L	0.000956	0.2877 mg/L	0.00478	1.66%
Cu 324.752†	13625.3	0.05297	mg/L	0.000463	0.2649 mg/L	0.00231	0.87%
Fe 273.955†	132295.8	84.61	mg/L	0.582	423.1 mg/L	2.91	0.69%
K 766.490†	15072.7	9.330	mg/L	0.0113	46.65 mg/L	0.056	0.12%
Mg 279.077†	27554.4	27.16	mg/L	0.051	135.8 mg/L	0.26	0.19%
Mn 257.610†	129515.9	2.662	mg/L	0.0114	13.31 mg/L	0.057	0.43%
Mo 202.031†	65.3	0.00257	mg/L	0.000151	0.01286 mg/L	0.000754	5.86%
Na 589.592†	26762.5	2.228	mg/L	0.0029	11.14 mg/L	0.015	0.13%
Na 330.237†	64.1	2.247	mg/L	0.1466	11.23 mg/L	0.733	6.52%
Ni 231.604†	131.8	0.03298	mg/L	0.001294	0.1649 mg/L	0.00647	3.92%
Pb 220.353†	181.9	0.03764	mg/L	0.000527	0.1882 mg/L	0.00263	1.40%
Sb 206.836†	12.1	0.00381	mg/L	0.003895	0.01905 mg/L	0.019474	102.23%
Se 196.026†	6.8	-0.00574	mg/L	0.004536	-0.02870 mg/L	0.022679	79.02%
Si 288.158†	1538.7	0.8764	mg/L	0.00550	4.382 mg/L	0.0275	0.63%
Sn 189.927†	-46.5	-0.00638	mg/L	0.000363	-0.03188 mg/L	0.001814	5.69%
Sr 421.552†	584295.8	0.6382	mg/L	0.00021	3.191 mg/L	0.0011	0.03%
Ti 334.903†	14875.9	0.6519	mg/L	0.00079	3.260 mg/L	0.0039	0.12%
Tl 190.801†	-12.7	0.00480	mg/L	0.001178	0.02400 mg/L	0.005890	24.54%
V 292.402†	25062.0	0.1805	mg/L	0.00232	0.9024 mg/L	0.01162	1.29%
Zn 206.200†	981.1	0.2355	mg/L	0.00011	1.178 mg/L	0.0005	0.05%

Sequence No.: 77  
 Sample ID: WE83 H SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 358  
 Date Collected: 2/27/2013 2:02:26 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 H SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 H SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3294777.4	104.2	%	0.30			0.29%
ScR 361.383	353837.4	104.6	%	0.30			0.28%
Ag 328.068†	-88.2	-0.00023	mg/L	0.000225	-0.00113 mg/L	0.001124	99.03%
Al 308.215†	62066.6	45.59	mg/L	0.054	228.0 mg/L	0.27	0.12%
As 188.979†	3.2	0.01709	mg/L	0.000654	0.08543 mg/L	0.003269	3.83%
B 249.677†	11.9	0.00173	mg/L	0.000339	0.00865 mg/L	0.001696	19.60%
Ba 233.527†	2244.8	0.3837	mg/L	0.00150	1.918 mg/L	0.0075	0.39%
Be 313.042†	277.0	0.00050	mg/L	0.000024	0.00252 mg/L	0.000118	4.70%
Ca 317.933†	224874.7	21.50	mg/L	0.113	107.5 mg/L	0.57	0.53%
Cd 228.802†	28.4	0.00111	mg/L	0.000180	0.00555 mg/L	0.000901	16.24%
Co 228.616†	962.7	0.02208	mg/L	0.000118	0.1104 mg/L	0.00059	0.53%
Cr 267.716†	696.4	0.1071	mg/L	0.00158	0.5357 mg/L	0.00792	1.48%
Cu 324.752†	9476.7	0.03672	mg/L	0.000307	0.1836 mg/L	0.00153	0.83%
Fe 273.955†	87902.0	56.22	mg/L	0.450	281.1 mg/L	2.25	0.80%
K 766.490†	13022.4	8.061	mg/L	0.0092	40.30 mg/L	0.046	0.11%
Mg 279.077†	16676.3	16.43	mg/L	0.049	82.16 mg/L	0.246	0.30%
Mn 257.610†	83405.1	1.714	mg/L	0.0127	8.571 mg/L	0.0633	0.74%
Mo 202.031†	73.9	0.00309	mg/L	0.000128	0.01545 mg/L	0.000640	4.14%
Na 589.592†	31214.2	2.599	mg/L	0.0161	12.99 mg/L	0.080	0.62%
Na 330.237†	79.2	2.726	mg/L	0.2332	13.63 mg/L	1.166	8.55%
Ni 231.604†	206.4	0.05163	mg/L	0.000131	0.2581 mg/L	0.00066	0.25%
Pb 220.353†	106.2	0.02085	mg/L	0.000210	0.1042 mg/L	0.00105	1.01%
Sb 206.836†	5.1	0.00070	mg/L	0.002818	0.00348 mg/L	0.014091	405.30%
Se 196.026†	5.6	-0.00203	mg/L	0.004133	-0.01013 mg/L	0.020665	203.98%
Si 288.158†	1843.1	1.048	mg/L	0.0028	5.240 mg/L	0.0140	0.27%
Sn 189.927†	-29.0	-0.00387	mg/L	0.000327	-0.01933 mg/L	0.001634	8.45%
Sr 421.552†	202955.1	0.2217	mg/L	0.00055	1.108 mg/L	0.0027	0.25%
Ti 334.903†	11417.0	0.5005	mg/L	0.00123	2.503 mg/L	0.0062	0.25%
Tl 190.801†	-8.2	0.00337	mg/L	0.002438	0.01685 mg/L	0.012191	72.34%
V 292.402†	13023.8	0.09347	mg/L	0.000475	0.4673 mg/L	0.00237	0.51%
Zn 206.200†	728.8	0.1750	mg/L	0.00040	0.8752 mg/L	0.00202	0.23%

Sequence No.: 78  
 Sample ID: WE83 I SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 359  
 Date Collected: 2/27/2013 2:06:27 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 I SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: WE83 I SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
ScA 357.253	3224337.7	102.0	%	0.35			0.34%
ScR 361.383	344293.1	101.8	%	0.54			0.53%
Ag 328.068†	-854.8	-0.00296	mg/L	0.000399	-0.00591 mg/L	0.000797	13.48%
Al 308.215†	161069.2	118.3	mg/L	1.16	236.6 mg/L	2.31	0.98%
As 188.979†	97.3	0.07232	mg/L	0.000727	0.1446 mg/L	0.00145	1.01%
B 249.677†	3.2	0.00034	mg/L	0.000812	0.00067 mg/L	0.001624	240.66%
Ba 233.527†	4882.8	0.8234	mg/L	0.00780	1.647 mg/L	0.0156	0.95%
Be 313.042†	2511.0	0.00474	mg/L	0.000039	0.00947 mg/L	0.000077	0.81%
Ca 317.933†	1281734.6	122.6	mg/L	1.03	245.1 mg/L	2.05	0.84%
Cd 228.802†	78.7	0.00271	mg/L	0.000092	0.00542 mg/L	0.000184	3.40%
Co 228.616†	2614.2	0.06098	mg/L	0.000255	0.1220 mg/L	0.00051	0.42%
Cr 267.716†	462.4	0.07086	mg/L	0.001403	0.1417 mg/L	0.00281	1.98%
Cu 324.752†	11517.4	0.05080	mg/L	0.000366	0.1016 mg/L	0.00073	0.72%
Fe 273.955†	309143.8	197.7	mg/L	1.48	395.4 mg/L	2.95	0.75%
K 766.490†	24723.4	15.30	mg/L	0.208	30.61 mg/L	0.415	1.36%
Mg 279.077†	50153.3	49.40	mg/L	0.470	98.79 mg/L	0.939	0.95%
Mn 257.610†	161531.9	3.320	mg/L	0.0285	6.639 mg/L	0.0569	0.86%
Mo 202.031†	109.6	0.00351	mg/L	0.000194	0.00703 mg/L	0.000388	5.52%
Na 589.592†	5763.2	0.4798	mg/L	0.00659	0.9597 mg/L	0.01319	1.37%
Na 330.237†	7.8	0.3286	mg/L	0.04276	0.6572 mg/L	0.08553	13.01%
Ni 231.604†	238.8	0.05972	mg/L	0.001508	0.1194 mg/L	0.00302	2.52%
Pb 220.353†	635.7	0.08958	mg/L	0.001177	0.1792 mg/L	0.00235	1.31%
Sb 206.836†	22.4	0.00710	mg/L	0.002256	0.01421 mg/L	0.004512	31.75%
Se 196.026†	-0.8	-0.01429	mg/L	0.002722	-0.02859 mg/L	0.005444	19.04%
Si 288.158†	6121.4	3.480	mg/L	0.0062	6.960 mg/L	0.0125	0.18%
Sn 189.927†	-80.8	-0.00563	mg/L	0.000846	-0.01126 mg/L	0.001692	15.03%
Sr 421.552†	284179.7	0.3104	mg/L	0.00205	0.6208 mg/L	0.00409	0.66%
Ti 334.903†	18212.5	0.7932	mg/L	0.00683	1.586 mg/L	0.0137	0.86%
Tl 190.801†	-33.7	0.01019	mg/L	0.002464	0.02038 mg/L	0.004929	24.18%
V 292.402†	40726.2	0.2902	mg/L	0.00202	0.5803 mg/L	0.00404	0.70%
Zn 206.200†	2160.0	0.5188	mg/L	0.00280	1.038 mg/L	0.0056	0.54%

Sequence No.: 79  
 Sample ID: WE83 J SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 360  
 Date Collected: 2/27/2013 2:10:44 PM  
 Data Type: Original

## Nebulizer Parameters: WE83 J SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE83 J SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	3289812.5	104.0	%	0.64			0.62%
ScR 361.383	354837.9	104.9	%	0.38			0.36%
Ag 328.068†	-282.7	-0.00089	mg/L	0.000030	-0.00177	0.000060	3.37%
Al 308.215†	213582.8	156.9	mg/L	0.25	313.7	0.50	0.16%
As 188.979†	-428.0	0.04535	mg/L	0.006810	0.09070	0.013620	15.02%
B 249.677†	51.8	0.00757	mg/L	0.001631	0.01514	0.003263	21.55%
Ba 233.527†	7591.3	1.295	mg/L	0.0078	2.591	0.0155	0.60%
Be 313.042†	1989.5	0.00363	mg/L	0.000025	0.00726	0.000051	0.70%
Ca 317.933†	403694.7	38.60	mg/L	0.151	77.21	0.302	0.39%
Cd 228.802†	93.3	0.00501	mg/L	0.000135	0.01002	0.000269	2.69%
Co 228.616†	4014.3	0.08084	mg/L	0.000440	0.1617	0.00088	0.54%
Cr 267.716†	1123.1	0.1747	mg/L	0.00094	0.3494	0.00188	0.54%
Cu 324.752†	36280.0	0.1388	mg/L	0.00106	0.2777	0.00212	0.76%
Fe 273.955†	317644.9	203.2	mg/L	1.98	406.3	3.96	0.98%
K 766.490†	43401.3	26.86	mg/L	0.066	53.73	0.133	0.25%
Mg 279.077†	40816.2	40.18	mg/L	0.058	80.37	0.117	0.14%
Mn 257.610†	203402.5	4.180	mg/L	0.0320	8.361	0.0640	0.77%
Mo 202.031†	104.4	0.00427	mg/L	0.000195	0.00853	0.000389	4.56%
Na 589.592†	23489.7	1.956	mg/L	0.0100	3.912	0.0201	0.51%
Na 330.237†	-8.9	1.935	mg/L	0.0296	3.869	0.0592	1.53%
Ni 231.604†	552.0	0.1380	mg/L	0.00165	0.2761	0.00330	1.19%
Pb 220.353†	288.7	0.06265	mg/L	0.000277	0.1253	0.00055	0.44%
Sb 206.836†	7.5	0.00782	mg/L	0.002667	0.01564	0.005333	34.09%
Se 196.026†	19.0	-0.00719	mg/L	0.002589	-0.01437	0.005177	36.03%
Si 288.158†	5461.7	3.104	mg/L	0.0029	6.209	0.0059	0.09%
Sn 189.927†	-56.0	-0.00628	mg/L	0.000627	-0.01256	0.001253	9.98%
Sr 421.552†	384635.0	0.4201	mg/L	0.00040	0.8403	0.00080	0.09%
Ti 334.903†	193637.3	8.509	mg/L	0.0198	17.02	0.040	0.23%
Tl 190.801†	-41.9	0.00665	mg/L	0.003433	0.01331	0.006865	51.59%
V 292.402†	57380.0	0.4086	mg/L	0.00105	0.8172	0.00209	0.26%
Zn 206.200†	1986.4	0.4771	mg/L	0.00126	0.9541	0.00253	0.26%

Sequence No.: 80  
 Sample ID: WE79 N SWC  
 Analyst: ALA  
 Dilution: 2.000000X

Autosampler Location: 361  
 Date Collected: 2/27/2013 2:14:46 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 N SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 N SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3295290.0	104.2	%	0.41			0.40%
ScR 361.383	352448.7	104.2	%	1.13			1.08%
Ag 328.068†	28879.8	0.1299	mg/L	0.00066	0.2598 mg/L	0.00131	0.50%
Al 308.215†	44755.1	32.88	mg/L	0.517	65.75 mg/L	1.033	1.57%
As 188.979†	3390.2	1.953	mg/L	0.0040	3.906 mg/L	0.0079	0.20%
B 249.677†	22.8	0.00342	mg/L	0.000736	0.00684 mg/L	0.001472	21.53%
Ba 233.527†	3520.7	0.5970	mg/L	0.00590	1.194 mg/L	0.0118	0.99%
Be 313.042†	333.0	0.00062	mg/L	0.000035	0.00125 mg/L	0.000071	5.69%
Ca 317.933†	13442.8	1.285	mg/L	0.0196	2.571 mg/L	0.0392	1.53%
Cd 228.802†	336.6	0.00192	mg/L	0.000151	0.00385 mg/L	0.000302	7.85%
Co 228.616†	306.5	0.00686	mg/L	0.000080	0.01373 mg/L	0.000161	1.17%
Cr 267.716†	188.0	0.03224	mg/L	0.001248	0.06449 mg/L	0.002497	3.87%
Cu 324.752†	26058.8	0.09973	mg/L	0.000657	0.1995 mg/L	0.00131	0.66%
Fe 273.955†	188642.9	120.7	mg/L	1.09	241.3 mg/L	2.18	0.90%
K 766.490†	37011.4	22.91	mg/L	0.336	45.82 mg/L	0.673	1.47%
Mg 279.077†	4582.7	4.458	mg/L	0.0418	8.915 mg/L	0.0836	0.94%
Mn 257.610†	7456.2	0.1532	mg/L	0.00280	0.3065 mg/L	0.00560	1.83%
Mo 202.031†	33.6	0.00151	mg/L	0.000125	0.00301 mg/L	0.000251	8.32%
Na 589.592†	22530.7	1.876	mg/L	0.0230	3.752 mg/L	0.0460	1.23%
Na 330.237†	49.5	1.684	mg/L	0.1047	3.368 mg/L	0.2094	6.22%
Ni 231.604†	54.5	0.01363	mg/L	0.000975	0.02727 mg/L	0.001950	7.15%
Pb 220.353†	6100.9	0.6558	mg/L	0.00280	1.312 mg/L	0.0056	0.43%
Sb 206.836†	87.4	0.02511	mg/L	0.000979	0.05021 mg/L	0.001958	3.90%
Se 196.026†	30.8	0.01426	mg/L	0.005151	0.02851 mg/L	0.010302	36.13%
Si 288.158†	3033.9	1.722	mg/L	0.0207	3.445 mg/L	0.0413	1.20%
Sn 189.927†	3.7	0.00089	mg/L	0.000377	0.00178 mg/L	0.000754	42.43%
Sr 421.552†	352660.4	0.3852	mg/L	0.00219	0.7704 mg/L	0.00438	0.57%
Ti 334.903†	5100.9	0.2241	mg/L	0.00360	0.4482 mg/L	0.00720	1.61%
Tl 190.801†	-14.5	0.00949	mg/L	0.001821	0.01898 mg/L	0.003642	19.19%
V 292.402†	7924.9	0.05229	mg/L	0.000548	0.1046 mg/L	0.00110	1.05%
Zn 206.200†	377.4	0.09086	mg/L	0.000395	0.1817 mg/L	0.00079	0.43%



Sequence No.: 81  
 Sample ID: WE79 Q SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 362  
 Date Collected: 2/27/2013 2:19:03 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 Q SWC

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WE79 Q SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	3269682.1	103.4	%	0.80				0.77%
ScR 361.383	357259.4	105.6	%	0.86				0.82%
Ag 328.068†	2785.8	0.01259	mg/L	0.000271	0.06293	mg/L	0.001355	2.15%
Al 308.215†	85339.6	62.69	mg/L	0.326	313.4	mg/L	1.63	0.52%
As 188.979†	822.0	0.4824	mg/L	0.00401	2.412	mg/L	0.0200	0.83%
B 249.677†	-4.8	-0.00078	mg/L	0.000196	-0.00389	mg/L	0.000978	25.14%
Ba 233.527†	2414.6	0.4052	mg/L	0.00187	2.026	mg/L	0.0094	0.46%
Be 313.042†	1064.5	0.00201	mg/L	0.000022	0.01005	mg/L	0.000112	1.12%
Ca 317.933†	30356.0	2.903	mg/L	0.0134	14.51	mg/L	0.067	0.46%
Cd 228.802†	109.7	0.00155	mg/L	0.000202	0.00777	mg/L	0.001009	12.99%
Co 228.616†	871.0	0.02021	mg/L	0.000225	0.1011	mg/L	0.00113	1.11%
Cr 267.716†	413.1	0.06602	mg/L	0.000389	0.3301	mg/L	0.00195	0.59%
Cu 324.752†	53584.5	0.1984	mg/L	0.00090	0.9919	mg/L	0.00448	0.45%
Fe 273.955†	174135.5	111.4	mg/L	0.45	556.9	mg/L	2.25	0.40%
K 766.490†	18482.6	11.44	mg/L	0.072	57.20	mg/L	0.358	0.63%
Mg 279.077†	10177.5	9.987	mg/L	0.0761	49.93	mg/L	0.380	0.76%
Mn 257.610†	54667.4	1.123	mg/L	0.0039	5.617	mg/L	0.0195	0.35%
Mo 202.031†	50.2	0.00223	mg/L	0.000212	0.01117	mg/L	0.001060	9.48%
Na 589.592†	7681.5	0.6396	mg/L	0.00226	3.198	mg/L	0.0113	0.35%
Na 330.237†	17.4	0.5956	mg/L	0.24201	2.978	mg/L	1.2100	40.63%
Ni 231.604†	126.8	0.03172	mg/L	0.000609	0.1586	mg/L	0.00304	1.92%
Pb 220.353†	339.3	0.04721	mg/L	0.001073	0.2361	mg/L	0.00537	2.27%
Sb 206.836†	28.8	0.00810	mg/L	0.001036	0.04051	mg/L	0.005180	12.79%
Se 196.026†	16.0	0.00211	mg/L	0.004966	0.01055	mg/L	0.024832	235.46%
Si 288.158†	2997.8	1.703	mg/L	0.0161	8.513	mg/L	0.0803	0.94%
Sn 189.927†	-4.2	-0.00052	mg/L	0.000319	-0.00259	mg/L	0.001595	61.49%
Sr 421.552†	178341.2	0.1948	mg/L	0.00080	0.9740	mg/L	0.00402	0.41%
Ti 334.903†	7235.0	0.3178	mg/L	0.00293	1.589	mg/L	0.0147	0.92%
Tl 190.801†	-30.2	0.00113	mg/L	0.001541	0.00566	mg/L	0.007704	136.06%
V 292.402†	16455.5	0.1158	mg/L	0.00006	0.5789	mg/L	0.00032	0.06%
Zn 206.200†	1034.4	0.2484	mg/L	0.00342	1.242	mg/L	0.0171	1.38%

Sequence No.: 82  
 Sample ID: WE79 R SWC  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 363  
 Date Collected: 2/27/2013 2:23:04 PM  
 Data Type: Original

## Nebulizer Parameters: WE79 R SWC

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: WE79 R SWC

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3283508.8	103.8	%	0.74			0.72%
ScR 361.383	353576.8	104.5	%	0.61			0.58%
Ag 328.068†	4596.7	0.02071	mg/L	0.000287	0.1035 mg/L	0.00144	1.39%
Al 308.215†	78239.7	57.47	mg/L	0.247	287.4 mg/L	1.23	0.43%
As 188.979†	3495.3	2.008	mg/L	0.0148	10.04 mg/L	0.074	0.74%
B 249.677†	-34.8	-0.00527	mg/L	0.000315	-0.02636 mg/L	0.001573	5.97%
Ba 233.527†	3782.0	0.6382	mg/L	0.00579	3.191 mg/L	0.0289	0.91%
Be 313.042†	653.1	0.00123	mg/L	0.000021	0.00615 mg/L	0.000106	1.73%
Ca 317.933†	7833.1	0.7490	mg/L	0.00574	3.745 mg/L	0.0287	0.77%
Cd 228.802†	352.5	0.00219	mg/L	0.000193	0.01093 mg/L	0.000966	8.84%
Co 228.616†	400.0	0.00936	mg/L	0.000179	0.04678 mg/L	0.000893	1.91%
Cr 267.716†	255.1	0.04327	mg/L	0.000318	0.2164 mg/L	0.00159	0.73%
Cu 324.752†	69484.8	0.2576	mg/L	0.00248	1.288 mg/L	0.0124	0.96%
Fe 273.955†	235760.2	150.8	mg/L	1.16	753.9 mg/L	5.80	0.77%
K 766.490†	21134.0	13.08	mg/L	0.049	65.41 mg/L	0.247	0.38%
Mg 279.077†	6987.9	6.816	mg/L	0.0300	34.08 mg/L	0.150	0.44%
Mn 257.610†	19160.3	0.3936	mg/L	0.00290	1.968 mg/L	0.0145	0.74%
Mo 202.031†	36.2	0.00163	mg/L	0.000281	0.00814 mg/L	0.001407	17.28%
Na 589.592†	16107.0	1.341	mg/L	0.0144	6.705 mg/L	0.0722	1.08%
Na 330.237†	40.5	1.333	mg/L	0.2160	6.664 mg/L	1.0798	16.20%
Ni 231.604†	44.2	0.01106	mg/L	0.000830	0.05532 mg/L	0.004152	7.50%
Pb 220.353†	926.1	0.1064	mg/L	0.00142	0.5321 mg/L	0.00711	1.34%
Sb 206.836†	60.2	0.01719	mg/L	0.001564	0.08594 mg/L	0.007820	9.10%
Se 196.026†	27.8	0.00960	mg/L	0.001871	0.04802 mg/L	0.009356	19.48%
Si 288.158†	1453.7	0.8259	mg/L	0.01066	4.129 mg/L	0.0533	1.29%
Sn 189.927†	1.1	0.00031	mg/L	0.000675	0.00153 mg/L	0.003377	221.20%
Sr 421.552†	111683.8	0.1220	mg/L	0.00052	0.6100 mg/L	0.00258	0.42%
Ti 334.903†	1677.8	0.07369	mg/L	0.001080	0.3685 mg/L	0.00540	1.47%
Tl 190.801†	-33.3	0.00519	mg/L	0.002021	0.02596 mg/L	0.010107	38.93%
V 292.402†	13055.8	0.08870	mg/L	0.000600	0.4435 mg/L	0.00300	0.68%
Zn 206.200†	522.5	0.1255	mg/L	0.00088	0.6274 mg/L	0.00442	0.70%

Sequence No.: 83  
 Sample ID: D1  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 364  
 Date Collected: 2/27/2013 2:27:05 PM  
 Data Type: Original

## Nebulizer Parameters: D1

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: D1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3237330.5	102.4	%	0.15			0.15%
ScR 361.383	349914.2	103.5	%	0.80			0.77%
Ag 328.068†	5.1	0.00002	mg/L	0.000175	0.00002 mg/L	0.000175	769.49%
Al 308.215†	16.0	0.01178	mg/L	0.003311	0.01178 mg/L	0.003311	28.10%
As 188.979†	-0.6	-0.00033	mg/L	0.001797	-0.00033 mg/L	0.001797	538.95%
B 249.677†	-4.0	-0.00060	mg/L	0.001168	-0.00060 mg/L	0.001168	193.27%
Ba 233.527†	2.6	0.00045	mg/L	0.000285	0.00045 mg/L	0.000285	63.75%
Be 313.042†	-3.6	-0.00001	mg/L	0.000036	-0.00001 mg/L	0.000036	530.45%
Ca 317.933†	44.5	0.00426	mg/L	0.000814	0.00426 mg/L	0.000814	19.11%
Cd 228.802†	0.5	0.00002	mg/L	0.000063	0.00002 mg/L	0.000063	283.06%
Co 228.616†	-1.3	-0.00003	mg/L	0.000073	-0.00003 mg/L	0.000073	245.91%
Cr 267.716†	2.6	0.00040	mg/L	0.001031	0.00040 mg/L	0.001031	258.39%
Cu 324.752†	25.2	0.00009	mg/L	0.000100	0.00009 mg/L	0.000100	109.28%
Fe 273.955†	14.9	0.00950	mg/L	0.005257	0.00950 mg/L	0.005257	55.31%
K 766.490†	-28.7	-0.01773	mg/L	0.019505	-0.01773 mg/L	0.019505	109.99%
Mg 279.077†	-4.9	-0.00483	mg/L	0.004168	-0.00483 mg/L	0.004168	86.35%
Mn 257.610†	-0.4	-0.00001	mg/L	0.000088	-0.00001 mg/L	0.000088	>999.9%
Mo 202.031†	-1.7	-0.00008	mg/L	0.000276	-0.00008 mg/L	0.000276	351.19%
Na 589.592†	-23.3	-0.00194	mg/L	0.004742	-0.00194 mg/L	0.004742	244.39%
Na 330.237†	1.6	0.05227	mg/L	0.128610	0.05227 mg/L	0.128610	246.04%
Ni 231.604†	0.3	0.00009	mg/L	0.000599	0.00009 mg/L	0.000599	700.73%
Pb 220.353†	0.2	0.00003	mg/L	0.000302	0.00003 mg/L	0.000302	>999.9%
Sb 206.836†	-1.1	-0.00032	mg/L	0.000499	-0.00032 mg/L	0.000499	158.09%
Se 196.026†	-1.2	-0.00069	mg/L	0.004509	-0.00069 mg/L	0.004509	650.00%
Si 288.158†	1.1	0.00060	mg/L	0.003994	0.00060 mg/L	0.003994	670.21%
Sn 189.927†	0.1	0.00001	mg/L	0.000390	0.00001 mg/L	0.000390	>999.9%
Sr 421.552†	20.1	0.00002	mg/L	0.000018	0.00002 mg/L	0.000018	80.00%
Ti 334.903†	-8.6	-0.00038	mg/L	0.000307	-0.00038 mg/L	0.000307	81.05%
Tl 190.801†	1.4	0.00060	mg/L	0.001446	0.00060 mg/L	0.001446	239.68%
V 292.402†	6.1	0.00005	mg/L	0.000165	0.00005 mg/L	0.000165	357.67%
Zn 206.200†	24.3	0.00584	mg/L	0.000233	0.00584 mg/L	0.000233	3.99%

Sequence No.: 84  
 Sample ID: CV8  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 2:31:20 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3231134.6	102.2	%	0.53			0.52%
ScR 361.383	344098.6	101.7	%	0.63			0.62%
Ag 328.068†	232756.9	1.047	mg/L	0.0110	1.047 mg/L	0.0110	1.05%
Al 308.215†	2796.1	2.019	mg/L	0.0005	2.019 mg/L	0.0005	0.03%
As 188.979†	3478.9	2.027	mg/L	0.0101	2.027 mg/L	0.0101	0.50%
B 249.677†	6779.0	1.021	mg/L	0.0039	1.021 mg/L	0.0039	0.39%
Ba 233.527†	5907.3	1.031	mg/L	0.0022	1.031 mg/L	0.0022	0.22%
Be 313.042†	505883.2	0.9701	mg/L	0.00606	0.9701 mg/L	0.00606	0.62%
Ca 317.933†	21497.7	2.056	mg/L	0.0052	2.056 mg/L	0.0052	0.25%
Cd 228.802†	27293.6	1.028	mg/L	0.0112	1.028 mg/L	0.0112	1.09%
Co 228.616†	42302.0	1.009	mg/L	0.0124	1.009 mg/L	0.0124	1.22%
Cr 267.716†	6630.6	1.022	mg/L	0.0038	1.022 mg/L	0.0038	0.37%
Cu 324.752†	285467.4	1.028	mg/L	0.0096	1.028 mg/L	0.0096	0.93%
Fe 273.955†	3197.9	2.040	mg/L	0.0127	2.040 mg/L	0.0127	0.63%
K 766.490†	32529.1	20.14	mg/L	0.111	20.14 mg/L	0.111	0.55%
Mg 279.077†	2062.0	2.042	mg/L	0.0032	2.042 mg/L	0.0032	0.16%
Mn 257.610†	47476.4	0.9763	mg/L	0.00363	0.9763 mg/L	0.00363	0.37%
Mo 202.031†	22075.9	0.9996	mg/L	0.00704	0.9996 mg/L	0.00704	0.70%
Na 589.592†	623688.0	51.93	mg/L	0.417	51.93 mg/L	0.417	0.80%
Na 330.237†	1583.0	52.70	mg/L	0.336	52.70 mg/L	0.336	0.64%
Ni 231.604†	4119.3	1.030	mg/L	0.0042	1.030 mg/L	0.0042	0.41%
Pb 220.353†	19285.5	2.067	mg/L	0.0090	2.067 mg/L	0.0090	0.43%
Sb 206.836†	7166.0	2.056	mg/L	0.0106	2.056 mg/L	0.0106	0.51%
Se 196.026†	3398.1	1.990	mg/L	0.0120	1.990 mg/L	0.0120	0.60%
Si 288.158†	3578.9	2.026	mg/L	0.0075	2.026 mg/L	0.0075	0.37%
Sn 189.927†	4943.9	0.9831	mg/L	0.00688	0.9831 mg/L	0.00688	0.70%
Sr 421.552†	925698.9	1.011	mg/L	0.0051	1.011 mg/L	0.0051	0.50%
Ti 334.903†	22556.5	0.9901	mg/L	0.00415	0.9901 mg/L	0.00415	0.42%
Tl 190.801†	4677.9	2.016	mg/L	0.0074	2.016 mg/L	0.0074	0.37%
V 292.402†	139379.2	1.030	mg/L	0.0123	1.030 mg/L	0.0123	1.20%
Zn 206.200†	4403.6	1.057	mg/L	0.0029	1.057 mg/L	0.0029	0.28%

Sequence No.: 85  
 Sample ID: CB 8  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 1  
 Date Collected: 2/27/2013 2:35:24 PM  
 Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3246359.4	102.7	%	0.41			0.40%
ScR 361.383	348780.8	103.1	%	0.25			0.24%
Ag 328.068†	-8.6	-0.00004	mg/L	0.000198	-0.00004 mg/L	0.000198	514.60%
Al 308.215†	5.0	0.00361	mg/L	0.003982	0.00361 mg/L	0.003982	110.23%
As 188.979†	-0.9	-0.00051	mg/L	0.001959	-0.00051 mg/L	0.001959	387.28%
B 249.677†	13.1	0.00197	mg/L	0.000069	0.00197 mg/L	0.000069	3.49%
Ba 233.527†	4.3	0.00076	mg/L	0.000337	0.00076 mg/L	0.000337	44.46%
Be 313.042†	6.1	0.00001	mg/L	0.000027	0.00001 mg/L	0.000027	226.69%
Ca 317.933†	-2.7	-0.00026	mg/L	0.000980	-0.00026 mg/L	0.000980	378.45%
Cd 228.802†	2.4	0.00009	mg/L	0.000081	0.00009 mg/L	0.000081	86.09%
Co 228.616†	4.6	0.00011	mg/L	0.000099	0.00011 mg/L	0.000099	90.69%
Cr 267.716†	5.1	0.00079	mg/L	0.000896	0.00079 mg/L	0.000896	113.73%
Cu 324.752†	-43.2	-0.00016	mg/L	0.000096	-0.00016 mg/L	0.000096	61.43%
Fe 273.955†	4.0	0.00257	mg/L	0.001697	0.00257 mg/L	0.001697	65.95%
K 766.490†	-13.4	-0.00829	mg/L	0.008796	-0.00829 mg/L	0.008796	106.06%
Mg 279.077†	-2.0	-0.00193	mg/L	0.001350	-0.00193 mg/L	0.001350	69.83%
Mn 257.610†	-4.0	-0.00008	mg/L	0.000053	-0.00008 mg/L	0.000053	65.07%
Mo 202.031†	33.5	0.00152	mg/L	0.000180	0.00152 mg/L	0.000180	11.86%
Na 589.592†	-8.9	-0.00074	mg/L	0.004328	-0.00074 mg/L	0.004328	583.64%
Na 330.237†	5.6	0.1851	mg/L	0.13199	0.1851 mg/L	0.13199	71.30%
Ni 231.604†	1.7	0.00042	mg/L	0.000255	0.00042 mg/L	0.000255	59.98%
Pb 220.353†	1.2	0.00013	mg/L	0.000597	0.00013 mg/L	0.000597	462.08%
Sb 206.836†	15.5	0.00445	mg/L	0.001193	0.00445 mg/L	0.001193	26.85%
Se 196.026†	1.0	0.00061	mg/L	0.003017	0.00061 mg/L	0.003017	491.59%
Si 288.158†	-2.4	-0.00138	mg/L	0.002476	-0.00138 mg/L	0.002476	179.03%
Sn 189.927†	0.7	0.00015	mg/L	0.000271	0.00015 mg/L	0.000271	185.68%
Sr 421.552†	45.7	0.00005	mg/L	0.000027	0.00005 mg/L	0.000027	53.56%
Ti 334.903†	-1.7	-0.00008	mg/L	0.000664	-0.00008 mg/L	0.000664	867.69%
Tl 190.801†	1.8	0.00077	mg/L	0.000525	0.00077 mg/L	0.000525	68.59%
V 292.402†	30.3	0.00023	mg/L	0.000085	0.00023 mg/L	0.000085	37.46%
Zn 206.200†	-0.1	-0.00001	mg/L	0.000629	-0.00001 mg/L	0.000629	>999.9%

Sequence No.: 86  
 Sample ID: CRI  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 301  
 Date Collected: 2/27/2013 2:39:40 PM  
 Data Type: Original

## Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

## Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3233613.6	102.3	%	0.84			0.82%
ScR 361.383	349313.9	103.3	%	0.35			0.34%
Ag 328.068†	744.2	0.00335	mg/L	0.000188	0.00335 mg/L	0.000188	5.61%
Al 308.215†	84.7	0.06210	mg/L	0.004430	0.06210 mg/L	0.004430	7.13%
As 188.979†	86.8	0.04997	mg/L	0.000598	0.04997 mg/L	0.000598	1.20%
B 249.677†	145.2	0.02188	mg/L	0.000568	0.02188 mg/L	0.000568	2.60%
Ba 233.527†	16.6	0.00288	mg/L	0.000654	0.00288 mg/L	0.000654	22.68%
Be 313.042†	497.5	0.00095	mg/L	0.000018	0.00095 mg/L	0.000018	1.89%
Ca 317.933†	525.9	0.05029	mg/L	0.000202	0.05029 mg/L	0.000202	0.40%
Cd 228.802†	65.5	0.00222	mg/L	0.000183	0.00222 mg/L	0.000183	8.24%
Co 228.616†	151.0	0.00360	mg/L	0.000149	0.00360 mg/L	0.000149	4.15%
Cr 267.716†	33.7	0.00519	mg/L	0.000492	0.00519 mg/L	0.000492	9.47%
Cu 324.752†	545.5	0.00197	mg/L	0.000220	0.00197 mg/L	0.000220	11.19%
Fe 273.955†	83.3	0.05328	mg/L	0.001709	0.05328 mg/L	0.001709	3.21%
K 766.490†	786.7	0.4870	mg/L	0.01366	0.4870 mg/L	0.01366	2.81%
Mg 279.077†	54.1	0.05341	mg/L	0.005079	0.05341 mg/L	0.005079	9.51%
Mn 257.610†	48.3	0.00100	mg/L	0.000080	0.00100 mg/L	0.000080	8.01%
Mo 202.031†	121.6	0.00551	mg/L	0.000011	0.00551 mg/L	0.000011	0.19%
Na 589.592†	5895.8	0.4909	mg/L	0.00564	0.4909 mg/L	0.00564	1.15%
Na 330.237†	20.5	0.6830	mg/L	0.10677	0.6830 mg/L	0.10677	15.63%
Ni 231.604†	45.6	0.01141	mg/L	0.000560	0.01141 mg/L	0.000560	4.91%
Pb 220.353†	194.5	0.02085	mg/L	0.000720	0.02085 mg/L	0.000720	3.45%
Sb 206.836†	183.4	0.05270	mg/L	0.001201	0.05270 mg/L	0.001201	2.28%
Se 196.026†	87.8	0.05147	mg/L	0.001830	0.05147 mg/L	0.001830	3.56%
Si 288.158†	113.4	0.06429	mg/L	0.003859	0.06429 mg/L	0.003859	6.00%
Sn 189.927†	55.2	0.01099	mg/L	0.000455	0.01099 mg/L	0.000455	4.14%
Sr 421.552†	969.6	0.00106	mg/L	0.000027	0.00106 mg/L	0.000027	2.58%
Ti 334.903†	110.0	0.00482	mg/L	0.000598	0.00482 mg/L	0.000598	12.40%
Tl 190.801†	120.3	0.05203	mg/L	0.000167	0.05203 mg/L	0.000167	0.32%
V 292.402†	425.4	0.00315	mg/L	0.000058	0.00315 mg/L	0.000058	1.83%
Zn 206.200†	40.0	0.00960	mg/L	0.000195	0.00960 mg/L	0.000195	2.03%

Sequence No.: 87  
 Sample ID: ICSA  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 302  
 Date Collected: 2/27/2013 2:43:57 PM  
 Data Type: Original

## Nebulizer Parameters: ICSA

Analyte Back Pressure Flow  
 All 218.0 kPa 0.75 L/min

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3172446.7	100.3	%	0.35			0.35%
ScR 361.383	341371.7	100.9	%	0.55			0.55%
Ag 328.068†	-236.5	-0.00041	mg/L	0.000040	-0.00041 mg/L	0.000040	9.65%
Al 308.215†	274277.3	201.5	mg/L	1.40	201.5 mg/L	1.40	0.70%
As 188.979†	53.9	0.02209	mg/L	0.002904	0.02209 mg/L	0.002904	13.15%
B 249.677†	-54.7	-0.00825	mg/L	0.002611	-0.00825 mg/L	0.002611	31.64%
Ba 233.527†	144.1	-0.00367	mg/L	0.000541	-0.00367 mg/L	0.000541	14.75%
Be 313.042†	41.3	0.00008	mg/L	0.000010	0.00008 mg/L	0.000010	12.96%
Ca 317.933†	1048773.8	100.3	mg/L	1.17	100.3 mg/L	1.17	1.17%
Cd 228.802†	59.0	0.00207	mg/L	0.000087	0.00207 mg/L	0.000087	4.18%
Co 228.616†	68.1	0.00161	mg/L	0.000147	0.00161 mg/L	0.000147	9.11%
Cr 267.716†	37.4	0.00085	mg/L	0.000649	0.00085 mg/L	0.000649	75.93%
Cu 324.752†	-2167.1	0.00129	mg/L	0.000112	0.00129 mg/L	0.000112	8.74%
Fe 273.955†	306769.2	196.2	mg/L	1.18	196.2 mg/L	1.18	0.60%
K 766.490†	32.3	0.01997	mg/L	0.007077	0.01997 mg/L	0.007077	35.44%
Mg 279.077†	104881.4	103.4	mg/L	0.61	103.4 mg/L	0.61	0.59%
Mn 257.610†	66.9	-0.00002	mg/L	0.000121	-0.00002 mg/L	0.000121	487.26%
Mo 202.031†	91.7	0.00297	mg/L	0.000356	0.00297 mg/L	0.000356	11.97%
Na 589.592†	151.5	0.01261	mg/L	0.002958	0.01261 mg/L	0.002958	23.45%
Na 330.237†	-5.9	-0.1930	mg/L	0.07051	-0.1930 mg/L	0.07051	36.54%
Ni 231.604†	3.1	0.00078	mg/L	0.001193	0.00078 mg/L	0.001193	153.80%
Pb 220.353†	-507.1	-0.01027	mg/L	0.000172	-0.01027 mg/L	0.000172	1.68%
Sb 206.836†	29.8	0.00841	mg/L	0.001356	0.00841 mg/L	0.001356	16.13%
Se 196.026†	20.0	-0.01147	mg/L	0.008849	-0.01147 mg/L	0.008849	77.16%
Si 288.158†	-27.2	-0.00368	mg/L	0.001676	-0.00368 mg/L	0.001676	45.50%
Sn 189.927†	-81.1	-0.00770	mg/L	0.000625	-0.00770 mg/L	0.000625	8.11%
Sr 421.552†	3752.2	0.00410	mg/L	0.000020	0.00410 mg/L	0.000020	0.50%
Ti 334.903†	216.1	0.00353	mg/L	0.000132	0.00353 mg/L	0.000132	3.73%
Tl 190.801†	-45.1	0.00648	mg/L	0.003528	0.00648 mg/L	0.003528	54.40%
V 292.402†	1289.9	-0.00033	mg/L	0.000182	-0.00033 mg/L	0.000182	54.64%
Zn 206.200†	1.2	0.00029	mg/L	0.000268	0.00029 mg/L	0.000268	91.44%

Sequence No.: 89  
 Sample ID: CV 9  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 2/27/2013 2:52:17 PM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3266037.6	103.3	%	0.08			0.07%
ScR 361.383	342938.4	101.4	%	0.21			0.20%
Ag 328.068†	231204.4	1.040	mg/L	0.0018	1.040 mg/L	0.0018	0.17%
Al 308.215†	2813.8	2.032	mg/L	0.0054	2.032 mg/L	0.0054	0.26%
As 188.979†	3463.1	2.018	mg/L	0.0060	2.018 mg/L	0.0060	0.30%
B 249.677†	6832.2	1.029	mg/L	0.0041	1.029 mg/L	0.0041	0.40%
Ba 233.527†	5970.3	1.042	mg/L	0.0074	1.042 mg/L	0.0074	0.71%
Be 313.042†	507512.7	0.9732	mg/L	0.00527	0.9732 mg/L	0.00527	0.54%
Ca 317.933†	21756.8	2.080	mg/L	0.0064	2.080 mg/L	0.0064	0.31%
Cd 228.802†	27127.9	1.022	mg/L	0.0011	1.022 mg/L	0.0011	0.11%
Co 228.616†	42311.0	1.010	mg/L	0.0026	1.010 mg/L	0.0026	0.26%
Cr 267.716†	6701.3	1.033	mg/L	0.0045	1.033 mg/L	0.0045	0.44%
Cu 324.752†	284425.8	1.024	mg/L	0.0013	1.024 mg/L	0.0013	0.13%
Fe 273.955†	3241.5	2.067	mg/L	0.0081	2.067 mg/L	0.0081	0.39%
K 766.490†	32821.7	20.32	mg/L	0.011	20.32 mg/L	0.011	0.05%
Mg 279.077†	2097.3	2.077	mg/L	0.0075	2.077 mg/L	0.0075	0.36%
Mn 257.610†	47882.5	0.9847	mg/L	0.00649	0.9847 mg/L	0.00649	0.66%
Mo 202.031†	21993.6	0.9959	mg/L	0.00391	0.9959 mg/L	0.00391	0.39%
Na 589.592†	625832.7	52.11	mg/L	0.270	52.11 mg/L	0.270	0.52%
Na 330.237†	1589.6	52.92	mg/L	0.187	52.92 mg/L	0.187	0.35%
Ni 231.604†	4175.0	1.044	mg/L	0.0028	1.044 mg/L	0.0028	0.26%
Pb 220.353†	19205.8	2.058	mg/L	0.0061	2.058 mg/L	0.0061	0.30%
Sb 206.836†	7146.0	2.050	mg/L	0.0084	2.050 mg/L	0.0084	0.41%
Se 196.026†	3383.6	1.982	mg/L	0.0069	1.982 mg/L	0.0069	0.35%
Si 288.158†	3609.9	2.044	mg/L	0.0085	2.044 mg/L	0.0085	0.41%
Sn 189.927†	4922.6	0.9788	mg/L	0.00774	0.9788 mg/L	0.00774	0.79%
Sr 421.552†	931366.4	1.017	mg/L	0.0009	1.017 mg/L	0.0009	0.09%
Ti 334.903†	22713.7	0.9970	mg/L	0.00115	0.9970 mg/L	0.00115	0.12%
Tl 190.801†	4660.8	2.008	mg/L	0.0057	2.008 mg/L	0.0057	0.28%
V 292.402†	138839.2	1.026	mg/L	0.0026	1.026 mg/L	0.0026	0.25%
Zn 206.200†	4452.4	1.068	mg/L	0.0013	1.068 mg/L	0.0013	0.12%



Sequence No.: 90  
Sample ID: CB 9  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 1  
Date Collected: 2/27/2013 2:56:21 PM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	3196156.8	101.1	%	0.50			0.49%
ScR 361.383	342659.1	101.3	%	0.22			0.22%
Ag 328.068†	48.8	0.00022	mg/L	0.000312	0.00022	mg/L	0.000312 142.13%
Al 308.215†	18.5	0.01355	mg/L	0.005301	0.01355	mg/L	0.005301 39.13%
As 188.979†	1.7	0.00093	mg/L	0.000876	0.00093	mg/L	0.000876 93.78%
B 249.677†	12.1	0.00182	mg/L	0.001320	0.00182	mg/L	0.001320 72.36%
Ba 233.527†	3.8	0.00067	mg/L	0.000433	0.00067	mg/L	0.000433 65.03%
Be 313.042†	11.5	0.00002	mg/L	0.000047	0.00002	mg/L	0.000047 212.56%
Ca 317.933†	15.7	0.00150	mg/L	0.000769	0.00150	mg/L	0.000769 51.14%
Cd 228.802†	3.6	0.00013	mg/L	0.000243	0.00013	mg/L	0.000243 184.25%
Co 228.616†	3.9	0.00009	mg/L	0.000071	0.00009	mg/L	0.000071 75.26%
Cr 267.716†	-0.5	-0.00008	mg/L	0.000689	-0.00008	mg/L	0.000689 838.72%
Cu 324.752†	70.6	0.00025	mg/L	0.000141	0.00025	mg/L	0.000141 55.33%
Fe 273.955†	6.4	0.00412	mg/L	0.000899	0.00412	mg/L	0.000899 21.83%
K 766.490†	-16.0	-0.00990	mg/L	0.005120	-0.00990	mg/L	0.005120 51.70%
Mg 279.077†	-1.5	-0.00150	mg/L	0.001685	-0.00150	mg/L	0.001685 112.54%
Mn 257.610†	5.8	0.00012	mg/L	0.000072	0.00012	mg/L	0.000072 60.08%
Mo 202.031†	34.5	0.00156	mg/L	0.000277	0.00156	mg/L	0.000277 17.77%
Na 589.592†	-48.1	-0.00400	mg/L	0.001159	-0.00400	mg/L	0.001159 28.95%
Na 330.237†	8.2	0.2734	mg/L	0.21094	0.2734	mg/L	0.21094 77.16%
Ni 231.604†	-0.4	-0.00009	mg/L	0.001253	-0.00009	mg/L	0.001253 >999.9%
Pb 220.353†	1.2	0.00013	mg/L	0.000306	0.00013	mg/L	0.000306 231.05%
Sb 206.836†	27.9	0.00803	mg/L	0.000373	0.00803	mg/L	0.000373 4.65%
Se 196.026†	-1.5	-0.00089	mg/L	0.001265	-0.00089	mg/L	0.001265 141.59%
Si 288.158†	-0.6	-0.00035	mg/L	0.005437	-0.00035	mg/L	0.005437 >999.9%
Sn 189.927†	3.1	0.00062	mg/L	0.000566	0.00062	mg/L	0.000566 92.06%
Sr 421.552†	-10.6	-0.00001	mg/L	0.000045	-0.00001	mg/L	0.000045 391.38%
Ti 334.903†	-7.0	-0.00031	mg/L	0.000242	-0.00031	mg/L	0.000242 78.70%
Tl 190.801†	3.8	0.00165	mg/L	0.001159	0.00165	mg/L	0.001159 70.29%
V 292.402†	9.9	0.00007	mg/L	0.000166	0.00007	mg/L	0.000166 225.89%
Zn 206.200†	0.6	0.00013	mg/L	0.000341	0.00013	mg/L	0.000341 259.59%

Metals Data Review Checklist

Method: ICP ICP-MS / GFA CVA

Analysis Date: 2-27-13

MSI	Analyst BA 2-27-13	Peer AK 2-20	Comment
<b>Logbook:</b>			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
<b>Calibration:</b>			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
<b>Calibration Verification:</b>			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	↓
<b>Samples:</b>			
RSD's & SD's	✓	✓	See log BA 2/27/13
Internal Standards	✓	✓	See log
Carry-over	✓	✓	
<b>Method QC:</b>			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	WE83
Analytic Spikes	—	—	
<b>Matrix QC:</b>			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	WE83
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
<b>Data Distribution:</b>			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	CAF - WE83



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-27-13 Analyst: BA Page: 1 of 5

All corrections made by analyst unless otherwise noted. BA 2-27-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3009-6
		1			3010-4
		↓ 2			↓ -5
		↓ 3			3014-6
		↓ 4			3016-6
		Rinse sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low Check			
		ICSA			
		ICSAB			
		LR200			
		LR300			
		CCV2			
		CCB2			
		WE72 MB	BEN	2	
		WE71 MB		↓	
✓		↓ A		20	Over-diluted (NR)
		↓ ↓		2	Scr (NR)
		WE72 A		20	
		↓ ↓		<del>2</del>	Not run - Not needed
		↓ B	↓	<del>2</del>	



Analysis Date: 2-27-13 Analyst: BA Page: 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE72 MBSPK	REN	2	✓
		WE71 MBSPK	↓	↓	✓
		WE68 MBSPK	↓	↓	✓
		CCV3			
		CCB3			
		WE63 MBI	REN	2	
		WE68 MB	↓	↓	✓
		↓ ADUP	↓	↓	
		↓ A	↓	↓	✓
		↓ ASPK	↓	↓	
		WE63 A	↓	↓	
		↓ B	↓	↓	
		↓ D	↓	↓	
		↓ E	↓	↓	
		↓ MBSPK	↓	↓	✓
		CCV4			Be ↓
		CCB4			
		WE63 MB2	REN	2	Li ↑ (nr)
		↓ F	↓	↓	↓
		↓ G	↓	↓	
		↓ H	↓	↓	
		↓ I	↓	↓	
		↓ J	↓	↓	
		↓ LDUP	↓	↓	✓



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-27-13 Analyst: BA Page: 3 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE63 L	REN	2	Li↑(NR)
		↓ LSPK	↓	↓	↓
		↓ MB2SPK	↓	↓	↓
		CCV5			Be↓ Li↑
		CCB5			↓
		WE63 MB3	REN	2	Li↑(NR)
		↓ M	↓	↓	↓
		↓ N	↓	↓	↓
		↓ O	↓	↓	↓
		↓ P	↓	↓	↓
		↓ S	↓	↓	↓
		↓ RDUP	↓	↓	↓
		↓ R	↓	↓	↓
		↓ RSPK	↓	↓	↓
		↓ MB3SPK	↓	↓	↓
		CCV6			Be↓ Li↑
		CCB6			↓
		WE63 U	REN	2	Li↑(NR)
		↓ V	↓	↓	↓
		↓ W	↓	↓	↓
		↓ X	↓	↓	↓
		↓ Y	↓	↓	↓
		↓ Z	↓	↓	↓
		↓ AA	↓	↓	↓



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-27-13 Analyst: BA Page: 4 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE63 AC	REN	2	Li ↑ (NR)
		↓ AD	↓	↓	↓
		↓ AE	↓	↓	↓
		CCV7			Be ↓, Li ↑
		CCB7			<sup>53</sup> Cr ↓, Li ↑
		WE83 MBI	SWN	20	Li ↑ (NR)
		WE63 AF	REN	2	
		↓ AG	↓	↓	
		WE83 C	SWN	20	RR Cr (CC3)
		↓ A-L	↓	100	V > 10% (CAF)
		↓ A	↓	20	
		↓ ADUP	↓	↓	
		↓ ASPK	↓	↓	Sb ↓ (CAF)
		↓ APOST	↓	↓	0.06 mL ICP MS Spk #1 Z999-12 0.06 mL ICP MS Spk #2 Z956-7
		↓ MBISPK	↓	↓	Sb OK
		CCV8			Be ↓, Li ↑
		CCB8			<sup>53</sup> Cr ↓, Li ↑
		WE83 B-L	SWN	100	RR Cr (CC3) Li ↑ (NR)
		↓ B	↓	20	
		↓ BDUP	↓	↓	
		↓ BSPK	↓	↓	Sb ↓ (CAF)
		↓ BPOST	↓	↓	0.06 mL ICP MS Spk #1 Z999-12 0.06 mL ICP MS Spk #2 Z956-7
		↓ D	↓	↓	RR Cr (CC3)
		↓ E	↓	↓	↓



2

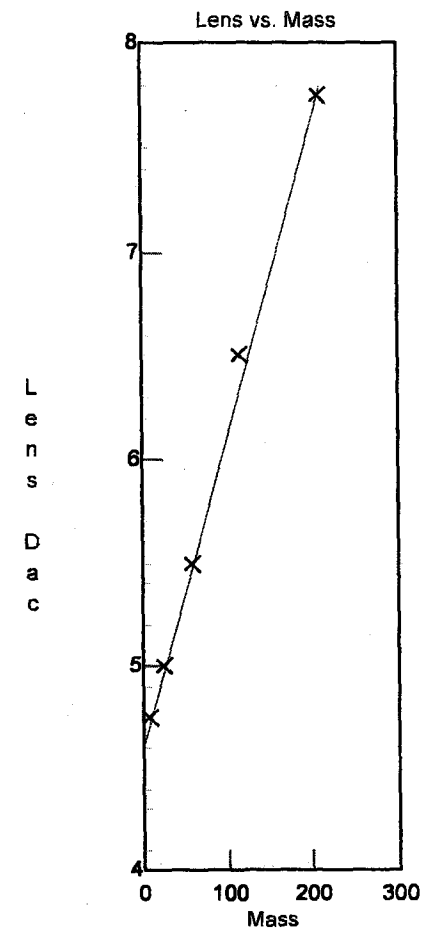
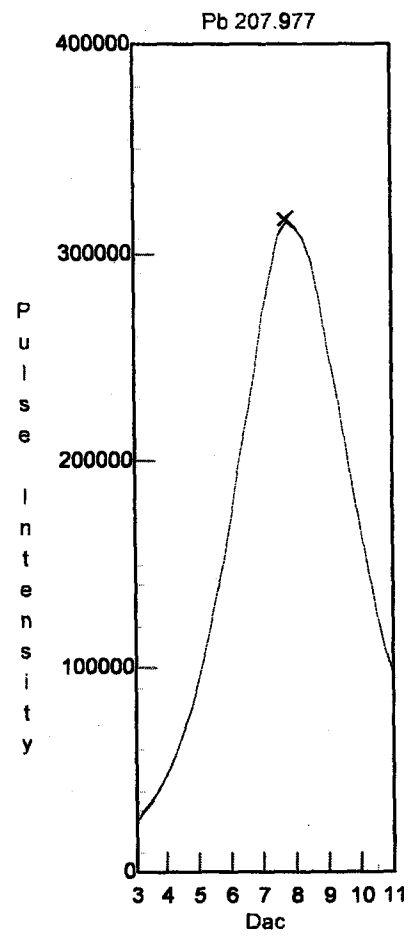
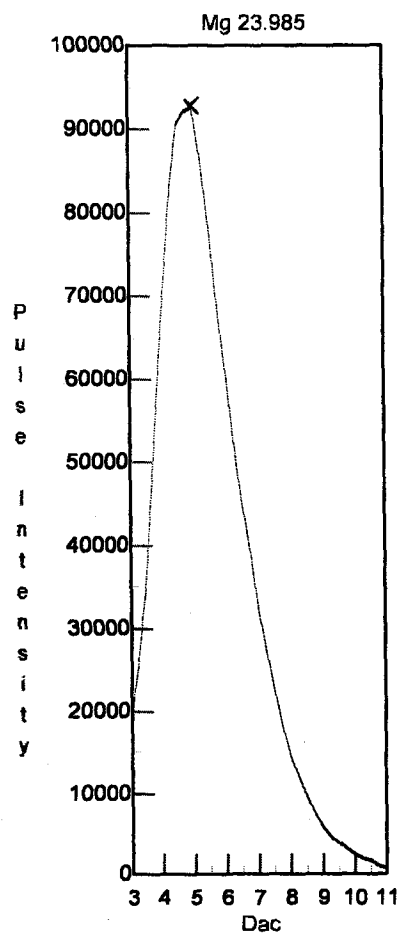
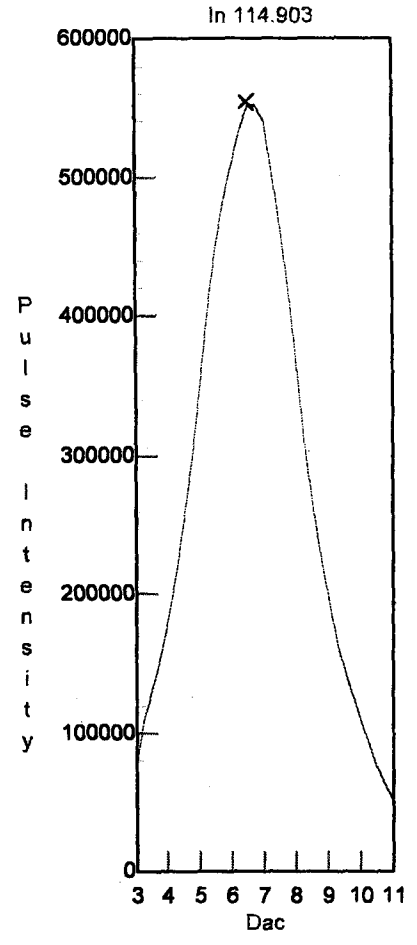
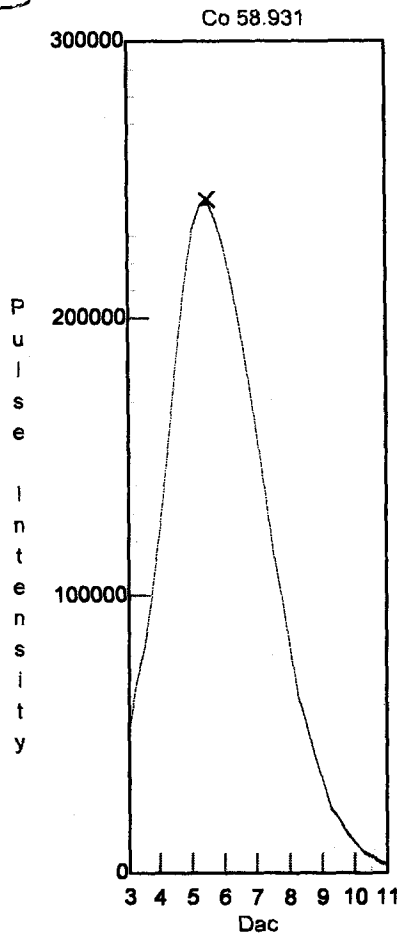
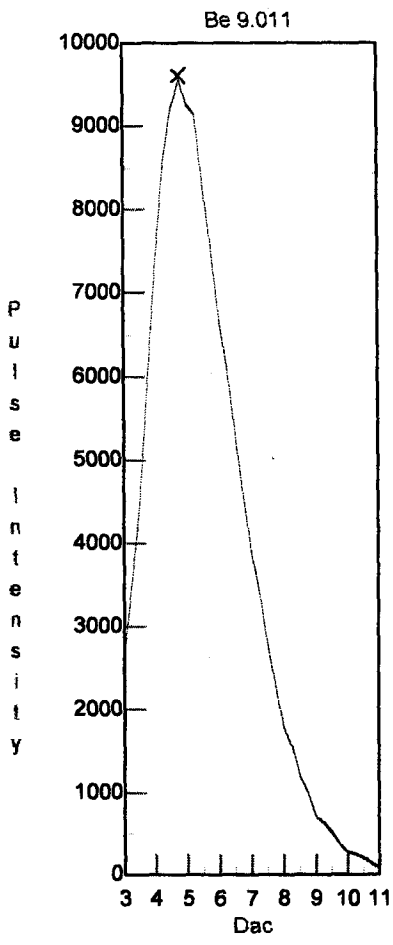
# Instrument Tuning Report

File Name: Default.tun  
File Path: C:\Elandata\Tuning\Default.tun

Analyte	Exact Mass	Meas. Mass ✓	Mass DAC	Res. DAC	Meas. Pk. Width ✓	Custom Res.
Be	9.012	8.977	2029	2152	0.679	
Mg	23.985	23.979	5658	2262	0.672	
Co	58.933	58.879	14152	2530	0.686	
In	114.904	114.879	27792	2970	0.703	
Pb	207.977	207.974	50440	3725	0.682	



2-27-13



# Daily Performance Report

Sample ID: Sample

Sample Date/Time: Wednesday, February 27, 2013 08:20:18

Sample Description:

Sample File: 1119.sam

Method File: C:\Elandata\Method\aridailyperf.mth

Dataset File: C:\Elandata\Dataset\daily performance\Sample.1406

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\Default.dac

Number of Replicates: 5

Dual Detector Mode: Dual

*Neb 0.92*

## Summary

Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Mg	24	43613.257 ✓	954.037	2.187
In	115	322796.837 ✓	4691.397	1.453
Pb	208	186673.429 ✓	1499.282	0.803
[> Ba	138	229388.160	2652.573	1.156
[ Ba++	69	0.014 ✓	0.000	2.809
[> Ce	140	281709.470	2501.824	0.888
[ CeO	156	0.030 ✓	0.001	2.761
Bkgd	220	7.751 ✓	2.405	31.025

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 08:55:42

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022613.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L				329720	1
[ Be	9		ug/L				17	14
C	13		mg/L				6213	4
Cl	37		mg/L				2029602	1
[> Sc	45		ug/L				254270	1
V	51		ug/L				1580	9
V-1	51		ug/L				5106	5
Cr	52		ug/L				4684	3
Cr	53		ug/L				1656	2
Mn	55		ug/L				310	13
[ Co	59		ug/L				48	13
[> Ge	72		ug/L				259859	0
Ni	60		ug/L				42	29
Ni	62		ug/L				58	2
Cu	63		ug/L				197	10
Cu	65		ug/L				88	18
Zn	66		ug/L				273	14
Zn	67		ug/L				152	15
Zn	68		ug/L				4791	0
As	75		ug/L				400	6
As-1	75		ug/L				6235	0
Se	82		ug/L				-15	7
Se	78		ug/L				6340	0
[ Mo	98		ug/L				209	10
Y	89		ug/L				259927	0
Kr	83		ug/L				223	2
[> In	115		ug/L				274729	0
Ag	107		ug/L				36	20
Cd	111		ug/L				123	7
Cd	114		ug/L				26	31
Sb	121		ug/L				22	38
Sb	123		ug/L				16	34
Ba	135		ug/L				20	34
[ Ba	137		ug/L				21	15
[> Tb	159		ug/L				328129	1
Tl	205		ug/L				35	17
Pb	208		ug/L				263	13
Bi	209		ug/L				267490	0
Th	232		ug/L				55	7
[ U	238		ug/L				13	19

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 09:01:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022613.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	321534 ✓	0
[ Be	9	10.000	ug/L	0.109	1	17	4375	1
C	13		mg/L			6213	4341	2
Cl	37		mg/L			2029602	2082908	0
[> Sc	45		ug/L			254270	252508 ✓	1
V	51	10.000	ug/L	0.136	1	1580	107729	1
V-1	51	10.000	ug/L	0.179	1	5106	113015	0
Cr	52	10.000	ug/L	0.144	1	4684	96459	0
Cr	53	10.000	ug/L	0.285	2	1656	12590	1
Mn	55	10.000	ug/L	0.317	3	310	149570	1
[ Co	59	10.000	ug/L	0.258	2	48	110285	0
[> Ge	72		ug/L			259859	258747 ✓	1
Ni	60	10.000	ug/L	0.077	0	42	22916	1
Ni	62	10.000	ug/L	0.179	1	58	3401	1
Cu	63	10.000	ug/L	0.144	1	197	49666	0
Cu	65	10.000	ug/L	0.255	2	88	23330	1
Zn	66	10.000	ug/L	0.123	1	273	15782	1
Zn	67	10.000	ug/L	0.029	0	152	2679	1
Zn	68	10.000	ug/L	0.231	2	4791	15245	1
As	75	10.000	ug/L	0.135	1	400	15331	1
As-1	75	10.000	ug/L	0.134	1	6235	20746	0
Se	82	10.000	ug/L	0.181	1	-15	1686	1
Se	78	10.000	ug/L	0.334	3	6340	10253	0
[ Mo	98	10.000	ug/L	0.112	1	209	55670	0
Y	89		ug/L			259927	256884	0
Kr	83		ug/L			223	226	2
[> In	115		ug/L			274729	272277 ✓	0
Ag	107	10.000	ug/L	0.181	1	36	89783	1
Cd	111	10.000	ug/L	0.040	0	123	23219	1
Cd	114	10.000	ug/L	0.045	0	26	52747	1
Sb	121	10.000	ug/L	0.028	0	22	76015	0
Sb	123	10.000	ug/L	0.065	0	16	56635	0
Ba	135	10.000	ug/L	0.130	1	20	17872	0
[ Ba	137	10.000	ug/L	0.194	1	21	31253	1
[> Tb	159		ug/L			328129	325897 ✓	0
Tl	205	10.000	ug/L	0.147	1	35	229424	1
Pb	208	10.000	ug/L	0.035	0	263	308501	0
Bi	209		ug/L			267490	260623	1
Th	232	10.000	ug/L	0.072	0	55	367938	0
[ U	238	10.000	ug/L	0.072	0	13	371261	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 09:07:59

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022613.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	329908 ✓	1
[ Be	9	19.877	ug/L	0.254	1	17	8692	1
C	13		mg/L			6213	5240	0
Cl	37		mg/L			2029602	2091482	0
[> Sc	45		ug/L			254270	253409 ✓	1
V	51	19.984	ug/L	0.058	0	1580	213810	1
V-1	51	19.991	ug/L	0.047	0	5106	221325	1
Cr	52	19.989	ug/L	0.244	1	4684	188465	0
Cr	53	20.014	ug/L	0.528	2	1656	23699	1
Mn	55	20.109	ug/L	0.328	1	310	308301	0
[ Co	59	19.945	ug/L	0.179	0	48	218356	0
[> Ge	72		ug/L			259859	259921 ✓	0
Ni	60	19.977	ug/L	0.243	1	42	45736	0
Ni	62	19.999	ug/L	0.750	3	58	6773	2
Cu	63	19.998	ug/L	0.138	0	197	99535	0
Cu	65	20.026	ug/L	0.264	1	88	47087	0
Zn	66	19.941	ug/L	0.138	0	273	30979	0
Zn	67	20.036	ug/L	0.296	1	152	5276	0
Zn	68	20.055	ug/L	0.249	1	4791	26128	0
As	75	20.018	ug/L	0.277	1	400	30534	0
As-1	75	20.013	ug/L	0.280	1	6235	35539	0
Se	82	20.079	ug/L	0.087	0	-15	3472	0
Se	78	20.066	ug/L	0.250	1	6340	14392	0
[ Mo	98	20.064	ug/L	0.421	2	209	113430	1
Y	89		ug/L			259927	256146	1
Kr	83		ug/L			223	231	3
[> In	115		ug/L			274729	277286 ✓	0
Ag	107	19.969	ug/L	0.271	1	36	181440	1
Cd	111	19.934	ug/L	0.195	0	123	46405	0
Cd	114	19.986	ug/L	0.140	0	26	107024	1
Sb	121	19.944	ug/L	0.228	1	22	152671	1
Sb	123	19.983	ug/L	0.189	0	16	114843	0
Ba	135	19.976	ug/L	0.340	1	20	36163	1
[ Ba	137	19.937	ug/L	0.023	0	21	62653	0
[> Tb	159		ug/L			328129	333829 ✓	1
Tl	205	19.966	ug/L	0.288	1	35	466019	0
Pb	208	19.973	ug/L	0.227	1	263	627449	0
Bi	209		ug/L			267490	267101	0
Th	232	19.997	ug/L	0.347	1	55	753025	0
[ U	238	20.018	ug/L	0.466	2	13	763856	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 09:14:07

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022613.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	328499 ✓	2
[ Be	9	50.122	ug/L	0.324	0	17	22068	1
C	13		mg/L			6213	4769	3
Cl	37		mg/L			2029602	2106744	1
[> Sc	45		ug/L			254270	259399 ✓	0
V	51	49.898	ug/L	0.707	1	1580	538600	0
V-1	51	49.888	ug/L	0.711	1	5106	551417	0
Cr	52	49.953	ug/L	0.966	1	4684	472737	1
Cr	53	49.916	ug/L	0.920	1	1656	57517	1
Mn	55	49.876	ug/L	0.287	0	310	772796	0
[ Co	59	49.961	ug/L	0.329	0	48	557665	0
[> Ge	72		ug/L			259859	265904 ✓	0
Ni	60	49.824	ug/L	0.588	1	42	114616	0
Ni	62	49.855	ug/L	0.238	0	58	16940	0
Cu	63	49.909	ug/L	0.874	1	197	251539	2
Cu	65	49.727	ug/L	0.765	1	88	116307	0
Zn	66	49.831	ug/L	0.521	1	273	77466	0
Zn	67	49.809	ug/L	0.699	1	152	12943	0
Zn	68	49.819	ug/L	0.358	0	4791	58161	0
As	75	49.923	ug/L	0.932	1	400	76699	1
As-1	75	49.918	ug/L	0.924	1	6235	80543	0
Se	82	49.812	ug/L	0.734	1	-15	8671	0
Se	78	49.765	ug/L	0.743	1	6340	26445	0
[ Mo	98	50.119	ug/L	0.557	1	209	293052	1
Y	89		ug/L			259927	265384	0
Kr	83		ug/L			223	233	3
[> In	115		ug/L			274729	281797 ✓	0
Ag	107	49.919	ug/L	0.641	1	36	457193	1
Cd	111	50.098	ug/L	0.637	1	123	119499	1
Cd	114	50.076	ug/L	0.439	0	26	274550	0
Sb	121	50.186	ug/L	0.305	0	22	397769	0
Sb	123	50.195	ug/L	0.149	0	16	298997	0
Ba	135	49.929	ug/L	0.186	0	20	91185	0
[ Ba	137	49.946	ug/L	0.151	0	21	158621	0
[> Tb	159		ug/L			328129	338535 ✓	1
Tl	205	49.761	ug/L	1.050	2	35	1150181	0
Pb	208	49.839	ug/L	0.593	1	263	1562131	0
Bi	209		ug/L			267490	271088	0
Th	232	49.754	ug/L	1.663	3	55	1853808	1
[ U	238	49.859	ug/L	1.485	2	13	1902167	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 09:20:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022613.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	312288✓	2
[ Be	9	100.674	ug/L	2.509	2	17	43074	0
C	13		mg/L			6213	4143	1
Cl	37		mg/L			2029602	2111567	0
[> Sc	45		ug/L			254270	257010✓	1
V	51	100.743	ug/L	1.296	1	1580	1103053	1
V-1	51	100.690	ug/L	1.742	1	5106	1123101	1
Cr	52	100.352	ug/L	0.592	0	4684	947278	0
Cr	53	100.201	ug/L	2.010	2	1656	113453	1
Mn	55	100.050	ug/L	2.144	2	310	1538013	1
[ Co	59	99.956	ug/L	1.887	1	48	1103741	1
[> Ge	72		ug/L			259859	261493✓	0
Ni	60	100.118	ug/L	1.024	1	42	227351	1
Ni	62	100.185	ug/L	0.812	0	58	33626	1
Cu	63	99.831	ug/L	0.794	0	197	491823	0
Cu	65	99.966	ug/L	1.038	1	88	229607	1
Zn	66	99.840	ug/L	0.817	0	273	151566	1
Zn	67	100.066	ug/L	0.908	0	152	25474	0
Zn	68	100.042	ug/L	0.352	0	4791	110147	0
As	75	100.099	ug/L	0.280	0	400	151343	0
As-1	75	100.149	ug/L	0.216	0	6235	153341	0
Se	82	99.966	ug/L	0.051	0	-15	17111	0
Se	78	100.145	ug/L	0.747	0	6340	46070	0
[ Mo	98	99.688	ug/L	0.159	0	209	567113	0
Y	89		ug/L			259927	264584	0
Kr	83		ug/L			223	244	0
[> In	115		ug/L			274729	277831✓	1
Ag	107	99.942	ug/L	2.358	2	36	900449	0
Cd	111	99.801	ug/L	1.817	1	123	232990	0
Cd	114	99.341	ug/L	1.328	1	26	525352	0
Sb	121	99.401	ug/L	2.310	2	22	761332	0
Sb	123	99.409	ug/L	2.207	2	16	572386	1
Ba	135	100.251	ug/L	1.794	1	20	181977	0
[ Ba	137	99.961	ug/L	2.304	2	21	312480	0
[> Tb	159		ug/L			328129	334298✓	0
Tl	205	100.654	ug/L	2.590	2	35	2348805	2
Pb	208	99.856	ug/L	1.073	1	263	3075860	0
Bi	209		ug/L			267490	263595	0
Th	232	101.300	ug/L	2.243	2	55	3896830	1
[ U	238	100.750	ug/L	1.603	1	13	3893803	0

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 09:26:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022613.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	318762 ✓	0
[ Be	9	-0.004	ug/L	0.010	230	17	15	30
C	13		mg/L			6213	6112	3
Cl	37		mg/L			2029602	2146058	1
[> Sc	45		ug/L			254270	259670 ✓	0
V	51	-0.001	ug/L	0.008	723	1580	1601	4
V-1	51	-0.052	ug/L	0.005	10	5106	4627	0
Cr	52	0.002	ug/L	0.004	167	4684	4807	0
Cr	53	-0.161	ug/L	0.014	8	1656	1511	1
Mn	55	0.008	ug/L	0.004	46	310	446	13
[ Co	59	0.003	ug/L	0.002	77	48	82	30
[> Ge	72		ug/L			259859	267513 ✓	0
Ni	60	-0.000	ug/L	0.002	622	42	43	10
Ni	62	0.014	ug/L	0.005	34	58	65	2
Cu	63	0.009	ug/L	0.005	51	197	247	8
Cu	65	0.008	ug/L	0.004	46	88	109	6
Zn	66	-0.022	ug/L	0.009	40	273	247	4
Zn	67	-0.098	ug/L	0.039	39	152	131	8
Zn	68	-0.032	ug/L	0.060	187	4791	4898	1
As	75	0.021	ug/L	0.018	85	400	444	5
As-1	75	-0.051	ug/L	0.038	75	6235	6342	0
Se	82	0.043	ug/L	0.046	105	-15	-8	97
Se	78	-0.206	ug/L	0.106	51	6340	6442	0
[ Mo	98	0.009	ug/L	0.009	102	209	266	19
Y	89		ug/L			259927	267955	1
Kr	83		ug/L			223	231	2
[> In	115		ug/L			274729	283212 ✓	0
Ag	107	0.020	ug/L	0.005	25	36	219	21
Cd	111	0.012	ug/L	0.005	45	123	156	7
Cd	114	0.003	ug/L	0.003	90	26	43	34
Sb	121	0.169	ug/L	0.030	17	22	1345	18
Sb	123	0.180	ug/L	0.034	18	16	1076	19
Ba	135	0.010	ug/L	0.006	56	20	39	27
[ Ba	137	0.009	ug/L	0.001	11	21	51	7
[> Tb	159		ug/L			328129	335673 ✓	0
Tl	205	0.013	ug/L	0.004	28	35	337	25
Pb	208	0.008	ug/L	0.003	38	263	531	18
Bi	209		ug/L			267490	267198	1
Th	232	0.112	ug/L	0.023	20	55	4371	19
[ U	238	0.006	ug/L	0.002	36	13	248	33



## Quantitative Analysis - Calibration Report

Sample Date/Time: Wednesday, February 27, 2013 09:20:15

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	0.9999	0.0014	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	0.9999	0.0425	10	20	50	100	
V-1	51	0.9999	0.0432	10	20	50	100	
Cr	52	1.0000	0.0365	10	20	50	100	
Cr	53	1.0000	0.0043	10	20	50	100	
Mn	55	1.0000	0.0598	10	20	50	100	
Co	59	1.0000	0.0430	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0087	10	20	50	100	
Ni	62	1.0000	0.0013	10	20	50	100	
Cu	63	1.0000	0.0188	10	20	50	100	
Cu	65	1.0000	0.0088	10	20	50	100	
Zn	66	1.0000	0.0058	10	20	50	100	
Zn	67	1.0000	0.0010	10	20	50	100	
Zn	68	1.0000	0.0040	10	20	50	100	
As	75	1.0000	0.0058	10	20	50	100	
As-1	75	1.0000	0.0056	10	20	50	100	
Se	82	1.0000	0.0007	10	20	50	100	
Se	78	1.0000	0.0015	10	20	50	100	
Mo	98	1.0000	0.0217	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0324	10	20	50	100	
Cd	111	1.0000	0.0084	10	20	50	100	
Cd	114	0.9999	0.0190	10	20	50	100	
Sb	121	0.9999	0.0276	10	20	50	100	
Sb	123	0.9999	0.0207	10	20	50	100	
Ba	135	1.0000	0.0065	10	20	50	100	
Ba	137	1.0000	0.0113	10	20	50	100	
Tb	159							
Tl	205	0.9999	0.0698	10	20	50	100	
Pb	208	1.0000	0.0921	10	20	50	100	
Bi	209							
Th	232	0.9997	0.1151	10	20	50	100	
U	238	0.9999	0.1156	10	20	50	100	

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 09:33:33

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	324133✓	1
[ Be	9	51.734	ug/L	0.836	1	17	22987	1
C	13		mg/L			6213	13014	5
Cl	37		mg/L			2029602	2173986	0
[> Sc	45		ug/L			254270	272745✓	0
V	51	49.391	ug/L	1.024	2	1580	574715	1
V-1	51	49.218	ug/L	0.598	1	5106	585386	0
Cr	52	49.225	ug/L	1.350	2	4684	495599	1
Cr	53	48.682	ug/L	0.120	0	1656	59415	1
Mn	55	50.006	ug/L	0.454	0	310	816030	1
[ Co	59	49.924	ug/L	0.701	1	48	585036	0
[> Ge	72		ug/L			259859	276021✓	0
Ni	60	49.853	ug/L	0.266	0	42	119517	0
Ni	62	50.538	ug/L	0.445	0	58	17935	0
Cu	63	50.221	ug/L	0.766	1	197	261262	1
Cu	65	50.723	ug/L	0.094	0	88	123021	0
Zn	66	49.193	ug/L	0.587	1	273	78974	1
Zn	67	49.506	ug/L	0.420	0	152	13384	0
Zn	68	49.776	ug/L	0.990	1	4791	60404	1
As	75	51.214	ug/L	0.410	0	400	81943	0
As-1	75	50.158	ug/L	0.142	0	6235	84371	0
Se	82	79.664	ug/L	0.406	0	-15	14391	0
Se	78	78.499	ug/L	0.640	0	6340	39574	0
[ Mo	98	49.432	ug/L	1.152	2	209	296940	2
Y	89		ug/L			259927	279117	0
Kr	83		ug/L			223	238	0
[> In	115		ug/L			274729	292492✓	0
Ag	107	51.097	ug/L	0.586	1	36	484787	0
Cd	111	50.200	ug/L	0.267	0	123	123466	0
Cd	114	50.735	ug/L	0.644	1	26	282506	0
Sb	121	49.958	ug/L	0.845	1	22	402924	1
Sb	123	49.806	ug/L	0.787	1	16	301969	0
Ba	135	48.832	ug/L	0.326	0	20	93346	0
[ Ba	137	50.226	ug/L	0.506	1	21	165341	0
[> Tb	159		ug/L			328129	347530✓	0
Tl	205	49.736	ug/L	0.964	1	35	1206593	1
Pb	208	50.875	ug/L	0.252	0	263	1629320	0
Bi	209		ug/L			267490	279348	1
Th	232	50.335	ug/L	2.154	4	55	2013410	4
[ U	238	53.567	ug/L	0.221	0	13	2152385	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 09:39:51

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	319574 ✓	1
[ Be	9	0.002	ug/L	0.013	582	17	17	31
C	13		mg/L			6213	6308	1
Cl	37		mg/L			2029602	2173352	0
[> Sc	45		ug/L			254270	262369 ✓	0
V	51	0.009	ug/L	0.020	222	1580	1734	13
V-1	51	-0.060	ug/L	0.016	25	5106	4585	4
Cr	52	0.017	ug/L	0.014	81	4684	4998	2
Cr	53	-0.205	ug/L	0.013	6	1656	1476	0
Mn	55	0.005	ug/L	0.002	44	310	402	9
[ Co	59	0.002	ug/L	0.000	14	48	68	4
[> Ge	72		ug/L			259859	267635 ✓	1
Ni	60	-0.001	ug/L	0.003	229	42	41	14
Ni	62	-0.031	ug/L	0.020	66	58	50	15
Cu	63	0.005	ug/L	0.004	76	197	230	8
Cu	65	0.001	ug/L	0.008	934	88	93	19
Zn	66	-0.020	ug/L	0.023	116	273	250	15
Zn	67	-0.088	ug/L	0.049	55	152	133	9
Zn	68	-0.098	ug/L	0.028	28	4791	4829	0
As	75	0.033	ug/L	0.029	87	400	463	9
As-1	75	-0.012	ug/L	0.043	371	6235	6403	0
Se	82	0.093	ug/L	0.090	96	-15	0	3882
Se	78	-0.072	ug/L	0.179	250	6340	6500	0
[ Mo	98	-0.008	ug/L	0.005	58	209	167	15
Y	89		ug/L			259927	269365	1
Kr	83		ug/L			223	228	7
[> In	115		ug/L			274729	287125 ✓	1
Ag	107	0.012	ug/L	0.001	8	36	147	8
Cd	111	0.011	ug/L	0.009	81	123	156	15
Cd	114	0.000	ug/L	0.002	560	26	29	44
Sb	121	0.040	ug/L	0.000	0	22	336	1
Sb	123	0.038	ug/L	0.002	6	16	241	6
Ba	135	0.004	ug/L	0.001	28	20	27	7
[ Ba	137	0.005	ug/L	0.003	54	21	37	23
[> Tb	159		ug/L			328129	338952 ✓	1
Tl	205	0.006	ug/L	0.002	27	35	171	20
Pb	208	0.004	ug/L	0.002	46	263	389	13
Bi	209		ug/L			267490	272882	2
Th	232	0.067	ug/L	0.009	12	55	2680	11
[ U	238	0.003	ug/L	0.001	37	13	137	32

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 09:45:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	318525✓	1
[ Be	9	51.166	ug/L	0.626	1	17	22342	0
C	13		mg/L			6213	4828	1
Cl	37		mg/L			2029602	2173373	0
[> Sc	45		ug/L			254270	262493✓	0
V	51	50.169	ug/L	0.968	1	1580	561812	1
V-1	51	50.033	ug/L	0.740	1	5106	572622	0
Cr	52	50.427	ug/L	1.081	2	4684	488523	1
Cr	53	49.981	ug/L	0.704	1	1656	58659	1
Mn	55	50.603	ug/L	0.277	0	310	794701	0
[ Co	59	51.060	ug/L	1.148	2	48	575819	1
[> Ge	72		ug/L			259859	269448✓	0
Ni	60	50.598	ug/L	0.646	1	42	118412	1
Ni	62	49.979	ug/L	0.217	0	58	17315	0
Cu	63	50.441	ug/L	0.570	1	197	256149	0
Cu	65	50.653	ug/L	0.293	0	88	119923	0
Zn	66	50.219	ug/L	0.651	1	273	78694	1
Zn	67	50.455	ug/L	0.679	1	152	13312	0
Zn	68	49.798	ug/L	0.286	0	4791	58992	1
As	75	50.317	ug/L	0.410	0	400	78593	0
As-1	75	50.185	ug/L	0.327	0	6235	82401	0
Se	82	50.330	ug/L	0.632	1	-15	8868	0
Se	78	49.830	ug/L	0.396	0	6340	26923	0
[ Mo	98	50.815	ug/L	0.574	1	209	297986	1
Y	89		ug/L			259927	270924	1
Kr	83		ug/L			223	238	1
[> In	115		ug/L			274729	290394✓	1
Ag	107	49.927	ug/L	1.302	2	36	470199	1
Cd	111	50.619	ug/L	0.531	1	123	123596	1
Cd	114	51.035	ug/L	0.507	0	26	282142	1
Sb	121	50.869	ug/L	0.647	1	22	407303	0
Sb	123	50.350	ug/L	0.464	0	16	303069	0
Ba	135	48.688	ug/L	1.088	2	20	92386	1
[ Ba	137	48.819	ug/L	0.304	0	21	159556	1
[> Tb	159		ug/L			328129	338998✓	0
Tl	205	49.166	ug/L	0.375	0	35	1163570	0
Pb	208	51.183	ug/L	0.115	0	263	1598968	0
Bi	209		ug/L			267490	272912	0
Th	232	48.594	ug/L	0.342	0	55	1895847	0
[ U	238	50.095	ug/L	0.399	0	13	1963499	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 09:51:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	316219 ✓	2
[ Be	9	0.021	ug/L	0.016	77	17	25	27
C	13		mg/L			6213	5998	2
Cl	37		mg/L			2029602	2179015	0
[> Sc	45		ug/L			254270	262446 ✓	1
V	51	0.004	ug/L	0.014	356	1580	1676	10
V-1	51	-0.075	ug/L	0.007	9	5106	4420	1
Cr	52	0.009	ug/L	0.012	137	4684	4919	1
Cr	53	-0.243	ug/L	0.067	27	1656	1433	4
Mn	55	0.006	ug/L	0.004	66	310	407	15
[ Co	59	0.002	ug/L	0.000	26	48	69	8
[> Ge	72		ug/L			259859	267141 ✓	0
Ni	60	0.000	ug/L	0.005	47727	42	44	27
Ni	62	-0.025	ug/L	0.013	51	58	51	8
Cu	63	0.003	ug/L	0.003	98	197	217	6
Cu	65	0.006	ug/L	0.001	19	88	106	3
Zn	66	-0.018	ug/L	0.017	94	273	252	11
Zn	67	-0.112	ug/L	0.027	23	152	127	5
Zn	68	0.008	ug/L	0.047	609	4791	4933	0
As	75	0.015	ug/L	0.020	126	400	435	6
As-1	75	-0.017	ug/L	0.036	210	6235	6384	0
Se	82	-0.010	ug/L	0.062	602	-15	-17	61
Se	78	-0.079	ug/L	0.134	169	6340	6485	0
[ Mo	98	-0.006	ug/L	0.008	122	209	179	25
Y	89		ug/L			259927	267998	0
Kr	83		ug/L			223	237	5
[> In	115		ug/L			274729	284978 ✓	0
Ag	107	0.013	ug/L	0.003	23	36	153	18
Cd	111	0.019	ug/L	0.000	2	123	174	0
Cd	114	0.000	ug/L	0.001	174	26	29	10
Sb	121	0.029	ug/L	0.007	24	22	255	22
Sb	123	0.030	ug/L	0.005	16	16	196	15
Ba	135	0.007	ug/L	0.002	32	20	33	13
[ Ba	137	0.004	ug/L	0.004	84	21	35	32
[> Tb	159		ug/L			328129	338143 ✓	1
Tl	205	0.006	ug/L	0.001	17	35	177	14
Pb	208	0.004	ug/L	0.002	54	263	398	18
Bi	209		ug/L			267490	273009	0
Th	232	0.079	ug/L	0.014	18	55	3132	19
[ U	238	0.003	ug/L	0.001	34	13	149	32

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 09:57:06

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	312653✓	0
[ Be	9	0.209	ug/L	0.013	6	17	106	5
C	13		mg/L			6213	4491	0
Cl	37		mg/L			2029602	2193046	0
[> Sc	45		ug/L			254270	260684✓	0
V	51	0.187	ug/L	0.022	11	1580	3693	6
V-1	51	0.146	ug/L	0.011	7	5106	6880	1
Cr	52	0.503	ug/L	0.004	0	4684	9597	1
Cr	53	0.358	ug/L	0.038	10	1656	2103	2
Mn	55	0.511	ug/L	0.015	2	310	8288	3
[ Co	59	0.209	ug/L	0.007	3	48	2384	2
[> Ge	72		ug/L			259859	264064✓	0
Ni	60	0.533	ug/L	0.038	7	42	1264	6
Ni	62	0.478	ug/L	0.017	3	58	221	2
Cu	63	0.544	ug/L	0.007	1	197	2905	1
Cu	65	0.527	ug/L	0.018	3	88	1311	3
Zn	66	4.350	ug/L	0.036	0	273	6933	0
Zn	67	3.762	ug/L	0.287	7	152	1116	6
Zn	68	4.250	ug/L	0.080	1	4791	9387	1
As	75	0.258	ug/L	0.038	14	400	799	7
As-1	75	0.255	ug/L	0.012	4	6235	6714	0
Se	82	0.589	ug/L	0.113	19	-15	86	22
Se	78	0.698	ug/L	0.022	3	6340	6722	0
[ Mo	98	0.178	ug/L	0.008	4	209	1237	3
Y	89		ug/L			259927	264814	1
Kr	83		ug/L			223	240	3
[> In	115		ug/L			274729	281582✓	1
Ag	107	0.233	ug/L	0.012	5	36	2161	3
Cd	111	0.113	ug/L	0.013	11	123	393	8
Cd	114	0.105	ug/L	0.007	6	26	588	5
Sb	121	0.218	ug/L	0.005	2	22	1713	2
Sb	123	0.219	ug/L	0.009	4	16	1292	3
Ba	135	0.493	ug/L	0.035	7	20	927	6
[ Ba	137	0.511	ug/L	0.016	3	21	1639	1
[> Tb	159		ug/L			328129	335331✓	0
Tl	205	0.209	ug/L	0.007	3	35	4920	3
Pb	208	0.110	ug/L	0.003	2	263	3657	2
Bi	209		ug/L			267490	267930	2
Th	232	0.234	ug/L	0.003	1	55	9100	1
[ U	238	0.204	ug/L	0.003	1	13	7918	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 10:02:34

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	320381 ✓	0
[ Be	9	-0.004	ug/L	0.006	154	17	15	16
C	13		mg/L			6213	15527	1
Cl	37		mg/L			2029602	3602655	0
> Sc	45		ug/L			254270	250830 ✓	0
V	51	0.023	ug/L	0.007	31	1580	1802	4
V-1	51	0.352	ug/L	0.030	8	5106	8855	3
Cr	52	0.444	ug/L	0.014	3	4684	8687	1
Cr	53	1.472	ug/L	0.106	7	1656	3237	2
Mn	55	0.120	ug/L	0.002	2	310	2113	2
[ Co	59	0.025	ug/L	0.000	1	48	317	1
> Ge	72		ug/L			259859	258940 ✓	0
Ni	60	0.552	ug/L	0.005	0	42	1282	0
Ni	62	4.017	ug/L	0.195	4	58	1391	5
Cu	63	0.459	ug/L	0.014	3	197	2432	2
Cu	65	0.652	ug/L	0.025	3	88	1571	4
Zn	66	1.388	ug/L	0.068	4	273	2355	5
Zn	67	1.225	ug/L	0.140	11	152	458	7
Zn	68	0.617	ug/L	0.003	0	4791	5417	0
As	75	0.133	ug/L	0.073	54	400	597	18
As-1	75	0.112	ug/L	0.025	22	6235	6375	1
Se	82	0.089	ug/L	0.132	149	-15	0	6665
Se	78	0.135	ug/L	0.191	140	6340	6370	1
[ Mo	98	409.576	ug/L	1.589	0	209	2306669	0
Y	89		ug/L			259927	257662	1
Kr	83		ug/L			223	242	3
> In	115		ug/L			274729	273108 ✓	0
Ag	107	0.029	ug/L	0.002	6	36	290	6
Cd	111	0.087	ug/L	0.035	40	123	323	25
Cd	114	0.689	ug/L	0.014	2	26	3609	2
Sb	121	0.075	ug/L	0.003	3	22	587	4
Sb	123	0.069	ug/L	0.001	1	16	404	0
Ba	135	0.054	ug/L	0.008	14	20	115	12
[ Ba	137	0.053	ug/L	0.004	7	21	183	5
> Tb	159		ug/L			328129	329492 ✓	0
Tl	205	0.032	ug/L	0.001	1	35	778	1
Pb	208	0.042	ug/L	0.001	2	263	1549	1
Bi	209		ug/L			267490	256687	0
Th	232	0.113	ug/L	0.019	16	55	4340	16
[ U	238	0.001	ug/L	0.000	10	13	61	8

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 10:08:32

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	323045 ✓	1
[ Be	9	0.006	ug/L	0.003	51	17	20	6
C	13		mg/L			6213	15408	1
Cl	37		mg/L			2029602	3540371	0
[> Sc	45		ug/L			254270	247414 ✓	1
V	51	-0.263	ug/L	0.100	38	1580	-1227	85
V-1	51	0.410	ug/L	0.022	5	5106	9344	0
Cr	52	20.376	ug/L	0.393	1	4684	188762	0
Cr	53	21.512	ug/L	0.514	2	1656	24711	1
Mn	55	20.235	ug/L	0.111	0	310	299705	1
[ Co	59	19.953	ug/L	0.273	1	48	212120	0
[> Ge	72		ug/L			259859	254715 ✓	0
Ni	60	20.242	ug/L	0.483	2	42	44800	1
Ni	62	23.740	ug/L	0.225	0	58	7804	0
Cu	63	20.023	ug/L	0.093	0	197	96237	0
Cu	65	20.419	ug/L	0.313	1	88	45747	0
Zn	66	21.082	ug/L	0.288	1	273	31382	0
Zn	67	18.568	ug/L	0.326	1	152	4725	0
Zn	68	19.831	ug/L	0.353	1	4791	25033	1
As	75	19.508	ug/L	0.102	0	400	29046	1
As-1	75	20.020	ug/L	0.127	0	6235	34748	0
Se	82	0.045	ug/L	0.049	110	-15	-7	108
Se	78	0.117	ug/L	0.214	182	6340	6259	0
[ Mo	98	410.366	ug/L	4.938	1	209	2273339	1
Y	89		ug/L			259927	255183	0
Kr	83		ug/L			223	235	3
[> In	115		ug/L			274729	272453 ✓	0
Ag	107	19.673	ug/L	0.173	0	36	173889	0
Cd	111	19.980	ug/L	0.163	0	123	45849	1
Cd	114	20.834	ug/L	0.077	0	26	108083	1
Sb	121	0.075	ug/L	0.001	1	22	582	1
Sb	123	0.071	ug/L	0.007	9	16	417	9
Ba	135	0.045	ug/L	0.009	20	20	99	15
[ Ba	137	0.043	ug/L	0.004	9	21	152	8
[> Tb	159		ug/L			328129	329967 ✓	1
Tl	205	0.031	ug/L	0.002	7	35	749	6
Pb	208	0.045	ug/L	0.002	3	263	1621	1
Bi	209		ug/L			267490	259232	1
Th	232	0.056	ug/L	0.003	4	55	2187	5
[ U	238	0.001	ug/L	0.000	24	13	38	16



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 10:14:29

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	318950 ✓	2
[ Be	9	199.082	ug/L	4.781	2	17	86974	1
C	13		mg/L			6213	4979	1
Cl	37		mg/L			2029602	2051234	2
[> Sc	45		ug/L			254270	256461 ✓	1
V	51	197.992	ug/L	3.437	1	1580	2161769	1
V-1	51	197.655	ug/L	2.800	1	5106	2195093	1
Cr	52	196.066	ug/L	3.331	1	4684	1842363	1
Cr	53	195.085	ug/L	1.710	0	1656	218844	0
Mn	55	198.395	ug/L	4.965	2	310	3043061	2
[ Co	59	198.955	ug/L	4.420	2	48	2192140	1
[> Ge	72		ug/L			259859	260856 ✓	1
Ni	60	193.825	ug/L	4.087	2	42	438966	1
Ni	62	193.421	ug/L	2.876	1	58	64695	0
Cu	63	190.840	ug/L	2.220	1	197	937605	0
Cu	65	192.937	ug/L	3.043	1	88	441912	0
Zn	66	193.230	ug/L	3.850	1	273	292320	1
Zn	67	193.144	ug/L	1.540	0	152	48907	1
Zn	68	192.602	ug/L	2.086	1	4791	207071	1
As	75	196.752	ug/L	2.503	1	400	296322	0
As-1	75	197.497	ug/L	1.925	0	6235	295543	0
Se	82	193.249	ug/L	3.997	2	-15	33006	0
Se	78	195.631	ug/L	2.265	1	6340	83702	1
[ Mo	98	204.168	ug/L	1.411	0	209	1158370	1
Y	89		ug/L			259927	260921	0
Kr	83		ug/L			223	257	5
[> In	115		ug/L			274729	275574 ✓	0
Ag	107	197.173	ug/L	3.266	1	36	1762364	1
Cd	111	200.648	ug/L	3.047	1	123	464601	2
Cd	114	204.959	ug/L	1.728	0	26	1075228	1
Sb	121	206.990	ug/L	2.069	0	22	1572846	0
Sb	123	206.783	ug/L	1.302	0	16	1181195	0
Ba	135	201.140	ug/L	4.434	2	20	362158	1
[ Ba	137	202.004	ug/L	1.033	0	21	626473	0
[> Tb	159		ug/L			328129	334681 ✓	0
Tl	205	202.753	ug/L	3.301	1	35	4736850	0
Pb	208	204.581	ug/L	1.075	0	263	6308840	0
Bi	209		ug/L			267490	257214	1
Th	232	207.493	ug/L	2.355	1	55	7991690	0
[ U	238	211.015	ug/L	2.080	0	13	8164924	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 10:20:46

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			329720	296959 ✓	3
[ ] Be	9	310.782	ug/L	6.706	2	17	126402	0
[ ] C	13		mg/L			6213	4597	0
[ ] Cl	37		mg/L			2029602	2170617	2
[>] Sc	45		ug/L			254270	263876 ✓	1
[ ] V	51	302.749	ug/L	2.673	0	1580	3400003	1
[ ] V-1	51	300.330	ug/L	2.108	0	5106	3428852	1
[ ] Cr	52	304.256	ug/L	4.790	1	4684	2938687	1
[ ] Cr	53	296.482	ug/L	2.264	0	1656	341297	0
[ ] Mn	55	303.012	ug/L	1.436	0	310	4782115	1
[ ] Co	59	300.917	ug/L	1.678	0	48	3411455	1
[>] Ge	72		ug/L			259859	271030 ✓	1
[ ] Ni	60	288.354	ug/L	4.074	1	42	678543	1
[ ] Ni	62	286.637	ug/L	3.729	1	58	99591	0
[ ] Cu	63	284.943	ug/L	1.555	0	197	1454563	0
[ ] Cu	65	283.536	ug/L	0.773	0	88	674809	1
[ ] Zn	66	285.006	ug/L	1.339	0	273	447901	1
[ ] Zn	67	285.772	ug/L	3.771	1	152	75104	0
[ ] Zn	68	285.203	ug/L	3.233	1	4791	316216	1
[ ] As	75	291.845	ug/L	3.307	1	400	456519	1
[ ] As-1	75	293.175	ug/L	3.795	1	6235	452696	1
[ ] Se	82	281.938	ug/L	2.157	0	-15	50047	0
[ ] Se	78	285.859	ug/L	4.070	1	6340	124027	0
[ ] Mo	98	308.900	ug/L	2.096	0	209	1820902	1
[ ] Y	89		ug/L			259927	269731	1
[ ] Kr	83		ug/L			223	287	2
[>] In	115		ug/L			274729	286147 ✓	1
[ ] Ag	107	302.245	ug/L	4.811	1	36	2805556	2
[ ] Cd	111	298.419	ug/L	2.684	0	123	717364	0
[ ] Cd	114	300.490	ug/L	2.143	0	26	1636949	1
[ ] Sb	121	315.813	ug/L	1.905	0	22	2491865	1
[ ] Sb	123	305.204	ug/L	1.897	0	16	1810227	0
[ ] Ba	135	297.202	ug/L	2.815	0	20	555661	0
[ ] Ba	137	298.463	ug/L	1.839	0	21	961090	0
[>] Tb	159		ug/L			328129	338155 ✓	1
[ ] Tl	205	302.431	ug/L	5.750	1	35	7138344	0
[ ] Pb	208	307.805	ug/L	0.958	0	263	9590395	0
[ ] Bi	209		ug/L			267490	251232	0
[ ] Th	232	312.571	ug/L	2.391	0	55	12163590	0
[ ] U	238	318.464	ug/L	2.799	0	13	12451168	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 10:27:04

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	306884 ✓	1
[ Be	9	52.387	ug/L	0.737	1	17	22040	0
C	13		mg/L			6213	4632	0
Cl	37		mg/L			2029602	2244085	1
[> Sc	45		ug/L			254270	267789 ✓	1
V	51	49.895	ug/L	0.082	0	1580	570095	1
V-1	51	50.029	ug/L	0.135	0	5106	584175	1
Cr	52	50.042	ug/L	0.611	1	4684	494655	1
Cr	53	50.461	ug/L	0.579	1	1656	60398	0
Mn	55	50.419	ug/L	0.671	1	310	807759	0
[ Co	59	50.833	ug/L	0.736	1	48	584876	1
[> Ge	72		ug/L			259859	274812 ✓	0
Ni	60	50.410	ug/L	0.404	0	42	120321	0
Ni	62	49.912	ug/L	0.255	0	58	17636	0
Cu	63	50.762	ug/L	0.685	1	197	262929	1
Cu	65	50.556	ug/L	0.039	0	88	122078	0
Zn	66	51.066	ug/L	0.536	1	273	81609	0
Zn	67	51.100	ug/L	0.709	1	152	13750	1
Zn	68	50.191	ug/L	0.322	0	4791	60599	0
As	75	49.894	ug/L	0.175	0	400	79491	0
As-1	75	50.037	ug/L	0.322	0	6235	83813	0
Se	82	49.637	ug/L	0.711	1	-15	8921	1
Se	78	50.096	ug/L	0.252	0	6340	27570	0
[ Mo	98	51.284	ug/L	0.480	0	209	306718	1
Y	89		ug/L			259927	273259	0
Kr	83		ug/L			223	238	2
[> In	115		ug/L			274729	292072 ✓	1
Ag	107	50.642	ug/L	0.486	0	36	479765	0
Cd	111	51.225	ug/L	0.275	0	123	125805	1
Cd	114	51.601	ug/L	0.467	0	26	286902	0
Sb	121	51.854	ug/L	0.485	0	22	417605	0
Sb	123	51.324	ug/L	0.662	1	16	310705	0
Ba	135	49.003	ug/L	0.395	0	20	93532	0
[ Ba	137	49.681	ug/L	1.154	2	21	163280	0
[> Tb	159		ug/L			328129	346208 ✓	0
Tl	205	49.511	ug/L	0.877	1	35	1196687	2
Pb	208	50.708	ug/L	0.464	0	263	1617837	1
Bi	209		ug/L			267490	276232	0
Th	232	48.961	ug/L	0.342	0	55	1950793	0
[ U	238	50.704	ug/L	2.248	4	13	2029571	4

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 10:33:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	313112 ✓	0
[ Be	9	0.015	ug/L	0.013	90	17	22	25
C	13		mg/L			6213	5896	4
Cl	37		mg/L			2029602	2239514	0
[> Sc	45		ug/L			254270	263892 ✓	1
V	51	-0.009	ug/L	0.028	314	1580	1542	21
V-1	51	-0.025	ug/L	0.018	73	5106	5014	3
Cr	52	0.014	ug/L	0.008	59	4684	4993	0
Cr	53	-0.038	ug/L	0.110	285	1656	1674	6
Mn	55	0.011	ug/L	0.003	30	310	500	9
[ Co	59	0.006	ug/L	0.001	9	48	120	4
[> Ge	72		ug/L			259859	269458 ✓	0
Ni	60	0.002	ug/L	0.003	131	42	49	12
Ni	62	0.023	ug/L	0.023	99	58	68	11
Cu	63	0.030	ug/L	0.007	23	197	356	10
Cu	65	0.020	ug/L	0.007	34	88	138	11
Zn	66	-0.007	ug/L	0.011	156	273	272	6
Zn	67	-0.069	ug/L	0.019	26	152	139	3
Zn	68	0.048	ug/L	0.040	82	4791	5020	0
As	75	0.046	ug/L	0.027	59	400	486	8
As-1	75	0.065	ug/L	0.032	49	6235	6563	0
Se	82	0.098	ug/L	0.103	104	-15	1	1278
Se	78	0.173	ug/L	0.160	92	6340	6644	0
[ Mo	98	0.006	ug/L	0.007	124	209	249	16
Y	89		ug/L			259927	272685	0
Kr	83		ug/L			223	231	3
[> In	115		ug/L			274729	290690 ✓	1
Ag	107	0.023	ug/L	0.008	33	36	256	29
Cd	111	0.019	ug/L	0.006	30	123	177	6
Cd	114	0.002	ug/L	0.003	131	26	39	40
Sb	121	0.056	ug/L	0.011	20	22	470	19
Sb	123	0.054	ug/L	0.011	20	16	340	19
Ba	135	0.009	ug/L	0.004	48	20	37	21
[ Ba	137	0.009	ug/L	0.001	14	21	52	9
[> Tb	159		ug/L			328129	338113 ✓	0
Tl	205	0.014	ug/L	0.002	17	35	374	15
Pb	208	0.007	ug/L	0.002	31	263	505	14
Bi	209		ug/L			267490	277127	0
Th	232	0.113	ug/L	0.018	15	55	4446	15
[ U	238	0.006	ug/L	0.002	28	13	253	27

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE72 MB REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 10:38:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	328512 ✓	0
[ Be	9	-0.003	ug/L	0.010	368	17	16	26
C	13		mg/L			6213	5850	1
Cl	37		mg/L			2029602	2223247	0
[> Sc	45		ug/L			254270	269042 ✓	0
V	51	0.010	ug/L	0.005	53	1580	1788	3
V-1	51	-0.028	ug/L	0.002	7	5106	5080	0
Cr	52	0.012	ug/L	0.006	49	4684	5071	1
Cr	53	-0.109	ug/L	0.023	21	1656	1625	1
Mn	55	0.031	ug/L	0.008	25	310	831	15
[ Co	59	0.003	ug/L	0.000	7	48	89	3
[> Ge	72		ug/L			259859	272411 ✓	1
Ni	60	0.007	ug/L	0.003	43	42	60	12
Ni	62	0.024	ug/L	0.051	215	58	70	26
Cu	63	✓ 0.077	ug/L	0.006	7	197	598	3
Cu	65	0.073	ug/L	0.007	9	88	268	7
Zn	66	✓ 0.583	ug/L	0.043	7	273	1205	4
Zn	67	0.458	ug/L	0.091	19	152	280	7
Zn	68	0.558	ug/L	0.066	11	4791	5635	2
As	75	0.021	ug/L	0.017	83	400	452	5
As-1	75	0.008	ug/L	0.071	888	6235	6547	0
Se	82	0.040	ug/L	0.095	238	-15	-9	189
Se	78	0.006	ug/L	0.267	4310	6340	6647	0
[ Mo	98	0.027	ug/L	0.020	74	209	378	31
Y	89		ug/L			259927	276914	0
Kr	83		ug/L			223	235	3
[> In	115		ug/L			274729	295074 ✓	0
Ag	107	0.016	ug/L	0.003	17	36	192	14
Cd	111	0.015	ug/L	0.002	12	123	170	3
Cd	114	0.002	ug/L	0.001	35	26	40	10
Sb	121	0.033	ug/L	0.003	10	22	294	9
Sb	123	0.033	ug/L	0.002	6	16	219	6
Ba	135	0.012	ug/L	0.006	49	20	44	25
[ Ba	137	0.010	ug/L	0.002	23	21	56	13
[> Tb	159		ug/L			328129	347344 ✓	0
Tl	205	0.015	ug/L	0.006	42	35	395	38
Pb	208	✓ 0.020	ug/L	0.001	4	263	934	3
Bi	209		ug/L			267490	279620	0
Th	232	0.105	ug/L	0.019	18	55	4275	17
[ U	238	0.005	ug/L	0.000	5	13	197	5

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE71 MB REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 10:44:47

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	336330 ✓	0
[ Be	9	0.009	ug/L	0.018	192	17	22	36
C	13		mg/L			6213	6121	0
Cl	37		mg/L			2029602	2224684	0
> Sc	45		ug/L			254270	270112 ✓	0
V	51	0.010	ug/L	0.009	92	1580	1791	6
V-1	51	-0.036	ug/L	0.011	31	5106	5005	2
Cr	52	0.015	ug/L	0.010	65	4684	5127	2
Cr	53	-0.130	ug/L	0.053	40	1656	1606	3
Mn	55	0.030	ug/L	0.002	7	310	812	4
[ Co	59	0.009	ug/L	0.012	127	48	157	86
> Ge	72		ug/L			259859	275635 ✓	0
Ni	60	0.012	ug/L	0.007	59	42	74	24
Ni	62	0.024	ug/L	0.039	162	58	70	19
u Cu	63	0.186	ug/L	0.010	5	197	1173	3
Cu	65	0.196	ug/L	0.014	7	88	567	5
u Zn	66	0.807	ug/L	0.022	2	273	1578	1
Zn	67	0.684	ug/L	0.086	12	152	343	6
Zn	68	0.702	ug/L	0.091	12	4791	5861	1
u As	75	0.023	ug/L	0.008	35	400	461	2
As-1	75	-0.028	ug/L	0.060	213	6235	6569	0
Se	82	0.052	ug/L	0.047	90	-15	-7	122
Se	78	-0.159	ug/L	0.193	121	6340	6658	0
[ Mo	98	-0.007	ug/L	0.006	86	209	181	19
Y	89		ug/L			259927	277585	1
Kr	83		ug/L			223	232	4
> In	115		ug/L			274729	296359 ✓	0
Ag	107	0.008	ug/L	0.002	22	36	118	15
Cd	111	0.014	ug/L	0.009	66	123	167	13
Cd	114	-0.001	ug/L	0.001	70	26	23	15
Sb	121	0.023	ug/L	0.001	3	22	215	2
Sb	123	0.023	ug/L	0.001	4	16	156	4
Ba	135	0.018	ug/L	0.004	22	20	56	13
[ Ba	137	0.019	ug/L	0.005	23	21	85	17
> Tb	159		ug/L			328129	350910 ✓	1
Tl	205	0.006	ug/L	0.001	12	35	177	10
Pb	208	0.026	ug/L	0.002	7	263	1130	5
Bi	209		ug/L			267490	278523	0
Th	232	0.053	ug/L	0.003	6	55	2213	5
[ U	238	0.003	ug/L	0.000	11	13	121	8

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE71 A REN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 10:50:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Del

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	335973 ✓	1
[ Be	9	0.008	ug/L	0.020	259	17	21	41
C	13		mg/L			6213	5963	2
Cl	37		mg/L			2029602	2194231	0
> Sc	45		ug/L			254270	271601 ✓	0
V	51	2.093	ug/L	0.012	0	1580	25877	1
V-1	51	2.021	ug/L	0.008	0	5106	29165	0
Cr	52	1.059	ug/L	0.035	3	4684	15514	2
Cr	53	0.878	ug/L	0.016	1	1656	2804	0
Mn	55	13.082	ug/L	0.263	2	310	212805	1
[ Co	59	0.524	ug/L	0.017	3	48	6168	2
> Ge	72		ug/L			259859	271286 ✓	0
Ni	60	1.379	ug/L	0.070	5	42	3293	4
Ni	62	1.410	ug/L	0.066	4	58	551	3
Cu	63	10.588	ug/L	0.148	1	197	54296	0
Cu	65	10.612	ug/L	0.062	0	88	25369	0
Zn	66	29.479	ug/L	0.041	0	273	46627	0
Zn	67	26.104	ug/L	0.566	2	152	7010	1
Zn	68	28.721	ug/L	0.538	1	4791	36369	0
As	75	6.634	ug/L	0.064	0	400	10796	0
As-1	75	6.708	ug/L	0.097	1	6235	16728	0
Se	82	0.121	ug/L	0.058	47	-15	5	188
Se	78	-0.279	ug/L	0.232	82	6340	6503	0
[ Mo	98	0.080	ug/L	0.008	10	209	690	8
Y	89		ug/L			259927	278373	1
Kr	83		ug/L			223	228	3
> In	115		ug/L			274729	291834 ✓	0
Ag	107	0.010	ug/L	0.001	8	36	133	7
Cd	111	0.028	ug/L	0.012	41	123	200	15
Cd	114	0.019	ug/L	0.004	21	26	132	17
Sb	121	0.088	ug/L	0.000	0	22	734	0
Sb	123	0.091	ug/L	0.004	4	16	565	3
Ba	135	3.417	ug/L	0.093	2	20	6537	2
[ Ba	137	3.432	ug/L	0.083	2	21	11293	1
> Tb	159		ug/L			328129	342272 ✓	0
Tl	205	0.006	ug/L	0.001	10	35	172	8
Pb	208	1.469	ug/L	0.010	0	263	46606	1
Bi	209		ug/L			267490	277008	0
Th	232	0.049	ug/L	0.002	4	55	1972	3
[ U	238	0.010	ug/L	0.000	2	13	395	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE71 A REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 10:56:41

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	351471 ✓	2
[ Be	9	0.071	ug/L	0.007	9	17	52	4
C	13		mg/L			6213	10991	0
Cl	37		mg/L			2029602	2143718	0
> Sc	45		ug/L			254270	316175	0
V	51	17.449	ug/L	0.173	0	1580	236669	0
V-1	51	17.175	ug/L	0.186	1	5106	240954	0
Cr	52	8.864	ug/L	0.039	0	4684	108243	0
Cr	53	8.409	ug/L	0.071	0	1656	13601	0
Mn	55	109.808	ug/L	1.001	0	310	2076860	1
Co	59	4.303	ug/L	0.017	0	48	58518	0
> Ge	72		ug/L			259859	272621 ✓	0
Ni	60	12.859	ug/L	0.092	0	42	30480	0
Ni	62	13.965	ug/L	0.369	2	58	4939	2
Cu	63	99.017	ug/L	1.133	1	197	508548	0
Cu	65	100.360	ug/L	0.262	0	88	240317	0
Zn	66	266.002	ug/L	1.260	0	273	420508	0
Zn	67	238.688	ug/L	2.376	0	152	63127	0
Zn	68	262.113	ug/L	4.383	1	4791	292709	1
As	75	63.124	ug/L	0.482	0	400	99654	0
As-1	75	64.647	ug/L	0.555	0	6235	105511	0
Se	82	0.184	ug/L	0.013	7	-15	16	14
Se	78	-0.413	ug/L	0.241	58	6340	6480	1
Mo	98	1.041	ug/L	0.023	2	209	6392	1
Y	89		ug/L			259927	321685	1
Kr	83		ug/L			223	237	2
> In	115		ug/L			274729	293378 ✓	1
Ag	107	0.058	ug/L	0.001	1	36	593	2
Cd	111	0.260	ug/L	0.024	9	123	771	6
Cd	114	0.178	ug/L	0.006	3	26	1021	2
Sb	121	0.747	ug/L	0.013	1	22	6063	0
Sb	123	0.716	ug/L	0.011	1	16	4374	1
Ba	135	33.092	ug/L	0.107	0	20	63460	1
Ba	137	33.511	ug/L	0.097	0	21	110662	1
> Tb	159		ug/L			328129	350031 ✓	1
Tl	205	0.030	ug/L	0.001	4	35	775	4
Pb	208	13.688	ug/L	0.094	0	263	441733	0
Bi	209		ug/L			267490	283165	1
Th	232	0.328	ug/L	0.012	3	55	13263	2
U	238	0.087	ug/L	0.002	2	13	3526	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE72 A REN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 11:02:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	351730 ✓	1
[ Be	9	0.027	ug/L	0.007	27	17	31	9
C	13		mg/L			6213	6100	1
Cl	37		mg/L			2029602	2160610	0
[> Sc	45		ug/L			254270	263077 ✓	1
V	51	3.669	ug/L	0.054	1	1580	42697	2
V-1	51	3.659	ug/L	0.083	2	5106	46877	3
Cr	52	5.129	ug/L	0.103	2	4684	54152	0
Cr	53	5.028	ug/L	0.134	2	1656	7455	2
Mn	55	91.872	ug/L	1.112	1	310	1445665	0
[ Co	59	0.717	ug/L	0.005	0	48	8149	1
[> Ge	72		ug/L			259859	268340 ✓	0
Ni	60	4.336	ug/L	0.091	2	42	10145	1
Ni	62	4.483	ug/L	0.070	1	58	1601	1
Cu	63	25.671	ug/L	0.275	1	197	129930	0
Cu	65	25.659	ug/L	0.111	0	88	60546	0
Zn	66	269.866	ug/L	1.441	0	273	419925	0
Zn	67	239.070	ug/L	4.441	1	152	62236	1
Zn	68	267.028	ug/L	2.533	0	4791	293434	0
As	75	0.538	ug/L	0.027	5	400	1245	3
As-1	75	0.496	ug/L	0.029	5	6235	7186	0
Se	82	0.127	ug/L	0.042	33	-15	6	115
Se	78	-0.067	ug/L	0.056	82	6340	6519	0
[ Mo	98	1.056	ug/L	0.017	1	209	6379	1
Y	89		ug/L			259927	267808	0
Kr	83		ug/L			223	230	2
[> In	115		ug/L			274729	287357 ✓	0
Ag	107	0.073	ug/L	0.003	3	36	722	3
Cd	111	0.543	ug/L	0.034	6	123	1439	5
Cd	114	0.529	ug/L	0.010	1	26	2918	1
Sb	121	0.563	ug/L	0.004	0	22	4484	0
Sb	123	0.563	ug/L	0.006	0	16	3367	1
Ba	135	19.051	ug/L	0.237	1	20	35790	1
[ Ba	137	19.140	ug/L	0.319	1	21	61916	1
[> Tb	159		ug/L			328129	338204 ✓	1
Tl	205	0.007	ug/L	0.001	11	35	210	8
Pb	208	31.584	ug/L	0.812	2	263	984294	1
Bi	209		ug/L			267490	275676	1
Th	232	0.069	ug/L	0.001	1	55	2729	0
[ U	238	0.029	ug/L	0.001	3	13	1133	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE72 B REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 11:09:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			329720	331803 ✓	2
[ ] Be	9	0.010	ug/L	0.009	87	17	22	17
[ ] C	13		mg/L			6213	7214	0
[ ] Cl	37		mg/L			2029602	2786400	0
[>] Sc	45		ug/L			254270	271964 ✓	0
[ ] V	51	0.744	ug/L	0.012	1	1580	10300	1
[ ] V-1	51	0.813	ug/L	0.004	0	5106	15012	0
[ ] Cr	52	0.170	ug/L	0.008	4	4684	6697	1
[ ] Cr	53	0.416	ug/L	0.035	8	1656	2263	1
[ ] Mn	55	366.101	ug/L	3.442	0	310	5954957	0
[ ] Co	59	0.647	ug/L	0.010	1	48	7606	1
[>] Ge	72		ug/L			259859	264810 ✓	0
[ ] Ni	60	8.528	ug/L	0.166	1	42	19651	2
[ ] Ni	62	8.186	ug/L	0.023	0	58	2837	0
[ ] Cu	63	4.590	ug/L	0.032	0	197	23093	0
[ ] Cu	65	4.271	ug/L	0.065	1	88	10021	1
[ ] Zn	66	169.611	ug/L	1.542	0	273	260551	0
[ ] Zn	67	150.766	ug/L	1.719	1	152	38790	1
[ ] Zn	68	168.526	ug/L	0.697	0	4791	184559	0
[ ] As	75	0.592	ug/L	0.020	3	400	1311	2
[ ] As-1	75	0.641	ug/L	0.049	7	6235	7307	1
[ ] Se	82	0.507	ug/L	0.097	19	-15	72	23
[ ] Se	78	0.705	ug/L	0.201	28	6340	6743	1
[ ] Mo	98	13.104	ug/L	0.119	0	209	75676	1
[ ] Y	89		ug/L			259927	269052	0
[ ] Kr	83		ug/L			223	231	3
[>] In	115		ug/L			274729	277774 ✓	0
[ ] Ag	107	0.006	ug/L	0.002	30	36	88	17
[ ] Cd	111	0.127	ug/L	0.010	7	123	422	5
[ ] Cd	114	0.166	ug/L	0.009	5	26	905	5
[ ] Sb	121	1.062	ug/L	0.011	0	22	8159	1
[ ] Sb	123	1.052	ug/L	0.018	1	16	6075	1
[ ] Ba	135	74.191	ug/L	0.480	0	20	134674	0
[ ] Ba	137	73.670	ug/L	0.634	0	21	230306	0
[>] Tb	159		ug/L			328129	338355 ✓	0
[ ] Tl	205	0.007	ug/L	0.001	8	35	205	6
[ ] Pb	208	0.990	ug/L	0.009	0	263	31136	1
[ ] Bi	209		ug/L			267490	258665	1
[ ] Th	232	0.044	ug/L	0.003	6	55	1754	5
[ ] U	238	0.055	ug/L	0.001	1	13	2148	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE72 MBSPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 11:15:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	341397 ✓	0
[ Be	9	22.711	ug/L	0.625	2	17	10639	1
C	13		mg/L			6213	6171	1
Cl	37		mg/L			2029602	2268467	0
[> Sc	45		ug/L			254270	261365 ✓	0
V	51	23.997	ug/L	0.410	1	1580	268440	1
V-1	51	23.901	ug/L	0.474	1	5106	275121	1
Cr	52	24.483	ug/L	0.172	0	4684	238678	1
Cr	53	24.155	ug/L	0.298	1	1656	29107	0
Mn	55	24.661	ug/L	0.278	1	310	385779	0
[ Co	59	24.483	ug/L	0.206	0	48	274971	0
[> Ge	72		ug/L			259859	266590 ✓	0
Ni	60	25.030	ug/L	0.411	1	42	57978	1
Ni	62	24.995	ug/L	0.186	0	58	8597	0
Cu	63	25.420	ug/L	0.205	0	197	127829	1
Cu	65	25.627	ug/L	0.065	0	88	60076	0
Zn	66	77.059	ug/L	0.326	0	273	119325	0
Zn	67	71.189	ug/L	0.470	0	152	18521	0
Zn	68	75.671	ug/L	0.239	0	4791	86134	0
As	75	25.752	ug/L	0.080	0	400	40000	0
As-1	75	24.361	ug/L	0.160	0	6235	42867	0
Se	82	76.911	ug/L	0.274	0	-15	13418	0
Se	78	76.741	ug/L	1.068	1	6340	37511	1
[ Mo	98	-0.017	ug/L	0.001	4	209	115	3
Y	89		ug/L			259927	271235	0
Kr	83		ug/L			223	227	2
[> In	115		ug/L			274729	285944 ✓	0
Ag	107	24.825	ug/L	0.102	0	36	230291	0
Cd	111	23.606	ug/L	0.400	1	123	56827	1
Cd	114	24.226	ug/L	0.193	0	26	131899	0
Sb	121	0.009	ug/L	0.002	20	22	96	14
Sb	123	0.011	ug/L	0.001	10	16	83	7
Ba	135	24.356	ug/L	0.410	1	20	45526	1
[ Ba	137	24.576	ug/L	0.564	2	21	79103	2
[> Tb	159		ug/L			328129	341849 ✓	1
Tl	205	24.619	ug/L	0.264	1	35	587567	1
Pb	208	25.319	ug/L	0.301	1	263	797711	0
Bi	209		ug/L			267490	273032	2
Th	232	24.165	ug/L	0.147	0	55	950765	1
[ U	238	24.288	ug/L	0.230	0	13	959910	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE71 MBSPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 11:21:17

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	357076 ✓	0
[ Be	9	21.835	ug/L	0.268	1	17	10701	2
C	13		mg/L			6213	6309	1
Cl	37		mg/L			2029602	2238085	0
> Sc	45		ug/L			254270	262218 ✓	0
V	51	23.679	ug/L	0.310	1	1580	265786	1
V-1	51	23.583	ug/L	0.354	1	5106	272437	1
Cr	52	23.994	ug/L	0.215	0	4684	234766	1
Cr	53	23.675	ug/L	0.566	2	1656	28655	1
Mn	55	24.368	ug/L	0.461	1	310	382423	1
[ Co	59	24.218	ug/L	0.131	0	48	272888	0
> Ge	72		ug/L			259859	266080 ✓	0
Ni	60	24.637	ug/L	0.148	0	42	56960	0
Ni	62	24.436	ug/L	0.209	0	58	8390	0
Cu	63	25.311	ug/L	0.132	0	197	127035	0
Cu	65	25.280	ug/L	0.171	0	88	59148	0
Zn	66	76.720	ug/L	0.750	0	273	118573	1
Zn	67	70.458	ug/L	0.760	1	152	18297	0
Zn	68	76.791	ug/L	1.015	1	4791	87170	1
As	75	25.780	ug/L	0.330	1	400	39965	1
As-1	75	24.489	ug/L	0.417	1	6235	42977	1
Se	82	76.756	ug/L	0.805	1	-15	13365	0
Se	78	76.967	ug/L	1.216	1	6340	37531	1
[ Mo	98	-0.018	ug/L	0.001	6	209	109	6
Y	89		ug/L			259927	271970	1
Kr	83		ug/L			223	231	2
> In	115		ug/L			274729	287571 ✓	0
Ag	107	24.002	ug/L	0.326	1	36	223925	1
Cd	111	23.824	ug/L	0.327	1	123	57675	1
Cd	114	23.943	ug/L	0.265	1	26	131097	1
Sb	121	0.009	ug/L	0.001	16	22	95	11
Sb	123	0.007	ug/L	0.002	25	16	60	18
Ba	135	24.485	ug/L	0.303	1	20	46028	1
Ba	137	24.731	ug/L	0.424	1	21	80053	1
> Tb	159		ug/L			328129	340465 ✓	1
Tl	205	24.455	ug/L	0.625	2	35	581103	0
Pb	208	25.326	ug/L	0.718	2	263	794501	1
Bi	209		ug/L			267490	276581	1
Th	232	24.350	ug/L	0.484	1	55	953919	0
[ U	238	24.065	ug/L	0.540	2	13	947087	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE68 MBSPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 11:27:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	359509 ✓	0
[ Be	9	21.553	ug/L	0.066	0	17	10635	0
C	13		mg/L			6213	6314	2
Cl	37		mg/L			2029602	2242686	0
> Sc	45		ug/L			254270	259059 ✓	0
V	51	23.914	ug/L	0.463	1	1580	265141	1
V-1	51	23.857	ug/L	0.436	1	5106	272191	1
Cr	52	24.058	ug/L	0.255	1	4684	232542	1
Cr	53	23.871	ug/L	0.339	1	1656	28531	1
Mn	55	24.275	ug/L	0.368	1	310	376406	1
[ Co	59	24.152	ug/L	0.167	0	48	268860	0
> Ge	72		ug/L			259859	263170 ✓	0
Ni	60	24.619	ug/L	0.386	1	42	56294	1
Ni	62	24.284	ug/L	0.190	0	58	8247	0
Cu	63	25.407	ug/L	0.197	0	197	126121	0
Cu	65	25.359	ug/L	0.301	1	88	58685	1
Zn	66	77.213	ug/L	0.625	0	273	118027	0
Zn	67	71.109	ug/L	0.667	0	152	18263	0
Zn	68	75.552	ug/L	0.828	1	4791	84903	0
As	75	25.441	ug/L	0.281	1	400	39014	0
As-1	75	24.358	ug/L	0.331	1	6235	42313	0
Se	82	76.077	ug/L	0.283	0	-15	13102	0
Se	78	77.001	ug/L	0.333	0	6340	37134	0
[ Mo	98	-0.021	ug/L	0.001	3	209	90	4
Y	89		ug/L			259927	264849	0
Kr	83		ug/L			223	225	2
> In	115		ug/L			274729	283507 ✓	0
Ag	107	24.802	ug/L	0.252	1	36	228107	0
Cd	111	23.729	ug/L	0.144	0	123	56637	0
Cd	114	23.902	ug/L	0.174	0	26	129028	1
Sb	121	0.007	ug/L	0.002	24	22	78	16
Sb	123	0.007	ug/L	0.002	25	16	57	17
Ba	135	24.540	ug/L	0.141	0	20	45479	1
[ Ba	137	24.660	ug/L	0.145	0	21	78702	1
> Tb	159		ug/L			328129	341223 ✓	1
Tl	205	24.416	ug/L	0.123	0	35	581675	1
Pb	208	25.224	ug/L	0.386	1	263	793243	0
Bi	209		ug/L			267490	269870	0
Th	232	24.432	ug/L	0.187	0	55	959439	0
[ U	238	24.177	ug/L	0.299	1	13	953754	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 11:33:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	343417 ✓	1
[ Be	9	47.247	ug/L	1.169	2	17	22241	0
C	13		mg/L			6213	4768	0
Cl	37		mg/L			2029602	2239333	0
[> Sc	45		ug/L			254270	248975 ✓	1
V	51	48.701	ug/L	1.260	2	1580	517301	1
V-1	51	48.559	ug/L	1.210	2	5106	527244	1
Cr	52	49.458	ug/L	1.178	2	4684	454510	1
Cr	53	48.967	ug/L	0.903	1	1656	54539	1
Mn	55	49.585	ug/L	0.630	1	310	738563	0
[ Co	59	49.924	ug/L	0.816	1	48	534013	0
[> Ge	72		ug/L			259859	259800 ✓	1
Ni	60	47.737	ug/L	1.228	2	42	107700	1
Ni	62	48.617	ug/L	0.768	1	58	16241	1
Cu	63	48.502	ug/L	0.715	1	197	237476	0
Cu	65	49.059	ug/L	0.686	1	88	111982	0
Zn	66	49.722	ug/L	0.814	1	273	75120	0
Zn	67	49.857	ug/L	1.693	3	152	12683	2
Zn	68	50.218	ug/L	0.988	1	4791	57311	1
As	75	49.327	ug/L	0.208	0	400	74298	1
As-1	75	49.476	ug/L	0.062	0	6235	78418	1
Se	82	49.543	ug/L	0.855	1	-15	8417	1
Se	78	50.115	ug/L	0.375	0	6340	26071	1
[ Mo	98	49.512	ug/L	0.903	1	209	279909	0
Y	89		ug/L			259927	257156	2
Kr	83		ug/L			223	232	3
[> In	115		ug/L			274729	272816 ✓	1
Ag	107	49.667	ug/L	1.200	2	36	439436	1
Cd	111	51.156	ug/L	1.340	2	123	117320	1
Cd	114	51.733	ug/L	0.597	1	26	268681	1
Sb	121	52.113	ug/L	0.642	1	22	391999	0
Sb	123	51.793	ug/L	1.002	1	16	292848	0
Ba	135	50.414	ug/L	0.540	1	20	89879	1
[ Ba	137	50.283	ug/L	0.687	1	21	154374	0
[> Tb	159		ug/L			328129	331688 ✓	0
Tl	205	48.838	ug/L	0.624	1	35	1130812	0
Pb	208	49.637	ug/L	0.423	0	263	1517206	0
Bi	209		ug/L			267490	260334	0
Th	232	48.204	ug/L	0.894	1	55	1839997	1
[ U	238	48.528	ug/L	0.657	1	13	1860915	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 11:39:32

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	342718 ✓	1
[ Be	9	0.020	ug/L	0.006	27	17	27	7
[ C	13		mg/L			6213	6029	1
[ Cl	37		mg/L			2029602	2263691	0
[> Sc	45		ug/L			254270	248086 ✓	0
[ V	51	0.012	ug/L	0.009	74	1580	1670	5
[ V-1	51	-0.044	ug/L	0.016	36	5106	4506	3
[ Cr	52	0.006	ug/L	0.010	171	4684	4622	2
[ Cr	53	-0.174	ug/L	0.038	22	1656	1429	2
[ Mn	55	0.006	ug/L	0.003	57	310	386	11
[ Co	59	0.001	ug/L	0.001	64	48	56	10
[> Ge	72		ug/L			259859	255700 ✓	0
[ Ni	60	0.001	ug/L	0.001	91	42	44	4
[ Ni	62	0.022	ug/L	0.027	121	58	65	13
[ Cu	63	0.000	ug/L	0.001	1471	197	194	1
[ Cu	65	0.003	ug/L	0.003	97	88	93	7
[ Zn	66	-0.013	ug/L	0.006	44	273	250	4
[ Zn	67	-0.025	ug/L	0.044	173	152	143	7
[ Zn	68	-0.021	ug/L	0.083	400	4791	4693	2
[ As	75	0.023	ug/L	0.035	148	400	428	11
[ As-1	75	0.065	ug/L	0.033	51	6235	6229	0
[ Se	82	-0.016	ug/L	0.040	259	-15	-17	38
[ Se	78	0.229	ug/L	0.122	53	6340	6326	0
[ Mo	98	-0.016	ug/L	0.004	25	209	114	20
[ Y	89		ug/L			259927	255453	1
[ Kr	83		ug/L			223	233	4
[> In	115		ug/L			274729	272812 ✓	0
[ Ag	107	0.012	ug/L	0.003	28	36	138	20
[ Cd	111	0.018	ug/L	0.007	38	123	163	8
[ Cd	114	-0.001	ug/L	0.002	177	26	21	39
[ Sb	121	0.018	ug/L	0.004	22	22	157	18
[ Sb	123	0.019	ug/L	0.004	22	16	124	18
[ Ba	135	0.006	ug/L	0.005	86	20	30	29
[ Ba	137	0.005	ug/L	0.001	28	21	36	11
[> Tb	159		ug/L			328129	325444 ✓	1
[ Tl	205	0.006	ug/L	0.001	24	35	170	19
[ Pb	208	0.003	ug/L	0.002	71	263	361	19
[ Bi	209		ug/L			267490	257429	1
[ Th	232	0.077	ug/L	0.017	22	55	2956	22
[ U	238	0.004	ug/L	0.002	45	13	152	41

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 MB1 REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 11:46:11

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	363704 ✓	1
[ Be	9	0.016	ug/L	0.014	91	17	27	25
C	13		mg/L			6213	5788	2
Cl	37		mg/L			2029602	2213799	0
[> Sc	45		ug/L			254270	254608 ✓	2
V	51	0.020	ug/L	0.005	26	1580	1796	5
V-1	51	-0.060	ug/L	0.006	10	5106	4457	0
Cr	52	u 0.014	ug/L	0.005	34	4684	4819	1
Cr	53	-0.238	ug/L	0.040	16	1656	1395	1
Mn	55	0.010	ug/L	0.002	23	310	460	9
[ Co	59	0.002	ug/L	0.001	39	48	67	9
[> Ge	72		ug/L			259859	259951 ✓	0
Ni	60	0.003	ug/L	0.006	171	42	50	25
Ni	62	0.025	ug/L	0.023	90	58	67	10
Cu	63	u 0.045	ug/L	0.002	4	197	416	2
Cu	65	0.051	ug/L	0.008	15	88	204	9
Zn	66	u 0.435	ug/L	0.032	7	273	928	5
Zn	67	0.298	ug/L	0.059	19	152	227	6
Zn	68	0.389	ug/L	0.070	17	4791	5199	1
As	75	0.029	ug/L	0.012	40	400	443	4
As-1	75	0.059	ug/L	0.028	46	6235	6324	0
Se	82	0.005	ug/L	0.058	1260	-15	-14	67
Se	78	0.160	ug/L	0.127	79	6340	6405	0
[ Mo	98	-0.018	ug/L	0.004	22	209	108	20
Y	89		ug/L			259927	260888	1
Kr	83		ug/L			223	230	5
[> In	115		ug/L			274729	277987 ✓	0
Ag	107	0.006	ug/L	0.002	27	36	88	15
Cd	111	u 0.010	ug/L	0.003	27	123	148	4
Cd	114	-0.002	ug/L	0.000	28	26	18	12
Sb	121	0.009	ug/L	0.002	20	22	91	15
Sb	123	0.007	ug/L	0.001	20	16	57	13
Ba	135	0.008	ug/L	0.003	38	20	34	17
[ Ba	137	0.008	ug/L	0.001	15	21	46	7
[> Tb	159		ug/L			328129	334770 ✓	0
Tl	205	0.003	ug/L	0.001	35	35	102	23
Pb	208	u 0.008	ug/L	0.000	2	263	523	1
Bi	209		ug/L			267490	267237	0
Th	232	0.054	ug/L	0.009	17	55	2123	16
[ U	238	0.001	ug/L	0.000	6	13	63	5



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE68 MB REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 11:52:08

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	363658 ✓	1
[ Be	9	0.011	ug/L	0.014	129	17	24	28
C	13		mg/L			6213	5801	0
Cl	37		mg/L			2029602	2207943	0
[> Sc	45		ug/L			254270	253690 ✓	1
V	51	-0.003	ug/L	0.019	545	1580	1539	13
V-1	51	-0.074	ug/L	0.010	12	5106	4279	2
Cr	52	0.011	ug/L	0.012	113	4684	4773	1
Cr	53	-0.216	ug/L	0.043	19	1656	1415	3
Mn	55	0.016	ug/L	0.002	13	310	552	5
[ Co	59	0.002	ug/L	0.001	41	48	74	13
[> Ge	72		ug/L			259859	260898 ✓	0
Ni	60	0.007	ug/L	0.002	34	42	58	8
Ni	62	-0.010	ug/L	0.041	424	58	55	24
Cu	63	0.146	ug/L	0.003	2	197	913	1
Cu	65	0.152	ug/L	0.010	6	88	437	4
Zn	66	0.550	ug/L	0.014	2	273	1105	1
Zn	67	0.414	ug/L	0.014	3	152	257	1
Zn	68	0.400	ug/L	0.150	37	4791	5230	3
As	75	0.004	ug/L	0.020	493	400	408	8
As-1	75	0.011	ug/L	0.036	333	6235	6275	0
Se	82	0.044	ug/L	0.047	108	-15	-7	101
Se	78	0.052	ug/L	0.154	298	6340	6385	0
[ Mo	98	-0.024	ug/L	0.002	9	209	71	17
Y	89		ug/L			259927	259983	1
Kr	83		ug/L			223	220	4
[> In	115		ug/L			274729	278347 ✓	0
Ag	107	0.005	ug/L	0.002	28	36	85	16
Cd	111	0.012	ug/L	0.006	45	123	154	8
Cd	114	-0.001	ug/L	0.000	24	26	22	4
Sb	121	0.006	ug/L	0.001	22	22	68	14
Sb	123	0.006	ug/L	0.001	11	16	53	8
Ba	135	0.006	ug/L	0.001	11	20	31	4
[ Ba	137	0.009	ug/L	0.001	15	21	49	8
[> Tb	159		ug/L			328129	336681 ✓	0
Tl	205	0.002	ug/L	0.000	17	35	87	10
Pb	208	0.018	ug/L	0.001	3	263	820	1
Bi	209		ug/L			267490	263514	0
Th	232	0.030	ug/L	0.002	6	55	1231	5
[ U	238	0.002	ug/L	0.000	13	13	80	11

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE68 ADUP REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 11:58:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	361010 ✓	0
[ Be	9	0.030	ug/L	0.010	32	17	34	14
C	13		mg/L			6213	7271	1
Cl	37		mg/L			2029602	2231498	0
[> Sc	45		ug/L			254270	282803 ✓	0
V	51	10.407	ug/L	0.219	2	1580	126971	2
V-1	51	10.292	ug/L	0.213	2	5106	131434	2
Cr	52	12.299	ug/L	0.158	1	4684	132335	1
Cr	53	11.843	ug/L	0.200	1	1656	16380	0
Mn	55	25.280	ug/L	0.579	2	310	427929	2
[ Co	59	0.710	ug/L	0.011	1	48	8677	2
[> Ge	72		ug/L			259859	251006 ✓	0
Ni	60	3.754	ug/L	0.074	1	42	8222	2
Ni	62	3.663	ug/L	0.071	1	58	1234	1
Cu	63	20.674	ug/L	0.129	0	197	97920	1
Cu	65	20.989	ug/L	0.275	1	88	46345	1
Zn	66	44.349	ug/L	0.283	0	273	64769	0
Zn	67	41.252	ug/L	0.435	1	152	10167	1
Zn	68	45.130	ug/L	0.172	0	4791	50236	0
As	75	4.500	ug/L	0.017	0	400	6899	0
As-1	75	4.525	ug/L	0.077	1	6235	12400	1
Se	82	2.673	ug/L	0.043	1	-15	424	1
Se	78	2.596	ug/L	0.180	6	6340	7111	1
[ Mo	98	6.154	ug/L	0.054	0	209	33797	0
Y	89		ug/L			259927	256647	1
Kr	83		ug/L			223	217	1
[> In	115		ug/L			274729	265696 ✓	0
Ag	107	0.064	ug/L	0.009	13	36	585	13
Cd	111	0.129	ug/L	0.004	3	123	408	2
Cd	114	0.096	ug/L	0.005	5	26	511	4
Sb	121	2.283	ug/L	0.026	1	22	16745	0
Sb	123	2.280	ug/L	0.021	0	16	12575	1
Ba	135	40.307	ug/L	0.378	0	20	69992	0
[ Ba	137	40.394	ug/L	0.292	0	21	120804	1
[> Tb	159		ug/L			328129	322782 ✓	1
Tl	205	0.856	ug/L	0.016	1	35	19311	1
Pb	208	6.192	ug/L	0.106	1	263	184374	0
Bi	209		ug/L			267490	251800	1
Th	232	0.160	ug/L	0.003	1	55	6010	1
[ U	238	0.368	ug/L	0.012	3	13	13734	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE68 A REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 12:04:02

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	366163 ✓	1
[ Be	9	0.031	ug/L	0.007	23	17	35	10
C	13		mg/L			6213	7339	0
Cl	37		mg/L			2029602	2210115	0
[> Sc	45		ug/L			254270	278793 ✓	0
V	51	10.160	ug/L	0.123	1	1580	122235	0
V-1	51	10.145	ug/L	0.037	0	5106	127786	0
Cr	52	12.224	ug/L	0.090	0	4684	129684	0
Cr	53	12.074	ug/L	0.191	1	1656	16429	1
Mn	55	24.351	ug/L	0.411	1	310	406343	1
[ Co	59	0.694	ug/L	0.014	2	48	8364	1
[> Ge	72		ug/L			259859	245138 ✓	0
Ni	60	3.666	ug/L	0.072	1	42	7842	2
Ni	62	3.564	ug/L	0.213	5	58	1174	5
Cu	63	20.348	ug/L	0.266	1	197	94117	0
Cu	65	20.808	ug/L	0.270	1	88	44867	0
Zn	66	44.301	ug/L	0.161	0	273	63188	0
Zn	67	41.253	ug/L	0.332	0	152	9929	0
Zn	68	44.362	ug/L	0.774	1	4791	48301	1
As	75	4.528	ug/L	0.070	1	400	6779	1
As-1	75	4.617	ug/L	0.082	1	6235	12237	0
Se	82	2.587	ug/L	0.127	4	-15	401	5
Se	78	2.828	ug/L	0.302	10	6340	7031	0
[ Mo	98	6.054	ug/L	0.047	0	209	32469	0
Y	89		ug/L			259927	258864	0
Kr	83		ug/L			223	226	4
[> In	115		ug/L			274729	264136 ✓	1
Ag	107	0.059	ug/L	0.002	4	36	538	3
Cd	111	0.138	ug/L	0.005	3	123	424	2
Cd	114	0.101	ug/L	0.008	7	26	530	7
Sb	121	2.246	ug/L	0.005	0	22	16383	1
Sb	123	2.255	ug/L	0.022	0	16	12360	0
Ba	135	39.698	ug/L	0.731	1	20	68523	0
[ Ba	137	39.764	ug/L	0.552	1	21	118212	1
[> Tb	159		ug/L			328129	322478 ✓	0
Tl	205	0.826	ug/L	0.016	1	35	18624	1
Pb	208	6.072	ug/L	0.039	0	263	180668	1
Bi	209		ug/L			267490	250260	1
Th	232	0.128	ug/L	0.002	1	55	4797	1
[ U	238	0.362	ug/L	0.004	1	13	13503	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE68 ASPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 12:09:58

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	385047 ✓	2
[ Be	9	20.673	ug/L	0.402	1	17	10923	0
C	13		mg/L			6213	7158	0
Cl	37		mg/L			2029602	2230158	0
[> Sc	45		ug/L			254270	285607 ✓	0
V	51	31.071	ug/L	0.271	0	1580	379310	1
V-1	51	30.909	ug/L	0.242	0	5106	387136	1
Cr	52	32.811	ug/L	0.302	0	4684	347751	1
Cr	53	32.213	ug/L	0.180	0	1656	41798	1
Mn	55	45.644	ug/L	0.230	0	310	779990	0
[ Co	59	21.170	ug/L	0.372	1	48	259849	2
[> Ge	72		ug/L			259859	253626 ✓	0
Ni	60	27.048	ug/L	0.414	1	42	59605	2
Ni	62	27.065	ug/L	0.366	1	58	8852	0
Cu	63	43.867	ug/L	0.650	1	197	209703	0
Cu	65	45.323	ug/L	0.494	1	88	101014	1
Zn	66	118.040	ug/L	1.100	0	273	173745	0
Zn	67	109.589	ug/L	3.035	2	152	27042	2
Zn	68	117.727	ug/L	1.818	1	4791	124883	0
As	75	30.665	ug/L	0.425	1	400	45238	1
As-1	75	29.290	ug/L	0.233	0	6235	47803	0
Se	82	79.500	ug/L	0.580	0	-15	13195	0
Se	78	79.195	ug/L	0.304	0	6340	36630	0
[ Mo	98	6.100	ug/L	0.119	1	209	33850	1
Y	89		ug/L			259927	267646	0
Kr	83		ug/L			223	221	2
[> In	115		ug/L			274729	271174 ✓	1
Ag	107	23.431	ug/L	0.162	0	36	206111	1
Cd	111	23.817	ug/L	0.296	1	123	54370	1
Cd	114	24.103	ug/L	0.357	1	26	124439	1
Sb	121	2.267	ug/L	0.005	0	22	16976	1
Sb	123	2.286	ug/L	0.022	0	16	12862	0
Ba	135	65.127	ug/L	0.955	1	20	115398	0
[ Ba	137	66.170	ug/L	1.643	2	21	201904	1
[> Tb	159		ug/L			328129	331756 ✓	1
Tl	205	24.799	ug/L	0.306	1	35	574316	0
Pb	208	31.002	ug/L	0.696	2	263	947762	1
Bi	209		ug/L			267490	256734	0
Th	232	24.163	ug/L	0.413	1	55	922520	1
[ U	238	24.785	ug/L	0.482	1	13	950568	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 A REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 12:15:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	389911 ✓	0
[ Be	9	0.005	ug/L	0.015	301	17	23	34
C	13		mg/L			6213	6539	1
Cl	37		mg/L			2029602	2219420	0
[> Sc	45		ug/L			254270	255503 ✓	1
V	51	1.089	ug/L	0.010	0	1580	13425	1
V-1	51	1.005	ug/L	0.015	1	5106	16224	0
Cr	52	1.158	ug/L	0.022	1	4684	15518	1
Cr	53	0.887	ug/L	0.051	5	1656	2648	1
Mn	55	19.104	ug/L	0.142	0	310	292238	1
[ Co	59	0.344	ug/L	0.005	1	48	3820	1
[> Ge	72		ug/L			259859	255983 ✓	0
Ni	60	1.346	ug/L	0.027	2	42	3032	2
Ni	62	1.642	ug/L	0.099	6	58	596	5
Cu	63	7.374	ug/L	0.054	0	197	35744	0
Cu	65	7.580	ug/L	0.086	1	88	17124	1
Zn	66	26.766	ug/L	0.193	0	273	39972	0
Zn	67	23.876	ug/L	0.179	0	152	6064	0
Zn	68	26.271	ug/L	0.157	0	4791	31795	0
As	75	0.263	ug/L	0.017	6	400	783	3
As-1	75	0.301	ug/L	0.044	14	6235	6575	1
Se	82	0.042	ug/L	0.027	64	-15	-8	56
Se	78	0.209	ug/L	0.123	58	6340	6326	0
[ Mo	98	0.103	ug/L	0.009	8	209	778	6
Y	89		ug/L			259927	263071	1
Kr	83		ug/L			223	227	1
[> In	115		ug/L			274729	273526 ✓	1
Ag	107	0.016	ug/L	0.002	14	36	176	9
Cd	111	0.352	ug/L	0.021	5	123	931	4
Cd	114	0.311	ug/L	0.018	5	26	1645	7
Sb	121	0.431	ug/L	0.009	2	22	3272	0
Sb	123	0.429	ug/L	0.012	2	16	2450	1
Ba	135	7.524	ug/L	0.127	1	20	13464	1
[ Ba	137	7.532	ug/L	0.175	2	21	23200	0
[> Tb	159		ug/L			328129	338711 ✓	0
Tl	205	0.004	ug/L	0.001	19	35	136	14
Pb	208	1.655	ug/L	0.027	1	263	51927	0
Bi	209		ug/L			267490	268084	0
Th	232	0.054	ug/L	0.011	19	55	2181	19
[ U	238	0.044	ug/L	0.001	1	13	1720	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 B REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 12:21:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	393233 ✓	2
[ Be	9	0.017	ug/L	0.007	41	17	30	11
C	13		mg/L			6213	7438	1
Cl	37		mg/L			2029602	2211900	0
[> Sc	45		ug/L			254270	263571 ✓	2
V	51	2.321	ug/L	0.040	1	1580	27658	0
V-1	51	2.194	ug/L	0.048	2	5106	30272	1
Cr	52	0.681	ug/L	0.037	5	4684	11416	2
Cr	53	0.357	ug/L	0.051	14	1656	2125	2
Mn	55	21.557	ug/L	0.146	0	310	340115	1
[ Co	59	0.368	ug/L	0.012	3	48	4214	1
[> Ge	72		ug/L			259859	256634 ✓	1
Ni	60	0.866	ug/L	0.028	3	42	1972	1
Ni	62	1.225	ug/L	0.008	0	58	460	0
Cu	63	2.948	ug/L	0.086	2	197	14439	1
Cu	65	3.047	ug/L	0.046	1	88	6954	2
Zn	66	u 3.138	ug/L	0.048	1	273	4937	2
Zn	67	3.047	ug/L	0.192	6	152	907	6
Zn	68	3.106	ug/L	0.146	4	4791	7941	2
As	75	5.818	ug/L	0.006	0	400	9005	1
As-1	75	5.941	ug/L	0.063	1	6235	14720	0
Se	82	0.094	ug/L	0.048	51	-15	0	1661
Se	78	-0.018	ug/L	0.261	1466	6340	6253	0
[ Mo	98	0.337	ug/L	0.004	1	209	2086	0
Y	89		ug/L			259927	270131	1
Kr	83		ug/L			223	220	3
[> In	115		ug/L			274729	271984 ✓	0
Ag	107	0.008	ug/L	0.001	17	36	105	11
Cd	111	0.200	ug/L	0.015	7	123	578	6
Cd	114	0.193	ug/L	0.006	2	26	1027	2
Sb	121	0.216	ug/L	0.002	0	22	1640	1
Sb	123	0.229	ug/L	0.007	3	16	1307	2
Ba	135	6.495	ug/L	0.090	1	20	11562	0
[ Ba	137	6.502	ug/L	0.079	1	21	19922	1
[> Tb	159		ug/L			328129	331929 ✓	0
Tl	205	0.007	ug/L	0.000	7	35	187	5
Pb	208	0.245	ug/L	0.006	2	263	7773	1
Bi	209		ug/L			267490	263910	0
Th	232	0.094	ug/L	0.002	2	55	3631	2
[ U	238	0.024	ug/L	0.002	10	13	917	10

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 D REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 12:27:54

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	393035 ✓	1
[ Be	9	0.012	ug/L	0.006	48	17	27	11
C	13		mg/L			6213	7367	0
Cl	37		mg/L			2029602	2207939	0
[> Sc	45		ug/L			254270	255872 ✓	0
V	51	1.056	ug/L	0.007	0	1580	13089	0
V-1	51	0.956	ug/L	0.014	1	5106	15700	0
Cr	52	✓ 0.217	ug/L	0.001	0	4684	6746	0
Cr	53	-0.063	ug/L	0.027	42	1656	1597	1
Mn	55	4.148	ug/L	0.062	1	310	63782	1
[ Co	59	0.050	ug/L	0.002	3	48	602	2
[> Ge	72		ug/L			259859	256031 ✓	0
Ni	60	0.282	ug/L	0.025	8	42	670	8
Ni	62	0.242	ug/L	0.044	18	58	137	10
Cu	63	1.810	ug/L	0.017	0	197	8921	1
Cu	65	1.865	ug/L	0.007	0	88	4279	0
Zn	66	✓ 2.270	ug/L	0.025	1	273	3637	0
Zn	67	2.087	ug/L	0.129	6	152	666	4
Zn	68	2.110	ug/L	0.065	3	4791	6895	0
As	75	4.072	ug/L	0.023	0	400	6406	0
As-1	75	4.074	ug/L	0.036	0	6235	12001	0
Se	82	0.145	ug/L	0.010	7	-15	9	18
Se	78	-0.260	ug/L	0.086	32	6340	6145	0
[ Mo	98	0.311	ug/L	0.006	1	209	1939	1
Y	89		ug/L			259927	257375	1
Kr	83		ug/L			223	216	0
[> In	115		ug/L			274729	270296 ✓	0
Ag	107	0.003	ug/L	0.001	32	36	58	11
Cd	111	✓ 0.027	ug/L	0.009	31	123	182	10
Cd	114	0.023	ug/L	0.002	7	26	144	6
Sb	121	0.207	ug/L	0.008	4	22	1563	3
Sb	123	0.205	ug/L	0.008	3	16	1166	3
Ba	135	1.919	ug/L	0.018	0	20	3408	0
[ Ba	137	1.966	ug/L	0.036	1	21	6000	1
[> Tb	159		ug/L			328129	333885 ✓	1
Tl	205	0.003	ug/L	0.000	15	35	101	8
Pb	208	✓ 0.055	ug/L	0.003	5	263	1973	3
Bi	209		ug/L			267490	263397	0
Th	232	0.015	ug/L	0.001	3	55	617	3
[ U	238	0.006	ug/L	0.000	4	13	227	4

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 E REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 12:33:53

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	399312	0
[ Be	9	0.013	ug/L	0.007	51	17	28	12
C	13		mg/L			6213	7642	0
Cl	37		mg/L			2029602	2194588	0
[> Sc	45		ug/L			254270	259533 ✓	0
V	51	1.248	ug/L	0.043	3	1580	15395	2
V-1	51	1.141	ug/L	0.032	2	5106	18005	1
Cr	52	0.269	ug/L	0.022	8	4684	7330	2
Cr	53	-0.025	ug/L	0.040	158	1656	1663	2
Mn	55	7.313	ug/L	0.047	0	310	113831	0
[ Co	59	0.112	ug/L	0.003	2	48	1296	2
[> Ge	72		ug/L			259859	259755 ✓	1
Ni	60	1.782	ug/L	0.025	1	42	4060	0
Ni	62	1.807	ug/L	0.097	5	58	659	3
Cu	63	1.820	ug/L	0.030	1	197	9099	0
Cu	65	1.866	ug/L	0.045	2	88	4342	0
Zn	66	3.132	ug/L	0.044	1	273	4988	2
Zn	67	2.710	ug/L	0.181	6	152	832	3
Zn	68	2.774	ug/L	0.188	6	4791	7688	1
As	75	3.973	ug/L	0.045	1	400	6350	0
As-1	75	3.962	ug/L	0.104	2	6235	12010	0
Se	82	0.024	ug/L	0.082	344	-15	-11	124
Se	78	-0.394	ug/L	0.230	58	6340	6181	0
[ Mo	98	0.289	ug/L	0.001	0	209	1839	1
Y	89		ug/L			259927	261904	0
Kr	83		ug/L			223	225	4
[> In	115		ug/L			274729	273835 ✓	2
Ag	107	0.003	ug/L	0.002	55	36	66	24
Cd	111	0.057	ug/L	0.004	7	123	254	3
Cd	114	0.034	ug/L	0.003	9	26	202	8
Sb	121	0.211	ug/L	0.015	7	22	1615	5
Sb	123	0.205	ug/L	0.011	5	16	1181	3
Ba	135	3.196	ug/L	0.072	2	20	5736	1
[ Ba	137	3.168	ug/L	0.082	2	21	9780	0
[> Tb	159		ug/L			328129	334015 ✓	0
Tl	205	0.002	ug/L	0.000	11	35	83	6
Pb	208	0.131	ug/L	0.002	1	263	4289	1
Bi	209		ug/L			267490	267979	2
Th	232	0.024	ug/L	0.000	1	55	992	1
[ U	238	0.010	ug/L	0.000	2	13	384	3



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 MB1SPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 12:39:52

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	409554	0
[ Be	9	20.256	ug/L	0.205	1	17	11387	1
C	13		mg/L			6213	6685	1
Cl	37		mg/L			2029602	2219311	0
[> Sc	45		ug/L			254270	252772✓	1
V	51	23.330	ug/L	0.314	1	1580	252423	0
V-1	51	23.228	ug/L	0.335	1	5106	258710	0
Cr	52	23.606	ug/L	0.157	0	4684	222710	0
Cr	53	23.269	ug/L	0.225	0	1656	27177	0
Mn	55	23.619	ug/L	0.403	1	310	357320	0
[ Co	59	23.739	ug/L	0.246	1	48	257832	0
[> Ge	72		ug/L			259859	260080✓	0
Ni	60	23.561	ug/L	0.398	1	42	53241	0
Ni	62	23.856	ug/L	0.195	0	58	8008	0
Cu	63	24.583	ug/L	0.503	2	197	120591	1
Cu	65	24.929	ug/L	0.411	1	88	57009	0
Zn	66	76.527	ug/L	1.119	1	273	115601	0
Zn	67	69.492	ug/L	1.314	1	152	17640	1
Zn	68	74.177	ug/L	1.786	2	4791	82458	1
As	75	25.072	ug/L	0.127	0	400	38002	0
As-1	75	23.882	ug/L	0.163	0	6235	41120	0
Se	82	75.725	ug/L	0.397	0	-15	12888	0
Se	78	76.270	ug/L	0.106	0	6340	36410	0
[ Mo	98	-0.027	ug/L	0.002	5	209	55	16
Y	89		ug/L			259927	260786	0
Kr	83		ug/L			223	225	0
[> In	115		ug/L			274729	278921✓	1
Ag	107	23.916	ug/L	0.559	2	36	216353	0
Cd	111	23.260	ug/L	0.142	0	123	54617	1
Cd	114	23.732	ug/L	0.191	0	26	126044	2
Sb	121	0.005	ug/L	0.001	25	22	62	15
Sb	123	0.005	ug/L	0.001	31	16	44	18
Ba	135	24.558	ug/L	0.395	1	20	44770	0
[ Ba	137	24.520	ug/L	0.170	0	21	76980	0
[> Tb	159		ug/L			328129	339317✓	1
Tl	205	24.032	ug/L	0.210	0	35	569269	0
Pb	208	24.819	ug/L	0.185	0	263	776225	1
Bi	209		ug/L			267490	272763	1
Th	232	23.907	ug/L	0.211	0	55	933560	0
[ U	238	23.654	ug/L	0.310	1	13	927920	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 12:45:52

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	393434 ✓	1
[ Be	9	44.053	ug/L	0.419	0	17	23767	1
C	13		mg/L			6213	4946	1
Cl	37		mg/L			2029602	2265169	0
[> Sc	45		ug/L			254270	250149 ✓	1
V	51	48.074	ug/L	0.365	0	1580	513134	0
V-1	51	47.858	ug/L	0.479	1	5106	522190	0
Cr	52	48.176	ug/L	0.419	0	4684	445009	0
Cr	53	47.481	ug/L	0.697	1	1656	53182	0
Mn	55	48.817	ug/L	0.573	1	310	730578	0
[ Co	59	48.140	ug/L	0.457	0	48	517402	0
[> Ge	72		ug/L			259859	263104 ✓	0
Ni	60	46.894	ug/L	0.238	0	42	107164	0
Ni	62	47.075	ug/L	0.366	0	58	15928	0
Cu	63	47.378	ug/L	0.220	0	197	234959	1
Cu	65	47.712	ug/L	0.435	0	88	110308	1
Zn	66	48.437	ug/L	0.451	0	273	74122	0
Zn	67	49.238	ug/L	0.739	1	152	12689	0
Zn	68	48.568	ug/L	0.859	1	4791	56299	1
As	75	48.961	ug/L	0.429	0	400	74690	1
As-1	75	48.941	ug/L	0.285	0	6235	78625	0
Se	82	49.810	ug/L	0.387	0	-15	8571	1
Se	78	49.802	ug/L	0.455	0	6340	26278	0
[ Mo	98	49.530	ug/L	0.134	0	209	283617	0
Y	89		ug/L			259927	258809	0
Kr	83		ug/L			223	232	7
[> In	115		ug/L			274729	274570 ✓	1
Ag	107	49.581	ug/L	0.450	0	36	441578	0
Cd	111	49.963	ug/L	0.349	0	123	115350	0
Cd	114	50.888	ug/L	0.725	1	26	265984	0
Sb	121	51.808	ug/L	1.255	2	22	392206	1
Sb	123	51.940	ug/L	0.805	1	16	295599	0
Ba	135	50.446	ug/L	0.605	1	20	90518	0
[ Ba	137	50.556	ug/L	0.637	1	21	156226	0
[> Tb	159		ug/L			328129	333377 ✓	0
Tl	205	48.760	ug/L	0.949	1	35	1134707	1
Pb	208	49.996	ug/L	0.682	1	263	1535883	0
Bi	209		ug/L			267490	259963	1
Th	232	48.546	ug/L	0.489	1	55	1862516	0
[ U	238	49.714	ug/L	0.427	0	13	1916148	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 12:52:10

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	391862 ✓	0
[ Be	9	-0.006	ug/L	0.002	38	17	17	7
C	13		mg/L			6213	6115	1
Cl	37		mg/L			2029602	2282671	0
[> Sc	45		ug/L			254270	245466 ✓	1
V	51	0.003	ug/L	0.007	246	1580	1556	3
V-1	51	-0.099	ug/L	0.003	2	5106	3877	2
Cr	52	0.025	ug/L	0.015	59	4684	4741	1
Cr	53	-0.302	ug/L	0.018	6	1656	1278	2
Mn	55	0.003	ug/L	0.002	75	310	336	8
Co	59	0.002	ug/L	0.001	34	48	67	11
[> Ge	72		ug/L			259859	25764 ✓	0
Ni	60	0.002	ug/L	0.005	301	42	46	24
Ni	62	-0.021	ug/L	0.021	100	58	51	13
Cu	63	-0.008	ug/L	0.005	58	197	156	14
Cu	65	-0.004	ug/L	0.005	153	88	80	14
Zn	66	-0.029	ug/L	0.014	46	273	227	9
Zn	67	-0.102	ug/L	0.033	32	152	125	7
Zn	68	-0.289	ug/L	0.100	34	4791	4450	2
As	75	0.036	ug/L	0.014	40	400	449	4
As-1	75	0.057	ug/L	0.095	165	6235	6264	1
Se	82	-0.003	ug/L	0.025	750	-15	-15	26
Se	78	0.172	ug/L	0.288	167	6340	6352	1
[ Mo	98	-0.022	ug/L	0.008	34	209	84	51
Y	89		ug/L			259927	256230	0
Kr	83		ug/L			223	236	2
[> In	115		ug/L			274729	268981 ✓	1
Ag	107	0.007	ug/L	0.002	28	36	100	18
Cd	111	0.007	ug/L	0.016	224	123	137	26
Cd	114	0.000	ug/L	0.001	807	26	26	14
Sb	121	0.019	ug/L	0.005	27	22	162	23
Sb	123	0.016	ug/L	0.007	42	16	103	34
Ba	135	0.000	ug/L	0.002	8679	20	19	20
[ Ba	137	0.005	ug/L	0.003	67	21	34	25
[> Tb	159		ug/L			328129	329531 ✓	0
Tl	205	0.006	ug/L	0.001	24	35	177	20
Pb	208	0.002	ug/L	0.001	58	263	340	13
Bi	209		ug/L			267490	262291	1
Th	232	0.065	ug/L	0.013	20	55	2518	21
[ U	238	0.003	ug/L	0.001	34	13	122	31

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 MB2 REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 12:57:37

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	408605	1
[ Be	9	0.004	ug/L	0.002	53	17	23	5
C	13		mg/L			6213	5925	1
Cl	37		mg/L			2029602	2268198	0
[> Sc	45		ug/L			254270	256065✓	0
V	51	0.100	ug/L	0.015	14	1580	2684	5
V-1	51	0.004	ug/L	0.007	184	5106	5185	0
Cr	52	0.472✓	ug/L	0.026	5	4684	9138	3
Cr	53	0.147	ug/L	0.029	19	1656	1832	2
Mn	55	2.559	ug/L	0.033	1	310	39494	0
[ Co	59	0.005	ug/L	0.001	30	48	100	14
[> Ge	72		ug/L			259859	264642✓	1
Ni	60	0.071	ug/L	0.004	6	42	206	4
Ni	62	0.087	ug/L	0.011	13	58	89	4
Cu	63	0.232✓	ug/L	0.012	5	197	1358	5
Cu	65	0.226	ug/L	0.007	3	88	615	2
Zn	66	0.645✓	ug/L	0.021	3	273	1267	1
Zn	67	0.490	ug/L	0.041	8	152	280	3
Zn	68	0.450	ug/L	0.100	22	4791	5358	1
As	75	0.022	ug/L	0.008	34	400	441	1
As-1	75	0.006	ug/L	0.051	896	6235	6357	0
Se	82	0.020	ug/L	0.054	267	-15	-12	77
Se	78	-0.030	ug/L	0.198	653	6340	6443	0
[ Mo	98	0.078	ug/L	0.001	1	209	663	2
Y	89		ug/L			259927	267824	0
Kr	83		ug/L			223	228	1
[> In	115		ug/L			274729	278690✓	1
Ag	107	0.005	ug/L	0.001	22	36	78	12
Cd	111	0.008✓	ug/L	0.006	76	123	144	9
Cd	114	-0.000	ug/L	0.001	248	26	24	18
Sb	121	0.008	ug/L	0.001	10	22	86	8
Sb	123	0.010	ug/L	0.001	7	16	73	5
Ba	135	0.333	ug/L	0.007	2	20	627	3
[ Ba	137	0.350	ug/L	0.012	3	21	1118	2
[> Tb	159		ug/L			328129	339727✓	0
Tl	205	0.004	ug/L	0.001	26	35	120	18
Pb	208	0.065✓	ug/L	0.002	3	263	2308	2
Bi	209		ug/L			267490	270163	0
Th	232	0.055	ug/L	0.009	16	55	2209	17
[ U	238	0.003	ug/L	0.000	13	13	116	11

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 F REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 13:03:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	406713	0
[ Be	9	0.003	ug/L	0.003	111	17	23	8
C	13		mg/L			6213	6895	2
Cl	37		mg/L			2029602	2242307	0
[> Sc	45		ug/L			254270	257257 ✓	1
V	51	0.467	ug/L	0.016	3	1580	6710	3
V-1	51	0.364	ug/L	0.014	3	5106	9207	0
Cr	52	0.303	ug/L	0.022	7	4684	7587	2
Cr	53	-0.018	ug/L	0.078	431	1656	1655	4
Mn	55	7.654	ug/L	0.079	1	310	118063	0
[ Co	59	0.102	ug/L	0.003	2	48	1176	2
[> Ge	72		ug/L			259859	263861 ✓	0
Ni	60	0.580	ug/L	0.025	4	42	1373	3
Ni	62	0.678	ug/L	0.084	12	58	288	9
Cu	63	2.461	ug/L	0.045	1	197	12429	1
Cu	65	2.470	ug/L	0.053	2	88	5812	1
Zn	66	10.109	ug/L	0.182	1	273	15735	2
Zn	67	8.917	ug/L	0.029	0	152	2431	0
Zn	68	9.718	ug/L	0.100	1	4791	15188	0
As	75	0.166	ug/L	0.012	7	400	659	2
As-1	75	0.140	ug/L	0.042	29	6235	6539	0
Se	82	0.008	ug/L	0.026	315	-15	-14	32
Se	78	-0.079	ug/L	0.145	183	6340	6405	0
[ Mo	98	0.081	ug/L	0.008	10	209	676	7
Y	89		ug/L			259927	265794	1
Kr	83		ug/L			223	230	0
[> In	115		ug/L			274729	279158 ✓	1
Ag	107	0.008	ug/L	0.000	4	36	105	3
Cd	111	0.152	ug/L	0.012	7	123	481	6
Cd	114	0.149	ug/L	0.007	4	26	817	3
Sb	121	0.277	ug/L	0.002	0	22	2155	0
Sb	123	0.279	ug/L	0.007	2	16	1633	1
Ba	135	2.987	ug/L	0.055	1	20	5468	2
[ Ba	137	2.969	ug/L	0.091	3	21	9347	1
[> Tb	159		ug/L			328129	341366 ✓	0
Tl	205	0.003	ug/L	0.000	3	35	98	1
Pb	208	0.398	ug/L	0.004	0	263	12778	0
Bi	209		ug/L			267490	271162	1
Th	232	0.036	ug/L	0.003	9	55	1475	8
[ U	238	0.015	ug/L	0.001	7	13	623	7

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 G REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 13:09:33

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	411433	1
[ Be	9	0.010	ug/L	0.009	84	17	27	16
C	13		mg/L			6213	6414	1
Cl	37		mg/L			2029602	2224461	0
> Sc	45		ug/L			254270	262877 ✓	0
V	51	1.521	ug/L	0.009	0	1580	18643	1
V-1	51	1.382	ug/L	0.004	0	5106	20976	0
Cr	52	0.626	ug/L	0.010	1	4684	10854	0
Cr	53	0.227	ug/L	0.026	11	1656	1972	0
Mn	55	11.770	ug/L	0.246	2	310	185350	1
[ Co	59	0.198	ug/L	0.009	4	48	2289	3
> Ge	72		ug/L			259859	262789 ✓	0
Ni	60	1.639	ug/L	0.017	1	42	3782	0
Ni	62	1.699	ug/L	0.106	6	58	631	4
Cu	63	2.124	ug/L	0.027	1	197	10709	0
Cu	65	2.165	ug/L	0.009	0	88	5086	1
Zn	66	2.097	ug/L	0.035	1	273	3469	0
Zn	67	1.815	ug/L	0.109	6	152	615	5
Zn	68	1.772	ug/L	0.143	8	4791	6719	1
As	75	4.809	ug/L	0.063	1	400	7692	0
As-1	75	4.813	ug/L	0.114	2	6235	13407	0
Se	82	0.124	ug/L	0.039	31	-15	5	116
Se	78	-0.373	ug/L	0.209	56	6340	6262	0
[ Mo	98	0.327	ug/L	0.007	2	209	2078	1
Y	89		ug/L			259927	266465	0
Kr	83		ug/L			223	218	2
> In	115		ug/L			274729	276000 ✓	0
Ag	107	0.006	ug/L	0.001	13	36	85	8
Cd	111	0.063	ug/L	0.001	1	123	269	1
Cd	114	0.052	ug/L	0.007	13	26	300	11
Sb	121	0.194	ug/L	0.005	2	22	1501	2
Sb	123	0.200	ug/L	0.009	4	16	1160	5
Ba	135	3.357	ug/L	0.113	3	20	6073	2
[ Ba	137	3.469	ug/L	0.040	1	21	10795	0
> Tb	159		ug/L			328129	337076 ✓	1
Tl	205	0.004	ug/L	0.000	9	35	124	6
Pb	208	0.158	ug/L	0.000	0	263	5166	1
Bi	209		ug/L			267490	268902	1
Th	232	0.043	ug/L	0.002	4	55	1719	3
[ U	238	0.012	ug/L	0.001	6	13	467	5

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 H REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 13:15:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	<u>408597</u>	1
[ Be	9	0.011	ug/L	0.001	7	17	27	2
C	13		mg/L			6213	6183	1
Cl	37		mg/L			2029602	2181615	0
[> Sc	45		ug/L			254270	250304 ✓	0
V	51	0.877	ug/L	0.027	3	1580	10891	2
V-1	51	0.758	ug/L	0.014	1	5106	13227	0
Cr	52	0.868	ug/L	0.012	1	4684	12550	0
Cr	53	0.491	ug/L	0.043	8	1656	2165	2
Mn	55	17.139	ug/L	0.046	0	310	256878	0
[ Co	59	0.170	ug/L	0.003	1	48	1878	1
[> Ge	72		ug/L			259859	256266 ✓	0
Ni	60	0.653	ug/L	0.017	2	42	1496	2
Ni	62	0.817	ug/L	0.041	4	58	326	3
Cu	63	2.511	ug/L	0.014	0	197	12311	0
Cu	65	2.514	ug/L	0.084	3	88	5744	3
Zn	66	8.582	ug/L	0.156	1	273	13014	1
Zn	67	7.446	ug/L	0.268	3	152	1996	3
Zn	68	8.245	ug/L	0.075	0	4791	13231	0
As	75	0.160	ug/L	0.010	6	400	632	2
As-1	75	0.164	ug/L	0.060	36	6235	6385	1
Se	82	0.014	ug/L	0.046	321	-15	-12	60
Se	78	0.029	ug/L	0.216	741	6340	6263	1
[ Mo	98	0.137	ug/L	0.003	1	209	967	1
Y	89		ug/L			259927	262021	0
Kr	83		ug/L			223	222	5
[> In	115		ug/L			274729	274489 ✓	0
Ag	107	0.008	ug/L	0.001	14	36	107	9
Cd	111	0.101	ug/L	0.022	21	123	356	13
Cd	114	0.060	ug/L	0.004	6	26	337	6
Sb	121	0.284	ug/L	0.006	2	22	2175	1
Sb	123	0.285	ug/L	0.003	1	16	1636	0
Ba	135	3.258	ug/L	0.062	1	20	5863	1
[ Ba	137	3.245	ug/L	0.027	0	21	10045	0
[> Tb	159		ug/L			328129	334732 ✓	0
Tl	205	0.002	ug/L	0.000	11	35	80	5
Pb	208	0.760	ug/L	0.006	0	263	23721	0
Bi	209		ug/L			267490	268968	0
Th	232	0.036	ug/L	0.001	3	55	1427	2
[ U	238	0.022	ug/L	0.001	6	13	864	6

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 I REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 13:21:27

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			329720	409848	2
[ ] Be	9	0.015	ug/L	0.002	10	17	30	4
[ ] C	13		mg/L			6213	6523	0
[ ] Cl	37		mg/L			2029602	2187148	0
[>] Sc	45		ug/L			254270	255753 ✓	0
[ ] V	51	0.802	ug/L	0.008	0	1580	10317	1
[ ] V-1	51	0.667	ug/L	0.009	1	5106	12509	0
[ ] Cr	52	0.266	ug/L	0.009	3	4684	7197	1
[ ] Cr	53	-0.137	ug/L	0.028	20	1656	1514	1
[ ] Mn	55	3.868	ug/L	0.035	0	310	59473	0
[ ] Co	59	0.037	ug/L	0.003	8	48	457	7
[>] Ge	72		ug/L			259859	257412 ✓	0
[ ] Ni	60	0.327	ug/L	0.015	4	42	772	4
[ ] Ni	62	0.242	ug/L	0.016	6	58	137	3
[ ] Cu	63	1.230	ug/L	0.044	3	197	6159	2
[ ] Cu	65	1.249	ug/L	0.017	1	88	2911	1
[ ] Zn	66	0.925	ug/L	0.039	4	273	1650	3
[ ] Zn	67	0.802	ug/L	0.071	8	152	350	4
[ ] Zn	68	0.541	ug/L	0.148	27	4791	5305	2
[ ] As	75	5.652	ug/L	0.059	1	400	8785	0
[ ] As-1	75	5.712	ug/L	0.108	1	6235	14432	0
[ ] Se	82	0.058	ug/L	0.065	112	-15	-5	203
[ ] Se	78	-0.307	ug/L	0.210	68	6340	6160	1
[ ] Mo	98	0.254	ug/L	0.017	6	209	1627	5
[ ] Y	89		ug/L			259927	258787	1
[ ] Kr	83		ug/L			223	216	1
[>] In	115		ug/L			274729	273174 ✓	0
[ ] Ag	107	0.002	ug/L	0.001	33	36	54	11
[ ] Cd	111	0.150	ug/L	0.019	12	123	466	8
[ ] Cd	114	0.141	ug/L	0.005	3	26	759	3
[ ] Sb	121	0.219	ug/L	0.005	2	22	1669	2
[ ] Sb	123	0.221	ug/L	0.005	2	16	1269	2
[ ] Ba	135	1.754	ug/L	0.005	0	20	3150	0
[ ] Ba	137	1.753	ug/L	0.010	0	21	5411	0
[>] Tl	159		ug/L			328129	335183 ✓	1
[ ] Tl	205	0.002	ug/L	0.000	17	35	80	9
[ ] Pb	208	0.034	ug/L	0.001	3	263	1328	1
[ ] Bi	209		ug/L			267490	267031	0
[ ] Th	232	0.014	ug/L	0.000	2	55	582	3
[ ] U	238	0.005	ug/L	0.000	3	13	198	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 J REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 13:27:24

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	417584	1
[ Be	9	0.006	ug/L	0.009	134	17	25	19
C	13		mg/L			6213	6697	0
Cl	37		mg/L			2029602	2169966	0
[> Sc	45		ug/L			254270	253995 ✓	0
V	51	0.791	ug/L	0.028	3	1580	10121	2
V-1	51	0.664	ug/L	0.022	3	5106	12390	1
Cr	52	✓ 0.266	ug/L	0.003	1	4684	7144	0
Cr	53	-0.111	ug/L	0.061	54	1656	1532	4
Mn	55	3.709	ug/L	0.033	0	310	56644	0
[ Co	59	0.037	ug/L	0.004	9	48	448	8
[> Ge	72		ug/L			259859	256478 ✓	0
Ni	60	0.336	ug/L	0.009	2	42	790	2
Ni	62	0.279	ug/L	0.023	8	58	149	4
Cu	63	1.281	ug/L	0.014	1	197	6382	0
Cu	65	1.291	ug/L	0.038	2	88	2994	2
Zn	66	✓ 0.955	ug/L	0.026	2	273	1689	2
Zn	67	0.782	ug/L	0.031	3	152	344	2
Zn	68	0.559	ug/L	0.067	12	4791	5305	0
As	75	5.678	ug/L	0.129	2	400	8793	1
As-1	75	5.692	ug/L	0.195	3	6235	14351	1
Se	82	0.085	ug/L	0.042	49	-15	0	784
Se	78	-0.473	ug/L	0.216	45	6340	6073	0
[ Mo	98	0.250	ug/L	0.007	2	209	1599	2
Y	89		ug/L			259927	259676	1
Kr	83		ug/L			223	211	4
[> In	115		ug/L			274729	274063 ✓	2
Ag	107	0.002	ug/L	0.002	94	36	55	32
Cd	111	0.164	ug/L	0.005	2	123	499	3
Cd	114	0.162	ug/L	0.004	2	26	871	4
Sb	121	0.218	ug/L	0.006	2	22	1669	1
Sb	123	0.221	ug/L	0.008	3	16	1271	1
Ba	135	1.706	ug/L	0.041	2	20	3074	3
[ Ba	137	1.777	ug/L	0.044	2	21	5498	1
[> Tb	159		ug/L			328129	336619 ✓	0
Tl	205	0.002	ug/L	0.000	19	35	74	11
Pb	208	✓ 0.037	ug/L	0.000	0	263	1404	0
Bi	209		ug/L			267490	267818	0
Th	232	0.010	ug/L	0.001	6	55	458	5
[ U	238	0.005	ug/L	0.001	13	13	190	12

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 LDUP REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 13:33:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	420136	0
[ Be	9	-0.003	ug/L	0.014	430	17	20	39
C	13		mg/L			6213	6428	1
Cl	37		mg/L			2029602	2147986	0
[> Sc	45		ug/L			254270	251194 ✓	0
V	51	0.830	ug/L	0.019	2	1580	10435	1
V-1	51	0.684	ug/L	0.019	2	5106	12471	1
Cr	52	∪ 0.139	ug/L	0.017	12	4684	5901	3
Cr	53	-0.292	ug/L	0.030	10	1656	1318	2
Mn	55	4.280	ug/L	0.045	1	310	64596	0
[ Co	59	0.050	ug/L	0.002	3	48	582	2
[> Ge	72		ug/L			259859	254908 ✓	0
Ni	60	0.376	ug/L	0.017	4	42	873	4
Ni	62	0.345	ug/L	0.033	9	58	170	6
Cu	63	1.275	ug/L	0.011	0	197	6313	0
Cu	65	1.287	ug/L	0.057	4	88	2967	3
Zn	66	∪ 1.845	ug/L	0.054	2	273	2992	2
Zn	67	1.588	ug/L	0.116	7	152	540	4
Zn	68	1.412	ug/L	0.103	7	4791	6149	1
As	75	0.275	ug/L	0.021	7	400	796	3
As-1	75	0.148	ug/L	0.026	17	6235	6327	0
Se	82	0.085	ug/L	0.025	29	-15	0	449
Se	78	-0.425	ug/L	0.063	14	6340	6054	0
[ Mo	98	0.105	ug/L	0.003	2	209	786	1
Y	89		ug/L			259927	259330	1
Kr	83		ug/L			223	215	4
[> In	115		ug/L			274729	270470 ✓	1
Ag	107	0.003	ug/L	0.001	28	36	61	13
Cd	111	∪ 0.022	ug/L	0.007	30	123	172	9
Cd	114	0.009	ug/L	0.002	24	26	71	13
Sb	121	0.147	ug/L	0.004	2	22	1115	0
Sb	123	0.141	ug/L	0.003	2	16	806	1
Ba	135	1.343	ug/L	0.069	5	20	2392	3
[ Ba	137	1.355	ug/L	0.062	4	21	4142	3
[> Tb	159		ug/L			328129	335636 ✓	0
Tl	205	0.001	ug/L	0.000	28	35	70	13
Pb	208	∪ 0.062	ug/L	0.002	2	263	2194	2
Bi	209		ug/L			267490	271502	0
Th	232	0.014	ug/L	0.000	1	55	615	2
[ U	238	0.007	ug/L	0.000	4	13	289	4

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 L REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 13:39:16

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	411098	1
[ Be	9	-0.003	ug/L	0.003	124	17	20	9
C	13		mg/L			6213	6797	1
Cl	37		mg/L			2029602	2146995	0
[> Sc	45		ug/L			254270	248431 ✓	0
V	51	0.878	ug/L	0.021	2	1580	10827	1
V-1	51	0.762	ug/L	0.008	1	5106	13167	0
Cr	52	0.568	ug/L	0.018	3	4684	9737	1
Cr	53	0.213	ug/L	0.037	17	1656	1848	2
Mn	55	4.290	ug/L	0.017	0	310	64036	0
[ Co	59	0.051	ug/L	0.002	3	48	594	3
[> Ge	72		ug/L			259859	253461 ✓	0
Ni	60	0.378	ug/L	0.031	8	42	872	7
Ni	62	0.387	ug/L	0.032	8	58	182	5
Cu	63	1.233	ug/L	0.030	2	197	6075	2
Cu	65	1.240	ug/L	0.045	3	88	2844	3
Zn	66	1.381	ug/L	0.019	1	273	2295	1
Zn	67	1.359	ug/L	0.117	8	152	481	5
Zn	68	1.051	ug/L	0.058	5	4791	5745	0
As	75	0.265	ug/L	0.010	3	400	778	1
As-1	75	0.201	ug/L	0.019	9	6235	6367	0
Se	82	-0.018	ug/L	0.054	295	-15	-18	49
Se	78	-0.197	ug/L	0.062	31	6340	6108	0
[ Mo	98	0.200	ug/L	0.005	2	209	1307	2
Y	89		ug/L			259927	255194	0
Kr	83		ug/L			223	230	2
[> In	115		ug/L			274729	269437 ✓	0
Ag	107	0.003	ug/L	0.001	27	36	64	12
Cd	111	0.023	ug/L	0.004	18	123	173	5
Cd	114	0.009	ug/L	0.001	9	26	72	6
Sb	121	0.142	ug/L	0.004	2	22	1078	2
Sb	123	0.136	ug/L	0.008	5	16	777	5
Ba	135	1.340	ug/L	0.030	2	20	2378	1
[ Ba	137	1.370	ug/L	0.019	1	21	4173	1
[> Tb	159		ug/L			328129	334360 ✓	1
Tl	205	0.002	ug/L	0.000	19	35	72	9
Pb	208	0.064	ug/L	0.001	1	263	2236	1
Bi	209		ug/L			267490	267874	2
Th	232	0.013	ug/L	0.001	4	55	572	4
[ U	238	0.007	ug/L	0.000	5	13	294	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 LSPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 13:45:16

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			329720	415181	1
[ ] Be	9	20.120	ug/L	0.273	1	17	11465	0
[ ] C	13		mg/L			6213	6497	1
[ ] Cl	37		mg/L			2029602	2143579	0
[>] Sc	45		ug/L			254270	248881 ✓	1
[ ] V	51	24.318	ug/L	0.239	0	1580	259009	0
[ ] V-1	51	24.117	ug/L	0.180	0	5106	264305	0
[ ] Cr	52	24.020	ug/L	0.330	1	4684	223039	0
[ ] Cr	53	23.396	ug/L	0.133	0	1656	26897	1
[ ] Mn	55	28.244	ug/L	0.263	0	310	420681	0
[ ] Co	59	23.399	ug/L	0.193	0	48	250240	0
[>] Ge	72		ug/L			259859	255599 ✓	0
[ ] Ni	60	24.030	ug/L	0.184	0	42	53369	0
[ ] Ni	62	23.918	ug/L	0.325	1	58	7890	1
[ ] Cu	63	25.407	ug/L	0.255	1	197	122490	0
[ ] Cu	65	25.975	ug/L	0.352	1	88	58379	1
[ ] Zn	66	76.178	ug/L	0.663	0	273	113100	1
[ ] Zn	67	70.397	ug/L	0.643	0	152	17561	0
[ ] Zn	68	75.657	ug/L	0.146	0	4791	82570	0
[ ] As	75	25.770	ug/L	0.292	1	400	38377	1
[ ] As-1	75	24.370	ug/L	0.170	0	6235	41113	0
[ ] Se	82	75.854	ug/L	1.207	1	-15	12688	1
[ ] Se	78	75.541	ug/L	0.893	1	6340	35500	0
[ ] Mo	98	0.199	ug/L	0.006	3	209	1310	2
[ ] Y	89		ug/L			259927	255692	2
[ ] Kr	83		ug/L			223	216	4
[>] In	115		ug/L			274729	271736 ✓	1
[ ] Ag	107	24.109	ug/L	0.280	1	36	212513	0
[ ] Cd	111	23.793	ug/L	0.276	1	123	54427	0
[ ] Cd	114	24.065	ug/L	0.382	1	26	124493	0
[ ] Sb	121	0.143	ug/L	0.008	5	22	1093	4
[ ] Sb	123	0.140	ug/L	0.005	3	16	806	2
[ ] Ba	135	26.585	ug/L	0.226	0	20	47222	1
[ ] Ba	137	26.905	ug/L	0.367	1	21	82285	0
[>] Tb	159		ug/L			328129	335059 ✓	0
[ ] Tl	205	24.693	ug/L	0.417	1	35	577565	1
[ ] Pb	208	25.491	ug/L	0.168	0	263	787247	1
[ ] Bi	209		ug/L			267490	267793	0
[ ] Th	232	24.380	ug/L	0.563	2	55	940106	2
[ ] U	238	24.646	ug/L	0.210	0	13	954774	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 MB2SPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 13:51:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	422350	0
[ Be	9	19.863	ug/L	0.234	1	17	11516	1
C	13		mg/L			6213	6397	1
Cl	37		mg/L			2029602	2186631	0
[> Sc	45		ug/L			254270	252904 ✓	0
V	51	23.604	ug/L	0.270	1	1580	255512	0
V-1	51	23.319	ug/L	0.176	0	5106	259855	0
Cr	52	24.010	ug/L	0.219	0	4684	226564	0
Cr	53	23.084	ug/L	0.175	0	1656	26990	1
Mn	55	26.422	ug/L	0.355	1	310	399933	0
[ Co	59	23.631	ug/L	0.176	0	48	256820	1
[> Ge	72		ug/L			259859	262149 ✓	1
Ni	60	23.642	ug/L	0.260	1	42	53849	0
Ni	62	23.671	ug/L	0.640	2	58	8008	1
Cu	63	24.350	ug/L	0.353	1	197	120402	0
Cu	65	24.441	ug/L	0.011	0	88	56344	1
Zn	66	73.964	ug/L	0.987	1	273	112631	1
Zn	67	68.839	ug/L	1.046	1	152	17615	1
Zn	68	74.014	ug/L	1.635	2	4791	82939	1
As	75	24.869	ug/L	0.344	1	400	37997	1
As-1	75	23.495	ug/L	0.497	2	6235	40874	1
Se	82	74.510	ug/L	0.324	0	-15	12782	1
Se	78	74.239	ug/L	0.607	0	6340	35891	0
[ Mo	98	0.053	ug/L	0.004	8	209	514	3
Y	89		ug/L			259927	262639	0
Kr	83		ug/L			223	220	0
[> In	115		ug/L			274729	277511 ✓	1
Ag	107	24.373	ug/L	0.560	2	36	219388	1
Cd	111	23.788	ug/L	0.322	1	123	55570	0
Cd	114	23.899	ug/L	0.262	1	26	126282	1
Sb	121	0.005	ug/L	0.000	3	22	59	2
Sb	123	0.005	ug/L	0.001	21	16	46	13
Ba	135	25.368	ug/L	0.250	0	20	46020	1
[ Ba	137	25.484	ug/L	0.495	1	21	79601	1
[> Tb	159		ug/L			328129	347171 ✓	0
Tl	205	24.003	ug/L	0.135	0	35	581772	1
Pb	208	24.835	ug/L	0.231	0	263	794650	0
Bi	209		ug/L			267490	275453	1
Th	232	24.066	ug/L	0.085	0	55	961574	0
[ U	238	23.824	ug/L	0.283	1	13	956255	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 13:57:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	414218	0
[ Be	9	42.459	ug/L	0.301	0	17	24118	0
C	13		mg/L			6213	4875	1
Cl	37		mg/L			2029602	2240463	1
[> Sc	45		ug/L			254270	249710 ✓	0
V	51	48.267	ug/L	0.101	0	1580	514311	1
V-1	51	48.005	ug/L	0.125	0	5106	522905	0
Cr	52	49.245	ug/L	0.336	0	4684	453990	0
Cr	53	48.365	ug/L	0.721	1	1656	54049	0
Mn	55	49.579	ug/L	0.407	0	310	740711	0
[ Co	59	48.569	ug/L	0.507	1	48	521134	1
[> Ge	72		ug/L			259859	263937 ✓	0
Ni	60	47.106	ug/L	0.301	0	42	107991	0
Ni	62	47.431	ug/L	0.362	0	58	16100	0
Cu	63	47.526	ug/L	0.921	1	197	236421	1
Cu	65	48.325	ug/L	0.223	0	88	112077	0
Zn	66	49.041	ug/L	0.895	1	273	75282	1
Zn	67	49.204	ug/L	1.176	2	152	12721	2
Zn	68	48.450	ug/L	0.167	0	4791	56352	0
As	75	49.123	ug/L	0.194	0	400	75171	0
As-1	75	49.002	ug/L	0.221	0	6235	78963	0
Se	82	50.036	ug/L	0.988	1	-15	8636	1
Se	78	49.586	ug/L	0.527	1	6340	26275	0
[ Mo	98	48.502	ug/L	0.428	0	209	278612	1
Y	89		ug/L			259927	259144	0
Kr	83		ug/L			223	221	3
[> In	115		ug/L			274729	275351 ✓	0
Ag	107	49.638	ug/L	0.376	0	36	443362	0
Cd	111	50.438	ug/L	0.844	1	123	116780	1
Cd	114	50.852	ug/L	0.584	1	26	266584	1
Sb	121	52.327	ug/L	0.235	0	22	397318	0
Sb	123	52.410	ug/L	0.829	1	16	299138	1
Ba	135	51.580	ug/L	1.156	2	20	92814	1
Ba	137	51.376	ug/L	0.756	1	21	159216	1
[> Tb	159		ug/L			328129	342353 ✓	1
Tl	205	47.825	ug/L	0.279	0	35	1143040	1
Pb	208	49.196	ug/L	0.685	1	263	1552010	0
Bi	209		ug/L			267490	264301	0
Th	232	47.645	ug/L	0.724	1	55	1877089	0
[ U	238	49.007	ug/L	0.201	0	13	1939805	0

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 14:03:33

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	410524	0
[ Be	9	-0.002	ug/L	0.006	353	17	20	15
C	13		mg/L			6213	5975	2
Cl	37		mg/L			2029602	2272458	1
[> Sc	45		ug/L			254270	251484 ✓	0
V	51	-0.007	ug/L	0.015	208	1580	1484	10
V-1	51	-0.143	ug/L	0.013	8	5106	3496	2
Cr	52	0.001	ug/L	0.015	1573	4684	4641	2
Cr	53	-0.431	ug/L	0.028	6	1656	1168	2
Mn	55	0.001	ug/L	0.002	178	310	324	9
[ Co	59	0.002	ug/L	0.001	79	48	65	20
[> Ge	72		ug/L			259859	264720 ✓	0
Ni	60	-0.002	ug/L	0.003	134	42	38	19
Ni	62	-0.018	ug/L	0.025	141	58	53	16
Cu	63	-0.004	ug/L	0.002	58	197	181	6
Cu	65	-0.003	ug/L	0.005	141	88	82	13
Zn	66	-0.030	ug/L	0.014	47	273	231	9
Zn	67	-0.133	ug/L	0.009	6	152	120	1
Zn	68	-0.488	ug/L	0.036	7	4791	4360	0
As	75	0.032	ug/L	0.018	55	400	457	5
As-1	75	-0.100	ug/L	0.005	4	6235	6203	0
Se	82	0.124	ug/L	0.060	48	-15	5	177
Se	78	-0.428	ug/L	0.026	5	6340	6287	0
[ Mo	98	-0.021	ug/L	0.004	19	209	94	24
Y	89		ug/L			259927	261109	1
Kr	83		ug/L			223	215	3
[> In	115		ug/L			274729	275008 ✓	1
Ag	107	0.008	ug/L	0.003	33	36	105	23
Cd	111	0.015	ug/L	0.002	10	123	158	3
Cd	114	-0.000	ug/L	0.001	863	26	25	29
Sb	121	0.015	ug/L	0.005	33	22	135	29
Sb	123	0.016	ug/L	0.005	28	16	107	25
Ba	135	0.000	ug/L	0.003	784	20	20	30
[ Ba	137	0.006	ug/L	0.001	8	21	39	4
[> Tb	159		ug/L			328129	336120 ✓	1
Tl	205	0.006	ug/L	0.002	35	35	182	28
Pb	208	0.002	ug/L	0.001	51	263	347	11
Bi	209		ug/L			267490	269484	1
Th	232	0.071	ug/L	0.012	17	55	2789	17
[ U	238	0.003	ug/L	0.002	49	13	142	45

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 MB3 REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 14:09:01

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6	ug/L			329720	424107	1
[	Be	9	ug/L	0.007	129	17	19	20
	C	13	mg/L			6213	5924	1
	Cl	37	mg/L			2029602	2238081	0
>	Sc	45	ug/L			254270	250923 ✓	1
	V	51	ug/L	0.009	47	1580	1768	4
	V-1	51	ug/L	0.009	6	5106	3559	1
	Cr	52	ug/L	0.012	30	4684	4989	1
	Cr	53	ug/L	0.017	3	1656	1136	1
	Mn	55	ug/L	0.002	8	310	677	4
	Co	59	ug/L	0.001	22	48	75	7
>	Ge	72	ug/L			259859	263946 ✓	0
	Ni	60	ug/L	0.005	12	42	127	8
	Ni	62	ug/L	0.024	92	58	68	11
	Cu	63	ug/L	0.004	13	197	355	5
	Cu	65	ug/L	0.005	12	88	177	6
	Zn	66	ug/L	0.009	1	273	1172	1
	Zn	67	ug/L	0.112	27	152	259	10
	Zn	68	ug/L	0.075	40	4791	5063	1
	As	75	ug/L	0.003	35	400	419	1
	As-1	75	ug/L	0.029	34	6235	6211	0
	Se	82	ug/L	0.061	147	-15	-8	124
	Se	78	ug/L	0.103	30	6340	6305	0
	Mo	98	ug/L	0.004	19	209	90	26
	Y	89	ug/L			259927	267174	0
	Kr	83	ug/L			223	219	2
>	In	115	ug/L			274729	279615 ✓	1
	Ag	107	ug/L	0.001	13	36	108	9
	Cd	111	ug/L	0.009	45	123	170	13
	Cd	114	ug/L	0.000	33	26	21	6
	Sb	121	ug/L	0.000	4	22	85	3
	Sb	123	ug/L	0.001	9	16	64	6
	Ba	135	ug/L	0.003	6	20	111	3
	Ba	137	ug/L	0.004	7	21	185	7
>	Tb	159	ug/L			328129	346570 ✓	2
	Tl	205	ug/L	0.001	26	35	125	19
	Pb	208	ug/L	0.001	7	263	723	3
	Bi	209	ug/L			267490	276278	0
	Th	232	ug/L	0.015	24	55	2555	26
	U	238	ug/L	0.000	24	13	74	19



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 M REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 14:15:00

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			329720	425255	2
[ ] Be	9	0.002	ug/L	0.002	108	17	23	5
[ ] C	13		mg/L			6213	7357	0
[ ] Cl	37		mg/L			2029602	2207086	0
[>] Sc	45		ug/L			254270	260152 ✓	0
[ ] V	51	0.848	ug/L	0.008	0	1580	11003	1
[ ] V-1	51	0.707	ug/L	0.012	1	5106	13166	0
[ ] Cr	52	0.188	ug/L	0.011	5	4684	6575	1
[ ] Cr	53	-0.231	ug/L	0.042	18	1656	1434	2
[ ] Mn	55	6.061	ug/L	0.007	0	310	94622	0
[ ] Co	59	0.086	ug/L	0.001	1	48	1015	1
[>] Ge	72		ug/L			259859	264595 ✓	0
[ ] Ni	60	0.325	ug/L	0.025	7	42	789	6
[ ] Ni	62	0.337	ug/L	0.020	6	58	174	3
[ ] Cu	63	1.382	ug/L	0.003	0	197	7089	1
[ ] Cu	65	1.380	ug/L	0.010	0	88	3295	0
[ ] Zn	66	1.801	ug/L	0.023	1	273	3040	2
[ ] Zn	67	1.478	ug/L	0.148	10	152	532	6
[ ] Zn	68	1.272	ug/L	0.033	2	4791	6234	1
[ ] As	75	0.285	ug/L	0.040	14	400	842	6
[ ] As-1	75	0.070	ug/L	0.034	47	6235	6453	0
[ ] Se	82	0.119	ug/L	0.041	34	-15	4	144
[ ] Se	78	-0.773	ug/L	0.107	13	6340	6145	0
[ ] Mo	98	0.113	ug/L	0.005	4	209	863	2
[ ] Y	89		ug/L			259927	266426	1
[ ] Kr	83		ug/L			223	213	5
[>] In	115		ug/L			274729	280241 ✓	0
[ ] Ag	107	0.008	ug/L	0.002	22	36	108	15
[ ] Cd	111	0.014	ug/L	0.011	81	123	158	16
[ ] Cd	114	0.003	ug/L	0.003	78	26	44	30
[ ] Sb	121	0.141	ug/L	0.004	3	22	1115	2
[ ] Sb	123	0.148	ug/L	0.008	5	16	876	4
[ ] Ba	135	1.863	ug/L	0.019	0	20	3431	1
[ ] Ba	137	1.885	ug/L	0.029	1	21	5965	1
[>] Tb	159		ug/L			328129	342933 ✓	0
[ ] Tl	205	0.004	ug/L	0.001	16	35	127	11
[ ] Pb	208	0.126	ug/L	0.004	3	263	4259	2
[ ] Bi	209		ug/L			267490	273322	0
[ ] Th	232	0.039	ug/L	0.002	4	55	1608	4
[ ] U	238	0.008	ug/L	0.000	2	13	312	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 N REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 14:20:59

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	422124	0
[ Be	9	-0.001	ug/L	0.007	582	17	21	20
C	13		mg/L			6213	6691	1
Cl	37		mg/L			2029602	2192677	0
[> Sc	45		ug/L			254270	256611 ✓	0
V	51	0.743	ug/L	0.018	2	1580	9706	1
V-1	51	0.587	ug/L	0.019	3	5106	11666	1
Cr	52	✓ 0.132	ug/L	0.025	19	4684	5967	3
Cr	53	-0.333	ug/L	0.030	8	1656	1301	2
Mn	55	4.946	ug/L	0.038	0	310	76218	0
[ Co	59	0.065	ug/L	0.003	4	48	767	4
[> Ge	72		ug/L			259859	265528 ✓	0
Ni	60	0.196	ug/L	0.014	7	42	496	6
Ni	62	0.288	ug/L	0.029	10	58	157	5
Cu	63	1.133	ug/L	0.019	1	197	5866	1
Cu	65	1.143	ug/L	0.021	1	88	2754	2
Zn	66	✓ 1.146	ug/L	0.040	3	273	2042	2
Zn	67	0.990	ug/L	0.081	8	152	409	4
Zn	68	0.570	ug/L	0.052	9	4791	5505	1
As	75	0.256	ug/L	0.015	5	400	800	3
As-1	75	0.028	ug/L	0.042	150	6235	6412	0
Se	82	0.087	ug/L	0.034	38	-15	0	1234
Se	78	-0.805	ug/L	0.162	20	6340	6154	0
[ Mo	98	0.123	ug/L	0.006	4	209	922	3
Y	89		ug/L			259927	264859	1
Kr	83		ug/L			223	222	1
[> In	115		ug/L			274729	279925 ✓	0
Ag	107	0.003	ug/L	0.001	24	36	68	11
Cd	111	✓ 0.021	ug/L	0.004	18	123	175	5
Cd	114	0.009	ug/L	0.002	22	26	72	13
Sb	121	0.155	ug/L	0.007	4	22	1221	3
Sb	123	0.152	ug/L	0.003	1	16	899	1
Ba	135	1.201	ug/L	0.030	2	20	2216	1
[ Ba	137	1.226	ug/L	0.016	1	21	3884	1
[> Tb	159		ug/L			328129	343125 ✓	1
Tl	205	0.004	ug/L	0.002	55	35	127	40
Pb	208	✓ 0.084	ug/L	0.003	3	263	2925	2
Bi	209		ug/L			267490	274130	0
Th	232	0.024	ug/L	0.001	5	55	995	5
[ U	238	0.006	ug/L	0.001	10	13	238	9

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 O REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 14:26:58

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			329720	418037	1
[ Be	9	0.009	ug/L	0.013	150	17	27	27
C	13		mg/L			6213	6893	2
Cl	37		mg/L			2029602	2187791	0
[>] Sc	45		ug/L			254270	255109 ✓	1
V	51	0.685	ug/L	0.003	0	1580	9024	1
V-1	51	0.555	ug/L	0.011	1	5106	11236	2
Cr	52	0.136	ug/L	0.040	29	4684	5961	4
Cr	53	-0.254	ug/L	0.012	4	1656	1381	1
Mn	55	4.141	ug/L	0.078	1	310	63482	0
[ Co	59	0.044	ug/L	0.001	3	48	528	2
[>] Ge	72		ug/L			259859	261683 ✓	0
Ni	60	0.200	ug/L	0.009	4	42	496	4
Ni	62	0.195	ug/L	0.067	34	58	124	17
Cu	63	1.124	ug/L	0.014	1	197	5735	0
Cu	65	1.126	ug/L	0.042	3	88	2675	3
Zn	66	1.159	ug/L	0.017	1	273	2032	1
Zn	67	1.021	ug/L	0.038	3	152	411	2
Zn	68	0.616	ug/L	0.035	5	4791	5473	0
As	75	0.260	ug/L	0.010	4	400	795	1
As-1	75	0.044	ug/L	0.038	85	6235	6344	0
Se	82	0.071	ug/L	0.053	74	-15	-3	269
Se	78	-0.783	ug/L	0.112	14	6340	6073	0
[ Mo	98	0.149	ug/L	0.004	2	209	1060	2
Y	89		ug/L			259927	262678	0
Kr	83		ug/L			223	218	0
[>] In	115		ug/L			274729	274178 ✓	0
Ag	107	0.003	ug/L	0.001	44	36	60	18
Cd	111	0.016	ug/L	0.006	39	123	160	8
Cd	114	0.004	ug/L	0.001	17	26	49	7
Sb	121	0.164	ug/L	0.007	4	22	1259	4
Sb	123	0.169	ug/L	0.009	5	16	976	5
Ba	135	1.314	ug/L	0.045	3	20	2373	3
[ Ba	137	1.320	ug/L	0.018	1	21	4093	1
[>] Tb	159		ug/L			328129	340417 ✓	0
Tl	205	0.003	ug/L	0.000	1	35	103	0
Pb	208	0.064	ug/L	0.002	3	263	2291	3
Bi	209		ug/L			267490	272437	0
Th	232	0.020	ug/L	0.000	1	55	841	1
[ U	238	0.005	ug/L	0.000	4	13	194	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 P REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 14:32:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	423192	1
[ Be	9	0.010	ug/L	0.022	213	17	28	44
C	13		mg/L			6213	7115	0
Cl	37		mg/L			2029602	2181019	0
> Sc	45		ug/L			254270	254721✓	0
V	51	0.914	ug/L	0.009	0	1580	11488	0
V-1	51	0.758	ug/L	0.012	1	5106	13455	1
Cr	52	✓ 0.303	ug/L	0.010	3	4684	7511	1
Cr	53	-0.165	ug/L	0.036	21	1656	1477	2
Mn	55	7.673	ug/L	0.105	1	310	117196	1
[ Co	59	0.125	ug/L	0.002	1	48	1417	1
> Ge	72		ug/L			259859	261816✓	0
Ni	60	0.395	ug/L	0.007	1	42	940	2
Ni	62	0.466	ug/L	0.085	18	58	215	12
Cu	63	2.203	ug/L	0.056	2	197	11058	2
Cu	65	2.227	ug/L	0.035	1	88	5208	0
Zn	66	✓ 2.111	ug/L	0.069	3	273	3478	2
Zn	67	1.910	ug/L	0.194	10	152	637	8
Zn	68	1.477	ug/L	0.070	4	4791	6384	0
As	75	0.297	ug/L	0.012	3	400	851	2
As-1	75	0.008	ug/L	0.048	595	6235	6293	0
Se	82	0.124	ug/L	0.069	55	-15	5	205
Se	78	-1.017	ug/L	0.179	17	6340	5983	0
[ Mo	98	0.112	ug/L	0.010	9	209	846	6
Y	89		ug/L			259927	261837	1
Kr	83		ug/L			223	215	1
> In	115		ug/L			274729	274576✓	1
Ag	107	0.005	ug/L	0.001	20	36	80	10
Cd	111	✓ 0.021	ug/L	0.007	30	123	173	9
Cd	114	0.008	ug/L	0.001	18	26	66	11
Sb	121	0.126	ug/L	0.009	7	22	975	8
Sb	123	0.131	ug/L	0.006	4	16	761	3
Ba	135	2.716	ug/L	0.079	2	20	4891	1
Ba	137	2.779	ug/L	0.064	2	21	8607	1
> Tb	159		ug/L			328129	340567✓	0
Tl	205	0.003	ug/L	0.001	18	35	103	12
Pb	208	0.193	ug/L	0.002	1	263	6329	1
Bi	209		ug/L			267490	272105	1
Th	232	0.032	ug/L	0.001	2	55	1329	1
[ U	238	0.009	ug/L	0.002	18	13	370	17

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 S REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 14:38:52

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	420407	0
[ Be	9	0.011	ug/L	0.016	149	17	28	31
C	13		mg/L			6213	6523	1
Cl	37		mg/L			2029602	2172318	0
[> Sc	45		ug/L			254270	256775 ✓	0
V	51	1.031	ug/L	0.028	2	1580	12857	2
V-1	51	0.888	ug/L	0.023	2	5106	15010	1
Cr	52	0.192	ug/L	0.004	1	4684	6534	0
Cr	53	-0.221	ug/L	0.024	11	1656	1426	1
Mn	55	6.124	ug/L	0.081	1	310	94353	0
[ Co	59	0.027	ug/L	0.002	6	48	351	5
[> Ge	72		ug/L			259859	257514 ✓	0
Ni	60	0.357	ug/L	0.008	2	42	840	1
Ni	62	0.276	ug/L	0.068	24	58	149	14
Cu	63	1.474	ug/L	0.040	2	197	7342	2
Cu	65	1.464	ug/L	0.033	2	88	3397	2
Zn	66	11.253	ug/L	0.079	0	273	17063	0
Zn	67	9.802	ug/L	0.288	2	152	2593	3
Zn	68	10.400	ug/L	0.214	2	4791	15530	1
As	75	5.610	ug/L	0.062	1	400	8727	1
As-1	75	5.512	ug/L	0.049	0	6235	14150	0
Se	82	0.156	ug/L	0.057	36	-15	11	85
Se	78	-0.765	ug/L	0.058	7	6340	5984	0
[ Mo	98	0.320	ug/L	0.015	4	209	1998	4
Y	89		ug/L			259927	253342	0
Kr	83		ug/L			223	217	7
[> In	115		ug/L			274729	271312 ✓	1
Ag	107	0.001	ug/L	0.000	41	36	43	6
Cd	111	0.095	ug/L	0.012	13	123	339	9
Cd	114	0.099	ug/L	0.004	3	26	536	2
Sb	121	0.208	ug/L	0.005	2	22	1579	2
Sb	123	0.214	ug/L	0.002	1	16	1221	0
Ba	135	2.264	ug/L	0.044	1	20	4032	1
[ Ba	137	2.268	ug/L	0.031	1	21	6944	1
[> Tb	159		ug/L			328129	336678 ✓	0
Tl	205	0.002	ug/L	0.001	37	35	81	20
Pb	208	0.056	ug/L	0.002	4	263	1998	4
Bi	209		ug/L			267490	269415	0
Th	232	0.012	ug/L	0.001	4	55	505	3
[ U	238	0.005	ug/L	0.000	2	13	195	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 RDUP REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 14:44:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	428623	0
[ Be	9	-0.000	ug/L	0.005	1158	17	22	14
C	13		mg/L			6213	6301	0
Cl	37		mg/L			2029602	2157140	0
[> Sc	45		ug/L			254270	248658 ✓	0
V	51	0.266	ug/L	0.013	4	1580	4359	2
V-1	51	0.127	ug/L	0.009	7	5106	6362	1
Cr	52	✓ 0.142	ug/L	0.007	4	4684	5874	0
Cr	53	-0.293	ug/L	0.032	10	1656	1304	2
Mn	55	26.827	ug/L	0.532	1	310	399239	1
[ Co	59	0.018	ug/L	0.002	10	48	235	8
[> Ge	72		ug/L			259859	260355 ✓	1
Ni	60	0.325	ug/L	0.010	3	42	778	1
Ni	62	0.286	ug/L	0.028	9	58	154	5
Cu	63	2.151	ug/L	0.027	1	197	10746	1
Cu	65	2.194	ug/L	0.057	2	88	5104	2
Zn	66	✓ 3.744	ug/L	0.094	2	273	5920	1
Zn	67	3.113	ug/L	0.117	3	152	936	2
Zn	68	3.085	ug/L	0.109	3	4791	8033	0
As	75	0.104	ug/L	0.025	24	400	557	6
As-1	75	-0.116	ug/L	0.078	67	6235	6076	1
Se	82	0.057	ug/L	0.088	154	-15	-5	257
Se	78	-0.831	ug/L	0.271	32	6340	6023	0
[ Mo	98	0.060	ug/L	0.004	5	209	550	2
Y	89		ug/L			259927	258293	2
Kr	83		ug/L			223	212	2
[> In	115		ug/L			274729	274951 ✓	1
Ag	107	0.001	ug/L	0.002	154	36	46	34
Cd	111	✓ 0.042	ug/L	0.005	13	123	220	5
Cd	114	0.031	ug/L	0.002	5	26	187	5
Sb	121	0.184	ug/L	0.004	1	22	1417	3
Sb	123	0.186	ug/L	0.009	5	16	1078	4
Ba	135	1.025	ug/L	0.056	5	20	1860	3
[ Ba	137	1.046	ug/L	0.005	0	21	3258	1
[> Tb	159		ug/L			328129	343630 ✓	1
Tl	205	0.000	ug/L	0.000	64	35	46	13
Pb	208	✓ 0.048	ug/L	0.002	5	263	1791	3
Bi	209		ug/L			267490	276123	1
Th	232	0.010	ug/L	0.001	11	55	463	11
[ U	238	0.005	ug/L	0.000	2	13	197	3

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 R REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 14:50:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			329720	<u>420184</u>	1
[ ] Be	9	0.005	ug/L	0.017	377	17	25	40
[ ] C	13		mg/L			6213	6789	1
[ ] Cl	37		mg/L			2029602	2167063	1
[>] Sc	45		ug/L			254270	251569 ✓	0
[ ] V	51	0.268	ug/L	0.012	4	1580	4434	3
[ ] V-1	51	0.125	ug/L	0.004	3	5106	6410	0
[ ] Cr	52	✓ 0.130	ug/L	0.009	7	4684	5833	1
[ ] Cr	53	-0.319	ug/L	0.035	11	1656	1291	2
[ ] Mn	55	26.517	ug/L	0.228	0	310	399283	1
[ ] Co	59	0.014	ug/L	0.001	6	48	197	4
[>] Ge	72		ug/L			259859	260950 ✓	1
[ ] Ni	60	0.317	ug/L	0.009	2	42	761	1
[ ] Ni	62	0.333	ug/L	0.068	20	58	170	13
[ ] Cu	63	2.088	ug/L	0.021	0	197	10456	0
[ ] Cu	65	2.083	ug/L	0.090	4	88	4859	3
[ ] Zn	66	✓ 3.711	ug/L	0.065	1	273	5884	0
[ ] Zn	67	3.143	ug/L	0.065	2	152	946	2
[ ] Zn	68	3.092	ug/L	0.039	1	4791	8060	1
[ ] As	75	0.111	ug/L	0.016	14	400	569	3
[ ] As-1	75	-0.103	ug/L	0.036	34	6235	6110	0
[ ] Se	82	0.090	ug/L	0.034	38	-15	0	7838
[ ] Se	78	-0.776	ug/L	0.104	13	6340	6059	0
[ ] Mo	98	0.063	ug/L	0.007	10	209	564	5
[ ] Y	89		ug/L			259927	258484	0
[ ] Kr	83		ug/L			223	212	1
[>] In	115		ug/L			274729	276192 ✓	0
[ ] Ag	107	0.002	ug/L	0.001	50	36	50	14
[ ] Cd	111	✓ 0.032	ug/L	0.004	11	123	199	4
[ ] Cd	114	0.029	ug/L	0.002	6	26	176	5
[ ] Sb	121	0.185	ug/L	0.004	2	22	1428	2
[ ] Sb	123	0.179	ug/L	0.005	2	16	1042	2
[ ] Ba	135	1.038	ug/L	0.022	2	20	1894	1
[ ] Ba	137	1.047	ug/L	0.001	0	21	3274	0
[>] Tb	159		ug/L			328129	342745 ✓	0
[ ] Tl	205	0.000	ug/L	0.000	4	35	47	1
[ ] Pb	208	✓ 0.043	ug/L	0.002	4	263	1640	2
[ ] Bi	209		ug/L			267490	275069	1
[ ] Th	232	0.010	ug/L	0.000	4	55	438	3
[ ] U	238	0.004	ug/L	0.000	6	13	182	7

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 RSPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 14:56:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	414889	2
[ Be	9	19.798	ug/L	0.300	1	17	11272	1
C	13		mg/L			6213	6268	0
Cl	37		mg/L			2029602	2168542	0
[> Sc	45		ug/L			254270	246950✓	0
V	51	23.749	ug/L	0.427	1	1580	251025	1
V-1	51	23.602	ug/L	0.400	1	5106	256759	1
Cr	52	23.906	ug/L	0.415	1	4684	220281	0
Cr	53	23.429	ug/L	0.161	0	1656	26725	1
Mn	55	51.047	ug/L	0.784	1	310	754293	2
[ Co	59	23.774	ug/L	0.295	1	48	252286	1
[> Ge	72		ug/L			259859	256091✓	1
Ni	60	23.790	ug/L	0.269	1	42	52934	0
Ni	62	23.814	ug/L	0.304	1	58	7871	0
Cu	63	26.204	ug/L	0.316	1	197	126561	0
Cu	65	26.694	ug/L	0.345	1	88	60106	1
Zn	66	79.055	ug/L	1.012	1	273	117581	1
Zn	67	72.627	ug/L	0.766	1	152	18147	0
Zn	68	78.529	ug/L	1.336	1	4791	85684	1
As	75	25.293	ug/L	0.336	1	400	37743	0
As-1	75	24.000	ug/L	0.469	1	6235	40656	0
Se	82	75.137	ug/L	1.102	1	-15	12590	0
Se	78	75.217	ug/L	1.767	2	6340	35437	0
[ Mo	98	0.134	ug/L	0.008	6	209	952	5
Y	89		ug/L			259927	255275	0
Kr	83		ug/L			223	220	5
[> In	115		ug/L			274729	272640✓	0
Ag	107	23.926	ug/L	0.328	1	36	211630	1
Cd	111	23.516	ug/L	0.252	1	123	53975	0
Cd	114	23.977	ug/L	0.297	1	26	124469	1
Sb	121	0.187	ug/L	0.005	2	22	1430	2
Sb	123	0.192	ug/L	0.007	3	16	1103	4
Ba	135	26.034	ug/L	0.327	1	20	46395	0
[ Ba	137	26.295	ug/L	0.279	1	21	80696	0
[> Tb	159		ug/L			328129	342482✓	1
Tl	205	23.942	ug/L	0.670	2	35	572279	1
Pb	208	24.673	ug/L	0.414	1	263	778695	0
Bi	209		ug/L			267490	272621	1
Th	232	23.771	ug/L	0.214	0	55	936889	0
[ U	238	23.758	ug/L	0.620	2	13	940635	2



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 MB3SPK REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 15:02:37

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	408739	1
[ Be	9	19.930	ug/L	0.190	0	17	11182	1
C	13		mg/L			6213	6271	0
Cl	37		mg/L			2029602	2177914	0
[> Sc	45		ug/L			254270	245689 ✓	1
V	51	23.472	ug/L	0.031	0	1580	246861	1
V-1	51	23.320	ug/L	0.185	0	5106	252451	0
Cr	52	23.567	ug/L	0.236	1	4684	216118	0
Cr	53	23.081	ug/L	0.883	3	1656	26209	2
Mn	55	23.988	ug/L	0.459	1	310	352721	0
[ Co	59	24.036	ug/L	0.545	2	48	253726	1
[> Ge	72		ug/L			259859	257309 ✓	1
Ni	60	23.170	ug/L	0.679	2	42	51788	1
Ni	62	23.816	ug/L	0.537	2	58	7908	0
Cu	63	24.428	ug/L	0.323	1	197	118558	1
Cu	65	24.438	ug/L	0.356	1	88	55294	1
Zn	66	74.566	ug/L	1.500	2	273	111431	0
Zn	67	68.991	ug/L	0.443	0	152	17328	1
Zn	68	74.095	ug/L	0.734	0	4791	81496	0
As	75	25.310	ug/L	0.282	1	400	37949	1
As-1	75	23.882	ug/L	0.208	0	6235	40682	1
Se	82	74.301	ug/L	1.197	1	-15	12509	0
Se	78	73.795	ug/L	1.054	1	6340	35052	0
[ Mo	98	-0.027	ug/L	0.002	5	209	57	14
Y	89		ug/L			259927	256679	1
Kr	83		ug/L			223	221	5
[> In	115		ug/L			274729	274245 ✓	0
Ag	107	24.137	ug/L	0.336	1	36	214728	0
Cd	111	23.507	ug/L	0.135	0	123	54272	0
Cd	114	23.628	ug/L	0.293	1	26	123370	0
Sb	121	0.004	ug/L	0.001	22	22	52	12
Sb	123	0.003	ug/L	0.001	19	16	35	10
Ba	135	24.849	ug/L	0.139	0	20	44547	1
[ Ba	137	24.680	ug/L	0.473	1	21	76183	1
[> Tb	159		ug/L			328129	338985 ✓	0
Tl	205	23.997	ug/L	0.218	0	35	567922	0
Pb	208	24.756	ug/L	0.125	0	263	773482	0
Bi	209		ug/L			267490	270644	1
Th	232	23.546	ug/L	0.514	2	55	918588	2
[ U	238	23.458	ug/L	0.364	1	13	919383	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 15:08:37

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	404347	1
[ Be	9	43.696	ug/L	0.677	1	17	24223	0
C	13		mg/L			6213	4736	1
Cl	37		mg/L			2029602	2234355	0
> Sc	45		ug/L			254270	245404 ✓	0
V	51	47.542	ug/L	0.386	0	1580	497840	0
V-1	51	47.504	ug/L	0.401	0	5106	508553	0
Cr	52	48.363	ug/L	1.208	2	4684	438225	2
Cr	53	48.204	ug/L	0.670	1	1656	52945	0
Mn	55	49.101	ug/L	1.071	2	310	720855	1
[ Co	59	48.708	ug/L	0.958	1	48	513543	1
> Ge	72		ug/L			259859	260973 ✓	0
Ni	60	46.385	ug/L	0.357	0	42	105145	1
Ni	62	46.799	ug/L	0.458	0	58	15708	1
Cu	63	46.992	ug/L	0.518	1	197	231145	1
Cu	65	47.915	ug/L	0.581	1	88	109873	0
Zn	66	48.722	ug/L	0.765	1	273	73951	0
Zn	67	48.654	ug/L	0.320	0	152	12439	0
Zn	68	48.102	ug/L	0.414	0	4791	55353	1
As	75	48.942	ug/L	0.236	0	400	74054	0
As-1	75	48.915	ug/L	0.287	0	6235	77947	0
Se	82	49.158	ug/L	0.655	1	-15	8389	1
Se	78	49.065	ug/L	0.635	1	6340	25773	0
Mo	98	48.589	ug/L	0.374	0	209	275971	0
Y	89		ug/L			259927	255019	0
Kr	83		ug/L			223	231	3
> In	115		ug/L			274729	272837 ✓	0
Ag	107	49.551	ug/L	0.898	1	36	438528	1
Cd	111	49.963	ug/L	0.269	0	123	114624	0
Cd	114	50.683	ug/L	0.743	1	26	263246	0
Sb	121	51.977	ug/L	0.482	0	22	391044	0
Sb	123	52.043	ug/L	0.737	1	16	294325	0
Ba	135	50.813	ug/L	0.509	1	20	90602	0
Ba	137	50.846	ug/L	0.048	0	21	156140	0
> Tl	159		ug/L			328129	333836 ✓	0
Tl	205	49.075	ug/L	0.599	1	35	1143664	0
Pb	208	50.270	ug/L	0.603	1	263	1546472	0
Bi	209		ug/L			267490	264914	0
Th	232	48.758	ug/L	0.223	0	55	1873240	0
U	238	49.499	ug/L	0.694	1	13	1910483	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 15:14:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	405205	0
[ Be	9	0.016	ug/L	0.007	44	17	30	13
C	13		mg/L			6213	5935	2
Cl	37		mg/L			2029602	2256973	0
[> Sc	45		ug/L			254270	242540	0
V	51	-0.002	ug/L	0.017	854	1580	1487	11
V-1	51	-0.148	ug/L	0.004	2	5106	3315	1
Cr	52	0.009	ug/L	0.009	105	4684	4544	1
Cr	53	-0.458	ug/L	0.053	11	1656	1098	5
Mn	55	0.003	ug/L	0.003	107	310	342	14
Co	59	0.003	ug/L	0.001	36	48	77	14
[> Ge	72		ug/L			259859	258258	0
Ni	60	-0.003	ug/L	0.004	144	42	37	22
Ni	62	0.005	ug/L	0.032	626	58	60	16
Cu	63	-0.007	ug/L	0.002	33	197	161	6
Cu	65	-0.001	ug/L	0.007	454	88	85	17
Zn	66	-0.026	ug/L	0.015	57	273	233	9
Zn	67	-0.130	ug/L	0.051	39	152	118	11
Zn	68	-0.556	ug/L	0.156	28	4791	4183	2
As	75	0.015	ug/L	0.006	38	400	420	2
As-1	75	-0.118	ug/L	0.025	21	6235	6024	0
Se	82	0.062	ug/L	0.033	52	-15	-4	114
Se	78	-0.461	ug/L	0.124	26	6340	6120	0
[ Mo	98	-0.020	ug/L	0.003	15	209	93	19
Y	89		ug/L			259927	255709	0
Kr	83		ug/L			223	216	1
[> In	115		ug/L			274729	270169	0
Ag	107	0.009	ug/L	0.003	33	36	114	23
Cd	111	0.002	ug/L	0.004	196	123	126	7
Cd	114	0.001	ug/L	0.001	54	26	31	10
Sb	121	0.016	ug/L	0.005	34	22	142	29
Sb	123	0.016	ug/L	0.006	38	16	106	32
Ba	135	0.002	ug/L	0.003	141	20	23	21
[ Ba	137	0.006	ug/L	0.002	39	21	40	18
[> Tb	159		ug/L			328129	327376	0
Tl	205	0.006	ug/L	0.002	27	35	167	22
Pb	208	0.003	ug/L	0.002	56	263	367	15
Bi	209		ug/L			267490	264210	0
Th	232	0.072	ug/L	0.017	22	55	2778	22
[ U	238	0.003	ug/L	0.001	43	13	132	38

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 U REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 15:20:54

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	413169	1
[ Be	9	0.010	ug/L	0.006	63	17	27	13
C	13		mg/L			6213	6062	1
Cl	37		mg/L			2029602	2179120	0
[> Sc	45		ug/L			254270	253419 ✓	1
V	51	0.936	ug/L	0.021	2	1580	11663	0
V-1	51	0.785	ug/L	0.023	2	5106	13677	0
Cr	52	✓ 0.207	ug/L	0.008	3	4684	6583	2
Cr	53	-0.240	ug/L	0.008	3	1656	1387	1
Mn	55	1.445	ug/L	0.010	0	310	22214	1
[ Co	59	0.026	ug/L	0.001	2	48	331	2
[> Ge	72		ug/L			259859	260164 ✓	1
Ni	60	0.324	ug/L	0.009	2	42	774	3
Ni	62	0.200	ug/L	0.042	21	58	125	9
Cu	63	1.564	ug/L	0.018	1	197	7859	0
Cu	65	1.623	ug/L	0.042	2	88	3798	4
Zn	66	7.270	ug/L	0.078	1	273	11233	2
Zn	67	6.396	ug/L	0.104	1	152	1762	1
Zn	68	6.568	ug/L	0.032	0	4791	11676	1
As	75	3.930	ug/L	0.107	2	400	6295	1
As-1	75	3.847	ug/L	0.143	3	6235	11860	0
Se	82	0.070	ug/L	0.076	108	-15	-3	383
Se	78	-0.660	ug/L	0.154	23	6340	6086	1
[ Mo	98	0.302	ug/L	0.009	2	209	1916	1
Y	89		ug/L			259927	255938	1
Kr	83		ug/L			223	216	3
[> In	115		ug/L			274729	272382 ✓	1
Ag	107	0.007	ug/L	0.002	32	36	98	21
Cd	111	✓ 0.029	ug/L	0.011	37	123	188	12
Cd	114	0.027	ug/L	0.001	5	26	164	5
Sb	121	0.205	ug/L	0.009	4	22	1564	3
Sb	123	0.205	ug/L	0.007	3	16	1172	2
Ba	135	1.901	ug/L	0.066	3	20	3403	3
[ Ba	137	1.919	ug/L	0.013	0	21	5904	1
[> Tb	159		ug/L			328129	337046 ✓	1
Tl	205	0.005	ug/L	0.002	36	35	143	27
Pb	208	✓ 0.088	ug/L	0.002	1	263	2996	1
Bi	209		ug/L			267490	266396	0
Th	232	0.063	ug/L	0.014	22	55	2486	21
[ U	238	0.006	ug/L	0.001	9	13	237	8

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 V REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 15:26:53

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	408384	0
[ Be	9	0.002	ug/L	0.003	155	17	22	8
C	13		mg/L			6213	6050	0
Cl	37		mg/L			2029602	2117923	0
[> Sc	45		ug/L			254270	244014 ✓	0
V	51	0.888	ug/L	0.014	1	1580	10739	1
V-1	51	0.746	ug/L	0.009	1	5106	12761	0
Cr	52	0.150	ug/L	0.015	9	4684	5836	2
Cr	53	-0.268	ug/L	0.036	13	1656	1306	2
Mn	55	0.807	ug/L	0.019	2	310	12070	1
[ Co	59	0.022	ug/L	0.001	5	48	277	4
[> Ge	72		ug/L			259859	246874 ✓	0
Ni	60	1.549	ug/L	0.039	2	42	3360	2
Ni	62	1.479	ug/L	0.080	5	58	523	4
Cu	63	1.062	ug/L	0.015	1	197	5124	1
Cu	65	1.101	ug/L	0.022	2	88	2471	2
Zn	66	3.430	ug/L	0.027	0	273	5166	0
Zn	67	3.022	ug/L	0.074	2	152	866	1
Zn	68	3.053	ug/L	0.040	1	4791	7586	0
As	75	3.779	ug/L	0.011	0	400	5760	0
As-1	75	3.783	ug/L	0.057	1	6235	11168	0
Se	82	0.122	ug/L	0.020	16	-15	5	64
Se	78	-0.234	ug/L	0.219	93	6340	5935	1
[ Mo	98	0.275	ug/L	0.016	5	209	1675	4
Y	89		ug/L			259927	247188	1
Kr	83		ug/L			223	210	1
[> In	115		ug/L			274729	260671 ✓	1
Ag	107	0.003	ug/L	0.000	17	36	57	6
Cd	111	0.045	ug/L	0.001	1	123	215	0
Cd	114	0.035	ug/L	0.005	15	26	197	14
Sb	121	0.196	ug/L	0.005	2	22	1431	2
Sb	123	0.196	ug/L	0.006	2	16	1076	1
Ba	135	1.911	ug/L	0.017	0	20	3272	0
[ Ba	137	1.908	ug/L	0.011	0	21	5616	1
[> Tb	159		ug/L			328129	326504 ✓	0
Tl	205	0.002	ug/L	0.000	7	35	82	4
Pb	208	0.049	ug/L	0.002	3	263	1737	2
Bi	209		ug/L			267490	257338	0
Th	232	0.031	ug/L	0.001	4	55	1227	3
[ U	238	0.005	ug/L	0.000	8	13	189	7

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 W REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 15:32:53

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	409564	0
[ Be	9	0.004	ug/L	0.011	308	17	23	26
C	13		mg/L			6213	6453	2
Cl	37		mg/L			2029602	2115058	0
[> Sc	45		ug/L			254270	238668 ✓	0
V	51	0.253	ug/L	0.022	8	1580	4047	5
V-1	51	0.106	ug/L	0.009	8	5106	5888	1
Cr	52	u 0.120	ug/L	0.010	8	4684	5448	1
Cr	53	-0.339	ug/L	0.060	17	1656	1204	5
Mn	55	0.118	ug/L	0.005	4	310	1979	3
[ Co	59	0.011	ug/L	0.001	13	48	159	9
[> Ge	72		ug/L			259859	251943 ✓	0
Ni	60	0.329	ug/L	0.009	2	42	760	2
Ni	62	0.285	ug/L	0.033	11	58	148	6
Cu	63	1.365	ug/L	0.026	1	197	6669	1
Cu	65	1.380	ug/L	0.024	1	88	3137	1
Zn	66	6.075	ug/L	0.059	0	273	9134	1
Zn	67	5.303	ug/L	0.114	2	152	1440	1
Zn	68	5.477	ug/L	0.227	4	4791	10200	2
As	75	0.124	ug/L	0.017	13	400	569	3
As-1	75	0.031	ug/L	0.028	93	6235	6088	0
Se	82	0.035	ug/L	0.070	202	-15	-9	127
Se	78	-0.320	ug/L	0.106	33	6340	6024	0
[ Mo	98	0.058	ug/L	0.004	7	209	520	4
Y	89		ug/L			259927	251983	1
Kr	83		ug/L			223	216	3
[> In	115		ug/L			274729	263009 ✓	0
Ag	107	0.002	ug/L	0.000	9	36	50	2
Cd	111	0.104	ug/L	0.002	1	123	348	0
Cd	114	0.085	ug/L	0.003	3	26	448	3
Sb	121	0.200	ug/L	0.002	1	22	1471	0
Sb	123	0.203	ug/L	0.003	1	16	1122	1
Ba	135	1.235	ug/L	0.026	2	20	2140	2
[ Ba	137	1.256	ug/L	0.039	3	21	3737	2
[> Tb	159		ug/L			328129	326580 ✓	1
Tl	205	0.002	ug/L	0.001	34	35	70	18
Pb	208	u 0.039	ug/L	0.002	4	263	1441	3
Bi	209		ug/L			267490	261060	1
Th	232	0.018	ug/L	0.001	5	55	743	6
[ U	238	0.005	ug/L	0.000	6	13	207	6

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 X REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 15:38:52

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	414692	0
[ Be	9	0.007	ug/L	0.011	163	17	25	23
C	13		mg/L			6213	6166	0
Cl	37		mg/L			2029602	2113172	0
[> Sc	45		ug/L			254270	248381	1
V	51	0.929	ug/L	0.021	2	1580	11361	2
V-1	51	0.766	ug/L	0.020	2	5106	13202	1
Cr	52	0.203	ug/L	0.004	2	4684	6422	0
Cr	53	-0.282	ug/L	0.060	21	1656	1314	3
Mn	55	0.700	ug/L	0.009	1	310	10692	0
[ Co	59	0.028	ug/L	0.001	3	48	341	1
[> Ge	72		ug/L			259859	251838	0
Ni	60	1.264	ug/L	0.094	7	42	2804	6
Ni	62	1.236	ug/L	0.051	4	58	455	3
Cu	63	1.452	ug/L	0.025	1	197	7076	2
Cu	65	1.449	ug/L	0.027	1	88	3289	0
Zn	66	1.934	ug/L	0.030	1	273	3087	0
Zn	67	1.703	ug/L	0.048	2	152	562	2
Zn	68	1.399	ug/L	0.211	15	4791	6060	2
As	75	4.593	ug/L	0.065	1	400	7057	0
As-1	75	4.532	ug/L	0.094	2	6235	12451	0
Se	82	0.091	ug/L	0.038	41	-15	0	3994
Se	78	-0.544	ug/L	0.105	19	6340	5936	0
[ Mo	98	0.270	ug/L	0.004	1	209	1680	2
Y	89		ug/L			259927	249006	0
Kr	83		ug/L			223	221	2
[> In	115		ug/L			274729	269275	0
Ag	107	0.001	ug/L	0.001	86	36	45	18
Cd	111	0.036	ug/L	0.003	8	123	203	3
Cd	114	0.040	ug/L	0.005	11	26	228	10
Sb	121	0.184	ug/L	0.007	3	22	1388	3
Sb	123	0.181	ug/L	0.009	4	16	1024	4
Ba	135	1.611	ug/L	0.031	1	20	2854	1
[ Ba	137	1.577	ug/L	0.049	3	21	4800	3
[> Tb	159		ug/L			328129	324299	0
Tl	205	0.002	ug/L	0.000	23	35	70	11
Pb	208	0.044	ug/L	0.000	0	263	1574	0
Bi	209		ug/L			267490	263622	1
Th	232	0.015	ug/L	0.000	1	55	599	1
[ U	238	0.004	ug/L	0.000	6	13	156	5

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 Y REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 15:44:51

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	403902	3
[ Be	9	0.011	ug/L	0.005	49	17	27	9
C	13		mg/L			6213	6952	0
Cl	37		mg/L			2029602	2101367	0
> Sc	45		ug/L			254270	236569 ✓	3
V	51	0.242	ug/L	0.020	8	1580	3898	3
V-1	51	0.092	ug/L	0.011	12	5106	5687	1
Cr	52	✓ 0.135	ug/L	0.021	15	4684	5523	0
Cr	53	-0.336	ug/L	0.033	9	1656	1196	3
Mn	55	3.988	ug/L	0.030	0	310	56711	3
[ Co	59	0.012	ug/L	0.002	17	48	165	10
> Ge	72		ug/L			259859	246705 ✓	1
Ni	60	0.285	ug/L	0.016	5	42	651	6
Ni	62	0.267	ug/L	0.025	9	58	140	5
Cu	63	0.944	ug/L	0.012	1	197	4572	1
Cu	65	0.934	ug/L	0.031	3	88	2108	3
Zn	66	✓ 2.478	ug/L	0.027	1	273	3803	2
Zn	67	2.104	ug/L	0.160	7	152	647	7
Zn	68	1.996	ug/L	0.069	3	4791	6530	1
As	75	0.127	ug/L	0.034	26	400	560	6
As-1	75	0.036	ug/L	0.111	309	6235	5967	0
Se	82	0.092	ug/L	0.084	91	-15	0	5758
Se	78	-0.162	ug/L	0.422	261	6340	5956	0
[ Mo	98	0.031	ug/L	0.003	10	209	362	4
Y	89		ug/L			259927	245545	2
Kr	83		ug/L			223	224	3
> In	115		ug/L			274729	260042 ✓	3
Ag	107	0.002	ug/L	0.001	23	36	53	5
Cd	111	✓ 0.026	ug/L	0.010	37	123	173	11
Cd	114	0.019	ug/L	0.002	10	26	121	6
Sb	121	0.182	ug/L	0.004	2	22	1327	1
Sb	123	0.190	ug/L	0.012	6	16	1040	6
Ba	135	0.795	ug/L	0.018	2	20	1368	2
[ Ba	137	0.819	ug/L	0.006	0	21	2417	3
> Tb	159		ug/L			328129	322683 ✓	1
Tl	205	0.002	ug/L	0.000	21	35	72	12
Pb	208	✓ 0.039	ug/L	0.001	3	263	1405	4
Bi	209		ug/L			267490	261791	2
Th	232	0.015	ug/L	0.001	5	55	595	6
[ U	238	0.006	ug/L	0.000	5	13	241	5



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 Z REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 15:50:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	416344	0
[ Be	9	0.006	ug/L	0.007	117	17	25	15
C	13		mg/L			6213	6508	1
Cl	37		mg/L			2029602	2105030	0
[> Sc	45		ug/L			254270	246457 ✓	1
V	51	0.682	ug/L	0.006	0	1580	8678	0
V-1	51	0.532	ug/L	0.004	0	5106	10608	1
Cr	52	✓ 0.236	ug/L	0.001	0	4684	6670	1
Cr	53	-0.220	ug/L	0.028	12	1656	1371	3
Mn	55	1.247	ug/L	0.035	2	310	18672	1
[ Co	59	0.022	ug/L	0.001	6	48	276	5
[> Ge	72		ug/L			259859	250435 ✓	0
Ni	60	0.361	ug/L	0.013	3	42	826	2
Ni	62	0.302	ug/L	0.059	19	58	153	11
Cu	63	1.118	ug/L	0.020	1	197	5464	2
Cu	65	1.158	ug/L	0.018	1	88	2631	1
Zn	66	u 1.784	ug/L	0.064	3	273	2851	3
Zn	67	1.496	ug/L	0.011	0	152	509	1
Zn	68	1.309	ug/L	0.082	6	4791	5937	1
As	75	5.390	ug/L	0.101	1	400	8169	1
As-1	75	5.382	ug/L	0.171	3	6235	13577	1
Se	82	0.170	ug/L	0.051	30	-15	13	65
Se	78	-0.383	ug/L	0.261	68	6340	5964	0
[ Mo	98	0.240	ug/L	0.004	1	209	1510	1
Y	89		ug/L			259927	250209	2
Kr	83		ug/L			223	213	4
[> In	115		ug/L			274729	267552 ✓	1
Ag	107	-0.000	ug/L	0.001	712	36	34	15
Cd	111	0.131	ug/L	0.012	9	123	415	6
Cd	114	0.130	ug/L	0.002	1	26	685	2
Sb	121	0.213	ug/L	0.004	2	22	1596	1
Sb	123	0.204	ug/L	0.009	4	16	1145	3
Ba	135	1.632	ug/L	0.048	2	20	2871	2
[ Ba	137	1.647	ug/L	0.056	3	21	4978	2
[> Tb	159		ug/L			328129	329227 ✓	0
Tl	205	0.002	ug/L	0.000	24	35	77	12
Pb	208	u 0.035	ug/L	0.001	2	263	1313	2
Bi	209		ug/L			267490	259804	1
Th	232	0.010	ug/L	0.001	10	55	443	8
[ U	238	0.004	ug/L	0.000	7	13	173	6

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 AA REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 15:56:47

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	416696	0
[ Be	9	-0.005	ug/L	0.010	183	17	19	29
C	13		mg/L			6213	6104	1
Cl	37		mg/L			2029602	2089075	0
[> Sc	45		ug/L			254270	243464 ✓	0
V	51	0.689	ug/L	0.009	1	1580	8646	1
V-1	51	0.536	ug/L	0.014	2	5106	10524	1
Cr	52	u 0.226	ug/L	0.014	6	4884	6494	1
Cr	53	-0.238	ug/L	0.050	20	1656	1334	3
Mn	55	0.661	ug/L	0.008	1	310	9913	0
Co	59	0.023	ug/L	0.001	4	48	285	4
[> Ge	72		ug/L			259859	250516 ✓	0
Ni	60	0.381	ug/L	0.030	7	42	869	7
Ni	62	0.297	ug/L	0.016	5	58	152	2
Cu	63	1.281	ug/L	0.032	2	197	6234	2
Cu	65	1.326	ug/L	0.015	1	88	3002	1
Zn	66	u 1.202	ug/L	0.026	2	273	2008	2
Zn	67	1.028	ug/L	0.063	6	152	395	4
Zn	68	0.681	ug/L	0.086	12	4791	5305	1
As	75	5.310	ug/L	0.035	0	400	8057	0
As-1	75	5.218	ug/L	0.076	1	6235	13351	0
Se	82	0.115	ug/L	0.055	47	-15	4	218
Se	78	-0.728	ug/L	0.102	14	6340	5835	0
Mo	98	0.233	ug/L	0.005	2	209	1469	2
Y	89		ug/L			259927	246742	1
Kr	83		ug/L			223	216	3
[> In	115		ug/L			274729	263834 ✓	0
Ag	107	0.001	ug/L	0.000	46	36	40	6
Cd	111	0.137	ug/L	0.011	8	123	422	5
Cd	114	0.135	ug/L	0.003	2	26	703	1
Sb	121	0.212	ug/L	0.005	2	22	1560	2
Sb	123	0.219	ug/L	0.007	3	16	1212	2
Ba	135	1.579	ug/L	0.024	1	20	2741	2
Ba	137	1.567	ug/L	0.051	3	21	4672	3
[> Tb	159		ug/L			328129	329134 ✓	1
Tl	205	0.002	ug/L	0.000	21	35	73	10
Pb	208	u 0.032	ug/L	0.002	5	263	1222	4
Bi	209		ug/L			267490	262633	0
Th	232	0.008	ug/L	0.000	1	55	365	2
U	238	0.004	ug/L	0.000	12	13	150	9

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 AC REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 16:02:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	410242	0
[ Be	9	0.008	ug/L	0.002	30	17	26	4
C	13		mg/L			6213	5841	1
Cl	37		mg/L			2029602	1982199	0
[> Sc	45		ug/L			254270	234739 ✓	0
V	51	0.750	ug/L	0.007	0	1580	8944	0
V-1	51	0.587	ug/L	0.010	1	5106	10670	0
Cr	52	0.501	ug/L	0.020	3	4684	8624	1
Cr	53	-0.003	ug/L	0.031	1029	1656	1526	1
Mn	55	0.448	ug/L	0.012	2	310	6569	2
[ Co	59	0.024	ug/L	0.009	37	48	286	31
[> Ge	72		ug/L			259859	245819 ✓	1
Ni	60	0.439	ug/L	0.018	4	42	976	4
Ni	62	0.382	ug/L	0.087	22	58	175	14
Cu	63	1.134	ug/L	0.048	4	197	5435	3
Cu	65	1.155	ug/L	0.020	1	88	2576	1
Zn	66	✓ 1.143	ug/L	0.061	5	273	1885	3
Zn	67	1.023	ug/L	0.080	7	152	387	4
Zn	68	0.617	ug/L	0.103	16	4791	5142	0
As	75	0.279	ug/L	0.025	8	400	774	5
As-1	75	0.150	ug/L	0.054	36	6235	6104	0
Se	82	0.109	ug/L	0.044	39	-15	3	227
Se	78	-0.337	ug/L	0.220	65	6340	5871	0
[ Mo	98	0.195	ug/L	0.016	8	209	1238	6
Y	89		ug/L			259927	245030	1
Kr	83		ug/L			223	217	1
[> In	115		ug/L			274729	258097 ✓	1
Ag	107	0.002	ug/L	0.001	60	36	49	19
Cd	111	✓ 0.014	ug/L	0.005	35	123	146	7
Cd	114	0.011	ug/L	0.003	28	26	78	20
Sb	121	0.132	ug/L	0.004	3	22	958	2
Sb	123	0.129	ug/L	0.004	2	16	703	3
Ba	135	0.764	ug/L	0.032	4	20	1307	3
[ Ba	137	0.798	ug/L	0.028	3	21	2336	2
[> Tb	159		ug/L			328129	322076 ✓	1
Tl	205	0.001	ug/L	0.000	43	35	55	16
Pb	208	✓ 0.031	ug/L	0.003	8	263	1176	6
Bi	209		ug/L			267490	258965	1
Th	232	0.008	ug/L	0.000	4	55	354	3
[ U	238	0.005	ug/L	0.000	10	13	181	9

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 AD REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 16:08:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	410629	0
[ Be	9	0.014	ug/L	0.003	18	17	29	4
C	13		mg/L			6213	6173	1
Cl	37		mg/L			2029602	1986251	0
[> Sc	45		ug/L			254270	238646 ✓	0
V	51	0.629	ug/L	0.003	0	1580	7870	0
V-1	51	0.457	ug/L	0.015	3	5106	9508	1
Cr	52	0.115	ug/L	0.015	13	4684	5403	2
Cr	53	-0.406	ug/L	0.044	10	1656	1134	3
Mn	55	0.443	ug/L	0.007	1	310	6619	1
[ Co	59	0.015	ug/L	0.000	0	48	200	0
[> Ge	72		ug/L			259859	246533 ✓	0
Ni	60	0.241	ug/L	0.007	2	42	556	3
Ni	62	0.217	ug/L	0.024	11	58	124	5
Cu	63	0.898	ug/L	0.010	1	197	4356	0
Cu	65	0.888	ug/L	0.003	0	88	2005	0
Zn	66	1.264	ug/L	0.009	0	273	2064	0
Zn	67	0.959	ug/L	0.168	17	152	372	10
Zn	68	0.816	ug/L	0.026	3	4791	5355	0
As	75	0.271	ug/L	0.009	3	400	765	2
As-1	75	0.154	ug/L	0.007	4	6235	6128	0
Se	82	0.116	ug/L	0.069	59	-15	4	265
Se	78	-0.333	ug/L	0.031	9	6340	5890	0
[ Mo	98	0.107	ug/L	0.005	4	209	772	3
Y	89		ug/L			259927	246067	0
Kr	83		ug/L			223	211	3
[> In	115		ug/L			274729	261297 ✓	0
Ag	107	0.002	ug/L	0.001	59	36	49	18
Cd	111	0.011	ug/L	0.005	46	123	142	8
Cd	114	0.005	ug/L	0.001	17	26	49	8
Sb	121	0.139	ug/L	0.005	3	22	1019	3
Sb	123	0.141	ug/L	0.002	1	16	777	1
Ba	135	1.196	ug/L	0.020	1	20	2060	2
[ Ba	137	1.218	ug/L	0.040	3	21	3603	3
[> Tb	159		ug/L			328129	328606 ✓	3
Tl	205	0.001	ug/L	0.001	42	35	64	17
Pb	208	0.032	ug/L	0.003	9	263	1242	4
Bi	209		ug/L			267490	260346	1
Th	232	0.009	ug/L	0.001	8	55	382	4
[ U	238	0.003	ug/L	0.000	7	13	142	9

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 AE REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 16:14:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	420502	1
[ Be	9	-0.001	ug/L	0.011	915	17	21	29
C	13		mg/L			6213	6269	0
Cl	37		mg/L			2029602	2052687	2
[> Sc	45		ug/L			254270	244362 ✓	1
V	51	0.601	ug/L	0.008	1	1580	7767	0
V-1	51	0.429	ug/L	0.017	3	5106	9431	1
Cr	52	u 0.071	ug/L	0.002	2	4684	5139	0
Cr	53	-0.452	ug/L	0.029	6	1656	1112	2
Mn	55	0.363	ug/L	0.002	0	310	5605	0
[ Co	59	0.019	ug/L	0.003	13	48	242	9
[> Ge	72		ug/L			259859	252273 ✓	0
Ni	60	0.222	ug/L	0.003	1	42	527	1
Ni	62	0.166	ug/L	0.044	26	58	110	13
Cu	63	0.915	ug/L	0.034	3	197	4539	2
Cu	65	0.970	ug/L	0.009	0	88	2235	0
Zn	66	u 0.871	ug/L	0.009	1	273	1538	1
Zn	67	0.724	ug/L	0.088	12	152	324	5
Zn	68	0.467	ug/L	0.050	10	4791	5125	0
As	75	0.236	ug/L	0.030	12	400	732	5
As-1	75	0.014	ug/L	0.073	516	6235	6072	0
Se	82	0.113	ug/L	0.024	20	-15	3	103
Se	78	-0.731	ug/L	0.230	31	6340	5875	0
[ Mo	98	0.122	ug/L	0.006	5	209	870	3
Y	89		ug/L			259927	253187	0
Kr	83		ug/L			223	214	2
[> In	115		ug/L			274729	268589 ✓	0
Ag	107	0.000	ug/L	0.000	81	36	39	8
Cd	111	u 0.012	ug/L	0.003	23	123	148	4
Cd	114	0.007	ug/L	0.002	33	26	63	19
Sb	121	0.152	ug/L	0.005	3	22	1145	3
Sb	123	0.153	ug/L	0.005	3	16	866	3
Ba	135	0.720	ug/L	0.013	1	20	1283	2
[ Ba	137	0.747	ug/L	0.007	0	21	2278	1
[> Tb	159		ug/L			328129	334542 ✓	1
Tl	205	0.001	ug/L	0.001	37	35	69	19
Pb	208	u 0.041	ug/L	0.001	2	263	1538	3
Bi	209		ug/L			267490	267507	0
Th	232	0.008	ug/L	0.001	12	55	366	9
[ U	238	0.004	ug/L	0.000	4	13	150	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 16:20:33

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	411116	0
[ Be	9	42.347	ug/L	0.481	1	17	23874	1
C	13		mg/L			6213	4557	0
Cl	37		mg/L			2029602	2125645	1
[> Sc	45		ug/L			254270	239464 ✓	1
V	51	49.072	ug/L	1.015	2	1580	501294	0
V-1	51	48.846	ug/L	1.017	2	5106	510036	0
Cr	52	49.291	ug/L	0.861	1	4684	435702	0
Cr	53	48.561	ug/L	0.870	1	1656	52029	0
Mn	55	49.059	ug/L	0.951	1	310	702756	0
[ Co	59	48.651	ug/L	0.866	1	48	500514	1
[> Ge	72		ug/L			259859	255629 ✓	0
Ni	60	47.016	ug/L	0.254	0	42	104393	0
Ni	62	47.139	ug/L	0.452	0	58	15497	1
Cu	63	47.349	ug/L	0.472	0	197	228145	1
Cu	65	47.550	ug/L	0.785	1	88	106811	1
Zn	66	48.416	ug/L	0.095	0	273	71988	0
Zn	67	47.917	ug/L	0.407	0	152	12003	1
Zn	68	48.323	ug/L	0.210	0	4791	54447	0
As	75	48.957	ug/L	0.537	1	400	72562	1
As-1	75	49.001	ug/L	0.458	0	6235	76478	0
Se	82	49.706	ug/L	0.434	0	-15	8310	0
Se	78	49.958	ug/L	0.169	0	6340	25592	0
[ Mo	98	48.871	ug/L	0.431	0	209	271892	0
Y	89		ug/L			259927	249747	1
Kr	83		ug/L			223	231	4
[> In	115		ug/L			274729	267063 ✓	0
Ag	107	49.224	ug/L	0.885	1	36	426400	0
Cd	111	50.953	ug/L	0.869	1	123	114412	0
Cd	114	51.739	ug/L	0.880	1	26	263036	0
Sb	121	52.287	ug/L	0.247	0	22	385057	0
Sb	123	52.366	ug/L	0.190	0	16	289902	0
Ba	135	50.759	ug/L	0.849	1	20	88587	0
[ Ba	137	51.282	ug/L	0.235	0	21	154140	0
[> Tb	159		ug/L			328129	331276 ✓	0
Tl	205	48.601	ug/L	0.276	0	35	1123965	0
Pb	208	50.293	ug/L	0.636	1	263	1535317	0
Bi	209		ug/L			267490	260234	0
Th	232	49.054	ug/L	0.493	1	55	1870134	0
[ U	238	49.210	ug/L	1.096	2	13	1884661	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 16:26:51

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	405750	0
[ Be	9	0.002	ug/L	0.005	182	17	22	11
C	13		mg/L			6213	5752	4
Cl	37		mg/L			2029602	2153708	0
> Sc	45		ug/L			254270	236896 ✓	0
V	51	0.003	ug/L	0.006	222	1580	1501	4
V-1	51	-0.167	ug/L	0.001	0	5106	3050	0
Cr	52	0.012	ug/L	0.015	120	4684	4469	2
Cr	53	-0.528	ug/L	0.025	4	1656	1000	2
Mn	55	0.002	ug/L	0.004	221	310	316	19
[ Co	59	0.002	ug/L	0.001	45	48	70	15
> Ge	72		ug/L			259859	254188 ✓	1
Ni	60	-0.001	ug/L	0.002	183	42	39	12
Ni	62	-0.011	ug/L	0.006	48	58	53	2
Cu	63	-0.009	ug/L	0.004	45	197	149	12
Cu	65	-0.002	ug/L	0.006	278	88	82	15
Zn	66	-0.021	ug/L	0.027	124	273	235	16
Zn	67	-0.125	ug/L	0.034	27	152	117	6
Zn	68	-0.432	ug/L	0.151	34	4791	4243	2
As	75	0.029	ug/L	0.010	34	400	434	4
As-1	75	-0.053	ug/L	0.051	95	6235	6023	0
Se	82	0.103	ug/L	0.077	74	-15	1	641
Se	78	-0.213	ug/L	0.224	105	6340	6119	0
[ Mo	98	-0.021	ug/L	0.006	30	209	90	38
Y	89		ug/L			259927	249092	0
Kr	83		ug/L			223	215	5
> In	115		ug/L			274729	265063 ✓	1
Ag	107	0.008	ug/L	0.003	35	36	105	22
Cd	111	0.011	ug/L	0.002	22	123	143	4
Cd	114	0.000	ug/L	0.001	464	26	26	21
Sb	121	0.019	ug/L	0.006	29	22	161	24
Sb	123	0.018	ug/L	0.003	18	16	114	14
Ba	135	0.002	ug/L	0.002	141	20	22	18
Ba	137	0.004	ug/L	0.002	62	21	32	23
> Tb	159		ug/L			328129	325515 ✓	1
Tl	205	0.005	ug/L	0.002	41	35	155	31
Pb	208	0.003	ug/L	0.001	43	263	362	11
Bi	209		ug/L			267490	259283	1
Th	232	0.063	ug/L	0.020	32	55	2426	30
[ U	238	0.003	ug/L	0.001	42	13	138	38

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 MB1 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 16:32:18

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	418252	0
[ Be	9	0.011	ug/L	0.001	13	17	28	2
C	13		mg/L			6213	5156	0
Cl	37		mg/L			2029602	2135555	0
[> Sc	45		ug/L			254270	245955 ✓	0
V	51	u 0.003	ug/L	0.013	402	1580	1564	9
V-1	51	-0.160	ug/L	0.006	3	5106	3237	2
Cr	52	u 0.037	ug/L	0.014	38	4684	4866	2
Cr	53	-0.485	ug/L	0.036	7	1656	1085	2
Mn	55	0.009	ug/L	0.001	16	310	426	4
Co	59	0.001	ug/L	0.001	50	48	59	9
[> Ge	72		ug/L			259859	261266 ✓	1
Ni	60	0.003	ug/L	0.004	148	42	49	18
Ni	62	0.000	ug/L	0.018	7165	58	59	10
Cu	63	0.026	ug/L	0.004	15	197	326	5
Cu	65	0.035	ug/L	0.006	18	88	170	8
Zn	66	0.127	ug/L	0.015	12	273	466	4
Zn	67	-0.046	ug/L	0.008	16	152	141	2
Zn	68	-0.446	ug/L	0.075	16	4791	4347	1
As	75	u 0.016	ug/L	0.024	148	400	426	7
As-1	75	-0.068	ug/L	0.058	85	6235	6167	0
Se	82	u 0.067	ug/L	0.026	39	-15	-4	111
Se	78	-0.267	ug/L	0.194	72	6340	6268	0
Mo	98	-0.016	ug/L	0.002	10	209	117	7
Y	89		ug/L			259927	258083	0
Kr	83		ug/L			223	220	2
[> In	115		ug/L			274729	274503 ✓	1
Ag	107	u 0.004	ug/L	0.002	37	36	75	20
Cd	111	0.006	ug/L	0.001	21	123	138	3
Cd	114	-0.001	ug/L	0.001	65	26	19	22
Sb	121	u 0.007	ug/L	0.002	22	22	74	15
Sb	123	0.006	ug/L	0.002	25	16	53	18
Ba	135	0.012	ug/L	0.002	13	20	40	6
Ba	137	0.009	ug/L	0.001	15	21	50	10
[> Tb	159		ug/L			328129	335590 ✓	1
Tl	205	0.002	ug/L	0.001	27	35	82	14
Pb	208	u 0.003	ug/L	0.000	15	263	355	4
Bi	209		ug/L			267490	268105	0
Th	232	0.036	ug/L	0.006	18	55	1440	16
[ U	238	0.001	ug/L	0.000	24	13	46	16



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 AF REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 16:38:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	414642	2
[ Be	9	-0.001	ug/L	0.001	59	17	21	0
C	13		mg/L			6213	5799	1
Cl	37		mg/L			2029602	2090554	0
[> Sc	45		ug/L			254270	246369	0
V	51	0.553	ug/L	0.016	2	1580	7330	1
V-1	51	0.390	ug/L	0.019	4	5106	9101	2
Cr	52	0.092	ug/L	0.006	6	4684	5368	1
Cr	53	-0.405	ug/L	0.051	12	1656	1173	5
Mn	55	0.324	ug/L	0.005	1	310	5076	1
[ Co	59	0.018	ug/L	0.001	6	48	232	4
[> Ge	72		ug/L			259859	257465	0
Ni	60	0.222	ug/L	0.013	5	42	537	5
Ni	62	0.175	ug/L	0.019	10	58	115	5
Cu	63	0.883	ug/L	0.020	2	197	4476	2
Cu	65	0.875	ug/L	0.032	3	88	2065	4
Zn	66	0.799	ug/L	0.003	0	273	1462	0
Zn	67	0.650	ug/L	0.126	19	152	312	10
Zn	68	0.279	ug/L	0.080	28	4791	5036	1
As	75	0.246	ug/L	0.025	10	400	762	4
As-1	75	0.119	ug/L	0.031	25	6235	6350	0
Se	82	0.119	ug/L	0.098	82	-15	4	339
Se	78	-0.362	ug/L	0.110	30	6340	6140	0
[ Mo	98	0.138	ug/L	0.003	1	209	978	2
Y	89		ug/L			259927	254909	0
Kr	83		ug/L			223	220	1
[> In	115		ug/L			274729	267280	1
Ag	107	0.001	ug/L	0.001	89	36	42	16
Cd	111	0.016	ug/L	0.001	9	123	155	3
Cd	114	0.004	ug/L	0.001	15	26	44	6
Sb	121	0.160	ug/L	0.005	2	22	1202	2
Sb	123	0.161	ug/L	0.007	4	16	909	4
Ba	135	0.858	ug/L	0.035	4	20	1518	5
[ Ba	137	0.875	ug/L	0.047	5	21	2652	4
[> Tb	159		ug/L			328129	332507	1
Tl	205	0.003	ug/L	0.001	42	35	94	25
Pb	208	0.039	ug/L	0.001	1	263	1456	0
Bi	209		ug/L			267490	265934	1
Th	232	0.028	ug/L	0.003	9	55	1117	8
[ U	238	0.004	ug/L	0.000	8	13	172	7

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE63 AG REN

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, February 27, 2013 16:44:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	414289	1
Be	9	0.010	ug/L	0.003	26	17	27	4
C	13		mg/L			6213	6037	1
Cl	37		mg/L			2029602	1986079	0
> Sc	45		ug/L			254270	244124 ✓	0
V	51	0.535	ug/L	0.003	0	1580	7069	0
V-1	51	0.358	ug/L	0.004	1	5106	8676	0
Cr	52	u 0.154	ug/L	0.014	8	4684	5873	1
Cr	53	-0.390	ug/L	0.025	6	1656	1177	1
Mn	55	0.447	ug/L	0.007	1	310	6831	1
Co	59	0.018	ug/L	0.002	11	48	236	8
> Ge	72		ug/L			259859	253236 ✓	0
Ni	60	0.253	ug/L	0.018	7	42	599	7
Ni	62	0.219	ug/L	0.028	12	58	128	6
Cu	63	1.075	ug/L	0.020	1	197	5317	2
Cu	65	1.079	ug/L	0.008	0	88	2484	0
Zn	66	u 1.013	ug/L	0.039	3	273	1752	2
Zn	67	0.937	ug/L	0.149	15	152	377	10
Zn	68	0.551	ug/L	0.036	6	4791	5230	0
As	75	0.216	ug/L	0.006	2	400	706	1
As-1	75	0.188	ug/L	0.071	37	6235	6343	0
Se	82	0.136	ug/L	0.055	40	-15	7	121
Se	78	-0.008	ug/L	0.217	2703	6340	6174	0
Mo	98	0.107	ug/L	0.002	2	209	793	1
Y	89		ug/L			259927	252091	0
Kr	83		ug/L			223	212	4
> In	115		ug/L			274729	268632 ✓	1
Ag	107	0.003	ug/L	0.001	20	36	61	7
Cd	111	u 0.011	ug/L	0.004	36	123	146	5
Cd	114	0.004	ug/L	0.000	4	26	47	1
Sb	121	0.123	ug/L	0.008	6	22	930	5
Sb	123	0.124	ug/L	0.003	2	16	704	3
Ba	135	1.260	ug/L	0.030	2	20	2230	2
Ba	137	1.272	ug/L	0.020	1	21	3866	1
> Tb	159		ug/L			328129	334372 ✓	1
Ti	205	0.002	ug/L	0.000	31	35	71	15
Pb	208	u 0.045	ug/L	0.002	3	263	1645	2
Bi	209		ug/L			267490	263621	1
Th	232	0.019	ug/L	0.001	6	55	796	5
U	238	0.004	ug/L	0.000	5	13	153	4

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 C SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 16:50:14

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*RR CR*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	<u>423617</u>	1
[ Be	9	0.264	ug/L	0.019	7	17	175	6
C	13		mg/L			6213	7730	3
Cl	37		mg/L			2029602	1984937	0
[> Sc	45		ug/L			254270	282368 ✓	1
V	51	23.648	ug/L	0.292	1	1580	285796	0
V-1	51	23.180	ug/L	0.284	1	5106	288412	0
Cr	52	9.447	ug/L	0.096	1	4684	102692	2
Cr	53	8.648	ug/L	0.064	0	1656	12441	1
Mn	55	564.739	ug/L	7.691	1	310	9536189	0
[ Co	59	5.919	ug/L	0.105	1	48	71853	0
[> Ge	72		ug/L			259859	261520 ✓	1
Ni	60	6.459	ug/L	0.088	1	42	14708	0
Ni	62	6.777	ug/L	0.154	2	58	2329	1
Cu	63	9.538	ug/L	0.118	1	197	47170	0
Cu	65	9.775	ug/L	0.236	2	88	22531	1
Zn	66	55.188	ug/L	0.677	1	273	83911	1
Zn	67	54.567	ug/L	0.932	1	152	13962	2
Zn	68	56.417	ug/L	0.197	0	4791	64224	0
As	75	6.401	ug/L	0.105	1	400	10054	0
As-1	75	6.444	ug/L	0.182	2	6235	15736	0
Se	82	u 0.056	ug/L	0.076	136	-15	-6	215
Se	78	-0.270	ug/L	0.301	111	6340	6272	0
[ Mo	98	0.044	ug/L	0.001	2	209	459	1
Y	89		ug/L			259927	471298	0
Kr	83		ug/L			223	247	3
[> In	115		ug/L			274729	271794 ✓	0
Ag	107	u 0.048	ug/L	0.003	6	36	458	5
Cd	111	0.317	ug/L	0.012	3	123	845	2
Cd	114	u 0.128	ug/L	0.008	6	26	686	6
Sb	121	u 0.005	ug/L	0.001	19	22	61	11
Sb	123	0.004	ug/L	0.003	59	16	41	36
Ba	135	102.376	ug/L	0.482	0	20	181830	0
[ Ba	137	102.911	ug/L	1.413	1	21	314779	1
[> Tb	159		ug/L			328129	344908 ✓	0
Tl	205	0.043	ug/L	0.003	6	35	1065	6
Pb	208	17.360	ug/L	0.183	1	263	551968	0
Bi	209		ug/L			267490	264358	0
Th	232	1.553	ug/L	0.015	0	55	61711	1
[ U	238	0.184	ug/L	0.003	1	13	7352	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 A-L SWN

Sample Dil Factor: 100

Comments:

Sample Date/Time: Wednesday, February 27, 2013 16:56:14

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*RR CS*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	426911	1
[ Be	9	0.055	ug/L	0.010	18	17	55	12
C	13		mg/L			6213	5378	0
Cl	37		mg/L			2029602	2061414	3
> Sc	45		ug/L			254270	255332✓	0
V	51	6.554	ug/L	0.130	1	1580	72772	1
V-1	51	6.320	ug/L	0.132	2	5106	74836	1
Cr	52	2.331	ug/L	0.003	0	4684	26453	0
Cr	53	1.791	ug/L	0.011	0	1656	3649	0
Mn	55	127.616	ug/L	1.601	1	310	1949015	0
[ Co	59	1.516	ug/L	0.021	1	48	16681	1
> Ge	72		ug/L			259859	259803✓	1
Ni	60	1.412	ug/L	0.073	5	42	3226	4
Ni	62	1.565	ug/L	0.032	2	58	579	1
Cu	63	2.432	ug/L	0.055	2	197	12094	1
Cu	65	2.507	ug/L	0.052	2	88	5807	1
Zn	66	10.752	ug/L	0.222	2	273	16458	1
Zn	67	10.648	ug/L	0.162	1	152	2829	1
Zn	68	10.782	ug/L	0.076	0	4791	16068	1
As	75	1.116	ug/L	0.017	1	400	2072	0
As-1	75	1.125	ug/L	0.048	4	6235	7875	0
Se	82	u -0.027	ug/L	0.056	208	-15	-19	47
Se	78	-0.034	ug/L	0.143	424	6340	6324	0
[ Mo	98	-0.007	ug/L	0.002	35	209	169	8
Y	89		ug/L			259927	301497	2
Kr	83		ug/L			223	234	2
> In	115		ug/L			274729	271752✓	1
Ag	107	u 0.031	ug/L	0.003	10	36	310	8
Cd	111	0.092	ug/L	0.004	4	123	332	1
Cd	114	0.023	ug/L	0.002	9	26	145	6
Sb	121	u 0.002	ug/L	0.001	46	22	35	17
Sb	123	0.003	ug/L	0.001	32	16	30	14
Ba	135	20.989	ug/L	0.426	2	20	37283	1
[ Ba	137	21.226	ug/L	0.239	1	21	64929	0
> Tb	159		ug/L			328129	335400✓	0
Tl	205	0.012	ug/L	0.000	3	35	312	3
Pb	208	2.205	ug/L	0.006	0	263	68397	0
Bi	209		ug/L			267490	263276	0
Th	232	0.432	ug/L	0.004	0	55	16749	1
[ U	238	0.080	ug/L	0.002	2	13	3129	2

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 A SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 17:02:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

RR CR

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	421531	0
[ Be	9	0.189	ug/L	0.010	5	17	131	3
C	13		mg/L			6213	6500	0
Cl	37		mg/L			2029602	1936255	0
[> Sc	45		ug/L			254270	297633 ✓	0
V	51	26.861	ug/L	0.316	1	1580	341961	1
V-1	51	26.397	ug/L	0.307	1	5106	345407	1
Cr	52	9.372	ug/L	0.018	0	4684	107428	0
Cr	53	8.748	ug/L	0.054	0	1656	13241	0
Mn	55	519.176	ug/L	3.474	0	310	9241922	0
[ Co	59	5.892	ug/L	0.055	0	48	75399	0
[> Ge	72		ug/L			259859	255332 ✓	0
Ni	60	6.508	ug/L	0.180	2	42	14469	2
Ni	62	7.294	ug/L	0.148	2	58	2443	1
Cu	63	11.088	ug/L	0.041	0	197	53512	0
Cu	65	11.321	ug/L	0.144	1	88	25466	1
Zn	66	47.666	ug/L	0.339	0	273	70794	0
Zn	67	48.686	ug/L	0.862	1	152	12178	1
Zn	68	49.197	ug/L	0.263	0	4791	55282	0
As	75	5.203	ug/L	0.023	0	400	8054	0
As-1	75	5.211	ug/L	0.019	0	6235	13598	0
Se	82	u 0.049	ug/L	0.052	106	-15	-6	124
Se	78	-0.216	ug/L	0.044	20	6340	6145	0
[ Mo	98	0.081	ug/L	0.004	5	209	653	3
Y	89		ug/L			259927	465775	0
Kr	83		ug/L			223	252	1
[> In	115		ug/L			274729	271254 ✓	0
Ag	107	u 0.085	ug/L	0.003	3	36	785	3
Cd	111	0.454	ug/L	0.032	7	123	1155	6
Cd	114	0.106	ug/L	0.002	1	26	575	2
Sb	121	u 0.007	ug/L	0.001	11	22	73	8
Sb	123	0.006	ug/L	0.001	14	16	50	9
Ba	135	98.890	ug/L	0.990	1	20	175288	0
[ Ba	137	99.296	ug/L	0.232	0	21	303132	0
[> Tb	159		ug/L			328129	339173 ✓	0
Tl	205	0.051	ug/L	0.002	3	35	1236	3
Pb	208	10.288	ug/L	0.159	1	263	321753	0
Bi	209		ug/L			267490	263840	1
Th	232	2.025	ug/L	0.046	2	55	79111	1
[ U	238	0.376	ug/L	0.005	1	13	14745	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 ADUP SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 17:08:12

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*RR C*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	416688	0
[ Be	9	0.226	ug/L	0.015	6	17	150	5
C	13		mg/L			6213	6598	1
Cl	37		mg/L			2029602	1925222	0
[> Sc	45		ug/L			254270	293897 ✓	1
V	51	25.999	ug/L	0.216	0	1580	326885	1
V-1	51	25.532	ug/L	0.234	0	5106	330074	1
Cr	52	9.115	ug/L	0.231	2	4684	103287	0
Cr	53	8.451	ug/L	0.361	4	1656	12691	1
Mn	55	537.895	ug/L	7.986	1	310	9453970	1
[ Co	59	6.090	ug/L	0.115	1	48	76947	1
[> Ge	72		ug/L			259859	255798 ✓	0
Ni	60	6.517	ug/L	0.104	1	42	14515	1
Ni	62	7.144	ug/L	0.065	0	58	2399	0
Cu	63	11.160	ug/L	0.108	0	197	53956	0
Cu	65	11.339	ug/L	0.166	1	88	25553	1
Zn	66	47.668	ug/L	0.302	0	273	70928	0
Zn	67	47.854	ug/L	0.135	0	152	11995	0
Zn	68	48.893	ug/L	0.463	0	4791	55070	0
As	75	5.281	ug/L	0.028	0	400	8184	0
As-1	75	5.266	ug/L	0.089	1	6235	13701	0
Se	82	u 0.043	ug/L	0.011	25	-15	-8	22
Se	78	-0.337	ug/L	0.239	70	6340	6110	1
[ Mo	98	0.082	ug/L	0.005	5	209	660	3
Y	89		ug/L			259927	467002	0
Kr	83		ug/L			223	249	1
[> In	115		ug/L			274729	262613 ✓	1
Ag	107	u 0.085	ug/L	0.005	6	36	754	4
Cd	111	0.438	ug/L	0.044	9	123	1083	7
Cd	114	0.106	ug/L	0.003	3	26	554	4
Sb	121	u 0.006	ug/L	0.001	17	22	65	12
Sb	123	0.006	ug/L	0.001	9	16	45	7
Ba	135	95.642	ug/L	1.943	2	20	164119	1
[ Ba	137	97.349	ug/L	1.433	1	21	287710	1
[> Tb	159		ug/L			328129	339101 ✓	0
Tl	205	0.050	ug/L	0.002	4	35	1226	3
Pb	208	9.712	ug/L	0.162	1	263	303680	0
Bi	209		ug/L			267490	263839	0
Th	232	1.989	ug/L	0.017	0	55	77675	0
[ U	238	0.372	ug/L	0.005	1	13	14591	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 ASPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 17:14:11

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

BR C

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	410093	1
[ Be	9	20.875	ug/L	0.220	1	17	11749	0
C	13		mg/L			6213	6127	2
Cl	37		mg/L			2029602	1927763	0
[> Sc	45		ug/L			254270	299449✓	1
V	51	48.312	ug/L	0.806	1	1580	617248	0
V-1	51	47.673	ug/L	0.689	1	5106	622701	0
Cr	52	29.380	ug/L	0.372	1	4684	327016	0
Cr	53	28.268	ug/L	0.070	0	1656	38696	1
Mn	55	565.418	ug/L	2.065	0	310	10126410	0
[ Co	59	25.132	ug/L	0.255	1	48	323407	1
[> Ge	72		ug/L			259859	254258✓	0
Ni	60	30.033	ug/L	0.478	1	42	66334	0
Ni	62	30.921	ug/L	0.884	2	58	10129	2
Cu	63	34.821	ug/L	0.665	1	197	166911	1
Cu	65	35.398	ug/L	0.311	0	88	79106	0
Zn	66	146.843	ug/L	2.019	1	273	216632	2
Zn	67	137.543	ug/L	1.344	0	152	33992	1
Zn	68	147.528	ug/L	0.441	0	4791	155708	0
As	75	30.267	ug/L	0.271	0	400	44767	0
As-1	75	29.263	ug/L	0.647	2	6235	47877	0
Se	82	74.767	ug/L	0.650	0	-15	12440	1
Se	78	75.644	ug/L	1.588	2	6340	35350	0
[ Mo	98	18.164	ug/L	0.204	1	209	100640	1
Y	89		ug/L			259927	461145	1
Kr	83		ug/L			223	258	2
[> In	115		ug/L			274729	263896✓	0
Ag	107	20.556	ug/L	0.072	0	36	175992	0
Cd	111	24.549	ug/L	0.159	0	123	54536	0
Cd	114	24.700	ug/L	0.218	0	26	124106	0
Sb	121	0.788	ug/L	0.008	1	22	5757	1
Sb	123	0.793	ug/L	0.005	0	16	4354	0
Ba	135	126.856	ug/L	2.278	1	20	218746	1
[ Ba	137	129.702	ug/L	1.721	1	21	385229	1
[> Tb	159		ug/L			328129	335115✓	0
Ti	205	22.945	ug/L	0.287	1	35	536794	0
Pb	208	35.571	ug/L	0.580	1	263	1098526	0
Bi	209		ug/L			267490	263230	1
Th	232	26.060	ug/L	0.147	0	55	1005071	0
[ U	238	24.631	ug/L	0.591	2	13	954246	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 APOST SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 17:20:08

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	403947	1
[ Be	9	21.077	ug/L	0.400	1	17	11685	2
C	13		mg/L			6213	6531	2
Cl	37		mg/L			2029602	1932966	0
[> Sc	45		ug/L			254270	295693 ✓	0
V	51	46.628	ug/L	0.859	1	1580	588395	1
V-1	51	46.159	ug/L	0.847	1	5106	595609	1
Cr	52	29.125	ug/L	0.279	0	4684	320185	0
Cr	53	28.484	ug/L	0.174	0	1656	38488	0
Mn	55	560.691	ug/L	7.048	1	310	9915951	1
[ Co	59	25.724	ug/L	0.054	0	48	326860	0
[> Ge	72		ug/L			259859	253562 ✓	0
Ni	60	30.195	ug/L	0.034	0	42	66517	0
Ni	62	30.596	ug/L	0.829	2	58	9996	2
Cu	63	35.137	ug/L	0.411	1	197	167970	0
Cu	65	35.205	ug/L	0.458	1	88	78464	1
Zn	66	127.420	ug/L	0.984	0	273	187492	1
Zn	67	120.861	ug/L	2.354	1	152	29805	2
Zn	68	127.330	ug/L	1.340	1	4791	134669	1
As	75	31.390	ug/L	0.572	1	400	46286	1
As-1	75	30.304	ug/L	0.355	1	6235	49233	0
Se	82	79.771	ug/L	1.788	2	-15	13236	1
Se	78	80.724	ug/L	1.470	1	6340	37207	0
[ Mo	98	24.317	ug/L	0.288	1	209	134296	1
Y	89		ug/L			259927	463274	1
Kr	83		ug/L			223	257	2
[> In	115		ug/L			274729	265487 ✓	1
Ag	107	24.925	ug/L	0.469	1	36	214644	0
Cd	111	25.224	ug/L	0.113	0	123	56369	0
Cd	114	25.003	ug/L	0.506	2	26	126375	1
Sb	121	25.524	ug/L	0.350	1	22	186862	0
Sb	123	25.561	ug/L	0.284	1	16	140675	0
Ba	135	127.196	ug/L	1.113	0	20	220662	0
[ Ba	137	127.581	ug/L	1.423	1	21	381169	0
[> Tb	159		ug/L			328129	334611 ✓	0
Tl	205	24.413	ug/L	0.118	0	35	570288	0
Pb	208	35.726	ug/L	0.565	1	263	1101648	0
Bi	209		ug/L			267490	260471	0
Th	232	26.444	ug/L	0.315	1	55	1018298	0
[ U	238	25.074	ug/L	0.384	1	13	970022	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 MB1SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 17:26:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	411793	1
[ Be	9	20.433	ug/L	0.385	1	17	11547	0
C	13		mg/L			6213	5013	0
Cl	37		mg/L			2029602	2058401	3
[> Sc	45		ug/L			254270	242954 ✓	0
V	51	24.493	ug/L	0.293	1	1580	254660	1
V-1	51	24.262	ug/L	0.205	0	5106	259534	0
Cr	52	24.824	ug/L	0.242	0	4684	224880	0
Cr	53	24.071	ug/L	0.108	0	1656	26970	1
Mn	55	24.895	ug/L	0.425	1	310	361994	1
[ Co	59	24.594	ug/L	0.192	0	48	256777	1
[> Ge	72		ug/L			259859	258463 ✓	1
Ni	60	24.219	ug/L	0.807	3	42	54372	1
Ni	62	24.410	ug/L	0.536	2	58	8140	0
Cu	63	24.997	ug/L	0.596	2	197	121844	1
Cu	65	25.410	ug/L	0.440	1	88	57741	0
Zn	66	82.580	ug/L	1.831	2	273	123926	0
Zn	67	75.138	ug/L	1.355	1	152	18941	0
Zn	68	82.093	ug/L	1.670	2	4791	90173	0
As	75	26.310	ug/L	0.656	2	400	39601	0
As-1	75	25.000	ug/L	0.589	2	6235	42480	0
Se	82	79.202	ug/L	1.509	1	-15	13394	0
Se	78	79.547	ug/L	1.188	1	6340	37462	0
[ Mo	98	24.293	ug/L	0.532	2	209	136731	1
Y	89		ug/L			259927	254313	0
Kr	83		ug/L			223	227	1
[> In	115		ug/L			274729	272922 ✓	0
Ag	107	25.065	ug/L	0.135	0	36	221919	0
Cd	111	24.076	ug/L	0.502	2	123	55318	2
Cd	114	24.564	ug/L	0.411	1	26	127645	1
Sb	121	25.502	ug/L	0.362	1	22	191941	1
Sb	123	25.391	ug/L	0.353	1	16	143654	1
Ba	135	25.850	ug/L	0.239	0	20	46116	0
[ Ba	137	25.777	ug/L	0.284	1	21	79188	0
[> Tb	159		ug/L			328129	338094 ✓	0
Tl	205	24.679	ug/L	0.317	1	35	582529	1
Pb	208	25.478	ug/L	0.048	0	263	793941	0
Bi	209		ug/L			267490	265987	1
Th	232	24.434	ug/L	0.358	1	55	950751	1
[ U	238	24.522	ug/L	0.131	0	13	958591	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 17:32:02

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	400143	1
[ Be	9	43.403	ug/L	0.297	0	17	23814	0
C	13		mg/L			6213	4332	1
Cl	37		mg/L			2029602	2100031	0
> Sc	45		ug/L			254270	241037 ✓	0
V	51	48.711	ug/L	0.372	0	1580	500985	0
V-1	51	48.253	ug/L	0.281	0	5106	507321	0
Cr	52	49.805	ug/L	0.058	0	4684	443164	0
Cr	53	48.296	ug/L	0.245	0	1656	52104	1
Mn	55	49.273	ug/L	0.340	0	310	710597	0
[ Co	59	49.329	ug/L	0.644	1	48	510913	1
> Ge	72		ug/L			259859	257714 ✓	0
Ni	60	47.246	ug/L	0.469	0	42	105754	0
Ni	62	47.257	ug/L	0.532	1	58	15662	0
Cu	63	47.450	ug/L	0.478	1	197	230483	0
Cu	65	48.043	ug/L	0.177	0	88	108798	1
Zn	66	49.022	ug/L	0.770	1	273	73475	0
Zn	67	47.788	ug/L	0.975	2	152	12068	2
Zn	68	49.056	ug/L	0.509	1	4791	55650	0
As	75	49.390	ug/L	0.295	0	400	73795	0
As-1	75	49.597	ug/L	0.390	0	6235	77961	0
Se	82	49.625	ug/L	0.388	0	-15	8363	0
Se	78	50.374	ug/L	0.796	1	6340	25962	0
[ Mo	98	48.898	ug/L	0.446	0	209	274261	1
Y	89		ug/L			259927	253401	0
Kr	83		ug/L			223	224	2
> In	115		ug/L			274729	268358 ✓	0
Ag	107	49.195	ug/L	0.238	0	36	428252	0
Cd	111	50.294	ug/L	0.550	1	123	113491	0
Cd	114	50.898	ug/L	0.366	0	26	260039	0
Sb	121	52.244	ug/L	0.851	1	22	386604	1
Sb	123	52.447	ug/L	0.473	0	16	291754	0
Ba	135	50.977	ug/L	0.413	0	20	89407	0
[ Ba	137	51.324	ug/L	0.809	1	21	155021	1
> Tb	159		ug/L			328129	328160 ✓	0
Tl	205	49.048	ug/L	0.381	0	35	1123659	0
Pb	208	50.210	ug/L	0.337	0	263	1518402	0
Bi	209		ug/L			267490	257456	1
Th	232	48.724	ug/L	0.431	0	55	1840154	0
[ U	238	49.908	ug/L	0.716	1	13	1893508	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 17:38:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	403506	1
[ Be	9	0.004	ug/L	0.013	364	17	23	29
C	13		mg/L			6213	5369	1
Cl	37		mg/L			2029602	2137609	0
[> Sc	45		ug/L			254270	239438 ✓	0
V	51	-0.002	ug/L	0.004	261	1580	1471	2
V-1	51	-0.175	ug/L	0.016	9	5106	2994	4
Cr	52	0.007	ug/L	0.005	74	4684	4469	0
Cr	53	-0.547	ug/L	0.046	8	1656	991	3
Mn	55	0.011	ug/L	0.001	4	310	445	0
[ Co	59	0.002	ug/L	0.001	22	48	70	8
[> Ge	72		ug/L			259859	256696 ✓	1
Ni	60	-0.001	ug/L	0.005	367	42	39	29
Ni	62	-0.014	ug/L	0.021	148	58	53	14
Cu	63	-0.004	ug/L	0.001	34	197	177	3
Cu	65	-0.003	ug/L	0.006	209	88	80	17
Zn	66	-0.019	ug/L	0.002	10	273	242	2
Zn	67	-0.144	ug/L	0.019	13	152	114	4
Zn	68	-0.396	ug/L	0.130	32	4791	4323	2
As	75	0.013	ug/L	0.019	143	400	415	7
As-1	75	0.110	ug/L	0.033	29	6235	6318	0
Se	82	0.044	ug/L	0.064	146	-15	-7	138
Se	78	0.430	ug/L	0.133	30	6340	6429	0
[ Mo	98	-0.020	ug/L	0.003	14	209	92	17
Y	89		ug/L			259927	255796	0
Kr	83		ug/L			223	223	4
[> In	115		ug/L			274729	267699 ✓	0
Ag	107	0.011	ug/L	0.001	8	36	128	5
Cd	111	0.005	ug/L	0.003	65	123	131	5
Cd	114	0.001	ug/L	0.001	96	26	28	10
Sb	121	0.023	ug/L	0.008	33	22	188	29
Sb	123	0.020	ug/L	0.005	24	16	128	21
Ba	135	0.004	ug/L	0.002	46	20	25	11
[ Ba	137	0.007	ug/L	0.004	49	21	42	25
[> Tb	159		ug/L			328129	327996 ✓	1
Tl	205	0.005	ug/L	0.001	23	35	150	17
Pb	208	0.004	ug/L	0.003	74	263	377	22
Bi	209		ug/L			267490	260070	0
Th	232	0.070	ug/L	0.019	26	55	2689	25
[ U	238	0.003	ug/L	0.002	63	13	141	57

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 B-L SWN

Sample Dil Factor: 100

Comments:

Sample Date/Time: Wednesday, February 27, 2013 17:43:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*RR CR*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	414606	0
[ Be	9	0.035	ug/L	0.010	29	17	41	14
C	13		mg/L			6213	4930	1
Cl	37		mg/L			2029602	2135673	0
> Sc	45		ug/L			254270	255160 ✓	1
V	51	4.446	ug/L	0.070	1	1580	49841	0
V-1	51	4.217	ug/L	0.060	1	5106	51607	0
Cr	52	1.584	ug/L	0.038	2	4684	19467	0
Cr	53	0.995	ug/L	0.053	5	1656	2764	2
Mn	55	98.947	ug/L	0.657	0	310	1510366	2
Co	59	1.017	ug/L	0.013	1	48	11199	2
> Ge	72		ug/L			259859	262276 ✓	0
Ni	60	1.154	ug/L	0.038	3	42	2671	2
Ni	62	1.226	ug/L	0.087	7	58	471	6
Cu	63	2.097	ug/L	0.013	0	197	10556	1
Cu	65	2.157	ug/L	0.029	1	88	5055	1
Zn	66	7.155	ug/L	0.048	0	273	11150	0
Zn	67	6.938	ug/L	0.130	1	152	1914	2
Zn	68	6.944	ug/L	0.106	1	4791	12168	0
As	75	0.814	ug/L	0.033	4	400	1635	2
As-1	75	0.876	ug/L	0.036	4	6235	7583	0
Se	82	u 0.013	ug/L	0.075	577	-15	-13	98
Se	78	0.193	ug/L	0.134	69	6340	6475	0
Mo	98	-0.009	ug/L	0.002	22	209	160	8
Y	89		ug/L			259927	288589	0
Kr	83		ug/L			223	229	1
> In	115		ug/L			274729	270553 ✓	2
Ag	107	u 0.015	ug/L	0.002	15	36	165	12
Cd	111	0.050	ug/L	0.005	9	123	236	6
Cd	114	0.022	ug/L	0.000	1	26	140	2
Sb	121	u 0.011	ug/L	0.003	24	22	106	21
Sb	123	0.011	ug/L	0.002	21	16	77	18
Ba	135	14.323	ug/L	0.322	2	20	25332	0
Ba	137	14.471	ug/L	0.247	1	21	44073	1
> Tb	159		ug/L			328129	339248 ✓	2
Tl	205	0.008	ug/L	0.000	4	35	232	4
Pb	208	0.660	ug/L	0.007	0	263	20897	1
Bi	209		ug/L			267490	267754	1
Th	232	0.260	ug/L	0.007	2	55	10190	2
U	238	0.042	ug/L	0.002	4	13	1643	2

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 B SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 17:49:43

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*RR CR*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	<u>425046</u>	0
[ Be	9	0.142	ug/L	0.020	13	17	105	11
C	13		mg/L			6213	7405	0
Cl	37		mg/L			2029602	1980629	0
> Sc	45		ug/L			254270	286070 ✓	0
V	51	20.411	ug/L	0.244	1	1580	250177	0
V-1	51	20.017	ug/L	0.240	1	5106	253128	0
Cr	52	7.270	ug/L	0.062	0	4684	81276	0
Cr	53	6.655	ug/L	0.062	0	1656	10127	0
Mn	55	469.736	ug/L	8.226	1	310	8036575	1
[ Co	59	4.649	ug/L	0.032	0	48	57198	0
> Ge	72		ug/L			259859	263706 ✓	0
Ni	60	5.713	ug/L	0.158	2	42	13122	2
Ni	62	6.412	ug/L	0.340	5	58	2225	4
Cu	63	10.375	ug/L	0.201	1	197	51720	1
Cu	65	10.690	ug/L	0.224	2	88	24840	1
Zn	66	34.838	ug/L	0.128	0	273	53513	0
Zn	67	34.952	ug/L	0.356	1	152	9073	1
Zn	68	35.538	ug/L	0.747	2	4791	42592	1
As	75	3.976	ug/L	0.035	0	400	6452	0
As-1	75	4.014	ug/L	0.055	1	6235	12271	0
Se	82	∩ -0.039	ug/L	0.094	240	-15	-22	73
Se	78	-0.132	ug/L	0.111	84	6340	6381	0
[ Mo	98	0.058	ug/L	0.003	5	209	545	3
Y	89		ug/L			259927	407198	0
Kr	83		ug/L			223	252	4
> In	115		ug/L			274729	280288 ✓	1
Ag	107	∩ 0.044	ug/L	0.002	5	36	433	6
Cd	111	0.285	ug/L	0.004	1	123	796	1
Cd	114	0.114	ug/L	0.004	3	26	633	2
Sb	121	∩ 0.014	ug/L	0.001	6	22	133	5
Sb	123	0.015	ug/L	0.003	17	16	106	15
Ba	135	70.613	ug/L	0.513	0	20	129337	0
[ Ba	137	71.139	ug/L	0.282	0	21	224409	0
> Tb	159		ug/L			328129	347074 ✓	1
Tl	205	0.036	ug/L	0.002	5	35	898	5
Pb	208	3.303	ug/L	0.022	0	263	105890	1
Bi	209		ug/L			267490	269921	0
Th	232	1.152	ug/L	0.008	0	55	46079	0
[ U	238	0.210	ug/L	0.002	0	13	8444	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 BDUP SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 17:55:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*RR CR*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	<u>423869</u>	0
[ Be	9	0.151	ug/L	0.005	3	17	110	2
C	13		mg/L			6213	7735	1
Cl	37		mg/L			2029602	1966314	0
[> Sc	45		ug/L			254270	283481 ✓	0
V	51	20.591	ug/L	0.152	0	1580	250074	0
V-1	51	20.126	ug/L	0.150	0	5106	252168	0
Cr	52	7.421	ug/L	0.142	1	4684	82095	0
Cr	53	6.583	ug/L	0.144	2	1656	9946	0
Mn	55	436.056	ug/L	7.742	1	310	7392547	1
[ Co	59	4.493	ug/L	0.033	0	48	54779	0
[> Ge	72		ug/L			259859	264319 ✓	0
Ni	60	5.342	ug/L	0.042	0	42	12303	0
Ni	62	6.268	ug/L	0.191	3	58	2182	3
Cu	63	10.170	ug/L	0.178	1	197	50820	1
Cu	65	10.509	ug/L	0.129	1	88	24477	0
Zn	66	35.480	ug/L	0.599	1	273	54623	1
Zn	67	35.042	ug/L	0.323	0	152	9117	1
Zn	68	36.013	ug/L	0.383	1	4791	43196	0
As	75	3.574	ug/L	0.050	1	400	5854	0
As-1	75	3.568	ug/L	0.044	1	6235	11637	0
Se	82	<i>u</i> 0.086	ug/L	0.058	68	-15	0	1254
Se	78	-0.221	ug/L	0.049	22	6340	6360	0
[ Mo	98	0.065	ug/L	0.003	3	209	588	3
Y	89		ug/L			259927	399855	0
Kr	83		ug/L			223	236	5
[> In	115		ug/L			274729	276564 ✓	0
Ag	107	<i>u</i> 0.046	ug/L	0.003	5	36	451	4
Cd	111	0.276	ug/L	0.023	8	123	766	7
Cd	114	0.112	ug/L	0.006	5	26	616	4
Sb	121	<i>u</i> 0.013	ug/L	0.000	2	22	122	1
Sb	123	0.013	ug/L	0.002	14	16	93	11
Ba	135	68.201	ug/L	1.401	2	20	123257	1
[ Ba	137	69.414	ug/L	0.378	0	21	216057	0
[> Tb	159		ug/L			328129	344358 ✓	0
Tl	205	0.035	ug/L	0.002	5	35	867	5
Pb	208	2.986	ug/L	0.031	1	263	95015	0
Bi	209		ug/L			267490	270718	1
Th	232	1.151	ug/L	0.005	0	55	45662	0
[ U	238	0.204	ug/L	0.007	3	13	8154	3

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 BSPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 18:01:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*FR*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	422021	0
[ Be	9	19.955	ug/L	0.292	1	17	11559	1
C	13		mg/L			6213	6302	1
Cl	37		mg/L			2029602	1952740	0
[> Sc	45		ug/L			254270	283156✓	0
V	51	43.142	ug/L	0.444	1	1580	521446	0
V-1	51	42.590	ug/L	0.458	1	5106	526695	0
Cr	52	28.318	ug/L	0.047	0	4684	298263	0
Cr	53	27.285	ug/L	0.216	0	1656	35382	0
Mn	55	481.443	ug/L	5.302	1	310	8153187	0
[ Co	59	25.568	ug/L	0.430	1	48	311094	1
[> Ge	72		ug/L			259859	262717✓	1
Ni	60	28.252	ug/L	0.259	0	42	64486	1
Ni	62	29.367	ug/L	0.266	0	58	9945	1
Cu	63	32.927	ug/L	0.308	0	197	163106	1
Cu	65	33.625	ug/L	0.296	0	88	77649	0
Zn	66	111.901	ug/L	1.911	1	273	170618	1
Zn	67	105.441	ug/L	1.073	1	152	26959	0
Zn	68	112.067	ug/L	0.846	0	4791	123379	0
As	75	28.505	ug/L	0.154	0	400	43588	0
As-1	75	27.083	ug/L	0.281	1	6235	46258	0
Se	82	75.919	ug/L	0.634	0	-15	13051	0
Se	78	75.368	ug/L	1.322	1	6340	36416	0
[ Mo	98	19.981	ug/L	0.181	0	209	114372	1
Y	89		ug/L			259927	409900	0
Kr	83		ug/L			223	240	1
[> In	115		ug/L			274729	273898✓	0
Ag	107	19.300	ug/L	0.143	0	36	171501	0
Cd	111	23.651	ug/L	0.378	1	123	54537	1
Cd	114	24.432	ug/L	0.193	0	26	127415	0
Sb	121	1.116	ug/L	0.028	2	22	8448	2
Sb	123	1.107	ug/L	0.007	0	16	6301	0
Ba	135	101.174	ug/L	1.685	1	20	181082	1
[ Ba	137	100.585	ug/L	1.085	1	21	310058	1
[> Tb	159		ug/L			328129	344558✓	1
Tl	205	23.288	ug/L	0.279	1	35	560131	0
Pb	208	27.742	ug/L	0.359	1	263	880880	0
Bi	209		ug/L			267490	273999	1
Th	232	24.165	ug/L	0.211	0	55	958175	0
[ U	238	24.165	ug/L	0.051	0	13	962682	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 BPOST SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 18:07:33

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	421475	0
[ Be	9	21.156	ug/L	0.076	0	17	12239	0
C	13		mg/L			6213	7427	1
Cl	37		mg/L			2029602	1949939	0
[> Sc	45		ug/L			254270	280945 ✓	1
V	51	42.500	ug/L	0.465	1	1580	509676	0
V-1	51	42.034	ug/L	0.486	1	5106	515799	0
Cr	52	29.092	ug/L	0.528	1	4684	303827	0
Cr	53	28.263	ug/L	0.781	2	1656	36290	1
Mn	55	497.807	ug/L	4.550	0	310	8364086	0
[ Co	59	26.202	ug/L	0.507	1	48	316282	0
[> Ge	72		ug/L			259859	259468 ✓	0
Ni	60	29.936	ug/L	0.409	1	42	67480	1
Ni	62	30.409	ug/L	0.649	2	58	10167	1
Cu	63	34.993	ug/L	0.167	0	197	171189	0
Cu	65	35.347	ug/L	0.191	0	88	80613	0
Zn	66	113.626	ug/L	0.896	0	273	171119	0
Zn	67	107.121	ug/L	0.909	0	152	27048	0
Zn	68	114.237	ug/L	0.176	0	4791	124123	0
As	75	30.411	ug/L	0.375	1	400	45901	1
As-1	75	29.233	ug/L	0.223	0	6235	48821	0
Se	82	80.640	ug/L	0.790	0	-15	13693	0
Se	78	81.277	ug/L	0.299	0	6340	38293	0
[ Mo	98	24.420	ug/L	0.137	0	209	138007	0
Y	89		ug/L			259927	401399	1
Kr	83		ug/L			223	239	0
[> In	115		ug/L			274729	272737 ✓	0
Ag	107	25.062	ug/L	0.352	1	36	221742	1
Cd	111	25.143	ug/L	0.511	2	123	57718	1
Cd	114	25.334	ug/L	0.363	1	26	131549	0
Sb	121	25.336	ug/L	0.197	0	22	190555	0
Sb	123	25.393	ug/L	0.154	0	16	143570	0
Ba	135	99.393	ug/L	1.291	1	20	177151	1
[ Ba	137	99.821	ug/L	1.065	1	21	306389	0
[> Tb	159		ug/L			328129	342032 ✓	0
Tl	205	24.742	ug/L	0.070	0	35	590814	0
Pb	208	28.999	ug/L	0.276	0	263	914182	1
Bi	209		ug/L			267490	271592	0
Th	232	25.748	ug/L	0.104	0	55	1013566	0
[ U	238	25.628	ug/L	0.161	0	13	1013461	0



# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 D SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 18:13:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*RR Cr*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	<u>416872</u>	0
[ Be	9	0.422	ug/L	0.019	4	17	263	4
C	13		mg/L			6213	6558	0
Cl	37		mg/L			2029602	1945999	0
[> Sc	45		ug/L			254270	287144 ✓	0
V	51	33.279	ug/L	0.108	0	1580	408317	0
V-1	51	32.765	ug/L	0.201	0	5106	412241	1
Cr	52	13.963	ug/L	0.211	1	4684	151812	0
Cr	53	13.268	ug/L	0.161	1	1656	18409	1
Mn	55	303.388	ug/L	1.797	0	310	5210403	0
[ Co	59	6.448	ug/L	0.051	0	48	79603	0
[> Ge	72		ug/L			259859	258680 ✓	0
Ni	60	11.079	ug/L	0.197	1	42	24924	1
Ni	62	15.207	ug/L	0.511	3	58	5098	3
Cu	63	9.272	ug/L	0.250	2	197	45363	2
Cu	65	9.588	ug/L	0.042	0	88	21865	0
Zn	66	48.144	ug/L	0.194	0	273	72440	0
Zn	67	48.429	ug/L	1.446	2	152	12273	2
Zn	68	48.959	ug/L	0.278	0	4791	55759	0
As	75	5.048	ug/L	0.034	0	400	7929	0
As-1	75	5.129	ug/L	0.059	1	6235	13657	0
Se	82	<i>u</i> 0.125	ug/L	0.098	78	-15	5	279
Se	78	0.075	ug/L	0.107	141	6340	6340	0
[ Mo	98	0.096	ug/L	0.003	3	209	746	2
Y	89		ug/L			259927	424501	1
Kr	83		ug/L			223	243	4
[> In	115		ug/L			274729	270760 ✓	0
Ag	107	<i>u</i> 0.088	ug/L	0.006	7	36	811	6
Cd	111	0.405	ug/L	0.013	3	123	1043	2
Cd	114	0.069	ug/L	0.002	2	26	381	1
Sb	121	<i>u</i> 0.019	ug/L	0.005	26	22	162	22
Sb	123	0.022	ug/L	0.005	22	16	137	19
Ba	135	119.800	ug/L	2.232	1	20	211952	1
[ Ba	137	119.503	ug/L	2.579	2	21	364115	1
[> Tb	159		ug/L			328129	345496 ✓	0
Tl	205	0.117	ug/L	0.002	1	35	2865	1
Pb	208	10.315	ug/L	0.065	0	263	328650	0
Bi	209		ug/L			267490	270830	1
Th	232	2.464	ug/L	0.031	1	55	98028	1
[ U	238	0.467	ug/L	0.006	1	13	18658	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 E SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 18:19:28

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

RR CF

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	414931	0
[ Be	9	0.382	ug/L	0.012	3	17	239	2
[ C	13		mg/L			6213	7612	1
[ Cl	37		mg/L			2029602	1930169	0
[> Sc	45		ug/L			254270	269413 ✓	1
[ V	51	17.664	ug/L	0.362	2	1580	204108	1
[ V-1	51	17.288	ug/L	0.349	2	5106	206610	1
[ Cr	52	6.409	ug/L	0.123	1	4684	68068	1
[ Cr	53	5.760	ug/L	0.124	2	1656	8491	2
[ Mn	55	339.951	ug/L	4.335	1	310	5477890	1
[ Co	59	5.063	ug/L	0.061	1	48	58657	1
[> Ge	72		ug/L			259859	260318 ✓	0
[ Ni	60	5.402	ug/L	0.096	1	42	12252	1
[ Ni	62	5.272	ug/L	0.114	2	58	1817	2
[ Cu	63	6.138	ug/L	0.104	1	197	30287	1
[ Cu	65	6.181	ug/L	0.084	1	88	14216	0
[ Zn	66	45.758	ug/L	0.358	0	273	69297	0
[ Zn	67	44.756	ug/L	0.291	0	152	11427	1
[ Zn	68	46.442	ug/L	0.982	2	4791	53469	1
[ As	75	143.783	ug/L	1.179	0	400	216230	0
[ As-1	75	147.538	ug/L	1.277	0	6235	221920	0
[ Se	82	0.035	ug/L	0.087	248	-15	-9	158
[ Se	78	-0.103	ug/L	0.250	242	6340	6310	0
[ Mo	98	0.046	ug/L	0.000	0	209	467	0
[ Y	89		ug/L			259927	398589	0
[ Kr	83		ug/L			223	262	4
[> In	115		ug/L			274729	272486 ✓	0
[ Ag	107	0.356	ug/L	0.009	2	36	3182	2
[ Cd	111	0.192	ug/L	0.006	2	123	562	2
[ Cd	114	0.057	ug/L	0.004	6	26	324	6
[ Sb	121	0.025	ug/L	0.002	9	22	210	8
[ Sb	123	0.030	ug/L	0.002	7	16	183	7
[ Ba	135	111.950	ug/L	1.096	0	20	199338	0
[ Ba	137	114.316	ug/L	0.367	0	21	350567	0
[> Tb	159		ug/L			328129	346803 ✓	0
[ Tl	205	0.080	ug/L	0.001	0	35	1962	0
[ Pb	208	10.118	ug/L	0.055	0	263	323574	0
[ Bi	209		ug/L			267490	270973	1
[ Th	232	1.682	ug/L	0.037	2	55	67207	2
[ U	238	0.234	ug/L	0.003	1	13	9414	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 F SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 18:25:26

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*RR C*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	<u>413513</u>	1
[ Be	9	0.144	ug/L	0.016	10	17	103	9
C	13		mg/L			6213	8795	3
Cl	37		mg/L			2029602	1936978	0
> Sc	45		ug/L			254270	276993 ✓	0
V	51	15.553	ug/L	0.162	1	1580	184993	0
V-1	51	15.221	ug/L	0.164	1	5106	187705	0
Cr	52	7.179	ug/L	0.031	0	4684	77776	0
Cr	53	6.530	ug/L	0.070	1	1656	9656	0
Mn	55	296.982	ug/L	4.308	1	310	4920137	1
[ Co	59	3.349	ug/L	0.075	2	48	39910	1
> Ge	72		ug/L			259859	261179 ✓	0
Ni	60	4.236	ug/L	0.058	1	42	9647	0
Ni	62	4.658	ug/L	0.091	1	58	1617	1
Cu	63	7.435	ug/L	0.006	0	197	36767	0
Cu	65	7.492	ug/L	0.070	0	88	17269	0
Zn	66	39.553	ug/L	0.755	1	273	60133	1
Zn	67	37.867	ug/L	0.400	1	152	9723	1
Zn	68	39.809	ug/L	0.357	0	4791	46676	0
As	75	8.204	ug/L	0.095	1	400	12758	1
As-1	75	8.342	ug/L	0.025	0	6235	18502	0
Se	82	u 0.027	ug/L	0.042	153	-15	-10	65
Se	78	-0.154	ug/L	0.204	132	6340	6310	0
[ Mo	98	0.135	ug/L	0.011	7	209	979	5
Y	89		ug/L			259927	391110	0
Kr	83		ug/L			223	242	1
> In	115		ug/L			274729	271276 ✓	1
Ag	107	u 0.117	ug/L	0.003	2	36	1063	2
Cd	111	0.361	ug/L	0.004	1	123	944	1
Cd	114	0.111	ug/L	0.003	2	26	599	4
Sb	121	u 0.013	ug/L	0.003	24	22	117	20
Sb	123	0.010	ug/L	0.002	18	16	70	13
Ba	135	71.812	ug/L	1.438	2	20	127282	0
[ Ba	137	72.966	ug/L	1.437	1	21	222730	0
> Tb	159		ug/L			328129	346186 ✓	0
Tl	205	0.033	ug/L	0.001	2	35	829	2
Pb	208	17.518	ug/L	0.196	1	263	559030	0
Bi	209		ug/L			267490	273428	1
Th	232	1.198	ug/L	0.024	1	55	47798	1
[ U	238	0.233	ug/L	0.001	0	13	9345	0

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 G SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 18:31:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*BR CF*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	<u>418237</u>	1
[ Be	9	0.268	ug/L	0.021	7	17	175	5
C	13		mg/L			6213	7379	0
Cl	37		mg/L			2029602	1915039	0
[> Sc	45		ug/L			254270	297538 ✓	1
V	51	31.034	ug/L	0.390	1	1580	394621	0
V-1	51	30.479	ug/L	0.326	1	5106	397723	0
Cr	52	9.855	ug/L	0.327	3	4684	112609	2
Cr	53	9.120	ug/L	0.136	1	1656	13716	1
Mn	55	546.145	ug/L	7.975	1	310	9718658	2
Co	59	6.923	ug/L	0.138	1	48	88545	1
[> Ge	72		ug/L			259859	260511 ✓	0
Ni	60	7.252	ug/L	0.173	2	42	16444	1
Ni	62	7.686	ug/L	0.242	3	58	2624	3
Cu	63	10.745	ug/L	0.133	1	197	52913	1
Cu	65	11.022	ug/L	0.202	1	88	25296	0
Zn	66	51.303	ug/L	0.250	0	273	77720	0
Zn	67	51.102	ug/L	1.173	2	152	13033	1
Zn	68	52.965	ug/L	0.503	0	4791	60354	0
As	75	8.383	ug/L	0.134	1	400	12993	0
As-1	75	8.532	ug/L	0.149	1	6235	18731	0
Se	82	U 0.003	ug/L	0.092	2945	-15	-14	104
Se	78	-0.042	ug/L	0.159	382	6340	6339	0
Mo	98	0.061	ug/L	0.003	4	209	557	3
Y	89		ug/L			259927	476539	1
Kr	83		ug/L			223	260	3
[> In	115		ug/L			274729	272867 ✓	0
Ag	107	U 0.088	ug/L	0.003	3	36	815	3
Cd	111	0.378	ug/L	0.019	4	123	989	4
Cd	114	0.107	ug/L	0.006	5	26	584	5
Sb	121	U 0.007	ug/L	0.002	25	22	73	17
Sb	123	0.007	ug/L	0.001	8	16	57	6
Ba	135	88.151	ug/L	0.949	1	20	157187	1
Ba	137	89.655	ug/L	1.690	1	21	275327	1
[> Tl	159		ug/L			328129	346778 ✓	0
Tl	205	0.048	ug/L	0.002	4	35	1187	4
Pb	208	10.209	ug/L	0.276	2	263	326430	1
Bi	209		ug/L			267490	268429	1
Th	232	1.829	ug/L	0.022	1	55	73037	0
U	238	0.306	ug/L	0.008	2	13	12273	1

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 H SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 18:37:19

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*RR Cr*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	402285	1
[ Be	9	0.134	ug/L	0.015	11	17	95	8
C	13		mg/L			6213	7319	1
Cl	37		mg/L			2029602	1974852	0
[> Sc	45		ug/L			254270	279423✓	0
V	51	20.079	ug/L	0.245	1	1580	240426	1
V-1	51	19.701	ug/L	0.135	0	5106	243440	1
Cr	52	13.173	ug/L	0.261	1	4684	139657	1
Cr	53	12.305	ug/L	0.280	2	1656	16744	1
Mn	55	385.849	ug/L	6.713	1	310	6447901	1
[ Co	59	4.570	ug/L	0.135	2	48	54904	2
[> Ge	72		ug/L			259859	258123✓	0
Ni	60	7.326	ug/L	0.079	1	42	16460	0
Ni	62	8.083	ug/L	0.082	1	58	2731	0
Cu	63	8.435	ug/L	0.021	0	197	41198	0
Cu	65	8.502	ug/L	0.035	0	88	19356	0
Zn	66	42.955	ug/L	0.519	1	273	64520	0
Zn	67	43.227	ug/L	0.220	0	152	10948	0
Zn	68	44.348	ug/L	0.349	0	4791	50847	0
As	75	2.214	ug/L	0.012	0	400	3694	0
As-1	75	2.325	ug/L	0.038	1	6235	9563	0
Se	82	u 0.050	ug/L	0.033	66	-15	-6	81
Se	78	0.325	ug/L	0.174	53	6340	6424	0
[ Mo	98	0.152	ug/L	0.004	2	209	1061	2
Y	89		ug/L			259927	409138	0
Kr	83		ug/L			223	234	3
[> In	115		ug/L			274729	269031✓	0
Ag	107	u 0.044	ug/L	0.003	5	36	422	5
Cd	111	0.347	ug/L	0.007	2	123	904	1
Cd	114	0.075	ug/L	0.001	1	26	410	1
Sb	121	u 0.004	ug/L	0.000	8	22	53	4
Sb	123	0.006	ug/L	0.002	28	16	47	18
Ba	135	97.686	ug/L	1.371	1	20	171730	0
[ Ba	137	98.083	ug/L	0.746	0	21	296975	0
[> Tb	159		ug/L			328129	335121✓	1
Tl	205	0.034	ug/L	0.001	3	35	829	4
Pb	208	5.809	ug/L	0.072	1	263	179619	0
Bi	209		ug/L			267490	265238	1
Th	232	1.577	ug/L	0.025	1	55	60859	0
[ U	238	0.284	ug/L	0.004	1	13	11003	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 18:43:17

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	400903	1
[ Be	9	43.648	ug/L	0.495	1	17	23993	0
C	13		mg/L			6213	4254	1
Cl	37		mg/L			2029602	2143033	0
[> Sc	45		ug/L			254270	249203	1
V	51	48.584	ug/L	1.093	2	1580	516544	1
V-1	51	48.353	ug/L	0.894	1	5106	525521	1
Cr	52	49.755	ug/L	0.375	0	4684	457703	0
Cr	53	48.962	ug/L	0.296	0	1656	54591	1
Mn	55	49.901	ug/L	0.705	1	310	743953	0
Co	59	49.026	ug/L	0.197	0	48	524953	0
[> Ge	72		ug/L			259859	263251	0
Ni	60	47.389	ug/L	0.200	0	42	108357	0
Ni	62	47.947	ug/L	0.842	1	58	16231	1
Cu	63	47.432	ug/L	0.353	0	197	235346	0
Cu	65	48.290	ug/L	0.857	1	88	111708	2
Zn	66	48.675	ug/L	0.410	0	273	74527	0
Zn	67	48.508	ug/L	0.689	1	152	12512	2
Zn	68	48.804	ug/L	0.208	0	4791	56579	0
As	75	49.372	ug/L	0.390	0	400	75352	0
As-1	75	49.395	ug/L	0.349	0	6235	79337	0
Se	82	50.462	ug/L	0.862	1	-15	8687	1
Se	78	50.637	ug/L	0.728	1	6340	26625	0
Mo	98	48.631	ug/L	0.730	1	209	278606	1
Y	89		ug/L			259927	259442	2
Kr	83		ug/L			223	233	2
[> In	115		ug/L			274729	272316	0
Ag	107	49.672	ug/L	0.860	1	36	438753	1
Cd	111	50.216	ug/L	0.563	1	123	114985	1
Cd	114	51.452	ug/L	0.770	1	26	266730	0
Sb	121	51.731	ug/L	0.703	1	22	388490	1
Sb	123	51.855	ug/L	0.423	0	16	292716	0
Ba	135	51.287	ug/L	0.120	0	20	91275	0
Ba	137	52.214	ug/L	0.706	1	21	160031	1
[> Tb	159		ug/L			328129	338254	1
Tl	205	49.221	ug/L	0.664	1	35	1162385	2
Pb	208	50.120	ug/L	0.856	1	263	1562148	0
Bi	209		ug/L			267490	266785	2
Th	232	48.571	ug/L	0.208	0	55	1890733	0
U	238	50.273	ug/L	0.599	1	13	1965933	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 18:49:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	389240 ✓	0
[ Be	9	0.014	ug/L	0.009	66	17	27	18
C	13		mg/L			6213	5178	3
Cl	37		mg/L			2029602	2157774	0
[> Sc	45		ug/L			254270	242764 ✓	0
V	51	-0.001	ug/L	0.013	1601	1580	1500	9
V-1	51	-0.188	ug/L	0.007	3	5106	2901	2
Cr	52	-0.007	ug/L	0.006	83	4684	4408	0
Cr	53	-0.603	ug/L	0.026	4	1656	945	2
Mn	55	0.015	ug/L	0.004	26	310	517	11
[ Co	59	0.002	ug/L	0.002	114	48	67	35
[> Ge	72		ug/L			259859	257721 ✓	0
Ni	60	-0.002	ug/L	0.003	179	42	38	19
Ni	62	-0.019	ug/L	0.020	107	58	52	12
Cu	63	-0.007	ug/L	0.004	58	197	162	11
Cu	65	0.004	ug/L	0.004	89	88	97	8
Zn	66	-0.027	ug/L	0.006	20	273	231	3
Zn	67	-0.179	ug/L	0.090	50	152	106	21
Zn	68	-0.305	ug/L	0.104	34	4791	4434	1
As	75	0.026	ug/L	0.034	127	400	436	10
As-1	75	0.147	ug/L	0.061	41	6235	6395	0
Se	82	0.096	ug/L	0.035	36	-15	0	599
Se	78	0.558	ug/L	0.154	27	6340	6505	0
[ Mo	98	-0.021	ug/L	0.008	37	209	87	49
Y	89		ug/L			259927	255673	0
Kr	83		ug/L			223	222	4
[> In	115		ug/L			274729	269623 ✓	0
Ag	107	0.008	ug/L	0.003	37	36	106	24
Cd	111	0.006	ug/L	0.004	80	123	133	7
Cd	114	-0.000	ug/L	0.001	1822	26	25	26
Sb	121	0.018	ug/L	0.006	32	22	156	28
Sb	123	0.018	ug/L	0.009	49	16	115	42
Ba	135	0.004	ug/L	0.002	52	20	27	14
[ Ba	137	0.008	ug/L	0.003	38	21	46	21
[> Tb	159		ug/L			328129	328157 ✓	0
Tl	205	0.004	ug/L	0.001	32	35	136	24
Pb	208	0.003	ug/L	0.001	43	263	361	12
Bi	209		ug/L			267490	259723	1
Th	232	0.063	ug/L	0.013	20	55	2441	20
[ U	238	0.003	ug/L	0.002	61	13	112	54

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 I SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 18:55:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*RR CT*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			329720	406950	0
[ Be	9	0.381	ug/L	0.027	7	17	233	6
C	13		mg/L			6213	6106	2
Cl	37		mg/L			2029602	2076378	3
[>] Sc	45		ug/L			254270	286235 ✓	1
V	51	25.138	ug/L	0.159	0	1580	307902	1
V-1	51	24.610	ug/L	0.201	0	5106	310093	1
Cr	52	5.998	ug/L	0.039	0	4684	68008	0
Cr	53	5.247	ug/L	0.112	2	1656	8385	2
Mn	55	288.427	ug/L	2.029	0	310	4937621	0
[ Co	59	5.207	ug/L	0.053	1	48	64089	0
[>] Ge	72		ug/L			259859	264896 ✓	1
Ni	60	5.871	ug/L	0.267	4	42	13542	3
Ni	62	6.216	ug/L	0.281	4	58	2168	3
Cu	63	4.739	ug/L	0.035	0	197	23842	1
Cu	65	4.810	ug/L	0.154	3	88	11275	2
Zn	66	51.570	ug/L	0.753	1	273	79430	0
Zn	67	50.199	ug/L	1.318	2	152	13020	1
Zn	68	52.531	ug/L	1.172	2	4791	60898	0
As	75	4.399	ug/L	0.059	1	400	7127	1
As-1	75	4.464	ug/L	0.070	1	6235	12995	0
Se	82	u 0.094	ug/L	0.121	128	-15	0	3026
Se	78	0.011	ug/L	0.188	1686	6340	6466	0
[ Mo	98	0.029	ug/L	0.004	12	209	377	6
Y	89		ug/L			259927	454149	1
Kr	83		ug/L			223	243	1
[>] In	115		ug/L			274729	276784 ✓	0
Ag	107	u 0.028	ug/L	0.001	3	36	286	3
Cd	111	0.152	ug/L	0.005	2	123	477	2
Cd	114	0.050	ug/L	0.007	13	26	290	12
Sb	121	u 0.008	ug/L	0.002	19	22	83	13
Sb	123	0.008	ug/L	0.000	0	16	63	0
Ba	135	82.034	ug/L	1.002	1	20	148383	1
[ Ba	137	81.892	ug/L	0.662	0	21	255098	0
[>] Tb	159		ug/L			328129	351532 ✓	0
Tl	205	0.039	ug/L	0.003	7	35	995	8
Pb	208	9.220	ug/L	0.071	0	263	298908	1
Bi	209		ug/L			267490	271418	0
Th	232	2.491	ug/L	0.049	1	55	100824	2
[ U	238	0.253	ug/L	0.004	1	13	10304	2



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 J SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, February 27, 2013 19:01:00

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*BR CR*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			329720	407288	1
[ ] Be	9	0.417	ug/L	0.042	10	17	254	10
C	13		mg/L			6213	5676	0
Cl	37		mg/L			2029602	1969322	0
[>] Sc	45		ug/L			254270	296878 ✓	0
V	51	29.990	ug/L	0.102	0	1580	380612	0
V-1	51	29.540	ug/L	0.077	0	5106	384839	0
Cr	52	14.141	ug/L	0.135	0	4684	158894	0
Cr	53	13.481	ug/L	0.069	0	1656	19306	0
Mn	55	373.651	ug/L	5.059	1	310	6634669	1
[ ] Co	59	6.597	ug/L	0.049	0	48	84206	1
[>] Ge	72		ug/L			259859	263416 ✓	1
Ni	60	13.547	ug/L	0.339	2	42	31020	1
Ni	62	19.071	ug/L	0.878	4	58	6493	3
Cu	63	13.166	ug/L	0.355	2	197	65500	1
Cu	65	13.716	ug/L	0.267	1	88	31808	0
Zn	66	46.546	ug/L	0.121	0	273	71326	1
Zn	67	47.603	ug/L	1.406	2	152	12285	1
Zn	68	47.511	ug/L	1.456	3	4791	55236	2
As	75	6.810	ug/L	0.126	1	400	10748	0
As-1	75	6.955	ug/L	0.186	2	6235	16606	0
Se	82	u 0.068	ug/L	0.011	15	-15	-3	50
Se	78	0.068	ug/L	0.236	346	6340	6453	0
[ ] Mo	98	0.132	ug/L	0.012	9	209	965	6
Y	89		ug/L			259927	455166	0
Kr	83		ug/L			223	247	2
[>] In	115		ug/L			274729	274115 ✓	1
Ag	107	0.206	ug/L	0.004	1	36	1869	3
Cd	111	0.675	ug/L	0.028	4	123	1677	4
Cd	114	0.093	ug/L	0.005	5	26	508	5
Sb	121	u 0.017	ug/L	0.001	5	22	152	4
Sb	123	0.017	ug/L	0.002	9	16	113	7
Ba	135	136.172	ug/L	2.753	2	20	243872	1
Ba	137	138.530	ug/L	3.376	2	21	427249	0
[>] Tb	159		ug/L			328129	350121 ✓	0
Tl	205	0.116	ug/L	0.004	3	35	2863	2
Pb	208	7.374	ug/L	0.055	0	263	238166	0
Bi	209		ug/L			267490	270969	0
Th	232	2.972	ug/L	0.046	1	55	119815	1
[ ] U	238	0.583	ug/L	0.017	2	13	23603	2

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 E SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Wednesday, February 27, 2013 19:06:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Del

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	404592	2
[ Be	9	0.178	ug/L	0.032	17	17	119	12
C	13		mg/L			6213	5114	0
Cl	37		mg/L			2029602	1982233	0
[> Sc	45		ug/L			254270	253351✓	0
V	51	7.105	ug/L	0.108	1	1580	78159	1
V-1	51	6.831	ug/L	0.077	1	5106	79856	1
Cr	52	2.558	ug/L	0.050	1	4684	28348	1
Cr	53	1.905	ug/L	0.052	2	1656	3746	1
Mn	55	136.345	ug/L	4.164	3	310	2066155	2
[ Co	59	2.035	ug/L	0.038	1	48	22195	2
[> Ge	72		ug/L			259859	254090✓	1
Ni	60	2.079	ug/L	0.092	4	42	4627	3
Ni	62	2.029	ug/L	0.069	3	58	718	2
Cu	63	2.383	ug/L	0.009	0	197	11594	1
Cu	65	2.393	ug/L	0.081	3	88	5425	2
Zn	66	17.704	ug/L	0.367	2	273	26330	0
Zn	67	17.754	ug/L	0.243	1	152	4513	0
Zn	68	18.576	ug/L	0.403	2	4791	23686	1
As	75	55.738	ug/L	0.747	1	400	82050	0
As-1	75	57.354	ug/L	0.835	1	6235	87924	0
Se	82	0.039	ug/L	0.055	140	-15	-8	108
Se	78	0.596	ug/L	0.222	37	6340	6428	0
[ Mo	98	-0.004	ug/L	0.001	37	209	182	3
Y	89		ug/L			259927	305600	0
Kr	83		ug/L			223	235	1
[> In	115		ug/L			274729	267565✓	1
Ag	107	0.143	ug/L	0.004	2	36	1274	2
Cd	111	0.079	ug/L	0.014	18	123	298	10
Cd	114	0.023	ug/L	0.004	18	26	142	15
Sb	121	0.012	ug/L	0.001	6	22	107	5
Sb	123	0.011	ug/L	0.002	21	16	76	15
Ba	135	43.081	ug/L	0.828	1	20	75324	0
[ Ba	137	43.444	ug/L	0.614	1	21	130815	0
[> Tb	159		ug/L			328129	327456✓	1
Tl	205	0.030	ug/L	0.001	4	35	718	5
Pb	208	3.982	ug/L	0.036	0	263	120402	0
Bi	209		ug/L			267490	262642	1
Th	232	0.674	ug/L	0.014	2	55	25438	0
[ U	238	0.092	ug/L	0.002	2	13	3508	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: **CCV10**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, February 27, 2013 19:12:53**

Number of Replicates: **3**

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			329720	393302 ✓	1
[ Be	9	44.036	ug/L	0.161	0	17	23750	1
C	13		mg/L			6213	4135	1
Cl	37		mg/L			2029602	2115865	0
> Sc	45		ug/L			254270	249564 ✓	1
V	51	48.850	ug/L	1.122	2	1580	520069	0
V-1	51	48.534	ug/L	1.034	2	5106	528195	1
Cr	52	49.316	ug/L	1.120	2	4684	454272	0
Cr	53	48.287	ug/L	0.474	0	1656	53931	0
Mn	55	49.470	ug/L	0.633	1	310	738564	0
[ Co	59	49.045	ug/L	0.478	0	48	525880	1
> Ge	72		ug/L			259859	263905 ✓	0
Ni	60	47.014	ug/L	0.558	1	42	107767	1
Ni	62	47.100	ug/L	0.976	2	58	15986	2
Cu	63	47.580	ug/L	0.542	1	197	236674	1
Cu	65	47.627	ug/L	0.416	0	88	110447	1
Zn	66	48.973	ug/L	0.333	0	273	75172	0
Zn	67	47.947	ug/L	0.236	0	152	12399	0
Zn	68	48.439	ug/L	0.637	1	4791	56333	1
As	75	49.024	ug/L	0.594	1	400	75012	1
As-1	75	49.127	ug/L	0.427	0	6235	79140	0
Se	82	49.730	ug/L	0.821	1	-15	8583	1
Se	78	50.159	ug/L	0.367	0	6340	26501	0
[ Mo	98	49.248	ug/L	0.357	0	209	282861	0
Y	89		ug/L			259927	259609	0
Kr	83		ug/L			223	232	2
> In	115		ug/L			274729	273663 ✓	0
Ag	107	49.524	ug/L	0.257	0	38	439641	0
Cd	111	49.587	ug/L	0.229	0	123	114113	0
Cd	114	50.976	ug/L	0.757	1	26	265571	0
Sb	121	51.507	ug/L	0.504	0	22	388701	1
Sb	123	51.732	ug/L	0.198	0	16	293476	0
Ba	135	50.544	ug/L	0.067	0	20	90399	0
[ Ba	137	50.964	ug/L	0.252	0	21	156978	0
> Tb	159		ug/L			328129	332183 ✓	1
Tl	205	49.538	ug/L	0.455	0	35	1148796	1
Pb	208	50.747	ug/L	0.680	1	263	1553350	1
Bi	209		ug/L			267490	264800	0
Th	232	49.384	ug/L	1.361	2	55	1887637	2
[ U	238	50.517	ug/L	1.025	2	13	1939768	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB10

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, February 27, 2013 19:19:12

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			329720	397307	2
[ Be	9	0.006	ug/L	0.013	215	17	24	32
C	13		mg/L			6213	5170	2
Cl	37		mg/L			2029602	2147700	0
[> Sc	45		ug/L			254270	240144 ✓	0
V	51	0.002	ug/L	0.010	642	1580	1509	7
V-1	51	-0.175	ug/L	0.001	0	5106	3004	1
Cr	52	0.003	ug/L	0.010	396	4684	4446	1
Cr	53	-0.560	ug/L	0.028	4	1656	980	2
Mn	55	0.013	ug/L	0.002	17	310	473	7
Co	59	0.002	ug/L	0.002	76	48	69	27
[> Ge	72		ug/L			259859	254651 ✓	1
Ni	60	-0.003	ug/L	0.002	87	42	36	12
Ni	62	0.001	ug/L	0.021	1998	58	57	11
Cu	63	-0.009	ug/L	0.002	22	197	151	6
Cu	65	0.004	ug/L	0.005	130	88	96	11
Zn	66	-0.022	ug/L	0.014	63	273	235	10
Zn	67	-0.208	ug/L	0.011	5	152	97	3
Zn	68	-0.185	ug/L	0.150	81	4791	4503	1
As	75	0.020	ug/L	0.015	75	400	421	3
As-1	75	0.259	ug/L	0.053	20	6235	6479	0
Se	82	0.041	ug/L	0.055	133	-15	-8	110
Se	78	0.928	ug/L	0.169	18	6340	6570	0
Mo	98	-0.022	ug/L	0.005	20	209	83	28
Y	89		ug/L			259927	252926	1
Kr	83		ug/L			223	219	3
[> In	115		ug/L			274729	268609 ✓	0
Ag	107	0.008	ug/L	0.002	32	36	100	21
Cd	111	-0.000	ug/L	0.012	64532	123	120	22
Cd	114	0.000	ug/L	0.001	279	26	27	18
Sb	121	0.017	ug/L	0.007	38	22	149	32
Sb	123	0.015	ug/L	0.008	49	16	101	41
Ba	135	0.005	ug/L	0.005	97	20	29	32
Ba	137	0.008	ug/L	0.001	16	21	45	8
[> Tb	159		ug/L			328129	326037 ✓	0
Tl	205	0.004	ug/L	0.001	26	35	122	19
Pb	208	0.003	ug/L	0.001	40	263	361	11
Bi	209		ug/L			267490	257943	1
Th	232	0.052	ug/L	0.017	31	55	2009	31
[ U	238	0.003	ug/L	0.001	37	13	111	33

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA

Analysis Date: 2-28-13

MSI	Analyst BA 3-1-13	Peer # 3113	Comment
<b>Logbook</b>			
Analyst, Date, Method info	✓	/	
Sample ID's	✓	/	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	/	
Dilution factors	✓	/	
Crossouts/Corrections/Deletions	✓	/	
<b>Calibration</b>			
Blank & Standard intensities	✓	/	
Standard deviations	✓	/	
Curve fit	✓	/	
<b>Calibration Verification</b>			
ICV/CCV	✓	/	
ICB/CCB	✓	/	
<b>Samples</b>			
RSD's & SD's	✓	/	
Internal Standards	✓	/	See log
Carry-over	✓	/	
<b>Method QC</b>			
CRI/CRA	✓	/	
ICSA/ICSAB	✓	/	See log
Post Spikes/Serial Dilutions	✓	/	↓ (WETA)
Analytic Spikes	—		
<b>Matrix QC</b>			
SRM/LCS	✓	/	
Matrix Spikes	✓	/	WETA, WE80
Matrix Duplicates	✓	/	WE80
Method Blanks	✓	/	
<b>Data Distribution</b>			
Requested elements/isotope identified	✓	/	
Correct samples identified for distribution	✓	/	
Raw data match distributed data	✓	/	
Data filename correct	✓	/	
Necessary Analysts Notes and CAF's	✓	/	CAF - WETA, WE80



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 1 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	STD 0			ISTDs higher than usual (expected)
	✓	0			
	✓	1			
	✓	2			
	✓	↓ 3			
		STD 0			ISTDs low - remake
					3009-6
		1			3016-4
		2			↓ -5
		3			3019-1
		↓ 4			3016-6
		Rinse sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low Check			
		ICSA			
		ICSA B			<sup>62</sup> Ni ↑
		LR200			
		LR300			
		CCV2			
		CCB2			
		WE79 MBI	SWN	20	
		↓ B	↓	↓	



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 2 of 6

All corrections made by analyst unless otherwise noted. BA 2-28-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE79 C	SWN	20	
		D		↓	
		A-L		100	✓ C = 7109/0 V = 10/8 (CAF)
		A		20	✗
		ADUP			✓
		ASPK			✓ Sb ↓ (CAF) As STL
		APOST			✓ 10.00 mL ICPMS Spk #1 2999-12 0.00 mL ICPMS Spk #2 2950-7 SbOK
		↓ MBISPK	↓	↓	
		CCV3			
		CCB3			
		WE79 MB2	SWN	20	
		E			
		F			
		G			
		H			
		I			
		J			
		K			
		L			
		↓ MB2SPK	↓	↓	✓
		CCV4			
		CCB4			
		WE79 M	SWN	20	
		↓ N	↓	↓	



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 3 of 6

All corrections made by analyst unless otherwise noted. BA 2-28-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE79 O	SWN	20	
		↓ P	↓	↓	
		↓ Q	↓	↓	
		↓ R	↓	↓	
		↓ S	↓	50	As = LR
		↓ T	↓	20	As
		↓ U	↓	↓	
		CCV5			
		CCB5			
		WE80 MBI	SWN	20	
		WE79 V	↓	↓	
		↓ X	↓	↓	No As
		↓ X	↓	50	As
		WE80 A-L	↓	100	
		↓ A	↓	20	
		↓ ADVP	↓	↓	V, Cr > 20%
		↓ ASPK	↓	↓	As, Sb
		↓ APOST	↓	↓	0.06 mL ICPMS Spk #1 28991-12
		↓ MBISPK	↓	↓	0.06 mL ICPMS Spk #2 28956-7 As, Sb OK
		CCV6			
		CCB6			
		WE80 MB2	SWN	20	
		WE79 W	↓	↓	
		WE80 B	↓	↓	





# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 4 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE80 C	SWN	20	
		D			
		E			
		F			
		G			
		H			
		↓ MB2SPK	↓	↓	✓
		CCV7			
		CCB7			End WET9
		WE80 I	SWN	20	
		J			
		K			
		L			
		M			
		N			
		O			
		P			
		Q			
		↓ R	↓	↓	
		CCV8			
		CCB8			
		WE80 S	SWN	20	
		T			
		↓ U	↓	↓	



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-28-13 Analyst: BA Page: 5 of 6

All corrections made by analyst unless otherwise noted. BA 3-1-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE80 Y	SWN	20	
		CCV9			
		CCB9			End WE80
		STD 0			
		CCV10			
		CCB10			
		WE83 C	SWN	20	Cr
		D			
		E			
		F			
		G			
222	✓	<del>222222</del>		100	
	✓	A		20	Sc ↑
	✓	ADUP			
	✓	ASPK			
222	✓	<del>222222</del>	↓	↓	0.06 mL ICPMS Spk #1 2999-12
		APOST			
		CCV11			
		CCB11			
Diln		WE83 H	SWN	20	Cr
		I			
		J			
		B-L		100	
		B		20	
↓		↓ BDUP	↓	↓	↓

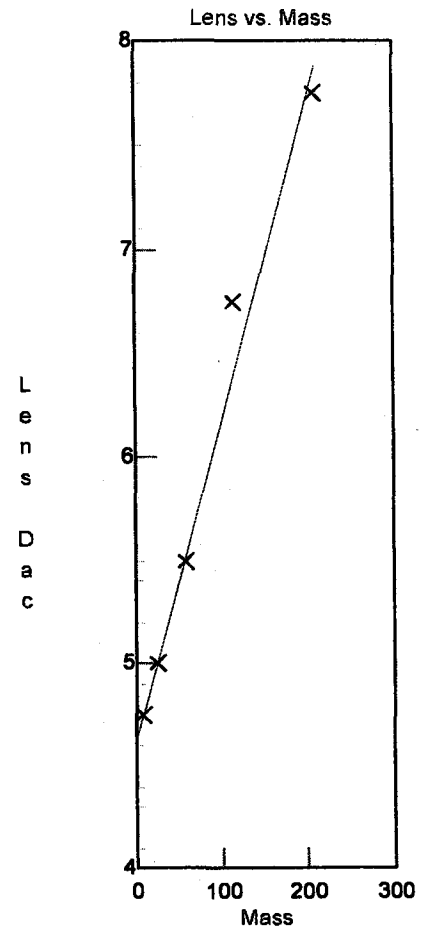
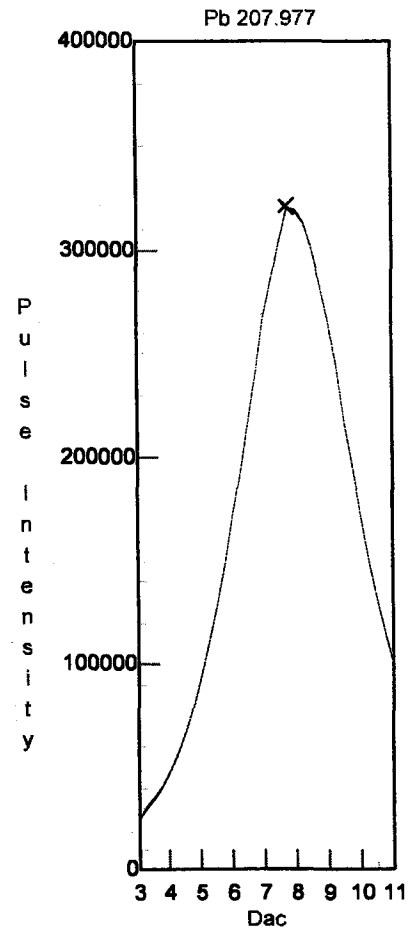
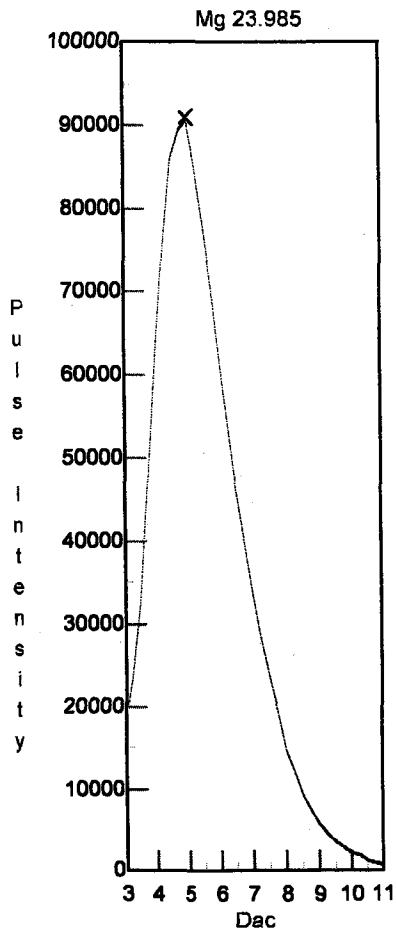
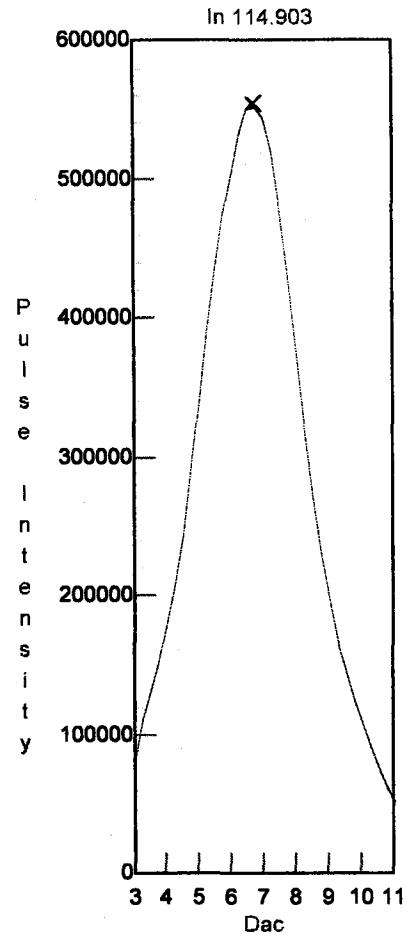
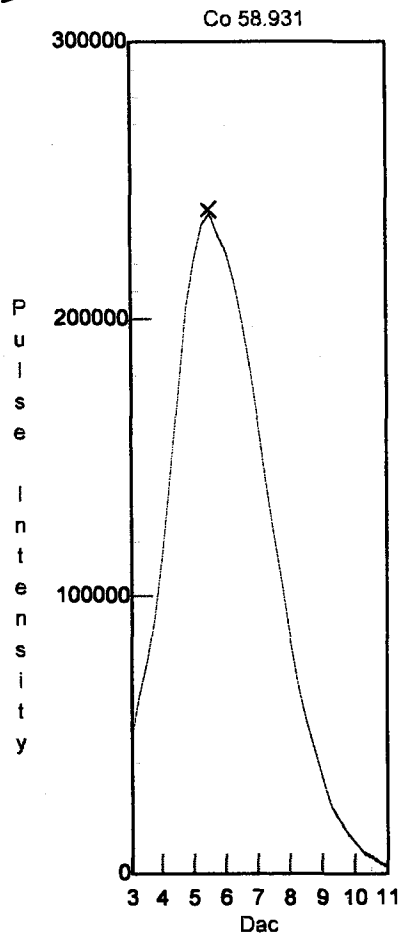
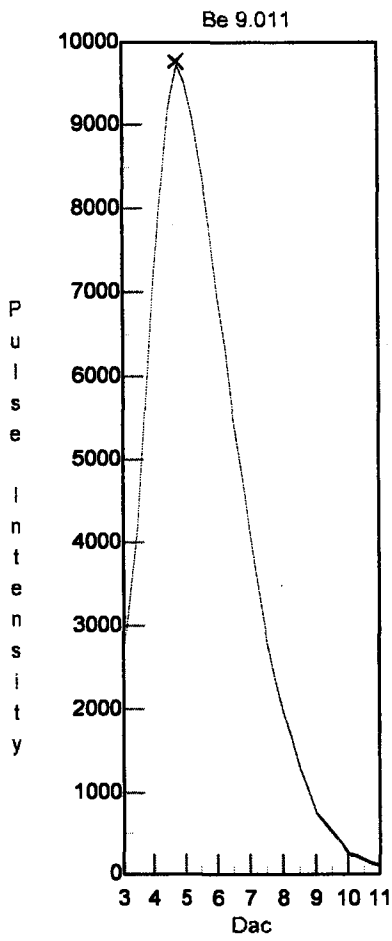


# Instrument Tuning Report

File Name: Default.tun  
File Path: C:\Elandata\Tuning\Default.tun

Analyte	Exact Mass	Meas. Mass ✓	Mass DAC	Res. DAC	Meas. Pk. Width ✓	Custom Res.
Be	9.012	9.026	2032	2152	0.681	
Mg	23.985	24.029	5668	2262	0.681	
Co	58.933	58.979	14162	2530	0.670	
In	114.904	114.928	27797	2970	0.686	
Pb	207.977	207.976	50439	3725	0.678	

2-28-13



# Daily Performance Report

Sample ID: Sample

Sample Date/Time: Thursday, February 28, 2013 08:31:51

Sample Description:

Sample File: 1119.sam

Method File: C:\Elandata\Method\aridailyperf.mth

Dataset File: C:\Elandata\Dataset\daily performance\Sample.1410

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\Default.dac

Number of Replicates: 5

Dual Detector Mode: Dual

Neb 0.91

Discrim 18

## Summary

Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Mg	24	37443.191-	268.758	0.718
In	115	295012.843-	3474.846	1.178
Pb	208	166796.113✓	1475.478	0.885
[> Ba	138	214941.579	971.579	0.452
[ Ba++	69	0.014✓	0.000	2.038
[> Ce	140	262413.981	1804.338	0.688
[ CeO	156	0.028✓	0.001	3.440
Bkgd	220	7.251✓	4.627	63.816

Mg, In w/in PE specs.

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:06:31

Del

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L				835189	1
[ Be	9		ug/L				20	19
C	13		mg/L				6181	1
Cl	37		mg/L				1350033	0
[> Sc	45		ug/L				411364	0
V	51		ug/L				2732	7
V-1	51		ug/L				1737	4
Cr	52		ug/L				8424	0
Cr	53		ug/L				633	11
Mn	55		ug/L				365	6
[ Co	59		ug/L				59	14
[> Ge	72		ug/L				374428	0
Ni	60		ug/L				50	10
Ni	62		ug/L				105	7
Cu	63		ug/L				195	1
Cu	65		ug/L				117	1
Zn	66		ug/L				394	4
Zn	67		ug/L				132	13
Zn	68		ug/L				5631	0
As	75		ug/L				116	13
As-1	75		ug/L				7608	0
Se	82		ug/L				-6	113
Se	78		ug/L				7976	0
[ Mo	98		ug/L				254	6
Y	89		ug/L				464015	1
Kr	83		ug/L				208	2
[> In	115		ug/L				513209	0
Ag	107		ug/L				49	23
Cd	111		ug/L				296	6
Cd	114		ug/L				39	11
Sb	121		ug/L				23	29
Sb	123		ug/L				18	26
Ba	135		ug/L				31	24
[ Ba	137		ug/L				44	14
[> Tb	159		ug/L				620456	0
Tl	205		ug/L				354	3
Pb	208		ug/L				1450	5
Bi	209		ug/L				532846	0
Th	232		ug/L				1511	19
[ U	238		ug/L				3140	23

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:22:22 Ded

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L				834409	2
[ Be	9		ug/L				21	8
C	13		mg/L				6116	1
Cl	37		mg/L				1351308	0
[> Sc	45		ug/L				414160	0
V	51		ug/L				2774	1
V-1	51		ug/L				1921	6
Cr	52		ug/L				8655	0
Cr	53		ug/L				705	3
Mn	55		ug/L				335	4
[ Co	59		ug/L				58	16
[> Ge	72		ug/L				377048	0
Ni	60		ug/L				43	17
Ni	62		ug/L				88	12
Cu	63		ug/L				214	4
Cu	65		ug/L				96	5
Zn	66		ug/L				440	1
Zn	67		ug/L				133	1
Zn	68		ug/L				5580	1
As	75		ug/L				133	16
As-1	75		ug/L				7638	0
Se	82		ug/L				5	140
Se	78		ug/L				7975	0
[ Mo	98		ug/L				127	0
Y	89		ug/L				466348	0
Kr	83		ug/L				190	0
[> In	115		ug/L				516852	0
Ag	107		ug/L				50	11
Cd	111		ug/L				314	5
Cd	114		ug/L				33	13
Sb	121		ug/L				28	6
Sb	123		ug/L				23	14
Ba	135		ug/L				25	15
[ Ba	137		ug/L				35	18
[> Tb	159		ug/L				615206	0
Tl	205		ug/L				235	6
Pb	208		ug/L				1052	4
Bi	209		ug/L				532859	0
Th	232		ug/L				868	4
[ U	238		ug/L				1186	14



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:28:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Del

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			834409	811825	0
[ Be	9	10.000	ug/L	0.159	1	21	7749	0
C	13		mg/L			6116	4733	0
Cl	37		mg/L			1351308	1367348	0
[> Sc	45		ug/L			414160	411253	1
V	51	10.000	ug/L	0.195	1	2774	173995	0
V-1	51	10.000	ug/L	0.214	2	1921	175888	0
Cr	52	10.000	ug/L	0.134	1	8655	159031	0
Cr	53	10.000	ug/L	0.177	1	705	18576	0
Mn	55	10.000	ug/L	0.208	2	335	264041	0
[ Co	59	10.000	ug/L	0.160	1	58	186415	0
[> Ge	72		ug/L			377048	368562	0
Ni	60	10.000	ug/L	0.074	0	43	38980	0
Ni	62	10.000	ug/L	0.303	3	88	5765	2
Cu	63	10.000	ug/L	0.034	0	214	80439	0
Cu	65	10.000	ug/L	0.074	0	96	36952	0
Zn	66	10.000	ug/L	0.158	1	440	24684	1
Zn	67	10.000	ug/L	0.105	1	133	4283	1
Zn	68	10.000	ug/L	0.176	1	5580	22150	1
As	75	10.000	ug/L	0.132	1	133	22694	1
As-1	75	10.000	ug/L	0.096	0	7638	29172	0
Se	82	10.000	ug/L	0.080	0	5	3319	0
Se	78	10.000	ug/L	0.046	0	7975	15395	0
[ Mo	98	10.000	ug/L	0.048	0	127	90487	0
Y	89		ug/L			466348	452852	0
Kr	83		ug/L			190	201	4
[> In	115		ug/L			516852	502710	0
Ag	107	10.000	ug/L	0.120	1	50	165599	0
Cd	111	10.000	ug/L	0.048	0	314	41419	0
Cd	114	10.000	ug/L	0.083	0	33	93960	0
Sb	121	10.000	ug/L	0.039	0	28	111104	0
Sb	123	10.000	ug/L	0.057	0	23	83722	0
Ba	135	10.000	ug/L	0.051	0	25	32166	0
[ Ba	137	10.000	ug/L	0.150	1	35	55608	1
[> Tb	159		ug/L			615206	607939	0
Tl	205	10.000	ug/L	0.137	1	235	459759	1
Pb	208	10.000	ug/L	0.081	0	1052	621807	0
Bi	209		ug/L			532859	517318	0
Th	232	10.000	ug/L	0.038	0	868	715581	0
[ U	238	10.000	ug/L	0.105	1	1186	784959	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:34:39

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

*Dad*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			834409	810691	0
[ Be	9	19.958	ug/L	0.076	0	21	15296	0
C	13		mg/L			6116	4833	3
Cl	37		mg/L			1351308	1352336	0
[> Sc	45		ug/L			414160	403931	0
V	51	20.072	ug/L	0.212	1	2774	345307	0
V-1	51	20.062	ug/L	0.239	1	1921	349051	0
Cr	52	20.074	ug/L	0.289	1	8655	309547	0
Cr	53	20.042	ug/L	0.356	1	705	36176	1
Mn	55	20.006	ug/L	0.345	1	335	519201	1
[ Co	59	19.992	ug/L	0.291	1	58	365436	0
[> Ge	72		ug/L			377048	364917	0
Ni	60	19.904	ug/L	0.378	1	43	75331	1
Ni	62	19.887	ug/L	0.334	1	88	11019	1
Cu	63	19.966	ug/L	0.293	1	214	157738	0
Cu	65	19.955	ug/L	0.251	1	96	72266	0
Zn	66	19.965	ug/L	0.148	0	440	48040	0
Zn	67	20.043	ug/L	0.051	0	133	8441	0
Zn	68	20.037	ug/L	0.120	0	5580	38767	0
As	75	20.031	ug/L	0.228	1	133	45151	0
As-1	75	20.044	ug/L	0.235	1	7638	50850	0
Se	82	19.990	ug/L	0.293	1	5	6551	0
Se	78	20.019	ug/L	0.299	1	7975	22838	0
[ Mo	98	20.009	ug/L	0.233	1	127	179443	0
Y	89		ug/L			466348	450902	0
Kr	83		ug/L			190	206	4
[> In	115		ug/L			516852	504144	0
Ag	107	19.948	ug/L	0.256	1	50	327825	0
Cd	111	19.950	ug/L	0.239	1	314	81736	0
Cd	114	19.960	ug/L	0.189	0	33	186557	0
Sb	121	19.973	ug/L	0.219	1	28	221312	0
Sb	123	19.949	ug/L	0.197	0	23	165779	0
Ba	135	19.915	ug/L	0.189	0	25	63139	0
[ Ba	137	19.921	ug/L	0.170	0	35	109327	0
[> Tb	159		ug/L			615206	600273	0
Tl	205	20.012	ug/L	0.067	0	235	910473	0
Pb	208	20.015	ug/L	0.256	1	1052	1231571	0
Bi	209		ug/L			532859	510212	0
Th	232	20.064	ug/L	0.197	0	868	1435022	0
[ U	238	20.048	ug/L	0.233	1	1186	1567753	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:40:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Del

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			834409	408112	0
[ Be	9	54.407	ug/L	0.566	1	21	37492	0
C	13		mg/L			6116	2522	1
Cl	37		mg/L			1351308	1362130	0
[> Sc	45		ug/L			414160	204459	0
V	51	54.480	ug/L	0.731	1	2774	854098	0
V-1	51	54.485	ug/L	0.716	1	1921	866261	0
Cr	52	54.455	ug/L	0.663	1	8655	749952	0
Cr	53	54.470	ug/L	0.572	1	705	88634	0
Mn	55	54.435	ug/L	0.503	0	335	1284375	1
[ Co	59	54.446	ug/L	0.270	0	58	906917	1
[> Ge	72		ug/L			377048	183051	0
Ni	60	54.401	ug/L	0.255	0	43	184393	0
Ni	62	54.410	ug/L	0.879	1	88	26888	1
Cu	63	54.342	ug/L	0.621	1	214	380259	1
Cu	65	54.364	ug/L	0.394	0	96	175060	0
Zn	66	54.394	ug/L	0.389	0	440	116286	0
Zn	67	54.462	ug/L	0.234	0	133	20525	0
Zn	68	54.575	ug/L	0.556	1	5580	86744	0
As	75	54.413	ug/L	0.327	0	133	109876	0
As-1	75	54.565	ug/L	0.415	0	7638	112894	0
Se	82	54.406	ug/L	0.212	0	5	15978	0
Se	78	54.840	ug/L	0.209	0	7975	44139	0
[ Mo	98	54.588	ug/L	0.550	1	127	453521	0
Y	89		ug/L			466348	227930	0
Kr	83		ug/L			190	217	4
[> In	115		ug/L			516852	254383	0
Ag	107	54.433	ug/L	0.539	0	50	810823	1
Cd	111	54.457	ug/L	0.044	0	314	202508	0
Cd	114	54.471	ug/L	0.148	0	33	464594	0
Sb	121	54.474	ug/L	0.391	0	28	551084	0
Sb	123	54.452	ug/L	0.324	0	23	411507	0
Ba	135	54.478	ug/L	0.546	1	25	157789	0
[ Ba	137	54.464	ug/L	0.484	0	35	272396	0
[> Tb	159		ug/L			615206	306137	0
Tl	205	54.387	ug/L	0.128	0	235	2247937	0
Pb	208	54.377	ug/L	0.173	0	1052	3032815	0
Bi	209		ug/L			532859	258227	1
Th	232	54.438	ug/L	0.754	1	868	3568582	0
[ U	238	54.344	ug/L	0.318	0	1186	3829971	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:53:46

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L				803723	0
[ Be	9		ug/L				23	25
C	13		mg/L				6243	1
Cl	37		mg/L				1387303	0
[> Sc	45		ug/L				409578	1
V	51		ug/L				2772	2
V-1	51		ug/L				1649	2
Cr	52		ug/L				8617	1
Cr	53		ug/L				614	4
Mn	55		ug/L				377	2
[ Co	59		ug/L				55	22
[> Ge	72		ug/L				372563	0
Ni	60		ug/L				49	6
Ni	62		ug/L				97	14
Cu	63		ug/L				233	9
Cu	65		ug/L				114	3
Zn	66		ug/L				375	3
Zn	67		ug/L				141	7
Zn	68		ug/L				5524	2
As	75		ug/L				145	23
As-1	75		ug/L				7671	0
Se	82		ug/L				0	4202
Se	78		ug/L				7997	0
[ Mo	98		ug/L				87	9
Y	89		ug/L				461134	0
Kr	83		ug/L				197	4
[> In	115		ug/L				515607	1
Ag	107		ug/L				75	7
Cd	111		ug/L				330	7
Cd	114		ug/L				32	31
Sb	121		ug/L				198	6
Sb	123		ug/L				157	7
Ba	135		ug/L				24	16
[ Ba	137		ug/L				36	10
[> Tb	159		ug/L				612197	1
Tl	205		ug/L				250	6
Pb	208		ug/L				1016	2
Bi	209		ug/L				532877	1
Th	232		ug/L				1565	6
[ U	238		ug/L				1000	9

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 09:59:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	787425	2
[ Be	9	10.000	ug/L	0.236	2	23	7555	0
C	13		mg/L			6243	6337	2
Cl	37		mg/L			1387303	1395809	0
[> Sc	45		ug/L			409578	408662	0
V	51	10.000	ug/L	0.106	1	2772	174285	0
V-1	51	10.000	ug/L	0.133	1	1649	175375	0
Cr	52	10.000	ug/L	0.055	0	8617	158394	1
Cr	53	10.000	ug/L	0.093	0	614	18247	1
Mn	55	10.000	ug/L	0.081	0	377	261887	1
[ Co	59	10.000	ug/L	0.041	0	55	186342	0
[> Ge	72		ug/L			372563	371131	0
Ni	60	10.000	ug/L	0.088	0	49	38708	1
Ni	62	10.000	ug/L	0.126	1	97	5638	2
Cu	63	10.000	ug/L	0.078	0	233	80115	1
Cu	65	10.000	ug/L	0.079	0	114	37007	0
Zn	66	10.000	ug/L	0.060	0	375	24594	0
Zn	67	10.000	ug/L	0.205	2	141	4327	2
Zn	68	10.000	ug/L	0.135	1	5524	22403	1
As	75	10.000	ug/L	0.031	0	145	22729	0
As-1	75	10.000	ug/L	0.044	0	7671	29317	0
Se	82	10.000	ug/L	0.106	1	0	3296	0
Se	78	10.000	ug/L	0.194	1	7997	15445	0
[ Mo	98	10.000	ug/L	0.165	1	87	90903	0
Y	89		ug/L			461134	453754	0
Kr	83		ug/L			197	201	3
[> In	115		ug/L			515607	507203	0
Ag	107	10.000	ug/L	0.045	0	75	165997	0
Cd	111	10.000	ug/L	0.190	1	330	41512	1
Cd	114	10.000	ug/L	0.105	1	32	94641	0
Sb	121	10.000	ug/L	0.141	1	198	111727	0
Sb	123	10.000	ug/L	0.145	1	157	84206	0
Ba	135	10.000	ug/L	0.199	1	24	31709	1
[ Ba	137	10.000	ug/L	0.136	1	36	55086	0
[> Tb	159		ug/L			612197	608460	0
Tl	205	10.000	ug/L	0.111	1	250	463851	1
Pb	208	10.000	ug/L	0.072	0	1016	625133	0
Bi	209		ug/L			532877	520667	0
Th	232	10.000	ug/L	0.095	0	1565	718829	0
[ U	238	10.000	ug/L	0.099	0	1000	781400	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:06:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	775816	0
[ Be	9	20.107	ug/L	0.412	2	23	15273	1
[ C	13		mg/L			6243	4663	3
[ Cl	37		mg/L			1387303	1382267	1
[> Sc	45		ug/L			409578	403599	0
[ V	51	20.017	ug/L	0.161	0	2772	342959	0
[ V-1	51	20.012	ug/L	0.154	0	1649	345867	0
[ Cr	52	20.076	ug/L	0.021	0	8617	310075	0
[ Cr	53	20.060	ug/L	0.024	0	614	35968	0
[ Mn	55	20.000	ug/L	0.250	1	377	516939	1
[ Co	59	20.007	ug/L	0.257	1	55	368640	0
[> Ge	72		ug/L			372563	366032	0
[ Ni	60	19.970	ug/L	0.246	1	49	75730	1
[ Ni	62	19.989	ug/L	0.015	0	97	10995	0
[ Cu	63	19.972	ug/L	0.048	0	233	156707	0
[ Cu	65	19.970	ug/L	0.051	0	114	72354	0
[ Zn	66	20.033	ug/L	0.231	1	375	48547	1
[ Zn	67	20.070	ug/L	0.120	0	141	8543	0
[ Zn	68	20.052	ug/L	0.107	0	5524	39202	0
[ As	75	20.046	ug/L	0.108	0	145	45209	0
[ As-1	75	20.048	ug/L	0.190	0	7671	50807	0
[ Se	82	20.032	ug/L	0.055	0	0	6555	0
[ Se	78	20.037	ug/L	0.220	1	7997	22749	0
[ Mo	98	20.032	ug/L	0.099	0	87	180694	0
[ Y	89		ug/L			461134	452360	0
[ Kr	83		ug/L			197	205	1
[> In	115		ug/L			515607	502148	0
[ Ag	107	19.974	ug/L	0.082	0	75	326523	0
[ Cd	111	19.985	ug/L	0.177	0	330	81568	1
[ Cd	114	19.986	ug/L	0.094	0	32	186739	0
[ Sb	121	20.042	ug/L	0.150	0	198	223399	0
[ Sb	123	20.006	ug/L	0.169	0	157	166839	0
[ Ba	135	20.010	ug/L	0.273	1	24	62913	0
[ Ba	137	19.981	ug/L	0.095	0	36	108536	0
[> Tb	159		ug/L			612197	603343	0
[ Tl	205	19.967	ug/L	0.260	1	250	911986	0
[ Pb	208	19.981	ug/L	0.146	0	1016	1232978	0
[ Bi	209		ug/L			532877	513800	0
[ Th	232	20.023	ug/L	0.128	0	1565	1432181	0
[ U	238	19.989	ug/L	0.115	0	1000	1544581	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:12:11

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	799906	1
[ Be	9	49.669	ug/L	1.055	2	23	37618	0
C	13		mg/L			6243	2342	2
Cl	37		mg/L			1387303	1371003	0
[> Sc	45		ug/L			409578	416446	0
V	51	49.621	ug/L	0.458	0	2772	841265	0
V-1	51	49.671	ug/L	0.452	0	1649	855232	0
Cr	52	49.485	ug/L	0.419	0	8617	738192	0
Cr	53	49.651	ug/L	0.613	1	614	87882	0
Mn	55	49.621	ug/L	0.669	1	377	1274417	0
[ Co	59	49.569	ug/L	0.734	1	55	903430	0
[> Ge	72		ug/L			372563	372655	0
Ni	60	49.660	ug/L	0.452	0	49	185349	1
Ni	62	49.691	ug/L	0.644	1	97	26857	0
Cu	63	49.498	ug/L	0.445	0	233	376156	0
Cu	65	49.563	ug/L	0.188	0	114	175011	1
Zn	66	49.518	ug/L	0.018	0	375	116041	0
Zn	67	49.479	ug/L	0.396	0	141	20191	1
Zn	68	49.467	ug/L	0.344	0	5524	86064	1
As	75	49.641	ug/L	0.345	0	145	109830	0
As-1	75	49.625	ug/L	0.418	0	7671	112770	0
Se	82	49.572	ug/L	0.608	1	0	15837	0
Se	78	49.515	ug/L	0.566	1	7997	43730	0
[ Mo	98	49.880	ug/L	0.843	1	87	452489	0
Y	89		ug/L			461134	462877	0
Kr	83		ug/L			197	228	3
[> In	115		ug/L			515607	513822	0
Ag	107	49.656	ug/L	0.616	1	75	802886	0
Cd	111	49.631	ug/L	0.226	0	330	199441	0
Cd	114	49.610	ug/L	0.083	0	32	456432	0
Sb	121	49.621	ug/L	0.350	0	198	545036	0
Sb	123	49.690	ug/L	0.088	0	157	411068	0
Ba	135	49.742	ug/L	0.465	0	24	155990	0
[ Ba	137	49.738	ug/L	0.303	0	36	269335	0
[> Tb	159		ug/L			612197	620995	0
Tl	205	49.664	ug/L	0.144	0	250	2258760	0
Pb	208	49.560	ug/L	0.148	0	1016	3013666	0
Bi	209		ug/L			532877	517774	0
Th	232	49.861	ug/L	0.038	0	1565	3618391	0
[ U	238	49.763	ug/L	0.205	0	1000	3864616	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:18:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	725707	2
[ Be	9	100.936	ug/L	1.927	1	23	71571	1
C	13		mg/L			6243	4717	1
Cl	37		mg/L			1387303	1353854	0
[> Sc	45		ug/L			409578	388974	0
V	51	101.163	ug/L	0.536	0	2772	1663651	0
V-1	51	101.133	ug/L	0.725	0	1649	1688577	0
Cr	52	100.917	ug/L	0.665	0	8617	1441463	0
Cr	53	100.836	ug/L	0.707	0	614	170856	0
Mn	55	100.515	ug/L	0.970	0	377	2453060	0
[ Co	59	100.722	ug/L	0.121	0	55	1756939	0
[> Ge	72		ug/L			372563	352045	0
Ni	60	100.177	ug/L	0.398	0	49	355268	0
Ni	62	100.453	ug/L	0.430	0	97	51984	0
Cu	63	100.119	ug/L	0.428	0	233	721423	0
Cu	65	100.134	ug/L	1.163	1	114	335409	1
Zn	66	100.287	ug/L	0.994	0	375	223786	0
Zn	67	100.655	ug/L	1.172	1	141	39526	1
Zn	68	100.378	ug/L	0.619	0	5524	161580	0
As	75	100.565	ug/L	0.548	0	145	214090	0
As-1	75	100.628	ug/L	0.838	0	7671	212891	0
Se	82	100.375	ug/L	0.022	0	0	30680	0
Se	78	100.534	ug/L	0.996	0	7997	77338	0
[ Mo	98	101.636	ug/L	0.587	0	87	921198	0
Y	89		ug/L			461134	439671	0
Kr	83		ug/L			197	242	5
[> In	115		ug/L			515607	486305	1
Ag	107	100.450	ug/L	1.192	1	75	1560447	0
Cd	111	100.789	ug/L	0.182	0	330	393332	0
Cd	114	100.514	ug/L	0.348	0	32	890454	0
Sb	121	100.794	ug/L	0.855	0	198	1076058	0
Sb	123	100.685	ug/L	1.011	1	157	806524	0
Ba	135	100.578	ug/L	1.420	1	24	304335	0
[ Ba	137	100.738	ug/L	1.467	1	36	529212	0
[> Tb	159		ug/L			612197	593548	0
Tl	205	100.513	ug/L	0.615	0	250	4444971	0
Pb	208	100.562	ug/L	1.196	1	1016	5955080	0
Bi	209		ug/L			532877	487266	1
Th	232	100.762	ug/L	0.757	0	1565	7169116	0
[ U	238	100.878	ug/L	1.102	1	1000	7712569	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:24:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022713.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	745553	0
[ Be	9	0.008	ug/L	0.014	187	23	27	37
C	13		mg/L			6243	6191	1
Cl	37		mg/L			1387303	1383915	0
[> Sc	45		ug/L			409578	404954	1
V	51	0.001	ug/L	0.004	370	2772	2758	2
V-1	51	0.003	ug/L	0.003	94	1649	1691	3
Cr	52	-0.004	ug/L	0.003	77	8617	8458	1
Cr	53	0.004	ug/L	0.007	168	614	614	1
Mn	55	0.007	ug/L	0.003	49	377	550	16
[ Co	59	0.003	ug/L	0.002	69	55	115	36
[> Ge	72		ug/L			372563	369955	0
Ni	60	0.003	ug/L	0.001	30	49	61	6
Ni	62	0.009	ug/L	0.024	265	97	101	13
Cu	63	0.011	ug/L	0.004	33	233	315	9
Cu	65	0.009	ug/L	0.004	48	114	144	11
Zn	66	0.018	ug/L	0.001	5	375	413	0
Zn	67	-0.049	ug/L	0.019	37	141	120	5
Zn	68	-0.035	ug/L	0.026	72	5524	5427	0
As	75	0.005	ug/L	0.017	351	145	155	24
As-1	75	-0.045	ug/L	0.043	95	7671	7520	0
Se	82	-0.001	ug/L	0.022	1598	0	0	734
Se	78	-0.121	ug/L	0.121	99	7997	7852	0
[ Mo	98	0.016	ug/L	0.005	33	87	238	22
Y	89		ug/L			461134	459175	0
Kr	83		ug/L			197	203	2
[> In	115		ug/L			515607	510759	0
Ag	107	0.012	ug/L	0.005	40	75	278	30
Cd	111	0.008	ug/L	0.002	20	330	361	2
Cd	114	0.002	ug/L	0.003	119	32	53	46
Sb	121	0.109	ug/L	0.033	30	198	1416	26
Sb	123	0.112	ug/L	0.037	32	157	1101	28
Ba	135	0.007	ug/L	0.004	53	24	47	26
[ Ba	137	0.006	ug/L	0.003	49	36	67	23
[> Tb	159		ug/L			612197	608395	0
Tl	205	0.011	ug/L	0.004	40	250	731	27
Pb	208	0.005	ug/L	0.004	77	1016	1326	18
Bi	209		ug/L			532877	528776	0
Th	232	0.052	ug/L	0.017	32	1565	5325	23
[ U	238	0.000	ug/L	0.003	3095	1000	1002	23

## Quantitative Analysis - Calibration Report

Sample Date/Time: Thursday, February 28, 2013 10:18:20

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	0.9998	0.0010	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	0.9997	0.0422	10	20	50	100	
V-1	51	0.9998	0.0429	10	20	50	100	
Cr	52	0.9998	0.0365	10	20	50	100	
Cr	53	0.9999	0.0043	10	20	50	100	
Mn	55	0.9999	0.0627	10	20	50	100	
Co	59	0.9999	0.0448	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0101	10	20	50	100	
Ni	62	0.9999	0.0015	10	20	50	100	
Cu	63	0.9999	0.0205	10	20	50	100	
Cu	65	1.0000	0.0095	10	20	50	100	
Zn	66	0.9999	0.0063	10	20	50	100	
Zn	67	0.9999	0.0011	10	20	50	100	
Zn	68	0.9999	0.0044	10	20	50	100	
As	75	0.9999	0.0060	10	20	50	100	
As-1	75	0.9999	0.0058	10	20	50	100	
Se	82	0.9999	0.0009	10	20	50	100	
Se	78	0.9999	0.0020	10	20	50	100	
Mo	98	0.9996	0.0257	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	0.9999	0.0319	10	20	50	100	
Cd	111	0.9999	0.0080	10	20	50	100	
Cd	114	0.9999	0.0182	10	20	50	100	
Sb	121	0.9999	0.0220	10	20	50	100	
Sb	123	0.9999	0.0165	10	20	50	100	
Ba	135	0.9999	0.0062	10	20	50	100	
Ba	137	0.9999	0.0108	10	20	50	100	
Tb	159							
Tl	205	0.9999	0.0745	10	20	50	100	
Pb	208	0.9999	0.0998	10	20	50	100	
Bi	209							
Th	232	0.9999	0.1199	10	20	50	100	
U	238	0.9999	0.1288	10	20	50	100	

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:31:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	761365✓	3
[ Be	9	50.963	ug/L	1.317	2	23	37908	0
C	13		mg/L			6243	11955	4
Cl	37		mg/L			1387303	1391231	0
[> Sc	45		ug/L			409578	413228✓	1
V	51	50.528	ug/L	0.379	0	2772	884103	0
V-1	51	50.535	ug/L	0.415	0	1649	897128	0
Cr	52	50.336	ug/L	0.606	1	8617	768093	0
Cr	53	50.365	ug/L	0.776	1	614	90959	0
Mn	55	50.996	ug/L	0.527	1	377	1322242	0
[ Co	59	50.475	ug/L	0.646	1	55	935284	0
[> Ge	72		ug/L			372563	375534✓	0
Ni	60	50.163	ug/L	0.546	1	49	189795	1
Ni	62	50.218	ug/L	0.301	0	97	27770	0
Cu	63	50.988	ug/L	0.284	0	233	392034	0
Cu	65	49.965	ug/L	0.276	0	114	178589	0
Zn	66	49.036	ug/L	0.166	0	375	116919	0
Zn	67	49.666	ug/L	0.231	0	141	20876	0
Zn	68	48.651	ug/L	0.312	0	5524	86410	0
As	75	51.820	ug/L	0.196	0	145	117750	0
As-1	75	50.496	ug/L	0.126	0	7671	117812	0
Se	82	78.050	ug/L	0.130	0	0	25448	0
Se	78	77.255	ug/L	0.187	0	7997	65263	0
[ Mo	98	49.443	ug/L	0.185	0	87	478094	0
Y	89		ug/L			461134	470246	1
Kr	83		ug/L			197	225	0
[> In	115		ug/L			515607	520381✓	1
Ag	107	51.078	ug/L	1.413	2	75	848923	1
Cd	111	50.143	ug/L	0.624	1	330	209534	0
Cd	114	50.653	ug/L	0.366	0	32	480165	1
Sb	121	50.155	ug/L	0.684	1	198	573012	0
Sb	123	50.129	ug/L	0.502	1	157	429759	1
Ba	135	49.200	ug/L	1.054	2	24	159294	0
[ Ba	137	49.545	ug/L	1.288	2	36	278482	0
[> Tb	159		ug/L			612197	629667✓	0
Tl	205	50.642	ug/L	0.493	0	250	2375889	0
Pb	208	50.318	ug/L	0.478	0	1016	3161532	0
Bi	209		ug/L			532877	525622	1
Th	232	50.380	ug/L	0.228	0	1565	3803488	0
[ U	238	51.203	ug/L	0.442	0	1000	4153338	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:37:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	748617 ✓	1
[ Be	9	0.004	ug/L	0.004	83	23	25	10
C	13		mg/L			6243	6278	1
Cl	37		mg/L			1387303	1413313	0
[> Sc	45		ug/L			409578	406799 ✓	0
V	51	0.005	ug/L	0.003	61	2772	2845	1
V-1	51	0.007	ug/L	0.004	49	1649	1764	3
Cr	52	-0.011	ug/L	0.014	126	8617	8393	2
Cr	53	-0.004	ug/L	0.007	148	614	602	2
Mn	55	0.002	ug/L	0.001	43	377	430	5
[ Co	59	0.001	ug/L	0.001	43	55	76	12
[> Ge	72		ug/L			372563	371234 ✓	0
Ni	60	0.004	ug/L	0.002	54	49	64	12
Ni	62	-0.001	ug/L	0.036	3774	97	96	20
Cu	63	0.006	ug/L	0.001	20	233	275	2
Cu	65	0.002	ug/L	0.002	107	114	120	5
Zn	66	0.015	ug/L	0.008	53	375	409	4
Zn	67	-0.040	ug/L	0.049	121	141	124	16
Zn	68	-0.133	ug/L	0.058	43	5524	5286	2
As	75	0.005	ug/L	0.010	208	145	156	15
As-1	75	-0.040	ug/L	0.013	33	7671	7558	0
Se	82	-0.034	ug/L	0.015	44	0	-11	42
Se	78	-0.150	ug/L	0.047	31	7997	7858	0
[ Mo	98	0.005	ug/L	0.004	71	87	135	25
Y	89		ug/L			461134	462158	0
Kr	83		ug/L			197	202	4
[> In	115		ug/L			515607	513404 ✓	0
Ag	107	0.008	ug/L	0.002	22	75	200	13
Cd	111	0.004	ug/L	0.005	134	330	344	5
Cd	114	-0.000	ug/L	0.001	235	32	30	19
Sb	121	0.020	ug/L	0.007	36	198	427	19
Sb	123	0.017	ug/L	0.006	34	157	300	16
Ba	135	0.003	ug/L	0.001	31	24	32	7
[ Ba	137	0.004	ug/L	0.004	104	36	56	36
[> Tb	159		ug/L			612197	612322 ✓	0
Tl	205	0.001	ug/L	0.001	129	250	281	14
Pb	208	-0.003	ug/L	0.002	67	1016	823	15
Bi	209		ug/L			532877	529663	0
Th	232	0.024	ug/L	0.010	41	1565	3332	21
[ U	238	-0.006	ug/L	0.001	19	1000	494	19

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:43:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	768542✓	0
[ Be	9	48.940	ug/L	0.792	1	23	36767	1
C	13		mg/L			6243	2535	2
Cl	37		mg/L			1387303	1382663	0
[> Sc	45		ug/L			409578	413851✓	0
V	51	48.353	ug/L	0.213	0	2772	847493	0
V-1	51	48.405	ug/L	0.410	0	1649	860758	0
Cr	52	48.314	ug/L	0.374	0	8617	738779	0
Cr	53	48.481	ug/L	0.634	1	614	87724	1
Mn	55	48.900	ug/L	0.222	0	377	1269945	0
[ Co	59	48.911	ug/L	0.489	0	55	907786	1
[> Ge	72		ug/L			372563	374562✓	0
Ni	60	49.021	ug/L	0.282	0	49	184994	0
Ni	62	49.284	ug/L	0.391	0	97	27185	0
Cu	63	49.644	ug/L	0.190	0	233	380724	0
Cu	65	49.241	ug/L	0.249	0	114	175545	0
Zn	66	49.478	ug/L	0.635	1	375	117659	0
Zn	67	49.590	ug/L	0.423	0	141	20790	0
Zn	68	48.877	ug/L	0.184	0	5524	86561	0
As	75	48.567	ug/L	0.203	0	145	110082	0
As-1	75	48.319	ug/L	0.250	0	7671	112772	0
Se	82	48.980	ug/L	0.410	0	0	15927	0
Se	78	48.271	ug/L	0.583	1	7997	43687	0
[ Mo	98	47.766	ug/L	0.230	0	87	460690	0
Y	89		ug/L			461134	465904	1
Kr	83		ug/L			197	218	2
[> In	115		ug/L			515607	520080✓	0
Ag	107	48.984	ug/L	0.250	0	75	813894	0
Cd	111	49.115	ug/L	0.308	0	330	205159	0
Cd	114	48.835	ug/L	0.293	0	32	462704	0
Sb	121	48.305	ug/L	0.437	0	198	551646	0
Sb	123	48.136	ug/L	0.630	1	157	412474	1
Ba	135	47.929	ug/L	0.189	0	24	155127	0
[ Ba	137	47.861	ug/L	0.213	0	36	268941	0
[> Tb	159		ug/L			612197	624951✓	0
Tl	205	49.526	ug/L	0.159	0	250	2306220	0
Pb	208	49.170	ug/L	0.256	0	1016	3066428	0
Bi	209		ug/L			532877	527189	0
Th	232	49.627	ug/L	0.204	0	1565	3718643	0
[ U	238	49.226	ug/L	0.759	1	1000	3963085	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 10:49:42

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	731468 ✓	1
[	Be	9	0.013	ug/L	0.007	54	23	30	16
	C	13		mg/L			6243	6023	1
	Cl	37		mg/L			1387303	1391085	0
[>	Sc	45		ug/L			409578	406549 ✓	0
[	V	51	-0.001	ug/L	0.007	780	2772	2736	4
	V-1	51	0.006	ug/L	0.007	128	1649	1735	7
	Cr	52	-0.015	ug/L	0.005	32	8617	8328	1
	Cr	53	0.006	ug/L	0.005	84	614	620	1
	Mn	55	0.002	ug/L	0.000	27	377	421	3
[	Co	59	0.002	ug/L	0.001	42	55	84	14
[>	Ge	72		ug/L			372563	367891 ✓	0
[	Ni	60	0.003	ug/L	0.002	72	49	58	11
	Ni	62	0.005	ug/L	0.026	551	97	98	13
	Cu	63	0.007	ug/L	0.001	8	233	282	0
	Cu	65	0.001	ug/L	0.002	382	114	115	6
	Zn	66	0.020	ug/L	0.008	41	375	416	4
	Zn	67	-0.019	ug/L	0.040	213	141	131	12
	Zn	68	-0.080	ug/L	0.050	62	5524	5325	1
	As	75	0.015	ug/L	0.012	83	145	175	14
	As-1	75	-0.015	ug/L	0.019	122	7671	7541	0
	Se	82	0.034	ug/L	0.002	6	0	10	5
	Se	78	-0.055	ug/L	0.044	79	7997	7856	0
[	Mo	98	0.005	ug/L	0.004	78	87	133	27
	Y	89		ug/L			461134	462055	1
	Kr	83		ug/L			197	193	2
[>	In	115		ug/L			515607	507772 ✓	0
[	Ag	107	0.007	ug/L	0.001	19	75	180	11
	Cd	111	0.006	ug/L	0.004	60	330	351	4
	Cd	114	0.000	ug/L	0.000	109	32	36	11
	Sb	121	0.060	ug/L	0.016	27	198	866	21
	Sb	123	0.060	ug/L	0.015	25	157	655	19
	Ba	135	0.002	ug/L	0.003	136	24	32	33
[	Ba	137	0.002	ug/L	0.002	114	36	45	22
[>	Tb	159		ug/L			612197	604503 ✓	0
[	Tl	205	0.001	ug/L	0.002	229	250	285	30
	Pb	208	-0.004	ug/L	0.002	41	1016	749	14
	Bi	209		ug/L			532877	531281	0
	Th	232	0.020	ug/L	0.007	37	1565	2979	18
[	U	238	-0.008	ug/L	0.001	12	1000	379	19

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: **LOW CHECK**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, February 28, 2013 10:55:10**

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	727330 ✓	0
[ Be	9	0.228 ✓	ug/L	0.019	8	23	182	6
C	13		mg/L			6243	5521	1
Cl	37		mg/L			1387303	1410923	0
[> Sc	45		ug/L			409578	401487 ✓	0
[ V	51	0.194 ✓	ug/L	0.008	4	2772	6005	1
V-1	51	0.212 ✓	ug/L	0.002	0	1649	5269	0
Cr	52	0.490 ✓	ug/L	0.011	2	8617	15627	1
Cr	53	0.532 ✓	ug/L	0.030	5	614	1530	3
Mn	55	0.523 ✓	ug/L	0.012	2	377	13541	1
[ Co	59	0.213 ✓	ug/L	0.002	1	55	3889	1
[> Ge	72		ug/L			372563	366889 ✓	0
Ni	60	0.524 ✓	ug/L	0.016	3	49	1984	3
Ni	62	0.538 ✓	ug/L	0.030	5	97	385	4
Cu	63	0.564 ✓	ug/L	0.007	1	233	4460	1
Cu	65	0.559 ✓	ug/L	0.006	1	114	2062	0
Zn	66	4.309 ✓	ug/L	0.091	2	375	10374	1
Zn	67	3.694 ✓	ug/L	0.132	3	141	1645	3
Zn	68	4.151 ✓	ug/L	0.065	1	5524	12179	1
As	75	0.244 ✓	ug/L	0.008	3	145	684	2
As-1	75	0.220 ✓	ug/L	0.017	7	7671	8023	0
Se	82	0.559 ✓	ug/L	0.052	9	0	177	9
Se	78	0.540 ✓	ug/L	0.058	10	7997	8265	0
[ Mo	98	0.199 ✓	ug/L	0.006	2	87	1963	2
Y	89		ug/L			461134	458945	0
Kr	83		ug/L			197	197	4
[> In	115		ug/L			515607	506212 ✓	0
Ag	107	0.231 ✓	ug/L	0.008	3	75	3816	3
Cd	111	0.109 ✓	ug/L	0.008	7	330	765	4
Cd	114	0.108 ✓	ug/L	0.002	1	32	1027	0
Sb	121	0.217 ✓	ug/L	0.003	1	198	2610	0
Sb	123	0.218 ✓	ug/L	0.005	2	157	1968	2
Ba	135	0.495 ✓	ug/L	0.016	3	24	1582	3
[ Ba	137	0.495 ✓	ug/L	0.010	1	36	2740	1
[> Tb	159		ug/L			612197	598660 ✓	0
Tl	205	0.210 ✓	ug/L	0.003	1	250	9592	1
Pb	208	0.102 ✓	ug/L	0.003	2	1016	7073	2
Bi	209		ug/L			532877	524595	0
Th	232	0.202 ✓	ug/L	0.001	0	1565	16008	0
[ U	238	0.193 ✓	ug/L	0.001	0	1000	15829	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:00:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	757697 ✓	0
[ Be	9	0.005	ug/L	0.007	148	23	25	19
C	13		mg/L			6243	17119	1
Cl	37		mg/L			1387303	3063857	1
[> Sc	45		ug/L			409578	380690 ✓	1
V	51	0.022	ug/L	0.020	92	2772	2925	10
V-1	51	0.906	ug/L	0.012	1	1649	16322	1
Cr	52	0.466	ug/L	0.015	3	8617	14493	1
Cr	53	3.237	ug/L	0.047	1	614	5922	2
Mn	55	0.097	ug/L	0.005	4	377	2666	3
[ Co	59	0.034	ug/L	0.002	6	55	630	4
[> Ge	72		ug/L			372563	341454 ✓	0
Ni	60	0.965	ug/L	0.018	1	49	3363	2
Ni	62	5.902	ug/L	0.148	2	97	3045	1
Cu	63	0.646	ug/L	0.011	1	233	4726	1
Cu	65	0.959	ug/L	0.008	0	114	3220	0
Zn	66	1.870	ug/L	0.063	3	375	4386	3
Zn	67	1.421	ug/L	0.090	6	141	668	5
Zn	68	0.593	ug/L	0.115	19	5524	5958	2
As	75	0.125	ug/L	0.016	13	145	391	8
As-1	75	0.039	ug/L	0.023	58	7671	7108	0
Se	82	-0.074	ug/L	0.021	27	0	-22	27
Se	78	0.009	ug/L	0.004	38	7997	7335	0
[ Mo	98	410.739	ug/L	1.588	0	87	3610658	0
Y	89		ug/L			461134	421041	1
Kr	83		ug/L			197	276	0
[> In	115		ug/L			515607	463853 ✓	1
Ag	107	0.026	ug/L	0.002	9	75	446	8
Cd	111	0.101	ug/L	0.006	5	330	673	1
Cd	114	0.932	ug/L	0.034	3	32	7905	2
Sb	121	0.066	ug/L	0.002	3	198	845	2
Sb	123	0.066	ug/L	0.007	9	157	646	7
Ba	135	0.062	ug/L	0.002	3	24	200	3
[ Ba	137	0.051	ug/L	0.004	7	36	286	7
[> Tb	159		ug/L			612197	570401 ✓	0
Tl	205	0.029	ug/L	0.002	5	250	1484	3
Pb	208	0.034	ug/L	0.001	3	1016	2862	2
Bi	209		ug/L			532877	449562	0
Th	232	0.044	ug/L	0.008	17	1565	4446	11
[ U	238	-0.009	ug/L	0.001	8	1000	287	18



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:06:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	776333✓	0
[ Be	9	0.005	ug/L	0.002	36	23	26	5
C	13		mg/L			6243	17195	0
Cl	37		mg/L			1387303	2985961	0
[> Sc	45		ug/L			409578	378189✓	0
V	51	-0.324	ug/L	0.093	28	2772	-2610	57
V-1	51	0.910	ug/L	0.031	3	1649	16275	2
Cr	52	20.624	ug/L	0.236	1	8617	292738	0
Cr	53	23.482	ug/L	0.264	1	614	39119	0
Mn	55	20.429	ug/L	0.192	0	377	485016	1
[ Co	59	20.104	ug/L	0.199	0	55	340988	0
[> Ge	72		ug/L			372563	339873✓	0
Ni	60	20.415	ug/L	0.106	0	49	69934	0
Ni	62	25.292	ug/L	0.183	0	97	12702	0
Cu	63	20.009	ug/L	0.264	1	233	139360	1
Cu	65	20.198	ug/L	0.250	1	114	65401	1
Zn	66	20.802	ug/L	0.194	0	375	45086	1
Zn	67	17.491	ug/L	0.200	1	141	6737	1
Zn	68	19.175	ug/L	0.127	0	5524	33875	0
As	75	18.890	ug/L	0.060	0	145	38931	0
As-1	75	19.544	ug/L	0.086	0	7671	45556	0
Se	82	-0.077	ug/L	0.059	77	0	-23	75
Se	78	-0.122	ug/L	0.124	101	7997	7213	0
[ Mo	98	406.190	ug/L	0.417	0	87	3554100	0
Y	89		ug/L			461134	415983	0
Kr	83		ug/L			197	264	5
[> In	115		ug/L			515607	466346✓	0
Ag	107	19.684	ug/L	0.160	0	75	293307	0
Cd	111	20.205	ug/L	0.129	0	330	75854	1
Cd	114	21.078	ug/L	0.056	0	32	179095	0
Sb	121	0.059	ug/L	0.001	1	198	782	1
Sb	123	0.060	ug/L	0.005	8	157	601	7
Ba	135	0.051	ug/L	0.006	11	24	169	9
[ Ba	137	0.046	ug/L	0.003	6	36	263	5
[> Tb	159		ug/L			612197	575893✓	0
Tl	205	0.030	ug/L	0.003	9	250	1504	6
Pb	208	0.042	ug/L	0.002	3	1016	3342	1
Bi	209		ug/L			532877	451256	0
Th	232	0.020	ug/L	0.000	0	1565	2849	0
[ U	238	-0.004	ug/L	0.001	40	1000	672	15

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:12:33

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	737456 ✓	1
[	Be	9	191.973	ug/L	2.132	1	23	138321	1
	C	13		mg/L			6243	5110	1
	Cl	37		mg/L			1387303	1294068	0
[>	Sc	45		ug/L			409578	377493 ✓	0
[	V	51	200.189	ug/L	1.664	0	2772	3192473	0
	V-1	51	200.332	ug/L	1.228	0	1649	3244612	0
	Cr	52	200.161	ug/L	1.830	0	8617	2766838	0
	Cr	53	200.613	ug/L	0.628	0	614	329326	0
	Mn	55	200.812	ug/L	1.437	0	377	4755896	1
[	Co	59	199.571	ug/L	0.449	0	55	3378427	0
[>	Ge	72		ug/L			372563	340991 ✓	0
[	Ni	60	194.164	ug/L	1.564	0	49	666929	0
	Ni	62	193.937	ug/L	1.538	0	97	97129	0
	Cu	63	190.834	ug/L	1.347	0	233	1331728	0
	Cu	65	190.486	ug/L	0.953	0	114	617931	0
	Zn	66	191.775	ug/L	1.789	0	375	414197	0
	Zn	67	192.055	ug/L	2.329	1	141	72932	1
	Zn	68	191.168	ug/L	1.435	0	5524	293495	0
	As	75	197.557	ug/L	0.763	0	145	407243	0
	As-1	75	197.972	ug/L	0.949	0	7671	398897	0
	Se	82	190.221	ug/L	0.200	0	0	56316	0
	Se	78	190.581	ug/L	0.714	0	7997	135451	0
[	Mo	98	207.961	ug/L	1.845	0	87	1825660	0
	Y	89		ug/L			461134	422852	0
	Kr	83		ug/L			197	292	2
[>	In	115		ug/L			515607	469590 ✓	0
[	Ag	107	197.877	ug/L	3.941	1	75	2968210	1
	Cd	111	201.087	ug/L	1.800	0	330	757487	1
	Cd	114	202.340	ug/L	2.811	1	32	1730810	0
	Sb	121	209.840	ug/L	1.812	0	198	2163076	0
	Sb	123	206.376	ug/L	1.984	0	157	1596232	0
	Ba	135	202.375	ug/L	0.933	0	24	591347	0
[	Ba	137	202.246	ug/L	1.207	0	36	1025999	0
[>	Tb	159		ug/L			612197	578202 ✓	0
[	Tl	205	200.793	ug/L	1.494	0	250	8649888	0
	Pb	208	201.489	ug/L	0.921	0	1016	11622680	0
	Bi	209		ug/L			532877	449088	0
	Th	232	206.747	ug/L	2.565	1	1565	14328415	1
[	U	238	205.004	ug/L	2.011	0	1000	15267432	0

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:18:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	673332 ✓	2
[ Be	9	294.825	ug/L	2.103	0	23	193936	1
C	13		mg/L			6243	4850	2
Cl	37		mg/L			1387303	1300108	1
[> Sc	45		ug/L			409578	374410 ✓	0
V	51	305.450	ug/L	3.863	1	2772	4829785	0
V-1	51	305.054	ug/L	3.544	1	1649	4899384	0
Cr	52	304.094	ug/L	3.273	1	8617	4164967	0
Cr	53	302.908	ug/L	2.291	0	614	492898	0
Mn	55	305.008	ug/L	1.989	0	377	7164249	0
[ Co	59	303.580	ug/L	1.169	0	55	5097082	0
[> Ge	72		ug/L			372563	342706 ✓	0
Ni	60	287.503	ug/L	1.774	0	49	992470	0
Ni	62	286.695	ug/L	1.401	0	97	144263	0
Cu	63	280.116	ug/L	2.547	0	233	1964482	0
Cu	65	280.112	ug/L	1.323	0	114	913188	0
Zn	66	278.787	ug/L	1.524	0	375	604986	0
Zn	67	279.998	ug/L	1.924	0	141	106804	0
Zn	68	276.083	ug/L	0.126	0	5524	423736	0
As	75	287.089	ug/L	1.098	0	145	594713	0
As-1	75	289.319	ug/L	1.226	0	7671	582624	0
Se	82	269.810	ug/L	0.671	0	0	80281	0
Se	78	274.304	ug/L	1.122	0	7997	192703	0
[ Mo	98	326.588	ug/L	1.630	0	87	2881455	0
Y	89		ug/L			461134	415061	0
Kr	83		ug/L			197	338	2
[> In	115		ug/L			515607	463783 ✓	0
Ag	107	300.993	ug/L	1.693	0	75	4459472	0
Cd	111	300.664	ug/L	2.183	0	330	1118405	0
Cd	114	307.173	ug/L	0.429	0	32	2595246	0
Sb	121	313.382	ug/L	2.784	0	198	3190379	0
Sb	123	313.520	ug/L	2.584	0	157	2394910	0
Ba	135	300.080	ug/L	4.257	1	24	865952	0
[ Ba	137	300.036	ug/L	2.595	0	36	1503251	0
[> Tb	159		ug/L			612197	588923 ✓	0
Tl	205	305.257	ug/L	3.660	1	250	12938517	0
Pb	208	302.262	ug/L	2.482	0	1016	17155251	0
Bi	209		ug/L			532877	424358	0
Th	232	308.889	ug/L	1.397	0	1565	21063351	0
[ U	238	311.572	ug/L	3.889	1	1000	22830141	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:25:07

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	730764 ✓	1
[ Be	9	50.171	ug/L	1.088	2	23	35831	0
C	13		mg/L			6243	2598	4
Cl	37		mg/L			1387303	1376812	0
[> Sc	45		ug/L			409578	411995 ✓	0
V	51	48.223	ug/L	0.812	1	2772	841472	2
V-1	51	48.365	ug/L	0.638	1	1649	856198	1
Cr	52	48.554	ug/L	0.285	0	8617	739087	1
Cr	53	48.984	ug/L	0.457	0	614	88226	0
Mn	55	49.530	ug/L	0.840	1	377	1280475	1
[ Co	59	49.011	ug/L	0.481	0	55	905535	0
[> Ge	72		ug/L			372563	380974 ✓	0
Ni	60	48.484	ug/L	0.173	0	49	186101	0
Ni	62	48.389	ug/L	0.504	1	97	27150	0
Cu	63	48.884	ug/L	0.102	0	233	381315	0
Cu	65	48.764	ug/L	0.266	0	114	176822	0
Zn	66	49.048	ug/L	0.378	0	375	118640	0
Zn	67	48.869	ug/L	0.912	1	141	20841	1
Zn	68	48.517	ug/L	0.653	1	5524	87436	1
As	75	48.207	ug/L	0.387	0	145	111136	0
As-1	75	47.968	ug/L	0.522	1	7671	113924	0
Se	82	48.596	ug/L	0.085	0	0	16073	0
Se	78	47.870	ug/L	0.495	1	7997	44134	0
[ Mo	98	47.457	ug/L	0.741	1	87	465530	1
Y	89		ug/L			461134	475335	0
Kr	83		ug/L			197	210	3
[> In	115		ug/L			515607	527281 ✓	1
Ag	107	48.524	ug/L	0.262	0	75	817414	1
Cd	111	48.713	ug/L	0.336	0	330	206291	0
Cd	114	48.709	ug/L	0.193	0	32	467893	0
Sb	121	48.017	ug/L	0.291	0	198	555937	0
Sb	123	48.305	ug/L	0.521	1	157	419636	0
Ba	135	47.663	ug/L	0.334	0	24	156399	0
[ Ba	137	47.668	ug/L	0.521	1	36	271556	1
[> Tb	159		ug/L			612197	624495 ✓	0
Tl	205	51.352	ug/L	0.215	0	250	2389559	1
Pb	208	49.860	ug/L	0.322	0	1016	3107136	0
Bi	209		ug/L			532877	528560	0
Th	232	50.858	ug/L	0.315	0	1565	3808044	0
[ U	238	50.643	ug/L	0.209	0	1000	4074282	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:31:26

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	726462 ✓	1
[	Be	9	0.005	ug/L	0.008	160	23	24	23
	C	13		mg/L			6243	5792	3
	Cl	37		mg/L			1387303	1409217	0
[>	Sc	45		ug/L			409578	410526 ✓	0
	V	51	-0.006	ug/L	0.005	86	2772	2683	3
	V-1	51	0.033	ug/L	0.003	9	1649	2238	2
	Cr	52	-0.026	ug/L	0.013	48	8617	8245	2
	Cr	53	0.097	ug/L	0.017	17	614	789	2
	Mn	55	0.006	ug/L	0.002	35	377	535	9
[	Co	59	0.003	ug/L	0.001	27	55	108	13
[>	Ge	72		ug/L			372563	372572 ✓	0
	Ni	60	0.001	ug/L	0.002	160	49	54	16
	Ni	62	0.013	ug/L	0.018	142	97	104	9
	Cu	63	0.017	ug/L	0.002	11	233	365	4
	Cu	65	0.006	ug/L	0.002	36	114	135	5
	Zn	66	0.010	ug/L	0.003	32	375	398	2
	Zn	67	-0.020	ug/L	0.024	120	141	132	7
	Zn	68	-0.051	ug/L	0.089	175	5524	5440	2
	As	75	-0.000	ug/L	0.006	1346	145	144	9
	As-1	75	-0.006	ug/L	0.028	496	7671	7658	0
	Se	82	-0.040	ug/L	0.030	75	0	-13	73
	Se	78	-0.054	ug/L	0.075	139	7997	7957	0
[	Mo	98	0.017	ug/L	0.005	28	87	248	19
	Y	89		ug/L			461134	465436	1
	Kr	83		ug/L			197	198	4
[>	In	115		ug/L			515607	518360 ✓	1
	Ag	107	0.013	ug/L	0.003	20	75	294	16
	Cd	111	0.009	ug/L	0.002	24	330	369	3
	Cd	114	0.002	ug/L	0.001	68	32	52	24
	Sb	121	0.089	ug/L	0.023	26	198	1211	22
	Sb	123	0.086	ug/L	0.026	30	157	894	26
	Ba	135	0.005	ug/L	0.002	38	24	40	15
[	Ba	137	0.004	ug/L	0.002	37	36	60	15
[>	Tb	159		ug/L			612197	612044 ✓	0
	Tl	205	0.008	ug/L	0.002	30	250	602	17
	Pb	208	-0.000	ug/L	0.002	15650	1016	1015	9
	Bi	209		ug/L			532877	534530	1
	Th	232	0.037	ug/L	0.011	30	1565	4286	19
[	U	238	-0.004	ug/L	0.001	27	1000	648	15

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 MB1 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:41:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	784355✓	1
[ Be	9	0.012	ug/L	0.007	62	23	31	16
C	13		mg/L			6243	5465	1
Cl	37		mg/L			1387303	1403938	0
[> Sc	45		ug/L			409578	429960✓	0
V	51	✓ -0.006	ug/L	0.007	110	2772	2794	5
V-1	51	0.027	ug/L	0.004	15	1649	2236	3
Cr	52	✓ -0.030	ug/L	0.007	24	8617	8578	1
Cr	53	0.078	ug/L	0.021	26	614	790	4
Mn	55	0.013	ug/L	0.000	1	377	758	1
Co	59	0.000	ug/L	0.001	173	55	67	23
[> Ge	72		ug/L			372563	390572✓	0
Ni	60	0.002	ug/L	0.002	110	49	60	15
Ni	62	0.034	ug/L	0.023	69	97	121	11
Cu	63	0.014	ug/L	0.002	11	233	359	4
Cu	65	0.010	ug/L	0.006	57	114	155	12
Zn	66	0.250	ug/L	0.009	3	375	1010	2
Zn	67	0.204	ug/L	0.015	7	141	236	2
Zn	68	0.021	ug/L	0.020	97	5524	5827	0
As	75	✓ 0.002	ug/L	0.026	1282	145	157	38
As-1	75	-0.143	ug/L	0.070	49	7671	7716	1
Se	82	✓ -0.005	ug/L	0.021	380	0	-2	299
Se	78	-0.457	ug/L	0.141	30	7997	8031	0
Mo	98	0.001	ug/L	0.001	48	87	104	6
Y	89		ug/L			461134	493967	0
Kr	83		ug/L			197	199	1
[> In	115		ug/L			515607	539487✓	0
Ag	107	✓ 0.006	ug/L	0.001	17	75	190	10
Cd	111	0.002	ug/L	0.002	154	330	352	3
Cd	114	-0.001	ug/L	0.000	46	32	27	12
Sb	121	✓ 0.013	ug/L	0.002	15	198	363	6
Sb	123	0.010	ug/L	0.003	26	157	255	9
Ba	135	0.013	ug/L	0.002	12	24	70	7
Ba	137	0.013	ug/L	0.002	18	36	115	12
[> Tb	159		ug/L			612197	642736✓	0
Tl	205	-0.000	ug/L	0.000	67	250	241	6
Pb	208	✓ -0.001	ug/L	0.000	54	1016	1008	2
Bi	209		ug/L			532877	560986	0
Th	232	0.007	ug/L	0.002	33	1565	2188	8
U	238	-0.009	ug/L	0.000	2	1000	304	7

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 B SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:47:02

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	793717 ✓	0
[ Be	9	0.691	ug/L	0.046	6	23	559	6
C	13		mg/L			6243	8991	0
Cl	37		mg/L			1387303	1384524	0
[> Sc	45		ug/L			409578	489296 ✓	0
V	51	22.886	ug/L	0.201	0	2772	475965	0
V-1	51	22.751	ug/L	0.218	0	1649	479325	0
Cr	52	9.608	ug/L	0.091	0	8617	181938	0
Cr	53	9.840	ug/L	0.179	1	614	21633	0
Mn	55	433.270	ug/L	5.544	1	377	13298679	0
[ Co	59	8.659	ug/L	0.061	0	55	190057	0
[> Ge	72		ug/L			372563	389714 ✓	0
Ni	60	11.016	ug/L	0.134	1	49	43295	1
Ni	62	11.162	ug/L	0.060	0	97	6484	0
Cu	63	14.952	ug/L	0.117	0	233	119476	0
Cu	65	14.939	ug/L	0.076	0	114	55495	0
Zn	66	61.884	ug/L	0.313	0	375	153016	0
Zn	67	59.401	ug/L	0.196	0	141	25883	1
Zn	68	63.209	ug/L	0.461	0	5524	114772	0
As	75	47.591	ug/L	0.267	0	145	112234	0
As-1	75	49.165	ug/L	0.340	0	7671	119244	0
Se	82	✓ 0.252	ug/L	0.030	12	0	84	11
Se	78	-0.567	ug/L	0.177	31	7997	7929	0
[ Mo	98	0.143	ug/L	0.004	2	87	1525	3
Y	89		ug/L			461134	908380	0
Kr	83		ug/L			197	287	4
[> In	115		ug/L			515607	538739 ✓	0
Ag	107	0.863	ug/L	0.011	1	75	14928	1
Cd	111	0.476	ug/L	0.031	6	330	2404	6
Cd	114	0.110	ug/L	0.005	4	32	1113	4
Sb	121	✓ 0.018	ug/L	0.001	5	198	416	2
Sb	123	0.017	ug/L	0.003	15	157	315	7
Ba	135	111.884	ug/L	0.305	0	24	375087	0
[ Ba	137	111.053	ug/L	0.267	0	36	646378	1
[> Tb	159		ug/L			612197	650782 ✓	0
Tl	205	0.197	ug/L	0.002	1	250	9803	1
Pb	208	10.894	ug/L	0.082	0	1016	708291	0
Bi	209		ug/L			532877	531560	0
Th	232	2.210	ug/L	0.018	0	1565	174003	0
[ U	238	0.393	ug/L	0.003	0	1000	34009	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 C SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:52:59

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	768082 ✓	2
[ Be	9	0.211	ug/L	0.015	7	23	180	5
C	13		mg/L			6243	9229	1
Cl	37		mg/L			1387303	1429448	0
[> Sc	45		ug/L			409578	445168 ✓	0
V	51	10.559	ug/L	0.087	0	2772	201435	1
V-1	51	10.523	ug/L	0.109	1	1649	202698	1
Cr	52	6.956	ug/L	0.017	0	8617	122430	1
Cr	53	7.021	ug/L	0.098	1	614	14238	2
Mn	55	130.278	ug/L	1.105	0	377	3638848	1
[ Co	59	1.149	ug/L	0.019	1	55	23000	2
[> Ge	72		ug/L			372563	390082 ✓	1
Ni	60	1.907	ug/L	0.027	1	49	7546	2
Ni	62	1.998	ug/L	0.014	0	97	1245	2
Cu	63	21.485	ug/L	0.170	0	233	171739	2
Cu	65	21.677	ug/L	0.111	0	114	80550	1
Zn	66	17.999	ug/L	0.146	0	375	44825	1
Zn	67	19.227	ug/L	0.256	1	141	8484	0
Zn	68	19.204	ug/L	0.218	1	5524	38926	0
As	75	177.610	ug/L	0.868	0	145	418825	1
As-1	75	184.520	ug/L	0.932	0	7671	425838	1
Se	82	1.039	ug/L	0.028	2	0	351	1
Se	78	u 0.106	ug/L	0.093	87	7997	8453	0
[ Mo	98	0.098	ug/L	0.002	2	87	1076	0
Y	89		ug/L			461134	617571	1
Kr	83		ug/L			197	226	3
[> In	115		ug/L			515607	535410 ✓	1
Ag	107	8.294	ug/L	0.025	0	75	141946	2
Cd	111	0.127	ug/L	0.006	4	330	889	4
Cd	114	0.009	ug/L	0.001	17	32	119	12
Sb	121	u 0.027	ug/L	0.001	4	198	527	3
Sb	123	0.024	ug/L	0.001	4	157	375	4
Ba	135	69.889	ug/L	1.151	1	24	232816	0
[ Ba	137	69.488	ug/L	0.925	1	36	401902	0
[> Tb	159		ug/L			612197	646057 ✓	0
Tl	205	0.377	ug/L	0.003	0	250	18392	0
Pb	208	13.181	ug/L	0.076	0	1016	850554	0
Bi	209		ug/L			532877	539909	0
Th	232	2.116	ug/L	0.033	1	1565	165482	1
[ U	238	0.255	ug/L	0.001	0	1000	22286	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 D SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 11:58:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	739326 ✓	1
[	Be	9	ug/L	0.055	7	23	517	7
	C	13	mg/L			6243	7595	1
	Cl	37	mg/L			1387303	1429856	0
[>	Sc	45	ug/L			409578	463000 ✓	0
[	V	51	ug/L	0.114	0	2772	433505	0
	V-1	51	ug/L	0.094	0	1649	436164	0
	Cr	52	ug/L	0.086	0	8617	211103	0
	Cr	53	ug/L	0.066	0	614	24705	0
	Mn	55	ug/L	4.524	0	377	16951380	0
[	Co	59	ug/L	0.024	0	55	61864	0
[>	Ge	72	ug/L			372563	385293 ✓	0
[	Ni	60	ug/L	0.045	0	49	19554	1
	Ni	62	ug/L	0.081	1	97	3043	0
	Cu	63	ug/L	0.117	0	233	265307	0
	Cu	65	ug/L	0.180	0	114	124279	1
	Zn	66	ug/L	0.216	0	375	105543	0
	Zn	67	ug/L	0.475	1	141	18706	0
	Zn	68	ug/L	0.392	0	5524	81662	0
	As	75	ug/L	0.501	0	145	445146	0
	As-1	75	ug/L	0.529	0	7671	452129	0
	Se	82	ug/L	0.024	5	0	145	5
	Se	78	ug/L	0.031	9	7997	8020	0
[	Mo	98	ug/L	0.006	4	87	1297	4
	Y	89	ug/L			461134	833252	0
	Kr	83	ug/L			197	273	5
[>	In	115	ug/L			515607	519628 ✓	0
[	Ag	107	ug/L	0.014	1	75	20029	1
	Cd	111	ug/L	0.000	0	330	1126	0
	Cd	114	ug/L	0.001	2	32	306	1
	Sb	121	ug/L	0.001	16	198	245	3
	Sb	123	ug/L	0.003	132	157	175	12
	Ba	135	ug/L	0.897	0	24	328355	0
[	Ba	137	ug/L	1.675	1	36	565994	1
[>	Tb	159	ug/L			612197	644060 ✓	0
[	Tl	205	ug/L	0.003	1	250	12440	1
	Pb	208	ug/L	0.107	0	1016	915954	0
	Bi	209	ug/L			532877	523329	1
	Th	232	ug/L	0.021	0	1565	218612	0
[	U	238	ug/L	0.003	0	1000	35078	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 A-L SWN

Sample Dil Factor: 100

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:04:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	743016 ✓	1
[ Be	9	0.136	ug/L	0.010	7	23	120	7
C	13		mg/L			6243	5325	0
Cl	37		mg/L			1387303	1493244	0
[> Sc	45		ug/L			409578	430254 ✓	0
V	51	4.236	ug/L	0.025	0	2772	79850	0
V-1	51	4.261	ug/L	0.034	0	1649	80354	0
Cr	52	2.638	ug/L	0.025	0	8617	50501	1
Cr	53	2.796	ug/L	0.052	1	614	5867	1
Mn	55	152.675	ug/L	0.388	0	377	4121257	0
[ Co	59	0.638	ug/L	0.011	1	55	12368	1
[> Ge	72		ug/L			372563	385797 ✓	0
Ni	60	1.078	ug/L	0.026	2	49	4240	2
Ni	62	1.131	ug/L	0.038	3	97	740	3
Cu	63	7.854	ug/L	0.087	1	233	62241	0
Cu	65	7.823	ug/L	0.065	0	114	28827	0
Zn	66	6.991	ug/L	0.077	1	375	17458	1
Zn	67	6.957	ug/L	0.036	0	141	3130	0
Zn	68	7.113	ug/L	0.032	0	5524	17863	0
As	75	33.007	ug/L	0.181	0	145	77106	0
As-1	75	34.290	ug/L	0.208	0	7671	84737	0
Se	82	✓ 0.123	ug/L	0.035	28	0	40	28
Se	78	-0.028	ug/L	0.113	401	7997	8260	1
[ Mo	98	0.023	ug/L	0.000	0	87	316	0
Y	89		ug/L			461134	533181	0
Kr	83		ug/L			197	218	4
[> In	115		ug/L			515607	522175 ✓	1
Ag	107	0.303	ug/L	0.006	2	75	5131	2
Cd	111	0.044	ug/L	0.008	18	330	518	5
Cd	114	0.003	ug/L	0.002	71	32	60	33
Sb	121	✓ -0.001	ug/L	0.001	86	198	186	6
Sb	123	-0.003	ug/L	0.002	69	157	132	15
Ba	135	13.463	ug/L	0.008	0	24	43767	1
[ Ba	137	13.422	ug/L	0.235	1	36	75741	0
[> Tb	159		ug/L			612197	630314 ✓	1
Tl	205	0.049	ug/L	0.002	3	250	2550	2
Pb	208	2.660	ug/L	0.032	1	1016	168260	0
Bi	209		ug/L			532877	542068	0
Th	232	0.513	ug/L	0.008	1	1565	40355	0
[ U	238	0.064	ug/L	0.002	3	1000	6199	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 A SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:10:54

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	764520 ✓	0
[ Be	9	0.611	ug/L	0.025	4	23	478	4
C	13		mg/L			6243	8073	1
Cl	37		mg/L			1387303	1469070	1
[> Sc	45		ug/L			409578	466562 ✓	0
V	51	19.138	ug/L	0.039	0	2772	380062	0
V-1	51	19.110	ug/L	0.064	0	1649	384230	0
Cr	52	11.910	ug/L	0.133	1	8617	212694	0
Cr	53	12.179	ug/L	0.072	0	614	25367	0
Mn	55	683.863	ug/L	3.785	0	377	20016927	1
[ Co	59	2.878	ug/L	0.002	0	55	60268	0
[> Ge	72		ug/L			372563	393001 ✓	0
Ni	60	5.171	ug/L	0.046	0	49	20523	1
Ni	62	5.251	ug/L	0.176	3	97	3130	3
Cu	63	36.544	ug/L	0.190	0	233	294115	0
Cu	65	36.555	ug/L	0.441	1	114	136771	1
Zn	66	31.817	ug/L	0.227	0	375	79530	1
Zn	67	32.908	ug/L	0.351	1	141	14526	1
Zn	68	32.665	ug/L	0.290	0	5524	62630	0
As	75	155.390	ug/L	1.214	0	145	369205	0
As-1	75	161.430	ug/L	1.265	0	7671	376369	0
Se	82	u 0.499	ug/L	0.030	6	0	169	5
Se	78	-0.266	ug/L	0.040	15	7997	8229	0
[ Mo	98	0.121	ug/L	0.005	3	87	1321	3
Y	89		ug/L			461134	739049	0
Kr	83		ug/L			197	260	1
[> In	115		ug/L			515607	523678 ✓	0
Ag	107	1.435	ug/L	0.013	0	75	24082	0
Cd	111	0.153	ug/L	0.015	9	330	979	5
Cd	114	0.019	ug/L	0.001	4	32	210	3
Sb	121	u 0.001	ug/L	0.001	73	198	217	6
Sb	123	0.001	ug/L	0.005	410	157	170	23
Ba	135	65.439	ug/L	0.211	0	24	213253	0
[ Ba	137	65.047	ug/L	0.436	0	36	368036	1
[> Tb	159		ug/L			612197	643684 ✓	0
Tl	205	0.244	ug/L	0.003	1	250	11943	1
Pb	208	12.503	ug/L	0.113	0	1016	803944	0
Bi	209		ug/L			532877	526853	0
Th	232	2.437	ug/L	0.007	0	1565	189686	0
[ U	238	0.337	ug/L	0.003	0	1000	28961	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 ADUP SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:16:52

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	756694 ✓	1
[ Be	9	0.651	ug/L	0.037	5	23	503	6
C	13		mg/L			6243	8941	0
Cl	37		mg/L			1387303	1481597	0
[> Sc	45		ug/L			409578	461462 ✓	0
V	51	20.978	ug/L	0.161	0	2772	411752	1
V-1	51	20.886	ug/L	0.127	0	1649	415179	0
Cr	52	12.617	ug/L	0.181	1	8617	222294	1
Cr	53	12.740	ug/L	0.192	1	614	26215	1
Mn	55	730.127	ug/L	9.202	1	377	21136868	1
[ Co	59	2.996	ug/L	0.024	0	55	62070	1
[> Ge	72		ug/L			372563	388756 ✓	0
Ni	60	5.126	ug/L	0.046	0	49	20124	1
Ni	62	5.434	ug/L	0.189	3	97	3201	3
Cu	63	37.350	ug/L	0.066	0	233	297347	0
Cu	65	37.100	ug/L	0.460	1	114	137307	1
Zn	66	32.597	ug/L	0.442	1	375	80591	1
Zn	67	33.728	ug/L	0.450	1	141	14724	1
Zn	68	33.577	ug/L	0.556	1	5524	63524	1
As	75	166.111	ug/L	1.743	1	145	390409	1
As-1	75	172.598	ug/L	1.804	1	7671	397512	1
Se	82	u 0.471	ug/L	0.043	9	0	158	9
Se	78	-0.235	ug/L	0.075	31	7997	8164	0
[ Mo	98	0.074	ug/L	0.002	2	87	831	2
Y	89		ug/L			461134	750869	1
Kr	83		ug/L			197	269	1
[> In	115		ug/L			515607	516747 ✓	0
Ag	107	1.406	ug/L	0.023	1	75	23281	2
Cd	111	0.176	ug/L	0.011	6	330	1059	3
Cd	114	0.018	ug/L	0.002	8	32	205	7
Sb	121	u 0.000	ug/L	0.001	1693	198	199	6
Sb	123	-0.002	ug/L	0.004	185	157	139	25
Ba	135	69.482	ug/L	0.282	0	24	223438	0
[ Ba	137	69.422	ug/L	0.514	0	36	387594	1
[> Tb	159		ug/L			612197	641217 ✓	0
Tl	205	0.247	ug/L	0.004	1	250	12055	1
Pb	208	12.805	ug/L	0.100	0	1016	820158	1
Bi	209		ug/L			532877	522873	0
Th	232	2.634	ug/L	0.021	0	1565	204091	1
[ U	238	0.358	ug/L	0.002	0	1000	30626	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 ASPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:22:51

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	750988 ✓	2
[	Be	9	23.876	ug/L	0.459	1	23	17533	0
	C	13		mg/L			6243	5658	1
	Cl	37		mg/L			1387303	1486555	0
[>	Sc	45		ug/L			409578	470463 ✓	0
	V	51	43.016	ug/L	0.108	0	2772	857448	1
	V-1	51	42.927	ug/L	0.091	0	1649	867979	0
	Cr	52	34.731	ug/L	0.069	0	8617	606519	1
	Cr	53	34.862	ug/L	0.469	1	614	71904	0
	Mn	55	723.509	ug/L	2.277	0	377	21353417	0
[	Co	59	24.605	ug/L	0.129	0	55	519171	1
[>	Ge	72		ug/L			372563	382671 ✓	0
	Ni	60	29.365	ug/L	0.363	1	49	113241	1
	Ni	62	29.271	ug/L	0.529	1	97	16535	1
	Cu	63	62.259	ug/L	0.100	0	233	487744	0
	Cu	65	62.494	ug/L	0.341	0	114	227587	0
	Zn	66	109.642	ug/L	0.214	0	375	265916	0
	Zn	67	102.396	ug/L	0.943	0	141	43703	0
	Zn	68	109.140	ug/L	0.204	0	5524	190473	0
	As	75	181.624	ug/L	0.486	0	145	420170	0
	As-1	75	186.641	ug/L	0.715	0	7671	422476	0
	Se	82	69.075	ug/L	0.300	0	0	22949	1
	Se	78	70.354	ug/L	0.654	0	7997	61294	0
[	Mo	98	18.711	ug/L	0.095	0	87	184418	0
	Y	89		ug/L			461134	771698	0
	Kr	83		ug/L			197	280	0
[>	In	115		ug/L			515607	509120 ✓	0
	Ag	107	25.042	ug/L	0.179	0	75	407353	0
	Cd	111	25.045	ug/L	0.109	0	330	102569	0
	Cd	114	25.135	ug/L	0.166	0	32	233151	1
	Sb	121	u 0.038	ug/L	0.002	6	198	618	4
	Sb	123	0.038	ug/L	0.003	8	157	474	5
	Ba	135	111.268	ug/L	1.475	1	24	352498	0
[	Ba	137	110.742	ug/L	1.371	1	36	609104	0
[>	Tb	159		ug/L			612197	637571 ✓	1
	Tl	205	22.887	ug/L	0.265	1	250	1087333	0
	Pb	208	38.016	ug/L	0.203	0	1016	2418892	0
	Bi	209		ug/L			532877	515438	0
	Th	232	27.491	ug/L	0.281	1	1565	2102153	0
[	U	238	24.477	ug/L	0.505	2	1000	2011335	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 APOST SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:28:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\Q22813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	749142✓	2
[	Be	9	23.374	ug/L	0.523	2	23	17123	0
	C	13		mg/L			6243	8356	2
	Cl	37		mg/L			1387303	1487953	0
[>	Sc	45		ug/L			409578	450454✓	0
	V	51	40.976	ug/L	0.482	1	2772	782198	1
	V-1	51	40.890	ug/L	0.484	1	1649	791733	1
	Cr	52	34.333	ug/L	0.354	1	8617	574168	1
	Cr	53	34.392	ug/L	0.366	1	614	67930	1
	Mn	55	703.410	ug/L	3.891	0	377	19877274	0
[	Co	59	25.045	ug/L	0.176	0	55	505960	0
[>	Ge	72		ug/L			372563	381912✓	0
	Ni	60	28.785	ug/L	0.037	0	49	110781	0
	Ni	62	28.839	ug/L	0.141	0	97	16261	0
	Cu	63	60.010	ug/L	0.317	0	233	469193	0
	Cu	65	59.946	ug/L	0.431	0	114	217879	0
	Zn	66	109.337	ug/L	0.366	0	375	264650	0
	Zn	67	102.739	ug/L	0.290	0	141	43764	0
	Zn	68	109.831	ug/L	0.361	0	5524	191265	0
	As	75	180.548	ug/L	1.124	0	145	416856	0
	As-1	75	185.092	ug/L	1.016	0	7671	418212	0
	Se	82	73.891	ug/L	0.253	0	0	24500	0
	Se	78	74.471	ug/L	0.492	0	7997	64274	0
[	Mo	98	22.733	ug/L	0.163	0	87	223602	0
	Y	89		ug/L			461134	713849	0
	Kr	83		ug/L			197	275	2
[>	In	115		ug/L			515607	508376✓	1
	Ag	107	26.357	ug/L	0.513	1	75	428041	0
	Cd	111	24.938	ug/L	0.224	0	330	101978	0
	Cd	114	24.753	ug/L	0.253	1	32	229251	0
	Sb	121	23.702	ug/L	0.291	1	198	264655	0
	Sb	123	23.701	ug/L	0.487	2	157	198567	0
	Ba	135	91.051	ug/L	1.264	1	24	288001	0
[	Ba	137	90.702	ug/L	1.837	2	36	498067	0
[>	Tb	159		ug/L			612197	634804✓	0
	Tl	205	24.731	ug/L	0.148	0	250	1169892	0
	Pb	208	37.159	ug/L	0.179	0	1016	2354182	0
	Bi	209		ug/L			532877	516345	0
[	Th	232	25.626	ug/L	0.280	1	1565	1951226	0
[	U	238	23.807	ug/L	0.305	1	1000	1947426	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 MB1SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:34:46

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	751523 ✓	0
[	Be	9	ug/L	0.308	1	23	17551	0
	C	13	mg/L			6243	4922	1
	Cl	37	mg/L			1387303	1560478	0
[>	Sc	45	ug/L			409578	420551 ✓	0
	V	51	ug/L	0.300	1	2772	441350	0
	V-1	51	ug/L	0.196	0	1649	448339	0
	Cr	52	ug/L	0.352	1	8617	398028	0
	Cr	53	ug/L	0.188	0	614	47212	1
	Mn	55	ug/L	0.005	0	377	682084	0
[	Co	59	ug/L	0.079	0	55	477024	0
[>	Ge	72	ug/L			372563	380329 ✓	0
	Ni	60	ug/L	0.343	1	49	98773	1
	Ni	62	ug/L	0.265	1	97	14362	1
	Cu	63	ug/L	0.120	0	233	208991	0
	Cu	65	ug/L	0.298	1	114	97439	0
	Zn	66	ug/L	0.269	0	375	192500	0
	Zn	67	ug/L	0.575	0	141	30642	0
	Zn	68	ug/L	0.465	0	5524	137556	0
	As	75	ug/L	0.170	0	145	64884	0
	As-1	75	ug/L	0.233	0	7671	64731	0
	Se	82	ug/L	0.232	0	0	26427	0
	Se	78	ug/L	0.548	0	7997	67524	0
[	Mo	98	ug/L	0.312	1	87	236557	1
	Y	89	ug/L			461134	483944	0
	Kr	83	ug/L			197	220	0
[>	In	115	ug/L			515607	518149 ✓	1
	Ag	107	ug/L	0.082	0	75	434624	1
	Cd	111	ug/L	0.351	1	330	103821	0
	Cd	114	ug/L	0.305	1	32	237024	0
	Sb	121	ug/L	0.368	1	198	288547	0
	Sb	123	ug/L	0.508	2	157	216980	0
	Ba	135	ug/L	0.507	1	24	82867	0
[	Ba	137	ug/L	0.784	3	36	143037	1
[>	Tb	159	ug/L			612197	631132 ✓	0
	Tl	205	ug/L	0.244	0	250	1206637	0
	Pb	208	ug/L	0.232	0	1016	1645950	0
	Bi	209	ug/L			532877	545593	0
	Th	232	ug/L	0.388	1	1565	1860203	0
[	U	238	ug/L	0.808	3	1000	2031854	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:40:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	743493 ✓	0
[ Be	9	48.233	ug/L	0.343	0	23	35056	1
C	13		mg/L			6243	2876	0
Cl	37		mg/L			1387303	1550168	0
[> Sc	45		ug/L			409578	422079 ✓	1
V	51	47.936	ug/L	0.257	0	2772	856876	0
V-1	51	47.915	ug/L	0.306	0	1649	868971	0
Cr	52	48.303	ug/L	0.618	1	8617	753232	0
Cr	53	48.221	ug/L	0.661	1	614	88983	0
Mn	55	49.216	ug/L	0.475	0	377	1303479	0
[ Co	59	48.691	ug/L	0.405	0	55	921605	0
[> Ge	72		ug/L			372563	387804 ✓	0
Ni	60	47.947	ug/L	0.350	0	49	187338	0
Ni	62	47.851	ug/L	0.827	1	97	27330	1
Cu	63	48.521	ug/L	0.298	0	233	385261	0
Cu	65	48.478	ug/L	0.193	0	114	178937	0
Zn	66	48.826	ug/L	0.079	0	375	120223	0
Zn	67	49.515	ug/L	0.213	0	141	21494	0
Zn	68	48.528	ug/L	0.182	0	5524	89022	0
As	75	48.502	ug/L	0.133	0	145	113821	0
As-1	75	48.412	ug/L	0.349	0	7671	116966	0
Se	82	49.022	ug/L	0.329	0	0	16505	1
Se	78	48.790	ug/L	0.555	1	7997	45629	0
[ Mo	98	46.776	ug/L	0.480	1	87	467085	1
Y	89		ug/L			461134	478403	1
Kr	83		ug/L			197	226	6
[> In	115		ug/L			515607	520485 ✓	1
Ag	107	49.203	ug/L	0.772	1	75	818076	0
Cd	111	48.797	ug/L	0.354	0	330	203993	1
Cd	114	48.954	ug/L	0.591	1	32	464153	0
Sb	121	48.552	ug/L	0.223	0	198	554915	1
Sb	123	48.539	ug/L	0.197	0	157	416245	0
Ba	135	49.036	ug/L	0.663	1	24	158815	0
[ Ba	137	48.885	ug/L	0.552	1	36	274883	0
[> Tb	159		ug/L			612197	633873 ✓	0
Tl	205	49.798	ug/L	0.281	0	250	2351991	0
Pb	208	48.701	ug/L	0.513	1	1016	3080404	0
Bi	209		ug/L			532877	521345	0
Th	232	49.336	ug/L	0.065	0	1565	3749687	0
[ U	238	48.949	ug/L	0.411	0	1000	3997039	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:47:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	741309✓	0
[	Be	9	ug/L	0.006	70	23	27	15
	C	13	mg/L			6243	5812	1
	Cl	37	mg/L			1387303	1586149	0
[>	Sc	45	ug/L			409578	413824✓	1
	V	51	ug/L	0.004	22	2772	3079	3
	V-1	51	ug/L	0.005	9	1649	2556	3
	Cr	52	ug/L	0.006	28	8617	9002	1
	Cr	53	ug/L	0.020	15	614	850	3
	Mn	55	ug/L	0.003	28	377	620	9
[	Co	59	ug/L	0.001	73	55	79	20
[>	Ge	72	ug/L			372563	390187✓	0
	Ni	60	ug/L	0.003	499	49	48	27
	Ni	62	ug/L	0.005	12	97	124	2
	Cu	63	ug/L	0.003	45	233	301	8
	Cu	65	ug/L	0.003	220	114	124	7
	Zn	66	ug/L	0.010	62	375	432	5
	Zn	67	ug/L	0.024	71	141	162	6
	Zn	68	ug/L	0.065	71	5524	5943	1
	As	75	ug/L	0.008	59	145	120	16
	As-1	75	ug/L	0.008	5	7671	8330	0
	Se	82	ug/L	0.082	170	0	-16	164
[	Se	78	ug/L	0.022	5	7997	8685	0
[	Mo	98	ug/L	0.004	123	87	123	31
	Y	89	ug/L			461134	479926	1
	Kr	83	ug/L			197	215	8
[>	In	115	ug/L			515607	518596✓	1
[	Ag	107	ug/L	0.002	28	75	210	18
	Cd	111	ug/L	0.004	19	330	422	4
	Cd	114	ug/L	0.001	159	32	39	25
	Sb	121	ug/L	0.018	29	198	881	23
	Sb	123	ug/L	0.021	35	157	662	28
	Ba	135	ug/L	0.001	47	24	34	14
[	Ba	137	ug/L	0.002	56	36	58	21
[>	Tb	159	ug/L			612197	621168✓	1
	Tl	205	ug/L	0.001	77	250	326	18
	Pb	208	ug/L	0.001	27	1016	813	8
	Bi	209	ug/L			532877	532735	0
	Th	232	ug/L	0.007	35	1565	3027	17
[	U	238	ug/L	0.001	13	1000	424	19

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 MB2 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:52:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	779083 ✓	0
[ Be	9	0.007	ug/L	0.009	124	23	27	22
C	13		mg/L			6243	6467	0
Cl	37		mg/L			1387303	1598547	1
[> Sc	45		ug/L			409578	439085 ✓	0
V	51	U 0.023	ug/L	0.007	32	2772	3392	3
V-1	51	0.057	ug/L	0.001	0	1649	2836	0
Cr	52	U 0.087	ug/L	0.009	10	8617	10636	1
Cr	53	0.191	ug/L	0.014	7	614	1023	3
Mn	55	0.038	ug/L	0.003	6	377	1464	5
Co	59	0.001	ug/L	0.001	70	55	79	17
[> Ge	72		ug/L			372563	402289 ✓	0
Ni	60	0.006	ug/L	0.003	42	49	77	13
Ni	62	0.036	ug/L	0.020	55	97	126	8
Cu	63	0.123	ug/L	0.005	4	233	1263	3
Cu	65	0.120	ug/L	0.004	3	114	583	3
Zn	66	0.554	ug/L	0.034	6	375	1815	4
Zn	67	0.489	ug/L	0.020	4	141	371	2
Zn	68	0.503	ug/L	0.171	34	5524	6859	4
As	75	U -0.007	ug/L	0.012	162	145	139	19
As-1	75	0.067	ug/L	0.030	44	7671	8438	0
Se	82	U 0.005	ug/L	0.029	544	0	1	727
Se	78	0.188	ug/L	0.058	30	7997	8784	0
[ Mo	98	0.013	ug/L	0.002	17	87	228	9
Y	89		ug/L			461134	504163	0
Kr	83		ug/L			197	201	2
[> In	115		ug/L			515607	537967 ✓	0
Ag	107	U 0.005	ug/L	0.001	20	75	166	11
Cd	111	0.025	ug/L	0.002	7	330	451	1
Cd	114	0.000	ug/L	0.001	939	32	35	17
Sb	121	U 0.016	ug/L	0.005	33	198	397	16
Sb	123	0.012	ug/L	0.005	42	157	268	16
Ba	135	0.053	ug/L	0.001	1	24	202	1
[ Ba	137	0.047	ug/L	0.002	4	36	312	4
[> Tb	159		ug/L			612197	647099 ✓	0
Tl	205	0.003	ug/L	0.000	13	250	425	5
Pb	208	U 0.002	ug/L	0.000	14	1016	1189	1
Bi	209		ug/L			532877	549955	1
Th	232	0.010	ug/L	0.003	26	1565	2406	8
[ U	238	-0.008	ug/L	0.000	0	1000	411	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 E SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 12:58:28

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	774286 ✓	1
[ Be	9	0.476	ug/L	0.052	10	23	382	10
C	13		mg/L			6243	8552	0
Cl	37		mg/L			1387303	1524974	0
[> Sc	45		ug/L			409578	464238 ✓	1
V	51	18.305	ug/L	0.013	0	2772	361849	1
V-1	51	18.208	ug/L	0.039	0	1649	364377	1
Cr	52	10.778	ug/L	0.089	0	8617	192472	2
Cr	53	10.846	ug/L	0.172	1	614	22558	3
Mn	55	668.287	ug/L	7.844	1	377	19465147	2
Co	59	2.470	ug/L	0.028	1	55	51492	2
[> Ge	72		ug/L			372563	390866 ✓	2
Ni	60	4.472	ug/L	0.022	0	49	17655	2
Ni	62	4.560	ug/L	0.053	1	97	2716	1
Cu	63	27.217	ug/L	0.114	0	233	217929	3
Cu	65	27.153	ug/L	0.248	0	114	101075	3
Zn	66	26.412	ug/L	0.089	0	375	65722	2
Zn	67	28.208	ug/L	0.208	0	141	12406	3
Zn	68	27.425	ug/L	0.239	0	5524	53221	2
As	75	118.557	ug/L	1.071	0	145	280161	2
As-1	75	123.176	ug/L	1.122	0	7671	287492	2
Se	82	0.453	ug/L	0.017	3	0	153	1
Se	78	-0.067	ug/L	0.081	120	7997	8337	2
[ Mo	98	0.065	ug/L	0.004	5	87	750	5
Y	89		ug/L			461134	769934	2
Kr	83		ug/L			197	253	5
[> In	115		ug/L			515607	523370 ✓	2
Ag	107	0.909	ug/L	0.005	0	75	15271	2
Cd	111	0.153	ug/L	0.008	5	330	978	2
Cd	114	0.011	ug/L	0.001	12	32	137	10
Sb	121	0.009	ug/L	0.004	39	198	306	15
Sb	123	0.010	ug/L	0.002	18	157	249	7
Ba	135	70.734	ug/L	0.371	0	24	230358	1
[ Ba	137	70.134	ug/L	0.770	1	36	396534	2
[> Tb	159		ug/L			612197	643700 ✓	0
Tl	205	0.220	ug/L	0.003	1	250	10809	1
Pb	208	9.728	ug/L	0.042	0	1016	625762	0
Bi	209		ug/L			532877	517258	1
Th	232	2.559	ug/L	0.019	0	1565	199073	0
[ U	238	0.417	ug/L	0.003	0	1000	35623	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 F SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:04:25

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	755174 ✓	0
[ Be	9	0.671	ug/L	0.019	2	23	516	2
C	13		mg/L			6243	8650	0
Cl	37		mg/L			1387303	1512917	0
[> Sc	45		ug/L			409578	458862 ✓	1
V	51	18.568	ug/L	0.115	0	2772	362754	1
V-1	51	18.516	ug/L	0.107	0	1649	366196	1
Cr	52	11.668	ug/L	0.105	0	8617	205142	0
Cr	53	11.844	ug/L	0.073	0	614	24281	0
Mn	55	715.272	ug/L	7.721	1	377	20588776	0
Co	59	2.723	ug/L	0.031	1	55	56081	0
[> Ge	72		ug/L			372563	382193 ✓	0
Ni	60	4.973	ug/L	0.039	0	49	19193	0
Ni	62	5.051	ug/L	0.074	1	97	2932	1
Cu	63	34.581	ug/L	0.233	0	233	270666	0
Cu	65	34.824	ug/L	0.051	0	114	126713	1
Zn	66	30.705	ug/L	0.338	1	375	74647	0
Zn	67	31.423	ug/L	0.375	1	141	13496	1
Zn	68	31.431	ug/L	0.125	0	5524	58820	0
As	75	114.104	ug/L	0.756	0	145	263686	0
As-1	75	118.550	ug/L	0.809	0	7671	270877	0
Se	82	✓ 0.345	ug/L	0.019	5	0	114	4
Se	78	-0.083	ug/L	0.097	117	7997	8141	0
[ Mo	98	0.057	ug/L	0.001	1	87	646	2
Y	89		ug/L			461134	727872	0
Kr	83		ug/L			197	271	3
[> In	115		ug/L			515607	510112 ✓	0
Ag	107	1.157	ug/L	0.011	0	75	18932	0
Cd	111	0.181	ug/L	0.021	11	330	1068	7
Cd	114	0.016	ug/L	0.001	5	32	184	4
Sb	121	✓ 0.002	ug/L	0.001	66	198	216	6
Sb	123	0.000	ug/L	0.001	179	157	160	4
Ba	135	66.808	ug/L	0.251	0	24	212077	0
[ Ba	137	66.493	ug/L	0.439	0	36	366469	0
[> Tb	159		ug/L			612197	633250 ✓	1
Tl	205	0.229	ug/L	0.002	1	250	11069	2
Pb	208	12.116	ug/L	0.179	1	1016	766348	0
Bi	209		ug/L			532877	515599	0
Th	232	2.478	ug/L	0.051	2	1565	189620	0
[ U	238	0.331	ug/L	0.006	1	1000	28002	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 G SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:10:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	757407 ✓	1
[ Be	9	0.418	ug/L	0.007	1	23	331	1
C	13		mg/L			6243	9374	0
Cl	37		mg/L			1387303	1531410	0
[> Sc	45		ug/L			409578	451313 ✓	0
V	51	18.768	ug/L	0.251	1	2772	360570	0
V-1	51	18.659	ug/L	0.225	1	1649	362933	0
Cr	52	10.340	ug/L	0.159	1	8617	179873	0
Cr	53	10.415	ug/L	0.087	0	614	21081	0
Mn	55	403.056	ug/L	1.975	0	377	11411587	0
[ Co	59	4.577	ug/L	0.024	0	55	92694	0
[> Ge	72		ug/L			372563	375441 ✓	0
Ni	60	7.350	ug/L	0.075	1	49	27847	1
Ni	62	7.478	ug/L	0.140	1	97	4217	1
Cu	63	24.616	ug/L	0.265	1	233	189347	1
Cu	65	24.861	ug/L	0.126	0	114	88893	0
Zn	66	41.782	ug/L	0.331	0	375	99654	0
Zn	67	41.289	ug/L	0.260	0	141	17375	1
Zn	68	42.987	ug/L	0.147	0	5524	76980	0
As	75	117.806	ug/L	0.102	0	145	267438	0
As-1	75	122.445	ug/L	0.127	0	7671	274592	0
Se	82	0.622	ug/L	0.051	8	0	202	7
Se	78	0.336	ug/L	0.058	17	7997	8308	0
[ Mo	98	0.125	ug/L	0.005	3	87	1293	3
Y	89		ug/L			461134	701589	0
Kr	83		ug/L			197	263	4
[> In	115		ug/L			515607	506840 ✓	2
Ag	107	2.030	ug/L	0.007	0	75	32950	2
Cd	111	0.376	ug/L	0.011	2	330	1853	3
Cd	114	0.072	ug/L	0.001	1	32	694	3
Sb	121	✓ 0.009	ug/L	0.001	16	198	291	3
Sb	123	0.007	ug/L	0.005	79	157	211	22
Ba	135	86.101	ug/L	1.887	2	24	271490	1
[ Ba	137	86.068	ug/L	2.296	2	36	471121	0
[> Tb	159		ug/L			612197	623675 ✓	0
Tl	205	0.207	ug/L	0.002	0	250	9889	0
Pb	208	10.301	ug/L	0.030	0	1016	641900	0
Bi	209		ug/L			532877	509057	0
Th	232	2.082	ug/L	0.016	0	1565	157225	0
[ U	238	0.368	ug/L	0.002	0	1000	30544	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 H SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:16:18

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	761007 ✓	0
[ Be	9	0.564	ug/L	0.008	1	23	441	1
C	13		mg/L			6243	9030	0
Cl	37		mg/L			1387303	1535922	0
[> Sc	45		ug/L			409578	465141 ✓	0
V	51	20.655	ug/L	0.180	0	2772	408694	0
V-1	51	20.524	ug/L	0.172	0	1649	411256	0
Cr	52	10.227	ug/L	0.073	0	8617	183466	0
Cr	53	10.327	ug/L	0.075	0	614	21551	0
Mn	55	431.128	ug/L	2.304	0	377	12580312	0
Co	59	6.468	ug/L	0.077	1	55	134976	1
[> Ge	72		ug/L			372563	377884 ✓	0
Ni	60	11.988	ug/L	0.122	1	49	45677	1
Ni	62	12.014	ug/L	0.237	1	97	6759	1
Cu	63	21.064	ug/L	0.174	0	233	163102	0
Cu	65	21.042	ug/L	0.290	1	114	75743	0
Zn	66	53.266	ug/L	0.476	0	375	127762	0
Zn	67	52.685	ug/L	0.184	0	141	22275	0
Zn	68	54.760	ug/L	0.072	0	5524	97165	0
As	75	62.584	ug/L	0.216	0	145	143068	0
As-1	75	64.974	ug/L	0.241	0	7671	150307	0
Se	82	✓ 0.342	ug/L	0.078	22	0	111	22
Se	78	0.111	ug/L	0.072	64	7997	8194	0
[ Mo	98	0.142	ug/L	0.003	2	87	1468	2
Y	89		ug/L			461134	820709	0
Kr	83		ug/L			197	275	4
[> In	115		ug/L			515607	509513 ✓	1
Ag	107	2.126	ug/L	0.033	1	75	34681	1
Cd	111	0.565	ug/L	0.011	2	330	2636	2
Cd	114	0.100	ug/L	0.005	5	32	961	4
Sb	121	✓ 0.003	ug/L	0.001	25	198	234	3
Sb	123	0.004	ug/L	0.002	38	157	189	7
Ba	135	103.820	ug/L	1.361	1	24	329142	0
[ Ba	137	104.003	ug/L	1.724	1	36	572442	0
[> Tb	159		ug/L			612197	636567 ✓	0
Tl	205	0.193	ug/L	0.001	0	250	9399	0
Pb	208	10.323	ug/L	0.009	0	1016	656574	0
Bi	209		ug/L			532877	510239	1
Th	232	2.147	ug/L	0.034	1	1565	165420	1
[ U	238	0.386	ug/L	0.005	1	1000	32692	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 I SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:22:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	765519 ✓	1
[ Be	9	0.556	ug/L	0.027	4	23	437	3
C	13		mg/L			6243	9023	1
Cl	37		mg/L			1387303	1540262	0
[> Sc	45		ug/L			409578	467687 ✓	0
V	51	23.319	ug/L	0.270	1	2772	463537	1
V-1	51	23.141	ug/L	0.264	1	1649	466024	1
Cr	52	10.294	ug/L	0.062	0	8617	185633	0
Cr	53	10.378	ug/L	0.108	1	614	21771	1
Mn	55	379.780	ug/L	3.872	1	377	11143161	1
Co	59	6.476	ug/L	0.051	0	55	135889	1
[> Ge	72		ug/L			372563	376657 ✓	0
Ni	60	9.298	ug/L	0.047	0	49	35325	0
Ni	62	9.756	ug/L	0.083	0	97	5490	1
Cu	63	18.250	ug/L	0.051	0	233	140893	0
Cu	65	18.250	ug/L	0.038	0	114	65500	0
Zn	66	55.079	ug/L	0.145	0	375	131672	0
Zn	67	53.672	ug/L	0.626	1	141	22615	0
Zn	68	56.820	ug/L	0.602	1	5524	100280	0
As	75	51.060	ug/L	0.453	0	145	116372	0
As-1	75	52.968	ug/L	0.500	0	7671	123566	0
Se	82	✓ 0.254	ug/L	0.016	6	0	82	5
Se	78	-0.015	ug/L	0.158	1081	7997	8073	0
[ Mo	98	0.143	ug/L	0.001	0	87	1475	0
Y	89		ug/L			461134	754943	0
Kr	83		ug/L			197	274	1
[> In	115		ug/L			515607	508346 ✓	1
Ag	107	1.305	ug/L	0.009	0	75	21261	1
Cd	111	0.663	ug/L	0.025	3	330	3028	2
Cd	114	0.135	ug/L	0.004	2	32	1278	3
Sb	121	✓ 0.009	ug/L	0.002	19	198	300	6
Sb	123	0.010	ug/L	0.002	21	157	241	9
Ba	135	104.558	ug/L	1.177	1	24	330719	0
[ Ba	137	105.063	ug/L	1.181	1	36	576955	0
[> Tb	159		ug/L			612197	624852 ✓	1
Tl	205	0.172	ug/L	0.003	1	250	8249	0
Pb	208	14.105	ug/L	0.209	1	1016	880140	0
Bi	209		ug/L			532877	513430	0
Th	232	2.027	ug/L	0.036	1	1565	153367	0
[ U	238	0.390	ug/L	0.007	1	1000	32405	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 J SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:28:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	763333 ✓	1
[ Be	9	0.039	ug/L	0.015	38	23	51	21
C	13		mg/L			6243	7469	1
Cl	37		mg/L			1387303	1571366	0
[> Sc	45		ug/L			409578	444574 ✓	0
V	51	3.597	ug/L	0.043	1	2772	70511	0
V-1	51	3.615	ug/L	0.040	1	1649	70700	0
Cr	52	1.446	ug/L	0.025	1	8617	32821	0
Cr	53	1.607	ug/L	0.014	0	614	3769	0
Mn	55	2.774	ug/L	0.041	1	377	77782	0
Co	59	0.092	ug/L	0.005	5	55	1901	5
[> Ge	72		ug/L			372563	382636 ✓	0
Ni	60	0.224	ug/L	0.010	4	49	915	4
Ni	62	0.293	ug/L	0.038	13	97	264	8
Cu	63	7.682	ug/L	0.046	0	233	60384	0
Cu	65	7.703	ug/L	0.068	0	114	28151	0
Zn	66	2.223	ug/L	0.072	3	375	5767	2
Zn	67	4.162	ug/L	0.176	4	141	1915	4
Zn	68	3.448	ug/L	0.055	1	5524	11512	0
As	75	75.305	ug/L	0.285	0	145	174284	0
As-1	75	78.278	ug/L	0.310	0	7671	181748	0
Se	82	1.165	ug/L	0.037	3	0	386	3
Se	78	0.994	ug/L	0.091	9	7997	8963	0
Mo	98	0.239	ug/L	0.012	4	87	2447	4
Y	89		ug/L			461134	482129	0
Kr	83		ug/L			197	214	4
[> In	115		ug/L			515607	515074 ✓	0
Ag	107	11.737	ug/L	0.083	0	75	193197	0
Cd	111	0.050	ug/L	0.005	9	330	534	2
Cd	114	0.003	ug/L	0.001	18	32	65	9
Sb	121	0.109	ug/L	0.039	35	198	1429	31
Sb	123	0.083	ug/L	0.007	7	157	858	7
Ba	135	53.127	ug/L	0.452	0	24	170287	0
Ba	137	53.725	ug/L	1.053	1	36	298965	1
[> Tb	159		ug/L			612197	623977 ✓	0
Tl	205	0.304	ug/L	0.003	1	250	14405	0
Pb	208	4.253	ug/L	0.028	0	1016	265765	0
Bi	209		ug/L			532877	541200	0
Th	232	0.371	ug/L	0.003	0	1565	29369	0
[ U	238	0.008	ug/L	0.001	9	1000	1666	3



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 K SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:34:14

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			803723	727435 ✓	1
[ Be	9	0.039	ug/L	0.005	13	23	48	6
C	13		mg/L			6243	7619	2
Cl	37		mg/L			1387303	1600797	0
[>] Sc	45		ug/L			409578	404126 ✓	0
V	51	1.262	ug/L	0.015	1	2772	24261	1
V-1	51	1.295	ug/L	0.011	0	1649	24075	0
Cr	52	1.213	ug/L	0.017	1	8617	26397	1
Cr	53	1.321	ug/L	0.047	3	614	2923	2
Mn	55	2.628	ug/L	0.023	0	377	67008	0
[ Co	59	0.178	ug/L	0.003	1	55	3289	1
[>] Ge	72		ug/L			372563	368935 ✓	0
Ni	60	0.327	ug/L	0.014	4	49	1265	3
Ni	62	0.360	ug/L	0.028	7	97	290	5
Cu	63	1.751	ug/L	0.015	0	233	13447	0
Cu	65	1.807	ug/L	0.033	1	114	6455	2
Zn	66	4.302	ug/L	0.034	0	375	10414	0
Zn	67	5.327	ug/L	0.170	3	141	2324	3
Zn	68	5.478	ug/L	0.015	0	5524	14414	1
As	75	136.149	ug/L	0.950	0	145	303690	0
As-1	75	141.885	ug/L	0.993	0	7671	311457	0
Se	82	1.217	ug/L	0.024	2	0	389	1
Se	78	1.798	ug/L	0.120	6	7997	9227	0
[ Mo	98	0.092	ug/L	0.005	5	87	959	6
Y	89		ug/L			461134	476531	0
Kr	83		ug/L			197	196	2
[>] In	115		ug/L			515607	489463 ✓	0
Ag	107	11.775	ug/L	0.172	1	75	184194	1
Cd	111	0.071	ug/L	0.021	29	330	593	14
Cd	114	0.006	ug/L	0.001	10	32	84	6
Sb	121	0.052	ug/L	0.003	6	198	750	4
Sb	123	0.050	ug/L	0.001	1	157	550	1
Ba	135	46.257	ug/L	0.337	0	24	140901	0
[ Ba	137	46.499	ug/L	0.197	0	36	245905	0
[>] Tb	159		ug/L			612197	596454 ✓	0
Tl	205	0.302	ug/L	0.005	1	250	13650	0
Pb	208	10.829	ug/L	0.167	1	1016	645238	0
Bi	209		ug/L			532877	513194	0
Th	232	0.293	ug/L	0.005	1	1565	22475	0
[ U	238	0.017	ug/L	0.000	1	1000	2256	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 L SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:40:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	716660 ✓	2
[ Be	9	0.067	ug/L	0.001	0	23	67	2
C	13		mg/L			6243	7546	1
Cl	37		mg/L			1387303	1590909	0
[> Sc	45		ug/L			409578	413231 ✓	0
V	51	7.015	ug/L	0.047	0	2772	125150	0
V-1	51	6.998	ug/L	0.018	0	1649	125683	0
Cr	52	3.264	ug/L	0.040	1	8617	57940	0
Cr	53	3.399	ug/L	0.066	1	614	6717	2
Mn	55	19.412	ug/L	0.190	0	377	503574	0
[ Co	59	0.690	ug/L	0.013	1	55	12834	1
[> Ge	72		ug/L			372563	372380 ✓	0
Ni	60	1.406	ug/L	0.023	1	49	5322	1
Ni	62	1.569	ug/L	0.034	2	97	954	1
Cu	63	7.670	ug/L	0.076	0	233	58674	0
Cu	65	7.696	ug/L	0.016	0	114	27373	0
Zn	66	8.682	ug/L	0.048	0	375	20834	0
Zn	67	9.782	ug/L	0.100	1	141	4190	1
Zn	68	9.665	ug/L	0.071	0	5524	21447	1
As	75	187.038	ug/L	0.677	0	145	421052	0
As-1	75	194.734	ug/L	0.732	0	7671	428611	0
Se	82	1.265	ug/L	0.063	4	0	408	5
Se	78	1.530	ug/L	0.053	3	7997	9116	0
[ Mo	98	0.101	ug/L	0.001	1	87	1051	0
Y	89		ug/L			461134	479244	0
Kr	83		ug/L			197	215	1
[> In	115		ug/L			515607	492159 ✓	0
Ag	107	7.435	ug/L	0.117	1	75	116961	0
Cd	111	0.146	ug/L	0.010	6	330	891	3
Cd	114	0.005	ug/L	0.001	12	32	72	7
Sb	121	u 0.041	ug/L	0.004	9	198	632	5
Sb	123	0.038	ug/L	0.004	11	157	460	7
Ba	135	46.065	ug/L	0.179	0	24	141091	1
[ Ba	137	45.993	ug/L	0.503	1	36	244557	0
[> Tb	159		ug/L			612197	599651 ✓	1
Tl	205	0.446	ug/L	0.005	1	250	20159	0
Pb	208	18.979	ug/L	0.246	1	1016	1136242	0
Bi	209		ug/L			532877	509518	0
Th	232	0.670	ug/L	0.006	0	1565	49711	0
[ U	238	0.078	ug/L	0.001	1	1000	6976	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 MB2SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:46:12

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	713563 ✓	1
[ Be	9	24.400	ug/L	0.499	2	23	17028	1
C	13		mg/L			6243	5069	0
Cl	37		mg/L			1387303	1631841	0
> Sc	45		ug/L			409578	403097 ✓	0
V	51	24.372	ug/L	0.117	0	2772	417425	0
V-1	51	24.515	ug/L	0.101	0	1649	425398	0
Cr	52	24.989	ug/L	0.335	1	8617	376259	0
Cr	53	25.409	ug/L	0.259	1	614	45067	0
Mn	55	25.787	ug/L	0.178	0	377	652437	0
Co	59	25.132	ug/L	0.291	1	55	454341	1
> Ge	72		ug/L			372563	370078 ✓	0
Ni	60	25.214	ug/L	0.143	0	49	94034	0
Ni	62	25.291	ug/L	0.253	0	97	13831	1
Cu	63	26.443	ug/L	0.152	0	233	200463	0
Cu	65	26.466	ug/L	0.333	1	114	93271	0
Zn	66	79.256	ug/L	1.001	1	375	185986	0
Zn	67	71.201	ug/L	0.899	1	141	29432	1
Zn	68	78.301	ug/L	0.110	0	5524	133709	0
As	75	27.521	ug/L	0.481	1	145	61692	1
As-1	75	25.751	ug/L	0.336	1	7671	62937	0
Se	82	78.146	ug/L	1.026	1	0	25107	0
Se	78	78.973	ug/L	1.031	1	7997	65564	0
Mo	98	23.501	ug/L	0.308	1	87	223973	0
Y	89		ug/L			461134	453710	0
Kr	83		ug/L			197	220	7
> In	115		ug/L			515607	492350 ✓	0
Ag	107	25.790	ug/L	0.087	0	75	405702	1
Cd	111	24.858	ug/L	0.251	1	330	98449	0
Cd	114	25.174	ug/L	0.018	0	32	225820	0
Sb	121	25.398	ug/L	0.202	0	198	274659	0
Sb	123	25.570	ug/L	0.203	0	157	207495	0
Ba	135	25.466	ug/L	0.270	1	24	78036	0
Ba	137	25.554	ug/L	0.313	1	36	135946	0
> Tb	159		ug/L			612197	593813 ✓	0
Tl	205	25.495	ug/L	0.178	0	250	1128129	0
Pb	208	25.922	ug/L	0.244	0	1016	1536504	0
Bi	209		ug/L			532877	514496	0
Th	232	24.636	ug/L	0.360	1	1565	1754690	0
U	238	24.260	ug/L	0.272	1	1000	1856287	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:52:12

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	711210 ✓	1
[ Be	9	49.539	ug/L	0.799	1	23	34436	0
C	13		mg/L			6243	3271	2
Cl	37		mg/L			1387303	1622856	0
[> Sc	45		ug/L			409578	404159 ✓	1
V	51	48.782	ug/L	0.679	1	2772	834862	0
V-1	51	48.718	ug/L	0.758	1	1649	845893	0
Cr	52	48.902	ug/L	0.291	0	8617	730121	1
Cr	53	48.694	ug/L	0.609	1	614	86031	0
Mn	55	49.817	ug/L	0.760	1	377	1263230	0
[ Co	59	48.582	ug/L	0.696	1	55	880433	0
[> Ge	72		ug/L			372563	374362 ✓	0
Ni	60	48.098	ug/L	0.437	0	49	181418	1
Ni	62	47.863	ug/L	0.679	1	97	26390	1
Cu	63	48.924	ug/L	0.130	0	233	374999	0
Cu	65	48.587	ug/L	0.509	1	114	173127	1
Zn	66	49.199	ug/L	0.086	0	375	116938	0
Zn	67	49.373	ug/L	0.513	1	141	20689	1
Zn	68	49.112	ug/L	0.143	0	5524	86904	0
As	75	48.864	ug/L	0.333	0	145	110695	0
As-1	75	49.116	ug/L	0.244	0	7671	114445	0
Se	82	49.014	ug/L	0.496	1	0	15930	1
Se	78	49.789	ug/L	0.217	0	7997	44785	0
[ Mo	98	46.285	ug/L	0.271	0	87	446152	0
Y	89		ug/L			461134	456678	1
Kr	83		ug/L			197	232	3
[> In	115		ug/L			515607	490499 ✓	1
Ag	107	50.005	ug/L	0.438	0	75	783526	1
Cd	111	50.009	ug/L	0.865	1	330	196966	0
Cd	114	50.157	ug/L	0.585	1	32	448149	1
Sb	121	50.060	ug/L	0.929	1	198	539054	0
Sb	123	50.059	ug/L	0.914	1	157	404469	0
Ba	135	50.084	ug/L	1.284	2	24	152832	0
[ Ba	137	49.839	ug/L	1.100	2	36	264058	0
[> Tb	159		ug/L			612197	596269 ✓	0
Tl	205	51.132	ug/L	0.308	0	250	2271772	0
Pb	208	49.258	ug/L	0.137	0	1016	2930969	0
Bi	209		ug/L			532877	488760	0
Th	232	50.171	ug/L	0.200	0	1565	3586902	0
[ U	238	49.604	ug/L	0.256	0	1000	3810393	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 13:58:30

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	711916✓	0
[ Be	9	0.012	ug/L	0.003	24	23	28	7
C	13		mg/L			6243	6437	0
Cl	37		mg/L			1387303	1636584	0
[> Sc	45		ug/L			409578	406026✓	0
V	51	0.016	ug/L	0.006	34	2772	3020	3
V-1	51	0.036	ug/L	0.004	12	1649	2267	3
Cr	52	0.026	ug/L	0.011	42	8617	8924	2
Cr	53	0.090	ug/L	0.018	20	614	767	3
Mn	55	0.005	ug/L	0.000	3	377	505	0
[ Co	59	0.001	ug/L	0.001	136	55	68	26
[> Ge	72		ug/L			372563	370257✓	0
Ni	60	0.000	ug/L	0.002	864	49	49	12
Ni	62	0.046	ug/L	0.018	39	97	121	8
Cu	63	0.005	ug/L	0.001	15	233	268	2
Cu	65	0.004	ug/L	0.001	16	114	127	2
Zn	66	-0.005	ug/L	0.011	246	375	362	6
Zn	67	-0.007	ug/L	0.041	588	141	137	11
Zn	68	0.230	ug/L	0.082	35	5524	5866	2
As	75	0.027	ug/L	0.015	54	145	204	15
As-1	75	0.349	ug/L	0.020	5	7671	8374	0
Se	82	0.060	ug/L	0.034	56	0	18	57
Se	78	1.038	ug/L	0.050	4	7997	8705	0
[ Mo	98	0.001	ug/L	0.003	519	87	93	32
Y	89		ug/L			461134	452688	1
Kr	83		ug/L			197	203	4
[> In	115		ug/L			515607	490519✓	0
Ag	107	0.003	ug/L	0.001	19	75	124	8
Cd	111	0.019	ug/L	0.004	23	330	389	4
Cd	114	-0.001	ug/L	0.001	62	32	24	18
Sb	121	0.058	ug/L	0.017	30	198	810	23
Sb	123	0.055	ug/L	0.016	29	157	591	22
Ba	135	0.002	ug/L	0.002	99	24	29	21
[ Ba	137	0.002	ug/L	0.001	57	36	43	11
[> Tb	159		ug/L			612197	589548✓	1
Tl	205	-0.000	ug/L	0.001	6350	250	240	26
Pb	208	-0.006	ug/L	0.001	20	1016	617	11
Bi	209		ug/L			532877	507792	0
Th	232	0.006	ug/L	0.007	115	1565	1924	24
[ U	238	-0.009	ug/L	0.001	9	1000	296	21

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 M SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:03:57

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	743956 ✓	1
[ Be	9	0.063	ug/L	0.021	33	23	67	22
C	13		mg/L			6243	7354	0
Cl	37		mg/L			1387303	1632453	0
[> Sc	45		ug/L			409578	421989 ✓	0
V	51	4.176	ug/L	0.042	1	2772	77233	0
V-1	51	4.168	ug/L	0.036	0	1649	77127	0
Cr	52	1.981	ug/L	0.015	0	8617	39402	0
Cr	53	2.066	ug/L	0.011	0	614	4418	0
Mn	55	17.602	ug/L	0.171	0	377	466350	0
[ Co	59	0.525	ug/L	0.005	0	55	9999	1
[> Ge	72		ug/L			372563	383471 ✓	0
Ni	60	0.701	ug/L	0.020	2	49	2758	2
Ni	62	0.815	ug/L	0.040	4	97	558	4
Cu	63	11.418	ug/L	0.041	0	233	89833	0
Cu	65	11.331	ug/L	0.122	1	114	41446	0
Zn	66	6.260	ug/L	0.086	1	375	15579	1
Zn	67	7.622	ug/L	0.200	2	141	3394	2
Zn	68	7.629	ug/L	0.055	0	5524	18630	0
As	75	177.293	ug/L	0.479	0	145	411012	0
As-1	75	184.628	ug/L	0.506	0	7671	418883	0
Se	82	2.018	ug/L	0.015	0	0	671	1
Se	78	2.472	ug/L	0.030	1	7997	10100	0
[ Mo	98	0.142	ug/L	0.004	2	87	1492	2
Y	89		ug/L			461134	501831	0
Kr	83		ug/L			197	217	1
[> In	115		ug/L			515607	507358 ✓	0
Ag	107	15.749	ug/L	0.142	0	75	255319	0
Cd	111	0.066	ug/L	0.013	19	330	595	8
Cd	114	0.008	ug/L	0.003	43	32	102	29
Sb	121	✓ 0.099	ug/L	0.005	5	198	1292	4
Sb	123	0.106	ug/L	0.014	13	157	1044	11
Ba	135	53.307	ug/L	0.119	0	24	168312	0
[ Ba	137	53.208	ug/L	0.388	0	36	291672	0
[> Tb	159		ug/L			612197	613336 ✓	0
Tl	205	0.562	ug/L	0.006	1	250	25953	1
Pb	208	16.841	ug/L	0.127	0	1016	1031370	0
Bi	209		ug/L			532877	519094	1
Th	232	0.809	ug/L	0.012	1	1565	61063	1
[ U	238	0.065	ug/L	0.001	1	1000	6134	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 N SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:09:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	740175 ✓	1
[ Be	9	0.077	ug/L	0.020	26	23	77	18
C	13		mg/L			6243	7966	1
Cl	37		mg/L			1387303	1618277	0
[> Sc	45		ug/L			409578	411571 ✓	1
V	51	4.678	ug/L	0.058	1	2772	84046	1
V-1	51	4.678	ug/L	0.062	1	1649	84220	1
Cr	52	2.450	ug/L	0.033	1	8617	45474	2
Cr	53	2.562	ug/L	0.079	3	614	5194	1
Mn	55	14.241	ug/L	0.074	0	377	368058	0
[ Co	59	0.490	ug/L	0.006	1	55	9090	1
[> Ge	72		ug/L			372563	376514 ✓	0
Ni	60	1.028	ug/L	0.044	4	49	3947	4
Ni	62	1.192	ug/L	0.059	4	97	756	3
Cu	63	9.151	ug/L	0.045	0	233	70736	0
Cu	65	9.154	ug/L	0.040	0	114	32901	1
Zn	66	8.758	ug/L	0.085	0	375	21250	1
Zn	67	9.834	ug/L	0.126	1	141	4258	1
Zn	68	9.807	ug/L	0.042	0	5524	21921	1
As	75	171.555	ug/L	1.014	0	145	390497	0
As-1	75	178.646	ug/L	1.056	0	7671	398207	0
Se	82	1.367	ug/L	0.024	1	0	446	1
Se	78	1.702	ug/L	0.087	5	7997	9346	1
[ Mo	98	0.142	ug/L	0.002	1	87	1460	2
Y	89		ug/L			461134	498703	0
Kr	83		ug/L			197	208	2
[> In	115		ug/L			515607	502444 ✓	0
Ag	107	12.024	ug/L	0.044	0	75	193059	0
Cd	111	0.133	ug/L	0.015	11	330	858	6
Cd	114	0.012	ug/L	0.001	7	32	144	6
Sb	121	0.073	ug/L	0.003	4	198	998	4
Sb	123	0.073	ug/L	0.008	11	157	758	9
Ba	135	54.973	ug/L	0.478	0	24	171884	0
[ Ba	137	55.096	ug/L	0.258	0	36	299092	0
[> Tb	159		ug/L			612197	603954 ✓	0
Tl	205	0.416	ug/L	0.001	0	250	18966	0
Pb	208	55.272	ug/L	0.391	0	1016	3331041	0
Bi	209		ug/L			532877	514906	0
Th	232	0.737	ug/L	0.004	0	1565	54888	0
[ U	238	0.072	ug/L	0.002	2	1000	6570	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 O SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:15:53

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	750903 ✓	1
[	Be	9	0.038	ug/L	0.005	13	23	49	8
	C	13		mg/L			6243	7778	2
	Cl	37		mg/L			1387303	1597024	0
[>	Sc	45		ug/L			409578	414490 ✓	0
[	V	51	1.923	ug/L	0.005	0	2772	36454	0
	V-1	51	1.933	ug/L	0.010	0	1649	36030	1
	Cr	52	1.417	ug/L	0.033	2	8617	30161	1
	Cr	53	1.473	ug/L	0.011	0	614	3272	0
	Mn	55	2.543	ug/L	0.032	1	377	66498	0
[	Co	59	0.063	ug/L	0.004	5	55	1236	5
[>	Ge	72		ug/L			372563	373102 ✓	0
[	Ni	60	0.192	ug/L	0.003	1	49	769	2
	Ni	62	0.325	ug/L	0.009	2	97	275	2
	Cu	63	6.235	ug/L	0.090	1	233	47834	0
	Cu	65	6.225	ug/L	0.036	0	114	22206	1
	Zn	66	2.088	ug/L	0.018	0	375	5306	0
	Zn	67	3.284	ug/L	0.073	2	141	1503	2
	Zn	68	3.107	ug/L	0.075	2	5524	10661	0
	As	75	88.583	ug/L	0.480	0	145	199879	0
	As-1	75	92.366	ug/L	0.518	0	7671	207732	0
	Se	82	1.102	ug/L	0.021	1	0	356	1
	Se	78	1.667	ug/L	0.152	9	7997	9234	0
[	Mo	98	0.122	ug/L	0.003	2	87	1258	2
	Y	89		ug/L			461134	480475	0
	Kr	83		ug/L			197	198	2
[>	In	115		ug/L			515607	496745 ✓	0
[	Ag	107	13.207	ug/L	0.042	0	75	209640	0
	Cd	111	0.060	ug/L	0.013	21	330	556	10
	Cd	114	0.004	ug/L	0.001	35	32	63	18
	Sb	121	0.101	ug/L	0.001	1	198	1292	1
	Sb	123	0.104	ug/L	0.001	0	157	1003	1
	Ba	135	39.090	ug/L	0.634	1	24	120838	1
[	Ba	137	39.257	ug/L	0.717	1	36	210678	0
[>	Tb	159		ug/L			612197	600895 ✓	0
[	Tl	205	0.361	ug/L	0.002	0	250	16416	0
	Pb	208	10.334	ug/L	0.041	0	1016	620451	0
	Bi	209		ug/L			532877	517868	0
	Th	232	0.812	ug/L	0.006	0	1565	60045	0
[	U	238	0.037	ug/L	0.000	0	1000	3849	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 P SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:21:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			803723	745130 ✓	0
[ Be	9	0.076	ug/L	0.004	5	23	76	4
C	13		mg/L			6243	7681	1
Cl	37		mg/L			1387303	1578264	0
[>] Sc	45		ug/L			409578	409731 ✓	1
V	51	1.069	ug/L	0.009	0	2772	21263	0
V-1	51	1.078	ug/L	0.016	1	1649	20583	0
Cr	52	1.054	ug/L	0.021	1	8617	24392	0
Cr	53	1.082	ug/L	0.046	4	614	2538	2
Mn	55	3.300	ug/L	0.039	1	377	85197	0
[ Co	59	0.115	ug/L	0.003	2	55	2177	1
[>] Ge	72		ug/L			372563	368319 ✓	0
Ni	60	0.174	ug/L	0.006	3	49	695	2
Ni	62	0.228	ug/L	0.041	17	97	219	9
Cu	63	2.640	ug/L	0.035	1	233	20125	0
Cu	65	2.633	ug/L	0.029	1	114	9339	0
Zn	66	2.662	ug/L	0.042	1	375	6575	1
Zn	67	3.329	ug/L	0.048	1	141	1502	1
Zn	68	3.478	ug/L	0.133	3	5524	11128	1
As	75	151.916	ug/L	0.310	0	145	338288	0
As-1	75	158.282	ug/L	0.362	0	7671	346002	0
Se	82	3.228	ug/L	0.067	2	0	1031	2
Se	78	4.021	ug/L	0.059	1	7997	10826	0
[ Mo	98	0.051	ug/L	0.002	4	87	573	3
Y	89		ug/L			461134	524997	0
Kr	83		ug/L			197	204	2
[>] In	115		ug/L			515607	503300 ✓	0
Ag	107	16.901	ug/L	0.090	0	75	271812	0
Cd	111	0.073	ug/L	0.004	6	330	615	3
Cd	114	0.001	ug/L	0.001	75	32	41	17
Sb	121	0.077	ug/L	0.004	5	198	1039	4
Sb	123	0.076	ug/L	0.003	3	157	782	2
Ba	135	30.675	ug/L	0.317	1	24	96089	1
[ Ba	137	30.269	ug/L	0.241	0	36	164609	0
[>] Tb	159		ug/L			612197	604621 ✓	0
Tl	205	0.647	ug/L	0.003	0	250	29409	1
Pb	208	21.497	ug/L	0.084	0	1016	1297551	0
Bi	209		ug/L			532877	514446	1
Th	232	1.432	ug/L	0.012	0	1565	105275	0
[ U	238	0.083	ug/L	0.001	0	1000	7487	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 Q SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:27:47

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	736107 ✓	1
[ Be	9	0.443	ug/L	0.021	4	23	339	4
C	13		mg/L			6243	8184	0
Cl	37		mg/L			1387303	1522827	0
[> Sc	45		ug/L			409578	448869 ✓	0
V	51	24.439	ug/L	0.303	1	2772	466082	1
V-1	51	24.245	ug/L	0.261	1	1649	468505	1
Cr	52	12.554	ug/L	0.084	0	8617	215201	0
Cr	53	12.531	ug/L	0.107	0	614	25092	1
Mn	55	253.614	ug/L	0.630	0	377	7141951	0
[ Co	59	3.615	ug/L	0.051	1	55	72821	1
[> Ge	72		ug/L			372563	364521 ✓	1
Ni	60	7.643	ug/L	0.033	0	49	28110	1
Ni	62	7.881	ug/L	0.089	1	97	4310	2
Cu	63	42.054	ug/L	0.140	0	233	313892	0
Cu	65	42.257	ug/L	0.262	0	114	146632	1
Zn	66	58.744	ug/L	0.346	0	375	135889	1
Zn	67	56.764	ug/L	0.412	0	141	23141	1
Zn	68	60.037	ug/L	0.074	0	5524	102241	1
As	75	101.511	ug/L	0.505	0	145	223764	1
As-1	75	105.593	ug/L	0.509	0	7671	230944	1
Se	82	0.576	ug/L	0.065	11	0	181	12
Se	78	0.608	ug/L	0.012	1	7997	8261	1
[ Mo	98	0.300	ug/L	0.004	1	87	2905	2
Y	89		ug/L			461134	618255	1
Kr	83		ug/L			197	254	0
[> In	115		ug/L			515607	486823 ✓	1
Ag	107	2.923	ug/L	0.017	0	75	45537	1
Cd	111	0.448	ug/L	0.016	3	330	2061	2
Cd	114	0.060	ug/L	0.002	3	32	561	3
Sb	121	✓ 0.006	ug/L	0.001	10	198	256	3
Sb	123	0.003	ug/L	0.002	58	157	175	8
Ba	135	96.692	ug/L	0.385	0	24	292910	0
[ Ba	137	96.473	ug/L	0.478	0	36	507404	1
[> Tb	159		ug/L			612197	597097 ✓	0
Tl	205	0.342	ug/L	0.002	0	250	15443	1
Pb	208	11.102	ug/L	0.113	1	1016	662250	0
Bi	209		ug/L			532877	487544	0
Th	232	2.228	ug/L	0.012	0	1565	160985	0
[ U	238	0.470	ug/L	0.007	1	1000	37097	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 R SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:33:43

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

No As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	732402 ✓	0
[ Be	9	0.317	ug/L	0.008	2	23	248	1
C	13		mg/L			6243	8417	0
Cl	37		mg/L			1387303	1517329	0
[> Sc	45		ug/L			409578	434197 ✓	0
V	51	18.451	ug/L	0.008	0	2772	341115	0
V-1	51	18.295	ug/L	0.038	0	1649	342412	0
Cr	52	9.083	ug/L	0.049	0	8617	153133	0
Cr	53	9.055	ug/L	0.164	1	614	17718	1
Mn	55	86.089	ug/L	0.403	0	377	2345356	0
[ Co	59	1.574	ug/L	0.016	1	55	30701	0
[> Ge	72		ug/L			372563	361788 ✓	0
Ni	60	2.946	ug/L	0.016	0	49	10782	0
Ni	62	3.057	ug/L	0.083	2	97	1717	2
Cu	63	55.701	ug/L	0.414	0	233	412572	0
Cu	65	55.776	ug/L	0.493	0	114	192046	0
Zn	66	28.307	ug/L	0.157	0	375	65176	0
Zn	67	31.719	ug/L	0.128	0	141	12894	0
Zn	68	31.385	ug/L	0.260	0	5524	55607	0
As	75	421.539	ug/L	0.433	0	145	921793	0
As-1	75	438.695	ug/L	0.458	0	7671	928786	0
Se	82	2.360	ug/L	0.019	0	0	740	0
Se	78	2.354	ug/L	0.063	2	7997	9445	0
[ Mo	98	0.416	ug/L	0.015	3	87	3957	3
Y	89		ug/L			461134	521611	0
Kr	83		ug/L			197	235	0
[> In	115		ug/L			515607	481665 ✓	0
Ag	107	4.936	ug/L	0.031	0	75	76020	0
Cd	111	0.180	ug/L	0.013	7	330	1004	4
Cd	114	0.025	ug/L	0.001	5	32	253	4
Sb	121	0.010	ug/L	0.002	18	198	286	6
Sb	123	0.008	ug/L	0.003	38	157	212	11
Ba	135	154.561	ug/L	0.517	0	24	463253	0
[ Ba	137	153.933	ug/L	2.308	1	36	801005	1
[> Tb	159		ug/L			612197	589004 ✓	0
Tl	205	0.502	ug/L	0.008	1	250	22260	1
Pb	208	24.168	ug/L	0.310	1	1016	1420985	0
Bi	209		ug/L			532877	485678	0
Th	232	2.636	ug/L	0.017	0	1565	187592	1
[ U	238	0.374	ug/L	0.003	0	1000	29364	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 R SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:39:39

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

AS

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	741352 ✓	1
[ Be	9	0.121	ug/L	0.009	7	23	108	5
C	13		mg/L			6243	6261	0
Cl	37		mg/L			1387303	1546642	0
[> Sc	45		ug/L			409578	410825 ✓	0
V	51	7.990	ug/L	0.112	1	2772	141334	1
V-1	51	7.968	ug/L	0.108	1	1649	142027	0
Cr	52	3.857	ug/L	0.018	0	8617	66498	0
Cr	53	3.992	ug/L	0.024	0	614	7736	0
Mn	55	36.594	ug/L	0.422	1	377	943453	0
[ Co	59	0.681	ug/L	0.004	0	55	12610	0
[> Ge	72		ug/L			372563	359503 ✓	1
Ni	60	1.217	ug/L	0.029	2	49	4454	1
Ni	62	1.332	ug/L	0.028	2	97	796	0
Cu	63	23.415	ug/L	0.340	1	233	172449	0
Cu	65	23.380	ug/L	0.186	0	114	80053	0
Zn	66	11.995	ug/L	0.247	2	375	27648	1
Zn	67	13.463	ug/L	0.168	1	141	5516	0
Zn	68	13.284	ug/L	0.205	1	5524	26458	0
As	75	175.235	ug/L	2.041	1	145	380816	0
As-1	75	182.471	ug/L	2.165	1	7671	388163	0
Se	82	1.051	ug/L	0.034	3	0	327	1
Se	78	1.347	ug/L	0.179	13	7997	8670	0
[ Mo	98	0.163	ug/L	0.006	3	87	1595	3
Y	89		ug/L			461134	477703	1
Kr	83		ug/L			197	204	1
[> In	115		ug/L			515607	480946 ✓	0
Ag	107	2.032	ug/L	0.033	1	75	31289	2
Cd	111	0.087	ug/L	0.016	18	330	642	9
Cd	114	0.009	ug/L	0.002	16	32	113	11
Sb	121	-0.004	ug/L	0.001	40	198	146	11
Sb	123	-0.005	ug/L	0.001	18	157	110	6
Ba	135	63.177	ug/L	0.392	0	24	189083	0
[ Ba	137	62.894	ug/L	0.601	0	36	326804	0
[> Tb	159		ug/L			612197	588275 ✓	0
Ti	205	0.201	ug/L	0.003	1	250	9037	1
Pb	208	9.923	ug/L	0.028	0	1016	583284	0
Bi	209		ug/L			532877	494524	1
Th	232	1.079	ug/L	0.004	0	1565	77576	0
[ U	238	0.145	ug/L	0.000	0	1000	11941	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 S SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:45:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	756855 ✓	1
[ Be	9	0.067	ug/L	0.013	19	23	71	12
C	13		mg/L			6243	9376	1
Cl	37		mg/L			1387303	1580590	0
[> Sc	45		ug/L			409578	401780 ✓	1
V	51	1.713	ug/L	0.054	3	2772	31752	1
V-1	51	1.738	ug/L	0.044	2	1649	31554	0
Cr	52	1.741	ug/L	0.045	2	8617	33982	0
Cr	53	1.820	ug/L	0.017	0	614	3776	1
Mn	55	6.993	ug/L	0.164	2	377	176589	0
[ Co	59	0.170	ug/L	0.006	3	55	3114	2
[> Ge	72		ug/L			372563	358698 ✓	0
Ni	60	0.378	ug/L	0.018	4	49	1413	5
Ni	62	0.455	ug/L	0.035	7	97	332	5
Cu	63	3.347	ug/L	0.028	0	233	24794	1
Cu	65	3.340	ug/L	0.041	1	114	11504	1
Zn	66	3.675	ug/L	0.082	2	375	8704	2
Zn	67	4.602	ug/L	0.079	1	141	1971	2
Zn	68	4.734	ug/L	0.139	2	5524	12832	1
As	75	117.285	ug/L	0.420	0	145	254379	0
As-1	75	122.182	ug/L	0.476	0	7671	261793	0
Se	82	2.158	ug/L	0.101	4	0	671	5
Se	78	2.687	ug/L	0.111	4	7997	9599	0
[ Mo	98	0.077	ug/L	0.004	4	87	795	4
Y	89		ug/L			461134	494886	0
Kr	83		ug/L			197	199	2
[> In	115		ug/L			515607	488670 ✓	0
Ag	107	13.846	ug/L	0.145	1	75	216211	0
Cd	111	0.086	ug/L	0.002	2	330	651	2
Cd	114	0.006	ug/L	0.001	9	32	88	5
Sb	121	0.081	ug/L	0.008	10	198	1054	7
Sb	123	0.073	ug/L	0.006	8	157	737	7
Ba	135	40.271	ug/L	0.439	1	24	122469	0
Ba	137	40.416	ug/L	0.450	1	36	213386	0
[> Tb	159		ug/L			612197	594482 ✓	0
Tl	205	0.518	ug/L	0.004	0	250	23167	0
Pb	208	16.871	ug/L	0.155	0	1016	1001506	0
Bi	209		ug/L			532877	503944	1
Th	232	0.817	ug/L	0.007	0	1565	59742	0
[ U	238	0.054	ug/L	0.001	1	1000	5143	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 T SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:51:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	746463 ✓	0
[ Be	9	0.051	ug/L	0.008	16	23	58	11
C	13		mg/L			6243	7891	0
Cl	37		mg/L			1387303	1565861	0
> Sc	45		ug/L			409578	396381 ✓	0
V	51	3.398	ug/L	0.012	0	2772	59534	0
V-1	51	3.396	ug/L	0.015	0	1649	59315	0
Cr	52	1.707	ug/L	0.020	1	8617	33043	0
Cr	53	1.784	ug/L	0.065	3	614	3664	3
Mn	55	6.981	ug/L	0.092	1	377	173943	1
[ Co	59	0.264	ug/L	0.001	0	55	4751	0
> Ge	72		ug/L			372563	360257 ✓	0
Ni	60	0.529	ug/L	0.019	3	49	1965	2
Ni	62	0.617	ug/L	0.071	11	97	420	8
Cu	63	4.331	ug/L	0.005	0	233	32148	0
Cu	65	4.370	ug/L	0.024	0	114	15083	0
Zn	66	4.184	ug/L	0.061	1	375	9902	1
Zn	67	5.346	ug/L	0.302	5	141	2277	5
Zn	68	4.991	ug/L	0.122	2	5524	13298	1
As	75	192.881	ug/L	0.566	0	145	420067	0
As-1	75	200.843	ug/L	0.568	0	7671	427434	0
Se	82	1.273	ug/L	0.049	3	0	397	3
Se	78	1.579	ug/L	0.041	2	7997	8855	0
[ Mo	98	0.111	ug/L	0.004	3	87	1110	3
Y	89		ug/L			461134	462260	0
Kr	83		ug/L			197	199	4
> In	115		ug/L			515607	486732 ✓	1
Ag	107	8.483	ug/L	0.099	1	75	131959	0
Cd	111	0.092	ug/L	0.015	16	330	672	8
Cd	114	0.002	ug/L	0.001	27	32	51	11
Sb	121	0.045	ug/L	0.002	4	198	662	2
Sb	123	0.045	ug/L	0.001	1	157	510	1
Ba	135	38.972	ug/L	0.684	1	24	118039	0
[ Ba	137	38.886	ug/L	0.675	1	36	204483	0
> Tb	159		ug/L			612197	593360 ✓	0
Tl	205	0.413	ug/L	0.006	1	250	18478	1
Pb	208	12.162	ug/L	0.154	1	1016	720800	0
Bi	209		ug/L			532877	495640	0
Th	232	0.450	ug/L	0.008	1	1565	33535	0
[ U	238	0.033	ug/L	0.001	2	1000	3473	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 U SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 14:57:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	738590✓	1
[ Be	9	0.698	ug/L	0.042	6	23	525	7
C	13		mg/L			6243	8950	0
Cl	37		mg/L			1387303	1528558	0
[> Sc	45		ug/L			409578	443818✓	1
V	51	26.039	ug/L	0.040	0	2772	490820	1
V-1	51	25.871	ug/L	0.036	0	1649	494189	1
Cr	52	11.691	ug/L	0.024	0	8617	198787	1
Cr	53	11.873	ug/L	0.072	0	614	23540	0
Mn	55	460.848	ug/L	2.858	0	377	12831721	1
[ Co	59	8.836	ug/L	0.032	0	55	175920	1
[> Ge	72		ug/L			372563	353967✓	0
Ni	60	11.926	ug/L	0.139	1	49	42567	1
Ni	62	13.877	ug/L	0.104	0	97	7300	0
Cu	63	24.300	ug/L	0.355	1	233	176226	1
Cu	65	24.258	ug/L	0.256	1	114	81784	1
Zn	66	67.339	ug/L	0.527	0	375	151208	1
Zn	67	64.930	ug/L	0.121	0	141	25684	0
Zn	68	68.000	ug/L	0.391	0	5524	111752	0
As	75	23.284	ug/L	0.216	0	145	49946	1
As-1	75	24.225	ug/L	0.221	0	7671	57065	1
Se	82	0.086	ug/L	0.027	30	0	26	31
Se	78	0.398	ug/L	0.007	1	7997	7875	0
[ Mo	98	0.172	ug/L	0.005	2	87	1647	3
Y	89		ug/L			461134	791218	1
Kr	83		ug/L			197	282	0
[> In	115		ug/L			515607	476947✓	1
Ag	107	0.572	ug/L	0.010	1	75	8781	0
Cd	111	1.045	ug/L	0.038	3	330	4301	3
Cd	114	0.172	ug/L	0.010	5	32	1521	4
Sb	121	0.008	ug/L	0.002	25	198	271	7
Sb	123	0.007	ug/L	0.001	19	157	203	6
Ba	135	126.844	ug/L	0.697	0	24	376466	1
[ Ba	137	127.302	ug/L	1.597	1	36	655924	1
[> Tb	159		ug/L			612197	597813✓	0
Tl	205	0.192	ug/L	0.004	2	250	8809	1
Pb	208	12.860	ug/L	0.066	0	1016	767880	0
Bi	209		ug/L			532877	483511	0
Th	232	2.208	ug/L	0.039	1	1565	159740	1
[ U	238	0.492	ug/L	0.002	0	1000	38874	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:03:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	723295 ✓	1
[ Be	9	48.434	ug/L	1.113	2	23	34236	0
C	13		mg/L			6243	3360	0
Cl	37		mg/L			1387303	1587585	0
[> Sc	45		ug/L			409578	391353 ✓	0
V	51	48.307	ug/L	0.408	0	2772	800685	1
V-1	51	48.286	ug/L	0.384	0	1649	811974	1
Cr	52	48.736	ug/L	0.130	0	8617	704647	0
Cr	53	48.647	ug/L	0.174	0	614	83235	0
Mn	55	49.590	ug/L	0.235	0	377	1217854	1
Co	59	48.114	ug/L	0.391	0	55	844448	1
[> Ge	72		ug/L			372563	356950 ✓	0
Ni	60	48.020	ug/L	0.113	0	49	172701	1
Ni	62	47.690	ug/L	0.583	1	97	25071	0
Cu	63	48.747	ug/L	0.183	0	233	356267	0
Cu	65	48.511	ug/L	0.339	0	114	164816	1
Zn	66	49.602	ug/L	0.172	0	375	112410	0
Zn	67	50.315	ug/L	0.356	0	141	20100	0
Zn	68	49.259	ug/L	0.582	1	5524	83090	0
As	75	49.275	ug/L	0.106	0	145	106433	0
As-1	75	49.430	ug/L	0.116	0	7671	109771	0
Se	82	49.845	ug/L	0.114	0	0	15447	0
Se	78	50.398	ug/L	0.179	0	7997	43130	0
[ Mo	98	46.541	ug/L	0.248	0	87	427761	0
Y	89		ug/L			461134	438784	0
Kr	83		ug/L			197	226	7
[> In	115		ug/L			515607	471666 ✓	0
Ag	107	49.628	ug/L	0.850	1	75	747844	1
Cd	111	49.994	ug/L	0.236	0	330	189387	0
Cd	114	50.294	ug/L	0.263	0	32	432168	0
Sb	121	50.206	ug/L	0.431	0	198	520002	1
Sb	123	50.028	ug/L	0.454	0	157	388798	1
Ba	135	50.358	ug/L	0.438	0	24	147814	0
[ Ba	137	50.792	ug/L	0.044	0	36	258842	0
[> Tb	159		ug/L			612197	580720 ✓	0
Ti	205	51.398	ug/L	0.863	1	250	2223887	1
Pb	208	49.725	ug/L	0.556	1	1016	2881485	0
Bi	209		ug/L			532877	485164	0
Th	232	50.960	ug/L	0.820	1	1565	3548046	1
[ U	238	50.332	ug/L	0.150	0	1000	3765499	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:09:53

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	716920 ✓	1
[ Be	9	0.019	ug/L	0.010	52	23	33	19
C	13		mg/L			6243	6261	3
Cl	37		mg/L			1387303	1606651	0
[> Sc	45		ug/L			409578	393084 ✓	0
V	51	0.012	ug/L	0.009	77	2772	2862	5
V-1	51	0.033	ug/L	0.001	3	1649	2137	1
Cr	52	0.012	ug/L	0.010	80	8617	8443	1
Cr	53	0.077	ug/L	0.022	28	614	722	5
Mn	55	0.008	ug/L	0.000	5	377	564	2
[ Co	59	0.001	ug/L	0.000	37	55	68	8
[> Ge	72		ug/L			372563	357001 ✓	0
Ni	60	-0.002	ug/L	0.001	54	49	40	9
Ni	62	0.044	ug/L	0.029	65	97	116	13
Cu	63	0.003	ug/L	0.003	94	233	247	8
Cu	65	0.003	ug/L	0.001	44	114	118	3
Zn	66	-0.000	ug/L	0.012	5338	375	359	6
Zn	67	0.017	ug/L	0.007	41	141	142	1
Zn	68	0.127	ug/L	0.086	68	5524	5493	2
As	75	0.007	ug/L	0.021	286	145	155	28
As-1	75	0.297	ug/L	0.038	12	7671	7966	0
Se	82	0.002	ug/L	0.024	1278	0	0	5706
Se	78	0.894	ug/L	0.060	6	7997	8292	0
[ Mo	98	-0.001	ug/L	0.003	670	87	79	38
Y	89		ug/L			461134	441458	0
Kr	83		ug/L			197	200	2
[> In	115		ug/L			515607	474661 ✓	1
Ag	107	0.003	ug/L	0.001	32	75	122	13
Cd	111	0.025	ug/L	0.002	7	330	399	2
Cd	114	-0.001	ug/L	0.001	113	32	24	26
Sb	121	0.050	ug/L	0.019	37	198	704	27
Sb	123	0.051	ug/L	0.014	27	157	542	19
Ba	135	0.003	ug/L	0.001	23	24	30	4
[ Ba	137	0.003	ug/L	0.001	41	36	46	10
[> Tb	159		ug/L			612197	570238 ✓	0
Tl	205	-0.001	ug/L	0.001	278	250	210	28
Pb	208	-0.006	ug/L	0.001	14	1016	595	7
Bi	209		ug/L			532877	497303	1
Th	232	0.002	ug/L	0.006	393	1565	1558	25
[ U	238	-0.009	ug/L	0.001	10	1000	265	25

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 MB1 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:17:01

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	747484✓	2
[ Be	9	0.015	ug/L	0.013	89	23	32	31
C	13		mg/L			6243	5267	1
Cl	37		mg/L			1387303	1615542	1
[> Sc	45		ug/L			409578	405350✓	0
V	51	✓ 0.002	ug/L	0.008	317	2772	2785	4
V-1	51	0.028	ug/L	0.005	18	1649	2127	4
Cr	52	✓ 0.004	ug/L	0.009	248	8617	8582	0
Cr	53	0.086	ug/L	0.002	2	614	759	1
Mn	55	0.034	ug/L	0.001	1	377	1230	1
[ Co	59	0.001	ug/L	0.000	27	55	67	4
[> Ge	72		ug/L			372563	368789✓	0
Ni	60	0.002	ug/L	0.001	36	49	55	3
Ni	62	0.087	ug/L	0.036	41	97	143	13
Cu	63	0.017	ug/L	0.002	12	233	362	4
Cu	65	0.013	ug/L	0.004	29	114	159	8
Zn	66	0.194	ug/L	0.018	9	375	824	5
Zn	67	0.147	ug/L	0.034	22	141	200	7
Zn	68	0.306	ug/L	0.041	13	5524	5967	1
As	75	✓ 0.009	ug/L	0.016	173	145	164	21
As-1	75	0.219	ug/L	0.046	21	7671	8062	1
Se	82	✓ -0.004	ug/L	0.034	829	0	-1	624
Se	78	0.636	ug/L	0.114	17	7997	8379	1
[ Mo	98	-0.003	ug/L	0.001	27	87	53	16
Y	89		ug/L			461134	460437	0
Kr	83		ug/L			197	202	1
[> In	115		ug/L			515607	494401✓	1
Ag	107	✓ 0.001	ug/L	0.000	57	75	80	4
Cd	111	0.026	ug/L	0.006	22	330	418	4
Cd	114	-0.001	ug/L	0.001	44	32	21	20
Sb	121	✓ 0.005	ug/L	0.002	41	198	247	8
Sb	123	0.003	ug/L	0.004	122	157	178	17
Ba	135	0.003	ug/L	0.001	41	24	33	13
[ Ba	137	0.003	ug/L	0.001	31	36	52	11
[> Tb	159		ug/L			612197	596776✓	0
Tl	205	-0.003	ug/L	0.000	5	250	110	6
Pb	208	✓ -0.006	ug/L	0.000	5	1016	647	2
Bi	209		ug/L			532877	509541	1
Th	232	-0.010	ug/L	0.001	12	1565	819	10
[ U	238	-0.010	ug/L	0.000	4	1000	217	15

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 V SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:23:00

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	751486 ✓	1
[ Be	9	0.668	ug/L	0.018	2	23	512	1
C	13		mg/L			6243	7841	2
Cl	37		mg/L			1387303	1555682	0
[> Sc	45		ug/L			409578	449572 ✓	0
V	51	23.454	ug/L	0.191	0	2772	448118	0
V-1	51	23.252	ug/L	0.177	0	1649	450092	0
Cr	52	12.444	ug/L	0.095	0	8617	213728	1
Cr	53	12.352	ug/L	0.049	0	614	24782	0
Mn	55	558.347	ug/L	4.074	0	377	15747249	0
[ Co	59	8.911	ug/L	0.067	0	55	179711	0
[> Ge	72		ug/L			372563	366866 ✓	0
Ni	60	12.727	ug/L	0.121	0	49	47080	1
Ni	62	15.375	ug/L	0.214	1	97	8372	1
Cu	63	20.206	ug/L	0.205	1	233	151905	0
Cu	65	20.261	ug/L	0.224	1	114	70813	1
Zn	66	68.506	ug/L	0.408	0	375	159421	0
Zn	67	64.203	ug/L	0.452	0	141	26323	0
Zn	68	69.003	ug/L	0.598	0	5524	117450	0
As	75	21.153	ug/L	0.120	0	145	47041	0
As-1	75	21.950	ug/L	0.112	0	7671	54300	0
Se	82	0.107	ug/L	0.017	15	0	33	15
Se	78	0.192	ug/L	0.121	62	7997	8014	1
[ Mo	98	0.254	ug/L	0.007	2	87	2480	2
Y	89		ug/L			461134	833760	0
Kr	83		ug/L			197	274	2
[> In	115		ug/L			515607	490946 ✓	0
Ag	107	0.749	ug/L	0.002	0	75	11819	0
Cd	111	1.140	ug/L	0.050	4	330	4804	4
Cd	114	0.301	ug/L	0.005	1	32	2727	1
Sb	121	0.021	ug/L	0.002	8	198	414	4
Sb	123	0.021	ug/L	0.007	32	157	316	16
Ba	135	108.253	ug/L	0.170	0	24	330717	0
[ Ba	137	108.938	ug/L	1.073	0	36	577817	1
[> Tb	159		ug/L			612197	604827 ✓	0
Tl	205	0.163	ug/L	0.004	2	250	7573	2
Pb	208	18.588	ug/L	0.187	1	1016	1122484	0
Bi	209		ug/L			532877	494724	0
Th	232	2.195	ug/L	0.015	0	1565	160677	0
[ U	238	0.463	ug/L	0.002	0	1000	37027	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 X SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:28:59

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

No As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	747892 ✓	1
[ Be	9	0.084	ug/L	0.013	15	23	82	10
C	13		mg/L			6243	6723	0
Cl	37		mg/L			1387303	1587029	0
[> Sc	45		ug/L			409578	407410 ✓	0
V	51	2.743	ug/L	0.009	0	2772	49924	0
V-1	51	2.756	ug/L	0.012	0	1649	49792	0
Cr	52	2.219	ug/L	0.014	0	8617	41583	0
Cr	53	2.287	ug/L	0.053	2	614	4656	1
Mn	55	13.191	ug/L	0.064	0	377	337509	0
[ Co	59	0.303	ug/L	0.010	3	55	5593	3
[> Ge	72		ug/L			372563	360722 ✓	0
Ni	60	0.732	ug/L	0.014	1	49	2708	2
Ni	62	0.727	ug/L	0.045	6	97	478	4
Cu	63	4.312	ug/L	0.051	1	233	32055	1
Cu	65	4.337	ug/L	0.073	1	114	14991	1
Zn	66	4.495	ug/L	0.046	1	375	10624	0
Zn	67	7.013	ug/L	0.098	1	141	2949	1
Zn	68	6.641	ug/L	0.039	0	5524	15948	0
As	75	395.264	ug/L	0.177	0	145	861803	0
As-1	75	411.458	ug/L	0.199	0	7671	869019	0
Se	82	2.692	ug/L	0.065	2	0	842	2
Se	78	3.022	ug/L	0.016	0	7997	9892	0
[ Mo	98	0.098	ug/L	0.004	3	87	993	3
Y	89		ug/L			461134	482534	0
Kr	83		ug/L			197	221	2
[> In	115		ug/L			515807	481236 ✓	1
Ag	107	8.785	ug/L	0.107	1	75	135109	0
Cd	111	0.135	ug/L	0.018	13	330	827	8
Cd	114	0.003	ug/L	0.000	7	32	59	2
Sb	121	u 0.030	ug/L	0.003	8	198	504	4
Sb	123	0.030	ug/L	0.002	6	157	387	3
Ba	135	88.788	ug/L	0.876	0	24	265864	0
[ Ba	137	89.037	ug/L	2.018	2	36	462827	0
[> Tb	159		ug/L			612197	586060 ✓	0
Tl	205	0.203	ug/L	0.001	0	250	9098	0
Pb	208	6.593	ug/L	0.045	0	1016	386434	0
Bi	209		ug/L			532877	491295	0
Th	232	0.778	ug/L	0.006	0	1565	56111	0
[ U	238	0.095	ug/L	0.001	0	1000	8095	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 X SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:34:58

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

AS

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	729047	1
[ Be	9	0.043	ug/L	0.017	40	23	51	24
C	13		mg/L			6243	5593	2
Cl	37		mg/L			1387303	1603862	0
[> Sc	45		ug/L			409578	395858	1
V	51	1.053	ug/L	0.009	0	2772	20269	1
V-1	51	1.077	ug/L	0.012	1	1649	19872	1
Cr	52	0.850	ug/L	0.008	0	8617	20617	0
Cr	53	0.936	ug/L	0.023	2	614	2202	0
Mn	55	5.118	ug/L	0.037	0	377	127454	0
Co	59	0.114	ug/L	0.007	5	55	2076	5
[> Ge	72		ug/L			372563	356595	0
Ni	60	0.285	ug/L	0.014	4	49	1069	5
Ni	62	0.323	ug/L	0.054	16	97	261	10
Cu	63	1.672	ug/L	0.045	2	233	12422	2
Cu	65	1.662	ug/L	0.055	3	114	5746	2
Zn	66	1.859	ug/L	0.026	1	375	4553	0
Zn	67	2.759	ug/L	0.135	4	141	1228	4
Zn	68	2.689	ug/L	0.065	2	5524	9530	0
As	75	152.475	ug/L	0.942	0	145	328717	0
As-1	75	158.867	ug/L	0.976	0	7671	336193	0
Se	82	1.071	ug/L	0.079	7	0	331	7
Se	78	1.648	ug/L	0.027	1	7997	8813	0
[ Mo	98	0.035	ug/L	0.004	11	87	401	8
Y	89		ug/L			461134	449891	1
Kr	83		ug/L			197	206	4
[> In	115		ug/L			515607	472392	1
Ag	107	3.385	ug/L	0.035	1	75	51145	0
Cd	111	0.053	ug/L	0.005	9	330	502	4
Cd	114	0.001	ug/L	0.000	44	32	37	6
Sb	121	0.005	ug/L	0.001	15	198	229	4
Sb	123	0.004	ug/L	0.003	76	157	175	13
Ba	135	33.633	ug/L	0.601	1	24	98869	0
[ Ba	137	33.576	ug/L	0.832	2	36	171350	1
[> Tb	159		ug/L			612197	566682	0
Tl	205	0.075	ug/L	0.001	1	250	3413	1
Pb	208	2.554	ug/L	0.016	0	1016	145350	1
Bi	209		ug/L			532877	492756	0
Th	232	0.291	ug/L	0.002	0	1565	21222	1
[ U	238	0.030	ug/L	0.000	1	1000	3116	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 A-L SWN

Sample Dil Factor: 100

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:40:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	716245 ✓	1
[ Be	9	0.029	ug/L	0.018	64	23	40	30
C	13		mg/L			6243	5359	1
Cl	37		mg/L			1387303	1617535	0
[> Sc	45		ug/L			409578	386755 ✓	0
V	51	✓ 0.362	ug/L	0.009	2	2772	8520	1
V-1	51	0.394	ug/L	0.001	0	1649	8091	0
Cr	52	✓ 0.342	ug/L	0.004	1	8617	12963	0
Cr	53	0.445	ug/L	0.029	6	614	1327	3
Mn	55	2.507	ug/L	0.038	1	377	61179	1
Co	59	0.049	ug/L	0.002	3	55	899	3
[> Ge	72		ug/L			372563	354651 ✓	0
Ni	60	0.122	ug/L	0.006	4	49	481	4
Ni	62	0.172	ug/L	0.016	9	97	181	4
Cu	63	0.405	ug/L	0.012	2	233	3160	2
Cu	65	0.409	ug/L	0.015	3	114	1490	3
Zn	66	0.593	ug/L	0.007	1	375	1689	0
Zn	67	0.693	ug/L	0.035	5	141	407	3
Zn	68	0.774	ug/L	0.036	4	5524	6472	0
As	75	20.463	ug/L	0.200	0	145	43995	0
As-1	75	21.560	ug/L	0.172	0	7671	51688	0
Se	82	✓ 0.119	ug/L	0.016	13	0	36	13
Se	78	0.914	ug/L	0.156	17	7997	8252	1
Mo	98	0.008	ug/L	0.002	21	87	153	9
Y	89		ug/L			461134	443038	0
Kr	83		ug/L			197	194	4
[> In	115		ug/L			515607	467723 ✓	0
Ag	107	0.735	ug/L	0.012	1	75	11049	1
Cd	111	0.036	ug/L	0.009	24	330	435	7
Cd	114	0.000	ug/L	0.000	245	32	31	11
Sb	121	✓ -0.006	ug/L	0.000	7	198	113	4
Sb	123	-0.009	ug/L	0.001	9	157	73	8
Ba	135	3.630	ug/L	0.034	0	24	10586	1
Ba	137	3.706	ug/L	0.015	0	36	18760	0
[> Tb	159		ug/L			612197	565300 ✓	0
Tl	205	0.011	ug/L	0.000	1	250	683	1
Pb	208	1.021	ug/L	0.009	0	1016	58509	0
Bi	209		ug/L			532877	486831	0
Th	232	0.073	ug/L	0.002	2	1565	6364	1
[ U	238	0.001	ug/L	0.000	28	1000	992	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 A SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:46:52

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	750610 ✓	1
[ Be	9	0.084	ug/L	0.010	11	23	83	9
C	13		mg/L			6243	6771	1
Cl	37		mg/L			1387303	1599469	0
> Sc	45		ug/L			409578	404272 ✓	0
V	51	1.732	ug/L	0.028	1	2772	32296	2
V-1	51	1.746	ug/L	0.012	0	1649	31904	1
Cr	52	1.635	ug/L	0.011	0	8617	32634	1
Cr	53	1.684	ug/L	0.092	5	614	3562	4
Mn	55	11.459	ug/L	0.082	0	377	290992	0
[ Co	59	0.224	ug/L	0.005	2	55	4120	3
> Ge	72		ug/L			372563	359206 ✓	0
Ni	60	0.575	ug/L	0.006	1	49	2129	0
Ni	62	0.642	ug/L	0.011	1	97	432	1
Cu	63	1.935	ug/L	0.013	0	233	14450	0
Cu	65	1.934	ug/L	0.008	0	114	6717	0
Zn	66	2.339	ug/L	0.031	1	375	5679	1
Zn	67	2.756	ug/L	0.115	4	141	1236	3
Zn	68	2.812	ug/L	0.069	2	5524	9795	0
As	75	98.390	ug/L	0.450	0	145	213725	0
As-1	75	102.585	ug/L	0.464	0	7671	221304	0
Se	82	u 0.420	ug/L	0.027	6	0	130	6
Se	78	1.014	ug/L	0.049	4	7997	8428	0
[ Mo	98	0.063	ug/L	0.006	9	87	664	8
Y	89		ug/L			461134	489836	0
Kr	83		ug/L			197	215	1
> In	115		ug/L			515607	479958 ✓	0
Ag	107	3.557	ug/L	0.086	2	75	54609	1
Cd	111	0.069	ug/L	0.008	11	330	571	4
Cd	114	0.004	ug/L	0.001	13	32	64	6
Sb	121	u 0.010	ug/L	0.002	17	198	291	6
Sb	123	0.006	ug/L	0.006	109	157	194	26
Ba	135	17.481	ug/L	0.138	0	24	52227	0
[ Ba	137	17.529	ug/L	0.163	0	36	90921	1
> Tb	159		ug/L			612197	583184 ✓	0
Tl	205	0.070	ug/L	0.002	3	250	3260	2
Pb	208	4.847	ug/L	0.014	0	1016	282978	0
Bi	209		ug/L			532877	500360	0
Th	232	0.416	ug/L	0.007	1	1565	30600	0
[ U	238	0.046	ug/L	0.001	2	1000	4417	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 ADUP SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:52:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	763528 ✓	0
[ Be	9	0.083	ug/L	0.021	25	23	84	17
C	13		mg/L			6243	8953	3
Cl	37		mg/L			1387303	1586538	0
[> Sc	45		ug/L			409578	412355 ✓	0
V	51	2.197	ug/L	0.029	1	2772	41026	1
V-1	51	2.200	ug/L	0.010	0	1649	40571	0
Cr	52	2.139	ug/L	0.017	0	8617	40876	0
Cr	53	2.153	ug/L	0.041	1	614	4473	1
Mn	55	14.144	ug/L	0.128	0	377	366259	0
Co	59	0.277	ug/L	0.006	2	55	5172	1
[> Ge	72		ug/L			372563	363041 ✓	0
Ni	60	0.696	ug/L	0.022	3	49	2592	2
Ni	62	0.779	ug/L	0.045	5	97	509	4
Cu	63	2.149	ug/L	0.046	2	233	16187	1
Cu	65	2.131	ug/L	0.030	1	114	7470	0
Zn	66	3.227	ug/L	0.055	1	375	7779	1
Zn	67	3.779	ug/L	0.120	3	141	1662	2
Zn	68	3.691	ug/L	0.047	1	5524	11312	0
As	75	91.937	ug/L	0.698	0	145	201853	1
As-1	75	95.836	ug/L	0.747	0	7671	209448	1
Se	82	✓ 0.407	ug/L	0.055	13	0	127	13
Se	78	0.895	ug/L	0.127	14	7997	8433	0
Mo	98	0.055	ug/L	0.006	10	87	600	9
Y	89		ug/L			461134	499997	0
Kr	83		ug/L			197	213	2
[> In	115		ug/L			515607	484340 ✓	0
Ag	107	3.278	ug/L	0.038	1	75	50792	1
Cd	111	0.094	ug/L	0.001	1	330	676	0
Cd	114	0.006	ug/L	0.001	14	32	79	8
Sb	121	✓ 0.001	ug/L	0.002	251	198	194	9
Sb	123	-0.004	ug/L	0.002	54	157	119	12
Ba	135	18.971	ug/L	0.140	0	24	57196	0
Ba	137	19.039	ug/L	0.066	0	36	99652	0
[> Tb	159		ug/L			612197	584442 ✓	0
Tl	205	0.091	ug/L	0.002	2	250	4179	1
Pb	208	5.010	ug/L	0.055	1	1016	293017	0
Bi	209		ug/L			532877	500473	0
Th	232	0.436	ug/L	0.005	1	1565	32027	0
[ U	238	0.053	ug/L	0.001	2	1000	4968	3



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 ASPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 15:58:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	743360 ✓	2
[ Be	9	24.234	ug/L	0.567	2	23	17615	0
C	13		mg/L			6243	6656	1
Cl	37		mg/L			1387303	1587391	0
[> Sc	45		ug/L			409578	403961 ✓	0
V	51	24.306	ug/L	0.285	1	2772	417182	1
V-1	51	24.370	ug/L	0.181	0	1649	423805	0
Cr	52	26.386	ug/L	0.255	0	8617	397669	0
Cr	53	26.486	ug/L	0.180	0	614	47054	0
Mn	55	39.542	ug/L	0.390	0	377	1002408	0
[ Co	59	24.501	ug/L	0.059	0	55	443886	0
[> Ge	72		ug/L			372563	355945 ✓	0
Ni	60	25.923	ug/L	0.478	1	49	92979	1
Ni	62	25.745	ug/L	0.298	1	97	13539	0
Cu	63	27.519	ug/L	0.064	0	233	200654	0
Cu	65	27.523	ug/L	0.230	0	114	93293	1
Zn	66	81.528	ug/L	0.396	0	375	184009	0
Zn	67	73.219	ug/L	0.452	0	141	29106	0
Zn	68	79.649	ug/L	0.510	0	5524	130720	0
As	75	116.289	ug/L	0.363	0	145	250282	0
As-1	75	118.044	ug/L	0.303	0	7671	251235	0
Se	82	77.944	ug/L	0.798	1	0	24086	0
Se	78	78.456	ug/L	0.760	0	7997	62699	0
[ Mo	98	15.049	ug/L	0.050	0	87	137983	0
Y	89		ug/L			461134	492451	1
Kr	83		ug/L			197	228	4
[> In	115		ug/L			515607	478831 ✓	0
Ag	107	29.150	ug/L	0.134	0	75	445953	0
Cd	111	24.981	ug/L	0.186	0	330	96223	0
Cd	114	24.962	ug/L	0.104	0	32	217765	0
Sb	121	u 0.167	ug/L	0.002	0	198	1939	0
Sb	123	0.164	ug/L	0.009	5	157	1436	4
Ba	135	44.497	ug/L	0.550	1	24	132592	0
[ Ba	137	44.530	ug/L	0.183	0	36	230379	0
[> Tb	159		ug/L			612197	579377 ✓	0
Tl	205	23.717	ug/L	0.158	0	250	1024008	0
Pb	208	30.280	ug/L	0.215	0	1016	1751064	0
Bi	209		ug/L			532877	492804	0
Th	232	24.924	ug/L	0.119	0	1585	1732163	0
[ U	238	24.450	ug/L	0.230	0	1000	1825370	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 I SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:39:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	785063 ✓	0
[ Be	9	0.367	ug/L	0.007	1	23	304	1
C	13		mg/L			6243	6438	2
Cl	37		mg/L			1387303	1487960	0
[> Sc	45		ug/L			409578	422246 ✓	0
V	51	18.576	ug/L	0.127	0	2772	333958	1
V-1	51	18.358	ug/L	0.135	0	1649	334124	1
Cr	52	5.676	ug/L	0.034	0	8617	96387	0
Cr	53	5.625	ug/L	0.067	1	614	10944	1
Mn	55	195.514	ug/L	1.039	0	377	5179412	1
[ Co	59	3.955	ug/L	0.007	0	55	74951	0
[> Ge	72		ug/L			372563	350866 ✓	0
Ni	60	4.876	ug/L	0.084	1	49	17278	1
Ni	62	4.636	ug/L	0.035	0	97	2478	1
Cu	63	6.056	ug/L	0.028	0	233	43697	0
Cu	65	6.050	ug/L	0.062	1	114	20298	1
Zn	66	34.968	ug/L	0.096	0	375	78001	1
Zn	67	35.921	ug/L	0.570	1	141	14142	0
Zn	68	36.689	ug/L	0.070	0	5524	62163	0
As	75	72.097	ug/L	0.278	0	145	153009	0
As-1	75	75.043	ug/L	0.325	0	7671	160068	0
Se	82	✓ 0.347	ug/L	0.087	25	0	105	25
Se	78	0.629	ug/L	0.067	10	7997	7966	1
[ Mo	98	0.162	ug/L	0.004	2	87	1547	3
Y	89		ug/L			461134	613654	0
Kr	83		ug/L			197	262	3
[> In	115		ug/L			515607	467808 ✓	1
Ag	107	1.336	ug/L	0.039	2	75	20021	1
Cd	111	0.145	ug/L	0.020	13	330	844	8
Cd	114	0.026	ug/L	0.002	6	32	255	5
Sb	121	✓ 0.019	ug/L	0.003	13	198	374	6
Sb	123	0.018	ug/L	0.003	16	157	279	6
Ba	135	112.018	ug/L	1.071	0	24	326065	0
[ Ba	137	111.505	ug/L	1.781	1	36	563494	1
[> Tb	159		ug/L			612197	567946 ✓	1
Tl	205	0.139	ug/L	0.002	1	250	6103	0
Pb	208	5.765	ug/L	0.074	1	1016	327538	0
Bi	209		ug/L			532877	466333	0
Th	232	1.482	ug/L	0.010	0	1565	102354	0
[ U	238	0.263	ug/L	0.007	2	1000	20130	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 APOST SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:04:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	769875 ✓	1
[ Be	9	23.799	ug/L	0.194	0	23	17921	0
C	13		mg/L			6243	7198	2
Cl	37		mg/L			1387303	1590145	0
[> Sc	45		ug/L			409578	412639 ✓	0
V	51	25.424	ug/L	0.057	0	2772	445630	0
V-1	51	25.472	ug/L	0.056	0	1649	452403	0
Cr	52	25.675	ug/L	0.211	0	8617	395505	0
Cr	53	25.813	ug/L	0.201	0	614	46858	0
Mn	55	36.245	ug/L	0.116	0	377	938626	1
[ Co	59	24.340	ug/L	0.392	1	55	450411	0
[> Ge	72		ug/L			372563	363700 ✓	0
Ni	60	25.640	ug/L	0.076	0	49	93976	0
Ni	62	25.799	ug/L	0.115	0	97	13863	1
Cu	63	27.780	ug/L	0.066	0	233	206964	0
Cu	65	27.779	ug/L	0.461	1	114	96207	1
Zn	66	84.048	ug/L	0.243	0	375	193822	0
Zn	67	75.065	ug/L	0.804	1	141	30486	0
Zn	68	82.927	ug/L	0.331	0	5524	138846	0
As	75	126.518	ug/L	0.771	0	145	278216	0
As-1	75	128.445	ug/L	0.797	0	7671	278664	0
Se	82	81.340	ug/L	0.534	0	0	25684	0
Se	78	81.521	ug/L	0.558	0	7997	66263	0
[ Mo	98	23.300	ug/L	0.190	0	87	218235	0
Y	89		ug/L			461134	492452	0
Kr	83		ug/L			197	231	3
[> In	115		ug/L			515607	483983 ✓	0
Ag	107	28.953	ug/L	0.133	0	75	447707	0
Cd	111	25.318	ug/L	0.190	0	330	98567	0
Cd	114	25.290	ug/L	0.098	0	32	223008	0
Sb	121	25.303	ug/L	0.163	0	198	268994	0
Sb	123	25.284	ug/L	0.044	0	157	201690	0
Ba	135	43.049	ug/L	0.091	0	24	129664	0
[ Ba	137	42.822	ug/L	0.671	1	36	223929	1
[> Tb	159		ug/L			612197	581455 ✓	0
Tl	205	25.529	ug/L	0.427	1	250	1106073	0
Pb	208	30.740	ug/L	0.224	0	1016	1783962	0
Bi	209		ug/L			532877	502553	2
Th	232	25.046	ug/L	0.155	0	1565	1746883	0
[ U	238	24.520	ug/L	0.123	0	1000	1837245	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 MB1SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:10:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6	ug/L			803723	766971	0
[	Be	9	ug/L	0.123	0	23	17131	1
	C	13	mg/L			6243	5555	1
	Cl	37	mg/L			1387303	1593615	0
>	Sc	45	ug/L			409578	398908	0
	V	51	ug/L	0.063	0	2772	401830	0
	V-1	51	ug/L	0.223	0	1649	406869	0
	Cr	52	ug/L	0.158	0	8617	361196	0
	Cr	53	ug/L	0.660	2	614	42426	1
	Mn	55	ug/L	0.409	1	377	627917	0
	Co	59	ug/L	0.308	1	55	429088	0
>	Ge	72	ug/L			372563	364499	0
	Ni	60	ug/L	0.087	0	49	89129	0
	Ni	62	ug/L	0.420	1	97	13039	1
	Cu	63	ug/L	0.153	0	233	189801	0
	Cu	65	ug/L	0.095	0	114	87411	0
	Zn	66	ug/L	0.631	0	375	177232	0
	Zn	67	ug/L	0.491	0	141	27882	0
	Zn	68	ug/L	0.364	0	5524	126107	0
	As	75	ug/L	0.160	0	145	58657	0
	As-1	75	ug/L	0.133	0	7671	59818	0
	Se	82	ug/L	0.612	0	0	24004	0
	Se	78	ug/L	0.414	0	7997	62679	0
	Mo	98	ug/L	0.226	1	87	211743	1
	Y	89	ug/L			461134	446116	0
	Kr	83	ug/L			197	220	3
>	In	115	ug/L			515607	486882	0
[	Ag	107	ug/L	0.407	1	75	388874	1
	Cd	111	ug/L	0.149	0	330	93405	0
	Cd	114	ug/L	0.328	1	32	212539	1
	Sb	121	ug/L	0.069	0	198	263142	0
	Sb	123	ug/L	0.157	0	157	197715	0
	Ba	135	ug/L	0.379	1	24	73941	1
	Ba	137	ug/L	0.494	2	36	128906	1
>	Tb	159	ug/L			612197	586076	0
	Tl	205	ug/L	0.048	0	250	1066414	0
	Pb	208	ug/L	0.292	1	1016	1460703	1
	Bi	209	ug/L			532877	504691	0
	Th	232	ug/L	0.052	0	1565	1659813	0
	U	238	ug/L	0.016	0	1000	1784173	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: **CCV6**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, February 28, 2013 16:16:37**

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			803723	739974 ✓	1
[	Be	9	ug/L	0.874	1	23	34891	0
	C	13	mg/L			6243	3538	2
	Cl	37	mg/L			1387303	1581506	0
[>	Sc	45	ug/L			409578	393949 ✓	0
	V	51	ug/L	0.349	0	2772	802284	0
	V-1	51	ug/L	0.346	0	1649	815806	0
	Cr	52	ug/L	0.257	0	8617	708082	0
	Cr	53	ug/L	0.066	0	614	84337	0
	Mn	55	ug/L	0.305	0	377	1236562	0
[	Co	59	ug/L	0.428	0	55	848725	0
[>	Ge	72	ug/L			372563	357190 ✓	0
	Ni	60	ug/L	0.711	1	49	174140	1
	Ni	62	ug/L	0.507	1	97	25222	1
	Cu	63	ug/L	0.389	0	233	356895	0
	Cu	65	ug/L	0.161	0	114	165964	0
	Zn	66	ug/L	0.458	0	375	112664	0
	Zn	67	ug/L	0.285	0	141	20083	1
	Zn	68	ug/L	0.469	0	5524	83871	0
	As	75	ug/L	0.260	0	145	106180	0
	As-1	75	ug/L	0.185	0	7671	109730	0
	Se	82	ug/L	0.724	1	0	15426	1
	Se	78	ug/L	0.410	0	7997	43324	0
[	Mo	98	ug/L	0.418	0	87	429168	0
	Y	89	ug/L			461134	437120	0
	Kr	83	ug/L			197	239	2
[>	In	115	ug/L			515607	473184 ✓	0
	Ag	107	ug/L	0.816	1	75	742785	0
	Cd	111	ug/L	0.580	1	330	190480	0
	Cd	114	ug/L	0.490	0	32	435920	0
	Sb	121	ug/L	0.555	1	198	522420	0
	Sb	123	ug/L	0.155	0	157	394136	0
	Ba	135	ug/L	0.888	1	24	148043	0
[	Ba	137	ug/L	0.748	1	36	256061	0
[>	Tb	159	ug/L			612197	575119 ✓	1
	Tl	205	ug/L	0.292	0	250	2186832	0
	Pb	208	ug/L	0.596	1	1016	2826047	0
	Bi	209	ug/L			532877	473835	0
	Th	232	ug/L	0.628	1	1565	3507839	1
[	U	238	ug/L	0.575	1	1000	3719117	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:22:55

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	749944 ✓	1
[ Be	9	0.022	ug/L	0.008	37	23	37	14
C	13		mg/L			6243	6249	1
Cl	37		mg/L			1387303	1604350	0
[> Sc	45		ug/L			409578	389012 ✓	0
V	51	0.007	ug/L	0.002	29	2772	2756	1
V-1	51	0.016	ug/L	0.006	35	1649	1834	5
Cr	52	0.020	ug/L	0.010	51	8617	8468	1
Cr	53	0.046	ug/L	0.017	37	614	662	4
Mn	55	0.005	ug/L	0.001	17	377	479	4
[ Co	59	0.002	ug/L	0.001	53	55	80	18
[> Ge	72		ug/L			372563	356226 ✓	0
Ni	60	-0.001	ug/L	0.001	77	49	42	8
Ni	62	0.040	ug/L	0.012	29	97	113	5
Cu	63	0.004	ug/L	0.003	73	233	255	8
Cu	65	-0.001	ug/L	0.003	384	114	107	8
Zn	66	-0.001	ug/L	0.004	312	375	356	2
Zn	67	-0.023	ug/L	0.011	47	141	125	3
Zn	68	0.096	ug/L	0.042	43	5524	5432	0
As	75	0.009	ug/L	0.010	107	145	158	12
As-1	75	0.300	ug/L	0.050	16	7671	7954	0
Se	82	0.001	ug/L	0.032	2619	0	0	10150
Se	78	0.906	ug/L	0.124	13	7997	8282	0
[ Mo	98	0.002	ug/L	0.003	130	87	106	27
Y	89		ug/L			461134	438553	1
Kr	83		ug/L			197	202	6
[> In	115		ug/L			515607	468807 ✓	0
Ag	107	0.003	ug/L	0.002	57	75	119	24
Cd	111	0.014	ug/L	0.002	14	330	355	2
Cd	114	-0.001	ug/L	0.001	148	32	25	28
Sb	121	0.060	ug/L	0.024	39	198	795	30
Sb	123	0.065	ug/L	0.024	37	157	647	28
Ba	135	0.001	ug/L	0.002	337	24	24	25
[ Ba	137	0.002	ug/L	0.001	86	36	41	17
[> Tb	159		ug/L			612197	565258 ✓	0
Tl	205	0.000	ug/L	0.001	3881	250	232	26
Pb	208	-0.006	ug/L	0.001	14	1016	583	8
Bi	209		ug/L			532877	488186	0
Th	232	0.010	ug/L	0.009	90	1565	2133	29
[ U	238	-0.010	ug/L	0.001	7	1000	227	22

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 MB2 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:28:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	777256 ✓	0
[ Be	9	0.023	ug/L	0.010	44	23	40	20
C	13		mg/L			6243	5870	0
Cl	37		mg/L			1387303	1595777	0
[> Sc	45		ug/L			409578	404667 ✓	0
V	51	u 0.014	ug/L	0.003	19	2772	2970	1
V-1	51	0.018	ug/L	0.003	19	1649	1937	3
Cr	52	u 0.012	ug/L	0.009	75	8617	8695	1
Cr	53	0.026	ug/L	0.002	7	614	652	0
Mn	55	0.016	ug/L	0.001	3	377	789	1
Co	59	0.003	ug/L	0.000	3	55	107	1
[> Ge	72		ug/L			372563	362258 ✓	0
Ni	60	0.005	ug/L	0.002	31	49	66	8
Ni	62	0.054	ug/L	0.027	48	97	123	11
Cu	63	0.018	ug/L	0.001	5	233	364	2
Cu	65	0.019	ug/L	0.004	22	114	175	8
Zn	66	0.208	ug/L	0.005	2	375	842	1
Zn	67	0.202	ug/L	0.033	16	141	218	6
Zn	68	0.241	ug/L	0.043	17	5524	5758	1
As	75	u 0.021	ug/L	0.021	98	145	188	24
As-1	75	0.249	ug/L	0.005	2	7671	7982	0
Se	82	u -0.008	ug/L	0.068	815	0	-3	687
Se	78	0.728	ug/L	0.013	1	7997	8295	0
Mo	98	-0.003	ug/L	0.000	15	87	56	8
Y	89		ug/L			461134	452102	0
Kr	83		ug/L			197	211	3
[> In	115		ug/L			515607	483947 ✓	1
Ag	107	u 0.004	ug/L	0.001	26	75	125	10
Cd	111	0.021	ug/L	0.002	10	330	390	0
Cd	114	0.000	ug/L	0.000	165	32	32	6
Sb	121	u 0.016	ug/L	0.004	24	198	354	10
Sb	123	0.015	ug/L	0.003	20	157	266	7
Ba	135	0.019	ug/L	0.002	11	24	81	6
Ba	137	0.019	ug/L	0.003	17	36	135	12
[> Tb	159		ug/L			612197	582560 ✓	0
Tl	205	0.004	ug/L	0.001	15	250	424	6
Pb	208	u -0.002	ug/L	0.001	36	1016	865	3
Bi	209		ug/L			532877	499888	1
Th	232	0.006	ug/L	0.003	47	1565	1906	9
[ U	238	-0.009	ug/L	0.000	3	1000	265	8

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE79 W SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:34:23

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	788643 ✓	2
[ Be	9	0.680	ug/L	0.064	9	23	545	7
C	13		mg/L			6243	7257	1
Cl	37		mg/L			1387303	1507620	0
[> Sc	45		ug/L			409578	457780 ✓	0
V	51	25.346	ug/L	0.235	0	2772	492866	0
V-1	51	25.171	ug/L	0.239	0	1649	495991	0
Cr	52	12.619	ug/L	0.116	0	8617	220559	0
Cr	53	12.698	ug/L	0.272	2	614	25922	2
Mn	55	465.145	ug/L	4.820	1	377	13358212	0
[ Co	59	8.126	ug/L	0.076	0	55	166873	1
[> Ge	72		ug/L			372563	361435 ✓	0
Ni	60	12.446	ug/L	0.155	1	49	45354	0
Ni	62	16.598	ug/L	0.267	1	97	8896	0
Cu	63	19.751	ug/L	0.163	0	233	146294	0
Cu	65	19.967	ug/L	0.100	0	114	68752	0
Zn	66	68.947	ug/L	0.772	1	375	158069	1
Zn	67	65.298	ug/L	0.617	0	141	26372	0
Zn	68	69.543	ug/L	0.754	1	5524	116571	0
As	75	13.594	ug/L	0.151	1	145	29831	0
As-1	75	14.068	ug/L	0.147	1	7671	36956	0
Se	82	u 0.035	ug/L	0.028	80	0	10	84
Se	78	0.138	ug/L	0.040	29	7997	7857	0
[ Mo	98	0.143	ug/L	0.005	3	87	1420	3
Y	89		ug/L			461134	789081	0
Kr	83		ug/L			197	288	4
[> In	115		ug/L			515607	478462 ✓	0
Ag	107	0.540	ug/L	0.010	1	75	8323	1
Cd	111	1.228	ug/L	0.058	4	330	5019	3
Cd	114	0.210	ug/L	0.003	1	32	1860	0
Sb	121	u 0.016	ug/L	0.001	5	198	354	2
Sb	123	0.014	ug/L	0.002	14	157	254	5
Ba	135	120.757	ug/L	1.637	1	24	359521	1
[ Ba	137	121.259	ug/L	1.393	1	36	626796	1
[> Tb	159		ug/L			612197	593864 ✓	1
Tl	205	0.175	ug/L	0.003	1	250	7972	1
Pb	208	7.523	ug/L	0.114	1	1016	446656	1
Bi	209		ug/L			532877	481963	1
Th	232	2.194	ug/L	0.017	0	1565	157696	1
[ U	238	0.536	ug/L	0.003	0	1000	41964	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 B SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:40:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	750451 ✓	1
[ Be	9	0.093	ug/L	0.013	13	23	90	11
C	13		mg/L			6243	8028	1
Cl	37		mg/L			1387303	1560901	0
[> Sc	45		ug/L			409578	385011 ✓	1
V	51	2.983	ug/L	0.031	1	2772	51082	2
V-1	51	2.961	ug/L	0.028	0	1649	50442	2
Cr	52	2.255	ug/L	0.015	0	8617	39805	1
Cr	53	2.223	ug/L	0.013	0	614	4293	1
Mn	55	18.371	ug/L	0.227	1	377	444077	2
[ Co	59	0.264	ug/L	0.006	2	55	4617	0
[> Ge	72		ug/L			372563	346963 ✓	0
Ni	60	0.499	ug/L	0.019	3	49	1790	2
Ni	62	0.520	ug/L	0.019	3	97	355	3
Cu	63	3.402	ug/L	0.091	2	233	24366	2
Cu	65	3.423	ug/L	0.038	1	114	11404	1
Zn	66	3.563	ug/L	0.088	2	375	8171	2
Zn	67	6.841	ug/L	0.058	0	141	2770	0
Zn	68	6.315	ug/L	0.158	2	5524	14839	1
As	75	102.638	ug/L	1.308	1	145	215339	1
As-1	75	107.035	ug/L	1.377	1	7671	222716	1
Se	82	1.347	ug/L	0.061	4	0	405	3
Se	78	2.131	ug/L	0.134	6	7997	8905	0
[ Mo	98	0.067	ug/L	0.002	2	87	684	2
Y	89		ug/L			461134	454249	0
Kr	83		ug/L			197	206	3
[> In	115		ug/L			515607	462682 ✓	1
Ag	107	6.296	ug/L	0.029	0	75	93129	1
Cd	111	0.079	ug/L	0.006	7	330	590	4
Cd	114	0.006	ug/L	0.001	20	32	81	12
Sb	121	0.015	ug/L	0.002	10	198	335	5
Sb	123	0.016	ug/L	0.002	9	157	262	3
Ba	135	108.961	ug/L	0.567	0	24	313724	1
[ Ba	137	109.435	ug/L	1.292	1	36	547014	1
[> Tb	159		ug/L			612197	563165 ✓	0
Tl	205	0.214	ug/L	0.002	1	250	9216	1
Pb	208	10.743	ug/L	0.059	0	1016	604452	0
Bi	209		ug/L			532877	476676	0
Th	232	1.161	ug/L	0.013	1	1565	79797	1
[ U	238	0.053	ug/L	0.001	1	1000	4790	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 C SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:46:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	771890 ✓	1
[ Be	9	0.178	ug/L	0.015	8	23	156	7
C	13		mg/L			6243	7503	1
Cl	37		mg/L			1387303	1550806	0
[> Sc	45		ug/L			409578	405594 ✓	0
V	51	8.259	ug/L	0.063	0	2772	144144	0
V-1	51	8.216	ug/L	0.064	0	1649	144533	0
Cr	52	3.636	ug/L	0.024	0	8617	62377	1
Cr	53	3.728	ug/L	0.035	0	614	7173	1
Mn	55	91.207	ug/L	0.328	0	377	2321020	0
[ Co	59	1.567	ug/L	0.015	0	55	28555	0
[> Ge	72		ug/L			372563	350602 ✓	1
Ni	60	2.261	ug/L	0.015	0	49	8030	1
Ni	62	2.286	ug/L	0.104	4	97	1267	3
Cu	63	5.546	ug/L	0.022	0	233	40004	0
Cu	65	5.549	ug/L	0.043	0	114	18610	0
Zn	66	14.937	ug/L	0.173	1	375	33496	1
Zn	67	15.594	ug/L	0.469	3	141	6209	2
Zn	68	15.990	ug/L	0.178	1	5524	30003	0
As	75	56.478	ug/L	0.554	0	145	119793	0
As-1	75	58.853	ug/L	0.617	1	7671	126990	0
Se	82	0.657	ug/L	0.057	8	0	199	9
Se	78	1.070	ug/L	0.118	11	7997	8265	0
[ Mo	98	0.082	ug/L	0.004	4	87	818	4
Y	89		ug/L			461134	525939	0
Kr	83		ug/L			197	231	4
[> In	115		ug/L			515607	475366 ✓	0
Ag	107	4.665	ug/L	0.071	1	75	70908	1
Cd	111	0.173	ug/L	0.014	8	330	963	5
Cd	114	0.021	ug/L	0.001	6	32	214	5
Sb	121	0.014	ug/L	0.002	13	198	325	5
Sb	123	0.013	ug/L	0.001	8	157	249	3
Ba	135	55.758	ug/L	0.267	0	24	164945	0
[ Ba	137	55.936	ug/L	0.252	0	36	287288	0
[> Tb	159		ug/L			612197	570870 ✓	1
Tl	205	0.168	ug/L	0.003	1	250	7382	0
Pb	208	10.184	ug/L	0.091	0	1016	580859	0
Bi	209		ug/L			532877	482572	1
Th	232	1.030	ug/L	0.022	2	1565	71912	0
[ U	238	0.152	ug/L	0.005	3	1000	12103	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 D SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:52:21

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	762620 ✓	1
[ Be	9	0.128	ug/L	0.025	19	23	117	14
C	13		mg/L			6243	6611	3
Cl	37		mg/L			1387303	1541811	0
[> Sc	45		ug/L			409578	397527 ✓	0
V	51	2.892	ug/L	0.011	0	2772	51211	0
V-1	51	2.892	ug/L	0.019	0	1649	50900	0
Cr	52	2.273	ug/L	0.031	1	8617	41353	0
Cr	53	2.305	ug/L	0.080	3	614	4573	2
Mn	55	25.053	ug/L	0.097	0	377	625120	0
[ Co	59	0.488	ug/L	0.006	1	55	8761	1
[> Ge	72		ug/L			372563	348891 ✓	0
Ni	60	0.984	ug/L	0.015	1	49	3504	0
Ni	62	0.983	ug/L	0.056	5	97	593	3
Cu	63	4.368	ug/L	0.024	0	233	31403	0
Cu	65	4.295	ug/L	0.072	1	114	14361	1
Zn	66	4.632	ug/L	0.057	1	375	10578	0
Zn	67	5.349	ug/L	0.054	1	141	2206	0
Zn	68	5.223	ug/L	0.025	0	5524	13236	1
As	75	81.665	ug/L	0.135	0	145	172324	1
As-1	75	85.184	ug/L	0.151	0	7671	179708	0
Se	82	0.608	ug/L	0.062	10	0	183	10
Se	78	1.267	ug/L	0.018	1	7997	8360	0
[ Mo	98	0.065	ug/L	0.005	8	87	669	6
Y	89		ug/L			461134	473838	1
Kr	83		ug/L			197	211	4
[> In	115		ug/L			515607	469964 ✓	0
Ag	107	5.362	ug/L	0.055	1	75	80575	1
Cd	111	0.093	ug/L	0.001	1	330	651	0
Cd	114	0.008	ug/L	0.001	16	32	97	11
Sb	121	0.012	ug/L	0.002	19	198	300	7
Sb	123	0.010	ug/L	0.001	12	157	217	4
Ba	135	27.514	ug/L	0.268	0	24	80476	0
[ Ba	137	27.535	ug/L	0.361	1	36	139820	0
[> Tb	159		ug/L			612197	568650 ✓	0
Tl	205	0.125	ug/L	0.003	2	250	5509	2
Pb	208	2.689	ug/L	0.026	0	1016	153493	0
Bi	209		ug/L			532877	484244	1
Th	232	0.655	ug/L	0.011	1	1565	46115	1
[ U	238	0.080	ug/L	0.002	2	1000	6797	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 E SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 16:58:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	762642 ✓	1
[ Be	9	0.083	ug/L	0.033	39	23	84	28
C	13		mg/L			6243	6392	0
Cl	37		mg/L			1387303	1578239	0
[> Sc	45		ug/L			409578	384595 ✓	0
V	51	1.429	ug/L	0.020	1	2772	25806	0
V-1	51	1.437	ug/L	0.009	0	1649	25252	0
Cr	52	1.309	ug/L	0.022	1	8617	26476	0
Cr	53	1.340	ug/L	0.015	1	614	2814	1
Mn	55	9.642	ug/L	0.138	1	377	232976	0
[ Co	59	0.150	ug/L	0.004	2	55	2640	2
[> Ge	72		ug/L			372563	350099 ✓	0
Ni	60	0.501	ug/L	0.011	2	49	1813	2
Ni	62	0.489	ug/L	0.031	6	97	342	4
Cu	63	1.879	ug/L	0.042	2	233	13681	2
Cu	65	1.885	ug/L	0.022	1	114	6384	1
Zn	66	2.376	ug/L	0.047	1	375	5616	2
Zn	67	2.790	ug/L	0.108	3	141	1218	4
Zn	68	2.796	ug/L	0.099	3	5524	9522	1
As	75	78.462	ug/L	0.423	0	145	166141	0
As-1	75	81.821	ug/L	0.454	0	7671	173492	0
Se	82	1.164	ug/L	0.024	2	0	353	1
Se	78	1.785	ug/L	0.032	1	7997	8747	0
[ Mo	98	0.049	ug/L	0.004	8	87	520	6
Y	89		ug/L			461134	452304	1
Kr	83		ug/L			197	206	2
[> In	115		ug/L			515607	466552 ✓	2
Ag	107	10.126	ug/L	0.251	2	75	150929	0
Cd	111	0.078	ug/L	0.014	18	330	589	10
Cd	114	0.009	ug/L	0.002	20	32	105	12
Sb	121	✓ 0.056	ug/L	0.005	9	198	754	7
Sb	123	0.050	ug/L	0.001	2	157	530	2
Ba	135	18.083	ug/L	0.523	2	24	52492	0
[ Ba	137	18.185	ug/L	0.401	2	36	91653	0
[> Tb	159		ug/L			612197	565063 ✓	0
Tl	205	0.163	ug/L	0.004	2	250	7097	1
Pb	208	6.818	ug/L	0.029	0	1016	385255	0
Bi	209		ug/L			532877	482543	0
Th	232	0.414	ug/L	0.001	0	1565	29491	0
[ U	238	0.031	ug/L	0.001	2	1000	3204	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 F SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:04:17

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	720090 ✓	1
[ Be	9	0.069	ug/L	0.016	23	23	69	17
C	13		mg/L			6243	7487	2
Cl	37		mg/L			1387303	1563146	0
[> Sc	45		ug/L			409578	365028 ✓	0
V	51	1.939	ug/L	0.009	0	2772	32349	0
V-1	51	1.933	ug/L	0.009	0	1649	31725	0
Cr	52	1.573	ug/L	0.026	1	8617	28644	0
Cr	53	1.571	ug/L	0.027	1	614	3037	1
Mn	55	10.161	ug/L	0.066	0	377	233021	1
[ Co	59	0.165	ug/L	0.005	2	55	2753	2
[> Ge	72		ug/L			372563	330492 ✓	0
Ni	60	0.575	ug/L	0.021	3	49	1956	3
Ni	62	0.686	ug/L	0.049	7	97	418	5
Cu	63	2.665	ug/L	0.033	1	233	18226	1
Cu	65	2.733	ug/L	0.009	0	114	8691	0
Zn	66	2.657	ug/L	0.071	2	375	5889	2
Zn	67	4.294	ug/L	0.150	3	141	1702	3
Zn	68	4.093	ug/L	0.077	1	5524	10886	1
As	75	163.986	ug/L	1.067	0	145	327651	0
As-1	75	170.871	ug/L	1.097	0	7671	334618	0
Se	82	1.906	ug/L	0.021	1	0	546	0
Se	78	2.692	ug/L	0.064	2	7997	8848	0
[ Mo	98	0.147	ug/L	0.004	3	87	1325	3
Y	89		ug/L			461134	435461	1
Kr	83		ug/L			197	204	2
[> In	115		ug/L			515607	441231 ✓	0
Ag	107	15.362	ug/L	0.204	1	75	216591	1
Cd	111	0.084	ug/L	0.008	9	330	580	4
Cd	114	0.006	ug/L	0.002	29	32	76	18
Sb	121	0.011	ug/L	0.002	17	198	276	6
Sb	123	0.013	ug/L	0.004	33	157	231	13
Ba	135	57.631	ug/L	0.635	1	24	158248	1
[ Ba	137	57.962	ug/L	0.300	0	36	276317	0
[> Tb	159		ug/L			612197	537216 ✓	1
Tl	205	0.354	ug/L	0.006	1	250	14387	1
Pb	208	13.499	ug/L	0.129	0	1016	724264	0
Bi	209		ug/L			532877	456831	0
Th	232	0.493	ug/L	0.010	2	1565	33119	0
[ U	238	0.034	ug/L	0.001	2	1000	3260	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 G SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:10:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	746986 ✓	0
[ Be	9	0.074	ug/L	0.003	3	23	75	3
C	13		mg/L			6243	6704	2
Cl	37		mg/L			1387303	1564925	0
[> Sc	45		ug/L			409578	391735 ✓	1
V	51	2.079	ug/L	0.012	0	2772	37036	0
V-1	51	2.096	ug/L	0.017	0	1649	36784	1
Cr	52	2.570	ug/L	0.009	0	8617	45004	1
Cr	53	2.597	ug/L	0.063	2	614	5004	3
Mn	55	12.663	ug/L	0.122	0	377	311523	0
[ Co	59	0.184	ug/L	0.004	2	55	3292	0
[> Ge	72		ug/L			372563	347819 ✓	0
Ni	60	0.405	ug/L	0.015	3	49	1465	4
Ni	62	0.419	ug/L	0.011	2	97	304	1
Cu	63	2.853	ug/L	0.027	0	233	20524	0
Cu	65	2.874	ug/L	0.059	2	114	9614	1
Zn	66	2.366	ug/L	0.024	1	375	5558	1
Zn	67	3.094	ug/L	0.073	2	141	1328	2
Zn	68	2.839	ug/L	0.070	2	5524	9526	1
As	75	164.970	ug/L	0.728	0	145	346897	0
As-1	75	171.935	ug/L	0.732	0	7671	354311	0
Se	82	0.764	ug/L	0.054	7	0	230	6
Se	78	1.534	ug/L	0.052	3	7997	8517	0
[ Mo	98	0.092	ug/L	0.006	6	87	902	6
Y	89		ug/L			461134	471104	0
Kr	83		ug/L			197	215	2
[> In	115		ug/L			515607	467100 ✓	1
Ag	107	15.436	ug/L	0.144	0	75	230391	0
Cd	111	0.082	ug/L	0.012	14	330	607	7
Cd	114	0.001	ug/L	0.002	122	32	41	35
Sb	121	0.046	ug/L	0.003	6	198	654	3
Sb	123	0.050	ug/L	0.003	6	157	531	5
Ba	135	19.391	ug/L	0.291	1	24	56374	0
Ba	137	19.425	ug/L	0.210	1	36	98044	0
[> Tb	159		ug/L			612197	559382 ✓	0
Tl	205	0.270	ug/L	0.006	2	250	11492	2
Pb	208	5.633	ug/L	0.066	1	1016	315235	0
Bi	209		ug/L			532877	476170	0
Th	232	0.558	ug/L	0.011	1	1565	38860	1
[ U	238	0.070	ug/L	0.002	2	1000	5964	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 H SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:16:09

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	751052 ✓	0
[ Be	9	0.150	ug/L	0.004	2	23	132	1
C	13		mg/L			6243	7055	2
Cl	37		mg/L			1387303	1544554	0
[> Sc	45		ug/L			409578	396797 ✓	0
V	51	4.654	ug/L	0.048	1	2772	80641	0
V-1	51	4.629	ug/L	0.069	1	1649	80356	0
Cr	52	3.174	ug/L	0.012	0	8617	54337	0
Cr	53	3.166	ug/L	0.082	2	614	6048	1
Mn	55	49.045	ug/L	0.710	1	377	1221131	0
[ Co	59	0.960	ug/L	0.006	0	55	17137	1
[> Ge	72		ug/L			372563	348288 ✓	0
Ni	60	1.255	ug/L	0.015	1	49	4447	1
Ni	62	1.223	ug/L	0.092	7	97	715	5
Cu	63	3.897	ug/L	0.022	0	233	27993	1
Cu	65	3.886	ug/L	0.029	0	114	12979	1
Zn	66	8.877	ug/L	0.100	1	375	19916	1
Zn	67	10.704	ug/L	0.144	1	141	4276	1
Zn	68	10.781	ug/L	0.173	1	5524	21779	1
As	75	101.292	ug/L	0.209	0	145	213336	0
As-1	75	105.643	ug/L	0.212	0	7671	220760	0
Se	82	1.186	ug/L	0.070	5	0	358	6
Se	78	2.045	ug/L	0.072	3	7997	8880	0
[ Mo	98	0.035	ug/L	0.003	8	87	396	6
Y	89		ug/L			461134	499455	0
Kr	83		ug/L			197	226	6
[> In	115		ug/L			515607	467318 ✓	0
Ag	107	7.707	ug/L	0.099	1	75	115121	1
Cd	111	0.090	ug/L	0.002	2	330	637	1
Cd	114	0.010	ug/L	0.001	7	32	113	5
Sb	121	0.009	ug/L	0.001	13	198	275	3
Sb	123	0.011	ug/L	0.002	13	157	226	4
Ba	135	83.051	ug/L	0.314	0	24	241517	0
[ Ba	137	83.185	ug/L	0.687	0	36	419979	0
[> Tb	159		ug/L			612197	566631 ✓	0
Tl	205	0.086	ug/L	0.001	0	250	3872	0
Pb	208	2.842	ug/L	0.029	1	1016	161595	0
Bi	209		ug/L			532877	477798	0
Th	232	0.708	ug/L	0.004	0	1565	49521	0
[ U	238	0.076	ug/L	0.002	2	1000	6486	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 MB2SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:22:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	747728 ✓	2
[ Be	9	23.321	ug/L	0.343	1	23	17053	0
C	13		mg/L			6243	5107	1
Cl	37		mg/L			1387303	1572853	0
[> Sc	45		ug/L			409578	382500 ✓	0
V	51	24.537	ug/L	0.127	0	2772	398753	0
V-1	51	24.568	ug/L	0.152	0	1649	404522	0
Cr	52	25.162	ug/L	0.350	1	8617	359440	0
Cr	53	25.228	ug/L	0.430	1	614	42461	1
Mn	55	25.899	ug/L	0.468	1	377	621785	1
[ Co	59	25.010	ug/L	0.079	0	55	429048	1
[> Ge	72		ug/L			372563	343106 ✓	0
Ni	60	25.326	ug/L	0.137	0	49	87570	0
Ni	62	25.129	ug/L	0.423	1	97	12741	2
Cu	63	26.779	ug/L	0.140	0	233	188216	0
Cu	65	26.492	ug/L	0.155	0	114	86560	0
Zn	66	81.563	ug/L	0.959	1	375	177449	1
Zn	67	72.035	ug/L	0.510	0	141	27605	0
Zn	68	78.914	ug/L	0.567	0	5524	124890	0
As	75	27.939	ug/L	0.163	0	145	58064	0
As-1	75	26.300	ug/L	0.528	2	7671	59443	1
Se	82	79.769	ug/L	0.521	0	0	23762	1
Se	78	81.176	ug/L	0.850	1	7997	62277	0
[ Mo	98	23.757	ug/L	0.053	0	87	209923	0
Y	89		ug/L			461134	423349	1
Kr	83		ug/L			197	218	4
[> In	115		ug/L			515607	460791 ✓	0
Ag	107	25.865	ug/L	0.152	0	75	380790	0
Cd	111	24.913	ug/L	0.210	0	330	92344	0
Cd	114	25.343	ug/L	0.108	0	32	212767	1
Sb	121	25.633	ug/L	0.176	0	198	259441	0
Sb	123	25.646	ug/L	0.153	0	157	194774	0
Ba	135	25.540	ug/L	0.196	0	24	73249	0
[ Ba	137	25.500	ug/L	0.340	1	36	126965	0
[> Tb	159		ug/L			612197	547287 ✓	1
Tl	205	25.989	ug/L	0.286	1	250	1059848	0
Pb	208	26.394	ug/L	0.317	1	1016	1441809	0
Bi	209		ug/L			532877	473964	1
Th	232	25.060	ug/L	0.258	1	1565	1645045	0
[ U	238	24.972	ug/L	0.173	0	1000	1761036	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:28:02

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	759180 ✓	1
[	Be	9	46.820	ug/L	0.440	0	23	34744	0
	C	13		mg/L			6243	3655	2
	Cl	37		mg/L			1387303	1564689	0
[>	Sc	45		ug/L			409578	386800 ✓	0
	V	51	48.860	ug/L	0.734	1	2772	800337	1
	V-1	51	48.777	ug/L	0.704	1	1649	810631	1
	Cr	52	49.106	ug/L	0.366	0	8617	701655	0
	Cr	53	48.833	ug/L	0.325	0	614	82579	0
	Mn	55	50.124	ug/L	0.660	1	377	1216583	0
[	Co	59	48.731	ug/L	0.226	0	55	845309	0
[>	Ge	72		ug/L			372563	355381 ✓	0
	Ni	60	48.622	ug/L	0.269	0	49	174091	0
	Ni	62	48.431	ug/L	0.156	0	97	25349	1
	Cu	63	48.636	ug/L	0.566	1	233	353876	0
	Cu	65	48.504	ug/L	0.464	0	114	164058	0
	Zn	66	49.442	ug/L	0.286	0	375	111555	0
	Zn	67	49.757	ug/L	0.308	0	141	19792	1
	Zn	68	49.474	ug/L	0.429	0	5524	83063	0
	As	75	48.987	ug/L	0.143	0	145	105346	0
	As-1	75	49.181	ug/L	0.222	0	7671	108775	0
	Se	82	49.811	ug/L	0.440	0	0	15368	0
	Se	78	50.541	ug/L	0.681	1	7997	43040	0
[	Mo	98	46.322	ug/L	0.559	1	87	423858	0
	Y	89		ug/L			461134	434159	0
	Kr	83		ug/L			197	233	3
[>	In	115		ug/L			515607	468522 ✓	1
	Ag	107	49.210	ug/L	1.000	2	75	736481	0
	Cd	111	50.040	ug/L	1.058	2	330	188270	1
	Cd	114	49.958	ug/L	0.802	1	32	426371	0
	Sb	121	50.241	ug/L	0.704	1	198	516821	0
	Sb	123	50.191	ug/L	1.061	2	157	387390	1
	Ba	135	50.456	ug/L	0.765	1	24	147111	1
[	Ba	137	50.348	ug/L	0.323	0	36	254859	0
[>	Tb	159		ug/L			612197	566313 ✓	0
	Tl	205	51.535	ug/L	0.700	1	250	2174623	1
	Pb	208	49.492	ug/L	0.358	0	1016	2796874	0
	Bi	209		ug/L			532877	467720	1
	Th	232	51.255	ug/L	0.764	1	1565	3480114	1
[	U	238	50.390	ug/L	0.798	1	1000	3676163	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:34:21

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			803723	761124 ✓	1
[ ] Be	9	0.017	ug/L	0.001	8	23	34	2
[ ] C	13		mg/L			6243	6179	1
[ ] Cl	37		mg/L			1387303	1571344	0
[>] Sc	45		ug/L			409578	388138 ✓	0
[ ] V	51	0.016	ug/L	0.002	11	2772	2892	0
[ ] V-1	51	0.010	ug/L	0.004	45	1649	1722	3
[ ] Cr	52	0.026	ug/L	0.006	21	8617	8527	0
[ ] Cr	53	0.004	ug/L	0.012	297	614	589	2
[ ] Mn	55	0.005	ug/L	0.002	43	377	469	10
[ ] Co	59	0.001	ug/L	0.000	31	55	76	9
[>] Ge	72		ug/L			372563	353459 ✓	0
[ ] Ni	60	0.000	ug/L	0.003	1015	49	47	18
[ ] Ni	62	0.051	ug/L	0.012	22	97	118	4
[ ] Cu	63	0.002	ug/L	0.003	152	233	238	10
[ ] Cu	65	-0.000	ug/L	0.003	807	114	107	8
[ ] Zn	66	0.005	ug/L	0.011	198	375	368	6
[ ] Zn	67	0.030	ug/L	0.045	149	141	145	11
[ ] Zn	68	0.191	ug/L	0.085	44	5524	5538	1
[ ] As	75	0.017	ug/L	0.006	36	145	173	7
[ ] As-1	75	0.333	ug/L	0.016	4	7671	7961	0
[ ] Se	82	-0.037	ug/L	0.023	62	0	-11	60
[ ] Se	78	0.986	ug/L	0.040	4	7997	8274	0
[ ] Mo	98	0.000	ug/L	0.002	11291	87	83	20
[ ] Y	89		ug/L			461134	434876	0
[ ] Kr	83		ug/L			197	214	5
[>] In	115		ug/L			515607	467701 ✓	1
[ ] Ag	107	0.003	ug/L	0.002	56	75	110	21
[ ] Cd	111	0.009	ug/L	0.003	38	330	332	5
[ ] Cd	114	-0.000	ug/L	0.000	404	32	29	12
[ ] Sb	121	0.061	ug/L	0.024	39	198	805	29
[ ] Sb	123	0.063	ug/L	0.028	44	157	625	33
[ ] Ba	135	0.004	ug/L	0.006	155	24	33	50
[ ] Ba	137	0.003	ug/L	0.001	25	36	46	5
[>] Tb	159		ug/L			612197	563587 ✓	0
[ ] Tl	205	-0.000	ug/L	0.001	1795	250	228	17
[ ] Pb	208	-0.006	ug/L	0.001	17	1016	580	10
[ ] Bi	209		ug/L			532877	485790	0
[ ] Th	232	0.008	ug/L	0.007	94	1565	1960	25
[ ] U	238	-0.010	ug/L	0.000	4	1000	189	17

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 J SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:45:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	776866 ✓	1
[ Be	9	0.376	ug/L	0.018	4	23	307	3
C	13		mg/L			6243	6029	2
Cl	37		mg/L			1387303	1459260	0
[> Sc	45		ug/L			409578	415605 ✓	0
V	51	18.991	ug/L	0.291	1	2772	335951	0
V-1	51	18.782	ug/L	0.254	1	1649	336402	0
Cr	52	5.431	ug/L	0.083	1	8617	91147	0
Cr	53	5.443	ug/L	0.057	1	614	10444	1
Mn	55	199.409	ug/L	1.651	0	377	5199145	0
[ Co	59	3.933	ug/L	0.023	0	55	73349	0
[> Ge	72		ug/L			372563	348820 ✓	0
Ni	60	4.608	ug/L	0.096	2	49	16234	1
Ni	62	4.396	ug/L	0.047	1	97	2340	1
Cu	63	6.012	ug/L	0.031	0	233	43128	0
Cu	65	6.013	ug/L	0.020	0	114	20056	0
Zn	66	33.768	ug/L	0.502	1	375	74893	1
Zn	67	35.376	ug/L	0.298	0	141	13850	0
Zn	68	36.274	ug/L	0.322	0	5524	61159	1
As	75	70.730	ug/L	0.295	0	145	149236	0
As-1	75	73.646	ug/L	0.319	0	7671	156307	0
Se	82	u 0.298	ug/L	0.033	10	0	89	11
Se	78	0.666	ug/L	0.019	2	7997	7945	0
[ Mo	98	0.187	ug/L	0.002	1	87	1765	1
Y	89		ug/L			461134	584373	0
Kr	83		ug/L			197	265	1
[> In	115		ug/L			515607	466105 ✓	1
Ag	107	1.194	ug/L	0.011	0	75	17850	0
Cd	111	0.151	ug/L	0.013	8	330	862	6
Cd	114	0.024	ug/L	0.001	5	32	236	3
Sb	121	u 0.008	ug/L	0.004	48	198	265	14
Sb	123	0.004	ug/L	0.001	39	157	171	6
Ba	135	119.828	ug/L	1.704	1	24	347532	1
[ Ba	137	119.524	ug/L	1.235	1	36	601827	0
[> Tb	159		ug/L			612197	567576 ✓	0
Tl	205	0.128	ug/L	0.002	1	250	5643	0
Pb	208	5.838	ug/L	0.072	1	1016	331452	0
Bi	209		ug/L			532877	463945	0
Th	232	1.183	ug/L	0.019	1	1565	81926	1
[ U	238	0.231	ug/L	0.001	0	1000	17790	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 K SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:51:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	747082 ✓	1
[ Be	9	0.337	ug/L	0.062	18	23	267	15
C	13		mg/L			6243	7588	2
Cl	37		mg/L			1387303	1460443	1
[> Sc	45		ug/L			409578	412178 ✓	0
V	51	21.731	ug/L	0.151	0	2772	380866	0
V-1	51	21.534	ug/L	0.139	0	1649	382285	0
Cr	52	10.475	ug/L	0.078	0	8617	166309	0
Cr	53	10.411	ug/L	0.134	1	614	19246	0
Mn	55	284.458	ug/L	3.900	1	377	7355289	0
[ Co	59	4.801	ug/L	0.042	0	55	88787	0
[> Ge	72		ug/L			372563	333749 ✓	0
Ni	60	8.187	ug/L	0.052	0	49	27566	0
Ni	62	8.479	ug/L	0.080	0	97	4239	0
Cu	63	11.107	ug/L	0.127	1	233	76060	0
Cu	65	11.017	ug/L	0.069	0	114	35076	0
Zn	66	38.006	ug/L	0.542	1	375	80609	1
Zn	67	38.548	ug/L	0.202	0	141	14428	0
Zn	68	39.916	ug/L	0.164	0	5524	63895	0
As	75	69.143	ug/L	0.108	0	145	139587	0
As-1	75	72.163	ug/L	0.147	0	7671	146680	0
Se	82	u 0.342	ug/L	0.016	4	0	98	4
Se	78	1.244	ug/L	0.110	8	7997	7982	0
[ Mo	98	0.147	ug/L	0.001	0	87	1340	0
Y	89		ug/L			461134	608432	0
Kr	83		ug/L			197	262	0
[> In	115		ug/L			515607	446033 ✓	0
Ag	107	4.533	ug/L	0.035	0	75	64654	0
Cd	111	0.538	ug/L	0.029	5	330	2211	4
Cd	114	0.072	ug/L	0.006	7	32	612	7
Sb	121	u 0.010	ug/L	0.001	13	198	273	4
Sb	123	0.010	ug/L	0.002	16	157	213	6
Ba	135	115.244	ug/L	1.079	0	24	319868	1
[ Ba	137	116.200	ug/L	0.426	0	36	559944	0
[> Tl	159		ug/L			612197	543562 ✓	0
Tl	205	0.182	ug/L	0.003	1	250	7610	0
Pb	208	10.119	ug/L	0.010	0	1016	549610	0
Bi	209		ug/L			532877	448324	0
Th	232	2.056	ug/L	0.010	0	1565	135300	0
[ U	238	0.404	ug/L	0.009	2	1000	29144	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 L SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 17:57:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	777767 ✓	0
[ Be	9	0.388	ug/L	0.015	3	23	317	2
C	13		mg/L			6243	6392	0
Cl	37		mg/L			1387303	1473672	0
[> Sc	45		ug/L			409578	441954 ✓	1
V	51	22.024	ug/L	0.454	2	2772	413759	0
V-1	51	21.863	ug/L	0.451	2	1649	416056	0
Cr	52	10.147	ug/L	0.124	1	8617	173020	0
Cr	53	10.229	ug/L	0.128	1	614	20285	0
Mn	55	386.295	ug/L	5.808	1	377	10708578	0
[ Co	59	5.376	ug/L	0.075	1	55	106583	0
[> Ge	72		ug/L			372563	352323 ✓	0
Ni	60	8.823	ug/L	0.077	0	49	31358	1
Ni	62	9.549	ug/L	0.080	0	97	5028	0
Cu	63	10.894	ug/L	0.145	1	233	78761	1
Cu	65	10.902	ug/L	0.032	0	114	36641	0
Zn	66	42.233	ug/L	0.317	0	375	94522	0
Zn	67	42.201	ug/L	0.279	0	141	16662	0
Zn	68	43.555	ug/L	0.501	1	5524	73125	1
As	75	38.828	ug/L	0.141	0	145	82810	0
As-1	75	40.396	ug/L	0.204	0	7671	89873	0
Se	82	✓ 0.219	ug/L	0.073	33	0	66	33
Se	78	0.470	ug/L	0.126	26	7997	7889	1
[ Mo	98	0.124	ug/L	0.002	1	87	1209	1
Y	89		ug/L			461134	670265	0
Kr	83		ug/L			197	269	4
[> In	115		ug/L			515607	471278 ✓	0
Ag	107	2.639	ug/L	0.008	0	75	39797	1
Cd	111	0.653	ug/L	0.007	1	330	2770	1
Cd	114	0.092	ug/L	0.002	2	32	817	2
Sb	121	✓ 0.013	ug/L	0.003	20	198	310	8
Sb	123	0.011	ug/L	0.003	24	157	233	8
Ba	135	109.096	ug/L	0.919	0	24	319929	0
[ Ba	137	108.483	ug/L	0.417	0	36	552339	0
[> Tb	159		ug/L			612197	581928 ✓	0
Tl	205	0.119	ug/L	0.003	2	250	5417	2
Pb	208	9.105	ug/L	0.016	0	1016	529520	0
Bi	209		ug/L			532877	472883	0
Th	232	2.026	ug/L	0.023	1	1565	142798	0
[ U	238	0.378	ug/L	0.003	0	1000	29264	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 M SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:03:43

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	765027 ✓	1
[ Be	9	0.387	ug/L	0.013	3	23	311	1
C	13		mg/L			6243	7198	0
Cl	37		mg/L			1387303	1454138	0
[> Sc	45		ug/L			409578	441882 ✓	2
V	51	24.280	ug/L	0.259	1	2772	455809	1
V-1	51	24.083	ug/L	0.267	1	1649	458080	1
Cr	52	12.819	ug/L	0.232	1	8617	216084	0
Cr	53	12.765	ug/L	0.262	2	614	25143	0
Mn	55	400.320	ug/L	4.634	1	377	11095822	1
[ Co	59	5.524	ug/L	0.123	2	55	109497	0
[> Ge	72		ug/L			372563	341791 ✓	1
Ni	60	10.474	ug/L	0.169	1	49	36100	0
Ni	62	13.658	ug/L	0.136	0	97	6939	1
Cu	63	11.910	ug/L	0.029	0	233	83509	1
Cu	65	12.192	ug/L	0.208	1	114	39734	1
Zn	66	48.051	ug/L	0.285	0	375	104276	0
Zn	67	48.480	ug/L	0.426	0	141	18548	0
Zn	68	49.811	ug/L	0.662	1	5524	80390	0
As	75	19.310	ug/L	0.064	0	145	40018	1
As-1	75	20.189	ug/L	0.108	0	7671	47091	1
Se	82	u 0.074	ug/L	0.039	52	0	21	54
Se	78	0.691	ug/L	0.099	14	7997	7802	0
[ Mo	98	0.139	ug/L	0.002	1	87	1301	1
Y	89		ug/L			461134	705967	0
Kr	83		ug/L			197	275	1
[> In	115		ug/L			515607	459759 ✓	1
Ag	107	1.109	ug/L	0.002	0	75	16361	1
Cd	111	0.948	ug/L	0.070	7	330	3789	5
Cd	114	0.119	ug/L	0.003	2	32	1022	3
Sb	121	u 0.007	ug/L	0.002	24	198	243	5
Sb	123	0.006	ug/L	0.002	31	157	189	8
Ba	135	139.015	ug/L	1.025	0	24	397705	1
[ Ba	137	137.589	ug/L	1.240	0	36	683374	0
[> Tb	159		ug/L			612197	558064 ✓	0
Tl	205	0.108	ug/L	0.001	1	250	4712	0
Pb	208	8.871	ug/L	0.025	0	1016	494769	0
Bi	209		ug/L			532877	458522	0
Th	232	2.224	ug/L	0.006	0	1565	150181	0
[ U	238	0.491	ug/L	0.005	1	1000	36170	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 N SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:09:43

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	740771 ✓	2
[ Be	9	0.267	ug/L	0.007	2	23	214	3
C	13		mg/L			6243	4972	0
Cl	37		mg/L			1387303	1468242	0
> Sc	45		ug/L			409578	391967 ✓	0
V	51	15.658	ug/L	0.047	0	2772	261724	0
V-1	51	15.509	ug/L	0.033	0	1649	262266	0
Cr	52	4.507	ug/L	0.077	1	8617	72760	2
Cr	53	4.588	ug/L	0.059	1	614	8395	1
Mn	55	154.835	ug/L	1.789	1	377	3807595	1
[ Co	59	3.063	ug/L	0.037	1	55	53900	1
> Ge	72		ug/L			372563	338199 ✓	0
Ni	60	2.267	ug/L	0.039	1	49	7766	1
Ni	62	8.990	ug/L	0.181	2	97	4549	2
Cu	63	10.759	ug/L	0.157	1	233	74666	1
Cu	65	11.116	ug/L	0.201	1	114	35861	1
Zn	66	31.599	ug/L	0.056	0	375	67973	0
Zn	67	29.296	ug/L	0.435	1	141	11142	1
Zn	68	30.541	ug/L	0.545	1	5524	50719	1
As	75	96.815	ug/L	0.702	0	145	198009	0
As-1	75	100.775	ug/L	0.756	0	7671	204810	0
Se	82	✓ 0.409	ug/L	0.064	15	0	119	15
Se	78	0.588	ug/L	0.054	9	7997	7651	0
[ Mo	98	0.024	ug/L	0.001	5	87	288	3
Y	89		ug/L			461134	558408	0
Kr	83		ug/L			197	225	5
> In	115		ug/L			515607	452731 ✓	1
Ag	107	1.280	ug/L	0.029	2	75	18582	1
Cd	111	0.180	ug/L	0.002	0	330	944	1
Cd	114	0.009	ug/L	0.003	29	32	104	22
Sb	121	✓ 0.010	ug/L	0.003	28	198	270	11
Sb	123	0.005	ug/L	0.002	42	157	176	7
Ba	135	39.004	ug/L	0.557	1	24	109883	0
[ Ba	137	39.033	ug/L	0.345	0	36	190926	0
> Tb	159		ug/L			612197	559008 ✓	0
Tl	205	0.076	ug/L	0.003	4	250	3398	3
Pb	208	11.998	ug/L	0.135	1	1016	669943	0
Bi	209		ug/L			532877	462603	0
Th	232	1.194	ug/L	0.011	0	1565	81445	0
[ U	238	0.329	ug/L	0.002	0	1000	24603	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 O SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:15:42

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	711844 ✓	0
[	Be	9	0.235	ug/L	0.023	9	23	184	9
	C	13		mg/L			6243	5269	2
	Cl	37		mg/L			1387303	1483782	0
[>	Sc	45		ug/L			409578	380735 ✓	0
	V	51	15.859	ug/L	0.094	0	2772	257449	0
	V-1	51	15.697	ug/L	0.107	0	1649	257827	0
	Cr	52	5.129	ug/L	0.050	0	8617	79316	0
	Cr	53	5.150	ug/L	0.117	2	614	9083	2
	Mn	55	161.925	ug/L	1.697	1	377	3867805	0
[	Co	59	3.244	ug/L	0.026	0	55	55440	1
[>	Ge	72		ug/L			372563	333648 ✓	0
	Ni	60	2.492	ug/L	0.084	3	49	8418	2
	Ni	62	9.016	ug/L	0.189	2	97	4501	1
	Cu	63	24.428	ug/L	0.167	0	233	166976	0
	Cu	65	24.612	ug/L	0.163	0	114	78211	0
	Zn	66	28.154	ug/L	0.114	0	375	59783	0
	Zn	67	26.663	ug/L	0.179	0	141	10016	0
	Zn	68	27.691	ug/L	0.089	0	5524	45828	0
	As	75	121.748	ug/L	0.559	0	145	245613	0
	As-1	75	126.848	ug/L	0.608	0	7671	252548	0
	Se	82	✓ 0.395	ug/L	0.029	7	0	113	7
	Se	78	0.941	ug/L	0.109	11	7997	7780	0
[	Mo	98	0.035	ug/L	0.003	7	87	382	6
	Y	89		ug/L			461134	539992	0
	Kr	83		ug/L			197	229	6
[>	In	115		ug/L			515607	445064 ✓	1
	Ag	107	9.367	ug/L	0.178	1	75	133227	1
	Cd	111	0.188	ug/L	0.012	6	330	955	5
	Cd	114	0.011	ug/L	0.002	19	32	114	15
	Sb	121	✓ 0.014	ug/L	0.003	20	198	305	9
	Sb	123	0.013	ug/L	0.004	30	157	232	11
	Ba	135	44.678	ug/L	0.573	1	24	123740	0
[	Ba	137	44.614	ug/L	0.599	1	36	214520	0
[>	Tb	159		ug/L			612197	546140 ✓	0
	Tl	205	0.089	ug/L	0.003	3	250	3841	3
	Pb	208	18.222	ug/L	0.173	0	1016	993643	0
	Bi	209		ug/L			532877	456087	0
	Th	232	1.226	ug/L	0.005	0	1565	81625	0
[	U	238	0.374	ug/L	0.002	0	1000	27223	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 P SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:21:41

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	740000 ✓	0
[ Be	9	0.286	ug/L	0.009	3	23	227	2
C	13		mg/L			6243	5465	0
Cl	37		mg/L			1387303	1469210	0
[> Sc	45		ug/L			409578	397519 ✓	1
V	51	17.752	ug/L	0.291	1	2772	300525	0
V-1	51	17.604	ug/L	0.287	1	1649	301658	0
Cr	52	6.273	ug/L	0.062	0	8617	99400	0
Cr	53	6.374	ug/L	0.110	1	614	11594	0
Mn	55	193.747	ug/L	3.116	1	377	4831249	0
Co	59	3.841	ug/L	0.082	2	55	68508	1
[> Ge	72		ug/L			372563	340630 ✓	0
Ni	60	3.547	ug/L	0.032	0	49	12216	0
Ni	62	11.458	ug/L	0.312	2	97	5815	2
Cu	63	10.954	ug/L	0.083	0	233	76560	0
Cu	65	11.508	ug/L	0.183	1	114	37388	1
Zn	66	32.929	ug/L	0.261	0	375	71327	0
Zn	67	31.514	ug/L	0.385	1	141	12062	1
Zn	68	32.428	ug/L	0.283	0	5524	53926	0
As	75	132.139	ug/L	0.294	0	145	272145	0
As-1	75	137.580	ug/L	0.329	0	7671	279057	0
Se	82	✓ 0.281	ug/L	0.031	10	0	82	10
Se	78	0.567	ug/L	0.152	26	7997	7692	1
Mo	98	0.081	ug/L	0.003	3	87	791	3
Y	89		ug/L			461134	577881	0
Kr	83		ug/L			197	234	1
[> In	115		ug/L			515607	455386 ✓	1
Ag	107	1.754	ug/L	0.038	2	75	25571	0
Cd	111	0.303	ug/L	0.034	11	330	1397	8
Cd	114	0.009	ug/L	0.001	10	32	100	6
Sb	121	✓ 0.013	ug/L	0.003	25	198	309	11
Sb	123	0.013	ug/L	0.001	4	157	239	2
Ba	135	68.239	ug/L	1.128	1	24	193362	1
Ba	137	67.710	ug/L	0.706	1	36	333108	0
[> Tb	159		ug/L			612197	562868 ✓	0
Tl	205	0.115	ug/L	0.001	0	250	5045	1
Pb	208	12.348	ug/L	0.033	0	1016	694297	0
Bi	209		ug/L			532877	461659	0
Th	232	1.571	ug/L	0.015	0	1565	107431	0
U	238	0.347	ug/L	0.003	0	1000	26045	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 Q SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:27:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	733818 ✓	1
[ Be	9	0.218	ug/L	0.011	4	23	177	2
C	13		mg/L			6243	5340	1
Cl	37		mg/L			1387303	1480828	0
[> Sc	45		ug/L			409578	395442 ✓	0
V	51	17.838	ug/L	0.068	0	2772	300433	0
V-1	51	17.654	ug/L	0.081	0	1649	300977	0
Cr	52	6.190	ug/L	0.089	1	8617	97701	1
Cr	53	6.187	ug/L	0.070	1	614	11214	0
Mn	55	179.789	ug/L	2.327	1	377	4460344	1
[ Co	59	3.141	ug/L	0.021	0	55	55745	0
[> Ge	72		ug/L			372563	340376 ✓	0
Ni	60	4.237	ug/L	0.038	0	49	14573	1
Ni	62	10.651	ug/L	0.086	0	97	5408	0
Cu	63	11.873	ug/L	0.046	0	233	82904	0
Cu	65	12.353	ug/L	0.126	1	114	40097	0
Zn	66	28.402	ug/L	0.119	0	375	61525	0
Zn	67	27.696	ug/L	0.275	0	141	10609	1
Zn	68	27.990	ug/L	0.180	0	5524	47202	0
As	75	49.220	ug/L	0.025	0	145	101378	0
As-1	75	51.332	ug/L	0.036	0	7671	108433	0
Se	82	✓ 0.138	ug/L	0.041	29	0	40	29
Se	78	0.608	ug/L	0.021	3	7997	7714	0
[ Mo	98	0.051	ug/L	0.001	2	87	522	1
Y	89		ug/L			461134	547655	0
Kr	83		ug/L			197	229	4
[> In	115		ug/L			515607	450822 ✓	0
Ag	107	1.582	ug/L	0.013	0	75	22855	1
Cd	111	0.283	ug/L	0.010	3	330	1310	3
Cd	114	0.017	ug/L	0.000	2	32	165	2
Sb	121	✓ 0.003	ug/L	0.001	30	198	200	4
Sb	123	0.002	ug/L	0.001	62	157	149	4
Ba	135	57.029	ug/L	0.795	1	24	159990	0
[ Ba	137	56.870	ug/L	0.556	0	36	277001	0
[> Tb	159		ug/L			612197	558940 ✓	1
Tl	205	0.081	ug/L	0.001	1	250	3603	0
Pb	208	11.354	ug/L	0.066	0	1016	634004	0
Bi	209		ug/L			532877	465348	1
Th	232	1.093	ug/L	0.009	0	1565	74642	0
[ U	238	0.302	ug/L	0.005	1	1000	22670	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 R SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:33:34

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	726385 ✓	1
[ Be	9	0.239	ug/L	0.005	2	23	190	1
C	13		mg/L			6243	5134	2
Cl	37		mg/L			1387303	1486743	0
[> Sc	45		ug/L			409578	393696 ✓	0
V	51	17.725	ug/L	0.165	0	2772	297208	0
V-1	51	17.537	ug/L	0.123	0	1649	297665	0
Cr	52	6.393	ug/L	0.108	1	8617	100166	0
Cr	53	6.362	ug/L	0.022	0	614	11465	1
Mn	55	167.933	ug/L	2.862	1	377	4147462	0
Co	59	3.316	ug/L	0.034	1	55	58594	0
[> Ge	72		ug/L			372563	339077 ✓	1
Ni	60	3.396	ug/L	0.055	1	49	11644	2
Ni	62	10.155	ug/L	0.392	3	97	5139	2
Cu	63	10.512	ug/L	0.082	0	233	73140	0
Cu	65	11.047	ug/L	0.113	1	114	35731	0
Zn	66	31.874	ug/L	0.267	0	375	68743	1
Zn	67	30.461	ug/L	0.164	0	141	11611	1
Zn	68	31.663	ug/L	0.207	0	5524	52532	1
As	75	128.773	ug/L	1.150	0	145	263988	0
As-1	75	134.060	ug/L	1.211	0	7671	270838	0
Se	82	u 0.345	ug/L	0.072	20	0	101	19
Se	78	0.600	ug/L	0.092	15	7997	7678	0
Mo	98	0.075	ug/L	0.002	3	87	737	1
Y	89		ug/L			461134	564082	1
Kr	83		ug/L			197	235	4
[> In	115		ug/L			515607	448293 ✓	0
Ag	107	1.571	ug/L	0.012	0	75	22562	1
Cd	111	0.248	ug/L	0.028	11	330	1179	9
Cd	114	0.009	ug/L	0.003	29	32	104	20
Sb	121	u 0.015	ug/L	0.000	2	198	317	0
Sb	123	0.012	ug/L	0.002	17	157	228	7
Ba	135	66.638	ug/L	0.912	1	24	185888	0
Ba	137	66.106	ug/L	0.839	1	36	320156	0
[> Tb	159		ug/L			612197	554144 ✓	1
Tl	205	0.110	ug/L	0.003	3	250	4772	1
Pb	208	12.142	ug/L	0.169	1	1016	672069	0
Bi	209		ug/L			532877	457136	0
Th	232	1.412	ug/L	0.022	1	1565	95209	1
U	238	0.359	ug/L	0.004	1	1000	26548	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:39:31

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			803723	737296 ✓	1
[	Be	9	47.179	ug/L	0.124	0	23	34005	1
	C	13		mg/L			6243	3593	0
	Cl	37		mg/L			1387303	1513539	0
[>	Sc	45		ug/L			409578	373851 ✓	0
	V	51	48.522	ug/L	0.453	0	2772	768216	0
	V-1	51	48.667	ug/L	0.366	0	1649	781738	0
	Cr	52	48.621	ug/L	0.469	0	8617	671534	0
	Cr	53	49.075	ug/L	0.186	0	614	80207	0
	Mn	55	49.931	ug/L	0.792	1	377	1171278	0
[	Co	59	48.018	ug/L	0.519	1	55	805049	1
[>	Ge	72		ug/L			372563	338285 ✓	0
	Ni	60	48.097	ug/L	0.315	0	49	163928	0
	Ni	62	47.719	ug/L	0.355	0	97	23775	0
	Cu	63	48.827	ug/L	0.535	1	233	338179	0
	Cu	65	48.648	ug/L	0.107	0	114	156636	0
	Zn	66	49.909	ug/L	0.411	0	375	107187	0
	Zn	67	50.151	ug/L	0.478	0	141	18987	0
	Zn	68	49.495	ug/L	0.421	0	5524	79100	0
	As	75	49.173	ug/L	0.351	0	145	100658	0
	As-1	75	49.385	ug/L	0.318	0	7671	103943	0
	Se	82	50.252	ug/L	0.419	0	0	14758	0
	Se	78	51.048	ug/L	0.415	0	7997	41309	0
[	Mo	98	46.641	ug/L	0.454	0	87	406261	0
	Y	89		ug/L			461134	416545	0
	Kr	83		ug/L			197	218	1
[>	In	115		ug/L			515607	451135 ✓	0
	Ag	107	49.312	ug/L	0.549	1	75	710699	0
	Cd	111	49.731	ug/L	0.293	0	330	180190	0
	Cd	114	50.184	ug/L	0.449	0	32	412441	0
	Sb	121	50.418	ug/L	0.083	0	198	499451	0
	Sb	123	50.379	ug/L	0.153	0	157	374465	0
	Ba	135	50.123	ug/L	0.151	0	24	140720	0
[	Ba	137	50.107	ug/L	0.480	0	36	244225	0
[>	Tb	159		ug/L			612197	551192 ✓	1
	Tl	205	51.811	ug/L	0.220	0	250	2127840	0
	Pb	208	49.601	ug/L	0.473	0	1016	2728129	0
	Bi	209		ug/L			532877	458173	0
	Th	232	51.620	ug/L	0.572	1	1565	3411223	0
[	U	238	50.786	ug/L	0.786	1	1000	3605898	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:45:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	747944 ✓	1
[ Be	9	0.010	ug/L	0.008	79	23	29	19
C	13		mg/L			6243	5743	2
Cl	37		mg/L			1387303	1538932	1
[> Sc	45		ug/L			409578	376881 ✓	1
V	51	0.010	ug/L	0.007	69	2772	2718	4
V-1	51	0.011	ug/L	0.002	14	1649	1701	1
Cr	52	0.021	ug/L	0.007	31	8617	8222	2
Cr	53	0.023	ug/L	0.021	89	614	603	5
Mn	55	0.009	ug/L	0.001	9	377	550	2
[ Co	59	0.001	ug/L	0.001	38	55	73	10
[> Ge	72		ug/L			372563	344511 ✓	0
Ni	60	-0.001	ug/L	0.003	270	49	41	24
Ni	62	0.049	ug/L	0.008	15	97	114	3
Cu	63	-0.000	ug/L	0.002	2149	233	215	6
Cu	65	0.000	ug/L	0.003	1150	114	106	7
Zn	66	0.008	ug/L	0.010	136	375	363	6
Zn	67	-0.025	ug/L	0.036	145	141	121	11
Zn	68	0.214	ug/L	0.083	38	5524	5434	2
As	75	0.025	ug/L	0.010	40	145	186	11
As-1	75	0.368	ug/L	0.025	6	7671	7829	0
Se	82	-0.006	ug/L	0.039	674	0	-2	547
Se	78	1.096	ug/L	0.041	3	7997	8139	0
[ Mo	98	-0.001	ug/L	0.004	376	87	71	47
Y	89		ug/L			461134	421415	1
Kr	83		ug/L			197	208	4
[> In	115		ug/L			515607	455165 ✓	1
Ag	107	0.002	ug/L	0.002	65	75	102	23
Cd	111	0.017	ug/L	0.003	18	330	355	4
Cd	114	-0.001	ug/L	0.001	230	32	24	40
Sb	121	0.059	ug/L	0.021	35	198	769	28
Sb	123	0.064	ug/L	0.028	44	157	619	35
Ba	135	0.002	ug/L	0.002	83	24	27	18
[ Ba	137	0.003	ug/L	0.004	111	36	48	37
[> Tb	159		ug/L			612197	548951 ✓	0
Tl	205	-0.002	ug/L	0.001	58	250	153	26
Pb	208	-0.006	ug/L	0.000	3	1016	568	2
Bi	209		ug/L			532877	473120	1
Th	232	0.001	ug/L	0.007	529	1565	1484	28
[ U	238	-0.010	ug/L	0.001	5	1000	170	23

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 S SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:51:17

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	772563 ✓	0
[ Be	9	0.250	ug/L	0.009	3	23	211	4
C	13		mg/L			6243	5322	2
Cl	37		mg/L			1387303	1473348	1
[> Sc	45		ug/L			409578	418080 ✓	1
V	51	18.775	ug/L	0.176	0	2772	334160	1
V-1	51	18.589	ug/L	0.181	0	1649	334965	1
Cr	52	6.781	ug/L	0.148	2	8617	112298	1
Cr	53	6.789	ug/L	0.153	2	614	12947	1
Mn	55	263.048	ug/L	3.480	1	377	6898804	0
[ Co	59	4.375	ug/L	0.056	1	55	82078	1
[> Ge	72		ug/L			372563	351454 ✓	0
Ni	60	4.960	ug/L	0.046	0	49	17605	0
Ni	62	11.320	ug/L	0.157	1	97	5929	1
Cu	63	12.867	ug/L	0.080	0	233	92677	0
Cu	65	13.301	ug/L	0.090	0	114	44573	0
Zn	66	32.974	ug/L	0.223	0	375	73695	0
Zn	67	32.167	ug/L	0.423	1	141	12700	1
Zn	68	32.722	ug/L	0.118	0	5524	56097	0
As	75	68.529	ug/L	0.313	0	145	145690	0
As-1	75	71.348	ug/L	0.330	0	7671	152801	0
Se	82	✓ 0.161	ug/L	0.035	21	0	48	21
Se	78	0.454	ug/L	0.076	16	7997	7859	0
[ Mo	98	0.073	ug/L	0.002	2	87	747	2
Y	89		ug/L			461134	598453	0
Kr	83		ug/L			197	256	4
[> In	115		ug/L			515607	472522 ✓	0
Ag	107	1.807	ug/L	0.013	0	75	27340	0
Cd	111	0.248	ug/L	0.012	4	330	1241	3
Cd	114	0.013	ug/L	0.002	14	32	141	11
Sb	121	✓ 0.029	ug/L	0.004	12	198	484	8
Sb	123	0.027	ug/L	0.004	15	157	351	9
Ba	135	66.316	ug/L	0.776	1	24	195008	1
Ba	137	65.589	ug/L	0.324	0	36	334850	0
[> Tb	159		ug/L			612197	568020 ✓	1
Tl	205	0.101	ug/L	0.002	1	250	4508	2
Pb	208	12.058	ug/L	0.080	0	1016	684175	0
Bi	209		ug/L			532877	474174	0
Th	232	1.477	ug/L	0.018	1	1565	101974	0
[ U	238	0.365	ug/L	0.003	0	1000	27603	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 T SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 18:57:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	777169 ✓	2
[ Be	9	0.277	ug/L	0.028	10	23	232	7
C	13		mg/L			6243	5731	2
Cl	37		mg/L			1387303	1471247	0
[> Sc	45		ug/L			409578	411543 ✓	0
V	51	15.433	ug/L	0.165	1	2772	270892	1
V-1	51	15.295	ug/L	0.143	0	1649	271605	1
Cr	52	5.644	ug/L	0.081	1	8617	93464	0
Cr	53	5.694	ug/L	0.094	1	614	10789	1
Mn	55	215.658	ug/L	1.087	0	377	5568012	0
[ Co	59	4.264	ug/L	0.015	0	55	78739	0
[> Ge	72		ug/L			372563	352543 ✓	0
Ni	60	4.072	ug/L	0.085	2	49	14503	1
Ni	62	4.898	ug/L	0.045	0	97	2625	1
Cu	63	4.796	ug/L	0.039	0	233	34814	0
Cu	65	4.885	ug/L	0.028	0	114	16487	0
Zn	66	36.516	ug/L	0.033	0	375	81826	0
Zn	67	34.577	ug/L	0.782	2	141	13684	2
Zn	68	36.991	ug/L	0.251	0	5524	62929	0
As	75	93.749	ug/L	0.134	0	145	199874	0
As-1	75	97.594	ug/L	0.131	0	7671	206987	0
Se	82	0.277	ug/L	0.033	12	0	84	11
Se	78	0.492	ug/L	0.068	13	7997	7909	0
[ Mo	98	0.030	ug/L	0.003	8	87	359	5
Y	89		ug/L			461134	642493	0
Kr	83		ug/L			197	240	4
[> In	115		ug/L			515607	465858 ✓	1
Ag	107	1.080	ug/L	0.007	0	75	16142	1
Cd	111	0.151	ug/L	0.005	3	330	863	2
Cd	114	0.020	ug/L	0.002	8	32	200	8
Sb	121	0.011	ug/L	0.002	21	198	288	9
Sb	123	0.008	ug/L	0.002	20	157	205	4
Ba	135	59.472	ug/L	0.568	0	24	172403	0
[ Ba	137	59.485	ug/L	0.838	1	36	299370	0
[> Tb	159		ug/L			612197	573947 ✓	1
Tl	205	0.047	ug/L	0.003	7	250	2260	6
Pb	208	7.788	ug/L	0.107	1	1016	446827	0
Bi	209		ug/L			532877	474055	0
Th	232	1.944	ug/L	0.007	0	1565	135187	1
[ U	238	0.290	ug/L	0.005	1	1000	22363	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 U SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:03:08

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	782651 ✓	0
[ Be	9	0.334	ug/L	0.020	6	23	277	5
C	13		mg/L			6243	6845	1
Cl	37		mg/L			1387303	1450147	0
[> Sc	45		ug/L			409578	412147 ✓	1
V	51	19.154	ug/L	0.102	0	2772	336015	0
V-1	51	18.940	ug/L	0.129	0	1649	336411	0
Cr	52	7.866	ug/L	0.059	0	8617	127045	1
Cr	53	7.750	ug/L	0.121	1	614	14482	0
Mn	55	282.498	ug/L	2.527	0	377	7303949	0
[ Co	59	4.889	ug/L	0.074	1	55	90410	1
[> Ge	72		ug/L			372563	346325 ✓	1
Ni	60	6.367	ug/L	0.156	2	49	22253	2
Ni	62	7.355	ug/L	0.104	1	97	3827	0
Cu	63	10.961	ug/L	0.156	1	233	77887	1
Cu	65	11.069	ug/L	0.065	0	114	36568	1
Zn	66	45.439	ug/L	0.659	1	375	99932	1
Zn	67	43.670	ug/L	0.682	1	141	16942	0
Zn	68	46.226	ug/L	0.563	1	5524	75964	0
As	75	63.427	ug/L	0.424	0	145	132876	0
As-1	75	66.020	ug/L	0.480	0	7671	139848	0
Se	82	✓ 0.109	ug/L	0.014	12	0	32	11
Se	78	0.330	ug/L	0.173	52	7997	7659	1
[ Mo	98	0.068	ug/L	0.006	8	87	692	8
Y	89		ug/L			461134	623782	1
Kr	83		ug/L			197	248	1
[> In	115		ug/L			515607	464031 ✓	2
Ag	107	0.675	ug/L	0.009	1	75	10078	0
Cd	111	0.487	ug/L	0.023	4	330	2108	3
Cd	114	0.065	ug/L	0.002	2	32	576	5
Sb	121	✓ 0.007	ug/L	0.003	41	198	254	14
Sb	123	0.004	ug/L	0.002	57	157	172	11
Ba	135	87.760	ug/L	1.113	1	24	253366	1
[ Ba	137	87.017	ug/L	0.892	1	36	436190	1
[> Tb	159		ug/L			612197	568591 ✓	1
Tl	205	0.078	ug/L	0.001	1	250	3518	1
Pb	208	11.161	ug/L	0.059	0	1016	633986	0
Bi	209		ug/L			532877	470307	1
Th	232	1.758	ug/L	0.024	1	1565	121252	0
[ U	238	0.337	ug/L	0.004	1	1000	25621	0



# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE80 V SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:09:04

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	779306 ✓	0
[ Be	9	0.328	ug/L	0.016	4	23	272	4
C	13		mg/L			6243	6254	0
Cl	37		mg/L			1387303	1442508	0
[> Sc	45		ug/L			409578	414259 ✓	1
V	51	18.173	ug/L	0.260	1	2772	320562	0
V-1	51	17.999	ug/L	0.266	1	1649	321407	0
Cr	52	7.166	ug/L	0.090	1	8617	117109	1
Cr	53	7.164	ug/L	0.132	1	614	13503	0
Mn	55	280.642	ug/L	2.447	0	377	7293251	0
Co	59	4.868	ug/L	0.030	0	55	90482	0
[> Ge	72		ug/L			372563	344774 ✓	0
Ni	60	6.124	ug/L	0.063	1	49	21314	1
Ni	62	6.337	ug/L	0.117	1	97	3295	1
Cu	63	7.880	ug/L	0.035	0	233	55810	1
Cu	65	7.915	ug/L	0.140	1	114	26059	1
Zn	66	46.820	ug/L	0.312	0	375	102506	1
Zn	67	43.911	ug/L	0.455	1	141	16961	1
Zn	68	46.897	ug/L	0.131	0	5524	76657	1
As	75	53.536	ug/L	0.185	0	145	111683	1
As-1	75	55.709	ug/L	0.197	0	7671	118596	1
Se	82	u 0.037	ug/L	0.021	56	0	10	59
Se	78	0.216	ug/L	0.095	44	7997	7547	0
[ Mo	98	0.052	ug/L	0.002	4	87	539	4
Y	89		ug/L			461134	624505	1
Kr	83		ug/L			197	249	1
[> In	115		ug/L			515607	466242 ✓	0
Ag	107	0.424	ug/L	0.000	0	75	6389	0
Cd	111	0.373	ug/L	0.014	3	330	1695	2
Cd	114	0.056	ug/L	0.002	3	32	503	3
Sb	121	u 0.000	ug/L	0.000	65	198	183	1
Sb	123	-0.002	ug/L	0.000	18	157	125	2
Ba	135	82.363	ug/L	0.453	0	24	238966	0
Ba	137	81.492	ug/L	0.502	0	36	410493	0
[> Tb	159		ug/L			612197	564078 ✓	0
Tl	205	0.062	ug/L	0.001	2	250	2836	0
Pb	208	9.329	ug/L	0.047	0	1016	525893	0
Bi	209		ug/L			532877	468970	1
Th	232	1.714	ug/L	0.022	1	1565	117338	0
[ U	238	0.314	ug/L	0.001	0	1000	23732	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:15:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			803723	768415 ✓	0
[ Be	9	46.956	ug/L	0.173	0	23	35273	0
C	13		mg/L			6243	3666	1
Cl	37		mg/L			1387303	1483684	0
[> Sc	45		ug/L			409578	376812 ✓	0
V	51	48.329	ug/L	0.338	0	2772	771246	0
V-1	51	48.326	ug/L	0.469	0	1649	782431	0
Cr	52	48.696	ug/L	0.239	0	8617	677911	0
Cr	53	48.671	ug/L	0.554	1	614	80180	0
Mn	55	49.389	ug/L	0.720	1	377	1167776	0
[ Co	59	47.765	ug/L	0.665	1	55	807125	1
[> Ge	72		ug/L			372563	341205 ✓	0
Ni	60	48.500	ug/L	0.348	0	49	166726	0
Ni	62	48.165	ug/L	0.584	1	97	24204	1
Cu	63	48.774	ug/L	0.340	0	233	340737	0
Cu	65	48.270	ug/L	0.652	1	114	156759	1
Zn	66	49.619	ug/L	0.238	0	375	107490	0
Zn	67	49.420	ug/L	1.352	2	141	18873	2
Zn	68	49.576	ug/L	0.616	1	5524	79907	1
As	75	49.090	ug/L	0.051	0	145	101358	0
As-1	75	49.325	ug/L	0.075	0	7671	104723	0
Se	82	49.911	ug/L	0.563	1	0	14785	0
Se	78	50.796	ug/L	0.519	1	7997	41496	0
[ Mo	98	46.713	ug/L	0.068	0	87	410401	0
Y	89		ug/L			461134	418572	0
Kr	83		ug/L			197	233	3
[> In	115		ug/L			515607	457057 ✓	1
Ag	107	49.001	ug/L	0.997	2	75	715416	1
Cd	111	49.631	ug/L	1.138	2	330	182159	1
Cd	114	50.264	ug/L	0.799	1	32	418485	0
Sb	121	50.189	ug/L	0.647	1	198	503657	0
Sb	123	50.274	ug/L	0.486	0	157	378567	0
Ba	135	49.459	ug/L	0.717	1	24	140666	0
[ Ba	137	49.421	ug/L	0.793	1	36	244024	0
[> Tb	159		ug/L			612197	549279 ✓	0
Tl	205	51.896	ug/L	0.353	0	250	2123891	0
Pb	208	50.125	ug/L	0.274	0	1016	2747437	0
Bi	209		ug/L			532877	460478	0
Th	232	52.365	ug/L	0.630	1	1565	3448467	0
[ U	238	51.494	ug/L	0.470	0	1000	3643667	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:21:21

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			803723	766868 ✓	0
[ Be	9	0.020	ug/L	0.016	78	23	37	31
C	13		mg/L			6243	5716	3
Cl	37		mg/L			1387303	1489565	0
> Sc	45		ug/L			409578	373101 ✓	0
V	51	-0.001	ug/L	0.008	1043	2772	2514	5
V-1	51	-0.006	ug/L	0.006	101	1649	1401	7
Cr	52	0.005	ug/L	0.003	56	8617	7921	0
Cr	53	-0.013	ug/L	0.013	104	614	539	3
Mn	55	0.007	ug/L	0.003	49	377	509	15
[ Co	59	0.001	ug/L	0.001	50	55	74	16
> Ge	72		ug/L			372563	339377 ✓	0
Ni	60	0.002	ug/L	0.003	128	49	52	18
Ni	62	0.002	ug/L	0.014	616	97	89	7
Cu	63	0.002	ug/L	0.004	233	233	225	13
Cu	65	-0.002	ug/L	0.002	82	114	97	5
Zn	66	-0.006	ug/L	0.005	84	375	330	2
Zn	67	-0.056	ug/L	0.010	17	141	107	3
Zn	68	0.131	ug/L	0.030	22	5524	5229	0
As	75	0.034	ug/L	0.014	40	145	202	14
As-1	75	0.278	ug/L	0.016	5	7671	7535	0
Se	82	0.011	ug/L	0.021	186	0	2	214
Se	78	0.815	ug/L	0.046	5	7997	7829	0
[ Mo	98	0.001	ug/L	0.002	138	87	91	17
Y	89		ug/L			461134	417599	0
Kr	83		ug/L			197	203	4
> In	115		ug/L			515607	457874 ✓	0
Ag	107	0.003	ug/L	0.001	35	75	107	13
Cd	111	-0.001	ug/L	0.002	180	330	289	2
Cd	114	-0.000	ug/L	0.000	526	32	28	14
Sb	121	0.060	ug/L	0.022	36	198	775	28
Sb	123	0.060	ug/L	0.022	36	157	588	27
Ba	135	0.003	ug/L	0.001	32	24	29	8
[ Ba	137	0.003	ug/L	0.003	87	36	47	28
> Tb	159		ug/L			612197	542403 ✓	0
Tl	205	-0.001	ug/L	0.001	36	250	165	12
Pb	208	-0.007	ug/L	0.001	8	1016	521	6
Bi	209		ug/L			532877	471459	0
Th	232	0.004	ug/L	0.008	194	1565	1653	31
[ U	238	-0.010	ug/L	0.001	6	1000	182	25

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:27:10

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L				769133	0
[	Be	9	ug/L				36	24
	C	13	mg/L				5876	0
	Cl	37	mg/L				1504009	0
[>	Sc	45	ug/L				380007	1
	V	51	ug/L				2644	2
	V-1	51	ug/L				1412	1
	Cr	52	ug/L				7985	0
	Cr	53	ug/L				508	3
	Mn	55	ug/L				475	5
[	Co	59	ug/L				57	10
[>	Ge	72	ug/L				343117	0
	Ni	60	ug/L				51	24
	Ni	62	ug/L				104	2
	Cu	63	ug/L				189	6
	Cu	65	ug/L				102	11
	Zn	66	ug/L				361	5
	Zn	67	ug/L				114	6
	Zn	68	ug/L				5267	1
	As	75	ug/L				207	11
	As-1	75	ug/L				7626	0
	Se	82	ug/L				1	1573
	Se	78	ug/L				7936	0
[	Mo	98	ug/L				33	24
	Y	89	ug/L				421394	0
	Kr	83	ug/L				213	4
[>	In	115	ug/L				454759	0
	Ag	107	ug/L				65	13
	Cd	111	ug/L				320	0
	Cd	114	ug/L				20	12
	Sb	121	ug/L				263	9
	Sb	123	ug/L				197	24
	Ba	135	ug/L				24	25
[	Ba	137	ug/L				39	12
[>	Tb	159	ug/L				546178	0
	Tl	205	ug/L				71	6
	Pb	208	ug/L				475	6
	Bi	209	ug/L				474715	0
	Th	232	ug/L				606	17
[	U	238	ug/L				112	5

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV10

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:32:58

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			769133	771520 ✓	0
[	Be	9	ug/L	0.639	1	36	35281	0
	C	13	mg/L			5876	3710	1
	Cl	37	mg/L			1504009	1486311	0
[>	Sc	45	ug/L			380007	379950 ✓	1
	V	51	ug/L	0.534	1	2644	775863	0
	V-1	51	ug/L	0.545	1	1412	787323	0
	Cr	52	ug/L	0.987	2	7985	681661	0
	Cr	53	ug/L	0.975	2	508	80692	0
	Mn	55	ug/L	0.848	1	475	1181029	0
[	Co	59	ug/L	1.016	2	57	823870	0
[>	Ge	72	ug/L			343117	342880 ✓	0
	Ni	60	ug/L	0.409	0	51	165347	0
	Ni	62	ug/L	0.223	0	104	24466	0
	Cu	63	ug/L	0.250	0	189	344552	0
	Cu	65	ug/L	0.396	0	102	158615	1
	Zn	66	ug/L	0.193	0	361	109193	0
	Zn	67	ug/L	0.795	1	114	19033	1
	Zn	68	ug/L	0.774	1	5267	80009	0
	As	75	ug/L	0.214	0	207	101839	0
	As-1	75	ug/L	0.240	0	7626	105066	0
	Se	82	ug/L	0.651	1	1	14847	0
	Se	78	ug/L	0.701	1	7936	41485	0
[	Mo	98	ug/L	0.286	0	33	412282	0
	Y	89	ug/L			421394	418187	0
	Kr	83	ug/L			213	221	2
[>	In	115	ug/L			454759	459168 ✓	0
	Ag	107	ug/L	0.201	0	65	717113	0
	Cd	111	ug/L	0.303	0	320	182009	0
	Cd	114	ug/L	0.279	0	20	415832	0
	Sb	121	ug/L	0.089	0	263	505500	0
	Sb	123	ug/L	0.231	0	197	379253	0
	Ba	135	ug/L	0.520	1	24	141681	1
[	Ba	137	ug/L	0.353	0	39	246042	0
[>	Tb	159	ug/L			546178	551048 ✓	0
	Ti	205	ug/L	0.325	0	71	2124593	0
	Pb	208	ug/L	0.153	0	475	2750496	0
	Bi	209	ug/L			474715	460147	0
	Th	232	ug/L	0.219	0	606	3425805	0
[	U	238	ug/L	0.127	0	112	3634718	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB10

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:39:16

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			769133	762182 ✓	1
[ Be	9	0.001	ug/L	0.015	1571	36	37	31
C	13		mg/L			5876	5752	2
Cl	37		mg/L			1504009	1521884	0
> Sc	45		ug/L			380007	373579 ✓	1
V	51	-0.003	ug/L	0.004	170	2644	2559	2
V-1	51	0.002	ug/L	0.002	71	1412	1424	2
Cr	52	0.004	ug/L	0.013	324	7985	7902	1
Cr	53	0.019	ug/L	0.007	37	508	530	2
Mn	55	0.001	ug/L	0.002	176	475	487	6
[ Co	59	0.000	ug/L	0.001	242	57	62	22
> Ge	72		ug/L			343117	340629 ✓	0
Ni	60	-0.002	ug/L	0.001	59	51	42	11
Ni	62	-0.019	ug/L	0.036	193	104	94	19
Cu	63	0.007	ug/L	0.001	20	189	239	4
Cu	65	0.002	ug/L	0.004	233	102	107	11
Zn	66	-0.000	ug/L	0.011	3415	361	358	6
Zn	67	0.030	ug/L	0.018	60	114	125	5
Zn	68	0.019	ug/L	0.064	340	5267	5257	1
As	75	-0.004	ug/L	0.018	432	207	197	18
As-1	75	0.001	ug/L	0.040	3260	7626	7573	0
Se	82	-0.037	ug/L	0.026	69	1	-9	78
Se	78	-0.002	ug/L	0.112	6390	7936	7877	0
[ Mo	98	0.005	ug/L	0.002	41	33	74	23
Y	89		ug/L			421394	418262	0
Kr	83		ug/L			213	217	3
> In	115		ug/L			454759	453776 ✓	0
Ag	107	0.003	ug/L	0.001	38	65	110	15
Cd	111	-0.007	ug/L	0.007	93	320	293	7
Cd	114	0.000	ug/L	0.001	1316	20	20	32
Sb	121	0.058	ug/L	0.022	38	263	838	25
Sb	123	0.055	ug/L	0.025	45	197	609	29
Ba	135	0.003	ug/L	0.002	69	24	32	17
[ Ba	137	0.001	ug/L	0.001	73	39	43	6
> Tb	159		ug/L			546178	545856 ✓	1
Tl	205	0.003	ug/L	0.001	41	71	175	23
Pb	208	0.001	ug/L	0.001	124	475	532	12
Bi	209		ug/L			474715	472804	0
Th	232	0.022	ug/L	0.010	45	606	2017	31
[ U	238	0.001	ug/L	0.001	69	112	180	25

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 C SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:44:45

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

*CS*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	788683 ✓	1
[ Be	9	0.303	ug/L	0.015	4	36	271	4
C	13		mg/L			5876	7534	0
Cl	37		mg/L			1504009	1414244	0
[> Sc	45		ug/L			380007	439702 ✓	0
V	51	24.402	ug/L	0.426	1	2644	455932	0
V-1	51	24.187	ug/L	0.424	1	1412	457674	0
Cr	52	9.699	ug/L	0.119	1	7985	164941	0
Cr	53	9.748	ug/L	0.170	1	508	19195	1
Mn	55	590.718	ug/L	11.319	1	475	16293154	1
Co	59	5.929	ug/L	0.140	2	57	116949	1
[> Ge	72		ug/L			343117	349273 ✓	0
Ni	60	6.892	ug/L	0.043	0	51	24296	0
Ni	62	7.058	ug/L	0.139	1	104	3723	1
Cu	63	9.944	ug/L	0.081	0	189	71258	0
Cu	65	9.973	ug/L	0.088	0	102	33236	0
Zn	66	57.447	ug/L	0.649	1	361	127345	1
Zn	67	54.186	ug/L	0.368	0	114	21155	0
Zn	68	57.963	ug/L	0.652	1	5267	94938	0
As	75	6.256	ug/L	0.026	0	207	13415	0
As-1	75	6.138	ug/L	0.079	1	7626	20206	0
Se	82	-0.067	ug/L	0.056	84	1	-18	91
Se	78	-0.945	ug/L	0.162	17	7936	7426	0
[ Mo	98	0.076	ug/L	0.002	2	33	717	2
Y	89		ug/L			421394	771348	1
Kr	83		ug/L			213	279	4
[> In	115		ug/L			454759	466382 ✓	0
Ag	107	0.055	ug/L	0.003	6	65	889	5
Cd	111	0.398	ug/L	0.036	9	320	1819	7
Cd	114	0.133	ug/L	0.004	3	20	1153	3
Sb	121	0.007	ug/L	0.004	51	263	343	10
Sb	123	0.005	ug/L	0.005	108	197	240	17
Ba	135	100.198	ug/L	0.709	0	24	290797	0
[ Ba	137	99.974	ug/L	1.332	1	39	503747	1
[> Tb	159		ug/L			546178	575189 ✓	0
Tl	205	0.043	ug/L	0.001	2	71	1922	2
Pb	208	17.470	ug/L	0.131	0	475	1002905	0
Bi	209		ug/L			474715	460887	0
Th	232	1.570	ug/L	0.006	0	606	108903	0
[ U	238	0.182	ug/L	0.002	1	112	13570	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 D SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:50:42

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

CR

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			769133	806707 ✓	1
[	Be	9	0.403	ug/L	0.020	4	36	356	3
	C	13		mg/L			5876	6301	1
	Cl	37		mg/L			1504009	1402145	0
[>	Sc	45		ug/L			380007	444443 ✓	0
	V	51	32.001	ug/L	0.090	0	2644	603455	0
	V-1	51	31.734	ug/L	0.102	0	1412	606493	0
	Cr	52	13.276	ug/L	0.106	0	7985	224774	0
	Cr	53	13.360	ug/L	0.180	1	508	26370	0
	Mn	55	292.166	ug/L	4.545	1	475	8146219	1
[	Co	59	6.242	ug/L	0.087	1	57	124459	0
[>	Ge	72		ug/L			343117	346501 ✓	0
	Ni	60	10.871	ug/L	0.107	0	51	37991	0
	Ni	62	16.557	ug/L	0.163	0	104	8524	0
	Cu	63	9.087	ug/L	0.016	0	189	64621	0
	Cu	65	9.415	ug/L	0.055	0	102	31134	0
	Zn	66	46.763	ug/L	0.282	0	361	102909	0
	Zn	67	46.670	ug/L	0.079	0	114	18092	0
	Zn	68	47.049	ug/L	0.108	0	5267	77454	0
	As	75	4.511	ug/L	0.044	0	207	9655	0
	As-1	75	4.333	ug/L	0.018	0	7626	16417	0
	Se	82	-0.010	ug/L	0.028	274	1	-1	501
	Se	78	-0.890	ug/L	0.062	6	7936	7406	0
[	Mo	98	0.114	ug/L	0.006	5	33	1054	4
	Y	89		ug/L			421394	678105	0
	Kr	83		ug/L			213	265	0
[>	In	115		ug/L			454759	471302 ✓	0
	Ag	107	0.097	ug/L	0.003	2	65	1534	2
	Cd	111	0.534	ug/L	0.006	1	320	2348	1
	Cd	114	0.065	ug/L	0.006	8	20	577	8
	Sb	121	-0.004	ug/L	0.002	65	263	235	11
	Sb	123	-0.003	ug/L	0.003	108	197	180	15
	Ba	135	107.921	ug/L	0.721	0	24	316503	0
[	Ba	137	107.590	ug/L	0.524	0	39	547830	0
[>	Tb	159		ug/L			546178	572405 ✓	0
	Tl	205	0.111	ug/L	0.003	2	71	4793	1
	Pb	208	9.825	ug/L	0.055	0	475	561532	0
	Bi	209		ug/L			474715	469136	1
	Th	232	2.280	ug/L	0.013	0	606	157068	0
[	U	238	0.427	ug/L	0.002	0	112	31626	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 E SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 19:56:40

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

CS

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			769133	790014 ✓	0
[ Be	9	0.418	ug/L	0.011	2	36	360	3
C	13		mg/L			5876	7434	1
Cl	37		mg/L			1504009	1403015	1
[>] Sc	45		ug/L			380007	418398 ✓	0
V	51	16.874	ug/L	0.101	0	2644	300917	0
V-1	51	16.693	ug/L	0.103	0	1412	301071	0
Cr	52	6.053	ug/L	0.034	0	7985	101271	0
Cr	53	6.019	ug/L	0.044	0	508	11492	0
Mn	55	329.032	ug/L	1.963	0	475	8636727	0
Co	59	4.752	ug/L	0.044	0	57	89214	0
[>] Ge	72		ug/L			343117	347648 ✓	0
Ni	60	5.219	ug/L	0.033	0	51	18329	0
Ni	62	5.085	ug/L	0.108	2	104	2699	2
Cu	63	5.935	ug/L	0.024	0	189	42414	0
Cu	65	5.897	ug/L	0.062	1	102	19604	1
Zn	66	43.514	ug/L	0.149	0	361	96102	0
Zn	67	42.398	ug/L	0.381	0	114	16502	1
Zn	68	44.845	ug/L	0.079	0	5267	74320	0
As	75	131.127	ug/L	0.152	0	207	275701	0
As-1	75	136.181	ug/L	0.166	0	7626	282552	0
Se	82	-0.024	ug/L	0.020	86	1	-5	107
Se	78	-0.777	ug/L	0.075	9	7936	7508	0
[ Mo	98	0.069	ug/L	0.001	0	33	653	0
Y	89		ug/L			421394	649718	1
Kr	83		ug/L			213	274	0
[>] In	115		ug/L			454759	470678 ✓	0
Ag	107	0.345	ug/L	0.004	1	65	5252	0
Cd	111	0.225	ug/L	0.011	4	320	1182	3
Cd	114	0.062	ug/L	0.004	7	20	552	7
Sb	121	0.003	ug/L	0.001	37	263	301	3
Sb	123	0.003	ug/L	0.000	16	197	226	1
Ba	135	102.120	ug/L	1.849	1	24	299089	1
Ba	137	102.096	ug/L	0.692	0	39	519162	0
[>] Tl	159		ug/L			546178	567447 ✓	1
Tl	205	0.075	ug/L	0.002	3	71	3252	2
Pb	208	9.727	ug/L	0.157	1	475	551031	0
Bi	209		ug/L			474715	466095	0
Th	232	1.609	ug/L	0.038	2	606	110021	1
[ U	238	0.216	ug/L	0.002	1	112	15892	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 F SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 20:02:37

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	792902 ✓	2
[ Be	9	0.107	ug/L	0.020	18	36	120	13
C	13		mg/L			5876	8702	2
Cl	37		mg/L			1504009	1412200	0
[> Sc	45		ug/L			380007	430160 ✓	1
V	51	14.863	ug/L	0.082	0	2644	272868	0
V-1	51	14.728	ug/L	0.086	0	1412	273293	0
Cr	52	6.779	ug/L	0.105	1	7985	115501	0
Cr	53	6.754	ug/L	0.114	1	508	13187	0
Mn	55	288.186	ug/L	1.249	0	475	7777137	0
[ Co	59	3.171	ug/L	0.027	0	57	61221	0
[> Ge	72		ug/L			343117	345487 ✓	0
Ni	60	4.172	ug/L	0.065	1	51	14570	0
Ni	62	4.590	ug/L	0.110	2	104	2432	1
Cu	63	7.247	ug/L	0.095	1	189	51419	1
Cu	65	7.341	ug/L	0.072	0	102	24227	0
Zn	66	38.019	ug/L	0.650	1	361	83483	1
Zn	67	36.510	ug/L	0.376	1	114	14137	0
Zn	68	38.270	ug/L	0.298	0	5267	63805	0
As	75	7.592	ug/L	0.049	0	207	16059	1
As-1	75	7.611	ug/L	0.103	1	7626	22942	0
Se	82	-0.045	ug/L	0.042	94	1	-11	104
Se	78	-0.777	ug/L	0.194	24	7936	7461	1
[ Mo	98	0.159	ug/L	0.008	4	33	1450	5
Y	89		ug/L			421394	627392	1
Kr	83		ug/L			213	249	1
[> In	115		ug/L			454759	472036 ✓	0
Ag	107	0.133	ug/L	0.005	4	65	2070	3
Cd	111	0.488	ug/L	0.037	7	320	2181	6
Cd	114	0.101	ug/L	0.002	1	20	888	1
Sb	121	-0.009	ug/L	0.002	25	263	184	12
Sb	123	-0.009	ug/L	0.001	6	197	134	3
Ba	135	65.819	ug/L	0.322	0	24	193349	0
[ Ba	137	65.287	ug/L	0.248	0	39	332969	0
[> Tb	159		ug/L			546178	564315 ✓	0
Tl	205	0.030	ug/L	0.001	2	71	1351	2
Pb	208	16.777	ug/L	0.090	0	475	944932	0
Bi	209		ug/L			474715	471509	0
Th	232	1.140	ug/L	0.003	0	606	77734	0
[ U	238	0.219	ug/L	0.001	0	112	16045	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 G SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 20:08:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	790954 ✓	0
[ Be	9	0.275	ug/L	0.021	7	36	250	6
C	13		mg/L			5876	7463	3
Cl	37		mg/L			1504009	1390202	0
[> Sc	45		ug/L			380007	455816 ✓	2
V	51	30.635	ug/L	0.398	1	2644	592494	0
V-1	51	30.325	ug/L	0.432	1	1412	594349	0
Cr	52	9.688	ug/L	0.095	0	7985	170796	1
Cr	53	9.748	ug/L	0.237	2	508	19893	1
Mn	55	541.203	ug/L	10.454	1	475	15472022	0
Co	59	6.760	ug/L	0.050	0	57	138226	1
[> Ge	72		ug/L			343117	342560 ✓	0
Ni	60	7.323	ug/L	0.101	1	51	25319	1
Ni	62	7.655	ug/L	0.035	0	104	3952	0
Cu	63	10.835	ug/L	0.089	0	189	76138	1
Cu	65	10.774	ug/L	0.074	0	102	35206	0
Zn	66	51.612	ug/L	0.481	0	361	112254	1
Zn	67	51.035	ug/L	0.806	1	114	19549	1
Zn	68	51.990	ug/L	0.541	1	5267	84064	1
As	75	7.974	ug/L	0.090	1	207	16714	1
As-1	75	7.986	ug/L	0.121	1	7626	23494	1
Se	82	-0.155	ug/L	0.023	14	1	-44	15
Se	78	-0.785	ug/L	0.106	13	7936	7393	1
[ Mo	98	0.091	ug/L	0.002	2	33	839	2
Y	89		ug/L			421394	756820	0
Kr	83		ug/L			213	296	4
[> In	115		ug/L			454759	464659 ✓	1
Ag	107	0.098	ug/L	0.004	4	65	1525	5
Cd	111	0.487	ug/L	0.009	1	320	2141	0
Cd	114	0.107	ug/L	0.005	4	20	921	3
Sb	121	-0.011	ug/L	0.001	10	263	152	7
Sb	123	-0.014	ug/L	0.002	11	197	95	13
Ba	135	84.693	ug/L	0.786	0	24	244886	1
[ Ba	137	84.675	ug/L	0.866	1	39	425049	0
[> Tl	159		ug/L			546178	570951 ✓	0
Tl	205	0.044	ug/L	0.001	3	71	1956	3
Pb	208	9.988	ug/L	0.073	0	475	569373	0
Bi	209		ug/L			474715	461437	1
Th	232	1.758	ug/L	0.024	1	606	120932	1
[ U	238	0.288	ug/L	0.001	0	112	21269	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WE83-A-L-SWN~~ ZZZZZZ

Sample Dil Factor: 100 BA 3/1/13

Comments:

Sample Date/Time: Thursday, February 28, 2013 20:14:32

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

DEL

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	782474 ✓	1
[ Be	9	0.041	ug/L	0.021	50	36	68	22
C	13		mg/L			5876	4904	2
Cl	37		mg/L			1504009	1469281	1
[> Sc	45		ug/L			380007	395607 ✓	0
V	51	6.200	ug/L	0.041	0	2644	106286	0
V-1	51	6.153	ug/L	0.031	0	1412	105854	0
Cr	52	2.192	ug/L	0.027	1	7985	39976	0
Cr	53	2.242	ug/L	0.009	0	508	4379	0
Mn	55	127.350	ug/L	1.482	1	475	3160959	1
[ Co	59	1.396	ug/L	0.023	1	57	24818	1
[> Ge	72		ug/L			343117	341063 ✓	0
Ni	60	1.425	ug/L	0.015	1	51	4945	1
Ni	62	1.524	ug/L	0.056	3	104	866	3
Cu	63	2.395	ug/L	0.032	1	189	16904	1
Cu	65	2.466	ug/L	0.010	0	102	8100	0
Zn	66	10.612	ug/L	0.034	0	361	23265	0
Zn	67	10.265	ug/L	0.269	2	114	4005	2
Zn	68	10.687	ug/L	0.127	1	5267	21363	0
As	75	1.014	ug/L	0.013	1	207	2295	0
As-1	75	0.892	ug/L	0.043	4	7626	9345	0
Se	82	-0.056	ug/L	0.050	88	1	-15	96
Se	78	-0.494	ug/L	0.112	22	7936	7556	0
[ Mo	98	0.021	ug/L	0.001	3	33	213	2
Y	89		ug/L			421394	486320	0
Kr	83		ug/L			213	224	5
[> In	115		ug/L			454759	458527 ✓	0
Ag	107	0.024	ug/L	0.001	2	65	412	2
Cd	111	0.117	ug/L	0.010	8	320	753	5
Cd	114	0.022	ug/L	0.001	5	20	205	5
Sb	121	-0.019	ug/L	0.001	6	263	77	14
Sb	123	-0.019	ug/L	0.001	6	197	56	15
Ba	135	19.267	ug/L	0.199	1	24	54993	0
[ Ba	137	19.159	ug/L	0.296	1	39	94937	0
[> Tb	159		ug/L			546178	549819 ✓	0
Tl	205	0.010	ug/L	0.001	7	71	470	5
Pb	208	2.140	ug/L	0.019	0	475	117849	0
Bi	209		ug/L			474715	473840	0
Th	232	0.407	ug/L	0.003	0	606	27444	0
[ U	238	0.078	ug/L	0.002	2	112	5601	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 A SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 20:20:29

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Del

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	782710	1
[ Be	9	0.231	ug/L	0.026	11	36	214	10
C	13		mg/L			5876	6227	1
Cl	37		mg/L			1504009	1413934	0
[> Sc	45		ug/L			380007	459787	0
V	51	26.431	ug/L	0.128	0	2644	516171	0
V-1	51	26.199	ug/L	0.082	0	1412	518287	0
Cr	52	9.298	ug/L	0.125	1	7985	165754	1
Cr	53	9.414	ug/L	0.056	0	508	19407	1
Mn	55	530.865	ug/L	4.279	0	475	15312034	0
Co	59	5.813	ug/L	0.010	0	57	119925	1
[> Ge	72		ug/L			343117	342553	1
Ni	60	6.723	ug/L	0.058	0	51	23249	1
Ni	62	7.348	ug/L	0.049	0	104	3797	1
Cu	63	11.212	ug/L	0.172	1	189	78772	0
Cu	65	11.087	ug/L	0.144	1	102	36223	1
Zn	66	47.470	ug/L	0.113	0	361	103268	1
Zn	67	46.356	ug/L	1.402	3	114	17762	1
Zn	68	48.211	ug/L	0.174	0	5267	78333	1
As	75	4.916	ug/L	0.037	0	207	10384	0
As-1	75	4.783	ug/L	0.046	0	7626	17124	0
Se	82	-0.125	ug/L	0.058	46	1	-36	48
Se	78	-0.885	ug/L	0.083	9	7936	7324	0
[ Mo	98	0.109	ug/L	0.005	4	33	994	3
Y	89		ug/L			421394	750968	1
Kr	83		ug/L			213	276	5
[> In	115		ug/L			454759	461843	1
Ag	107	0.104	ug/L	0.004	3	65	1597	4
Cd	111	0.605	ug/L	0.040	6	320	2566	5
Cd	114	0.104	ug/L	0.002	1	20	896	0
Sb	121	-0.015	ug/L	0.001	3	263	117	5
Sb	123	-0.016	ug/L	0.000	2	197	78	2
Ba	135	93.294	ug/L	0.668	0	24	268116	0
Ba	137	92.942	ug/L	0.351	0	39	463745	0
[> Tb	159		ug/L			546178	567419	0
Tl	205	0.050	ug/L	0.001	1	71	2191	1
Pb	208	9.899	ug/L	0.096	0	475	560799	1
Bi	209		ug/L			474715	462697	1
Th	232	1.922	ug/L	0.009	0	606	131336	0
[ U	238	0.356	ug/L	0.002	0	112	26111	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 ADUP SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 20:26:25

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Del

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			769133	773902	0
[	Be	9	ug/L	0.031	14	36	196	12
	C	13	mg/L			5876	6104	2
	Cl	37	mg/L			1504009	1419250	0
[>	Sc	45	ug/L			380007	462449	1
[	V	51	ug/L	0.245	0	2644	509470	1
	V-1	51	ug/L	0.216	0	1412	511432	1
	Cr	52	ug/L	0.105	1	7985	159276	0
	Cr	53	ug/L	0.015	0	508	18625	1
	Mn	55	ug/L	5.132	0	475	15849742	0
[	Co	59	ug/L	0.086	1	57	120951	0
[>	Ge	72	ug/L			343117	343043	0
[	Ni	60	ug/L	0.040	0	51	23046	0
	Ni	62	ug/L	0.134	1	104	3802	1
	Cu	63	ug/L	0.068	0	189	78217	0
	Cu	65	ug/L	0.094	0	102	36887	1
	Zn	66	ug/L	0.181	0	361	103920	0
	Zn	67	ug/L	0.072	0	114	18017	0
	Zn	68	ug/L	0.159	0	5267	79104	0
	As	75	ug/L	0.047	0	207	10493	1
	As-1	75	ug/L	0.069	1	7626	17212	1
	Se	82	ug/L	0.010	10	1	-27	11
	Se	78	ug/L	0.078	8	7936	7317	0
[	Mo	98	ug/L	0.004	3	33	997	3
	Y	89	ug/L			421394	759787	0
	Kr	83	ug/L			213	272	1
[>	In	115	ug/L			454759	462065	0
[	Ag	107	ug/L	0.001	0	65	1557	1
	Cd	111	ug/L	0.038	5	320	2710	5
	Cd	114	ug/L	0.003	2	20	929	3
	Sb	121	ug/L	0.001	7	263	116	10
	Sb	123	ug/L	0.000	3	197	90	4
	Ba	135	ug/L	0.245	0	24	257785	0
[	Ba	137	ug/L	0.297	0	39	444004	0
[>	Tb	159	ug/L			546178	568597	0
	Tl	205	ug/L	0.001	2	71	2215	2
	Pb	208	ug/L	0.056	0	475	532955	0
	Bi	209	ug/L			474715	465509	0
	Th	232	ug/L	0.015	0	606	131528	0
[	U	238	ug/L	0.004	1	112	26470	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 ASPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Thursday, February 28, 2013 20:32:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Del

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	778159	0
[ Be	9	21.778	ug/L	0.325	1	36	16593	1
C	13		mg/L			5876	5761	1
Cl	37		mg/L			1504009	1404684	0
[> Sc	45		ug/L			380007	462101	0
V	51	48.370	ug/L	0.987	2	2644	946792	2
V-1	51	48.098	ug/L	0.910	1	1412	954939	2
Cr	52	28.899	ug/L	0.176	0	7985	497333	1
Cr	53	29.005	ug/L	0.241	0	508	58804	0
Mn	55	568.302	ug/L	4.375	0	475	16475468	1
[ Co	59	24.571	ug/L	0.187	0	57	509234	1
[> Ge	72		ug/L			343117	341093	0
Ni	60	29.586	ug/L	0.357	1	51	101696	1
Ni	62	31.085	ug/L	0.342	1	104	15662	1
Cu	63	34.482	ug/L	0.124	0	189	240847	0
Cu	65	34.405	ug/L	0.116	0	102	111723	0
Zn	66	121.885	ug/L	0.209	0	361	263467	0
Zn	67	113.855	ug/L	0.452	0	114	43286	0
Zn	68	121.634	ug/L	1.732	1	5267	188811	1
As	75	29.982	ug/L	0.070	0	207	62008	0
As-1	75	28.231	ug/L	0.094	0	7626	63479	0
Se	82	69.760	ug/L	0.507	0	1	20659	0
Se	78	69.587	ug/L	0.617	0	7936	54686	0
[ Mo	98	17.590	ug/L	0.147	0	33	154496	1
Y	89		ug/L			421394	747940	1
Kr	83		ug/L			213	296	2
[> In	115		ug/L			454759	459357	0
Ag	107	19.830	ug/L	0.408	2	65	291035	1
Cd	111	24.044	ug/L	0.221	0	320	88890	1
Cd	114	23.855	ug/L	0.185	0	20	199632	0
Sb	121	0.746	ug/L	0.009	1	263	7790	1
Sb	123	0.742	ug/L	0.016	2	197	5811	1
Ba	135	120.845	ug/L	1.405	1	24	345407	0
[ Ba	137	119.518	ug/L	0.799	0	39	593132	0
[> Tb	159		ug/L			546178	565750	0
Tl	205	22.412	ug/L	0.052	0	71	944761	0
Pb	208	33.539	ug/L	0.110	0	475	1893399	0
Bi	209		ug/L			474715	461293	1
Th	232	25.021	ug/L	0.179	0	606	1697225	1
[ U	238	23.418	ug/L	0.023	0	112	1706533	0

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WE83-APOST-SWN~~ ZZZZZZ

Sample Dil Factor: 20 ZA 3/1/13

Comments:

Sample Date/Time: Thursday, February 28, 2013 20:38:17

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

D-1

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	768502	0
[ Be	9	23.111	ug/L	0.269	1	36	17387	0
C	13		mg/L			5876	6232	1
Cl	37		mg/L			1504009	1416772	0
[> Sc	45		ug/L			380007	452155 ✓	1
V	51	46.494	ug/L	0.592	1	2644	890414	0
V-1	51	46.232	ug/L	0.664	1	1412	897999	0
Cr	52	29.619	ug/L	0.384	1	7985	498430	0
Cr	53	29.628	ug/L	0.608	2	508	58748	0
Mn	55	559.450	ug/L	7.775	1	475	15867212	0
[ Co	59	25.910	ug/L	0.295	1	57	525386	1
[> Ge	72		ug/L			343117	338584	0
Ni	60	30.412	ug/L	0.147	0	51	103770	1
Ni	62	30.944	ug/L	0.313	1	104	15477	1
Cu	63	35.412	ug/L	0.322	0	189	245530	1
Cu	65	35.026	ug/L	0.272	0	102	112899	0
Zn	66	127.104	ug/L	0.343	0	361	272708	0
Zn	67	117.463	ug/L	0.530	0	114	44326	1
Zn	68	125.405	ug/L	1.675	1	5267	193063	0
As	75	31.840	ug/L	0.293	0	207	65353	0
As-1	75	29.735	ug/L	0.047	0	7626	65969	0
Se	82	76.646	ug/L	0.654	0	1	22532	1
Se	78	76.009	ug/L	0.291	0	7936	58574	1
[ Mo	98	0.116	ug/L	0.002	1	33	1045	2
Y	89		ug/L			421394	740650	1
Kr	83		ug/L			213	289	1
[> In	115		ug/L			454759	450393	1
Ag	107	24.900	ug/L	0.070	0	65	358323	1
Cd	111	25.705	ug/L	0.087	0	320	93149	1
Cd	114	25.391	ug/L	0.133	0	20	208339	1
Sb	121	-0.014	ug/L	0.001	8	263	122	10
Sb	123	-0.014	ug/L	0.001	6	197	89	7
Ba	135	120.692	ug/L	0.764	0	24	338241	0
[ Ba	137	120.736	ug/L	0.521	0	39	587513	1
[> Tb	159		ug/L			546178	562293	0
Tl	205	24.513	ug/L	0.380	1	71	1026957	1
Pb	208	34.764	ug/L	0.103	0	475	1950479	0
Bi	209		ug/L			474715	456240	0
Th	232	26.334	ug/L	0.088	0	606	1775299	0
[ U	238	24.536	ug/L	0.216	0	112	1777049	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV11

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 20:44:14

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			769133	750986 ✓	1
[	Be	9	46.589	ug/L	0.486	1	36	34213	0
	C	13		mg/L			5876	3680	1
	Cl	37		mg/L			1504009	1456952	0
[>	Sc	45		ug/L			380007	367723 ✓	1
	V	51	48.537	ug/L	0.393	0	2644	755905	0
	V-1	51	48.434	ug/L	0.244	0	1412	765130	0
	Cr	52	48.898	ug/L	0.771	1	7985	664188	0
	Cr	53	48.556	ug/L	0.178	0	508	78003	0
	Mn	55	50.269	ug/L	0.498	0	475	1160040	1
[	Co	59	47.855	ug/L	0.509	1	57	789146	0
[>	Ge	72		ug/L			343117	333961 ✓	0
	Ni	60	47.822	ug/L	0.691	1	51	160911	1
	NI	62	47.653	ug/L	0.327	0	104	23453	0
	Cu	63	48.632	ug/L	0.390	0	189	332501	0
	Cu	65	48.026	ug/L	0.515	1	102	152654	1
	Zn	66	49.677	ug/L	0.186	0	361	105343	0
	Zn	67	49.248	ug/L	0.489	0	114	18395	0
	Zn	68	49.414	ug/L	0.547	1	5267	78143	0
	As	75	48.908	ug/L	0.418	0	207	98906	0
	As-1	75	48.746	ug/L	0.442	0	7626	101922	0
	Se	82	49.660	ug/L	0.643	1	1	14400	0
	Se	78	49.219	ug/L	0.398	0	7936	40132	0
[	Mo	98	46.749	ug/L	0.377	0	33	401971	1
	Y	89		ug/L			421394	408073	0
	Kr	83		ug/L			213	219	4
[>	In	115		ug/L			454759	448588 ✓	0
	Ag	107	48.628	ug/L	0.498	1	65	696920	1
	Cd	111	49.632	ug/L	0.341	0	320	178845	0
	Cd	114	49.807	ug/L	0.699	1	20	407058	1
	Sb	121	50.562	ug/L	0.171	0	263	498135	0
	Sb	123	50.691	ug/L	0.542	1	197	374723	1
	Ba	135	49.400	ug/L	0.621	1	24	137906	0
[	Ba	137	49.306	ug/L	0.468	0	39	238975	0
[>	Tb	159		ug/L			546178	542697 ✓	0
	Tl	205	50.148	ug/L	2.400	4	71	2027406	4
	Pb	208	50.028	ug/L	0.300	0	475	2708814	0
	Bi	209		ug/L			474715	454962	0
	Th	232	52.883	ug/L	0.459	0	606	3440147	0
[	U	238	51.471	ug/L	0.326	0	112	3597690	0

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB11

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 20:50:33

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			769133	744762 ✓	2
[	Be	9	0.002	ug/L	0.012	564	36	37	24
	C	13		mg/L			5876	5536	4
	Cl	37		mg/L			1504009	1481244	0
[>	Sc	45		ug/L			380007	360779 ✓	0
	V	51	-0.003	ug/L	0.004	131	2644	2464	2
	V-1	51	0.004	ug/L	0.001	21	1412	1406	1
	Cr	52	-0.005	ug/L	0.005	99	7985	7512	1
	Cr	53	0.018	ug/L	0.006	31	508	510	1
	Mn	55	0.010	ug/L	0.000	2	475	688	0
[	Co	59	0.000	ug/L	0.001	161	57	61	19
[>	Ge	72		ug/L			343117	332273 ✓	0
	Ni	60	0.001	ug/L	0.002	246	51	52	9
	Ni	62	-0.006	ug/L	0.031	508	104	98	16
	Cu	63	0.005	ug/L	0.003	67	189	218	10
	Cu	65	0.002	ug/L	0.004	180	102	107	13
	Zn	66	0.000	ug/L	0.006	2103	361	350	3
	Zn	67	-0.005	ug/L	0.036	738	114	109	12
	Zn	68	-0.037	ug/L	0.046	124	5267	5047	1
	As	75	0.005	ug/L	0.009	190	207	209	7
	As-1	75	-0.068	ug/L	0.040	58	7626	7254	0
	Se	82	-0.044	ug/L	0.057	130	1	-11	145
	Se	78	-0.235	ug/L	0.095	40	7936	7531	0
[	Mo	98	0.006	ug/L	0.004	63	33	80	36
	Y	89		ug/L			421394	405038	0
	Kr	83		ug/L			213	213	5
[>	In	115		ug/L			454759	443311 ✓	0
	Ag	107	0.004	ug/L	0.001	28	65	120	13
	Cd	111	-0.002	ug/L	0.002	93	320	307	1
	Cd	114	0.001	ug/L	0.000	30	20	30	10
	Sb	121	0.054	ug/L	0.022	41	263	785	27
	Sb	123	0.057	ug/L	0.019	33	197	610	22
	Ba	135	0.004	ug/L	0.006	156	24	33	45
[	Ba	137	-0.000	ug/L	0.001	427	39	36	16
[>	Tb	159		ug/L			546178	528892 ✓	0
	Tl	205	0.003	ug/L	0.001	24	71	167	13
	Pb	208	0.002	ug/L	0.001	44	475	568	7
	Bi	209		ug/L			474715	459339	0
	Th	232	0.023	ug/L	0.010	45	606	2017	31
[	U	238	0.001	ug/L	0.001	48	112	208	22

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 H SWN

Sample Dil Factor: 20 BA 3/1/13

Comments:

Sample Date/Time: Thursday, February 28, 2013 20:56:00

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	779304 ✓	1
[ Be	9	0.110	ug/L	0.013	11	36	120	9
C	13		mg/L			5876	7412	1
Cl	37		mg/L			1504009	1438536	0
[> Sc	45		ug/L			380007	425845 ✓	0
V	51	19.152	ug/L	0.055	0	2644	347239	0
V-1	51	19.054	ug/L	0.050	0	1412	349554	0
Cr	52	12.618	ug/L	0.004	0	7985	205146	0
Cr	53	12.632	ug/L	0.068	0	508	23921	0
Mn	55	370.272	ug/L	1.927	0	475	9892279	0
Co	59	4.337	ug/L	0.011	0	57	82890	0
[> Ge	72		ug/L			343117	342477 ✓	0
Ni	60	7.239	ug/L	0.057	0	51	25022	0
Ni	62	8.298	ug/L	0.197	2	104	4274	2
Cu	63	8.194	ug/L	0.043	0	189	57609	0
Cu	65	8.202	ug/L	0.053	0	102	26823	1
Zn	66	41.557	ug/L	0.103	0	361	90432	0
Zn	67	40.514	ug/L	0.201	0	114	15538	0
Zn	68	42.209	ug/L	0.277	0	5267	69221	0
As	75	2.061	ug/L	0.005	0	207	4472	0
As-1	75	1.823	ug/L	0.036	1	7626	11236	0
Se	82	-0.077	ug/L	0.081	105	1	-21	112
Se	78	-0.873	ug/L	0.108	12	7936	7332	0
[ Mo	98	0.176	ug/L	0.003	1	33	1583	2
Y	89		ug/L			421394	650644	0
Kr	83		ug/L			213	255	4
[> In	115		ug/L			454759	454463 ✓	0
Ag	107	0.058	ug/L	0.001	2	65	901	2
Cd	111	0.447	ug/L	0.021	4	320	1950	3
Cd	114	0.070	ug/L	0.004	5	20	602	5
Sb	121	0.004	ug/L	0.002	49	263	306	6
Sb	123	0.002	ug/L	0.007	281	197	214	22
Ba	135	89.993	ug/L	1.293	1	24	254512	1
Ba	137	89.856	ug/L	1.222	1	39	441201	1
[> Tb	159		ug/L			546178	561342 ✓	0
Tl	205	0.033	ug/L	0.000	1	71	1448	0
Pb	208	5.430	ug/L	0.037	0	475	304537	0
Bi	209		ug/L			474715	461778	0
Th	232	1.487	ug/L	0.008	0	606	100678	0
[ U	238	0.261	ug/L	0.003	1	112	19019	0

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 I SWN

Sample Dil Factor: 20 *BA 3/1/13*

Comments:

Sample Date/Time: Thursday, February 28, 2013 21:01:56

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

*CS*

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6	ug/L			769133	788479 ✓	1
[	Be	9	ug/L	0.037	9	36	332	8
	C	13	mg/L			5876	6211	0
	Cl	37	mg/L			1504009	1453676	0
[>	Sc	45	ug/L			380007	438088 ✓	1
	V	51	ug/L	0.297	1	2644	455779	0
	V-1	51	ug/L	0.283	1	1412	456281	0
	Cr	52	ug/L	0.056	0	7985	102038	0
	Cr	53	ug/L	0.026	0	508	11691	0
	Mn	55	ug/L	3.008	1	475	7990937	0
[	Co	59	ug/L	0.043	0	57	101439	0
[>	Ge	72	ug/L			343117	352706 ✓	0
	Ni	60	ug/L	0.054	0	51	21451	1
	Ni	62	ug/L	0.077	1	104	3231	1
	Cu	63	ug/L	0.078	1	189	34068	1
	Cu	65	ug/L	0.052	1	102	16041	1
	Zn	66	ug/L	0.369	0	361	113815	0
	Zn	67	ug/L	0.334	0	114	19030	1
	Zn	68	ug/L	0.360	0	5267	84691	0
	As	75	ug/L	0.032	0	207	8939	0
	As-1	75	ug/L	0.070	1	7626	15822	1
	Se	82	ug/L	0.022	87	1	8	73
	Se	78	ug/L	0.132	14	7936	7509	1
[	Mo	98	ug/L	0.001	2	33	528	1
	Y	89	ug/L			421394	731153	1
	Kr	83	ug/L			213	248	0
[>	In	115	ug/L			454759	466443 ✓	0
	Ag	107	ug/L	0.003	10	65	491	9
	Cd	111	ug/L	0.006	2	320	1086	2
	Cd	114	ug/L	0.007	13	20	457	12
	Sb	121	ug/L	0.001	5	263	168	3
	Sb	123	ug/L	0.002	26	197	132	12
	Ba	135	ug/L	0.634	0	24	227836	1
[	Ba	137	ug/L	1.031	1	39	391941	0
[>	Tb	159	ug/L			546178	576494 ✓	0
	Tl	205	ug/L	0.001	1	71	1683	0
	Pb	208	ug/L	0.088	0	475	523184	0
	Bi	209	ug/L			474715	466618	0
	Th	232	ug/L	0.017	0	606	169865	0
[	U	238	ug/L	0.001	0	112	18911	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 J SWN

Sample Dil Factor: 20 BA 3/1/13

Comments:

Sample Date/Time: Thursday, February 28, 2013 21:07:54

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

CR

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			769133	788753 ✓	1
[ Be	9	0.411	ug/L	0.028	6	36	354	6
C	13		mg/L			5876	5663	1
Cl	37		mg/L			1504009	1427203	0
> Sc	45		ug/L			380007	442675 ✓	0
V	51	29.860	ug/L	0.281	0	2644	561032	1
V-1	51	29.624	ug/L	0.298	1	1412	564003	1
Cr	52	13.960	ug/L	0.096	0	7985	234929	0
Cr	53	14.001	ug/L	0.174	1	508	27497	0
Mn	55	375.520	ug/L	6.652	1	475	10428070	1
[ Co	59	6.404	ug/L	0.029	0	57	127192	1
> Ge	72		ug/L			343117	344645 ✓	0
Ni	60	13.295	ug/L	0.115	0	51	46206	1
Ni	62	21.286	ug/L	0.603	2	104	10869	2
Cu	63	12.971	ug/L	0.075	0	189	91659	0
Cu	65	13.373	ug/L	0.134	0	102	43944	1
Zn	66	45.613	ug/L	0.303	0	361	99849	0
Zn	67	45.615	ug/L	0.630	1	114	17592	1
Zn	68	46.114	ug/L	0.415	0	5267	75614	1
As	75	6.282	ug/L	0.055	0	207	13293	1
As-1	75	6.212	ug/L	0.061	0	7626	20087	1
Se	82	-0.034	ug/L	0.036	105	1	-8	122
Se	78	-0.795	ug/L	0.077	9	7936	7431	1
[ Mo	98	0.159	ug/L	0.002	1	33	1444	1
Y	89		ug/L			421394	705109	0
Kr	83		ug/L			213	269	1
> In	115		ug/L			454759	463823 ✓	0
Ag	107	0.231	ug/L	0.003	1	65	3484	0
Cd	111	0.947	ug/L	0.035	3	320	3848	2
Cd	114	0.086	ug/L	0.003	3	20	749	4
Sb	121	-0.003	ug/L	0.001	24	263	236	4
Sb	123	-0.003	ug/L	0.004	135	197	177	19
Ba	135	126.154	ug/L	0.306	0	24	364110	0
[ Ba	137	126.152	ug/L	0.452	0	39	632145	0
> Tb	159		ug/L			546178	568888 ✓	0
Tl	205	0.111	ug/L	0.001	0	71	4781	0
Pb	208	7.185	ug/L	0.018	0	475	408250	0
Bi	209		ug/L			474715	463287	0
Th	232	2.901	ug/L	0.013	0	606	198416	0
[ U	238	0.551	ug/L	0.002	0	112	40497	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 B-L SWN

Sample Dil Factor: 100 BA 3/1/13

Comments:

Sample Date/Time: Thursday, February 28, 2013 21:13:52

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

CR

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			769133	790769 ✓	0
[ Be	9	0.030	ug/L	0.008	27	36	60	10
C	13		mg/L			5876	5367	0
Cl	37		mg/L			1504009	1472269	0
> Sc	45		ug/L			380007	391149 ✓	1
V	51	4.340	ug/L	0.058	1	2644	74381	1
V-1	51	4.317	ug/L	0.041	0	1412	73856	0
Cr	52	1.524	ug/L	0.034	2	7985	29981	1
Cr	53	1.588	ug/L	0.047	2	508	3220	2
Mn	55	101.598	ug/L	2.753	2	475	2492997	1
Co	59	0.973	ug/L	0.022	2	57	17127	1
> Ge	72		ug/L			343117	344965 ✓	0
Ni	60	1.146	ug/L	0.008	0	51	4032	0
Ni	62	1.321	ug/L	0.036	2	104	773	2
Cu	63	2.134	ug/L	0.022	1	189	15253	0
Cu	65	2.129	ug/L	0.018	0	102	7087	0
Zn	66	7.436	ug/L	0.013	0	361	16597	0
Zn	67	7.193	ug/L	0.323	4	114	2873	4
Zn	68	7.573	ug/L	0.043	0	5267	16855	0
As	75	0.750	ug/L	0.018	2	207	1772	2
As-1	75	0.629	ug/L	0.008	1	7626	8926	0
Se	82	-0.033	ug/L	0.010	30	1	-8	35
Se	78	-0.484	ug/L	0.022	4	7936	7649	0
Mo	98	0.016	ug/L	0.000	2	33	179	2
Y	89		ug/L			421394	466113	0
Kr	83		ug/L			213	214	2
> In	115		ug/L			454759	461195 ✓	1
Ag	107	0.014	ug/L	0.002	13	65	267	8
Cd	111	0.076	ug/L	0.008	9	320	607	2
Cd	114	0.021	ug/L	0.002	7	20	200	5
Sb	121	-0.016	ug/L	0.001	3	263	104	6
Sb	123	-0.016	ug/L	0.001	4	197	80	7
Ba	135	13.337	ug/L	0.138	1	24	38295	0
Ba	137	13.278	ug/L	0.267	2	39	66181	0
> Tb	159		ug/L			546178	549975 ✓	0
Tl	205	0.007	ug/L	0.001	14	71	345	11
Pb	208	0.653	ug/L	0.006	0	475	36307	0
Bi	209		ug/L			474715	475319	0
Th	232	0.218	ug/L	0.003	1	606	14974	1
U	238	0.040	ug/L	0.001	3	112	2978	2

# ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 B SWN

Sample Dil Factor: 20 BA 3/1/13

Comments:

Sample Date/Time: Thursday, February 28, 2013 21:19:49

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

CK

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	806778 ✓	0
[ Be	9	0.140	ug/L	0.013	9	36	148	5
C	13		mg/L			5876	7350	0
Cl	37		mg/L			1504009	1437171	1
[> Sc	45		ug/L			380007	436376 ✓	0
V	51	20.053	ug/L	0.151	0	2644	372395	0
V-1	51	19.842	ug/L	0.132	0	1412	372937	0
Cr	52	7.158	ug/L	0.054	0	7985	123213	0
Cr	53	7.133	ug/L	0.033	0	508	14096	0
Mn	55	469.269	ug/L	5.299	1	475	12846448	0
[ Co	59	4.509	ug/L	0.019	0	57	88303	0
[> Ge	72		ug/L			343117	347884 ✓	0
Ni	60	5.756	ug/L	0.080	1	51	20223	1
Ni	62	6.710	ug/L	0.076	1	104	3531	1
Cu	63	10.419	ug/L	0.060	0	189	74359	1
Cu	65	10.441	ug/L	0.022	0	102	34653	0
Zn	66	34.237	ug/L	0.283	0	361	75744	1
Zn	67	33.938	ug/L	0.363	1	114	13241	1
Zn	68	34.917	ug/L	0.198	0	5267	59089	0
As	75	3.794	ug/L	0.040	1	207	8186	1
As-1	75	3.668	ug/L	0.033	0	7626	15138	0
Se	82	0.003	ug/L	0.014	533	1	2	195
Se	78	-0.736	ug/L	0.080	10	7936	7541	0
[ Mo	98	0.083	ug/L	0.004	4	33	776	3
Y	89		ug/L			421394	654804	0
Kr	83		ug/L			213	239	2
[> In	115		ug/L			454759	463213 ✓	0
Ag	107	0.053	ug/L	0.004	7	65	848	6
Cd	111	0.379	ug/L	0.026	6	320	1733	5
Cd	114	0.112	ug/L	0.005	4	20	964	4
Sb	121	-0.009	ug/L	0.002	24	263	173	13
Sb	123	-0.008	ug/L	0.001	16	197	138	7
Ba	135	68.486	ug/L	0.634	0	24	197417	0
[ Ba	137	68.696	ug/L	0.993	1	39	343794	1
[> Tb	159		ug/L			546178	565725 ✓	0
Tl	205	0.033	ug/L	0.001	3	71	1444	3
Pb	208	3.220	ug/L	0.021	0	475	182189	0
Bi	209		ug/L			474715	469026	0
Th	232	1.095	ug/L	0.003	0	606	74866	0
[ U	238	0.200	ug/L	0.003	1	112	14687	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 BDUP SWN

Sample Dil Factor: 20 BA 3/1/13

Comments:

Sample Date/Time: Thursday, February 28, 2013 21:25:47

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

C

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	796626 ✓	1
[ Be	9	0.138	ug/L	0.015	11	36	145	9
C	13		mg/L			5876	7523	2
Cl	37		mg/L			1504009	1440982	1
[> Sc	45		ug/L			380007	431472 ✓	0
V	51	20.436	ug/L	0.080	0	2644	375202	0
V-1	51	20.256	ug/L	0.099	0	1412	376402	0
Cr	52	7.393	ug/L	0.094	1	7985	125540	1
Cr	53	7.471	ug/L	0.159	2	508	14569	1
Mn	55	442.488	ug/L	3.477	0	475	11977884	1
Co	59	4.391	ug/L	0.049	1	57	85030	0
[> Ge	72		ug/L			343117	346815 ✓	0
Ni	60	5.547	ug/L	0.033	0	51	19428	0
Ni	62	6.663	ug/L	0.240	3	104	3496	2
Cu	63	10.307	ug/L	0.086	0	189	73335	0
Cu	65	10.372	ug/L	0.104	0	102	34317	0
Zn	66	34.887	ug/L	0.233	0	361	76935	0
Zn	67	34.279	ug/L	0.143	0	114	13331	0
Zn	68	35.283	ug/L	0.240	0	5267	59468	0
As	75	3.387	ug/L	0.020	0	207	7309	0
As-1	75	3.236	ug/L	0.043	1	7626	14223	0
Se	82	-0.026	ug/L	0.039	151	1	-6	185
Se	78	-0.751	ug/L	0.086	11	7936	7507	0
[ Mo	98	0.093	ug/L	0.001	1	33	867	1
Y	89		ug/L			421394	641414	1
Kr	83		ug/L			213	250	2
[> In	115		ug/L			454759	464908 ✓	0
Ag	107	0.051	ug/L	0.001	2	65	820	2
Cd	111	0.337	ug/L	0.008	2	320	1583	2
Cd	114	0.108	ug/L	0.003	3	20	935	2
Sb	121	-0.012	ug/L	0.002	18	263	147	15
Sb	123	-0.012	ug/L	0.002	17	197	108	14
Ba	135	66.220	ug/L	0.721	1	24	191583	0
[ Ba	137	66.348	ug/L	0.537	0	39	333263	0
[> Tb	159		ug/L			546178	563458 ✓	0
Tl	205	0.033	ug/L	0.002	4	71	1455	5
Pb	208	2.907	ug/L	0.046	1	475	163860	1
Bi	209		ug/L			474715	466996	0
Th	232	1.114	ug/L	0.002	0	606	75859	0
[ U	238	0.196	ug/L	0.002	1	112	14309	0



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 BSPK SWN

Sample Dil Factor: 20 BA 3/1/13

Comments:

Sample Date/Time: Thursday, February 28, 2013 21:31:44

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

CS

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	793983 ✓	1
[ Be	9	21.657	ug/L	0.114	0	36	16836	1
C	13		mg/L			5876	6259	1
Cl	37		mg/L			1504009	1422635	0
[> Sc	45		ug/L			380007	431708 ✓	0
V	51	43.178	ug/L	0.499	1	2644	789804	0
V-1	51	42.859	ug/L	0.381	0	1412	795061	0
Cr	52	27.994	ug/L	0.401	1	7985	450316	0
Cr	53	27.740	ug/L	0.057	0	508	52566	0
Mn	55	488.379	ug/L	2.653	0	475	13226897	0
Co	59	24.823	ug/L	0.225	0	57	480609	0
[> Ge	72		ug/L			343117	347510 ✓	0
Ni	60	28.263	ug/L	0.067	0	51	98980	0
Ni	62	29.302	ug/L	0.292	0	104	15048	1
Cu	63	33.191	ug/L	0.080	0	189	236203	0
Cu	65	33.332	ug/L	0.091	0	102	110281	0
Zn	66	111.568	ug/L	0.367	0	361	245733	0
Zn	67	102.570	ug/L	0.588	0	114	39741	0
Zn	68	110.226	ug/L	1.018	0	5267	174826	0
As	75	28.390	ug/L	0.281	0	207	59833	1
As-1	75	26.623	ug/L	0.085	0	7626	61430	0
Se	82	70.299	ug/L	0.369	0	1	21212	0
Se	78	70.158	ug/L	0.335	0	7936	56108	0
[ Mo	98	19.894	ug/L	0.049	0	33	178014	0
Y	89		ug/L			421394	665765	0
Kr	83		ug/L			213	254	2
[> In	115		ug/L			454759	465250 ✓	0
Ag	107	18.091	ug/L	0.173	0	65	268931	0
Cd	111	23.838	ug/L	0.101	0	320	89256	0
Cd	114	23.727	ug/L	0.181	0	20	201115	0
Sb	121	1.575	ug/L	0.024	1	263	16355	0
Sb	123	1.577	ug/L	0.022	1	197	12282	0
Ba	135	94.811	ug/L	0.459	0	24	274488	0
[ Ba	137	94.391	ug/L	1.099	1	39	474425	0
[> Tb	159		ug/L			546178	562916 ✓	1
Tl	205	22.688	ug/L	0.212	0	71	951540	0
Pb	208	26.944	ug/L	0.385	1	475	1513399	0
Bi	209		ug/L			474715	466874	0
Th	232	23.194	ug/L	0.360	1	606	1565249	0
[ U	238	23.133	ug/L	0.292	1	112	1677123	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WE83-BPOST-SWN~~ 222222

Sample Dil Factor: 20 BA 3/1/13

Comments:

Sample Date/Time: Thursday, February 28, 2013 21:37:41

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\Q22813.cal

Dol

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. intens.	Intens. RSD
[> Li	6		ug/L			769133	792769 ✓	0
[ Be	9	22.978	ug/L	0.194	0	36	17833	0
C	13		mg/L			5876	6999	1
Cl	37		mg/L			1504009	1443450	0
[> Sc	45		ug/L			380007	433257 ✓	0
V	51	41.763	ug/L	0.400	0	2644	766758	0
V-1	51	41.578	ug/L	0.417	1	1412	774108	0
Cr	52	28.894	ug/L	0.181	0	7985	466190	0
Cr	53	28.951	ug/L	0.402	1	508	55029	1
Mn	55	497.629	ug/L	2.047	0	475	13525706	0
Co	59	25.859	ug/L	0.087	0	57	502477	0
[> Ge	72		ug/L			343117	345914 ✓	0
Ni	60	30.070	ug/L	0.148	0	51	104820	0
NI	62	30.859	ug/L	0.387	1	104	15768	0
Cu	63	35.100	ug/L	0.390	1	189	248621	0
Cu	65	34.909	ug/L	0.340	0	102	114959	0
Zn	66	114.110	ug/L	0.714	0	361	250167	0
Zn	67	105.064	ug/L	0.360	0	114	40517	0
Zn	68	112.701	ug/L	1.282	1	5267	177802	0
As	75	30.793	ug/L	0.090	0	207	64580	0
As-1	75	28.597	ug/L	0.353	1	7626	65109	0
Se	82	77.492	ug/L	0.353	0	1	23274	0
Se	78	76.679	ug/L	1.160	1	7936	60295	0
[ Mo	98	0.095	ug/L	0.005	5	33	877	5
Y	89		ug/L			421394	648270	0
Kr	83		ug/L			213	259	2
[> In	115		ug/L			454759	461362 ✓	0
Ag	107	25.005	ug/L	0.536	2	65	368555	1
Cd	111	25.472	ug/L	0.366	1	320	94553	0
Cd	114	25.477	ug/L	0.243	0	20	214136	0
Sb	121	-0.009	ug/L	0.001	9	263	172	4
Sb	123	-0.009	ug/L	0.002	24	197	131	12
Ba	135	94.773	ug/L	0.665	0	24	272085	0
Ba	137	94.488	ug/L	0.340	0	39	470975	0
[> Tb	159		ug/L			546178	565146 ✓	0
Tl	205	24.860	ug/L	0.174	0	71	1046782	0
Pb	208	28.508	ug/L	0.328	1	475	1607604	0
Bi	209		ug/L			474715	470834	0
Th	232	25.664	ug/L	0.393	1	606	1738719	0
[ U	238	24.409	ug/L	0.351	1	112	1776678	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV12

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 21:43:38

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	776014 ✓	0
[ Be	9	45.402	ug/L	0.584	1	36	34456	0
C	13		mg/L			5876	3805	1
Cl	37		mg/L			1504009	1441077	0
[> Sc	45		ug/L			380007	372739 ✓	1
V	51	47.932	ug/L	0.294	0	2644	756735	0
V-1	51	48.107	ug/L	0.398	0	1412	770337	0
Cr	52	48.197	ug/L	0.393	0	7985	663759	0
Cr	53	48.734	ug/L	0.309	0	508	79354	0
Mn	55	50.032	ug/L	0.353	0	475	1170343	0
[ Co	59	47.386	ug/L	0.429	0	57	792053	0
[> Ge	72		ug/L			343117	335656 ✓	0
Ni	60	47.788	ug/L	0.678	1	51	161604	0
Ni	62	47.684	ug/L	0.837	1	104	23586	1
Cu	63	48.565	ug/L	0.954	1	189	333701	1
Cu	65	47.760	ug/L	0.302	0	102	152577	0
Zn	66	50.002	ug/L	0.284	0	361	106566	0
Zn	67	49.486	ug/L	1.021	2	114	18579	2
Zn	68	49.468	ug/L	0.163	0	5267	78624	1
As	75	49.227	ug/L	0.431	0	207	100053	0
As-1	75	49.034	ug/L	0.385	0	7626	102998	0
Se	82	50.421	ug/L	0.666	1	1	14694	0
Se	78	49.953	ug/L	0.545	1	7936	40820	0
[ Mo	98	46.754	ug/L	0.220	0	33	404033	0
Y	89		ug/L			421394	414122	0
Kr	83		ug/L			213	223	3
[> In	115		ug/L			454759	455332 ✓	1
Ag	107	48.413	ug/L	0.453	0	65	704220	0
Cd	111	49.732	ug/L	0.411	0	320	181890	0
Cd	114	49.777	ug/L	0.523	1	20	412869	0
Sb	121	49.889	ug/L	0.556	1	263	498842	0
Sb	123	50.110	ug/L	0.469	0	197	375966	0
Ba	135	49.031	ug/L	0.435	0	24	138931	0
[ Ba	137	48.859	ug/L	0.372	0	39	240362	0
[> Tb	159		ug/L			546178	543586 ✓	0
Tl	205	49.903	ug/L	1.609	3	71	2021415	4
Pb	208	50.072	ug/L	0.336	0	475	2715617	0
Bi	209		ug/L			474715	456520	0
Th	232	52.659	ug/L	0.519	0	606	3431098	0
[ U	238	51.689	ug/L	0.695	1	112	3618657	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB12

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, February 28, 2013 21:49:57

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			769133	773263 ✓	1
[ Be	9	-0.014	ug/L	0.009	66	36	26	25
C	13		mg/L			5876	5323	2
Cl	37		mg/L			1504009	1448449	1
[> Sc	45		ug/L			380007	367176 ✓	0
V	51	-0.007	ug/L	0.007	100	2644	2447	4
V-1	51	-0.004	ug/L	0.003	68	1412	1299	3
Cr	52	-0.003	ug/L	0.003	103	7985	7677	0
Cr	53	0.006	ug/L	0.014	240	508	500	4
Mn	55	0.008	ug/L	0.002	22	475	632	6
[ Co	59	0.001	ug/L	0.000	24	57	65	3
[> Ge	72		ug/L			343117	333995 ✓	0
Ni	60	0.001	ug/L	0.001	48	51	55	4
Ni	62	-0.004	ug/L	0.024	540	104	99	11
Cu	63	0.008	ug/L	0.003	42	189	239	9
Cu	65	0.008	ug/L	0.001	15	102	125	3
Zn	66	-0.002	ug/L	0.011	490	361	347	6
Zn	67	0.018	ug/L	0.032	176	114	118	10
Zn	68	0.002	ug/L	0.064	2850	5267	5131	2
As	75	-0.008	ug/L	0.010	122	207	184	11
As-1	75	0.004	ug/L	0.017	467	7626	7430	0
Se	82	-0.027	ug/L	0.031	115	1	-6	139
Se	78	-0.013	ug/L	0.072	567	7936	7716	0
[ Mo	98	0.007	ug/L	0.003	41	33	93	26
Y	89		ug/L			421394	412930	0
Kr	83		ug/L			213	202	3
[> In	115		ug/L			454759	446940 ✓	1
Ag	107	0.004	ug/L	0.001	32	65	120	15
Cd	111	-0.009	ug/L	0.003	39	320	284	3
Cd	114	0.001	ug/L	0.001	155	20	27	41
Sb	121	0.056	ug/L	0.021	37	263	809	25
Sb	123	0.052	ug/L	0.021	40	197	573	26
Ba	135	0.003	ug/L	0.003	88	24	33	24
[ Ba	137	0.000	ug/L	0.000	860	39	38	6
[> Tb	159		ug/L			546178	535992 ✓	1
Tl	205	0.002	ug/L	0.001	49	71	168	29
Pb	208	0.002	ug/L	0.001	54	475	555	9
Bi	209		ug/L			474715	462572	1
Th	232	0.025	ug/L	0.009	37	606	2232	28
[ U	238	0.002	ug/L	0.001	47	112	234	25

**Metals Data Review Checklist**

Method: ICP (ICP-MS) GFA CVA

Analysis Date: 3-1-13

MSI	Analyst BA 3-4-13	Peer K3417	Comment
<b>Logbook</b>			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
<b>Calibration</b>			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
<b>Quality Control</b>			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	
<b>Samples</b>			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See log
Carry-over	✓	✓	
<b>Method QC</b>			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	See log
Post Spikes/Serial Dilutions	✓	✓	WE81, WE82
Analytic Spikes	—	—	
<b>Matrix QC</b>			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	WE81, WE82
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
<b>Documentation</b>			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Notes	✓	✓	CAF - WE81, WE82



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 3-1-13 Analyst: BA Page: 1 of 5

All corrections made by analyst unless otherwise noted. BA 3-4-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3009-6
		1			3016-4
		2			↓ -5
		3			3019-1
		↓ 4			3016-6
		Rinse sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low Check			
		zzzzzz			
		<del>ICSA</del>			
		zzzzzz			
		<del>ICCSAB</del>			Li, Tb ↑ <sup>67,68</sup> Zn, As <sub>2</sub> , <sup>75</sup> Se, Mo ↓
		LR200			
		LR300			
		CCV2			
		CCB2			
		ICSA			
		ICCSAB			Remade
		CCV3			
		CCB3			
		WESI MBI	SWN	20	
		↓ B	↓	↓	
		↓ C	↓	↓	



# ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 3-1-13 Analyst: BA Page: 2 of 5

All corrections made by analyst unless otherwise noted. BA 3-4-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WE81 D	SWN	20	As>LR (RR 50x)
		↓ E	↓	↓	As>LR (RR 100x) Scl↑ (RR, V)
		WE83 A-L		250	Cf
		↓ A	↓	50	↓
		↓ ADUP	↓	↓	↓
		↓ ASPK	↓	↓	↓
		WE81 MBISPK	↓	20	
4		CCV4			Bel
↓		CCB4			End WE83
		WE81 MB2	SWN	20	
		↓ F	↓	↓	
		↓ G	↓	↓	
		↓ H	↓	↓	
		↓ A-L	↓	100	V=10% → CAF
		↓ A	↓	20	
		↓ ADUP	↓	↓	
		↓ ASPK	↓	↓	AsT, Scl↓ AsSTL
		↓ APOST	↓	↓	0.06 mL ICPMS Spk #1 Z1991-12 0.06 mL ICPMS Spk #2 Z1956-7 As, SclOK
		↓ MB2SPK	↓	↓	
		CCV5			
		CCB5			
		WE81 I	SWN	20	
		↓ J	↓	↓	
		↓ K	↓	↓	Scl↑ (RR V, Cf 50x)

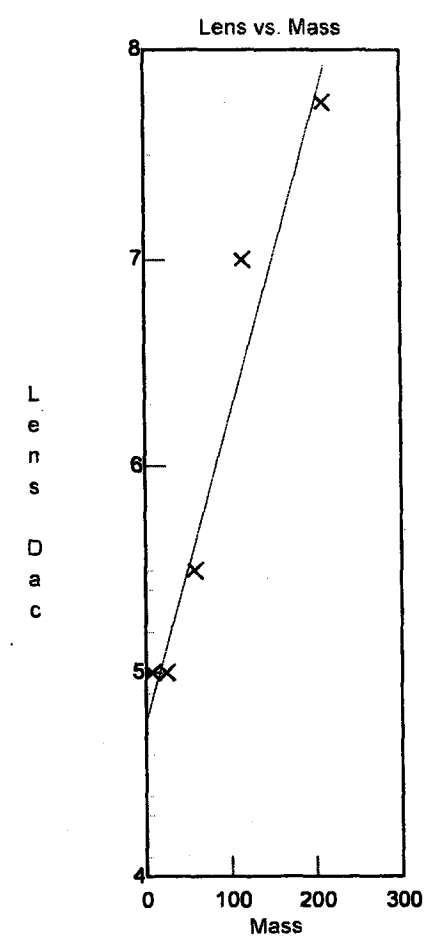
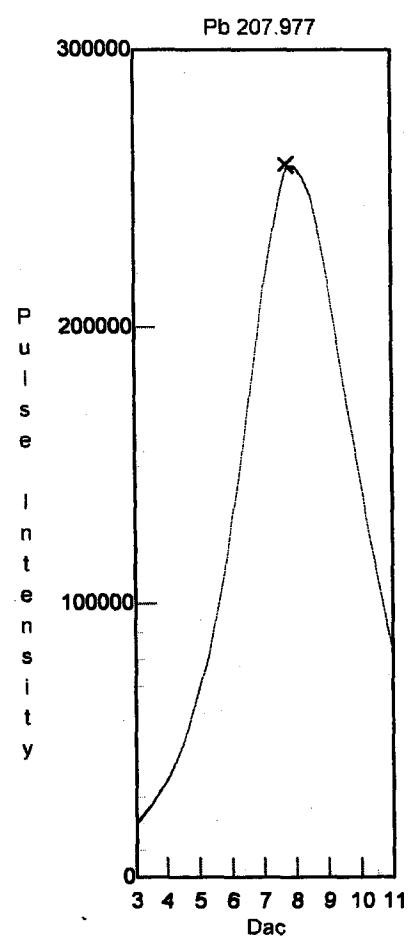
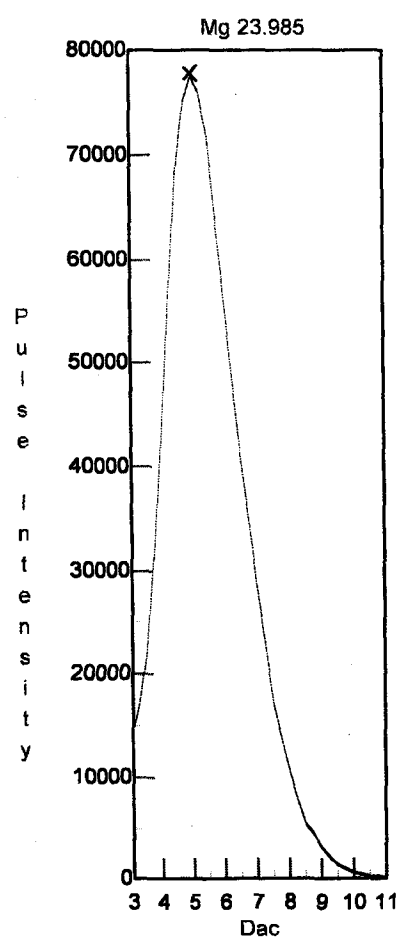
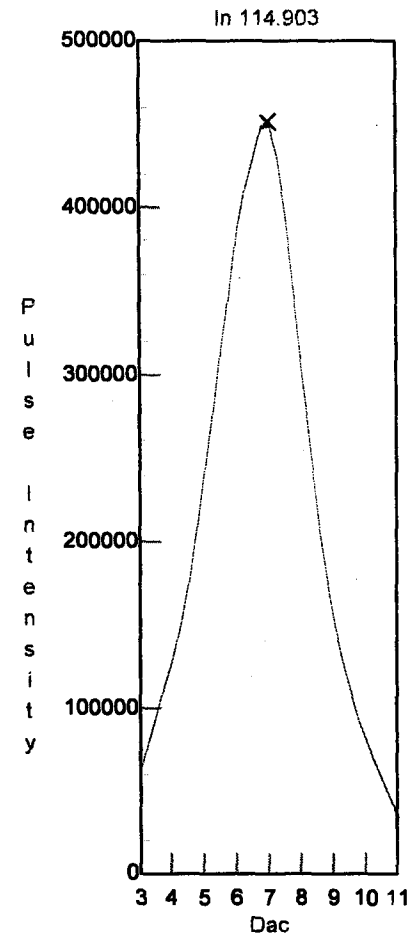
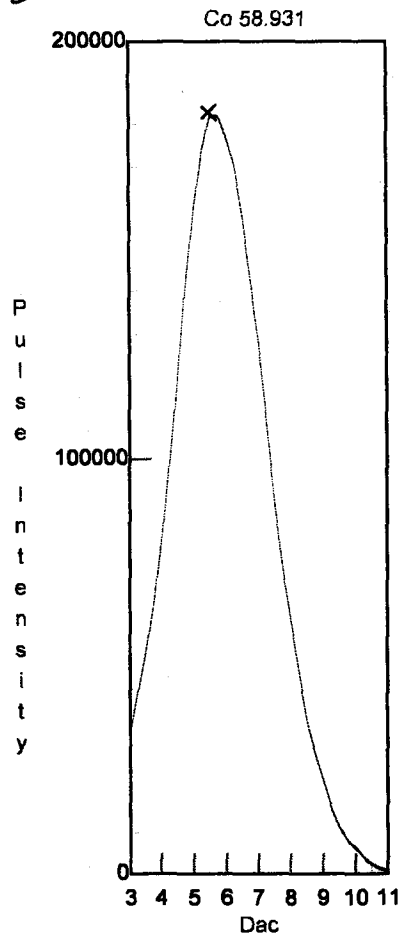
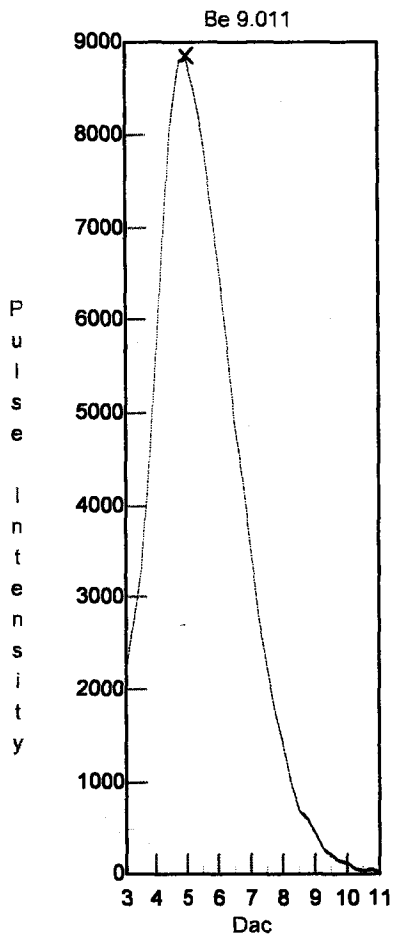
# Instrument Tuning Report

File Name: Default.tun  
File Path: C:\Elandata\Tuning\Default.tun

Analyte	Exact Mass	Meas. Mass ✓	Mass DAC	Res. DAC	Meas. Pk. Width ✓	Custom Res.
Be	9.012	9.025	2034	2152	0.685	
Mg	23.985	23.929	5654	2262	0.680	
Co	58.933	58.929	14160	2530	0.671	
In	114.904	114.929	27802	2970	0.690	
Pb	207.977	207.974	50438	3725	0.676	



3-1-13



# Daily Performance Report

Sample ID: Sample

Sample Date/Time: Friday, March 01, 2013 08:17:41

Sample Description:

Sample File: 1119.sam

Method File: C:\Elandata\Method\aridailyperf.mth

Dataset File: C:\Elandata\Dataset\daily performance\Sample.1413

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\Default.dac

Number of Replicates: 5

Dual Detector Mode: Dual

Neb 0.91

Discrim 15

## Summary

Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Mg	24	34586.894 -	722.723	2.090
In	115	236783.909 -	1626.425	0.687
Pb	208	156401.062 ✓	1923.646	1.230
[> Ba	138	180682.199	707.563	0.392
[ Ba++	69	0.012 ✓	0.000	0.700
[> Ce	140	219663.408	729.640	0.332
[ CeO	156	0.030 ✓	0.001	1.848
Bkgd	220	15.502 ✓	5.124	33.055

Mg, In w/in PE specs.

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:01:11

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L				320083	0
[ Be	9		ug/L				32	37
C	13		mg/L				5382	1
Cl	37		mg/L				1968149	0
> Sc	45		ug/L				212115	0
V	51		ug/L				1289	6
V-1	51		ug/L				2538	1
Cr	52		ug/L				3869	1
Cr	53		ug/L				836	3
Mn	55		ug/L				386	5
[ Co	59		ug/L				61	13
> Ge	72		ug/L				228607	1
Ni	60		ug/L				47	14
Ni	62		ug/L				56	29
Cu	63		ug/L				178	10
Cu	65		ug/L				90	5
Zn	66		ug/L				229	0
Zn	67		ug/L				104	3
Zn	68		ug/L				4281	0
As	75		ug/L				352	3
As-1	75		ug/L				5658	0
Se	82		ug/L				0	1923
Se	78		ug/L				5765	0
[ Mo	98		ug/L				135	16
Y	89		ug/L				218720	0
Kr	83		ug/L				189	3
> In	115		ug/L				230726	0
Ag	107		ug/L				39	6
Cd	111		ug/L				121	10
Cd	114		ug/L				20	3
Sb	121		ug/L				20	33
Sb	123		ug/L				20	11
Ba	135		ug/L				18	40
[ Ba	137		ug/L				25	31
> Tb	159		ug/L				290754	0
Tl	205		ug/L				29	17
Pb	208		ug/L				225	20
Bi	209		ug/L				234649	0
Th	232		ug/L				71	13
[ U	238		ug/L				12	26

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:07:19

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	309527	0
[ Be	9	10.000	ug/L	0.215	2	32	3830	2
C	13		mg/L			5382	4357	0
Cl	37		mg/L			1968149	1970098	0
[> Sc	45		ug/L			212115	210159	1
V	51	10.000	ug/L	0.141	1	1289	91174	0
V-1	51	10.000	ug/L	0.096	0	2538	93900	0
Cr	52	10.000	ug/L	0.186	1	3869	82678	0
Cr	53	10.000	ug/L	0.154	1	836	10214	1
Mn	55	10.000	ug/L	0.099	0	386	130229	1
[ Co	59	10.000	ug/L	0.144	1	61	93791	1
[> Ge	72		ug/L			228607	224220	0
Ni	60	10.000	ug/L	0.081	0	47	20054	0
Ni	62	10.000	ug/L	0.132	1	56	3050	1
Cu	63	10.000	ug/L	0.023	0	178	43881	0
Cu	65	10.000	ug/L	0.251	2	90	20439	2
Zn	66	10.000	ug/L	0.166	1	229	13893	0
Zn	67	10.000	ug/L	0.355	3	104	2399	3
Zn	68	10.000	ug/L	0.229	2	4281	13715	0
As	75	10.000	ug/L	0.036	0	352	13428	0
As-1	75	10.000	ug/L	0.058	0	5658	18374	0
Se	82	10.000	ug/L	0.157	1	0	1421	2
Se	78	10.000	ug/L	0.182	1	5765	9036	0
[ Mo	98	10.000	ug/L	0.183	1	135	46757	1
Y	89		ug/L			218720	215843	0
Kr	83		ug/L			189	196	2
[> In	115		ug/L			230726	229564	0
Ag	107	10.000	ug/L	0.043	0	39	74926	0
Cd	111	10.000	ug/L	0.065	0	121	19239	0
Cd	114	10.000	ug/L	0.096	0	20	43344	1
Sb	121	10.000	ug/L	0.123	1	20	66186	0
Sb	123	10.000	ug/L	0.155	1	20	50265	1
Ba	135	10.000	ug/L	0.157	1	18	16059	1
[ Ba	137	10.000	ug/L	0.129	1	25	27547	1
[> Tb	159		ug/L			290754	289664	0
Tl	205	10.000	ug/L	0.153	1	29	199727	0
Pb	208	10.000	ug/L	0.107	1	225	274156	0
Bi	209		ug/L			234649	232071	0
Th	232	10.000	ug/L	0.281	2	71	346801	2
[ U	238	10.000	ug/L	0.169	1	12	355589	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:13:28

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	314809	2
[ Be	9	19.949	ug/L	0.614	3	32	7658	1
C	13		mg/L			5382	4547	2
Cl	37		mg/L			1968149	1963374	0
[> Sc	45		ug/L			212115	209226	0
V	51	20.102	ug/L	0.101	0	1289	184929	0
V-1	51	20.101	ug/L	0.081	0	2538	189168	0
Cr	52	20.034	ug/L	0.048	0	3869	162187	0
Cr	53	20.036	ug/L	0.140	0	836	19682	0
Mn	55	19.986	ug/L	0.058	0	386	257996	0
[ Co	59	20.007	ug/L	0.077	0	61	187027	0
[> Ge	72		ug/L			228607	225897	1
Ni	60	19.961	ug/L	0.550	2	47	39963	1
Ni	62	19.818	ug/L	0.287	1	56	5824	1
Cu	63	19.926	ug/L	0.343	1	178	86624	0
Cu	65	19.964	ug/L	0.373	1	90	40726	0
Zn	66	19.796	ug/L	0.411	2	229	26416	0
Zn	67	19.799	ug/L	0.019	0	104	4508	1
Zn	68	19.859	ug/L	0.187	0	4281	22750	1
As	75	19.943	ug/L	0.260	1	352	26332	0
As-1	75	19.946	ug/L	0.376	1	5658	31085	0
Se	82	19.943	ug/L	0.297	1	0	2823	1
Se	78	19.953	ug/L	0.690	3	5765	12428	0
[ Mo	98	19.989	ug/L	0.194	0	135	93835	1
Y	89		ug/L			218720	216877	1
Kr	83		ug/L			189	205	4
[> In	115		ug/L			230726	227824	1
Ag	107	20.085	ug/L	0.534	2	39	151864	1
Cd	111	20.094	ug/L	0.213	1	121	38969	0
Cd	114	20.087	ug/L	0.129	0	20	87911	0
Sb	121	20.087	ug/L	0.268	1	20	134233	0
Sb	123	20.034	ug/L	0.294	1	20	100597	0
Ba	135	20.004	ug/L	0.178	0	18	31888	1
[ Ba	137	20.112	ug/L	0.185	0	25	56209	0
[> Tb	159		ug/L			290754	290548	0
Tl	205	20.003	ug/L	0.084	0	29	400937	0
Pb	208	20.024	ug/L	0.202	1	225	553045	1
Bi	209		ug/L			234649	234012	1
Th	232	20.037	ug/L	0.119	0	71	702239	0
[ U	238	20.049	ug/L	0.309	1	12	722175	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:19:36

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	311621	0
[ Be	9	50.000	ug/L	0.703	1	32	18959	1
C	13		mg/L			5382	3247	0
Cl	37		mg/L			1968149	1956924	0
[> Sc	45		ug/L			212115	214273	0
V	51	49.906	ug/L	1.339	2	1289	463855	1
V-1	51	49.878	ug/L	0.923	1	2538	471151	1
Cr	52	49.927	ug/L	1.135	2	3869	405113	1
Cr	53	49.837	ug/L	0.209	0	836	48110	1
Mn	55	49.895	ug/L	0.793	1	386	652230	1
[ Co	59	49.802	ug/L	0.270	0	61	467432	0
[> Ge	72		ug/L			228607	229909	0
Ni	60	49.720	ug/L	0.509	1	47	98510	1
Ni	62	49.827	ug/L	0.931	1	56	14569	2
Cu	63	49.769	ug/L	0.840	1	178	215019	1
Cu	65	49.767	ug/L	0.651	1	90	100867	1
Zn	66	49.709	ug/L	0.156	0	229	65285	0
Zn	67	49.689	ug/L	0.358	0	104	11017	0
Zn	68	49.673	ug/L	0.263	0	4281	49961	0
As	75	49.845	ug/L	0.294	0	352	65457	0
As-1	75	49.819	ug/L	0.277	0	5658	69362	0
Se	82	49.914	ug/L	0.796	1	0	7133	1
Se	78	49.771	ug/L	0.323	0	5765	22513	0
[ Mo	98	49.908	ug/L	0.201	0	135	236084	0
Y	89		ug/L			218720	221152	1
Kr	83		ug/L			189	198	3
[> In	115		ug/L			230726	233863	1
Ag	107	49.809	ug/L	0.082	0	39	379381	1
Cd	111	49.810	ug/L	0.415	0	121	97145	0
Cd	114	49.849	ug/L	0.826	1	20	220618	2
Sb	121	49.720	ug/L	0.302	0	20	331798	1
Sb	123	49.780	ug/L	0.206	0	20	251051	0
Ba	135	49.937	ug/L	0.601	1	18	81178	1
[ Ba	137	49.791	ug/L	0.659	1	25	139872	0
[> Tb	159		ug/L			290754	296563	1
Tl	205	49.873	ug/L	0.489	0	29	1007463	1
Pb	208	49.801	ug/L	0.100	0	225	1376176	1
Bi	209		ug/L			234649	235197	1
Th	232	49.932	ug/L	0.590	1	71	1773969	1
[ U	238	49.816	ug/L	0.328	0	12	1798295	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:25:45

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			320083	292341	0
[ Be	9	100.934	ug/L	1.056	1	32	37027	0
C	13		mg/L			5382	3981	2
Cl	37		mg/L			1968149	1965235	0
[>] Sc	45		ug/L			212115	214838	1
V	51	99.962	ug/L	0.994	0	1289	929161	1
V-1	51	99.963	ug/L	0.831	0	2538	943076	1
Cr	52	99.662	ug/L	1.823	1	3869	797922	0
Cr	53	99.678	ug/L	1.113	1	836	94615	0
Mn	55	99.833	ug/L	1.445	1	386	1300697	0
[ Co	59	100.139	ug/L	1.603	1	61	946618	1
[>] Ge	72		ug/L			228607	227908	0
Ni	60	99.894	ug/L	1.607	1	47	195454	1
Ni	62	100.087	ug/L	0.798	0	56	29038	1
Cu	63	99.767	ug/L	0.730	0	178	423798	0
Cu	65	100.085	ug/L	0.720	0	90	201567	1
Zn	66	100.039	ug/L	0.267	0	229	130176	0
Zn	67	100.056	ug/L	1.827	1	104	21926	1
Zn	68	100.067	ug/L	0.517	0	4281	95644	0
As	75	100.110	ug/L	0.888	0	352	130439	0
As-1	75	100.040	ug/L	0.611	0	5658	132552	0
Se	82	99.955	ug/L	0.687	0	0	14140	0
Se	78	99.660	ug/L	1.090	1	5765	38554	1
[ Mo	98	100.497	ug/L	2.170	2	135	479069	2
Y	89		ug/L			218720	218800	1
Kr	83		ug/L			189	211	3
[>] In	115		ug/L			230726	231255	0
Ag	107	100.051	ug/L	1.693	1	39	754859	2
Cd	111	99.790	ug/L	1.138	1	121	191007	1
Cd	114	100.033	ug/L	1.359	1	20	438209	1
Sb	121	100.230	ug/L	0.152	0	20	666475	0
Sb	123	100.411	ug/L	0.690	0	20	507680	0
Ba	135	99.746	ug/L	1.142	1	18	158958	0
[ Ba	137	99.710	ug/L	1.158	1	25	274314	0
[>] Tb	159		ug/L			290754	286595	1
Tl	205	100.975	ug/L	3.952	3	29	2037456	3
Pb	208	100.234	ug/L	0.649	0	225	2697570	1
Bi	209		ug/L			234649	229610	0
Th	232	101.825	ug/L	0.979	0	71	3722559	1
[ U	238	102.027	ug/L	0.859	0	12	3817264	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:32:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\022813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	304891	1
[ Be	9	0.008	ug/L	0.010	115	32	34	11
C	13		mg/L			5382	5247	3
Cl	37		mg/L			1968149	2008266	2
[> Sc	45		ug/L			212115	219129	0
V	51	0.003	ug/L	0.006	191	1289	1361	4
V-1	51	-0.024	ug/L	0.009	35	2538	2393	3
Cr	52	0.021	ug/L	0.006	30	3869	4169	1
Cr	53	-0.066	ug/L	0.021	32	836	800	2
Mn	55	0.011	ug/L	0.005	41	386	542	10
[ Co	59	0.006	ug/L	0.001	21	61	118	10
[> Ge	72		ug/L			228607	234317	0
Ni	60	0.004	ug/L	0.007	156	47	57	23
Ni	62	0.047	ug/L	0.025	52	56	71	9
Cu	63	0.014	ug/L	0.008	56	178	242	13
Cu	65	0.009	ug/L	0.005	49	90	112	7
Zn	66	0.011	ug/L	0.016	153	229	249	9
Zn	67	-0.002	ug/L	0.057	2773	104	106	11
Zn	68	0.073	ug/L	0.113	155	4281	4455	1
As	75	0.012	ug/L	0.021	171	352	377	6
As-1	75	0.020	ug/L	0.022	109	5658	5825	0
Se	82	-0.038	ug/L	0.077	202	0	-6	177
Se	78	0.039	ug/L	0.084	216	5765	5922	0
[ Mo	98	0.010	ug/L	0.009	99	135	185	24
Y	89		ug/L			218720	226918	2
Kr	83		ug/L			189	201	1
[> In	115		ug/L			230726	243176	1
Ag	107	0.016	ug/L	0.004	26	39	169	19
Cd	111	0.005	ug/L	0.004	80	121	136	4
Cd	114	0.005	ug/L	0.003	63	20	44	32
Sb	121	0.180	ug/L	0.051	28	20	1276	26
Sb	123	0.176	ug/L	0.045	25	20	955	24
Ba	135	0.012	ug/L	0.011	85	18	40	42
[ Ba	137	0.009	ug/L	0.003	36	25	53	16
[> Tb	159		ug/L			290754	296803	1
Tl	205	0.014	ug/L	0.005	33	29	322	29
Pb	208	0.010	ug/L	0.003	25	225	515	14
Bi	209		ug/L			234649	242510	2
Th	232	0.092	ug/L	0.025	27	71	3550	26
[ U	238	0.008	ug/L	0.003	35	12	315	33



## Quantitative Analysis - Calibration Report

Sample Date/Time: Friday, March 01, 2013 09:25:45

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	r	Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6								
Be	9	0.9999	0.0013		10	20	50	100	
C	13								
Cl	37								
Sc	45								
V	51	1.0000	0.0432		10	20	50	100	
V-1	51	1.0000	0.0438		10	20	50	100	
Cr	52	1.0000	0.0371		10	20	50	100	
Cr	53	1.0000	0.0044		10	20	50	100	
Mn	55	1.0000	0.0606		10	20	50	100	
Co	59	1.0000	0.0440		10	20	50	100	
Ge	72								
Ni	60	1.0000	0.0086		10	20	50	100	
Ni	62	1.0000	0.0013		10	20	50	100	
Cu	63	1.0000	0.0186		10	20	50	100	
Cu	65	1.0000	0.0088		10	20	50	100	
Zn	66	1.0000	0.0057		10	20	50	100	
Zn	67	1.0000	0.0010		10	20	50	100	
Zn	68	1.0000	0.0040		10	20	50	100	
As	75	1.0000	0.0057		10	20	50	100	
As-1	75	1.0000	0.0056		10	20	50	100	
Se	82	1.0000	0.0006		10	20	50	100	
Se	78	1.0000	0.0014		10	20	50	100	
Mo	98	1.0000	0.0209		10	20	50	100	
Y	89								
Kr	83								
In	115								
Ag	107	1.0000	0.0326		10	20	50	100	
Cd	111	1.0000	0.0083		10	20	50	100	
Cd	114	1.0000	0.0189		10	20	50	100	
Sb	121	1.0000	0.0288		10	20	50	100	
Sb	123	1.0000	0.0219		10	20	50	100	
Ba	135	1.0000	0.0069		10	20	50	100	
Ba	137	1.0000	0.0119		10	20	50	100	
Tb	159								
Tl	205	0.9998	0.0704		10	20	50	100	
Pb	208	1.0000	0.0939		10	20	50	100	
Bi	209								
Th	232	0.9994	0.1276		10	20	50	100	
U	238	0.9993	0.1305		10	20	50	100	

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:39:01

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	323072	0
[ Be	9	49.472	ug/L	0.537	1	32	20073	1
C	13		mg/L			5382	9435	2
Cl	37		mg/L			1968149	1956796	0
[> Sc	45		ug/L			212115	226792	0
V	51	50.622	ug/L	0.690	1	1289	497382	0
V-1	51	50.487	ug/L	0.773	1	2538	504135	1
Cr	52	49.857	ug/L	0.240	0	3869	423494	0
Cr	53	49.460	ug/L	0.386	0	836	50014	1
Mn	55	50.622	ug/L	0.590	1	386	696471	0
[ Co	59	50.866	ug/L	0.765	1	61	507657	1
[> Ge	72		ug/L			228607	241195	0
Ni	60	50.619	ug/L	0.793	1	47	104839	1
Ni	62	49.609	ug/L	0.398	0	56	15262	1
Cu	63	50.659	ug/L	0.092	0	178	227833	1
Cu	65	50.569	ug/L	0.828	1	90	107817	1
Zn	66	49.884	ug/L	0.269	0	229	68818	1
Zn	67	49.546	ug/L	1.034	2	104	11545	1
Zn	68	49.293	ug/L	0.954	1	4281	52149	1
As	75	51.504	ug/L	0.120	0	352	71201	0
As-1	75	50.720	ug/L	0.505	0	5658	74060	0
Se	82	80.018	ug/L	0.515	0	0	11980	1
Se	78	79.595	ug/L	1.311	1	5765	33809	0
[ Mo	98	50.340	ug/L	0.580	1	135	254006	0
Y	89		ug/L			218720	234562	1
Kr	83		ug/L			189	210	3
[> In	115		ug/L			230726	248579	0
Ag	107	50.475	ug/L	0.504	0	39	409324	0
Cd	111	50.756	ug/L	0.259	0	121	104488	0
Cd	114	49.891	ug/L	0.669	1	20	234932	0
Sb	121	49.801	ug/L	0.125	0	20	355971	0
Sb	123	49.596	ug/L	0.940	1	20	269548	1
Ba	135	49.639	ug/L	0.810	1	18	85049	1
[ Ba	137	49.535	ug/L	0.389	0	25	146512	1
[> Tb	159		ug/L			290754	313261	1
Tl	205	48.975	ug/L	1.106	2	29	1079978	0
Pb	208	50.249	ug/L	0.732	1	225	1478080	0
Bi	209		ug/L			234649	252615	1
Th	232	48.243	ug/L	1.109	2	71	1927449	1
[ U	238	49.709	ug/L	2.789	5	12	2031838	4

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:45:19

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	309663	1
[ Be	9	-0.004	ug/L	0.004	96	32	30	4
C	13		mg/L			5382	5322	3
Cl	37		mg/L			1968149	2007635	2
[> Sc	45		ug/L			212115	220028	1
V	51	0.004	ug/L	0.024	573	1289	1376	15
V-1	51	-0.035	ug/L	0.008	23	2538	2297	2
Cr	52	0.008	ug/L	0.012	146	3869	4078	1
Cr	53	-0.117	ug/L	0.040	34	836	755	6
Mn	55	0.002	ug/L	0.001	31	386	425	1
[ Co	59	0.004	ug/L	0.002	51	61	102	18
[> Ge	72		ug/L			228607	232244	0
Ni	60	0.002	ug/L	0.003	126	47	52	9
Ni	62	0.030	ug/L	0.034	113	56	65	14
Cu	63	0.010	ug/L	0.005	45	178	224	8
Cu	65	-0.001	ug/L	0.003	345	90	90	6
Zn	66	0.006	ug/L	0.019	331	229	240	10
Zn	67	-0.045	ug/L	0.063	140	104	96	13
Zn	68	0.078	ug/L	0.156	199	4281	4421	2
As	75	0.012	ug/L	0.021	173	352	374	7
As-1	75	0.027	ug/L	0.047	175	5658	5782	0
Se	82	0.028	ug/L	0.022	77	0	3	93
Se	78	0.063	ug/L	0.223	351	5765	5877	0
[ Mo	98	-0.002	ug/L	0.006	289	135	126	23
Y	89		ug/L			218720	226147	1
Kr	83		ug/L			189	189	1
[> In	115		ug/L			230726	241487	0
Ag	107	0.011	ug/L	0.006	52	39	125	35
Cd	111	0.007	ug/L	0.010	146	121	141	14
Cd	114	0.001	ug/L	0.001	83	20	27	17
Sb	121	0.044	ug/L	0.009	19	20	328	17
Sb	123	0.042	ug/L	0.013	31	20	242	28
Ba	135	0.002	ug/L	0.002	61	18	23	10
[ Ba	137	0.003	ug/L	0.006	179	25	36	45
[> Tb	159		ug/L			290754	298819	2
Tl	205	0.005	ug/L	0.002	42	29	137	31
Pb	208	0.005	ug/L	0.002	40	225	380	15
Bi	209		ug/L			234649	247895	0
Th	232	0.059	ug/L	0.015	26	71	2317	24
[ U	238	0.004	ug/L	0.001	32	12	158	28

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:50:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	307686	2
[ Be	9	50.054	ug/L	1.121	2	32	19334	0
C	13		mg/L			5382	3244	0
Cl	37		mg/L			1968149	1971686	1
[> Sc	45		ug/L			212115	221385	0
V	51	49.916	ug/L	0.361	0	1289	478812	0
V-1	51	50.039	ug/L	0.532	1	2538	487802	1
Cr	52	50.224	ug/L	0.442	0	3869	416417	0
Cr	53	50.603	ug/L	0.556	1	836	49930	0
Mn	55	50.631	ug/L	0.628	1	386	680012	1
[ Co	59	50.596	ug/L	0.945	1	61	492905	1
[> Ge	72		ug/L			228607	237756	1
Ni	60	49.815	ug/L	0.804	1	47	101695	0
Ni	62	50.037	ug/L	0.962	1	56	15172	1
Cu	63	50.213	ug/L	0.461	0	178	222594	0
Cu	65	49.316	ug/L	0.377	0	90	103659	1
Zn	66	49.699	ug/L	0.079	0	229	67586	1
Zn	67	49.933	ug/L	0.457	0	104	11469	0
Zn	68	50.014	ug/L	0.607	1	4281	52092	0
As	75	49.457	ug/L	0.478	0	352	67407	0
As-1	75	49.350	ug/L	0.447	0	5658	71192	0
Se	82	50.350	ug/L	0.932	1	0	7429	0
Se	78	49.918	ug/L	0.847	1	5765	23135	0
[ Mo	98	49.592	ug/L	0.794	1	135	246651	0
Y	89		ug/L			218720	228237	0
Kr	83		ug/L			189	195	2
[> In	115		ug/L			230726	243295	0
Ag	107	49.766	ug/L	0.199	0	39	395006	0
Cd	111	49.814	ug/L	0.775	1	121	100375	1
Cd	114	50.330	ug/L	1.154	2	20	231972	2
Sb	121	49.606	ug/L	0.867	1	20	347041	1
Sb	123	48.841	ug/L	0.215	0	20	259818	0
Ba	135	49.718	ug/L	0.188	0	18	83373	0
[ Ba	137	49.949	ug/L	0.600	1	25	144593	1
[> Tb	159		ug/L			290754	306072	1
Tl	205	49.261	ug/L	0.598	1	29	1061487	0
Pb	208	50.056	ug/L	0.968	1	225	1438624	1
Bi	209		ug/L			234649	243746	0
Th	232	47.084	ug/L	1.090	2	71	1837969	1
[ U	238	47.191	ug/L	0.342	0	12	1885582	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 09:57:06

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	312714	1
[ Be	9	0.025	ug/L	0.008	33	32	42	9
C	13		mg/L			5382	5098	0
Cl	37		mg/L			1968149	1976841	0
[> Sc	45		ug/L			212115	217070	0
V	51	0.005	ug/L	0.004	86	1289	1368	3
V-1	51	-0.028	ug/L	0.007	26	2538	2331	3
Cr	52	0.012	ug/L	0.011	91	3869	4060	2
Cr	53	-0.094	ug/L	0.009	9	836	766	1
Mn	55	0.004	ug/L	0.003	83	386	446	9
[ Co	59	0.003	ug/L	0.000	8	61	93	2
[> Ge	72		ug/L			228607	231225	0
Ni	60	-0.000	ug/L	0.002	328	47	47	6
Ni	62	0.004	ug/L	0.032	900	56	57	15
Cu	63	0.007	ug/L	0.009	123	178	210	17
Cu	65	-0.004	ug/L	0.007	196	90	84	17
Zn	66	0.011	ug/L	0.003	30	229	245	1
Zn	67	-0.062	ug/L	0.123	199	104	92	29
Zn	68	0.053	ug/L	0.040	74	4281	4379	0
As	75	-0.002	ug/L	0.019	812	352	353	7
As-1	75	0.052	ug/L	0.047	90	5658	5789	0
Se	82	-0.062	ug/L	0.069	110	0	-9	102
Se	78	0.191	ug/L	0.192	100	5765	5895	0
[ Mo	98	-0.003	ug/L	0.004	166	135	124	16
Y	89		ug/L			218720	228074	0
Kr	83		ug/L			189	198	4
[> In	115		ug/L			230726	242462	0
Ag	107	0.009	ug/L	0.004	48	39	112	30
Cd	111	0.006	ug/L	0.010	162	121	139	14
Cd	114	0.002	ug/L	0.001	31	20	30	8
Sb	121	0.108	ug/L	0.027	25	20	771	24
Sb	123	0.100	ug/L	0.015	15	20	550	14
Ba	135	0.005	ug/L	0.003	60	18	27	18
[ Ba	137	0.005	ug/L	0.004	75	25	42	26
[> Tb	159		ug/L			290754	298794	0
Tl	205	0.005	ug/L	0.001	21	29	141	16
Pb	208	0.005	ug/L	0.002	28	225	385	11
Bi	209		ug/L			234649	243774	2
Th	232	0.066	ug/L	0.017	25	71	2590	24
[ U	238	0.003	ug/L	0.001	37	12	132	33

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:02:35

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	305016	1
[ Be	9	0.204	ug/L	0.029	14	32	109	9
C	13		mg/L			5382	4016	1
Cl	37		mg/L			1968149	2020750	2
[> Sc	45		ug/L			212115	213552	0
V	51	0.206	ug/L	0.008	3	1289	3203	2
V-1	51	0.183	ug/L	0.006	3	2538	4267	1
Cr	52	0.509	ug/L	0.012	2	3869	7930	1
Cr	53	0.421	ug/L	0.052	12	836	1236	3
Mn	55	0.521	ug/L	0.005	1	386	7129	0
[ Co	59	0.212	ug/L	0.008	3	61	2052	3
[> Ge	72		ug/L			228607	230384	0
Ni	60	0.525	ug/L	0.004	0	47	1086	1
Ni	62	0.533	ug/L	0.080	15	56	212	10
Cu	63	0.543	ug/L	0.019	3	178	2511	2
Cu	65	0.540	ug/L	0.017	3	90	1189	2
Zn	66	4.295	ug/L	0.062	1	229	5869	0
Zn	67	3.781	ug/L	0.207	5	104	938	4
Zn	68	4.173	ug/L	0.109	2	4281	8165	0
As	75	0.209	ug/L	0.031	14	352	630	5
As-1	75	0.275	ug/L	0.052	18	5658	6054	0
Se	82	0.411	ug/L	0.114	27	0	57	27
Se	78	0.768	ug/L	0.213	27	5765	6065	0
[ Mo	98	0.185	ug/L	0.008	4	135	1028	3
Y	89		ug/L			218720	223518	0
Kr	83		ug/L			189	202	6
[> In	115		ug/L			230726	238204	1
Ag	107	0.218	ug/L	0.002	0	39	1732	1
Cd	111	0.098	ug/L	0.008	8	121	319	3
Cd	114	0.101	ug/L	0.007	6	20	476	6
Sb	121	0.235	ug/L	0.006	2	20	1629	4
Sb	123	0.229	ug/L	0.014	6	20	1214	7
Ba	135	0.496	ug/L	0.031	6	18	833	4
[ Ba	137	0.502	ug/L	0.016	3	25	1448	1
[> Tb	159		ug/L			290754	291000	0
Tl	205	0.210	ug/L	0.003	1	29	4325	1
Pb	208	0.112	ug/L	0.000	0	225	3279	0
Bi	209		ug/L			234649	238996	1
Th	232	0.225	ug/L	0.004	1	71	8430	1
[ U	238	0.202	ug/L	0.003	1	12	7669	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~HGSA~~ BA 3/4/13  
 Sample Dil Factor:  
 Comments:  
 Sample Date/Time: Friday, March 01, 2013 10:08:02  
 Number of Replicates: 3  
 Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth  
 Tuning File: C:\Elandata\Tuning\default.tun  
 Optimization File: C:\Elandata\Optimize\default.dac  
 Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			320083	347085	0
[ ] Be	9	0.025	ug/L	0.024	94	32	46	21
[ ] C	13		mg/L			5382	14544	1
[ ] Cl	37		mg/L			1968149	3288982	0
[>] Sc	45		ug/L			212115	228905	1
[ ] V	51	0.038	ug/L	0.018	47	1289	1764	10
[ ] V-1	51	0.332	ug/L	0.008	2	2538	6065	1
[ ] Cr	52	0.334	ug/L	0.011	3	3869	7016	2
[ ] Cr	53	1.263	ug/L	0.035	2	836	2168	1
[ ] Mn	55	0.089	ug/L	0.006	7	386	1645	3
[ ] Co	59	0.019	ug/L	0.001	5	61	261	2
[>] Ge	72		ug/L			228607	245660	0
[ ] Ni	60	0.408	ug/L	0.018	4	47	910	3
[ ] Ni	62	3.667	ug/L	0.170	4	56	1205	4
[ ] Cu	63	0.416	ug/L	0.026	6	178	2095	5
[ ] Cu	65	0.592	ug/L	0.023	3	90	1382	3
[ ] Zn	66	1.360	ug/L	0.041	3	229	2151	3
[ ] Zn	67	1.202	ug/L	0.101	8	104	395	6
[ ] Zn	68	0.166	ug/L	0.075	44	4281	4763	2
[ ] As	75	0.085	ug/L	0.017	19	352	498	5
[ ] As-1	75	-0.324	ug/L	0.081	25	5658	5637	2
[ ] Se	82	-0.104	ug/L	0.042	40	0	-16	38
[ ] Se	78	-1.608	ug/L	0.330	20	5765	5624	2
[ ] Mo	98	361.742	ug/L	3.389	0	135	1858272	1
[ ] Y	89		ug/L			218720	235620	1
[ ] Kr	83		ug/L			189	215	1
[>] In	115		ug/L			230726	248130	2
[ ] Ag	107	0.020	ug/L	0.002	8	39	204	9
[ ] Cd	111	0.059	ug/L	0.019	31	121	250	13
[ ] Cd	114	0.598	ug/L	0.003	0	20	2833	2
[ ] Sb	121	0.082	ug/L	0.002	2	20	607	4
[ ] Sb	123	0.083	ug/L	0.004	4	20	471	2
[ ] Ba	135	0.045	ug/L	0.008	17	18	96	13
[ ] Ba	137	0.041	ug/L	0.007	16	25	148	12
[>] Tb	159		ug/L			290754	317273	1
[ ] Tl	205	0.024	ug/L	0.002	8	29	563	8
[ ] Pb	208	0.034	ug/L	0.001	1	225	1244	2
[ ] Bi	209		ug/L			234649	253433	0
[ ] Th	232	0.081	ug/L	0.014	16	71	3346	18
[ ] U	238	0.001	ug/L	0.000	4	12	50	5

222222 ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~109AB~~ BA

Sample Dil Factor: 3/4/13

Comments:

Sample Date/Time: Friday, March 01, 2013 10:14:00

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	390500	2
[ Be	9	0.006	ug/L	0.011	198	32	42	11
C	13		mg/L			5382	14096	0
Cl	37		mg/L			1968149	3178069	0
[> Sc	45		ug/L			212115	246170	2
V	51	-0.232	ug/L	0.032	13	1289	-971	36
V-1	51	0.335	ug/L	0.018	5	2538	6559	2
Cr	52	16.592	ug/L	0.411	2	3869	155927	0
Cr	53	17.683	ug/L	0.322	1	836	20028	0
Mn	55	16.676	ug/L	0.152	0	386	249366	2
Co	59	16.545	ug/L	0.592	3	61	179212	2
[> Ge	72		ug/L			228607	264389	0
Ni	60	16.402	ug/L	0.070	0	47	37275	0
Ni	62	18.946	ug/L	0.379	2	56	6430	2
Cu	63	16.511	ug/L	0.171	1	178	81528	0
Cu	65	16.249	ug/L	0.085	0	90	38049	0
Zn	66	17.211	ug/L	0.254	1	229	26202	2
Zn	67	15.048	ug/L	0.257	1	104	3927	0
Zn	68	15.289	ug/L	0.178	1	4281	21148	1
As	75	16.060	ug/L	0.250	1	352	24614	0
As-1	75	15.703	ug/L	0.323	2	5658	29651	0
Se	82	-0.103	ug/L	0.035	34	0	-17	32
Se	78	-3.027	ug/L	0.291	9	5765	5511	1
Mo	98	334.071	ug/L	5.039	1	135	1846812	0
Y	89		ug/L			218720	257223	0
Kr	83		ug/L			189	212	2
[> In	115		ug/L			230726	273195	1
Ag	107	16.140	ug/L	0.210	1	39	143870	0
Cd	111	16.658	ug/L	0.216	1	121	37782	0
Cd	114	17.123	ug/L	0.042	0	20	88637	1
Sb	121	0.064	ug/L	0.003	4	20	529	3
Sb	123	0.063	ug/L	0.002	3	20	403	3
Ba	135	0.034	ug/L	0.004	12	18	85	9
Ba	137	0.031	ug/L	0.004	12	25	131	8
[> Tb	159		ug/L			290754	353197	0
Tl	205	0.020	ug/L	0.001	4	29	530	4
Pb	208	0.029	ug/L	0.001	2	225	1244	1
Bi	209		ug/L			234649	276759	0
Th	232	0.038	ug/L	0.002	6	71	1794	6
U	238	0.000	ug/L	0.000	31	12	32	17



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:19:57

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	316143 ✓	2
[ Be	9	193.097	ug/L	4.400	2	32	76550	0
C	13		mg/L			5382	3974	1
Cl	37		mg/L			1968149	1885258	1
[> Sc	45		ug/L			212115	211903 ✓	0
V	51	195.217	ug/L	3.612	1	1289	1788489	1
V-1	51	196.068	ug/L	3.696	1	2538	1821964	1
Cr	52	197.268	ug/L	0.719	0	3869	1554262	1
Cr	53	199.904	ug/L	1.220	0	836	186336	1
Mn	55	201.840	ug/L	3.286	1	386	2593506	1
[ Co	59	197.368	ug/L	3.625	1	61	1840163	1
[> Ge	72		ug/L			228607	227406 ✓	1
Ni	60	192.980	ug/L	2.880	1	47	376688	1
Ni	62	191.444	ug/L	1.633	0	56	55371	1
Cu	63	190.673	ug/L	2.540	1	178	808125	2
Cu	65	188.671	ug/L	1.404	0	90	379065	2
Zn	66	192.745	ug/L	1.169	0	229	250035	1
Zn	67	192.067	ug/L	2.543	1	104	41898	1
Zn	68	192.923	ug/L	2.912	1	4281	180029	1
As	75	198.274	ug/L	2.665	1	352	257428	1
As-1	75	198.665	ug/L	2.954	1	5658	257083	1
Se	82	195.499	ug/L	1.673	0	0	27596	1
Se	78	196.649	ug/L	4.236	2	5765	70310	0
[ Mo	98	205.595	ug/L	0.491	0	135	977709	1
Y	89		ug/L			218720	219240	0
Kr	83		ug/L			189	223	1
[> In	115		ug/L			230726	233325 ✓	0
Ag	107	193.245	ug/L	2.325	1	39	1470940	1
Cd	111	200.942	ug/L	0.598	0	121	387934	0
Cd	114	199.042	ug/L	2.534	1	20	879744	1
Sb	121	205.319	ug/L	1.414	0	20	1377482	1
Sb	123	203.479	ug/L	2.158	1	20	1038049	1
Ba	135	201.013	ug/L	2.108	1	18	323202	0
[ Ba	137	200.294	ug/L	2.401	1	25	555968	1
[> Tb	159		ug/L			290754	299001 ✓	0
Tl	205	203.043	ug/L	0.584	0	29	4274399	0
Pb	208	203.544	ug/L	2.072	1	225	5714912	1
Bi	209		ug/L			234649	233761	1
Th	232	204.816	ug/L	1.044	0	71	7811538	0
[ U	238	208.621	ug/L	4.062	1	12	8143547	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:26:14

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	300795✓	1
[ Be	9	301.140	ug/L	5.792	1	32	113584	1
C	13		mg/L			5382	3941	1
Cl	37		mg/L			1968149	1959700	1
> Sc	45		ug/L			212115	220043✓	0
V	51	307.036	ug/L	2.740	0	1289	2920503	1
V-1	51	306.260	ug/L	1.071	0	2538	2954020	1
Cr	52	302.155	ug/L	2.240	0	3869	2469989	1
Cr	53	299.881	ug/L	4.716	1	836	289827	1
Mn	55	307.306	ug/L	5.484	1	386	4100279	1
[ Co	59	307.277	ug/L	1.759	0	61	2975064	0
> Ge	72		ug/L			228607	234628✓	1
Ni	60	292.915	ug/L	4.134	1	47	589918	1
Ni	62	289.445	ug/L	4.654	1	56	86334	1
Cu	63	288.140	ug/L	4.153	1	178	1259614	1
Cu	65	283.832	ug/L	1.302	0	90	588310	1
Zn	66	286.919	ug/L	2.262	0	229	383902	0
Zn	67	287.572	ug/L	1.819	0	104	64673	1
Zn	68	283.823	ug/L	3.627	1	4281	271183	0
As	75	294.972	ug/L	2.557	0	352	394941	0
As-1	75	295.196	ug/L	2.431	0	5658	391312	0
Se	82	289.667	ug/L	4.893	1	0	42182	1
Se	78	289.857	ug/L	4.676	1	5765	104132	0
[ Mo	98	309.656	ug/L	3.227	1	135	1519265	1
Y	89		ug/L			218720	228298	2
Kr	83		ug/L			189	243	3
> In	115		ug/L			230726	239267✓	1
Ag	107	301.079	ug/L	1.518	0	39	2350060	2
Cd	111	301.474	ug/L	3.411	1	121	596806	2
Cd	114	297.757	ug/L	4.499	1	20	1349642	2
Sb	121	321.820	ug/L	4.560	1	20	2213747	1
Sb	123	303.613	ug/L	5.397	1	20	1587960	0
Ba	135	297.154	ug/L	4.268	1	18	489877	0
[ Ba	137	298.629	ug/L	6.168	2	25	849812	0
> Tb	159		ug/L			290754	302078✓	0
Tl	205	304.789	ug/L	4.173	1	29	6482790	2
Pb	208	307.687	ug/L	0.709	0	225	8727467	0
Bi	209		ug/L			234649	224288	1
Th	232	305.631	ug/L	4.528	1	71	11776111	1
[ U	238	311.126	ug/L	6.683	2	12	12269911	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:32:32

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	316142 ✓	1
[ Be	9	49.051	ug/L	1.134	2	32	19472	1
C	13		mg/L			5382	3196	2
Cl	37		mg/L			1968149	2067531	3
[> Sc	45		ug/L			212115	228093 ✓	1
V	51	49.042	ug/L	0.306	0	1289	484699	1
V-1	51	49.354	ug/L	0.282	0	2538	495743	1
Cr	52	49.406	ug/L	0.407	0	3869	422087	0
Cr	53	50.390	ug/L	0.375	0	836	51227	0
Mn	55	49.558	ug/L	0.461	0	386	685729	0
[ Co	59	49.377	ug/L	1.009	2	61	495544	0
[> Ge	72		ug/L			228607	239236 ✓	1
Ni	60	50.568	ug/L	0.543	1	47	103876	0
Ni	62	49.479	ug/L	1.112	2	56	15095	0
Cu	63	50.957	ug/L	1.145	2	178	227261	0
Cu	65	49.484	ug/L	0.360	0	90	104650	0
Zn	66	50.924	ug/L	0.569	1	229	69669	0
Zn	67	51.235	ug/L	0.912	1	104	11837	1
Zn	68	50.210	ug/L	0.783	1	4281	52602	1
As	75	49.643	ug/L	0.414	0	352	68079	0
As-1	75	49.580	ug/L	0.347	0	5658	71941	0
Se	82	50.682	ug/L	1.069	2	0	7524	0
Se	78	50.540	ug/L	0.859	1	5765	23493	0
[ Mo	98	50.344	ug/L	0.518	1	135	251953	0
Y	89		ug/L			218720	235487	0
Kr	83		ug/L			189	211	4
[> In	115		ug/L			230726	247631 ✓	0
Ag	107	49.623	ug/L	0.542	1	39	400892	1
Cd	111	50.201	ug/L	0.708	1	121	102951	1
Cd	114	49.938	ug/L	0.192	0	20	234267	0
Sb	121	49.296	ug/L	0.577	1	20	350999	0
Sb	123	48.944	ug/L	0.462	0	20	264994	0
Ba	135	49.674	ug/L	0.716	1	18	84779	0
[ Ba	137	49.393	ug/L	0.594	1	25	145530	1
[> Tb	159		ug/L			290754	308810 ✓	0
Tl	205	49.021	ug/L	0.568	1	29	1065881	1
Pb	208	50.606	ug/L	0.268	0	225	1467619	0
Bi	209		ug/L			234649	249815	1
Th	232	47.947	ug/L	0.668	1	71	1888732	1
[ U	238	47.977	ug/L	0.323	0	12	1934135	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:38:50

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	318680	0
[ Be	9	0.022	ug/L	0.012	54	32	41	12
C	13		mg/L			5382	5042	1
Cl	37		mg/L			1968149	2118651	0
[> Sc	45		ug/L			212115	220995 ✓	1
V	51	-0.008	ug/L	0.002	26	1289	1265	0
V-1	51	0.022	ug/L	0.008	33	2538	2860	1
Cr	52	0.007	ug/L	0.019	260	3869	4090	3
Cr	53	0.104	ug/L	0.031	29	836	972	1
Mn	55	0.009	ug/L	0.002	16	386	528	2
[ Co	59	0.007	ug/L	0.002	38	61	127	19
[> Ge	72		ug/L			228607	235808 ✓	0
Ni	60	0.005	ug/L	0.004	71	47	59	12
Ni	62	0.036	ug/L	0.010	29	56	68	5
Cu	63	0.027	ug/L	0.007	25	178	303	9
Cu	65	0.017	ug/L	0.013	78	90	129	20
Zn	66	0.012	ug/L	0.010	85	229	252	6
Zn	67	-0.002	ug/L	0.029	1709	104	107	6
Zn	68	0.011	ug/L	0.128	1122	4281	4426	2
As	75	0.001	ug/L	0.015	1606	352	365	6
As-1	75	0.045	ug/L	0.031	67	5658	5895	0
Se	82	-0.047	ug/L	0.101	213	0	-7	193
Se	78	0.110	ug/L	0.128	115	5765	5984	0
[ Mo	98	0.011	ug/L	0.004	37	135	192	9
Y	89		ug/L			218720	228912	1
Kr	83		ug/L			189	194	3
[> In	115		ug/L			230726	245176 ✓	0
Ag	107	0.021	ug/L	0.005	21	39	206	17
Cd	111	0.011	ug/L	0.005	47	121	151	6
Cd	114	0.002	ug/L	0.003	140	20	30	40
Sb	121	0.131	ug/L	0.031	24	20	942	23
Sb	123	0.123	ug/L	0.024	19	20	680	19
Ba	135	0.007	ug/L	0.002	21	18	32	7
[ Ba	137	0.005	ug/L	0.004	73	25	41	25
[> Tb	159		ug/L			290754	299953 ✓	1
Tl	205	0.014	ug/L	0.003	21	29	317	20
Pb	208	0.009	ug/L	0.002	26	225	488	14
Bi	209		ug/L			234649	247578	0
Th	232	0.092	ug/L	0.020	21	71	3616	22
[ U	238	0.006	ug/L	0.001	23	12	246	23

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 10:54:06

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	322477 ✓	0
[ Be	9	0.018	ug/L	0.016	88	32	40	15
C	13		mg/L			5382	14914	0
Cl	37		mg/L			1968149	3337109	0
[> Sc	45		ug/L			212115	208975 ✓	0
V	51	0.030	ug/L	0.012	38	1289	1544	7
V-1	51	0.440	ug/L	0.014	3	2538	6524	1
Cr	52	0.424	ug/L	0.014	3	3869	7095	0
Cr	53	1.716	ug/L	0.094	5	836	2394	2
Mn	55	0.091	ug/L	0.006	6	386	1534	3
[ Co	59	0.021	ug/L	0.001	2	61	257	1
[> Ge	72		ug/L			228607	222774 ✓	0
Ni	60	0.434	ug/L	0.017	4	47	877	3
Ni	62	4.050	ug/L	0.155	3	56	1201	4
Cu	63	0.456	ug/L	0.018	4	178	2066	4
Cu	65	0.620	ug/L	0.010	1	90	1309	1
Zn	66	1.283	ug/L	0.042	3	229	1852	3
Zn	67	1.101	ug/L	0.106	9	104	336	6
Zn	68	0.571	ug/L	0.086	15	4281	4682	2
As	75	0.128	ug/L	0.023	17	352	505	5
As-1	75	0.249	ug/L	0.032	12	5658	5822	1
Se	82	-0.048	ug/L	0.074	156	0	-7	142
Se	78	0.588	ug/L	0.159	27	5765	5807	1
[ Mo	98	402.581	ug/L	1.200	0	135	1875387	0
Y	89		ug/L			218720	216275	1
Kr	83		ug/L			189	208	4
[> In	115		ug/L			230726	229150 ✓	1
Ag	107	0.023	ug/L	0.002	8	39	213	7
Cd	111	0.006	ug/L	0.035	563	121	132	50
Cd	114	0.655	ug/L	0.020	3	20	2863	2
Sb	121	0.084	ug/L	0.005	6	20	573	7
Sb	123	0.076	ug/L	0.005	6	20	400	4
Ba	135	0.040	ug/L	0.012	30	18	80	21
[ Ba	137	0.040	ug/L	0.001	3	25	133	2
[> Tb	159		ug/L			290754	293496 ✓	0
Tl	205	0.025	ug/L	0.003	10	29	555	10
Pb	208	0.030	ug/L	0.002	6	225	1048	4
Bi	209		ug/L			234649	233039	1
Th	232	0.108	ug/L	0.010	9	71	4114	9
[ U	238	0.001	ug/L	0.000	12	12	49	9

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 11:00:03

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	329207✓	1
[ Be	9	0.001	ug/L	0.014	1573	32	34	15
C	13		mg/L			5382	14949	0
Cl	37		mg/L			1968149	3247517	0
[> Sc	45		ug/L			212115	209241✓	1
V	51	-0.258	ug/L	0.077	29	1289	-1062	67
V-1	51	0.486	ug/L	0.022	4	2538	6956	2
Cr	52	19.861	ug/L	0.441	2	3869	157921	1
Cr	53	21.375	ug/L	0.270	1	836	20409	1
Mn	55	19.695	ug/L	0.423	2	386	250197	1
[ Co	59	19.514	ug/L	0.719	3	61	179665	2
[> Ge	72		ug/L			228607	226600✓	0
Ni	60	19.389	ug/L	0.076	0	47	37759	0
Ni	62	22.617	ug/L	0.198	0	56	6567	0
Cu	63	19.351	ug/L	0.220	1	178	81873	1
Cu	65	19.237	ug/L	0.138	0	90	38593	1
Zn	66	20.151	ug/L	0.330	1	229	26252	1
Zn	67	17.675	ug/L	0.399	2	104	3936	2
Zn	68	18.882	ug/L	0.225	1	4281	21386	0
As	75	19.020	ug/L	0.121	0	352	24924	1
As-1	75	19.382	ug/L	0.094	0	5658	30055	0
Se	82	-0.037	ug/L	0.053	144	0	-5	126
Se	78	-0.279	ug/L	0.159	56	5765	5623	0
[ Mo	98	394.730	ug/L	4.912	1	135	1870350	0
Y	89		ug/L			218720	219713	0
Kr	83		ug/L			189	207	4
[> In	115		ug/L			230726	231798✓	2
Ag	107	19.235	ug/L	0.292	1	39	145443	0
Cd	111	19.982	ug/L	0.465	2	121	38424	2
Cd	114	20.170	ug/L	0.359	1	20	88570	2
Sb	121	0.078	ug/L	0.001	1	20	537	1
Sb	123	0.073	ug/L	0.003	4	20	389	5
Ba	135	0.034	ug/L	0.009	26	18	72	21
[ Ba	137	0.035	ug/L	0.003	8	25	123	5
[> Tb	159		ug/L			290754	301536✓	0
Tl	205	0.022	ug/L	0.001	6	29	487	5
Pb	208	0.028	ug/L	0.001	3	225	1028	2
Bi	209		ug/L			234649	238334	0
Th	232	0.074	ug/L	0.004	4	71	2927	5
[ U	238	0.001	ug/L	0.000	27	12	47	20

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 11:06:01

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	323852 ✓	2
[ Be	9	47.954	ug/L	1.925	4	32	19494	2
C	13		mg/L			5382	3145	1
Cl	37		mg/L			1968149	1930752	0
> Sc	45		ug/L			212115	211352 ✓	0
V	51	49.555	ug/L	0.905	1	1289	453788	1
V-1	51	49.558	ug/L	0.860	1	2538	461216	1
Cr	52	50.197	ug/L	0.863	1	3869	397306	1
Cr	53	50.179	ug/L	0.931	1	836	47271	1
Mn	55	50.262	ug/L	0.455	0	386	644464	0
[ Co	59	50.110	ug/L	0.655	1	61	466063	1
> Ge	72		ug/L			228607	228785 ✓	0
Ni	60	49.191	ug/L	0.757	1	47	96639	1
Ni	62	48.927	ug/L	0.535	1	56	14278	0
Cu	63	49.907	ug/L	0.444	0	178	212903	1
Cu	65	48.512	ug/L	0.074	0	90	98121	0
Zn	66	50.848	ug/L	0.753	1	229	66531	1
Zn	67	49.623	ug/L	0.478	0	104	10969	1
Zn	68	49.979	ug/L	0.337	0	4281	50099	0
As	75	49.937	ug/L	0.215	0	352	65493	0
As-1	75	49.803	ug/L	0.153	0	5658	69084	0
Se	82	51.002	ug/L	0.462	0	0	7242	0
Se	78	50.558	ug/L	0.403	0	5765	22475	0
[ Mo	98	49.436	ug/L	0.540	1	135	236622	0
Y	89		ug/L			218720	219819	1
Kr	83		ug/L			189	198	2
> In	115		ug/L			230726	236458 ✓	1
Ag	107	49.353	ug/L	0.397	0	39	380740	1
Cd	111	50.303	ug/L	0.379	0	121	98505	0
Cd	114	49.315	ug/L	0.630	1	20	220896	1
Sb	121	49.731	ug/L	0.126	0	20	338130	0
Sb	123	49.459	ug/L	0.350	0	20	255715	1
Ba	135	49.645	ug/L	0.828	1	18	80903	1
[ Ba	137	50.244	ug/L	0.867	1	25	141345	0
> Tb	159		ug/L			290754	299708 ✓	0
Tl	205	49.309	ug/L	0.295	0	29	1040488	0
Pb	208	50.617	ug/L	0.600	1	225	1424602	0
Bi	209		ug/L			234649	239830	1
Th	232	48.138	ug/L	0.880	1	71	1840149	1
[ U	238	48.067	ug/L	1.114	2	12	1880429	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, March 01, 2013 11:12:20

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	334254 ✓	0
[ Be	9	-0.002	ug/L	0.014	899	32	33	16
C	13		mg/L			5382	5282	3
Cl	37		mg/L			1968149	2009267	3
[> Sc	45		ug/L			212115	213272 ✓	0
V	51	0.009	ug/L	0.020	228	1289	1376	12
V-1	51	0.098	ug/L	0.014	13	2538	3469	2
Cr	52	0.008	ug/L	0.013	161	3869	3953	1
Cr	53	0.294	ug/L	0.035	11	836	1116	2
Mn	55	0.004	ug/L	0.003	81	386	441	8
[ Co	59	0.003	ug/L	0.002	73	61	89	22
[> Ge	72		ug/L			228607	228947 ✓	1
Ni	60	-0.003	ug/L	0.003	108	47	42	15
Ni	62	0.024	ug/L	0.035	144	56	63	14
Cu	63	0.007	ug/L	0.004	55	178	210	8
Cu	65	0.005	ug/L	0.009	192	90	100	18
Zn	66	-0.009	ug/L	0.006	66	229	217	2
Zn	67	0.057	ug/L	0.104	181	104	117	18
Zn	68	-0.002	ug/L	0.048	1962	4281	4285	1
As	75	0.001	ug/L	0.006	454	352	354	2
As-1	75	0.024	ug/L	0.093	388	5658	5696	1
Se	82	-0.059	ug/L	0.051	86	0	-9	79
Se	78	0.071	ug/L	0.361	508	5765	5796	1
[ Mo	98	0.015	ug/L	0.008	58	135	204	19
Y	89		ug/L			218720	222843	0
Kr	83		ug/L			189	196	3
[> In	115		ug/L			230726	238378 ✓	1
Ag	107	0.010	ug/L	0.003	28	39	119	18
Cd	111	-0.007	ug/L	0.003	47	121	111	6
Cd	114	0.001	ug/L	0.003	459	20	24	53
Sb	121	0.098	ug/L	0.025	25	20	695	24
Sb	123	0.098	ug/L	0.027	27	20	533	25
Ba	135	0.005	ug/L	0.005	106	18	27	31
[ Ba	137	0.007	ug/L	0.003	44	25	45	18
[> Tb	159		ug/L			290754	298164 ✓	0
Tl	205	0.006	ug/L	0.002	32	29	150	26
Pb	208	0.005	ug/L	0.003	52	225	378	20
Bi	209		ug/L			234649	243039	1
Th	232	0.055	ug/L	0.013	24	71	2185	23
[ U	238	0.004	ug/L	0.002	36	12	184	34



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 MB1 SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 11:19:25

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	349083	1
[ Be	9	0.011	ug/L	0.006	48	32	40	4
C	13		mg/L			5382	4821	0
Cl	37		mg/L			1968149	2062747	2
[> Sc	45		ug/L			212115	217910	0
V	51	✓ 0.006	ug/L	0.011	204	1289	1377	7
V-1	51	0.079	ug/L	0.001	1	2538	3365	0
Cr	52	✓ -0.002	ug/L	0.017	872	3869	3960	3
Cr	53	0.235	ug/L	0.025	10	836	1083	1
Mn	55	0.007	ug/L	0.004	53	386	490	10
[ Co	59	0.001	ug/L	0.002	157	61	72	21
[> Ge	72		ug/L			228607	231876	0
Ni	60	0.000	ug/L	0.005	5672	47	48	20
Ni	62	0.014	ug/L	0.048	335	56	61	22
Cu	63	0.008	ug/L	0.004	50	178	217	8
Cu	65	0.011	ug/L	0.005	40	90	115	8
Zn	66	0.450	ug/L	0.024	5	229	827	3
Zn	67	0.487	ug/L	0.046	9	104	214	5
Zn	68	0.414	ug/L	0.066	15	4281	4726	1
As	75	✓ 0.012	ug/L	0.029	237	352	374	10
As-1	75	0.045	ug/L	0.032	70	5658	5796	0
Se	82	✓ 0.002	ug/L	0.082	3740	0	0	2896
Se	78	0.114	ug/L	0.129	112	5765	5885	0
[ Mo	98	-0.008	ug/L	0.002	24	135	98	9
Y	89		ug/L			218720	225419	0
Kr	83		ug/L			189	190	6
[> In	115		ug/L			230726	239121	0
Ag	107	✓ 0.007	ug/L	0.003	42	39	94	24
Cd	111	0.001	ug/L	0.009	1698	121	126	13
Cd	114	-0.001	ug/L	0.000	33	20	17	6
Sb	121	✓ 0.034	ug/L	0.005	14	20	252	12
Sb	123	0.032	ug/L	0.005	15	20	186	13
Ba	135	0.012	ug/L	0.005	43	18	38	22
[ Ba	137	0.009	ug/L	0.003	31	25	52	15
[> Tb	159		ug/L			290754	302275	1
Tl	205	0.002	ug/L	0.000	25	29	71	14
Pb	208	✓ 0.004	ug/L	0.002	34	225	361	10
Bi	209		ug/L			234649	246485	0
Th	232	0.027	ug/L	0.004	14	71	1115	13
[ U	238	0.001	ug/L	0.000	38	12	52	28

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 B SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 11:25:22

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	344160 ✓	0
[ Be	9	0.224	ug/L	0.083	37	32	132	26
C	13		mg/L			5382	7968	2
Cl	37		mg/L			1968149	1986481	0
[> Sc	45		ug/L			212115	227867 ✓	1
V	51	18.675	ug/L	0.389	2	1289	185202	0
V-1	51	18.518	ug/L	0.379	2	2538	187484	0
Cr	52	5.871	ug/L	0.174	2	3869	53758	0
Cr	53	5.921	ug/L	0.211	3	836	6804	1
Mn	55	247.163	ug/L	4.286	1	386	3414545	0
[ Co	59	2.585	ug/L	0.053	2	61	25976	0
[> Ge	72		ug/L			228607	228514 ✓	0
Ni	60	3.680	ug/L	0.057	1	47	7266	1
Ni	62	5.128	ug/L	0.231	4	56	1544	3
Cu	63	8.723	ug/L	0.063	0	178	37314	0
Cu	65	8.739	ug/L	0.073	0	90	17730	1
Zn	66	19.981	ug/L	0.087	0	229	26253	1
Zn	67	22.213	ug/L	0.431	1	104	4962	2
Zn	68	21.573	ug/L	0.251	1	4281	24030	0
As	75	113.818	ug/L	1.270	1	352	148640	0
As-1	75	116.548	ug/L	1.313	1	5658	153894	0
Se	82	0.593	ug/L	0.126	21	0	83	20
Se	78	0.600	ug/L	0.203	33	5765	5960	0
[ Mo	98	0.149	ug/L	0.009	6	135	846	4
Y	89		ug/L			218720	270231	1
Kr	83		ug/L			189	202	1
[> In	115		ug/L			230726	237243 ✓	2
Ag	107	10.258	ug/L	0.216	2	39	79405	0
Cd	111	0.250	ug/L	0.040	15	121	616	13
Cd	114	0.033	ug/L	0.001	2	20	167	4
Sb	121	0.067	ug/L	0.001	2	20	480	0
Sb	123	0.062	ug/L	0.002	3	20	343	4
Ba	135	104.391	ug/L	2.456	2	18	170618	0
[ Ba	137	106.113	ug/L	3.512	3	25	299356	1
[> Tb	159		ug/L			290754	300171 ✓	0
Tl	205	0.182	ug/L	0.002	0	29	3880	0
Pb	208	8.135	ug/L	0.039	0	225	229531	0
Bi	209		ug/L			234649	249478	2
Th	232	1.089	ug/L	0.007	0	71	41778	0
[ U	238	0.199	ug/L	0.000	0	12	7828	0

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 C SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 11:31:19

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			320083	345460 ✓	0
[ ] Be	9	0.203	ug/L	0.022	11	32	123	8
[ ] C	13		mg/L			5382	7771	3
[ ] Cl	37		mg/L			1968149	1961757	0
[>] Sc	45		ug/L			212115	236261 ✓	0
[ ] V	51	17.927	ug/L	0.355	1	1289	184423	1
[ ] V-1	51	17.772	ug/L	0.339	1	2538	186695	1
[ ] Cr	52	6.526	ug/L	0.128	1	3869	61487	1
[ ] Cr	53	6.517	ug/L	0.052	0	836	7674	1
[ ] Mn	55	63.154	ug/L	0.937	1	386	905076	1
[ ] Co	59	1.532	ug/L	0.014	0	61	15998	0
[>] Ge	72		ug/L			228607	229134 ✓	0
[ ] Ni	60	1.650	ug/L	0.016	0	47	3293	1
[ ] Ni	62	1.789	ug/L	0.090	5	56	577	3
[ ] Cu	63	13.410	ug/L	0.194	1	178	57424	1
[ ] Cu	65	13.506	ug/L	0.150	1	90	27425	0
[ ] Zn	66	16.444	ug/L	0.236	1	229	21704	1
[ ] Zn	67	18.909	ug/L	0.803	4	104	4250	3
[ ] Zn	68	17.737	ug/L	0.045	0	4281	20574	0
[ ] As	75	178.765	ug/L	1.072	0	352	233895	0
[ ] As-1	75	183.052	ug/L	1.099	0	5658	239135	0
[ ] Se	82	1.177	ug/L	0.027	2	0	166	2
[ ] Se	78	1.189	ug/L	0.074	6	5765	6172	0
[ ] Mo	98	0.096	ug/L	0.008	8	135	593	5
[ ] Y	89		ug/L			218720	247133	0
[ ] Kr	83		ug/L			189	208	2
[>] In	115		ug/L			230726	237290 ✓	1
[ ] Ag	107	4.992	ug/L	0.138	2	39	38682	2
[ ] Cd	111	0.068	ug/L	0.018	27	121	258	13
[ ] Cd	114	0.009	ug/L	0.002	19	20	60	12
[ ] Sb	121	✓ 0.038	ug/L	0.005	13	20	280	11
[ ] Sb	123	0.039	ug/L	0.002	6	20	222	4
[ ] Ba	135	76.086	ug/L	1.292	1	18	124412	0
[ ] Ba	137	76.629	ug/L	1.152	1	25	216309	0
[>] Tb	159		ug/L			290754	298680 ✓	0
[ ] Tl	205	0.299	ug/L	0.008	2	29	6323	2
[ ] Pb	208	10.038	ug/L	0.084	0	225	281740	0
[ ] Bi	209		ug/L			234649	243573	0
[ ] Th	232	0.915	ug/L	0.017	1	71	34935	1
[ ] U	238	0.112	ug/L	0.004	3	12	4374	2

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 D SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 11:37:17

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

No As

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	335276 ✓	0
[ Be	9	0.186	ug/L	0.014	7	32	112	4
C	13		mg/L			5382	7494	1
Cl	37		mg/L			1968149	1972548	0
[> Sc	45		ug/L			212115	245485 ✓	1
V	51	33.730	ug/L	0.085	0	1289	359246	1
V-1	51	33.423	ug/L	0.044	0	2538	362260	0
Cr	52	9.642	ug/L	0.207	2	3869	92263	1
Cr	53	9.695	ug/L	0.147	1	836	11389	0
Mn	55	90.344	ug/L	1.367	1	386	1345113	1
[ Co	59	2.456	ug/L	0.037	1	61	26594	1
[> Ge	72		ug/L			228607	224340 ✓	0
Ni	60	2.944	ug/L	0.122	4	47	5716	4
Ni	62	2.983	ug/L	0.174	5	56	905	5
Cu	63	12.329	ug/L	0.159	1	178	51703	1
Cu	65	12.288	ug/L	0.211	1	90	24437	1
Zn	66	22.769	ug/L	0.546	2	229	29338	2
Zn	67	26.042	ug/L	0.316	1	104	5693	1
Zn	68	23.897	ug/L	0.140	0	4281	25681	0
As	75	728.731	ug/L	2.240	0	352	932482	0
As-1	75	746.516	ug/L	2.235	0	5658	937766	0
Se	82	1.258	ug/L	0.124	9	0	174	10
Se	78	1.799	ug/L	0.182	10	5765	6240	0
[ Mo	98	0.175	ug/L	0.017	9	135	954	8
Y	89		ug/L			218720	250120	0
Kr	83		ug/L			189	209	6
[> In	115		ug/L			230726	227658 ✓	1
Ag	107	2.665	ug/L	0.032	1	39	19831	0
Cd	111	0.052	ug/L	0.010	19	121	217	9
Cd	114	0.010	ug/L	0.000	4	20	63	2
Sb	121	✓ 0.046	ug/L	0.009	19	20	322	17
Sb	123	0.050	ug/L	0.003	6	20	266	6
Ba	135	80.233	ug/L	1.322	1	18	125873	1
[ Ba	137	80.270	ug/L	0.912	1	25	217401	0
[> Tb	159		ug/L			290754	289841 ✓	0
Tl	205	0.271	ug/L	0.004	1	29	5560	2
Pb	208	6.544	ug/L	0.022	0	225	178308	0
Bi	209		ug/L			234649	233970	0
Th	232	1.291	ug/L	0.029	2	71	47801	2
[ U	238	0.095	ug/L	0.003	3	12	3607	3

# ICP-MS Quantitative Analysis - Summary Report

No As, Cr, V

Sample ID: WE81 E SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 11:43:16

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	339406 ✓	1
[ Be	9	0.115	ug/L	0.011	9	32	83	6
C	13		mg/L			5382	7024	1
Cl	37		mg/L			1968149	2094361	0
[> Sc	45		ug/L			212115	262645	0
V	51	76.795	ug/L	0.696	0	1289	873088	1
V-1	51	76.019	ug/L	0.662	0	2538	877569	1
Cr	52	15.386	ug/L	0.089	0	3869	154670	1
Cr	53	15.542	ug/L	0.375	2	836	18910	1
Mn	55	59.233	ug/L	0.955	1	386	943761	1
[ Co	59	2.035	ug/L	0.037	1	61	23598	1
[> Ge	72		ug/L			228607	233969 ✓	0
Ni	60	1.326	ug/L	0.022	1	47	2711	1
Ni	62	1.391	ug/L	0.074	5	56	471	5
Cu	63	18.468	ug/L	0.354	1	178	80680	1
Cu	65	18.399	ug/L	0.270	1	90	38115	1
Zn	66	12.290	ug/L	0.182	1	229	16623	1
Zn	67	20.617	ug/L	0.285	1	104	4722	0
Zn	68	12.995	ug/L	0.048	0	4281	16563	0
As	75	1087.573	ug/L	1.590	0	352	1451198	0
As-1	75	1113.929	ug/L	1.618	0	5658	1456507	0
Se	82	1.482	ug/L	0.108	7	0	214	8
Se	78	1.415	ug/L	0.053	3	5765	6378	1
[ Mo	98	0.154	ug/L	0.004	2	135	892	2
Y	89		ug/L			218720	243839	1
Kr	83		ug/L			189	214	6
[> In	115		ug/L			230726	236241 ✓	0
Ag	107	2.119	ug/L	0.023	1	39	16373	1
Cd	111	0.029	ug/L	0.006	22	121	180	6
Cd	114	0.003	ug/L	0.001	22	20	35	8
Sb	121	0.041	ug/L	0.001	3	20	301	3
Sb	123	0.039	ug/L	0.003	7	20	221	5
Ba	135	40.507	ug/L	0.395	0	18	65960	1
[ Ba	137	40.208	ug/L	0.179	0	25	113026	1
[> Tb	159		ug/L			290754	298885 ✓	1
Tl	205	0.203	ug/L	0.004	1	29	4309	0
Pb	208	3.193	ug/L	0.030	0	225	89827	1
Bi	209		ug/L			234649	241502	0
Th	232	0.519	ug/L	0.006	1	71	19861	2
[ U	238	0.034	ug/L	0.002	4	12	1339	6

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 A-L SWN

Sample Dil Factor: 250

Comments:

Sample Date/Time: Friday, March 01, 2013 11:49:15

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			320083	344966 ✓	1
[ Be	9	0.041	ug/L	0.011	27	32	53	8
C	13		mg/L			5382	4432	1
Cl	37		mg/L			1968149	2164245	0
> Sc	45		ug/L			212115	221434 ✓	1
V	51	2.622	ug/L	0.029	1	1289	26427	1
V-1	51	2.651	ug/L	0.028	1	2538	28359	0
Cr	52	0.890	ug/L	0.012	1	3869	11351	2
Cr	53	1.059	ug/L	0.008	0	836	1900	1
Mn	55	50.707	ug/L	0.411	0	386	681144	0
[ Co	59	0.597	ug/L	0.008	1	61	5878	1
> Ge	72		ug/L			228607	232805 ✓	0
Ni	60	0.571	ug/L	0.016	2	47	1188	3
Ni	62	0.635	ug/L	0.044	6	56	245	5
Cu	63	0.958	ug/L	0.020	2	178	4335	1
Cu	65	0.993	ug/L	0.028	2	90	2134	2
Zn	66	4.412	ug/L	0.089	2	229	6087	1
Zn	67	4.313	ug/L	0.142	3	104	1067	2
Zn	68	4.457	ug/L	0.082	1	4281	8517	1
As	75	0.534	ug/L	0.026	4	352	1067	2
As-1	75	0.592	ug/L	0.083	14	5658	6528	1
Se	82	0.034	ug/L	0.136	398	0	4	475
Se	78	0.253	ug/L	0.300	118	5765	5955	1
[ Mo	98	-0.006	ug/L	0.002	36	135	106	10
Y	89		ug/L			218720	239438	0
Kr	83		ug/L			189	198	2
> In	115		ug/L			230726	236278 ✓	2
Ag	107	0.009	ug/L	0.001	7	39	108	3
Cd	111	0.039	ug/L	0.010	24	121	200	10
Cd	114	0.008	ug/L	0.002	24	20	57	13
Sb	121	0.006	ug/L	0.002	32	20	63	19
Sb	123	0.008	ug/L	0.002	21	20	64	16
Ba	135	7.905	ug/L	0.038	0	18	12889	1
[ Ba	137	7.973	ug/L	0.218	2	25	22428	0
> Tb	159		ug/L			290754	302551 ✓	0
Tl	205	0.005	ug/L	0.001	19	29	134	14
Pb	208	0.849	ug/L	0.007	0	225	24341	0
Bi	209		ug/L			234649	247845	1
Th	232	0.160	ug/L	0.004	2	71	6261	2
[ U	238	0.030	ug/L	0.001	2	12	1193	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 A SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Friday, March 01, 2013 11:55:13

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Cr

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	316121 ✓	0
[ Be	9	0.136	ug/L	0.017	12	32	86	7
C	13		mg/L			5382	4806	1
Cl	37		mg/L			1968149	2105489	1
[> Sc	45		ug/L			212115	221792 ✓	1
V	51	12.794	ug/L	0.122	0	1289	123938	0
V-1	51	12.711	ug/L	0.066	0	2538	126111	0
Cr	52	4.618	ug/L	0.090	1	3869	42030	0
Cr	53	4.704	ug/L	0.125	2	836	5444	3
Mn	55	255.161	ug/L	2.949	1	386	3431501	0
[ Co	59	2.895	ug/L	0.040	1	61	28315	2
[> Ge	72		ug/L			228607	217397 ✓	0
Ni	60	3.008	ug/L	0.052	1	47	5658	2
Ni	62	3.394	ug/L	0.059	1	56	990	2
Cu	63	5.054	ug/L	0.027	0	178	20640	0
Cu	65	5.073	ug/L	0.128	2	90	9828	3
Zn	66	21.796	ug/L	0.138	0	229	27223	0
Zn	67	21.688	ug/L	0.219	1	104	4611	1
Zn	68	22.273	ug/L	0.140	0	4281	23471	0
As	75	2.339	ug/L	0.037	1	352	3235	1
As-1	75	2.612	ug/L	0.066	2	5658	8542	1
Se	82	0.008	ug/L	0.132	1688	0	0	5916
Se	78	1.037	ug/L	0.164	15	5765	5808	1
[ Mo	98	0.032	ug/L	0.004	11	135	274	6
Y	89		ug/L			218720	282652	1
Kr	83		ug/L			189	204	4
[> In	115		ug/L			230726	225477 ✓	0
Ag	107	0.035	ug/L	0.006	16	39	293	13
Cd	111	0.185	ug/L	0.004	1	121	463	1
Cd	114	0.043	ug/L	0.005	11	20	205	10
Sb	121	0.009	ug/L	0.001	14	20	78	11
Sb	123	0.009	ug/L	0.001	10	20	62	7
Ba	135	40.813	ug/L	0.339	0	18	63432	1
[ Ba	137	40.817	ug/L	0.733	1	25	109508	1
[> Tb	159		ug/L			290754	280939 ✓	1
Tl	205	0.023	ug/L	0.001	5	29	482	5
Pb	208	4.461	ug/L	0.049	1	225	117874	0
Bi	209		ug/L			234649	227308	0
Th	232	0.844	ug/L	0.014	1	71	30330	1
[ U	238	0.158	ug/L	0.005	3	12	5794	3

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 ADUP SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Friday, March 01, 2013 12:01:11

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Cr

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	339539 ✓	1
[ Be	9	0.123	ug/L	0.017	13	32	87	9
C	13		mg/L			5382	5009	0
Cl	37		mg/L			1968149	2120701	0
[> Sc	45		ug/L			212115	231362 ✓	1
V	51	12.269	ug/L	0.309	2	1289	124030	1
V-1	51	12.178	ug/L	0.313	2	2538	126130	1
Cr	52	4.319	ug/L	0.082	1	3869	41271	0
Cr	53	4.366	ug/L	0.110	2	836	5335	1
Mn	55	255.973	ug/L	4.183	1	386	3590893	1
[ Co	59	2.848	ug/L	0.052	1	61	29059	2
[> Ge	72		ug/L			228607	226871 ✓	1
Ni	60	2.848	ug/L	0.027	0	47	5593	1
Ni	62	3.102	ug/L	0.103	3	56	949	2
Cu	63	4.867	ug/L	0.053	1	178	20749	1
Cu	65	4.870	ug/L	0.014	0	90	9849	1
Zn	66	21.217	ug/L	0.122	0	229	27661	0
Zn	67	20.805	ug/L	0.520	2	104	4619	1
Zn	68	21.516	ug/L	0.262	1	4281	23804	0
As	75	2.307	ug/L	0.052	2	352	3333	0
As-1	75	2.255	ug/L	0.094	4	5658	8462	0
Se	82	-0.016	ug/L	0.064	387	0	-3	293
Se	78	-0.294	ug/L	0.193	65	5765	5624	0
[ Mo	98	0.028	ug/L	0.005	17	135	267	7
Y	89		ug/L			218720	298164	0
Kr	83		ug/L			189	206	0
[> In	115		ug/L			230726	232685 ✓	0
[ Ag	107	0.035	ug/L	0.001	2	39	303	2
Cd	111	0.176	ug/L	0.010	5	121	461	4
Cd	114	0.049	ug/L	0.005	10	20	238	9
Sb	121	0.009	ug/L	0.000	5	20	77	4
Sb	123	0.009	ug/L	0.001	6	20	64	4
Ba	135	38.685	ug/L	0.146	0	18	62047	0
[ Ba	137	39.083	ug/L	0.424	1	25	108210	1
[> Tb	159		ug/L			290754	298113 ✓	0
Tl	205	0.021	ug/L	0.001	3	29	478	3
Pb	208	4.071	ug/L	0.057	1	225	114175	1
Bi	209		ug/L			234649	239300	0
Th	232	0.819	ug/L	0.004	0	71	31216	0
[ U	238	0.150	ug/L	0.003	1	12	5854	1



## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE83 ASPK SWN

Sample Dil Factor: 50

Comments:

Sample Date/Time: Friday, March 01, 2013 12:07:09

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Cr

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	342055 ✓	0
[ Be	9	9.079	ug/L	0.225	2	32	3929	2
C	13		mg/L			5382	4823	1
Cl	37		mg/L			1968149	1971081	0
[> Sc	45		ug/L			212115	229300 ✓	0
V	51	22.771	ug/L	0.463	2	1289	226979	1
V-1	51	22.625	ug/L	0.397	1	2538	229941	1
Cr	52	13.706	ug/L	0.131	0	3869	120743	0
Cr	53	13.631	ug/L	0.137	1	836	14591	1
Mn	55	265.451	ug/L	3.848	1	386	3690896	1
[ Co	59	11.774	ug/L	0.166	1	61	118859	1
[> Ge	72		ug/L			228607	223089 ✓	0
Ni	60	12.727	ug/L	0.095	0	47	24417	1
Ni	62	13.211	ug/L	0.171	1	56	3799	0
Cu	63	14.774	ug/L	0.097	0	178	61577	0
Cu	65	14.672	ug/L	0.316	2	90	29000	2
Zn	66	53.749	ug/L	0.296	0	229	68566	0
Zn	67	51.256	ug/L	0.974	1	104	11044	2
Zn	68	53.281	ug/L	0.415	0	4281	51802	0
As	75	12.683	ug/L	0.064	0	352	16476	0
As-1	75	12.361	ug/L	0.136	1	5658	20870	1
Se	82	31.629	ug/L	0.152	0	0	4379	0
Se	78	32.226	ug/L	0.423	1	5765	16009	0
[ Mo	98	7.617	ug/L	0.073	0	135	35661	0
Y	89		ug/L			218720	288905	1
Kr	83		ug/L			189	200	3
[> In	115		ug/L			230726	231036 ✓	1
Ag	107	8.230	ug/L	0.173	2	39	62047	0
Cd	111	10.212	ug/L	0.130	1	121	19634	0
Cd	114	9.962	ug/L	0.220	2	20	43609	1
Sb	121	0.355	ug/L	0.017	4	20	2376	3
Sb	123	0.350	ug/L	0.006	1	20	1788	2
Ba	135	50.060	ug/L	1.207	2	18	79697	1
[ Ba	137	50.741	ug/L	1.034	2	25	139453	0
[> Tb	159		ug/L			290754	297491 ✓	0
Tl	205	9.428	ug/L	0.076	0	29	197501	0
Pb	208	14.305	ug/L	0.065	0	225	399828	0
Bi	209		ug/L			234649	240260	1
Th	232	10.269	ug/L	0.252	2	71	389750	2
[ U	238	9.663	ug/L	0.081	0	12	375306	1

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: WE81 MB1SPK SWN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, March 01, 2013 12:13:07

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	341517 ✓	0
[ Be	9	22.375	ug/L	0.224	0	32	9616	0
C	13		mg/L			5382	4474	0
Cl	37		mg/L			1968149	2022951	2
[> Sc	45		ug/L			212115	203206 ✓	0
V	51	24.752	ug/L	0.414	1	1289	218551	1
V-1	51	24.729	ug/L	0.338	1	2538	222500	1
Cr	52	25.522	ug/L	0.215	0	3869	196055	0
Cr	53	25.415	ug/L	0.065	0	836	23417	0
Mn	55	25.801	ug/L	0.348	1	386	318257	1
Co	59	25.368	ug/L	0.144	0	61	226879	0
[> Ge	72		ug/L			228607	218156 ✓	1
Ni	60	25.158	ug/L	0.587	2	47	47145	1
Ni	62	25.486	ug/L	0.331	1	56	7117	1
Cu	63	26.211	ug/L	0.018	0	178	106702	1
Cu	65	25.633	ug/L	0.360	1	90	49472	0
Zn	66	81.395	ug/L	0.628	0	229	101418	0
Zn	67	75.064	ug/L	0.659	0	104	15769	0
Zn	68	80.255	ug/L	0.911	1	4281	74234	1
As	75	27.135	ug/L	0.533	1	352	34084	1
As-1	75	25.874	ug/L	0.553	2	5658	36813	0
Se	82	82.076	ug/L	1.695	2	0	11112	1
Se	78	82.317	ug/L	2.216	2	5765	31433	0
Mo	98	25.048	ug/L	0.246	0	135	114378	0
Y	89		ug/L			218720	213217	1
Kr	83		ug/L			189	193	2
[> In	115		ug/L			230726	229595 ✓	1
Ag	107	25.124	ug/L	0.693	2	39	188140	0
Cd	111	24.947	ug/L	0.207	0	121	47499	2
Cd	114	24.864	ug/L	0.443	1	20	108131	0
Sb	121	25.287	ug/L	0.321	1	20	166938	1
Sb	123	25.066	ug/L	0.234	0	20	125831	1
Ba	135	25.279	ug/L	0.497	1	18	40002	0
Ba	137	25.410	ug/L	0.088	0	25	69424	1
[> Tb	159		ug/L			290754	290442 ✓	1
Tl	205	25.618	ug/L	0.249	0	29	523853	0
Pb	208	26.095	ug/L	0.284	1	225	711824	0
Bi	209		ug/L			234649	242104	1
Th	232	24.509	ug/L	0.157	0	71	908036	0
U	238	24.675	ug/L	0.316	1	12	935503	0

4  
3A  
3/1/13

## ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3

Sample Dil Factor: 3/1/13

Comments:

Sample Date/Time: Friday, March 01, 2013 12:19:05

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>] Li	6		ug/L			320083	345636 ✓	1
[ ] Be	9	44.763	ug/L	0.963	2	32	19431	0
[ ] C	13		mg/L			5382	3261	3
[ ] Cl	37		mg/L			1968149	2023196	2
[>] Sc	45		ug/L			212115	209576 ✓	1
[ ] V	51	48.927	ug/L	0.527	1	1289	444276	0
[ ] V-1	51	48.983	ug/L	0.493	1	2538	452056	0
[ ] Cr	52	49.150	ug/L	0.357	0	3869	385855	1
[ ] Cr	53	49.320	ug/L	0.568	1	836	46089	1
[ ] Mn	55	48.991	ug/L	0.825	1	386	622872	1
[ ] Co	59	48.884	ug/L	0.566	1	61	450893	2
[>] Ge	72		ug/L			228607	225020 ✓	0
[ ] Ni	60	48.439	ug/L	0.907	1	47	93592	1
[ ] Ni	62	48.524	ug/L	0.464	0	56	13927	0
[ ] Cu	63	49.257	ug/L	0.354	0	178	206668	0
[ ] Cu	65	48.697	ug/L	0.634	1	90	96870	0
[ ] Zn	66	50.521	ug/L	0.416	0	229	65017	0
[ ] Zn	67	50.430	ug/L	0.873	1	104	10962	2
[ ] Zn	68	49.948	ug/L	0.369	0	4281	49247	1
[ ] As	75	49.813	ug/L	0.106	0	352	64256	0
[ ] As-1	75	49.906	ug/L	0.095	0	5658	68077	0
[ ] Se	82	50.399	ug/L	1.106	2	0	7038	1
[ ] Se	78	50.786	ug/L	1.059	2	5765	22178	0
[ ] Mo	98	49.083	ug/L	0.346	0	135	231079	1
[ ] Y	89		ug/L			218720	217084	1
[ ] Kr	83		ug/L			189	195	2
[>] In	115		ug/L			230726	230170 ✓	0
[ ] Ag	107	49.462	ug/L	0.502	1	39	371403	0
[ ] Cd	111	50.467	ug/L	0.312	0	121	96200	0
[ ] Cd	114	50.286	ug/L	0.386	0	20	219257	0
[ ] Sb	121	50.204	ug/L	0.308	0	20	332281	1
[ ] Sb	123	49.836	ug/L	0.459	0	20	250801	0
[ ] Ba	135	50.528	ug/L	0.636	1	18	80154	0
[ ] Ba	137	50.814	ug/L	0.270	0	25	139165	1
[>] Tb	159		ug/L			290754	296242 ✓	0
[ ] Tl	205	49.629	ug/L	0.762	1	29	1035153	1
[ ] Pb	208	50.799	ug/L	0.426	0	225	1413280	0
[ ] Bi	209		ug/L			234649	239051	1
[ ] Th	232	48.497	ug/L	0.442	0	71	1832585	0
[ ] U	238	47.974	ug/L	0.149	0	12	1855338	0

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID:** CCB3 <sup>4</sup> 2A  
**Sample Dil Factor:** 2/1/3  
**Comments:**  
**Sample Date/Time:** Friday, March 01, 2013 12:25:24  
**Number of Replicates:** 3  
**Method File:** C:\Elandata\Method\2008LoNoMinNoRh.mth  
**Tuning File:** C:\Elandata\Tuning\default.tun  
**Optimization File:** C:\Elandata\Optimize\default.dac  
**Calibration File:** C:\Elandata\Calibration\030113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[> Li	6		ug/L			320083	342921 ✓	1
[ Be	9	0.030	ug/L	0.031	104	32	47	26
C	13		mg/L			5382	5084	3
Cl	37		mg/L			1968149	2120075	0
[> Sc	45		ug/L			212115	207635 ✓	0
V	51	0.000	ug/L	0.016	13747	1289	1263	11
V-1	51	0.012	ug/L	0.004	36	2538	2594	0
Cr	52	-0.001	ug/L	0.010	860	3869	3779	2
Cr	53	0.037	ug/L	0.046	125	836	852	4
Mn	55	0.004	ug/L	0.004	92	386	427	11
Co	59	0.005	ug/L	0.002	32	61	105	14
[> Ge	72		ug/L			228607	223088 ✓	0
Ni	60	-0.001	ug/L	0.004	299	47	44	17
Ni	62	0.012	ug/L	0.035	286	56	58	16
Cu	63	-0.001	ug/L	0.002	235	178	170	4
Cu	65	0.001	ug/L	0.007	757	90	90	14
Zn	66	-0.004	ug/L	0.007	147	229	217	3
Zn	67	0.096	ug/L	0.045	47	104	122	8
Zn	68	-0.140	ug/L	0.064	45	4281	4052	2
As	75	0.028	ug/L	0.015	53	352	379	4
As-1	75	-0.009	ug/L	0.010	114	5658	5510	0
Se	82	0.043	ug/L	0.094	220	0	5	250
Se	78	-0.078	ug/L	0.054	69	5765	5600	0
[ Mo	98	-0.008	ug/L	0.004	55	135	96	19
Y	89		ug/L			218720	214592	0
Kr	83		ug/L			189	187	4
[> In	115		ug/L			230726	230268 ✓	0
Ag	107	0.008	ug/L	0.003	33	39	101	20
Cd	111	-0.002	ug/L	0.007	357	121	117	11
Cd	114	0.001	ug/L	0.001	102	20	25	20
Sb	121	0.102	ug/L	0.031	30	20	694	29
Sb	123	0.102	ug/L	0.022	21	20	534	20
Ba	135	0.004	ug/L	0.003	74	18	24	17
[ Ba	137	0.007	ug/L	0.006	84	25	46	37
[> Tb	159		ug/L			290754	290120 ✓	0
Tl	205	0.007	ug/L	0.002	31	29	177	27
Pb	208	0.008	ug/L	0.003	37	225	430	18
Bi	209		ug/L			234649	237165	0
Th	232	0.062	ug/L	0.017	26	71	2352	26
[ U	238	0.004	ug/L	0.001	27	12	147	25

**Metals Data Review Checklist**

Method: ICP ICP-MS GFA CVA

Analysis Date: 2-27-13

	Analyst	Peer	Comment
	2-27 DM	M 227	
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	
Internal Standards	—	—	
Carry-over	—	✓	
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	NETA ASPK LOW/R
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	✓	✓	SK CAF

# Mercury Analysis Log

Analyst: DM  
Instrument: CETA2

Date: 2-27-13  
Page: 1 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	TMM	IX		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			8.03	%R=100 ✓
ICB			-0.04	✓
CCV			4.12	%R=103 ✓
CCB			-0.01	✓
CRA			0.10	✓
NETO MB			-0.01	✓
" MBK			2.05	%R=103 ✓
" A				Prep - 4x DIL.
CCV			4.14	%R=104 ✓
CCB			-0.01	✓
STD 0.0	SMM			
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			7.81	Eq: n CLP %R=95 ✓
ICB			-0.04	✓
CCV			3.96	%R=99 ✓
CCB			-0.00	✓
CRA			0.11	✓
NE63 MBI	SMM	IX	0.01	✓

Chemical/Reagent ID:  
10% SnCl<sub>2</sub>: MP2442

14% NH<sub>2</sub>OH/NaCl: MP2436

Standard ID:  
Standard: 3016-11 (TMM)  
3016-12 (SMM)

ICV/CCV: 59-6

### Mercury Analysis Log

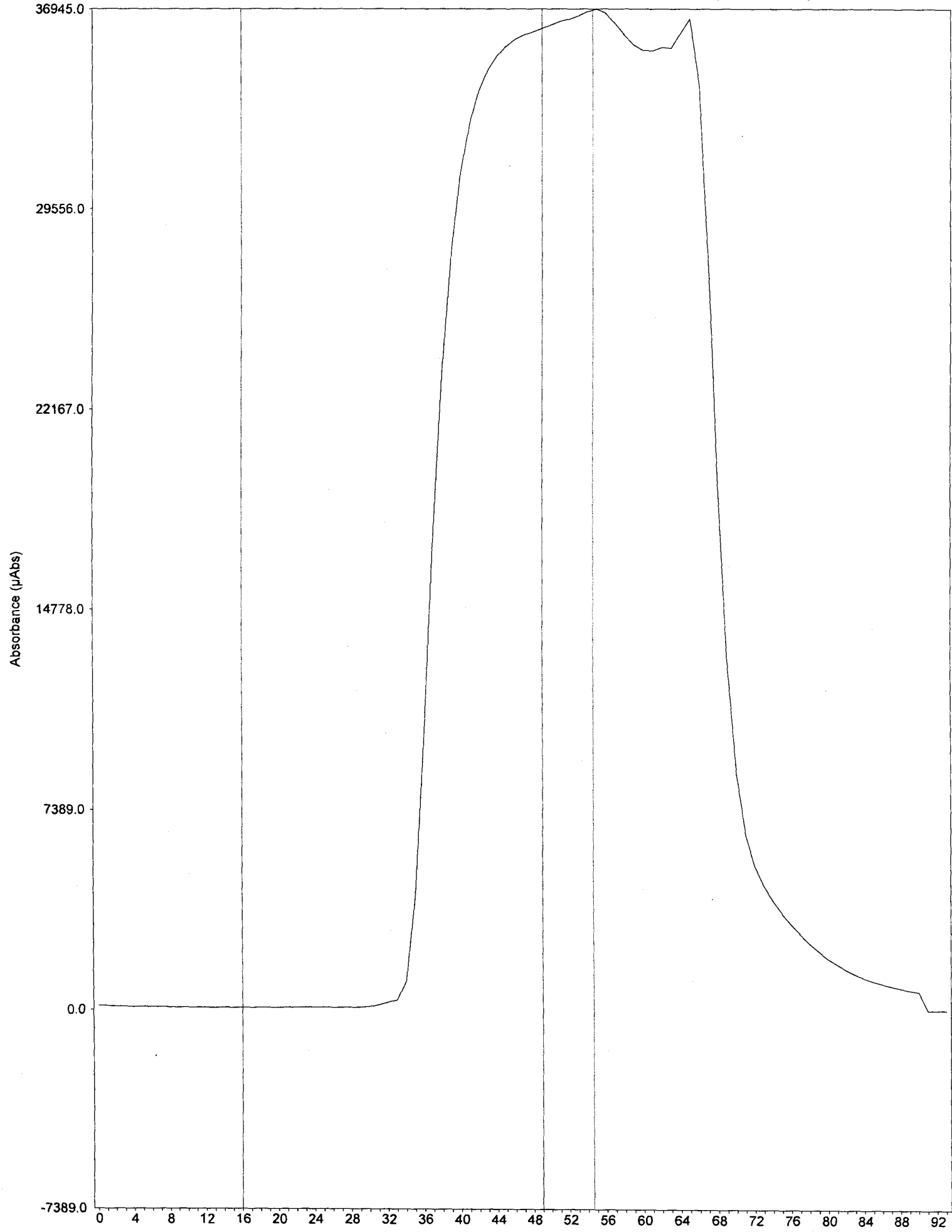
Analyst: DM  
 Instrument: CETAC

Date: 2-27-13  
 Page: 2 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WE83 MBSPK	SMM	1X	1.97	%R=99 ✓
" A			0.16	
" ADUP			0.23	✓
" ASPK			1.22	%R=106 ✓
" B			0.24	
" EDUP			0.21	✓
" EBPX			1.32	%R=108 ✓
" C				
CCV2			3.99	%R=100 ✓
CCB2			-0.01	✓
WE83 D				
" E				
" F				
" G				
" H				
" I				
" J				
WE79 MBI			0.00	✓
" MBEPX			2.04	%R=102 ✓
" A			3.22	
CCV3			4.02	%R=101 ✓
CCB3			-0.01	✓
WE80 ADUP			2.75	RPO=15.7 ✓
" ASPK			3.82	%R=60 LOW X
" B				
" C				
" D				
" E				
" F	↓	↓		
" G	SMM	1X		

Chemical/Reagent ID:  
 10% SnCl<sub>2</sub>: MP2442  
 Standard ID:  
 Standard: 3016-D

14% NH<sub>2</sub>OH/NaCl: MP2436  
 ICV/CCV: 59-L





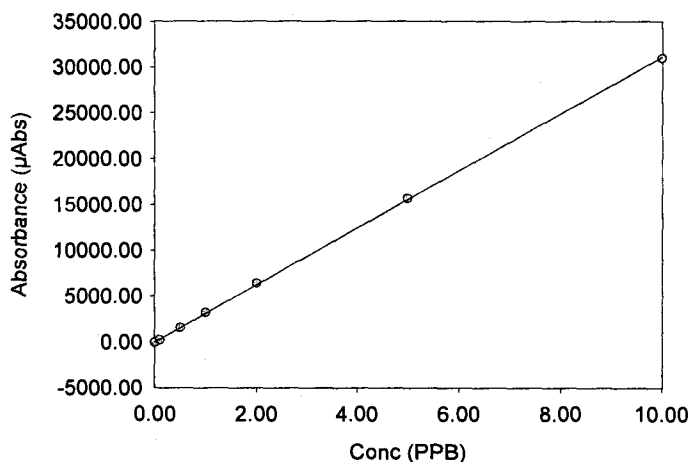
Analyst  
Date Started  
Worksheet  
Comment

Wednesday, February 27, 2013, 10:03:33  
ARI 10ppb CALIB

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	27-Feb-2013, 10:03	0.00	28.00	-36.40	1.00	
Standard #1	27-Feb-2013, 10:05	0.10	6.79	280.00	1.00	
Standard #2	27-Feb-2013, 10:06	0.50	0.82	1580.00	1.00	
Standard #3	27-Feb-2013, 10:08	1.00	0.36	3240.00	1.00	
Standard #4	27-Feb-2013, 10:09	2.00	0.39	6410.00	1.00	
Standard #5	27-Feb-2013, 10:11	5.00	2.64	15700.00	1.00	
Standard #6	27-Feb-2013, 10:13	10.00	0.24	31100.00	1.00	

SMM

Calibration Data



Int. Slope 0.000  
3117.860  
Correlation 0.99995

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	27-Feb-2013, 10:16	7.81	0.60	24400.00	1.00	
ICB	27-Feb-2013, 10:18	-0.04	2.51	-111.00	1.00	

Begin CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 10:19	3.96	0.96	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 10:21	-0.00	35.70	-15.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	27-Feb-2013, 10:23	0.11	0.89	333.00	1.00	
WE83 MB1 SMM	27-Feb-2013, 10:24	0.01	21.50	17.90	1.00	
WE83 MB1SPK SMM	27-Feb-2013, 10:26	1.97	0.89	6160.00	1.00	
WE83 A SMM	27-Feb-2013, 10:27	0.16	0.43	506.00	1.00	
WE83 ADUP SMM	27-Feb-2013, 10:29	0.23	1.21	728.00	1.00	
WE83 ASPK SMM	27-Feb-2013, 10:31	1.22	0.25	3790.00	1.00	
WE83 B SMM	27-Feb-2013, 10:32	0.24	0.22	755.00	1.00	
WE83 BDUP SMM	27-Feb-2013, 10:34	0.21	1.26	643.00	1.00	
WE83 BSPK SMM	27-Feb-2013, 10:35	1.32	0.78	4110.00	1.00	
WE83 C SMM	27-Feb-2013, 10:37	0.19	1.46	595.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 10:39	3.99	0.45	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 10:40	-0.01	32.00	-33.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE83 D SMM	27-Feb-2013, 10:42	0.11	1.21	341.00	1.00	
WE83 E SMM	27-Feb-2013, 10:44	0.31	1.04	975.00	1.00	
WE83 F SMM	27-Feb-2013, 10:45	0.15	2.44	471.00	1.00	
WE83 G SMM	27-Feb-2013, 10:47	0.18	0.29	555.00	1.00	

WE83: 00476

Analyst  
 Date Started Wednesday, February 27, 2013, 10:48:51  
 Worksheet ARI 10ppb CALIB  
 Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE83 H SMM	27-Feb-2013, 10:48	0.09	1.30	275.00	1.00	
WE83 I SMM	27-Feb-2013, 10:50	0.08	0.60	259.00	1.00	
WE83 J SMM	27-Feb-2013, 10:52	0.17	2.79	539.00	1.00	
WE79 MB1 SMM	27-Feb-2013, 10:53	0.00	85.10	6.15	1.00	
WE79 MB1SPK SMM	27-Feb-2013, 10:55	2.04	0.78	6360.00	1.00	
WE79 A SMM	27-Feb-2013, 10:56	3.22	0.35	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 10:58	4.02	0.23	12500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 11:00	-0.01	27.90	-44.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE79 ADUP SMM	27-Feb-2013, 11:01	2.75	1.32	8570.00	1.00	
WE79 ASPK SMM	27-Feb-2013, 11:03	3.82	0.15	11900.00	1.00	- Low %R
WE79 B SMM	27-Feb-2013, 11:05	3.17	0.56	9890.00	1.00	
WE79 C SMM	27-Feb-2013, 11:06	5.98	0.34	18700.00	1.00	
WE79 D SMM	27-Feb-2013, 11:08	2.36	0.14	7350.00	1.00	
WE79 E SMM	27-Feb-2013, 11:09	3.23	0.42	10100.00	1.00	
WE79 F SMM	27-Feb-2013, 11:11	3.60	0.71	11200.00	1.00	
WE79 G SMM	27-Feb-2013, 11:13	2.22	0.34	6910.00	1.00	
WE79 H SMM	27-Feb-2013, 11:14	2.22	0.19	6920.00	1.00	
WE79 I SMM	27-Feb-2013, 11:16	1.72	0.39	5370.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 11:18	4.05	0.30	12600.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 11:19	-0.02	11.10	-52.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE79 J SMM	27-Feb-2013, 11:21	2.15	0.69	9820.00	1.00	
WE79 K SMM	27-Feb-2013, 11:23	1.80	0.24	5830.00	1.00	
WE79 L SMM	27-Feb-2013, 11:24	2.83	0.36	8810.00	1.00	
WE79 M SMM	27-Feb-2013, 11:26	5.23	0.36	16300.00	1.00	
WE79 N SMM	27-Feb-2013, 11:27	2.62	0.58	8180.00	1.00	
WE79 O SMM	27-Feb-2013, 11:29	4.04	0.27	12600.00	1.00	
WE79 P SMM	27-Feb-2013, 11:31	10.00	0.55	31300.00	1.00	O
WE79 Q SMM	27-Feb-2013, 11:32	5.86	0.43	18300.00	1.00	
WE79 R SMM	27-Feb-2013, 11:34	6.67	0.36	20800.00	1.00	
WE79 S SMM	27-Feb-2013, 11:36	7.85	0.28	24500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	27-Feb-2013, 11:37	3.96	0.22	12400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	27-Feb-2013, 11:39	-0.02	11.90	-65.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WE79 T SMM	27-Feb-2013, 11:40	1.92	0.40	6000.00	1.00	
WE79 MB2 SMM	27-Feb-2013, 11:42	0.00	943.00	0.40	1.00	
WE79 MB2SPK SMM	27-Feb-2013, 11:44	2.04	0.09	6350.00	1.00	
WE79 U SMM	27-Feb-2013, 11:45	2.10	0.72	6530.00	1.00	
WE79 V SMM	27-Feb-2013, 11:47	0.90	0.44	2810.00	1.00	
WE79 W SMM	27-Feb-2013, 11:49	0.48	0.48	1490.00	1.00	
WE79 X SMM	27-Feb-2013, 11:50	10.90	0.24	34000.00	1.00	O

**Analyst**  
**Date Created:** Thursday, July 13, 2000  
**Worksheet** ARI 10ppb CALIB  
**Comment**

**Sip Duration (Sec.):** 30  
**Rinse Duration (Sec.):** 60  
**Read Delay:** 49  
**Integration Time/Replicate:** 1.40  
**# of Replicates:** 4  
**# of Repeats:** 1  
**Baseline Correction Enabled:** True  
**Baseline Point 1 Start Time:** 10  
**Baseline Point 1 End Time:** 16  
**2-Point Baseline Corr. Enabled:** False  
**Baseline Point 2 Start Time:**  
**Baseline Point 2 End Time:**

**Gas Flow (ml/min):** 180

**Calibration Algorithm:** Linear, Zero Intercept  
**Recalibration Frequency:** 0  
**Reslope Frequency:** 0  
**Reslope Standard:** 5  
**Calibration Standard #1 Conc.:** 0.10 PPB  
**Calibration Standard #2 Conc.:** 0.50 PPB  
**Calibration Standard #3 Conc.:** 1.00 PPB  
**Calibration Standard #4 Conc.:** 2.00 PPB  
**Calibration Standard #5 Conc.:** 5.00 PPB  
**Calibration Standard #6 Conc.:** 10.00 PPB

**QC Enabled:** True  
**QC-RSD Enabled:** True  
**Limit Condition & Error Action:** If %RSD > 5.0%, if  $\mu$ Abs. > 1500, Flag and Continue

**QC-Std Enabled:** True  
**Limit Condition & Error Action:** If outside 80% .. 120%, Stop

**QC-Blank Enabled:** True  
**Limit Condition & Error Action:** If outside -100 .. 100, Stop



# Mercury Standard Prep Log

Digestd 20.0mL

Prep Code: TNm

Instrument: CETAC

Analyst: DM

Date: 2-25-13

Bath Temp: 95°C

Start Time: 1015

End Time: 1215

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	-	0.00	100.0	0.0	1
STD1	3016-11	0.01		0.1	1
STD2		0.05		0.5	1
STD3		0.10		1.0	1
STD4		0.20		2.0	1
STD5		0.50		5.0	1
STD6		1.00		10.0	1
CRA	↓	0.01		0.1	1
ICB/CCB	-	0.00		0.0	1
ICV/LCS	59-6	0.16	↓	8.0	1
CCV	↓	0.08	100.0	4.0	1

Chemical/Reagent ID:

HNO<sub>3</sub>: J8022

H<sub>2</sub>SO<sub>4</sub>: J777

HCl: -

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418

5% KMnO<sub>4</sub>: MP2425

Prep Code: 3MM

Instrument: CETAC

Analyst: DM

Date: 2-25-13

Bath Temp: 95°C

Start Time: 1059

End Time: 120

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	-	0.00	50.0	0.0	3
STD1	30K-12	0.01		0.1	2
STD2		0.05		0.5	2
STD3		0.10		1.0	2
STD4		0.20		2.0	2
STD5		0.50		5.0	2
STD6		1.00		10.0	2
CRA	↓	0.01		0.1	1
ICB/CCB	-	0.00		0.0	3
ICV/LCS	59-6	0.08	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:

HNO<sub>3</sub>: J8022

H<sub>2</sub>SO<sub>4</sub>: J777

HCl: -

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2418

5% KMnO<sub>4</sub>: MP2425



# Mercury Digestion Log

Prep Code: SMM

Matrix: Soil

Analyst: DM

Date: 2-26-13

Bath Temp: 95°C

Start Time: 1155

End Time: 1225

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
WEB3 A	1	-	0.567	50.0	3/8 1	④	
" ADUP	1	-	0.570		1		
" ADPK	1	-	0.567		1		
" B	1	-	0.516		1		
" BDUK	1	-	0.514		1		
" BDK	1	-	0.517		1		
" C	1	-	0.590		1		
" D	1	-	0.545		1		
" E	1	-	0.516		1		
" F	1	-	0.530		1		
" G	1	-	0.550		1		
" H	1	-	0.513		1		
" I	1	-	0.577		1		
" J	1	-	0.567		1		
" MB1	-	-	-	↓	1	↓	
" MB1PK	-	-	-	50.0	1	④	
<del>2-26-13 DM</del>							

Chemical/Reagent ID:

HNO<sub>3</sub>: IG022

H<sub>2</sub>SO<sub>4</sub>: IT171

HCl: -

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2413

5% KMnO<sub>4</sub>: MP2425

Digest Tube Lot: MF06LKK01

Table of Contents: ARI Job WI50

Client: Hart Crowser, Inc.

Project: 17917-00 Saddle Rock

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AV  
Signature

March-26-2013  
Date



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

March 29, 2013

Roger McGinnis  
Hart Crowser, Inc.  
1700 Westlake Avenue N. Suite 200  
Seattle, WA 98109-3256

**RE: Client Project: Saddle Rock**  
**ARI Job No. WI50**

Dear Roger:

Please find enclosed the chain of custody documentation and data package for samples from the project referenced above

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

A handwritten signature in black ink, appearing to read "Kelly Bottem".

Kelly Bottem  
Client Services Manager  
kellyb@arilabs.com  
206/695-6211

Enclosures

cc: eFile WI50

KFB/kfb

**Chain of Custody Documentation**

**ARI Job ID: WI50**





# Sample Custody Record

Samples Shipped to: ART

20F4

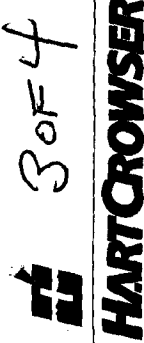
Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581



JOB 17917-00 LAB NUMBER				PROJECT NAME <u>SADDLE ROCK</u>				OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS						
HART CROWSER CONTACT <u>S. Hughes</u>				HART CROWSER CONTACT <u>S. Hughes</u>				NO. OF CONTAINERS						
SAMPLED BY: <u>A. NG, SF</u>				SAMPLED BY: <u>A. NG, SF</u>										
LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS				TOTAL NUMBER OF CONTAINERS 12				
	SR02-D04		2/19/13	0953	S	XX								
	SR02-D05		"	0919	"	XX								
	SR02-D06		"	1118	"	XX								
	SR02-D07		"	1130	"	XX								
	SR02-D08		"	1153	"	XX								
	SR02-D09		"	1214	"	XX								
	SR02-D10		"	1219	"	XX								
	SR02-D11		"	1044	"	XX								
	SR02-C01		"	1020	"	XX								
	SR02-C02		"	1103	"	XX								
	SR02-C03		"	1137	"	XX								
	SR03-DE1		2/20/13	0943	"	XX								
RELINQUISHED BY		DATE	RECEIVED BY	DATE	SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:		COOLER NO.:				TURNAROUND TIME:			
SIGNATURE		TIME	SIGNATURE	TIME	Level III DATA		STORAGE LOCATION:				<input type="checkbox"/> 24 HOURS			
PRINT NAME		TIME	PRINT NAME	TIME	PACKAGE						<input type="checkbox"/> 48 HOURS			
COMPANY		TIME	COMPANY	TIME							<input type="checkbox"/> 72 HOURS			
RELINQUISHED BY		DATE	RECEIVED BY	DATE							<input type="checkbox"/> 1 WEEK			
SIGNATURE		TIME	SIGNATURE	TIME							<input checked="" type="checkbox"/> STANDARD			
PRINT NAME		TIME	PRINT NAME	TIME							<input type="checkbox"/> OTHER			
COMPANY		TIME	COMPANY	TIME										

# Sample Custody Record

Samples Shipped to: ARI



Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

JOB	LAB NUMBER		REQUESTED ANALYSIS				NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	PROJECT NAME	HART CROWSER CONTACT	METALS	TOTAL SOLIDS				
17917-00	SADDLE ROCK						1	NCSO
	S. HUGHES						1	
	A. CONNER						1	
	A. S.F. NG						1	
LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX			
	SR03-002		2/20/13	1007	S	X		
	SR03-003		"	1031	"	X		
	SR03-004		"	1127	"	X		
	SR03-005		"	1157	"	X		
	SR03-006		"	1327	"	X		
	SR03-007		"	1300	"	X		
	SR03-008		"	1227	"	X		
	SR03-009		"	1059	"	X		
	SR03-010		"	1047	"	X		
	SR03-011		"	1117	"	X		
	SR03-001		"	1137	"	X		
	SR03-002		"	1246	"	X		
RELINQUISHED BY: <u>[Signature]</u>		DATE	RECEIVED BY: <u>[Signature]</u>		DATE	SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:  LEVEL II DATA PACKAGE		
SIGNATURE	DATE	SIGNATURE	DATE					
PRINT NAME	TIME	PRINT NAME	TIME					
COMPANY		DATE	COMPANY		DATE	TOTAL NUMBER OF CONTAINERS 12		
RELINQUISHED BY		DATE	RECEIVED BY		DATE			
SIGNATURE	DATE	SIGNATURE	DATE					
PRINT NAME	TIME	PRINT NAME	TIME					
COMPANY		DATE	COMPANY		DATE	SAMPLE RECEIPT INFORMATION CUSTOMY SEALS: YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input type="checkbox"/> GOOD CONDITION YES <input type="checkbox"/> NO <input type="checkbox"/> TEMPERATURE SHIPMENT METHOD: <input type="checkbox"/> HAND <input type="checkbox"/> COURIER <input type="checkbox"/> OVERNIGHT		
RELINQUISHED BY		DATE	RECEIVED BY		DATE	TURNAROUND TIME:		
SIGNATURE	DATE	SIGNATURE	DATE			<input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK <input checked="" type="checkbox"/> 48 HOURS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> 72 HOURS <input type="checkbox"/> OTHER		
PRINT NAME	TIME	PRINT NAME	TIME			COOLER NO.:		
COMPANY		DATE	COMPANY		DATE	STORAGE LOCATION:		
RELINQUISHED BY		DATE	RECEIVED BY		DATE	See Lab Work Order No. _____		
SIGNATURE	DATE	SIGNATURE	DATE			for Other Contract Requirements		
PRINT NAME	TIME	PRINT NAME	TIME			Lab to Return White Copy to Hart Crowser    Gold to Sample Custodian		
COMPANY		DATE	COMPANY		DATE	White and Yellow Copies to Lab    Pink to Project Manager		

2013: 022000

# Sample Custody Record

Samples Shipped to: ART



4 OF 4

Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

JOB 17917-00 LAB NUMBER \_\_\_\_\_  
 PROJECT NAME SADDLE ROCK  
 HART CROWSER CONTACT S. Hughes  
R. McGowan, A. Conroy  
 SAMPLED BY: AJ SF, NG

REQUESTED ANALYSIS	
METALS	
Trace Solids	

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	SR03-C03		2/20/13	1343	S	1	
	SR04-001		2/21/13	1005	"	1	
	SR04-002		"	1015	"	1	
	SR04-003		"	1025	"	1	
	SR04-005		"	1105	"	1	
	SR04-006		"	1030	"	1	
	SR04-004		"	1048	"	1	
	SR04-001		"	1158	"	1	
	SR04-C02		"	1221	"	1	
	SR04-003		"	1238	"	1	

RELINQUISHED BY SIGNATURE: <u>[Signature]</u> PRINT NAME: <u>R. McGowan</u> COMPANY: <u>Hart Crowser</u>	RECEIVED BY SIGNATURE: <u>[Signature]</u> PRINT NAME: <u>AJ SF, NG</u> COMPANY: <u>Hart Crowser</u>	DATE: <u>2/21/13</u> TIME: _____	DATE: <u>2/15/13</u> TIME: _____
RELINQUISHED BY SIGNATURE: _____ PRINT NAME: _____ COMPANY: _____	RECEIVED BY SIGNATURE: _____ PRINT NAME: _____ COMPANY: _____	DATE: _____ TIME: _____	DATE: _____ TIME: _____

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:  
LEVEL II DATA  
PACKAGE

COOLER NO.: \_\_\_\_\_ STORAGE LOCATION: \_\_\_\_\_

TOTAL NUMBER OF CONTAINERS: 10

SAMPLE RECEIPT INFORMATION:  
 CUSTODY SEALS:  YES  NO  N/A  
 GOOD CONDITION:  YES  NO  
 TEMPERATURE: \_\_\_\_\_  
 SHIPMENT METHOD:  HAND  OVERNIGHT  
 COURIER

TURNAROUND TIME:  
 24 HOURS  1 WEEK  STANDARD  
 48 HOURS  OTHER

# Sample Custody Record

Samples Shipped to: ART



**HART CROWSER**

Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

1 of 3

JOB		LAB NUMBER		OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS					
17917-00				WE81					
PROJECT NAME		HART CROWSER CONTACT		NO. OF CONTAINERS					
SADPUE ROCK		S. HUGHES		1					
SAMPLED BY:		RECEIVED BY		TOTAL NUMBER OF CONTAINERS					
A. S. NG		R. C. HIGLEY		12					
LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS	NO. OF CONTAINERS	TURNAROUND TIME:	
	SR05-001	2/21/13	0700		S	1	1	<input type="checkbox"/> 24 HOURS	
	SR05-002	2/21/13	1552		"	1	1	<input type="checkbox"/> 48 HOURS	
	SR05-003	2/21/13	1519		"	1	1	<input checked="" type="checkbox"/> STANDARD	
	SR05-004	"	1533		"	1	1	<input type="checkbox"/> 72 HOURS	
	SR05-005	"	1543		"	1	1		
	SR05-006	"	1537		"	1	1		
	SR05-001	"	1621		"	1	1		
	SR05-002	"	1630		"	1	1		
	SR05-003	2/21/13	0941		"	1	1		
	SR06-001	"	1100		"	1	1		
	SR06-002	"	1115		"	1	1		
	SR06-003	"	1138		"	1	1		
RELINQUISHED BY		RECEIVED BY		DATE		SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:		TOTAL NUMBER OF CONTAINERS	
[Signature]		[Signature]		2/25/13		Level III DATA PACKAGES		12	
PRINT NAME: <u>Art Crowser</u>		PRINT NAME: <u>R. C. HIGLEY</u>		TIME					
COMPANY: <u>Hart Crowser</u>		COMPANY: <u>ART</u>		DATE: <u>1/30</u>					
RELINQUISHED BY		RECEIVED BY		DATE		COOLER NO.:		STORAGE LOCATION:	
[Signature]		[Signature]							
PRINT NAME		PRINT NAME		TIME					
COMPANY		COMPANY							
SIGNATURE		SIGNATURE		TIME					
PRINT NAME		PRINT NAME		TIME					
COMPANY		COMPANY							

5110 0500 0500 0500 0500 0500

# Sample Custody Record

Samples Shipped to: ARI

2 of 3



**HART CROWSER**

Hart Crowser, Inc.  
1700 Westlake Avenue North, Suite 200  
Seattle, Washington 98109-6212  
Office: 206.324.9530 • Fax 206.328.5581

JOB		LAB NUMBER		OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS		
17917-00				WES1		
PROJECT NAME		SADDLE ROCK				
HART CROWSER CONTACT		J. HUGHES				
SAMPLED BY:		A. STANLEY				
LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	NO. OF CONTAINERS
	SR06-004		2/22/13	1205	S	1
	SR06-005		"	1218	"	1
	SR06-006		"	1144	"	1
	SR06-001		"	1237	"	1
	SR06-002		"	1302	"	1
	SR06-003		"	1324	"	1
	SR07-001		2/20/13	1557	"	1
	SR07-002		"	1607	"	1
	SR07-003		"	1616	"	1
	SR07-004		"	1629	"	1
	SR07-005		"	1640	"	1
	SR07-006		"	1627	"	1
SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS: LOBEL II DATA PACKAGE						12
RELINQUISHED BY: <u>[Signature]</u> SIGNATURE: <u>Rich Haber</u> PRINT NAME: <u>Rich Haber</u> COMPANY: <u>ARI</u>						TOTAL NUMBER OF CONTAINERS <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A GOOD CONDITION <input type="checkbox"/> YES <input type="checkbox"/> NO TEMPERATURE <input type="checkbox"/> COURIER <input type="checkbox"/> HAND <input type="checkbox"/> OVERNIGHT
RELINQUISHED BY: <u>[Signature]</u> SIGNATURE: <u>[Signature]</u> PRINT NAME: <u>[Signature]</u> COMPANY: <u>[Signature]</u>						TURNAROUND TIME: <input type="checkbox"/> 24 HOURS <input type="checkbox"/> 1 WEEK <input checked="" type="checkbox"/> 48 HOURS <input type="checkbox"/> STANDARD <input type="checkbox"/> 72 HOURS <input type="checkbox"/> OTHER
STORAGE NO.: _____ STORAGE LOCATION: _____ See Lab Work Order No. _____ for Other Contract Requirements						

**Subject:** RE: FW: Additional analyses Saddle Rock 17917-00  
**From:** Roger McGinnis <Roger.McGinnis@hartcrowser.com>  
**Date:** 3/21/2013 9:59 AM  
**To:** 'Kelly Bottem' <kellyb@arilabs.com>  
**CC:** Anne Conrad <Anne.Conrad@hartcrowser.com>

Yes - on both SPLP samples

Delete ✓

---

**From:** Kelly Bottem [mailto:kellyb@arilabs.com]  
**Sent:** Thursday, March 21, 2013 9:58 AM  
**To:** Roger McGinnis  
**Cc:** Anne Conrad  
**Subject:** Re: FW: Additional analyses Saddle Rock 17917-00

Add AL to  
BOB SPLP

OK. So are we adding Al?  
On 3/21/2013 9:48 AM, Roger McGinnis wrote:

Kelly;  
Thanks.

One other change. We do not need vanadium on the SPLP.

Thanks,  
Roger

---

**From:** Kelly Bottem [mailto:kellyb@arilabs.com]  
**Sent:** Thursday, March 21, 2013 9:44 AM  
**To:** Anne Conrad; Roger McGinnis  
**Subject:** Re: FW: Additional analyses Saddle Rock 17917-00

OK. Roger, we can run SPLP Al.  
K

On 3/21/2013 9:37 AM, Anne Conrad wrote:

Kelly,  
To update you on a change here. Steve Hughes is no longer with Hart Crowser, and Roger is the Project Manager for Saddle Rock. So please send data to Roger and myself.  
Thanks,  
Anne

---

**From:** Roger McGinnis  
**Sent:** Thursday, March 21, 2013 7:54 AM  
**To:** Anne Conrad; Kelly Bottem  
**Subject:** RE: Additional analyses Saddle Rock 17917-00  
Kelly;  
Could you also analyze the SPLP samples for aluminum?  
Thanks,  
Roger

---

**From:** Anne Conrad  
**Sent:** Monday, March 18, 2013 2:50 PM

**To:** Kelly Bottem  
**Cc:** Roger McGinnis  
**Subject:** Additional analyses Saddle Rock 17917-00

Hi Kelly,

Can we get the costs for some additional analyses for this project?

5 samples total – 2 SPLP, 3 TCLP

Composite SR02-D03, SR02-D04, SR02-D05, SR02-D07, SR02-D09 and analyze for As, Ag, V by SPLP; As by TCLP (WE79)

Composite SR03-D01, SR03-D02, SR03-D03, SR03-D07, SR03-D08 and analyze for As, Ag by SPLP; As by TCLP (WE79 and WE80)

Composite SR06-D01, SR06-D02, SR06-D03, SR06-D04, SR06-D05 and analyze for Hg by TCLP (WE81)

What would be the costs for 1 week turnaround for the 5 samples and for standard turnaround?

Thanks,

Anne

**Anne M. Conrad, M.S.**

Geochemist

[Anne.Conrad@hartcrowser.com](mailto:Anne.Conrad@hartcrowser.com)



**HARTCROWSER**

1700 Westlake Ave N, Suite 200

Seattle, WA 98109-6212

206.324.9530

206-826-4219 (direct)

206-940-6728 (cell)

*Environmental - Geotechnical - Natural Resources*

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Kelly Frances Bottem, Client Services Manager  
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Direct Phone: 206-695-6211  
E-Mail: [kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
Fax: 206-695-6201  
Cell: 206-228-1385

"Never interrupt someone doing something you said couldn't be done" -  
Amelia Earhart

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--

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RE: Saddle rock

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prohibited.

If you have received this correspondence in error, please  
notify sender immediately. Thank you.

In basket thawing.

3/20/13 JM

**Subject:** RE: Saddle rock  
**From:** Anne Conrad <Anne.Conrad@hartcrowser.com>  
**Date:** 3/20/2013 11:35 AM  
**To:** 'Kelly Bottem' <kellyb@arilabs.com>  
**CC:** Roger McGinnis <Roger.McGinnis@hartcrowser.com>

Hi Kelly,

Please proceed with the analysis on a 4-5 day turnaround.

Composite SR02-D03, SR02-D04, SR02-D05, SR02-D07, SR02-D09 and analyze for As, Ag, V by SPLP; As by TCLP (WE79)

Composite SR03-D01, SR03-D02, SR03-D03, SR03-D07, SR03-D08 and analyze for As, Ag by SPLP; As by TCLP (WE79 and WE80)

Composite SR06-D01, SR06-D02, SR06-D03, SR06-D04, SR06-D05 and analyze for Hg by TCLP (WE81)

We will not need a full data package, but we do want EIM EDD. Let me know if you have any questions!

Thanks,

Anne

-----Original Message-----

From: Kelly Bottem [<mailto:kellyb@arilabs.com>]  
Sent: Wednesday, March 20, 2013 11:04 AM  
To: Anne Conrad  
Subject: Saddle rock

Kelly Frances Bottem, Client Services Manager  
Analytical Resources, Inc.  
4611 S. 134th Place, Suite 100  
Tukwila, WA 98168-3240  
Website: <http://www.arilabs.com>  
Direct Phone: 206-695-6211  
E-Mail: [kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
Fax: 206-695-6201  
Cell: 206-228-1385

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RE: Saddle rock

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**Case Narrative, Data Qualifiers, Control Limits**

**ARI Job ID: WI50**



**Case Narrative**

**Project: 17917-00**

**ARI Job No.: WI50**

**March 29, 2013**

**Sample Receipt:**

Please find enclosed the original chain of custody (COC) record and analytical results for the project referenced above. Analytical Resources, Inc. accepted several soil samples in good condition and originally received under ARI SDGs WE79 and WE81. Please see the Cooler Receipt Form for further details. At the request of the client several samples were composited and analyzed for TCLP and SPLP metals.

**TCLP and SPLP Metals by 6010C and 7470A**

The samples were digested on 3/22/13 and analyzed between 3/22/13 and 3/25/13 within the method recommended holding time.

***Initial calibration (s):*** All analytes were within method acceptance criteria.

***Continuing calibration (s):*** All analytes were within method acceptance criteria.

***Samples:*** No anomalies were encountered for these samples.

***Method Blank:*** The method blanks were free of contamination.

***LCS:*** Is in control.

***Matrix spike/Sample Duplicate/RPD:*** Are in control.

# Sample ID Cross Reference Report



ARI Job No: WI50  
Client: Hart Crowser, Inc.  
Project Event: 17917-00  
Project Name: Saddle Rock

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. SR02-(D03,D04,D05,D07,D0WI50A		13-5914	Soil	02/19/13	02/25/13 08:42
2. SR03-(D01,D02,D03,D07,D0WI50B		13-5915	Soil	02/20/13	02/25/13 08:42
3. SR06-(D01,D02,D03,D04,D0WI50C		13-5916	Soil	02/22/13	02/25/13 08:42
4. SR02-(D03,D04,D05,D07,D0WI50D		13-5917	Soil	02/19/13	02/25/13 08:42
5. SR03-(D03,D04,D05,D07,D0WI50E		13-5918	Soil	02/20/13	02/25/13 08:42



## Data Reporting Qualifiers

Effective 2/14/2011

### Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- \* Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but  $\geq$  the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is  $\leq 5$  times the Reporting Limit and the replicate control limit defaults to  $\pm 1$  RL instead of the normal 20% RPD

### Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- \* Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria ( $< 20\%$  RSD,  $< 20\%$  Drift or minimum RRF).





- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
- NA The flagged analyte was not analyzed for
- NR Spiked compound recovery is not reported due to chromatographic interference
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
- EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria"  
**(Dioxin/Furan analysis only)**
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by  $\geq 40\%$  RPD with no obvious chromatographic interference
- X Analyte signal includes interference from polychlorinated diphenyl ethers.  
**(Dioxin/Furan analysis only)**
- Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**



### **Geotechnical Data**

- A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
- F Samples were frozen prior to particle size determination
- SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
- SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
- W Weight of sample in some pipette aliquots was below the level required for accurate weighting



<b>Quality Control Parameters for Mercury Analysis using CVAA EPA Methods 7470A or 245.1 for Aqueous Samples EPA Methods 7471B or 245.5 for Solid Samples</b>						
	<b>Aqueous Samples<sup>2</sup></b>			<b>Spike Recovery</b>		<b>RPD<sup>5</sup></b>
	<b>DL<sup>1</sup> µg/L</b>	<b>LOD<sup>1</sup> µg/L</b>	<b>LOQ<sup>1</sup> µg/L</b>	<b>Matrix Spike</b>	<b>LCS</b>	
<b>Mercury</b>	0.0069	0.05	<b>0.10<sup>2</sup></b>	75 – 125	80 – 120	≤ 20
<b>Mercury (low level)</b>	0.0026	0.01	<b>0.02<sup>2</sup></b>	75 – 125	80 – 120	≤ 20
	<b>Soil / Sediment Samples</b>			<b>Spike Recovery</b>		<b>RPD<sup>5</sup></b>
	<b>DL<sup>1</sup> mg/kg</b>	<b>LOD<sup>1</sup> mg/kg</b>	<b>LOQ<sup>1</sup> mg/kg</b>	<b>Matrix Spike</b>	<b>LCS</b>	
<b>Mercury</b>	0.0021	0.0125	0.025 <sup>3</sup>	75 – 125	80 – 120	≤ 20
	<b>Tissue Samples</b>			<b>Spike Recovery</b>		<b>RPD<sup>5</sup></b>
	<b>DL<sup>1</sup> mg/kg</b>	<b>LOD<sup>1</sup> mg/kg</b>	<b>LOQ<sup>1</sup> mg/kg</b>	<b>Matrix Spike</b>	<b>LCS</b>	
<b>Mercury</b>	0.0021	0.0125	0.005 <sup>4</sup>	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S

(2) 20 mL sample with 20 mL final volume

(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.

(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.

(5) Relative Percent Difference between analytes in replicate analyzes. If  $C_o$  and  $C_d$  are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_o - C_d|}{\frac{C_o + C_d}{2}} \times 100$$



**Quality Control Parameters for Metals Analysis-ICP-OES  
EPA Methods 200.7 and 6010C**

Analyte	Aqueous Samples <sup>2</sup>			Spike Recovery		RPD <sup>5</sup>	Solids <sup>3</sup>	Tissue <sup>4</sup>
	DL <sup>1</sup> µg/L	LOD <sup>1</sup> µg/L	LOQ <sup>1</sup> µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Antimony	6.28	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Arsenic	3.33	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Barium	1.33	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Beryllium	0.16	0.5	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Boron	7.39	10	20	75 – 125	80 – 120	≤ 20	2.0	0.4
Cadmium	0.18	0.5	2.0	75 – 125	80 – 120	≤ 20	0.2	0.04
Calcium	11.27	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Chromium	1.24	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.1
Cobalt	0.27	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Copper	0.92	1.0	2.0	75 – 125	80 – 120	≤ 20	0.2	0.04
Iron	7.50	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Lead	1.55	10	20	75 – 125	80 – 120	≤ 20	2.0	0.4
Magnesium	9.61	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Manganese	0.28	0.5	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Molybdenum	0.79	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.1
Nickel	3.86	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2
Potassium	65.70	250	500	75 – 125	80 – 120	≤ 20	50	10
Selenium	4.99	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Silicon	8.17	30	60	75 – 125	80 – 120	≤ 20	(6)	(6)
Silver	0.43	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Sodium	11.35	250	500	75 – 125	80 – 120	≤ 20	50	10
Strontium	0.09	1.0	1.0	75 – 125	80 – 120	≤ 20	0.1	0.02
Thallium	3.10	25	50	75 – 125	80 – 120	≤ 20	5.0	1.0
Tin	1.41	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2
Titanium	2.11	2.5	5.0	75 – 125	80 – 120	≤ 20	0.5	0.01
Vanadium	0.27	1.5	3.0	75 – 125	80 – 120	≤ 20	0.3	0.06
Zinc	1.45	5.0	10	75 – 125	80 – 120	≤ 20	1.0	0.2

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S

(2) 50 mL sample and 50 mL final volume

(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.

(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.

(5) Relative Percent Difference between analytes in replicate analyzes. If C<sub>O</sub> and C<sub>D</sub> are the concentrations of the

original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} \times 100$$

(6) ARI does not analyze for Silicon in solids or tissue samples

**Metals Analysis  
Report and Summary QC Forms**

**ARI Job ID: WI50**

**Cover Page**  
**INORGANIC ANALYSIS DATA PACKAGE**



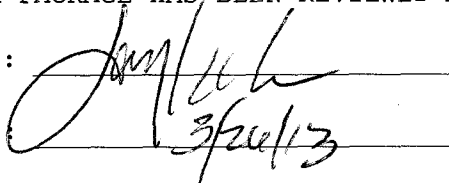
CLIENT: Hart Crowser, Inc.  
 PROJECT: Saddle Rock  
 SDG: WI50

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SR02-(D03,D04,D05,	WI50A	13-5914	
SR02-(D03,D04,D05,D	WI50ADUP	13-5914	
SR02-(D03,D04,D05,S	WI50ASPK	13-5914	
PBS	WI50MB1	13-5914	
SR03-(D01,D02,D03,	WI50B	13-5915	
SR06-(D01,D02,D03,	WI50C	13-5916	
SR06-(D01,D02,D03,D	WI50CDUP	13-5916	
SR06-(D01,D02,D03,S	WI50CSPK	13-5916	
PBS	WI50MB2	13-5916	
SR02-(D03,D04,D05,	WI50Da	13-5917	
SR02-(D03,D04,D05,D	WI50DaDUP	13-5917	
SR02-(D03,D04,D05,S	WI50DaSPK	13-5917	
PBS	WI50MB3	13-5917	
SR03-(D03,D04,D05,	WI50Ea	13-5918	

Were ICP interelement corrections applied ?      Yes/No      YES  
 Were ICP background corrections applied ?      Yes/No      YES  
 If yes - were raw data generated before  
 application of background corrections ?      Yes/No      NO

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature:       Name: Jay Kuhn  
 Date: 3/26/13      Title: Inorganics Director

**INORGANICS ANALYSIS DATA SHEET**

**TCLP METALS**

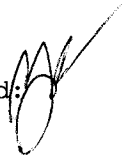
Page 1 of 1

**Sample ID: SR02-(D03,D04,D05,D07,D09)  
SAMPLE**

Lab Sample ID: WI50A

LIMS ID: 13-5914

Matrix: Soil

Data Release Authorized: 

Reported: 03/26/13

QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1311	03/22/13	6010C	03/25/13	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TCLP METALS**


Page 1 of 1

**Sample ID: SR02-(D03,D04,D05,D07,D09)  
DUPLICATE**

Lab Sample ID: WI50A

LIMS ID: 13-5914

Matrix: Soil

Data Release Authorized: 

Reported: 03/26/13

QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010C	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in mg/L

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit



**INORGANICS ANALYSIS DATA SHEET**

**TCLP METALS**


Page 1 of 1

**Sample ID: SR02-(D03,D04,D05,D07,D09)  
MATRIX SPIKE**

Lab Sample ID: WI50A

LIMS ID: 13-5914

Matrix: Soil

Data Release Authorized: 

Reported: 03/26/13

QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010C	0.2 U	4.0	4.0	100%	

Reported in mg/L

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked or diluted near or below detection limit

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TCLP METALS**


Page 1 of 1

**Sample ID: SR03-(D01,D02,D03,D07,D08)  
SAMPLE**

Lab Sample ID: WI50B

LIMS ID: 13-5915

Matrix: Soil

Data Release Authorized: 

Reported: 03/26/13

QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1311	03/22/13	6010C	03/25/13	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TCLP METALS**


Page 1 of 1

**Sample ID: SR06-(D01,D02,D03,D04,D05)  
SAMPLE**

Lab Sample ID: WI50C

LIMS ID: 13-5916

Matrix: Soil

Data Release Authorized: 

Reported: 03/26/13

QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1311	03/22/13	7470A	03/22/13	7439-97-6	Mercury	0.0001	0.0002	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TCLP METALS**


Page 1 of 1

Sample ID: SR06-(D01,D02,D03,D04,D05)  
DUPLICATE

Lab Sample ID: WI50C

LIMS ID: 13-5916

Matrix: Soil

Data Release Authorized: 

Reported: 03/26/13

QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	0.0002	0.0002	0.0%	+/- 0.0001	L

Reported in mg/L

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TCLP METALS**

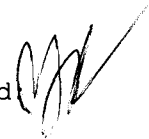
Page 1 of 1

**Sample ID: SR06- (D01,D02,D03,D04,D05)  
MATRIX SPIKE**

Lab Sample ID: WI50C

LIMS ID: 13-5916

Matrix: Soil

Data Release Authorized 

Reported: 03/26/13

QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/22/13

Date Received: 02/25/13

**MATRIX SPIKE QUALITY CONTROL REPORT**

<b>Analyte</b>	<b>Analysis Method</b>	<b>Sample</b>	<b>Spike</b>	<b>Spike Added</b>	<b>% Recovery</b>	<b>Q</b>
Mercury	7470A	0.0002	0.0013	0.0010	110%	

Reported in mg/L

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked or diluted near or below detection limit

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**SPLP METALS**


Page 1 of 1

**Sample ID: SR02-(D03,D04,D05,D07,D09)  
SAMPLE**

Lab Sample ID: WI50D

LIMS ID: 13-5917

Matrix: Soil

Data Release Authorized: 

Reported: 03/26/13

QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1312	03/22/13	6010C	03/25/13	7429-90-5	Aluminum	0.05	0.07	
1312	03/22/13	6010C	03/25/13	7440-38-2	Arsenic	0.05	0.05	U
1312	03/22/13	6010C	03/25/13	7440-22-4	Silver	0.003	0.003	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**SPLP METALS**

Page 1 of 1

**Sample ID: SR02-(D03,D04,D05,D07,D09)  
DUPLICATE**

Lab Sample ID: WI50D

LIMS ID: 13-5917

Matrix: Soil

Data Release Authorized:

Reported: 03/26/13



QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	0.07	0.07	0.0%	+/- 0.05	L
Arsenic	6010C	0.05 U	0.05 U	0.0%	+/- 0.05	L
Silver	6010C	0.003 U	0.003 U	0.0%	+/- 0.003	L

Reported in mg/L

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**SPLP METALS**

Page 1 of 1

**Sample ID: SR02-(D03,D04,D05,D07,D09)  
MATRIX SPIKE**

Lab Sample ID: WI50D

LIMS ID: 13-5917

Matrix: Soil

Data Release Authorized:

Reported: 03/26/13

QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/19/13

Date Received: 02/25/13

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	0.07	4.33	4.00	106%	
Arsenic	6010C	0.05 U	4.10	4.00	102%	
Silver	6010C	0.003 U	1.04	1.00	104%	

Reported in mg/L

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked or diluted near or below detection limit

Percent Recovery Limits: 75-125%



**INORGANICS ANALYSIS DATA SHEET**

**SPLP METALS**

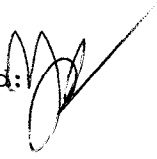
Page 1 of 1

**Sample ID: SR03-(D03,D04,D05,D07,D09)  
SAMPLE**

Lab Sample ID: WI50E

LIMS ID: 13-5918

Matrix: Soil

Data Release Authorized: 

Reported: 03/26/13

QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: 02/20/13

Date Received: 02/25/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1312	03/22/13	6010C	03/25/13	7429-90-5	Aluminum	0.05	5.81	
1312	03/22/13	6010C	03/25/13	7440-38-2	Arsenic	0.05	0.27	
1312	03/22/13	6010C	03/25/13	7440-22-4	Silver	0.003	0.005	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TCLP METALS**


Page 1 of 1

**Sample ID: METHOD BLANK**

Lab Sample ID: WI50MB

LIMS ID: 13-5914

Matrix: Soil

Data Release Authorized: 

Reported: 03/26/13

QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1311	03/22/13	6010C	03/25/13	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TCLP METALS**


Page 1 of 1

**Sample ID: METHOD BLANK**

Lab Sample ID: WI50MB

LIMS ID: 13-5916

Matrix: Soil

Data Release Authorized 

Reported: 03/26/13

QC Report No: WI50-Hart Crowser, Inc.

Project: Saddle Rock

17917-00

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1311	03/22/13	7470A	03/22/13	7439-97-6	Mercury	0.0001	0.0001	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**SPLP METALS**

**Sample ID: METHOD BLANK**

Page 1 of 1

Lab Sample ID: WI50MB


QC Report No: WI50-Hart Crowser, Inc.

LIMS ID: 13-5917

Project: Saddle Rock

Matrix: Soil

17917-00

Data Release Authorized: 

Date Sampled: NA

Reported: 03/26/13

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1312	03/22/13	6010C	03/25/13	7429-90-5	Aluminum	0.05	0.05	U
1312	03/22/13	6010C	03/25/13	7440-38-2	Arsenic	0.05	0.05	U
1312	03/22/13	6010C	03/25/13	7440-22-4	Silver	0.003	0.003	U

U-Analyte undetected at given RL  
RL-Reporting Limit

# Calibration Verification

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WI50



UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP032571	2000.0	2056.82	102.8	2000.0	2064.82	103.2	2041.08	102.1						
Arsenic	AS	ICP	IP032571	2000.0	1991.41	99.6	2000.0	1996.50	99.8	1980.52	99.0						
Mercury	HG	CVA	HG032202	8.0	7.87	98.4	4.0	3.95	98.8	3.96	99.0						
Silver	AG	ICP	IP032571	1000.0	1031.09	103.1	1000.0	1022.07	102.2	1015.91	101.6						

Control Limits: Mercury 80-120; Other Metals 90-110

WI50 : 00000



**CRDL Standard**

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WI50

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Aluminum	AL	ICP	IP032571	50.0		50.09	100.2										
Arsenic	AS	ICP	IP032571	50.0		51.48	103.0										
Mercury	HG	CVA	HG032202	0.1		0.09	90.0										
Silver	AG	ICP	IP032571	3.0		3.17	105.7										

WI50 : 00040

Control Limits: no control limits have been established by the EPA at this time.

# Calibration Blanks

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WI50



UNITS: ug/L

ANALYTE	EL METH	RUN	CRDL	IDL	ICB	CCB1	CCB2	CCB3	CCB4	CCB5
					C	C	C	C	C	C
Aluminum	AL ICP	IP032571	200.0	50.0	50.0	50.0	50.0			
Arsenic	AS ICP	IP032571	10.0	50.0	50.0	50.0	50.0			
Mercury	HG CVA	HG032202	0.2	0.1	0.1	0.1	0.1			
Silver	AG ICP	IP032571	10.0	3.0	3.0	3.0	3.0			

WI 50 : 00041

# ICP Interference Check Sample



CLIENT: Hart Crowser, Inc.

ICS SOURCE: I.V.

PROJECT: Saddle Rock

RUNID: IP032571

SDG: WI50

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	200053.5	201280.5	100.6						
Antimony	1000	1000	-3.0	974.9	97.5						
Arsenic	1000	1000	27.5	1012.1	101.2						
Barium	1000	1000	-3.8	975.2	97.5						
Beryllium	1000	1000	0.0	981.7	98.2						
Boron			15.7	3.3							
Cadmium	1000	1000	2.5	976.1	97.6						
Calcium	100000	100000	100306.1	100470.3	100.5						
Chromium	1000	1000	-5.3	975.2	97.5						
Cobalt	1000	1000	1.8	927.1	92.7						
Copper	1000	1000	1.6	1012.9	101.3						
Iron	200000	200000	186352.0	188482.4	94.2						
Lead	1000	1000	-10.9	956.5	95.7						
Magnesium	100000	100000	103400.2	99534.4	99.5						
Manganese	1000	1000	0.4	924.6	92.5						
Molybdenum			3.8	3.8							
Nickel	1000	1000	-0.6	966.2	96.6						
Potassium			9.4	-21.4							
Selenium	1000	1000	-16.9	963.8	96.4						
Silicon			2.0	-2.6							
Silver	1000	1000	-0.4	1033.7	103.4						
Sodium			23.6	18.8							
Strontium			4.0	4.0							
Thallium	1000	1000	12.8	918.5	91.9						
Tin			-9.3	-8.7							
Titanium			2.3	2.6							
Vanadium	1000	1000	-1.0	943.8	94.4						
Zinc	1000	1000	-0.9	947.4	94.7						

WI50 : 00042



# IDLs and ICP Linear Ranges



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WI50

UNITS: ug/L

ANALYTE	EL METH	INSTRUMENT	WAVELENGTH (nm)	GFA		CLP	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
				BACK- GROUND	CRDL					
Aluminum	AL	ICP	OPTIMA ICP 2	308.22		200	50.0	4/1/2012	250000.0	1/22/2013
Arsenic	AS	ICP	OPTIMA ICP 2	197.20		10	50.0	4/1/2012	30000.0	1/22/2013
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Silver	AG	ICP	OPTIMA ICP 2	328.07		10	3.0	4/1/2012	5000.0	1/22/2013

# ICP Interelement Correction Factors



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WI50

IEC DATE: 1/22/2013

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FZ
Aluminum	308.22	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Antimony	206.84	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	13.7020120	0.000000	0.000000
Arsenic	188.98	0.000000	0.000000	0.000000	0.000000	0.0911890	0.000000	-1.1057220	1.4447090	0.000000	0.000000
Barium	233.53	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1795110	0.000000	0.000000	0.1469350
Beryllium	313.04	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Cadmium	228.80	0.000000	5.5964570	0.000000	0.000000	0.000000	0.000000	0.1385480	0.000000	0.000000	0.000000
Calcium	317.93	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Chromium	267.72	0.000000	0.000000	0.0295099	0.000000	0.1250000	0.000000	0.000000	0.000000	0.000000	-0.0309050
Cobalt	228.62	0.000000	0.000000	0.1133150	0.000000	0.000000	0.000000	0.000000	-0.0333930	0.000000	0.000000
Copper	324.75	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1698980	-0.0211960	0.000000	-0.0491600
Iron	273.96	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.7025530	0.000000	0.000000
Lead	220.35	-0.2707930	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-1.8104440	1.2410760	0.0536970
Magnesium	279.08	0.000000	0.000000	0.000000	0.000000	0.1060020	0.000000	-1.4277330	-1.1381670	0.000000	0.5549620
Manganese	257.61	0.0049690	0.000000	0.000000	0.000000	0.0038740	0.000000	0.0125790	0.000000	0.000000	0.000000
Molybdenum	202.03	0.000000	0.000000	0.000000	0.000000	0.0117860	0.000000	0.000000	0.0509920	0.000000	0.000000
Nickel	231.60	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Potassium	766.49	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Selenium	196.03	0.1149780	0.000000	0.000000	0.000000	0.000000	0.000000	0.4775670	0.000000	0.000000	0.000000
Silicon	288.16	0.000000	0.000000	0.000000	0.000000	0.000000	-3.2795240	0.000000	0.000000	0.000000	0.000000
Silver	328.07	0.000000	0.000000	0.000000	0.000000	0.000000	-0.0054570	0.000000	0.000000	0.000000	0.000000
Sodium	589.59	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Thallium	190.80	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.9747620	0.3985520	0.000000	-0.1326730
Tin	189.93	0.000000	0.000000	0.000000	0.000000	-0.0837380	0.000000	0.000000	0.000000	0.000000	0.000000
Titanium	334.90	0.000000	0.000000	0.000000	0.000000	0.0594390	0.000000	0.000000	0.1892210	0.000000	0.000000
Vanadium	292.40	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-4.3335490	0.000000	0.0501910
Zinc	206.20	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.1801790	0.000000	0.000000

# ICP Interelement Correction Factors



CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WI50

IEC DATE: 1/22/2013

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.000000	0.000000	17.5877940	0.000000	0.000000	0.000000	2.0603180	0.000000	14.5677200	0.000000
Antimony	206.84	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.7545320	0.000000	-3.8306350	0.000000
Arsenic	188.98	0.000000	0.000000	3.3991370	0.000000	0.000000	0.000000	-34.6204750	0.000000	0.000000	0.000000
Barium	233.53	0.000000	0.000000	0.000000	0.1174000	0.000000	0.000000	0.000000	0.000000	0.2171460	0.000000
Beryllium	313.04	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.0100680	0.000000	0.2372710	0.000000
Cadmium	228.80	0.000000	0.000000	0.000000	-0.9200350	0.000000	0.000000	0.000000	0.000000	0.0629730	0.000000
Calcium	317.93	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Chromium	267.72	0.0938730	0.0834700	0.0738780	0.000000	0.000000	0.000000	0.000000	0.000000	0.3293430	0.000000
Cobalt	228.62	0.000000	0.000000	-0.1425980	0.1557020	0.000000	0.000000	1.7571760	0.000000	0.000000	0.000000
Copper	324.75	0.0053240	0.000000	0.3083290	0.000000	0.000000	0.000000	0.1931400	0.000000	0.000000	0.000000
Iron	273.96	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	6.3157650	0.000000
Lead	220.35	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Magnesium	279.08	0.000000	0.000000	-4.9970650	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Manganese	257.61	0.000000	0.000000	0.000000	0.000000	-0.1877320	0.000000	0.000000	0.000000	0.000000	0.000000
Molybdenum	202.03	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Nickel	231.60	0.000000	0.000000	0.000000	0.000000	0.000000	-0.4494500	0.000000	0.4360770	0.000000	0.000000
Potassium	766.49	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Selenium	196.03	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.5722860	0.000000
Silicon	288.16	-0.1122540	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Silver	328.07	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.3208460	0.000000
Sodium	589.59	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Thallium	190.80	0.000000	0.000000	-1.6204090	0.000000	0.000000	0.000000	0.000000	0.000000	3.6226430	0.000000
Tin	189.93	0.000000	0.000000	0.000000	0.000000	0.000000	-0.5136310	-0.1873890	0.000000	0.000000	0.000000
Titanium	334.90	0.000000	0.000000	1.0549050	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Vanadium	292.40	0.000000	-0.1522160	-0.5618640	0.000000	0.000000	0.000000	0.5717940	0.000000	0.000000	0.000000
Zinc	206.20	0.000000	0.000000	0.2590480	0.000000	-0.0606610	0.000000	0.000000	0.000000	0.000000	0.000000

1150 00015

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: CVA

PROJECT: Saddle Rock

ARI PREP CODE: LEM

SDG: WI50

PREPDATE: 3/22/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR06-(D01,D02,D03,	WI50C	0.000	20.0	20.0
SR06-(D01,D02,D03,D	WI50CDUP	0.000	20.0	20.0
SR06-(D01,D02,D03,S	WI50CSPK	0.000	20.0	20.0
PBS	WI50MB2	0.000	20.0	20.0

# Preparation Log



CLIENT: Hart Crowser, Inc.

ANALYSIS METHOD: ICP

PROJECT: Saddle Rock

ARI PREP CODE: LEN

SDG: WI50

PREPDATE: 3/22/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR02-(D03,D04,D05,	WI50A	0.000	25.0	25.0
SR02-(D03,D04,D05,D	WI50ADUP	0.000	25.0	25.0
SR02-(D03,D04,D05,S	WI50ASPK	0.000	25.0	25.0
SR03-(D01,D02,D03,	WI50B	0.000	25.0	25.0
PBS	WI50MB1	0.000	25.0	25.0

# Preparation Log



CLIENT: Hart Crowser, Inc.  
PROJECT: Saddle Rock  
SDG: WI50

ANALYSIS METHOD: ICP  
ARI PREP CODE: SPN  
PREPDATE: 3/22/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SR02-(D03,D04,D05,	WI50Da	0.000	25.0	25.0
SR02-(D03,D04,D05,D	WI50DaDUP	0.000	25.0	25.0
SR02-(D03,D04,D05,S	WI50DaSPK	0.000	25.0	25.0
SR03-(D03,D04,D05,	WI50Ea	0.000	25.0	25.0
PBS	WI50MB3	0.000	25.0	25.0



# Analysis Run Log

CLIENT: Hart Crowser, Inc.

PROJECT: Saddle Rock

SDG: WI50

INSTRUMENT ID: OPTIMA ICP 2

RUNID: IP032571 METHOD: ICP

START DATE: 3/25/2013

END DATE: 3/25/2013



CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN		
S0	S0	1.00	09260		X	X																													
S2	S2	1.00	09301																																
S3	S3	1.00	09321		X																														
S4	S4	1.00	09345																																
S5	S5	1.00	09370					X																											
ICV	ICV	1.00	09462		X	X																													
ICB	ICB	1.00	09502		X	X																													
CRI	CRI	1.00	09544		X	X																													
ICSA	ICSAI	1.00	09590		X	X																													
ICSAB	ICSABI	1.00	10031		X	X																													
ZZZZZ	HiPurQC7M	1.00	10084																																
ZZZZZ	SPEXQC21	1.00	10130																																
ZZZZZ	DICHECK	1.00	10171																																
CCV	CCV1	1.00	10213		X	X																													
CCB	CCB1	1.00	10253		X	X																													
PBW	WI50MB1	5.00	10295																																
PBW	WI50MB3	1.00	10342		X	X																													
SR02-	(D03,D04,D05,D	1.00	10384		X	X																													
SR02-	(D03,D04,D05,	1.00	10425		X	X																													
SR02-	(D03,D04,D05,S	1.00	10471		X	X																													
SR03-	(D03,D04,D05,	1.00	10511		X	X																													
SR02-	(D03,D04,D05,D	5.00	10553																																
SR02-	(D03,D04,D05,	5.00	11000																																
SR02-	(D03,D04,D05,S	5.00	11043																																
SR03-	(D01,D02,D03,	5.00	11085																																
CCV	CCV2	1.00	11131		X	X																													
CCB	CCB2	1.00	11172		X	X																													

WI50 : 09250



**Metals Raw Data  
Preparation Bench Sheets and Notes**

**ARI Job ID: WI50**









# Mercury Digestion Log

Prep Code: LEM

Matrix: water

Analyst: DM

Date: 3-22-13

Bath Temp: 95°C

Start Time: 0845

End Time: 1045

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
W150 C	1-5	-	20.0	20.0	3/25 1	Ⓟ	
" COOP	1-5	-	↓	↓	1	↓	
" CSPK	1-5	-	↓	↓	1	↓	
" MB2	-	-	↓	↓	1	Ⓟ	
W105 A	1	-	↓	↓	3/30 1	N	
" ACP	1	-	↓	↓	1	↓	
" FEAK	1	-	↓	↓	1	↓	
" MB	-	-	20.0	20.0	1	N	
3-22-13 DM							

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022

H<sub>2</sub>SO<sub>4</sub>: I767

HCl: -

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2439

5% KMnO<sub>4</sub>: MP2445

Digest Tube Lot: ML27KK03



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# Digestion Log

Analyst: DM Date: 3-22-13 Time: 0845  
Matrix: Water Block ID: #1 Block Temp: 90°C Thermometer: MP8

ARI Sample ID	Btl #	pH<2	Prep Code: <u>LEN</u>		Prep Code: <u>SPN</u>		Comments	
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)		
W150 A	1-5	-	25.0	25.0	3-22-13 DM			
" ADUP	1-5	-	↓	↓				
" ADPK	1-5	-	↓	↓				
" B	1-5	-	↓	↓				
" MBI	-	-	25.0	25.0				
W150 DA	1-5	-	3-22-13 DM		25.0	25.0		
" DADU	1-5	-			↓			
" DASPK	1-5	-			↓			
" EA	1-5	-			↓			
" MBS	-	-			25.0	25.0		
				3-22-13 DM				

Chemical/Reagent ID: HNO3 I8092  
5061F

HCl: MP2461  
Page 25119

Tube Lot # MP27KK03

Version 005  
1/10/12

W150: 00056



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

**TCLP / SPLP Extraction Log**

Analyst: DM Date: 3-21-13

Balance ID: 00294392 pH Meter ID: 1230275270 Tumbler ID: #1

<u>W150</u>	Sample ID:	<u>A</u>	<u>B</u>	<u>C</u>	<u>MB1</u>	<u>MB2</u>	<u>3-21-13 DM</u>
	Bottle #:	<u>1-5</u>	<u>1-5</u>	<u>1-5</u>	<u>-</u>	<u>-</u>	
	Client ID:	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	
<b>A. Sample Description</b>							
1. Number of solid phases		<u>1</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	
2. Number of liquid phases		<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	
<b>B. Percent solid phase</b>							
1. Weight of flask							
2. weight of funnel							
3. Weight of filter							
4. Weight of weight boat							<u>3-21-B DM</u>
5. Weight of subsample + boat							
6. Weight of residue + boat							
7. Weight of subsample filtered							
8. Weight of initial filtrate + flask							
9. Weight of initial filtrate							
10. Weight percent solids (wet)		<u>100</u>	<u>100</u>	<u>100</u>	<u>-</u>	<u>-</u>	
11. Weight ratio of solids		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	
<b>C. Extraction Fluid Determination</b> <u>DM 3-21-13</u>							
1. Initial pH (after mixing 5 minutes)		<u>4.08</u>	<u>5.90</u>	<u>3.69</u>	<u>4.88</u>	<u>4.88</u>	
4. Post - HCl pH (ambient temp)		<u>-</u>	<u>1.64</u>	<u>-</u>	<u>-</u>	<u>-</u>	
<b>D. Selection of Extraction Fluid</b>							
1. Extraction fluid (EF#1 or EF#2)		<u>MP2449</u>	<u>MP2449</u>	<u>MP2449</u>	<u>MP2449</u>	<u>MP2449</u>	<u>3-21-13 DM</u>
<b>E. Determination of Sample Size for Extraction</b>							
1. Weight of solids extracted		<u>40g</u>	<u>40g</u>	<u>40g</u>	<u>-</u>	<u>-</u>	
<b>F. Determination of Amount of Extraction Fluid</b>							
1. Volume of extraction fluid		<u>800ML</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>800ML</u>	
2. Extraction Vessel #		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	
<b>G. Post Extraction Determinations</b>							
1. pH of filtrate		<u>4.87</u>	<u>4.90</u>	<u>4.81</u>	<u>4.91</u>	<u>4.91</u>	
2. Volume of filtrate		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	
3. Volume of initial filtrate added		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	
Calculations: $B7 = B5 - B6$ , $B9 = B8 - B1$ , $B10 = 100\% \times (1 - B9/B7)$ , $B11 = (B7 - B9)/B9$ , $F1 = 20 \times E1$ , $G3 = (G2/20)/B11$							
Extraction Fluid Determination: (10 minutes required)		Time samples reached 50 °C			Time heating discontinued		
		<u>1050</u>			<u>1100</u>		
Extraction Conditions	RPM	Start Time	Start Date	Start Temp	Stop Date	Stop Time	Stop Temp
	<u>30</u>	<u>1130</u>	<u>3-21-13</u>	<u>23.5°C</u>	<u>3-22-13</u>	<u>0530</u>	<u>23.5°C</u>

5059F

DM 3/21/13



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

**TCLP / SPLP Extraction Log**

Analyst: DM Date: 3-21-13

Balance ID: 00254392 pH Meter ID: 1230275270 Tumbler ID: #1

W150		Sample ID:	Da	Fa	M83			
		Bottle #:	1-5	1-5	-		3-21-13	DM
		Client ID:	-	-	-			
<b>A. Sample Description</b>								
1. Number of solid phases			1	1	0			
2. Number of liquid phases			0	0	1			
<b>B. Percent solid phase</b>								
1. Weight of flask								
2. weight of funnel								
3. Weight of filter								
4. Weight of weight boat							3-21-13 DM	
5. Weight of subsample + boat								
6. Weight of residue + boat								
7. Weight of subsample filtered								
8. Weight of initial filtrate + flask								
9. Weight of initial filtrate								
10. Weight percent solids (wet)			100	100	-			
11. Weight ratio of solids			-	-	-			
<b>C. Extraction Fluid Determination</b>								
1. Initial pH (after mixing 5 minutes)			-	-	5.01			
4. Post - HCl pH (ambient temp)			-	-	-			
<b>D. Selection of Extraction Fluid</b>								
1. Extraction fluid (EF#1 or EF#2)			MP2457	MP2457	MP2457			3-21-13 DM
<b>E. Determination of Sample Size for Extraction</b>								
1. Weight of solids extracted			40g	40g	-			
<b>F. Determination of Amount of Extraction Fluid</b>								
1. Volume of extraction fluid			600mL	600mL	800mL			
2. Extraction Vessel #			-	-	-			
<b>G. Post Extraction Determinations</b>								
1. pH of filtrate			4.73	10.34	9.52			
2. Volume of filtrate			-	-	-			
3. Volume of initial filtrate added			-	-	-			
Calculations: B7 = B5 - B6, B9 = B8 - B1, B10 = 100% x (1-B9/B7), B11 = (B7-B9)/B9, F1 = 20 x E1, G3 = (G2/20)/B11								
Extraction Fluid Determination: (10 minutes required)			Time samples reached 50 °C			Time heating discontinued		
			-			-		
Extraction Conditions	RPM	Start Time	Start Date	Start Temp	Stop Date	Stop Time	Stop Temp	
	30	1130	3-21-13	23.5°	3-22-13	0500	23.5°	



**Metals Raw Data  
Run Logs, Calibrations, and Raw Data**

**ARI Job ID: WI50**

**Metals Data Review Checklist**

Method: ICP ICP-MS GFA CVA

Analysis Date: 3.25.13

	Analyst <i>HL</i> # 3-26	Peer <i>PK</i> 3-26-13	Comment
<b>Logbook</b>			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
<b>Calibration</b>			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
<b>Calibration Verification</b>			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
<b>Samples</b>			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
<b>Method QC</b>			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	✓	✓	
<b>Matrix QC</b>			
SRM/LCS	✓	✓	<i>See log</i>
Matrix Spikes	✓	✓	<i>WJ06</i>
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	<i>WJ06</i>
<b>Data</b>			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
<b>Notes</b>			
	✓	✓	<i>A.N. WJ06</i>



IEC Date: 1-22-13

Analysis Date: 3-25-13

Analyst: AK

LR Date: 1-22-13

Page: 1 of 15

All corrections made by analyst unless otherwise noted.

AK 3-25-13

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			3022-15
		2			3024-1
		3			-2
		4			-3
		↙ 5			↓ -4
		ICN			3004-11
		ICB			
		CR1			
		ICSA			
		ICSB			
		Hi Pur QC 7m			✓
		SPER QC 21			
		DI check			
		Car1			
		CCB1			
		WISO MB1	LEN	5	
		MB3	SAO		
		Dadup			
		Da			
		Daspk			(spiked as a soil)
		DREA	↓		
		Adup	LEN	5	✓
		A			
Label		↘ Aspck	↓	d	✓



IEC Date: \_\_\_\_\_ Analysis Date: 3-25-13 Analyst: JA  
LR Date: \_\_\_\_\_ Page: 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		WI 50 B	LEN	5	
		CCWZ			
		CCBZ			send pkg
		WI 20 MB1	TWC		
		WI 06 MB	LEN	5	Re 0.008 A.W
		WI 05 MB			
		ADep			✓
		A			✓
		Aspl			✓
		WI 06 ADep			✓
		A			✓
		Aspl			✓ spiked as for H <sub>2</sub> O
		WI 20 MB1 spl			
		CCW			
		CCM			
		WI 20 MBZ	DMM		
		WI 16 MB	TWC		
		WI 20 ADep			✓
		A			✓
		Aspl			✓
		DDep	DMM		✓
		D			✓
		Dspl			0.008 mL ICP spl
		MB1 spl			0.008 mL ICP spl

*JA 3/25/13*

## Nebulizer Parameters: Hg ReAlign

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

3/25/2013 8:10:41 AM Hg ReAlign... Actual peak offset (nm): 0.004  
 Drift (nm): -0.001 Slit adjustment: -3

## Analysis Begun

Start Time: 3/25/2013 8:31:22 AM	Plasma On Time: 3/25/2013 7:27:40 AM
Logged In Analyst: Metals	Technique: ICP Continuous
Spectrometer: Optima 7300 DV, S/N: 077C8121202	Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\BLKS.sif

Batch ID:

Results Data Set: I2130325

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

## Method Loaded

Method Name: 7300bcESI2FAST

Method Last Saved: 3/25/2013 8:31:04 AM

IEC File: IEC012213.iec

MSF File:

Method Description: 12Axial Elements

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

Sequence No.: 1

Autosampler Location: 1

Sample ID: B1

Date Collected: 3/25/2013 8:31:30 AM

Data Type: Original

Dilution: 1.000000X

## Nebulizer Parameters: B1

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

=====  
Analysis Begun

Start Time: 3/25/2013 9:26:05 AM  
 Logged In Analyst: Metals  
 Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 3/25/2013 7:27:40 AM  
 Technique: ICP Continuous  
 Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISSETMON.sif

Batch ID:

Results Data Set: I2130325

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1

Sample ID: Calib Blank 1

Autosampler Location: 1

Date Collected: 3/25/2013 9:26:07 AM

Data Type: Original

-----  
Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

-----  
Mean Data: Calib Blank 1

Analyte	Mean Corrected		RSD		Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units	
ScA 357.253	2713552.2	7043.28	0.26%	100.0	%	
ScR 361.383	387981.1	2731.96	0.70%	100.0	%	
Ag 328.068†	-45.1	39.53	87.69%	[0.00]	mg/L	
Al 308.215†	184.6	5.98	3.24%	[0.00]	mg/L	
As 188.979†	-9.9	4.56	45.87%	[0.00]	mg/L	
B 249.677†	-59.8	2.32	3.88%	[0.00]	mg/L	
Ba 233.527†	34.1	5.07	14.86%	[0.00]	mg/L	
Be 313.042†	717.2	11.64	1.62%	[0.00]	mg/L	
Ca 317.933†	41.5	12.18	29.36%	[0.00]	mg/L	
Cd 228.802†	219.5	4.51	2.05%	[0.00]	mg/L	
Co 228.616†	-116.6	6.90	5.92%	[0.00]	mg/L	
Cr 267.716†	-166.2	7.08	4.26%	[0.00]	mg/L	
Cu 324.752†	2052.5	25.92	1.26%	[0.00]	mg/L	
Fe 273.955†	-15.6	1.43	9.15%	[0.00]	mg/L	
K 766.490†	310.2	17.79	5.73%	[0.00]	mg/L	
Mg 279.077†	114.0	5.71	5.00%	[0.00]	mg/L	
Mn 257.610†	202.6	2.92	1.44%	[0.00]	mg/L	
Mo 202.031†	60.6	2.60	4.28%	[0.00]	mg/L	
Na 589.592†	-324.0	45.16	13.94%	[0.00]	mg/L	
Na 330.237†	-30.5	16.27	53.37%	[0.00]	mg/L	
Ni 231.604†	21.0	3.93	18.70%	[0.00]	mg/L	
Pb 220.353†	-46.4	3.59	7.73%	[0.00]	mg/L	
Sb 206.836†	18.6	3.40	18.27%	[0.00]	mg/L	
Se 196.026†	-44.8	6.39	14.27%	[0.00]	mg/L	
Si 288.158†	41.0	2.18	5.32%	[0.00]	mg/L	
Sn 189.927†	-13.7	3.82	27.88%	[0.00]	mg/L	
Sr 421.552†	362.1	22.19	6.13%	[0.00]	mg/L	
Ti 334.903†	-39.1	3.24	8.30%	[0.00]	mg/L	
Tl 190.801†	-24.6	3.87	15.72%	[0.00]	mg/L	
V 292.402†	58.7	7.04	11.99%	[0.00]	mg/L	
Zn 206.200†	-19.6	2.90	14.83%	[0.00]	mg/L	

Method Loaded

Method Name: 7300bcESI2FAST

IEC File: IEC012213.iec

Method Description: 12Axial Elements

Method Last Saved: 3/25/2013 9:08:18 AM

MSF File:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

User canceled analysis.

Analysis Begun

Start Time: 3/25/2013 9:30:12 AM

Logged In Analyst: Metals

Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 3/25/2013 7:27:40 AM

Technique: ICP Continuous

Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISSETMON.sif

Batch ID:

Results Data Set: I2130325

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 2

Sample ID: STD2

Autosampler Location: 2

Date Collected: 3/25/2013 9:30:14 AM

Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	2734249.4	7406.61	0.27%	100.8	%
ScR 361.383	391006.3	1018.18	0.26%	100.8	%
Ba 233.527†	71001.1	301.20	0.42%	[10]	mg/L
Cd 228.802†	243413.1	893.85	0.37%	[10]	mg/L
Co 228.616†	380930.0	922.68	0.24%	[10]	mg/L

Cr 267.716†	97643.1	152.99	0.16%	[10] mg/L
Cu 324.752†	2871869.0	7862.09	0.27%	[10] mg/L
Mn 257.610†	610831.2	1425.86	0.23%	[10] mg/L
V 292.402†	1449055.3	3973.07	0.27%	[10] mg/L



Sequence No.: 3  
Sample ID: STD3

Autosampler Location: 3  
Date Collected: 3/25/2013 9:32:16 AM  
Data Type: Original

## Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

## Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2738047.8	17231.00	0.63%	100.9	%
ScR 361.383	397437.6	2985.73	0.75%	102.4	%
Ag 328.068†	240976.7	2114.34	0.88%	[1.0]	mg/L
As 188.979†	14528.9	51.13	0.35%	[10]	mg/L
B 249.677†	82479.8	121.15	0.15%	[10]	mg/L
Be 313.042†	3385777.4	53583.44	1.58%	[5.0]	mg/L
Na 589.592†	638568.1	6070.08	0.95%	[50]	mg/L
Ni 231.604†	47354.9	121.84	0.26%	[10]	mg/L
Pb 220.353†	84929.2	727.90	0.86%	[10]	mg/L
Se 196.026†	15816.0	74.20	0.47%	[10]	mg/L
Sr 421.552†	5057943.2	66372.94	1.31%	[5]	mg/L
Tl 190.801†	19377.7	47.29	0.24%	[10]	mg/L
Zn 206.200†	49108.3	106.58	0.22%	[10]	mg/L

Sequence No.: 4  
Sample ID: STD4

Autosampler Location: 4  
Date Collected: 3/25/2013 9:34:50 AM  
Data Type: Original

## Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
ScA 357.253	2786959.2	5671.73	0.20%	102.7 %
ScR 361.383	398066.0	2942.42	0.74%	102.6 %
Mo 202.031†	195392.0	1329.27	0.68%	[10] mg/L
Sb 206.836†	29310.5	109.52	0.37%	[10] mg/L
Si 288.158†	18004.9	88.59	0.49%	[10] mg/L
Sn 189.927†	48996.8	309.04	0.63%	[10] mg/L
Ti 334.903†	287897.7	625.57	0.22%	[10] mg/L

Sequence No.: 5  
 Sample ID: STD5

Autosampler Location: 5  
 Date Collected: 3/25/2013 9:37:05 AM  
 Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
ScA 357.253	2600061.7	7832.00	0.30%	95.82 %
ScR 361.383	395215.3	3790.88	0.96%	101.9 %
Al 308.215†	41409.9	327.09	0.79%	[30] mg/L
Ca 317.933†	392953.0	1135.56	0.29%	[30] mg/L
Fe 273.955†	158475.3	716.88	0.45%	[100] mg/L
K 766.490†	227841.9	1554.04	0.68%	[100] mg/L
Mg 279.077†	34279.7	208.77	0.61%	[30] mg/L
Na 330.237†	3525.7	33.58	0.95%	[100] mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	241000	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1380	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1453	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	8248	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	7100	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	677200	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	13100	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	24340	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	38090	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	9764	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	287200	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1585	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	2278	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1143	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	61080	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	19540	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	12770	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	35.26	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	4735	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	8493	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	2931	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1582	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1800	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	4900	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	1012000	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	28790	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	1938	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	144900	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	4911	0.00000	1.000000	

=====  
Analysis Begun

Start Time: 3/25/2013 9:46:23 AM  
 Logged In Analyst: Metals  
 Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 3/25/2013 7:27:40 AM  
 Technique: ICP Continuous  
 Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISSETMON.sif

Batch ID:

Results Data Set: I2130325

Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1

Sample ID: CV

Autosampler Location: 7

Date Collected: 3/25/2013 9:46:24 AM

Data Type: Original

Dilution: 1.000000X

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Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

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Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2751537.7	101.4 %	0.13			0.12%
ScR 361.383	394662.9	101.7 %	0.68			0.67%
Ag 328.068†	248390.6	1.031 mg/L	0.0018	1.031 mg/L	0.0018	0.17%
Al 308.215†	2885.5	2.057 mg/L	0.0120	2.057 mg/L	0.0120	0.58%
As 188.979†	2849.7	1.991 mg/L	0.0065	1.991 mg/L	0.0065	0.33%
B 249.677†	8328.2	1.009 mg/L	0.0045	1.009 mg/L	0.0045	0.45%
Ba 233.527†	7088.1	0.9978 mg/L	0.00428	0.9978 mg/L	0.00428	0.43%
Be 313.042†	665577.7	0.9827 mg/L	0.00183	0.9827 mg/L	0.00183	0.19%
Ca 317.933†	26099.6	1.993 mg/L	0.0043	1.993 mg/L	0.0043	0.22%
Cd 228.802†	24292.4	0.9877 mg/L	0.00110	0.9877 mg/L	0.00110	0.11%
Co 228.616†	36518.7	0.9569 mg/L	0.00353	0.9569 mg/L	0.00353	0.37%
Cr 267.716†	9703.0	0.9931 mg/L	0.00502	0.9931 mg/L	0.00502	0.51%
Cu 324.752†	287192.9	0.9998 mg/L	0.00129	0.9998 mg/L	0.00129	0.13%
Fe 273.955†	3324.0	2.092 mg/L	0.0107	2.092 mg/L	0.0107	0.51%
K 766.490†	47154.6	20.70 mg/L	0.088	20.70 mg/L	0.088	0.42%
Mg 279.077†	2333.1	2.048 mg/L	0.0142	2.048 mg/L	0.0142	0.69%
Mn 257.610†	58022.0	0.9502 mg/L	0.00517	0.9502 mg/L	0.00517	0.54%
Mo 202.031†	19300.5	0.9877 mg/L	0.00174	0.9877 mg/L	0.00174	0.18%
Na 589.592†	650461.8	50.93 mg/L	0.216	50.93 mg/L	0.216	0.43%
Na 330.237†	1901.4	53.90 mg/L	0.405	53.90 mg/L	0.405	0.75%
Ni 231.604†	4760.2	1.005 mg/L	0.0055	1.005 mg/L	0.0055	0.55%
Pb 220.353†	17239.8	2.031 mg/L	0.0050	2.031 mg/L	0.0050	0.24%
Sb 206.836†	5897.2	2.010 mg/L	0.0033	2.010 mg/L	0.0033	0.17%
Se 196.026†	3109.9	1.965 mg/L	0.0078	1.965 mg/L	0.0078	0.40%
Si 288.158†	3584.5	1.986 mg/L	0.0132	1.986 mg/L	0.0132	0.67%
Sn 189.927†	4713.8	0.9635 mg/L	0.00609	0.9635 mg/L	0.00609	0.63%
Sr 421.552†	1007186.9	0.9956 mg/L	0.00357	0.9956 mg/L	0.00357	0.36%
Ti 334.903†	28178.6	0.9774 mg/L	0.00377	0.9774 mg/L	0.00377	0.39%
Tl 190.801†	3840.3	1.974 mg/L	0.0026	1.974 mg/L	0.0026	0.13%
V 292.402†	141776.0	0.9828 mg/L	0.00049	0.9828 mg/L	0.00049	0.05%
Zn 206.200†	5083.5	1.036 mg/L	0.0036	1.036 mg/L	0.0036	0.34%

Sequence No.: 2  
 Sample ID: CB

Autosampler Location: 1  
 Date Collected: 3/25/2013 9:50:28 AM  
 Data Type: Original

Dilution: 1.000000X

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 Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

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 Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2790053.2	102.8 %	%	0.25			0.24%
ScR 361.383	401426.0	103.5 %	%	1.08			1.05%
Ag 328.068†	16.0	0.00007 mg/L	mg/L	0.000076	0.00007 mg/L	0.000076	114.62%
Al 308.215†	1.4	0.00102 mg/L	mg/L	0.004895	0.00102 mg/L	0.004895	479.74%
As 188.979†	5.1	0.00350 mg/L	mg/L	0.001083	0.00350 mg/L	0.001083	30.96%
B 249.677†	14.7	0.00178 mg/L	mg/L	0.001380	0.00178 mg/L	0.001380	77.58%
Ba 233.527†	-3.1	-0.00044 mg/L	mg/L	0.000628	-0.00044 mg/L	0.000628	142.44%
Be 313.042†	-28.7	-0.00004 mg/L	mg/L	0.000029	-0.00004 mg/L	0.000029	68.44%
Ca 317.933†	18.4	0.00140 mg/L	mg/L	0.000197	0.00140 mg/L	0.000197	14.05%
Cd 228.802†	-1.0	-0.00006 mg/L	mg/L	0.000063	-0.00006 mg/L	0.000063	104.06%
Co 228.616†	7.7	0.00020 mg/L	mg/L	0.000135	0.00020 mg/L	0.000135	67.00%
Cr 267.716†	-3.1	-0.00032 mg/L	mg/L	0.000562	-0.00032 mg/L	0.000562	177.75%
Cu 324.752†	-8.9	-0.00003 mg/L	mg/L	0.000078	-0.00003 mg/L	0.000078	250.66%
Fe 273.955†	0.5	0.00030 mg/L	mg/L	0.002473	0.00030 mg/L	0.002473	834.30%
K 766.490†	-2.2	-0.00097 mg/L	mg/L	0.003192	-0.00097 mg/L	0.003192	329.31%
Mg 279.077†	-11.4	-0.01000 mg/L	mg/L	0.007974	-0.01000 mg/L	0.007974	79.76%
Mn 257.610†	-7.5	-0.00012 mg/L	mg/L	0.000038	-0.00012 mg/L	0.000038	30.90%
Mo 202.031†	17.5	0.00090 mg/L	mg/L	0.000161	0.00090 mg/L	0.000161	18.01%
Na 589.592†	58.7	0.00460 mg/L	mg/L	0.001997	0.00460 mg/L	0.001997	43.45%
Na 330.237†	13.3	0.3764 mg/L	mg/L	0.35166	0.3764 mg/L	0.35166	93.42%
Ni 231.604†	-1.5	-0.00031 mg/L	mg/L	0.000709	-0.00031 mg/L	0.000709	230.35%
Pb 220.353†	-2.2	-0.00026 mg/L	mg/L	0.000336	-0.00026 mg/L	0.000336	128.33%
Sb 206.836†	6.2	0.00211 mg/L	mg/L	0.001517	0.00211 mg/L	0.001517	71.93%
Se 196.026†	2.8	0.00178 mg/L	mg/L	0.001938	0.00178 mg/L	0.001938	108.80%
Si 288.158†	6.0	0.00333 mg/L	mg/L	0.003931	0.00333 mg/L	0.003931	117.87%
Sn 189.927†	3.5	0.00072 mg/L	mg/L	0.000488	0.00072 mg/L	0.000488	67.66%
Sr 421.552†	26.6	0.00003 mg/L	mg/L	0.000020	0.00003 mg/L	0.000020	77.45%
Ti 334.903†	9.3	0.00032 mg/L	mg/L	0.000975	0.00032 mg/L	0.000975	303.59%
Tl 190.801†	-0.7	-0.00037 mg/L	mg/L	0.001543	-0.00037 mg/L	0.001543	413.54%
V 292.402†	8.2	0.00006 mg/L	mg/L	0.000178	0.00006 mg/L	0.000178	321.29%
Zn 206.200†	-0.3	-0.00006 mg/L	mg/L	0.000601	-0.00006 mg/L	0.000601	>999.9%

Sequence No.: 3  
 Sample ID: CRI

Autosampler Location: 301  
 Date Collected: 3/25/2013 9:54:44 AM  
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2801120.7	103.2 %		0.19			0.19%
ScR 361.383	401092.1	103.4 %		0.47			0.45%
Ag 328.068†	764.0	0.00317 mg/L		0.000117	0.00317 mg/L	0.000117	3.67%
Al 308.215†	69.3	0.05009 mg/L		0.002389	0.05009 mg/L	0.002389	4.77%
As 188.979†	74.5	0.05148 mg/L		0.000935	0.05148 mg/L	0.000935	1.82%
B 249.677†	171.0	0.02073 mg/L		0.000348	0.02073 mg/L	0.000348	1.68%
Ba 233.527†	25.1	0.00353 mg/L		0.000572	0.00353 mg/L	0.000572	16.22%
Be 313.042†	637.5	0.00094 mg/L		0.000024	0.00094 mg/L	0.000024	2.51%
Ca 317.933†	645.7	0.04930 mg/L		0.000584	0.04930 mg/L	0.000584	1.19%
Cd 228.802†	56.1	0.00203 mg/L		0.000045	0.00203 mg/L	0.000045	2.23%
Co 228.616†	129.4	0.00339 mg/L		0.000100	0.00339 mg/L	0.000100	2.96%
Cr 267.716†	47.8	0.00489 mg/L		0.000130	0.00489 mg/L	0.000130	2.66%
Cu 324.752†	489.3	0.00170 mg/L		0.000239	0.00170 mg/L	0.000239	14.03%
Fe 273.955†	79.7	0.05028 mg/L		0.001760	0.05028 mg/L	0.001760	3.50%
K 766.490†	1181.6	0.5186 mg/L		0.02044	0.5186 mg/L	0.02044	3.94%
Mg 279.077†	52.0	0.04555 mg/L		0.002690	0.04555 mg/L	0.002690	5.91%
Mn 257.610†	52.6	0.00086 mg/L		0.000050	0.00086 mg/L	0.000050	5.74%
Mo 202.031†	99.1	0.00507 mg/L		0.000062	0.00507 mg/L	0.000062	1.22%
Na 589.592†	6219.9	0.4870 mg/L		0.00521	0.4870 mg/L	0.00521	1.07%
Na 330.237†	26.7	0.7570 mg/L		0.08688	0.7570 mg/L	0.08688	11.48%
Ni 231.604†	43.3	0.00914 mg/L		0.001107	0.00914 mg/L	0.001107	12.12%
Pb 220.353†	163.9	0.01932 mg/L		0.000803	0.01932 mg/L	0.000803	4.16%
Sb 206.836†	150.6	0.05142 mg/L		0.002601	0.05142 mg/L	0.002601	5.06%
Se 196.026†	80.6	0.05093 mg/L		0.001938	0.05093 mg/L	0.001938	3.81%
Si 288.158†	116.9	0.06484 mg/L		0.003559	0.06484 mg/L	0.003559	5.49%
Sn 189.927†	49.6	0.01016 mg/L		0.000391	0.01016 mg/L	0.000391	3.85%
Sr 421.552†	987.8	0.00098 mg/L		0.000032	0.00098 mg/L	0.000032	3.28%
Ti 334.903†	167.2	0.00580 mg/L		0.000262	0.00580 mg/L	0.000262	4.52%
Tl 190.801†	92.6	0.04774 mg/L		0.000335	0.04774 mg/L	0.000335	0.70%
V 292.402†	450.2	0.00313 mg/L		0.000162	0.00313 mg/L	0.000162	5.20%
Zn 206.200†	51.1	0.01041 mg/L		0.000241	0.01041 mg/L	0.000241	2.31%

Sequence No.: 4  
Sample ID: ICSA

Autosampler Location: 302  
Date Collected: 3/25/2013 9:59:01 AM  
Data Type: Original

Dilution: 1.000000X

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Nebulizer Parameters: ICSA

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

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Mean Data: ICSA

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	2705121.5	99.69	%	0.417			0.42%
ScR 361.383	393076.8	101.3	%	0.51			0.51%
Ag 328.068†	-253.5	-0.00040	mg/L	0.000122	-0.00040	mg/L	30.29%
Al 308.215†	276140.0	200.1	mg/L	0.67	200.1	mg/L	0.34%
As 188.979†	52.9	0.02754	mg/L	0.005522	0.02754	mg/L	20.05%
B 249.677†	129.1	0.01566	mg/L	0.000733	0.01566	mg/L	4.68%
Ba 233.527†	167.3	-0.00382	mg/L	0.000300	-0.00382	mg/L	7.86%
Be 313.042†	32.1	0.00005	mg/L	0.000003	0.00005	mg/L	5.78%
Ca 317.933†	1313852.1	100.3	mg/L	0.46	100.3	mg/L	0.46%
Cd 228.802†	66.6	0.00253	mg/L	0.000195	0.00253	mg/L	7.69%
Co 228.616†	69.8	0.00181	mg/L	0.000206	0.00181	mg/L	11.35%
Cr 267.716†	-0.8	-0.00529	mg/L	0.001121	-0.00529	mg/L	21.19%
Cu 324.752†	-2021.7	0.00157	mg/L	0.000086	0.00157	mg/L	5.52%
Fe 273.955†	295322.1	186.4	mg/L	1.40	186.4	mg/L	0.75%
K 766.490†	21.5	0.00943	mg/L	0.017358	0.00943	mg/L	184.12%
Mg 279.077†	118281.2	103.4	mg/L	0.89	103.4	mg/L	0.86%
Mn 257.610†	108.4	0.00038	mg/L	0.000195	0.00038	mg/L	51.26%
Mo 202.031†	96.5	0.00376	mg/L	0.000521	0.00376	mg/L	13.86%
Na 589.592†	300.9	0.02356	mg/L	0.001711	0.02356	mg/L	7.26%
Na 330.237†	13.6	0.3877	mg/L	0.02869	0.3877	mg/L	7.40%
Ni 231.604†	-2.7	-0.00057	mg/L	0.000699	-0.00057	mg/L	123.55%
Pb 220.353†	-467.4	-0.01086	mg/L	0.000923	-0.01086	mg/L	8.50%
Sb 206.836†	-8.6	-0.00304	mg/L	0.000957	-0.00304	mg/L	31.47%
Se 196.026†	9.6	-0.01695	mg/L	0.004545	-0.01695	mg/L	26.82%
Si 288.158†	-17.7	0.00195	mg/L	0.003989	0.00195	mg/L	204.58%
Sn 189.927†	-86.5	-0.00926	mg/L	0.000444	-0.00926	mg/L	4.80%
Sr 421.552†	4027.0	0.00398	mg/L	0.000016	0.00398	mg/L	0.40%
Ti 334.903†	239.3	0.00234	mg/L	0.000244	0.00234	mg/L	10.43%
Tl 190.801†	-23.0	0.01281	mg/L	0.002568	0.01281	mg/L	20.04%
V 292.402†	1209.0	-0.00101	mg/L	0.000245	-0.00101	mg/L	24.23%
Zn 206.200†	-4.6	-0.00094	mg/L	0.000527	-0.00094	mg/L	55.91%

Sequence No.: 5  
Sample ID: ICSAB

Autosampler Location: 303  
Date Collected: 3/25/2013 10:03:18 AM  
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSAB

Analyte Back Pressure Flow  
All 218.0 kPa 0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
ScA 357.253	2701280.5	99.55	%	0.325			0.33%	
ScR 361.383	387609.8	99.90	%	0.329			0.33%	
Ag 328.068†	248874.0	1.034	mg/L	0.0037	1.034	mg/L	0.0037	0.36%
Al 308.215†	277852.7	201.3	mg/L	0.11	201.3	mg/L	0.11	0.05%
As 188.979†	1483.9	1.012	mg/L	0.0095	1.012	mg/L	0.0095	0.94%
B 249.677†	45.3	0.00333	mg/L	0.000532	0.00333	mg/L	0.000532	15.97%
Ba 233.527†	7121.5	0.9752	mg/L	0.00672	0.9752	mg/L	0.00672	0.69%
Be 313.042†	664945.8	0.9817	mg/L	0.00809	0.9817	mg/L	0.00809	0.82%
Ca 317.933†	1316003.1	100.5	mg/L	0.35	100.5	mg/L	0.35	0.35%
Cd 228.802†	23882.8	0.9761	mg/L	0.00622	0.9761	mg/L	0.00622	0.64%
Co 228.616†	35325.1	0.9271	mg/L	0.00155	0.9271	mg/L	0.00155	0.17%
Cr 267.716†	9572.6	0.9752	mg/L	0.00197	0.9752	mg/L	0.00197	0.20%
Cu 324.752†	288325.6	1.013	mg/L	0.0051	1.013	mg/L	0.0051	0.51%
Fe 273.955†	298706.5	188.5	mg/L	0.62	188.5	mg/L	0.62	0.33%
K 766.490†	-48.8	-0.02140	mg/L	0.004774	-0.02140	mg/L	0.004774	22.31%
Mg 279.077†	113862.6	99.53	mg/L	0.065	99.53	mg/L	0.065	0.07%
Mn 257.610†	56551.7	0.9246	mg/L	0.00289	0.9246	mg/L	0.00289	0.31%
Mo 202.031†	98.3	0.00379	mg/L	0.000463	0.00379	mg/L	0.000463	12.19%
Na 589.592†	239.7	0.01877	mg/L	0.001389	0.01877	mg/L	0.001389	7.40%
Na 330.237†	25.3	0.4374	mg/L	0.29448	0.4374	mg/L	0.29448	67.33%
Ni 231.604†	4575.3	0.9662	mg/L	0.00201	0.9662	mg/L	0.00201	0.21%
Pb 220.353†	7742.1	0.9565	mg/L	0.00102	0.9565	mg/L	0.00102	0.11%
Sb 206.836†	2886.7	0.9749	mg/L	0.00165	0.9749	mg/L	0.00165	0.17%
Se 196.026†	1562.5	0.9638	mg/L	0.00925	0.9638	mg/L	0.00925	0.96%
Si 288.158†	-30.9	-0.00260	mg/L	0.003407	-0.00260	mg/L	0.003407	130.91%
Sn 189.927†	-86.4	-0.00872	mg/L	0.001651	-0.00872	mg/L	0.001651	18.95%
Sr 421.552†	4056.3	0.00401	mg/L <i>cont</i>	0.000010	0.00401	mg/L	0.000010	0.26%
Ti 334.903†	252.1	0.00260	mg/L	0.000273	0.00260	mg/L	0.000273	10.51%
Tl 190.801†	1749.6	0.9185	mg/L	0.00616	0.9185	mg/L	0.00616	0.67%
V 292.402†	137490.3	0.9438	mg/L	0.00357	0.9438	mg/L	0.00357	0.38%
Zn 206.200†	4651.6	0.9474	mg/L	0.00356	0.9474	mg/L	0.00356	0.38%



Sequence No.: 6  
 Sample ID: HiPurQC7M

Autosampler Location: 304  
 Date Collected: 3/25/2013 10:08:45 AM  
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: HiPurQC7M

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: HiPurQC7M

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2779000.2	102.4 %		0.58			0.57%
ScR 361.383	400520.5	103.2 %		1.21			1.17%
Ag 328.068†	243825.9	1.012 mg/L		0.0059	1.012 mg/L	0.0059	0.58%
Al 308.215†	2705.7	1.960 mg/L		0.0238	1.960 mg/L	0.0238	1.21%
As 188.979†	4.6	0.00319 mg/L		0.000708	0.00319 mg/L	0.000708	22.21%
B 249.677†	16090.5	1.951 mg/L		0.0167	1.951 mg/L	0.0167	0.86%
Ba 233.527†	13589.6	1.914 mg/L		0.0148	1.914 mg/L	0.0148	0.78%
Be 313.042†	-17.6	-0.00003 mg/L		0.000058	-0.00003 mg/L	0.000058	223.44%
Ca 317.933†	62.5	0.00477 mg/L		0.000412	0.00477 mg/L	0.000412	8.65%
Cd 228.802†	-0.9	-0.00006 mg/L		0.000082	-0.00006 mg/L	0.000082	148.06%
Co 228.616†	10.8	0.00007 mg/L		0.000059	0.00007 mg/L	0.000059	88.47%
Cr 267.716†	0.1	0.00001 mg/L		0.000195	0.00001 mg/L	0.000195	>999.9%
Cu 324.752†	-50.7	-0.00018 mg/L		0.000095	-0.00018 mg/L	0.000095	53.70%
Fe 273.955†	3.8	0.00242 mg/L		0.000899	0.00242 mg/L	0.000899	37.18%
K 766.490†	45866.9	20.13 mg/L	✓	0.039	20.13 mg/L	0.039	0.19%
Mg 279.077†	3.5	0.00302 mg/L		0.000580	0.00302 mg/L	0.000580	19.20%
Mn 257.610†	-3.2	-0.00006 mg/L		0.000038	-0.00006 mg/L	0.000038	61.56%
Mo 202.031†	-2.7	-0.00014 mg/L		0.000133	-0.00014 mg/L	0.000133	96.24%
Na 589.592†	24937.3	1.953 mg/L	✓	0.0043	1.953 mg/L	0.0043	0.22%
Na 330.237†	74.9	2.126 mg/L		0.1369	2.126 mg/L	0.1369	6.44%
Ni 231.604†	-1.8	-0.00037 mg/L		0.000203	-0.00037 mg/L	0.000203	54.70%
Pb 220.353†	-5.7	-0.00014 mg/L		0.000552	-0.00014 mg/L	0.000552	392.37%
Sb 206.836†	8.1	0.00276 mg/L		0.002184	0.00276 mg/L	0.002184	79.25%
Se 196.026†	2.9	0.00163 mg/L		0.001498	0.00163 mg/L	0.001498	92.07%
Si 288.158†	3453.6	1.918 mg/L	✓	0.0161	1.918 mg/L	0.0161	0.84%
Sn 189.927†	2.9	0.00059 mg/L		0.000486	0.00059 mg/L	0.000486	81.93%
Sr 421.552†	30.2	0.00003 mg/L		0.000010	0.00003 mg/L	0.000010	34.69%
Ti 334.903†	16.8	0.00058 mg/L		0.000275	0.00058 mg/L	0.000275	47.05%
Tl 190.801†	-1.1	-0.00055 mg/L		0.001209	-0.00055 mg/L	0.001209	220.24%
V 292.402†	22.8	0.00016 mg/L		0.000048	0.00016 mg/L	0.000048	30.93%
Zn 206.200†	-0.6	0.00021 mg/L		0.000876	0.00021 mg/L	0.000876	416.93%

Sequence No.: 7  
 Sample ID: SPEXQC21

Autosampler Location: 305  
 Date Collected: 3/25/2013 10:13:00 AM  
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SPEXQC21

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: SPEXQC21

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units	Units		
ScA 357.253	2806461.4	103.4 %		0.44				0.43%
ScR 361.383	394395.8	101.7 %		0.06				0.06%
Ag 328.068†	-50.0	0.00042 mg/L		0.000241	0.00042 mg/L	0.000241		56.66%
Al 308.215†	111.3	0.01479 mg/L		0.003280	0.01479 mg/L	0.003280		22.17%
As 188.979†	2748.9	1.953 mg/L ✓		0.0077	1.953 mg/L	0.0077		0.39%
B 249.677†	97.5	0.00974 mg/L		0.001275	0.00974 mg/L	0.001275		13.09%
Ba 233.527†	9.7	0.00075 mg/L		0.000462	0.00075 mg/L	0.000462		61.71%
Be 313.042†	1326806.4	1.959 mg/L ✓		0.0055	1.959 mg/L	0.0055		0.28%
Ca 317.933†	26707.6	2.039 mg/L ✓		0.0053	2.039 mg/L	0.0053		0.26%
Cd 228.802†	47844.5	1.956 mg/L ✓		0.0283	1.956 mg/L	0.0283		1.45%
Co 228.616†	73607.8	1.929 mg/L ✓		0.0207	1.929 mg/L	0.0207		1.07%
Cr 267.716†	19078.7	1.953 mg/L ✓		0.0025	1.953 mg/L	0.0025		0.13%
Cu 324.752†	540465.3	1.881 mg/L ✓		0.0011	1.881 mg/L	0.0011		0.06%
Fe 273.955†	3383.4	2.124 mg/L ✓		0.0040	2.124 mg/L	0.0040		0.19%
K 766.490†	-7.2	-0.00315 mg/L		0.010367	-0.00315 mg/L	0.010367		329.32%
Mg 279.077†	2379.4	2.096 mg/L		0.0036	2.096 mg/L	0.0036		0.17%
Mn 257.610†	119277.7	1.953 mg/L		0.0075	1.953 mg/L	0.0075		0.39%
Mo 202.031†	37422.0	1.915 mg/L		0.0201	1.915 mg/L	0.0201		1.05%
Na 589.592†	496.0	0.03884 mg/L		0.000694	0.03884 mg/L	0.000694		1.79%
Na 330.237†	9.0	0.1950 mg/L		0.10020	0.1950 mg/L	0.10020		51.38%
Ni 231.604†	9631.1	2.034 mg/L		0.0057	2.034 mg/L	0.0057		0.28%
Pb 220.353†	16786.2	1.978 mg/L		0.0223	1.978 mg/L	0.0223		1.13%
Sb 206.836†	5969.8	2.019 mg/L ✓		0.0089	2.019 mg/L	0.0089		0.44%
Se 196.026†	3110.9	1.965 mg/L ✓		0.0118	1.965 mg/L	0.0118		0.60%
Si 288.158†	58.1	0.03898 mg/L		0.004907	0.03898 mg/L	0.004907		12.59%
Sn 189.927†	-9.5	-0.00036 mg/L		0.000601	-0.00036 mg/L	0.000601		167.32%
Sr 421.552†	2020947.0	1.998 mg/L ✓		0.0042	1.998 mg/L	0.0042		0.21%
Ti 334.903†	56796.1	1.970 mg/L ✓		0.0057	1.970 mg/L	0.0057		0.29%
Tl 190.801†	3916.9	2.005 mg/L ✓		0.0058	2.005 mg/L	0.0058		0.29%
V 292.402†	279615.8	1.938 mg/L		0.0263	1.938 mg/L	0.0263		1.35%
Zn 206.200†	10073.1	2.051 mg/L		0.0003	2.051 mg/L	0.0003		0.02%

Sequence No.: 8  
 Sample ID: DI CHECK  
 Dilution: 1.000000X

Autosampler Location: 306  
 Date Collected: 3/25/2013 10:17:18 AM  
 Data Type: Original

## Nebulizer Parameters: DI CHECK

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: DI CHECK

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
ScA 357.253	2863106.5	105.5	%	0.42			0.40%
ScR 361.383	407551.8	105.0	%	0.67			0.63%
Ag 328.068†	-12.4	-0.00005	mg/L	0.000074	-0.00005	0.000074	144.15%
Al 308.215†	0.5	0.00030	mg/L	0.003345	0.00030	0.003345	>999.9%
As 188.979†	5.3	0.00360	mg/L	0.002115	0.00360	0.002115	58.70%
B 249.677†	12.4	0.00151	mg/L	0.000282	0.00151	0.000282	18.71%
Ba 233.527†	-1.4	-0.00020	mg/L	0.000296	-0.00020	0.000296	149.07%
Be 313.042†	-0.9	-0.00000	mg/L	0.000006	-0.00000	0.000006	489.59%
Ca 317.933†	15.9	0.00122	mg/L	0.000431	0.00122	0.000431	35.43%
Cd 228.802†	2.3	0.00008	mg/L	0.000081	0.00008	0.000081	107.89%
Co 228.616†	13.4	0.00035	mg/L	0.000091	0.00035	0.000091	25.98%
Cr 267.716†	-0.3	-0.00003	mg/L	0.000559	-0.00003	0.000559	>999.9%
Cu 324.752†	-32.0	-0.00011	mg/L	0.000135	-0.00011	0.000135	120.82%
Fe 273.955†	1.0	0.00061	mg/L	0.001615	0.00061	0.001615	262.66%
K 766.490†	-0.5	-0.00023	mg/L	0.006960	-0.00023	0.006960	>999.9%
Mg 279.077†	0.3	0.00029	mg/L	0.003458	0.00029	0.003458	>999.9%
Mn 257.610†	-10.9	-0.00018	mg/L	0.000035	-0.00018	0.000035	19.82%
Mo 202.031†	30.0	0.00154	mg/L	0.000224	0.00154	0.000224	14.57%
Na 589.592†	103.0	0.00807	mg/L	0.001730	0.00807	0.001730	21.45%
Na 330.237†	-4.1	-0.1157	mg/L	0.28955	-0.1157	0.28955	250.16%
Ni 231.604†	-2.7	-0.00057	mg/L	0.000889	-0.00057	0.000889	157.10%
Pb 220.353†	0.7	0.00009	mg/L	0.000663	0.00009	0.000663	775.82%
Sb 206.836†	-5.1	-0.00171	mg/L	0.001313	-0.00171	0.001313	76.74%
Se 196.026†	6.1	0.00386	mg/L	0.002562	0.00386	0.002562	66.42%
Si 288.158†	8.7	0.00482	mg/L	0.003039	0.00482	0.003039	63.11%
Sn 189.927†	7.6	0.00156	mg/L	0.000351	0.00156	0.000351	22.56%
Sr 421.552†	-0.6	-0.00000	mg/L	0.000007	-0.00000	0.000007	>999.9%
Ti 334.903†	-15.9	-0.00055	mg/L	0.000392	-0.00055	0.000392	70.83%
Tl 190.801†	3.9	0.00202	mg/L	0.002852	0.00202	0.002852	141.20%
V 292.402†	43.4	0.00030	mg/L	0.000182	0.00030	0.000182	60.52%
Zn 206.200†	4.6	0.00094	mg/L	0.001019	0.00094	0.001019	108.68%

Sequence No.: 9

Autosampler Location: 7

Sample ID: CV \

Date Collected: 3/25/2013 10:21:33 AM

Dilution: 1.000000X

Data Type: Original

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2764985.5	101.9	%	0.16			0.16%
ScR 361.383	396514.3	102.2	%	0.46			0.45%
Ag 328.068†	246217.6	1.022	mg/L	0.0047	1.022 mg/L	0.0047	0.46%
Al 308.215†	2896.5	2.065	mg/L	0.0117	2.065 mg/L	0.0117	0.57%
As 188.979†	2856.9	1.997	mg/L	0.0139	1.997 mg/L	0.0139	0.70%
B 249.677†	8401.9	1.018	mg/L	0.0081	1.018 mg/L	0.0081	0.80%
Ba 233.527†	7116.3	1.002	mg/L	0.0036	1.002 mg/L	0.0036	0.36%
Be 313.042†	672615.9	0.9931	mg/L	0.00418	0.9931 mg/L	0.00418	0.42%
Ca 317.933†	26209.8	2.001	mg/L	0.0072	2.001 mg/L	0.0072	0.36%
Cd 228.802†	24284.4	0.9874	mg/L	0.00304	0.9874 mg/L	0.00304	0.31%
Co 228.616†	36323.4	0.9517	mg/L	0.00087	0.9517 mg/L	0.00087	0.09%
Cr 267.716†	9785.5	1.002	mg/L	0.0056	1.002 mg/L	0.0056	0.56%
Cu 324.752†	286074.5	0.9959	mg/L	0.00140	0.9959 mg/L	0.00140	0.14%
Fe 273.955†	3354.7	2.111	mg/L	0.0132	2.111 mg/L	0.0132	0.63%
K 766.490†	47385.8	20.80	mg/L	0.070	20.80 mg/L	0.070	0.34%
Mg 279.077†	2337.0	2.051	mg/L	0.0188	2.051 mg/L	0.0188	0.92%
Mn 257.610†	58458.4	0.9574	mg/L	0.00133	0.9574 mg/L	0.00133	0.14%
Mo 202.031†	19338.5	0.9897	mg/L	0.00392	0.9897 mg/L	0.00392	0.40%
Na 589.592†	655461.1	51.32	mg/L	0.190	51.32 mg/L	0.190	0.37%
Na 330.237†	1913.5	54.24	mg/L	0.385	54.24 mg/L	0.385	0.71%
Ni 231.604†	4807.2	1.015	mg/L	0.0056	1.015 mg/L	0.0056	0.55%
Pb 220.353†	17280.6	2.036	mg/L	0.0094	2.036 mg/L	0.0094	0.46%
Sb 206.836†	5909.2	2.014	mg/L	0.0073	2.014 mg/L	0.0073	0.36%
Se 196.026†	3131.2	1.978	mg/L	0.0077	1.978 mg/L	0.0077	0.39%
Si 288.158†	3595.1	1.992	mg/L	0.0126	1.992 mg/L	0.0126	0.63%
Sn 189.927†	4734.7	0.9677	mg/L	0.00482	0.9677 mg/L	0.00482	0.50%
Sr 421.552†	1014104.2	1.002	mg/L	0.0017	1.002 mg/L	0.0017	0.17%
Ti 334.903†	28337.6	0.9829	mg/L	0.00423	0.9829 mg/L	0.00423	0.43%
Tl 190.801†	3839.7	1.974	mg/L	0.0067	1.974 mg/L	0.0067	0.34%
V 292.402†	141026.5	0.9776	mg/L	0.00374	0.9776 mg/L	0.00374	0.38%
Zn 206.200†	5119.8	1.043	mg/L	0.0059	1.043 mg/L	0.0059	0.56%

Sequence No.: 10  
 Sample ID: CB }

Autosampler Location: 1  
 Date Collected: 3/25/2013 10:25:38 AM  
 Data Type: Original

Dilution: 1.000000X

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 Nebulizer Parameters: CB

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

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 Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2807202.8	103.5 %		0.26			0.25%
ScR 361.383	402870.7	103.8 %		0.52			0.50%
Ag 328.068†	-12.8	-0.00005 mg/L		0.000116	-0.00005 mg/L	0.000116	217.44%
Al 308.215†	3.0	0.00212 mg/L		0.004149	0.00212 mg/L	0.004149	195.49%
As 188.979†	2.6	0.00181 mg/L		0.001042	0.00181 mg/L	0.001042	57.66%
B 249.677†	21.5	0.00260 mg/L		0.001280	0.00260 mg/L	0.001280	49.14%
Ba 233.527†	0.1	0.00002 mg/L		0.000257	0.00002 mg/L	0.000257	>999.9%
Be 313.042†	-9.1	-0.00001 mg/L		0.000020	-0.00001 mg/L	0.000020	152.60%
Ca 317.933†	7.2	0.00055 mg/L		0.000711	0.00055 mg/L	0.000711	128.95%
Cd 228.802†	-1.1	-0.00006 mg/L		0.000221	-0.00006 mg/L	0.000221	382.77%
Co 228.616†	8.9	0.00023 mg/L		0.000124	0.00023 mg/L	0.000124	53.17%
Cr 267.716†	1.5	0.00016 mg/L		0.000439	0.00016 mg/L	0.000439	281.81%
Cu 324.752†	-31.4	-0.00011 mg/L		0.000150	-0.00011 mg/L	0.000150	137.04%
Fe 273.955†	-0.5	-0.00035 mg/L		0.001477	-0.00035 mg/L	0.001477	425.79%
K 766.490†	22.1	0.00970 mg/L		0.002387	0.00970 mg/L	0.002387	24.61%
Mg 279.077†	-2.9	-0.00252 mg/L		0.003201	-0.00252 mg/L	0.003201	127.23%
Mn 257.610†	-7.8	-0.00013 mg/L		0.000110	-0.00013 mg/L	0.000110	86.31%
Mo 202.031†	16.7	0.00085 mg/L		0.000182	0.00085 mg/L	0.000182	21.29%
Na 589.592†	78.0	0.00611 mg/L		0.001975	0.00611 mg/L	0.001975	32.31%
Na 330.237†	10.0	0.2849 mg/L		0.19083	0.2849 mg/L	0.19083	66.99%
Ni 231.604†	-3.6	-0.00075 mg/L		0.000568	-0.00075 mg/L	0.000568	75.40%
Pb 220.353†	1.6	0.00019 mg/L		0.000313	0.00019 mg/L	0.000313	164.63%
Sb 206.836†	3.3	0.00112 mg/L		0.001205	0.00112 mg/L	0.001205	107.92%
Se 196.026†	-1.5	-0.00096 mg/L		0.002991	-0.00096 mg/L	0.002991	311.12%
Si 288.158†	2.6	0.00143 mg/L		0.002833	0.00143 mg/L	0.002833	197.98%
Sn 189.927†	3.9	0.00080 mg/L		0.000575	0.00080 mg/L	0.000575	71.63%
Sr 421.552†	-35.8	-0.00004 mg/L		0.000025	-0.00004 mg/L	0.000025	69.81%
Ti 334.903†	4.7	0.00016 mg/L		0.000406	0.00016 mg/L	0.000406	249.36%
Tl 190.801†	1.0	0.00049 mg/L		0.000994	0.00049 mg/L	0.000994	202.22%
V 292.402†	26.2	0.00018 mg/L		0.000054	0.00018 mg/L	0.000054	29.86%
Zn 206.200†	0.7	0.00015 mg/L		0.000284	0.00015 mg/L	0.000284	186.76%

Sequence No.: 11  
 Sample ID: WI50 MB1 LEN  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 307  
 Date Collected: 3/25/2013 10:29:54 AM  
 Data Type: Original

## Nebulizer Parameters: WI50 MB1 LEN

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WI50 MB1 LEN

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2681750.7	98.83	%	0.589			0.60%
ScR 361.383	400851.1	103.3	%	0.42			0.40%
Ag 328.068†	-2.9	-0.00001	mg/L	0.000111	-0.00006	0.000554	984.29%
Al 308.215†	4.1	0.00295	mg/L	0.007464	0.01474	0.037322	253.23%
As 188.979†	3.6	0.00248	mg/L	0.000415	0.01240	0.002073	16.71%
B 249.677†	137.0	0.01661	mg/L	0.000494	0.08305	0.002472	2.98%
Ba 233.527†	14.8	0.00208	mg/L	0.000609	0.01042	0.003047	29.24%
Be 313.042†	-12.6	-0.00002	mg/L	0.000005	-0.00009	0.000027	29.32%
Ca 317.933†	1675.1	0.1279	mg/L	0.00091	0.6394	0.00455	0.71%
Cd 228.802†	5.8	0.00023	mg/L	0.000095	0.00113	0.000473	41.80%
Co 228.616†	4.9	0.00013	mg/L	0.000107	0.00063	0.000536	85.03%
Cr 267.716†	-2.0	-0.00021	mg/L	0.000341	-0.00104	0.001705	163.35%
Cu 324.752†	125.5	0.00044	mg/L	0.000023	0.00218	0.000114	5.21%
Fe 273.955†	3.1	0.00196	mg/L	0.000682	0.00982	0.003410	34.72%
K 766.490†	72.2	0.03167	mg/L	0.014215	0.1584	0.07108	44.88%
Mg 279.077†	20.9	0.01831	mg/L	0.003918	0.09156	0.019592	21.40%
Mn 257.610†	0.6	0.00001	mg/L	0.000082	0.00005	0.000412	901.13%
Mo 202.031†	8.6	0.00044	mg/L	0.000099	0.00221	0.000494	22.39%
Na 589.592†	3430328.8	268.6	mg/L	0.77	1343	3.85	0.29%
Na 330.237†	10055.7	285.2	mg/L	1.71	1426	8.57	0.60%
Ni 231.604†	10.1	0.00214	mg/L	0.000618	0.01071	0.003089	28.85%
Pb 220.353†	4.4	0.00052	mg/L	0.000913	0.00259	0.004564	176.14%
Sb 206.836†	1.6	0.00054	mg/L	0.000662	0.00270	0.003309	122.47%
Se 196.026†	-0.1	-0.00009	mg/L	0.003999	-0.00044	0.019995	>999.9%
Si 288.158†	46.5	0.02582	mg/L	0.001392	0.1291	0.00696	5.39%
Sn 189.927†	2.3	0.00047	mg/L	0.000673	0.00237	0.003363	141.94%
Sr 421.552†	109.7	0.00011	mg/L	0.000018	0.00054	0.000088	16.29%
Ti 334.903†	12.5	0.00043	mg/L	0.000341	0.00213	0.001705	80.11%
Tl 190.801†	0.9	0.00047	mg/L	0.000326	0.00233	0.001631	69.95%
V 292.402†	20.3	0.00014	mg/L	0.000118	0.00070	0.000592	85.10%
Zn 206.200†	8.9	0.00181	mg/L	0.000662	0.00905	0.003311	36.57%

Sequence No.: 12  
 Sample ID: WI50 MB3 SPN  
 Analyst: ALA *lf*

Autosampler Location: 308  
 Date Collected: 3/25/2013 10:34:29 AM  
 Data Type: Original

## Nebulizer Parameters: WI50 MB3 SPN

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WI50 MB3 SPN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2817720.5	103.8	%	0.66			0.63%
ScR 361.383	403542.0	104.0	%	1.10			1.06%
Ag 328.068†	15.9	0.00007	mg/L	0.000086			128.13%
Al 308.215†	6.0	0.00434	mg/L	0.002099			48.39%
As 188.979†	4.0	0.00275	mg/L	0.001304			47.44%
B 249.677†	119.6	0.01450	mg/L	0.000517			3.57%
Ba 233.527†	46.9	0.00660	mg/L	0.000669			10.13%
Be 313.042†	-15.0	-0.00002	mg/L	0.000007			33.58%
Ca 317.933†	1871.8	0.1429	mg/L	0.00160			1.12%
Cd 228.802†	-4.4	-0.00020	mg/L	0.000228			116.87%
Co 228.616†	2.8	0.00007	mg/L	0.000058			80.59%
Cr 267.716†	-0.1	-0.00001	mg/L	0.000361			>999.9%
Cu 324.752†	-31.3	-0.00011	mg/L	0.000034			31.30%
Fe 273.955†	3.7	0.00234	mg/L	0.000338			14.48%
K 766.490†	91.0	0.03996	mg/L	0.004474			11.19%
Mg 279.077†	22.9	0.02006	mg/L	0.005250			26.17%
Mn 257.610†	-3.5	-0.00006	mg/L	0.000057			100.51%
Mo 202.031†	1.5	0.00007	mg/L	0.000206			279.38%
Na 589.592†	23768.5	1.861	mg/L	0.0143			0.77%
Na 330.237†	85.4	2.421	mg/L	0.4968			20.52%
Ni 231.604†	0.3	0.00007	mg/L	0.001197			>999.9%
Pb 220.353†	1.9	0.00023	mg/L	0.000287			126.01%
Sb 206.836†	1.3	0.00043	mg/L	0.000613			141.92%
Se 196.026†	1.5	0.00093	mg/L	0.002096			225.21%
Si 288.158†	306.6	0.1703	mg/L	0.00486			2.85%
Sn 189.927†	2.6	0.00055	mg/L	0.000790			144.79%
Sr 421.552†	406.3	0.00040	mg/L	0.000002			0.55%
Ti 334.903†	22.4	0.00077	mg/L	0.000306			39.82%
Tl 190.801†	-0.5	-0.00028	mg/L	0.000405			147.40%
V 292.402†	8.9	0.00006	mg/L	0.000090			147.14%
Zn 206.200†	17.2	0.00353	mg/L	0.000431			12.22%

Sample conc. not calculated. Aliquot Vol. AND Diluted To Vol. required OR sample units incorrect.

*Calibration units = Sample Units*

Sequence No.: 13  
Sample ID: WI50 DaDUP SPN  
Analyst: ALA

Autosampler Location: 309  
Date Collected: 3/25/2013 10:38:44 AM  
Data Type: Original

*As 3-25-13*

Nebulizer Parameters: WI50 DaDUP SPN

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: WI50 DaDUP SPN

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2748566.2	101.3	%	0.47			0.46%
ScR 361.383	392773.4	101.2	%	0.84			0.83%
Ag 328.068†	5.0	0.00002	mg/L	0.000119			481.33%
Al 308.215†	90.3	0.06542	mg/L	0.004339			6.63%
As 188.979†	16.8	0.01153	mg/L	0.000578			5.01%
B 249.677†	232.4	0.02818	mg/L	0.001022			3.63%
Ba 233.527†	354.4	0.04990	mg/L	0.000489			0.98%
Be 313.042†	29.3	0.00004	mg/L	0.000034			78.83%
Ca 317.933†	8405.1	0.6417	mg/L	0.00662			1.03%
Cd 228.802†	0.2	-0.00006	mg/L	0.000082			142.35%
Co 228.616†	21.0	0.00054	mg/L	0.000051			9.42%
Cr 267.716†	-3.9	-0.00043	mg/L	0.001035			242.64%
Cu 324.752†	2312.9	0.00805	mg/L	0.000078			0.97%
Fe 273.955†	75.5	0.04765	mg/L	0.000303			0.64%
K 766.490†	1572.2	0.6900	mg/L	0.02232			3.23%
Mg 279.077†	218.2	0.1909	mg/L	0.00448			2.35%
Mn 257.610†	644.7	0.01055	mg/L	0.000081			0.77%
Mo 202.031†	2.1	0.00010	mg/L	0.000135			137.87%
Na 589.592†	27164.0	2.127	mg/L	0.0091			0.43%
Na 330.237†	95.6	2.708	mg/L	0.1628			6.01%
Ni 231.604†	0.7	0.00014	mg/L	0.000822			592.44%
Pb 220.353†	3.8	0.00045	mg/L	0.000982			218.54%
Sb 206.836†	6.2	0.00212	mg/L	0.001213			57.29%
Se 196.026†	2.3	0.00142	mg/L	0.002678			188.56%
Si 288.158†	2078.0	1.154	mg/L	0.0061			0.53%
Sn 189.927†	1.5	0.00036	mg/L	0.000725			202.77%
Sr 421.552†	2418.0	0.00239	mg/L	0.000028			1.16%
Ti 334.903†	37.5	0.00126	mg/L	0.000894			70.79%
Tl 190.801†	-1.1	-0.00056	mg/L	0.000843			150.32%
V 292.402†	16.5	0.00011	mg/L	0.000051			45.91%
Zn 206.200†	80.4	0.01657	mg/L	0.000335			2.02%

Sample conc. not calculated. Aliquot Vol. AND Diluted To Vol. required OR sample units incorrect.

*conc units = calibration units*



Sequence No.: 14  
Sample ID: WI50 Da SPN  
Analyst: ALA

Autosampler Location: 310  
Date Collected: 3/25/2013 10:42:59 AM  
Data Type: Original

*3-25-13*

*ix*

Nebulizer Parameters: WI50 Da SPN

Analyte Back Pressure Flow  
All 220.0 kPa 0.75 L/min

Mean Data: WI50 Da SPN

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2738425.9	100.9	%	0.14			0.14%
ScR 361.383	393258.5	101.4	%	0.47			0.46%
Ag 328.068†	24.8	0.00011	mg/L	0.000260			242.45%
Al 308.215†	97.0	0.07026	mg/L	0.002109			3.00%
As 188.979†	17.7	0.01215	mg/L	0.001215			10.00%
B 249.677†	236.4	0.02866	mg/L	0.000308			1.07%
Ba 233.527†	358.2	0.05044	mg/L	0.000590			1.17%
Be 313.042†	37.6	0.00006	mg/L	0.000016			28.51%
Ca 317.933†	8631.3	0.6590	mg/L	0.00218			0.33%
Cd 228.802†	1.3	-0.00002	mg/L	0.000096			611.87%
Co 228.616†	26.5	0.00069	mg/L	0.000099			14.37%
Cr 267.716†	-0.4	-0.00007	mg/L	0.000959			>999.9%
Cu 324.752†	2334.2	0.00813	mg/L	0.000112			1.37%
Fe 273.955†	105.3	0.06646	mg/L	0.001653			2.49%
K 766.490†	1680.4	0.7375	mg/L	0.01232			1.67%
Mg 279.077†	226.1	0.1978	mg/L	0.00224			1.13%
Mn 257.610†	704.0	0.01152	mg/L	0.000074			0.64%
Mo 202.031†	9.9	0.00050	mg/L	0.000132			26.41%
Na 589.592†	27882.6	2.183	mg/L	0.0167			0.77%
Na 330.237†	90.0	2.547	mg/L	0.2093			8.22%
Ni 231.604†	2.0	0.00043	mg/L	0.001054			243.22%
Pb 220.353†	-3.3	-0.00038	mg/L	0.001144			298.18%
Sb 206.836†	12.1	0.00413	mg/L	0.001112			26.90%
Se 196.026†	-0.9	-0.00056	mg/L	0.000240			43.23%
Si 288.158†	2115.3	1.175	mg/L	0.0031			0.26%
Sn 189.927†	2.4	0.00054	mg/L	0.000413			76.71%
Sr 421.552†	2495.4	0.00247	mg/L	0.000026			1.05%
Ti 334.903†	28.0	0.00093	mg/L	0.000582			62.25%
Tl 190.801†	-0.5	-0.00024	mg/L	0.001575			643.99%
V 292.402†	12.3	0.00008	mg/L	0.000173			208.71%
Zn 206.200†	97.8	0.02011	mg/L	0.000914			4.54%

Sample conc. not calculated. Aliquot Vol. AND Diluted To Vol. required OR sample units incorrect.

*cal conc. units = cat units / Sample*

Sequence No.: 15  
Sample ID: WI50 DaSPK SPN  
Analyst: ALA

Autosampler Location: 311  
Date Collected: 3/25/2013 10:47:14 AM  
Data Type: Original

17 3-25-13

Nebulizer Parameters: WI50 DaSPK SPN

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: WI50 DaSPK SPN

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2693431.7	99.26	%	0.263			0.26%
ScR 361.383	384230.0	99.03	%	0.421			0.42%
Ag 328.068†	251123.8	1.043	mg/L	0.0032			0.31%
Al 308.215†	6002.4	4.334	mg/L	0.0203			0.47%
As 188.979†	5954.6	4.096	mg/L	0.0023			0.06%
B 249.677†	242.2	0.02713	mg/L	0.000809			2.98%
Ba 233.527†	28748.8	4.048	mg/L	0.0239			0.59%
Be 313.042†	679912.4	1.004	mg/L	0.0111			1.11%
Ca 317.933†	271389.7	20.72	mg/L	0.167			0.81%
Cd 228.802†	24825.4	0.9977	mg/L	0.00182			0.18%
Co 228.616†	36557.9	0.9591	mg/L	0.00139			0.14%
Cr 267.716†	9905.4	1.012	mg/L	0.0046			0.46%
Cu 324.752†	279019.6	0.9718	mg/L	0.00183			0.19%
Fe 273.955†	6815.7	4.295	mg/L	0.0245			0.57%
K 766.490†	49054.4	21.53	mg/L	0.236			1.10%
Mg 279.077†	24161.7	21.14	mg/L	0.091			0.43%
Mn 257.610†	59134.1	0.9687	mg/L	0.00809			0.84%
Mo 202.031†	46.2	0.00207	mg/L	0.000065			3.14%
Na 589.592†	286894.2	22.46	mg/L	0.221			0.98%
Na 330.237†	858.0	24.04	mg/L	0.093			0.39%
Ni 231.604†	4767.5	1.005	mg/L	0.0041			0.41%
Pb 220.353†	33892.1	3.992	mg/L	0.0062			0.16%
Sb 206.836†	37.9	0.00274	mg/L	0.001756			64.00%
Se 196.026†	6381.0	4.033	mg/L	0.0095			0.24%
Si 288.158†	2090.3	1.167	mg/L	0.0026			0.22%
Sn 189.927†	-39.9	-0.00640	mg/L	0.000506			7.90%
Sr 421.552†	1022080.0	1.010	mg/L	0.0084			0.83%
Ti 334.903†	86.5	0.00158	mg/L	0.000128			8.13%
Tl 190.801†	7700.4	3.965	mg/L	0.0021			0.05%
V 292.402†	143023.5	0.9913	mg/L	0.00300			0.30%
Zn 206.200†	4917.9	1.002	mg/L	0.0046			0.46%

Sample conc. not calculated. Aliquot Vol. AND Diluted To Vol. required OR sample units incorrect.

cal units = Sample units

Sequence No.: 16  
Sample ID: WI50 Ea SPN  
Analyst: ALA

*14* *\* 3-25-13*

Autosampler Location: 312  
Date Collected: 3/25/2013 10:51:17 AM  
Data Type: Original

Nebulizer Parameters: WI50 Ea SPN

Analyte Back Pressure Flow  
All 219.0 kPa 0.75 L/min

Mean Data: WI50 Ea SPN

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2742994.0	101.1	%	0.36			0.36%
ScR 361.383	396334.6	102.2	%	0.23			0.22%
Ag 328.068†	1146.3	0.00477	mg/L	0.000142			2.98%
Al 308.215†	8022.9	5.812	mg/L	0.0118			0.20%
As 188.979†	388.6	0.2685	mg/L	0.00260			0.97%
B 249.677†	720.6	0.08736	mg/L	0.000855			0.98%
Ba 233.527†	871.1	0.1220	mg/L	0.00059			0.48%
Be 313.042†	121.4	0.00018	mg/L	0.000049			27.79%
Ca 317.933†	14861.1	1.135	mg/L	0.0019			0.17%
Cd 228.802†	34.6	-0.00008	mg/L	0.000136			174.53%
Co 228.616†	16.5	0.00036	mg/L	0.000266			73.57%
Cr 267.716†	15.1	0.00159	mg/L	0.000948			59.44%
Cu 324.752†	845.6	0.00316	mg/L	0.000113			3.57%
Fe 273.955†	7175.3	4.528	mg/L	0.0230			0.51%
K 766.490†	6591.8	2.893	mg/L	0.0156			0.54%
Mg 279.077†	869.8	0.7586	mg/L	0.00867			1.14%
Mn 257.610†	982.4	0.01605	mg/L	0.000076			0.47%
Mo 202.031†	9.8	0.00049	mg/L	0.000385			78.93%
Na 589.592†	139970.4	10.96	mg/L	0.040			0.37%
Na 330.237†	412.8	11.71	mg/L	0.306			2.61%
Ni 231.604†	-1.2	-0.00026	mg/L	0.000259			101.22%
Pb 220.353†	14.5	0.00304	mg/L	0.000870			28.59%
Sb 206.836†	47.7	0.01630	mg/L	0.001112			6.82%
Se 196.026†	2.4	0.00083	mg/L	0.003713			449.17%
Si 288.158†	17233.0	9.571	mg/L	0.0198			0.21%
Sn 189.927†	0.5	0.00022	mg/L	0.000575			266.13%
Sr 421.552†	16127.4	0.01594	mg/L	0.000060			0.38%
Ti 334.903†	958.7	0.03323	mg/L	0.000222			0.67%
Tl 190.801†	0.9	0.00104	mg/L	0.001762			169.43%
V 292.402†	896.6	0.00595	mg/L	0.000107			1.80%
Zn 206.200†	78.6	0.01762	mg/L	0.000826			4.69%

Sample conc. not calculated. Aliquot Vol. AND Diluted To Vol. required OR sample units incorrect.

*Cal units = Sample units*

Sequence No.: 17  
 Sample ID: WI50 ADUP LEN  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 313  
 Date Collected: 3/25/2013 10:55:32 AM  
 Data Type: Original

## Nebulizer Parameters: WI50 ADUP LEN

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WI50 ADUP LEN

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	2668122.1	98.33	%	0.121				0.12%
ScR 361.383	399026.7	102.8	%	0.61				0.59%
Ag 328.068†	30.3	0.00013	mg/L	0.000116	0.00065	mg/L	0.000578	89.56%
Al 308.215†	293.3	0.2125	mg/L	0.00350	1.063	mg/L	0.0175	1.65%
As 188.979†	3.6	0.00246	mg/L	0.000853	0.01230	mg/L	0.004265	34.68%
B 249.677†	235.8	0.02859	mg/L	0.000413	0.1429	mg/L	0.00207	1.45%
Ba 233.527†	430.0	0.06055	mg/L	0.000679	0.3028	mg/L	0.00340	1.12%
Be 313.042†	9.8	0.00001	mg/L	0.000012	0.00007	mg/L	0.000061	85.12%
Ca 317.933†	6487.4	0.4953	mg/L	0.00594	2.476	mg/L	0.0297	1.20%
Cd 228.802†	6.0	0.00023	mg/L	0.000057	0.00117	mg/L	0.000283	24.32%
Co 228.616†	17.9	0.00046	mg/L	0.000050	0.00232	mg/L	0.000249	10.74%
Cr 267.716†	-0.8	-0.00010	mg/L	0.000719	-0.00048	mg/L	0.003594	749.86%
Cu 324.752†	2400.0	0.00836	mg/L	0.000087	0.04179	mg/L	0.000435	1.04%
Fe 273.955†	35.9	0.02265	mg/L	0.001568	0.1133	mg/L	0.00784	6.92%
K 766.490†	655.1	0.2875	mg/L	0.00276	1.438	mg/L	0.0138	0.96%
Mg 279.077†	125.2	0.1095	mg/L	0.00306	0.5474	mg/L	0.01529	2.79%
Mn 257.610†	527.1	0.00863	mg/L	0.000019	0.04313	mg/L	0.000097	0.22%
Mo 202.031†	4.0	0.00020	mg/L	0.000153	0.00099	mg/L	0.000764	77.10%
Na 589.592†	3330521.2	260.8	mg/L	2.47	1304	mg/L	12.37	0.95%
Na 330.237†	9626.6	273.0	mg/L	2.71	1365	mg/L	13.53	0.99%
Ni 231.604†	3.6	0.00077	mg/L	0.001316	0.00384	mg/L	0.006578	171.12%
Pb 220.353†	-1.8	-0.00017	mg/L	0.001347	-0.00085	mg/L	0.006736	793.99%
Sb 206.836†	6.2	0.00213	mg/L	0.000865	0.01066	mg/L	0.004325	40.56%
Se 196.026†	1.2	0.00074	mg/L	0.001381	0.00370	mg/L	0.006905	186.49%
Si 288.158†	363.2	0.2018	mg/L	0.00480	1.009	mg/L	0.0240	2.38%
Sn 189.927†	1.7	0.00040	mg/L	0.000675	0.00198	mg/L	0.003375	170.52%
Sr 421.552†	1885.4	0.00186	mg/L	0.000048	0.00932	mg/L	0.000239	2.56%
Ti 334.903†	-0.6	-0.00005	mg/L	0.000265	-0.00025	mg/L	0.001323	531.81%
Tl 190.801†	-0.4	-0.00023	mg/L	0.001070	-0.00114	mg/L	0.005350	469.85%
V 292.402†	18.1	0.00012	mg/L	0.000062	0.00062	mg/L	0.000311	49.83%
Zn 206.200†	107.3	0.02188	mg/L	0.000378	0.1094	mg/L	0.00189	1.73%

Sequence No.: 18  
 Sample ID: WI50 A LEN  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 314  
 Date Collected: 3/25/2013 11:00:05 AM  
 Data Type: Original

## Nebulizer Parameters: WI50 A LEN

Analyte Back Pressure Flow  
 All 219.0 kPa 0.75 L/min

## Mean Data: WI50 A LEN

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
ScA 357.253	2639851.8	97.28	%	0.295				0.30%
ScR 361.383	390691.1	100.7	%	0.53				0.53%
Ag 328.068†	32.2	0.00014	mg/L	0.000294	0.00068	mg/L	0.001471	214.91%
Al 308.215†	307.0	0.2224	mg/L	0.00319	1.112	mg/L	0.0160	1.44%
As 188.979†	5.3	0.00360	mg/L	0.002113	0.01801	mg/L	0.010564	58.67%
B 249.677†	243.2	0.02948	mg/L	0.000540	0.1474	mg/L	0.00270	1.83%
Ba 233.527†	440.3	0.06201	mg/L	0.000657	0.3100	mg/L	0.00329	1.06%
Be 313.042†	20.8	0.00003	mg/L	0.000022	0.00015	mg/L	0.000111	72.50%
Ca 317.933†	6752.0	0.5155	mg/L	0.00241	2.577	mg/L	0.0121	0.47%
Cd 228.802†	3.1	0.00011	mg/L	0.000169	0.00053	mg/L	0.000846	158.71%
Co 228.616†	15.9	0.00041	mg/L	0.000073	0.00205	mg/L	0.000366	17.86%
Cr 267.716†	-2.9	-0.00032	mg/L	0.001040	-0.00158	mg/L	0.005199	328.15%
Cu 324.752†	2552.1	0.00889	mg/L	0.000202	0.04444	mg/L	0.001008	2.27%
Fe 273.955†	48.0	0.03029	mg/L	0.001622	0.1514	mg/L	0.00811	5.36%
K 766.490†	726.0	0.3187	mg/L	0.01256	1.593	mg/L	0.0628	3.94%
Mg 279.077†	132.6	0.1160	mg/L	0.00508	0.5800	mg/L	0.02542	4.38%
Mn 257.610†	550.3	0.00901	mg/L	0.000097	0.04503	mg/L	0.000486	1.08%
Mo 202.031†	6.5	0.00033	mg/L	0.000209	0.00164	mg/L	0.001045	63.88%
Na 589.592†	3435254.1	269.0	mg/L	3.28	1345	mg/L	16.39	1.22%
Na 330.237†	9966.2	282.7	mg/L	0.43	1413	mg/L	2.14	0.15%
Ni 231.604†	1.9	0.00040	mg/L	0.000530	0.00200	mg/L	0.002652	132.80%
Pb 220.353†	-7.1	-0.00079	mg/L	0.000921	-0.00396	mg/L	0.004606	116.27%
Sb 206.836†	3.2	0.00112	mg/L	0.001080	0.00558	mg/L	0.005401	96.71%
Se 196.026†	3.6	0.00224	mg/L	0.001005	0.01119	mg/L	0.005025	44.89%
Si 288.158†	370.2	0.2056	mg/L	0.00559	1.028	mg/L	0.0279	2.72%
Sn 189.927†	1.9	0.00043	mg/L	0.000660	0.00213	mg/L	0.003302	154.87%
Sr 421.552†	1965.7	0.00194	mg/L	0.000011	0.00972	mg/L	0.000056	0.58%
Ti 334.903†	13.2	0.00043	mg/L	0.000619	0.00214	mg/L	0.003096	144.57%
Tl 190.801†	-0.9	-0.00044	mg/L	0.002111	-0.00222	mg/L	0.010555	475.73%
V 292.402†	30.0	0.00021	mg/L	0.000129	0.00103	mg/L	0.000644	62.64%
Zn 206.200†	113.4	0.02313	mg/L	0.000215	0.1156	mg/L	0.00107	0.93%

MS 3-25-13

Sequence No.: 19 <sup>spk</sup>  
Sample ID: WI50 APSK LEN  
Analyst: ALA  
Dilution: 5.000000X

Autosampler Location: 315  
Date Collected: 3/25/2013 11:04:38 AM  
Data Type: Original

Nebulizer Parameters: WI50 APSK LEN

Analyte Back Pressure Flow  
All 220.0 kPa 0.75 L/min

Mean Data: WI50 APSK LEN

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2660231.5	98.04 %	%	0.643			0.66%
ScR 361.383	395727.7	102.0 %	%	1.02			1.00%
Ag 328.068†	47561.2	0.1975 mg/L	mg/L	0.00164	0.9873 mg/L	0.00818	0.83%
Al 308.215†	1416.3	1.023 mg/L	mg/L	0.0148	5.117 mg/L	0.0741	1.45%
As 188.979†	1158.3	0.7968 mg/L	mg/L	0.00109	3.984 mg/L	0.0054	0.14%
B 249.677†	250.2	0.02992 mg/L	mg/L	0.000980	0.1496 mg/L	0.00490	3.28%
Ba 233.527†	5760.3	0.8111 mg/L	mg/L	0.00690	4.056 mg/L	0.0345	0.85%
Be 313.042†	127506.0	0.1883 mg/L	mg/L	0.00108	0.9413 mg/L	0.00538	0.57%
Ca 317.933†	56383.2	4.305 mg/L	mg/L	0.0209	21.52 mg/L	0.104	0.49%
Cd 228.802†	4831.6	0.1942 mg/L	mg/L	0.00097	0.9709 mg/L	0.00484	0.50%
Co 228.616†	6894.8	0.1809 mg/L	mg/L	0.00120	0.9044 mg/L	0.00600	0.66%
Cr 267.716†	1862.0	0.1902 mg/L	mg/L	0.00156	0.9511 mg/L	0.00781	0.82%
Cu 324.752†	57291.7	0.1995 mg/L	mg/L	0.00149	0.9977 mg/L	0.00743	0.74%
Fe 273.955†	1295.2	0.8163 mg/L	mg/L	0.00819	4.081 mg/L	0.0410	1.00%
K 766.490†	9539.0	4.187 mg/L	mg/L	0.0217	20.93 mg/L	0.109	0.52%
Mg 279.077†	4573.8	4.002 mg/L	mg/L	0.0332	20.01 mg/L	0.166	0.83%
Mn 257.610†	11483.7	0.1881 mg/L	mg/L	0.00164	0.9406 mg/L	0.00822	0.87%
Mo 202.031†	14.6	0.00069 mg/L	mg/L	0.000205	0.00343 mg/L	0.001027	29.95%
Na 589.592†	3453364.8	270.4 mg/L	mg/L	3.81	1352 mg/L	19.06	1.41%
Na 330.237†	9793.9	277.7 mg/L	mg/L	1.90	1389 mg/L	9.50	0.68%
Ni 231.604†	897.2	0.1891 mg/L	mg/L	0.00092	0.9457 mg/L	0.00459	0.49%
Pb 220.353†	6432.0	0.7577 mg/L	mg/L	0.00351	3.788 mg/L	0.0175	0.46%
Sb 206.836†	14.2	0.00294 mg/L	mg/L	0.001476	0.01472 mg/L	0.007381	50.13%
Se 196.026†	1260.1	0.7964 mg/L	mg/L	0.00417	3.982 mg/L	0.0209	0.52%
Si 288.158†	362.7	0.2025 mg/L	mg/L	0.00352	1.013 mg/L	0.0176	1.74%
Sn 189.927†	-8.4	-0.00135 mg/L	mg/L	0.000155	-0.00677 mg/L	0.000777	11.47%
Sr 421.552†	192489.4	0.1903 mg/L	mg/L	0.00092	0.9514 mg/L	0.00461	0.48%
Ti 334.903†	18.9	0.00036 mg/L	mg/L	0.000263	0.00182 mg/L	0.001317	72.40%
Tl 190.801†	1441.9	0.7424 mg/L	mg/L	0.00580	3.712 mg/L	0.0290	0.78%
V 292.402†	26902.7	0.1865 mg/L	mg/L	0.00130	0.9324 mg/L	0.00649	0.70%
Zn 206.200†	1041.5	0.2122 mg/L	mg/L	0.00134	1.061 mg/L	0.0067	0.63%

Sequence No.: 20  
 Sample ID: WI50 B LEN  
 Analyst: ALA  
 Dilution: 5.000000X

Autosampler Location: 316  
 Date Collected: 3/25/2013 11:08:56 AM  
 Data Type: Original

## Nebulizer Parameters: WI50 B LEN

Analyte Back Pressure Flow  
 All 220.0 kPa 0.75 L/min

## Mean Data: WI50 B LEN

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2663485.2	98.15 %		0.574			0.58%
ScR 361.383	395243.9	101.9 %		0.51			0.50%
Ag 328.068†	4.9	0.00005 mg/L		0.000086	0.00024 mg/L	0.000432	178.42%
Al 308.215†	229.3	0.1661 mg/L		0.00772	0.8306 mg/L	0.03858	4.65%
As 188.979†	18.6	0.01245 mg/L		0.001396	0.06227 mg/L	0.006978	11.21%
B 249.677†	489.2	0.05931 mg/L		0.000770	0.2966 mg/L	0.00385	1.30%
Ba 233.527†	566.5	0.07978 mg/L		0.000615	0.3989 mg/L	0.00307	0.77%
Be 313.042†	40.6	0.00006 mg/L		0.000009	0.00030 mg/L	0.000043	14.46%
Ca 317.933†	56944.7	4.347 mg/L		0.0263	21.74 mg/L	0.132	0.61%
Cd 228.802†	4.3	0.00011 mg/L		0.000049	0.00053 mg/L	0.000245	46.15%
Co 228.616†	9.6	0.00024 mg/L		0.000078	0.00120 mg/L	0.000391	32.47%
Cr 267.716†	3.1	0.00014 mg/L		0.000379	0.00068 mg/L	0.001895	279.32%
Cu 324.752†	265.0	0.00092 mg/L		0.000076	0.00459 mg/L	0.000380	8.28%
Fe 273.955†	58.0	0.03658 mg/L		0.001271	0.1829 mg/L	0.00635	3.47%
K 766.490†	1891.8	0.8303 mg/L		0.01852	4.152 mg/L	0.0926	2.23%
Mg 279.077†	1503.8	1.316 mg/L		0.0115	6.578 mg/L	0.0574	0.87%
Mn 257.610†	400.2	0.00653 mg/L		0.000021	0.03267 mg/L	0.000107	0.33%
Mo 202.031†	14.8	0.00071 mg/L		0.000228	0.00354 mg/L	0.001141	32.21%
Na 589.592†	3504253.7	274.4 mg/L		3.45	1372 mg/L	17.24	1.26%
Na 330.237†	9940.0	281.9 mg/L		1.49	1410 mg/L	7.43	0.53%
Ni 231.604†	10.1	0.00213 mg/L		0.001270	0.01065 mg/L	0.006348	59.62%
Pb 220.353†	-13.4	-0.00154 mg/L		0.000791	-0.00770 mg/L	0.003955	51.39%
Sb 206.836†	8.6	0.00292 mg/L		0.001871	0.01459 mg/L	0.009353	64.09%
Se 196.026†	-1.8	-0.00113 mg/L		0.001022	-0.00564 mg/L	0.005108	90.61%
Si 288.158†	447.7	0.2488 mg/L		0.00121	1.244 mg/L	0.0061	0.49%
Sn 189.927†	-6.0	-0.00086 mg/L		0.000931	-0.00429 mg/L	0.004656	108.41%
Sr 421.552†	33133.1	0.03275 mg/L		0.000265	0.1638 mg/L	0.00132	0.81%
Ti 334.903†	39.5	0.00111 mg/L		0.000359	0.00557 mg/L	0.001793	32.20%
Tl 190.801†	5.2	0.00269 mg/L		0.002499	0.01343 mg/L	0.012497	93.08%
V 292.402†	33.8	0.00023 mg/L		0.000049	0.00117 mg/L	0.000247	21.19%
Zn 206.200†	165.7	0.03379 mg/L		0.000527	0.1689 mg/L	0.00264	1.56%

Sequence No.: 21  
 Sample ID: CV7  
 Analyst: ALA  
 Dilution: 1.000000X

Autosampler Location: 7  
 Date Collected: 3/25/2013 11:13:15 AM  
 Data Type: Original

## Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

## Mean Data: CV

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	2755719.6	101.6	%	0.51			0.50%
ScR 361.383	393199.9	101.3	%	0.25			0.25%
Ag 328.068†	244732.2	1.016	mg/L	0.0099	1.016	mg/L	0.98%
Al 308.215†	2863.3	2.041	mg/L	0.0089	2.041	mg/L	0.44%
As 188.979†	2834.0	1.981	mg/L	0.0131	1.981	mg/L	0.66%
B 249.677†	8303.8	1.006	mg/L	0.0040	1.006	mg/L	0.39%
Ba 233.527†	6977.6	0.9823	mg/L	0.00697	0.9823	mg/L	0.71%
Be 313.042†	671325.9	0.9912	mg/L	0.00554	0.9912	mg/L	0.56%
Ca 317.933†	25978.9	1.983	mg/L	0.0077	1.983	mg/L	0.39%
Cd 228.802†	24148.9	0.9819	mg/L	0.01010	0.9819	mg/L	1.03%
Co 228.616†	35971.0	0.9425	mg/L	0.00949	0.9425	mg/L	1.01%
Cr 267.716†	9681.5	0.9909	mg/L	0.00558	0.9909	mg/L	0.56%
Cu 324.752†	283675.2	0.9876	mg/L	0.01349	0.9876	mg/L	1.37%
Fe 273.955†	3344.8	2.105	mg/L	0.0106	2.105	mg/L	0.51%
K 766.490†	47110.7	20.68	mg/L	0.081	20.68	mg/L	0.39%
Mg 279.077†	2314.9	2.032	mg/L	0.0154	2.032	mg/L	0.76%
Mn 257.610†	58119.5	0.9518	mg/L	0.00161	0.9518	mg/L	0.17%
Mo 202.031†	19121.9	0.9786	mg/L	0.00737	0.9786	mg/L	0.75%
Na 589.592†	651145.8	50.98	mg/L	0.317	50.98	mg/L	0.62%
Na 330.237†	1902.8	53.93	mg/L	0.425	53.93	mg/L	0.79%
Ni 231.604†	4746.0	1.002	mg/L	0.0041	1.002	mg/L	0.40%
Pb 220.353†	17084.6	2.013	mg/L	0.0140	2.013	mg/L	0.69%
Sb 206.836†	5852.7	1.995	mg/L	0.0156	1.995	mg/L	0.78%
Se 196.026†	3105.0	1.962	mg/L	0.0135	1.962	mg/L	0.69%
Si 288.158†	3571.2	1.979	mg/L	0.0087	1.979	mg/L	0.44%
Sn 189.927†	4697.0	0.9600	mg/L	0.00825	0.9600	mg/L	0.86%
Sr 421.552†	1007560.3	0.9960	mg/L	0.00062	0.9960	mg/L	0.06%
Ti 334.903†	28145.2	0.9763	mg/L	0.00081	0.9763	mg/L	0.08%
Tl 190.801†	3790.3	1.948	mg/L	0.0122	1.948	mg/L	0.62%
V 292.402†	139973.5	0.9703	mg/L	0.01105	0.9703	mg/L	1.14%
Zn 206.200†	5059.4	1.031	mg/L	0.0040	1.031	mg/L	0.39%



Sequence No.: 22  
Sample ID: CB ✓  
Analyst: ALA  
Dilution: 1.000000X

Autosampler Location: 1  
Date Collected: 3/25/2013 11:17:20 AM  
Data Type: Original

Nebulizer Parameters: CB

Analyte Back Pressure Flow  
All 220.0 kPa 0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	2767295.8	102.0 %		0.61			0.60%
ScR 361.383	403078.2	103.9 %		0.48			0.46%
Ag 328.068†	24.5	0.00010 mg/L		0.000047	0.00010 mg/L	0.000047	46.43%
Al 308.215†	-1.5	-0.00113 mg/L		0.000450	-0.00113 mg/L	0.000450	39.76%
As 188.979†	3.0	0.00209 mg/L		0.003036	0.00209 mg/L	0.003036	145.09%
B 249.677†	10.0	0.00121 mg/L		0.000238	0.00121 mg/L	0.000238	19.60%
Ba 233.527†	5.9	0.00083 mg/L		0.000384	0.00083 mg/L	0.000384	46.00%
Be 313.042†	64.6	0.00010 mg/L		0.000040	0.00010 mg/L	0.000040	41.97%
Ca 317.933†	18.9	0.00144 mg/L		0.001510	0.00144 mg/L	0.001510	104.61%
Cd 228.802†	-0.7	-0.00004 mg/L		0.000090	-0.00004 mg/L	0.000090	208.98%
Co 228.616†	6.4	0.00017 mg/L		0.000140	0.00017 mg/L	0.000140	83.06%
Cr 267.716†	5.0	0.00052 mg/L		0.000307	0.00052 mg/L	0.000307	59.58%
Cu 324.752†	20.9	0.00007 mg/L		0.000127	0.00007 mg/L	0.000127	175.28%
Fe 273.955†	1.5	0.00095 mg/L		0.001403	0.00095 mg/L	0.001403	148.48%
K 766.490†	4.8	0.00211 mg/L		0.000900	0.00211 mg/L	0.000900	42.69%
Mg 279.077†	-5.2	-0.00455 mg/L		0.003638	-0.00455 mg/L	0.003638	79.95%
Mn 257.610†	2.8	0.00005 mg/L		0.000077	0.00005 mg/L	0.000077	169.39%
Mo 202.031†	11.9	0.00061 mg/L		0.000388	0.00061 mg/L	0.000388	63.90%
Na 589.592†	407.1	0.03187 mg/L		0.004484	0.03187 mg/L	0.004484	14.07%
Na 330.237†	19.6	0.5549 mg/L		0.12489	0.5549 mg/L	0.12489	22.51%
Ni 231.604†	-5.8	-0.00122 mg/L		0.000380	-0.00122 mg/L	0.000380	31.12%
Pb 220.353†	0.5	0.00006 mg/L		0.001287	0.00006 mg/L	0.001287	>999.9%
Sb 206.836†	6.7	0.00229 mg/L		0.000416	0.00229 mg/L	0.000416	18.15%
Se 196.026†	3.0	0.00191 mg/L		0.002338	0.00191 mg/L	0.002338	122.51%
Si 288.158†	11.0	0.00609 mg/L		0.001437	0.00609 mg/L	0.001437	23.59%
Sn 189.927†	2.5	0.00052 mg/L		0.000569	0.00052 mg/L	0.000569	110.43%
Sr 421.552†	146.1	0.00014 mg/L		0.000045	0.00014 mg/L	0.000045	30.94%
Ti 334.903†	13.7	0.00047 mg/L		0.000842	0.00047 mg/L	0.000842	177.87%
Tl 190.801†	-2.2	-0.00116 mg/L		0.001326	-0.00116 mg/L	0.001326	114.37%
V 292.402†	5.5	0.00004 mg/L		0.000129	0.00004 mg/L	0.000129	322.40%
Zn 206.200†	6.1	0.00125 mg/L		0.000423	0.00125 mg/L	0.000423	33.92%

*end*

**Metals Data Review Checklist**

Method: ICP ICP-MS GFA (CVA)

Analysis Date: 3-22-13

	Analyst	Peer	Comment
	3-22 OM	3-22-BED	
<b>Logbook</b>			
Analyst, Date, Method info	✓	/	
Sample ID's	✓	/	
Standard/QC solution ID's recorded	✓	/	
Prep codes	✓	/	
Dilution factors	✓	/	
Crossouts/Corrections/Deletions	✓	/	
<b>Calibration</b>			
Blank & Standard intensities	✓	/	
Standard deviations	✓	/	
Curve fit	✓	/	
<b>Calibration Verification</b>			
ICV/CCV	✓	/	See RUN LOG
ICB/CCB	✓	/	
<b>Samples</b>			
RSD's & SD's	✓	/	
Internal Standards	—	—	
Carry-over	—	—	
<b>Method QC</b>			
CRI/CRA	✓	/	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
<b>Matrix QC</b>			
SRM/LCS	✓	/	
Matrix Spikes	✓	/	
Matrix Duplicates	✓	/	
Method Blanks	✓	/	
<b>Data Distribution</b>			
Requested elements/isotope identified	✓	/	
Correct samples identified for distribution	✓	/	
Raw data match distributed data	✓	/	
Data filename correct	✓	/	
Necessary Analysis Notes and CAP's	—	—	

# Mercury Analysis Log

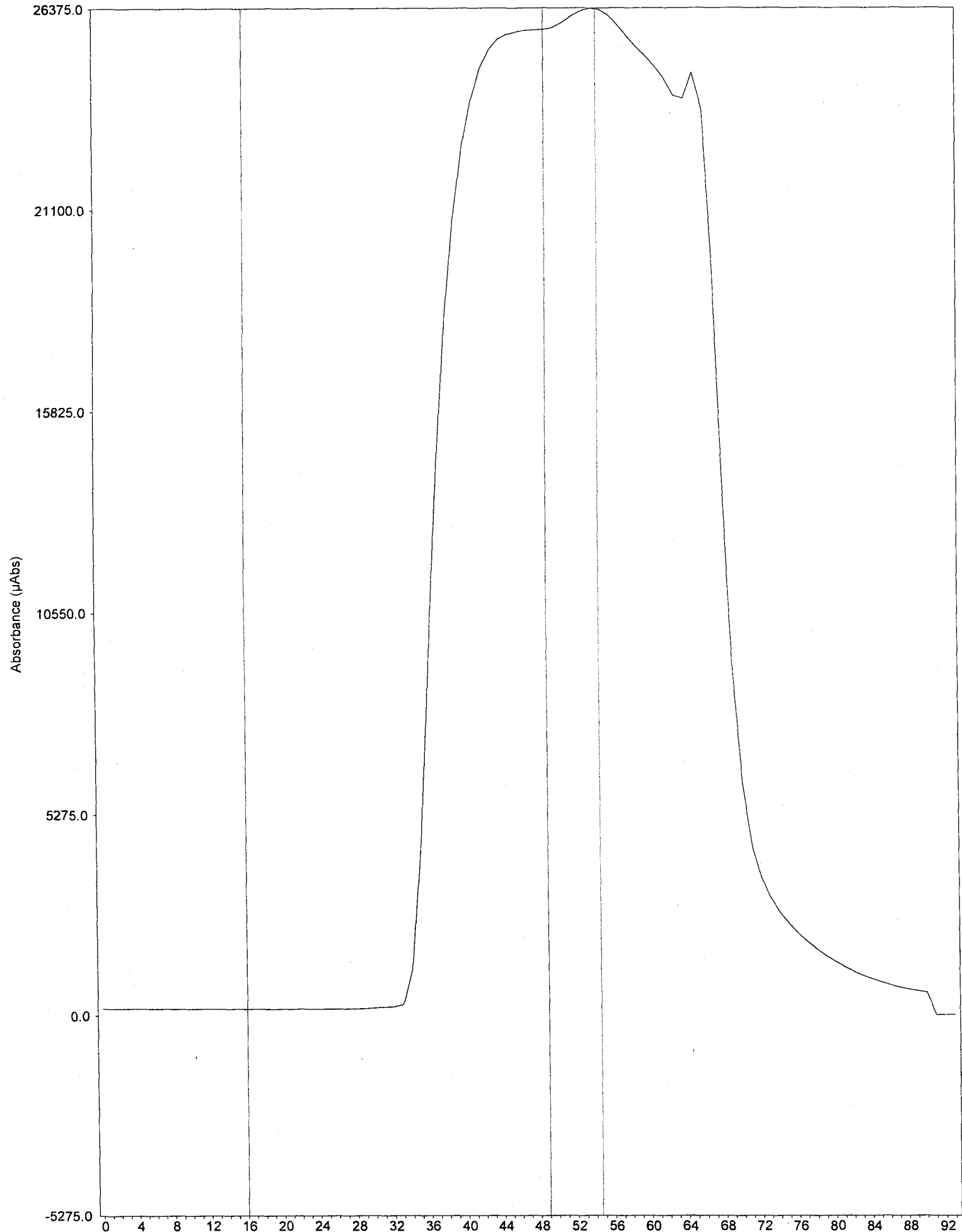
Analyst: DM  
Instrument: CETAC

Date: 3-22-13  
Page: 2 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
QTD 0.0	TWM	1X		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
JJ			7.67	begin CLP %R=98 ✓
JLB			-0.03	
CC1			3.95	%R=99 ✓
CCB1			-0.02	
CRA			0.09	
W150 MB2	LEM		-0.00	
" C			0.23	
" COUP			0.23	
" CSFK			1.34	%R=111 ✓
CC2	TWM		3.96	%R=99 ✓
CCB2	TWM		-0.01	END CLP ✓
W105 MB	LEM		-0.00	
" A			0.00	
" ACP			0.00	No RPD: Undetected ✓
" ACPK			1.11	%R=111 ✓
W106 MB			-0.00	
" A			-0.00	
" ACP			-0.00	No RPD: Undetected ✓
" ACPK			1.10	%R=110 ✓
W125 MB			0.00	
" A			0.00	
CCV	TWM		3.97	%R=99 ✓
CCB	TWM		-0.01	

Chemical/Reagent ID:  
10% SnCl<sub>2</sub>: MP2456  
Standard ID:  
Standard: 3023-3

14% NH<sub>2</sub>OH/NaCl: MP2436  
ICV/CCV: 596



Analyst  
 Date Started Friday, March 22, 2013, 11:40:44  
 Worksheet ARI 10ppb CALIB  
 Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
WI33 MB SMM	22-Mar-2013, 11:40	-0.00	31.70	-7.24	1.00	
WI33 MBSPK SMM	22-Mar-2013, 11:42	2.06	0.22	5410.00	1.00	
WI33 A SMM	22-Mar-2013, 11:43	0.37	0.23	960.00	1.00	
WI33 ADUP SMM	22-Mar-2013, 11:45	0.36	0.27	932.00	1.00	
WI33 ASPK SMM	22-Mar-2013, 11:47	1.51	0.92	3960.00	1.00	
WI33 B SMM	22-Mar-2013, 11:48	0.18	0.23	473.00	1.00	

*Handwritten:* 3/22/13

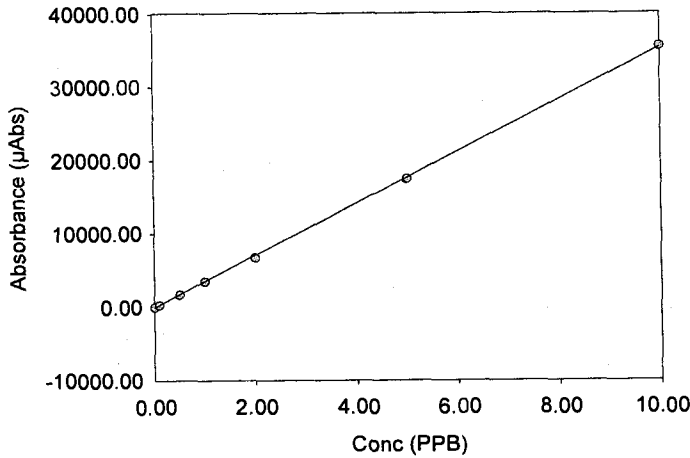
Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Standard	22-Mar-2013, 11:50	4.18	1.22	11000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Blank	22-Mar-2013, 11:52	-0.01	4.02	-31.60	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
Calibration Zero	22-Mar-2013, 11:53	0.00	71.40	-6.07	1.00	
Standard #1	22-Mar-2013, 11:55	0.10	1.22	315.00	1.00	
Standard #2	22-Mar-2013, 11:57	0.50	0.58	1680.00	1.00	
Standard #3	22-Mar-2013, 11:58	1.00	0.38	3440.00	1.00	
Standard #4	22-Mar-2013, 12:00	2.00	0.52	6670.00	1.00	
Standard #5	22-Mar-2013, 12:02	5.00	0.44	17500.00	1.00	
Standard #6	22-Mar-2013, 12:03	10.00	0.64	35500.00	1.00	

*Handwritten:* TWM

Calibration Data



Int. Slope 0.000  
 3529.802  
 Correlation 0.99988

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
ICV	22-Mar-2013, 12:06	7.87	0.37	27800.00	1.00	
ICB	22-Mar-2013, 12:08	-0.03	5.81	-105.00	1.00	

*Handwritten:* BQINCLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Standard	22-Mar-2013, 12:09	3.95	0.42	13900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
QC Blank	22-Mar-2013, 12:11	-0.02	3.54	-57.80	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. $\mu$ Abs	Dilution	Flags
CRA	22-Mar-2013, 12:13	0.09	1.06	331.00	1.00	
WI50 MB2 LEM	22-Mar-2013, 12:14	-0.00	81.20	-2.84	1.00	
WI50 C LEM	22-Mar-2013, 12:16	0.23	0.50	795.00	1.00	
WI50 CDUP LEM	22-Mar-2013, 12:17	0.23	0.75	800.00	1.00	
WI50 CSPK LEM	22-Mar-2013, 12:19	1.34	0.46	4720.00	1.00	

Analyst  
 Date Started Friday, March 22, 2013, 12:21:02  
 Worksheet ARI 10ppb CALIB  
 Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	22-Mar-2013, 12:21	3.96	0.43	14000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	22-Mar-2013, 12:22	-0.01	5.05	-36.20	1.00	END CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WI05 MB LEM	22-Mar-2013, 12:24	-0.00	81.60	-5.76	1.00	
WI05 A LEM	22-Mar-2013, 12:25	0.00	4.27	14.90	1.00	
WI05 ADUP LEM	22-Mar-2013, 12:27	0.00	62.30	9.27	1.00	
WI05 ASPK LEM	22-Mar-2013, 12:29	1.11	0.13	3920.00	1.00	
WI06 MB LEM	22-Mar-2013, 12:30	-0.00	16.10	-9.15	1.00	
WI06 A LEM	22-Mar-2013, 12:32	-0.00	3.90	-9.65	1.00	
WI06 ADUP LEM	22-Mar-2013, 12:34	-0.00	12.40	-14.20	1.00	
WI06 ASPK LEM	22-Mar-2013, 12:35	1.10	0.18	3870.00	1.00	
WI25 MB LEM	22-Mar-2013, 12:37	0.00	135.00	1.93	1.00	
WI25 A LEM	22-Mar-2013, 12:38	0.00	45.80	3.35	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	22-Mar-2013, 12:40	3.97	0.09	14000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	22-Mar-2013, 12:42	-0.01	3.81	-33.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WI25 ADUP LEM	22-Mar-2013, 12:43	-0.00	478.00	-0.60	1.00	
WI25 ASPK LEM	22-Mar-2013, 12:45	1.13	1.21	3980.00	1.00	
WI40 MB1 TWM	22-Mar-2013, 12:47	-0.00	94.60	-2.89	1.00	
WI40 MB1SPK TWM	22-Mar-2013, 12:48	2.10	0.33	7410.00	1.00	
WI40 A TWM	22-Mar-2013, 12:50	0.02	4.17	76.20	1.00	
WI40 ADUP TWM	22-Mar-2013, 12:51	0.02	2.93	65.00	1.00	
WI40 ASPK TWM	22-Mar-2013, 12:53	1.04	0.43	3680.00	1.00	
WI40 B TWM	22-Mar-2013, 12:55	-0.00	11.50	-9.72	1.00	
WI40 C TWM	22-Mar-2013, 12:56	-0.00	123.00	-4.04	1.00	
WI40 D TWM	22-Mar-2013, 12:58	0.01	4.87	38.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	22-Mar-2013, 13:00	4.00	0.06	14100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	22-Mar-2013, 13:01	-0.01	12.10	-17.90	1.00	

**Analyst**

**Date Created:** Thursday, July 13, 2000  
**Worksheet** ARI 10ppb CALIB  
**Comment**

**Sip Duration (Sec.):** 30  
**Rinse Duration (Sec.):** 60  
**Read Delay:** 49  
**Integration Time/Replicate:** 1.40  
**# of Replicates:** 4  
**# of Repeats:** 1  
**Baseline Correction Enabled:** True  
**Baseline Point 1 Start Time:** 10  
**Baseline Point 1 End Time:** 16  
**2-Point Baseline Corr. Enabled:** False  
**Baseline Point 2 Start Time:**  
**Baseline Point 2 End Time:**

**Gas Flow (ml/min):** 180

**Calibration Algorithm:** Linear, Zero Intercept  
**Recalibration Frequency:** 0  
**Reslope Frequency:** 0  
**Reslope Standard:** 5  
**Calibration Standard #1 Conc.:** 0.10 PPB  
**Calibration Standard #2 Conc.:** 0.50 PPB  
**Calibration Standard #3 Conc.:** 1.00 PPB  
**Calibration Standard #4 Conc.:** 2.00 PPB  
**Calibration Standard #5 Conc.:** 5.00 PPB  
**Calibration Standard #6 Conc.:** 10.00 PPB

**QC Enabled:** True  
**QC-RSD Enabled:** True  
**Limit Condition & Error Action:** If %RSD > 5.0%, if  $\mu$ Abs. > 1500, Flag and Continue

**QC-Std Enabled:** True  
**Limit Condition & Error Action:** If outside 80% .. 120%, Stop

**QC-Blank Enabled:** True  
**Limit Condition & Error Action:** If outside -100 .. 100, Stop



# Mercury Standard Prep Log

Prep Code: SMn Instrument: CETA  
 Analyst: CB Date: 03-21-13  
 Bath Temp: 90°C Start Time: 1010 End Time: 1040

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	-	0.00	50.0	0.0	3
STD1	3023-2	0.01		0.1	2
STD2		0.05		0.5	2
STD3		0.10		1.0	2
STD4		0.20		2.0	2
STD5		0.50		5.0	2
STD6		1.00		10.0	2
CRA	✓	0.01		0.1	1
ICB/CCB	-	0.00		0.0	3
ICV/LCS	59-6	0.08	✓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022 H<sub>2</sub>SO<sub>4</sub>: 78044 HCl: -  
 5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: mP2439 5% KMnO<sub>4</sub>: mP2445

Prep Code: Thm Digested 20.0 mL Instrument: CETAC  
 Analyst: CB Date: 03-21-13  
 Bath Temp: 90°C Start Time: 1115 End Time: 1315

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	-	0.00	100.0	0.0	1
STD1	3023-3	0.01		0.1	1
STD2		0.05		0.5	1
STD3		0.10		1.0	1
STD4		0.20		2.0	1
STD5		0.50		5.0	1
STD6		1.00		10.0	1
CRA	✓	0.01		0.1	1
ICB/CCB	-	0.00		0.0	1
ICV/LCS	59-6	0.16	✓	8.0	1
CCV	↓	0.08	100.0	4.0	1

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022 H<sub>2</sub>SO<sub>4</sub>: I7677 HCl: -  
 5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: mP2439 5% KMnO<sub>4</sub>: mP2445





# Mercury Digestion Log

Prep Code: LEM

Matrix: water

Analyst: DM

Date: 3-22-13

Bath Temp: 95°C

Start Time: 0845

End Time: 1045

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO <sub>4</sub> Aliquots	CLP	Comments
W150 C	1.5	-	20.0	20.0	3/30 1	①	
" CDUP	1.5	-			1	↓	
" CSPK	1.5	-			1	↓	
" MB2	-	-			1	④	
W105 A	1	-			3/30 1	N	
" ADUP	1	-			1	↓	
" PEAK	1	-			1	↓	
" MB	-	-	20.0	20.0	1	N	
<i>[Handwritten signature]</i>							
3-22-13 DM							

Chemical/Reagent ID:

HNO<sub>3</sub>: I8022

H<sub>2</sub>SO<sub>4</sub>: J777

HCl: -

5% K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>: MP2439

5% KMnO<sub>4</sub>: MP2445

Digest Tube Lot: ML27KK03