SDG COVER PAGE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

SOW No.: ISM02.3

EPA Sample No.	Lab Sample ID	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MH1H14	6100165-01	X			
MH1H15	6100165-02	X			
MH1H16	6100165-03	X			
MH1H17	6100165-04	X			
MH1H17D	QJ14021-DUP1	X			
MH1H17D	QJ14021-DUP2	X			
MH1H17S	QJ14021-MS1	X			
MH1H18	6100165-05	X			
MH1H19	6100165-06	X			
MH1H20	6100165-07	X			
MH1H21	6100165-08	X			
MH1H22	6100165-09	X			
MH1H23	6100165-10	X			
MH1H24	6100165-11	X			
MH1H25	6100165-12	X			
MH1H26	6100165-13	X			
MH1H27	6100165-14	X			
MH1H28	6100165-15	X			
MH1H29	6100165-16	X			
MH1H30	6100165-17	X			
MH1H31	6100165-18	X			

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the SDG narrative. Release of the data contained in this hardcopy data package and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name: Lauren Meadows For Chris Bonner

Date: 10/28/16 Title: CEO/QAO

SDG COVER PAGE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

SOW No.: ISM02.3

EPA Sample No.	Lab Sample ID	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MH1H14	6100165-01		X		
MH1H15	6100165-02		X		
MH1H16	6100165-03		X		
MH1H17	6100165-04		X		
MH1H17D	QJ14030-DUP1		X		
MH1H17S	QJ14030-MS1		X		
MH1H18	6100165-05		X		
MH1H19	6100165-06		X		
MH1H20	6100165-07		X		
MH1H21	6100165-08		X		
MH1H22	6100165-09		X		
MH1H23	6100165-10		X		
MH1H24	6100165-11		X		
MH1H25	6100165-12		X		
MH1H26	6100165-13		X		
MH1H27	6100165-14		X		
MH1H28	6100165-15		X		
MH1H29	6100165-16		X		
MH1H30	6100165-17		X		
MH1H31	6100165-18		X		

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the SDG narrative. Release of the data contained in this hardcopy data package and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name: Lauren Meadows For Chris Bonner

Date: 10/28/16 Title: CEO/QAO

SDG COVER PAGE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

SOW No.: ISM02.3

EPA Sample No.	Lab Sample ID	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MH1H14	6100165-01			X	
MH1H15	6100165-02			X	
MH1H16	6100165-03			X	
MH1H17	6100165-04			X	
MH1H17D	QJ14042-DUP1			X	
MH1H17S	QJ14042-MS1			X	
MH1H18	6100165-05			X	
MH1H19	6100165-06			X	
MH1H20	6100165-07			X	
MH1H21	6100165-08			X	
MH1H22	6100165-09			X	
MH1H23	6100165-10			X	
MH1H24	6100165-11			X	
MH1H25	6100165-12			X	
MH1H26	6100165-13			X	
MH1H27	6100165-14			X	
MH1H28	6100165-15			X	
MH1H29	6100165-16			X	
MH1H30	6100165-17			X	
MH1H31	6100165-18			X	

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the SDG narrative. Release of the data contained in this hardcopy data package and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name: Lauren Meadows For Chris Bonner

Date: 10/28/16 Title: CEO/QAO

TECHLAW

CHAIN OF CUSTODY RECORD

No: **2016_OCT_Sed&Soil_46282_CLP**

COC #: 2016_OCT_Sed&Soil_46282_CLP
Lab Contact: Chris Bonner
Lab Phone: 601-264-2854

Site #: A8M5
Lab: Bonner Analytical Testing Company
Lab Address: 2703 Oak Grove Rd

EPW14029
MH1H14

Cooler #:
Lab_Address2:
Hattiesburg, MS 39402

Lab #	Sample #	Tag	Matrix	Sample Type	Analyses	Container	Collected	Sample Time	Sampler
	MH1H14	1419	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/30/2016	16:20	JM
	MH1H15	1420	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/30/2016	16:20	JM
	MH1H16	1421	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/30/2016	14:00	JM
	MH1H17	1422	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/30/2016	14:00	JM
	MH1H18	1423	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/27/2016	11:10	BCS
	MH1H19	1424	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/27/2016	11:10	BCS
	MH1H20	1425	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	16:05	BCS
	MH1H21	1426	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	16:05	BCS
	MH1H22	1427	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	15:00	BCS
	MH1H23	1428	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	15:00	BCS
	MH1H24	1429	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	11:50	BCS
	MH1H25	1430	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	11:50	BCS
	MH1H26	1431	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	09:35	BCS
	MH1H27	1432	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	09:35	BCS
	MH1H28	1433	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	10:30	BCS
	MH1H29	1434	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	10:30	BCS
	MH1H30	1435	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	11:10	BCS
	MH1H31	1436	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	11:10	BCS

Special Instructions: CASE# 46382
Total Recoverable Metals and Mercury
QC to be determined by Lab

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Lohman ESAT	10/12/16	P. Aiken Bon	0855 10-13-16	good

4

SAMPLE DELIVERY GROUP (SDG)
Definition Sheet

SDG ID: MH1H14

Laboratory Name: Bonner Analytical Testing Co.

Laboratory Code: BON

Contract No.: EPW14029

Case No.: 46282

Solicitation No.:

SDG Turnaround: 21-Day

Modified Analysis No(s).: 2658.0

5-10 ICPMS 11+

Analysis Required: ICPAES ~~(1-4)~~, ~~ICPMS~~ (2658.0), Mercury

---

EPA Sample Nmbers in SDG (Listed in Numerical Order)

1) MH1H14	7) MH1H20	13) MH1H26	19) ZZZZZZ
2) MH1H15	8) MH1H21	14) MH1H27	20) ZZZZZZ
3) MH1H16	9) MH1H22	15) MH1H28	21) ZZZZZZ
4) MH1H17	10) MH1H23	16) MH1H29	22) ZZZZZZ
5) MH1H18	11) MH1H24	17) MH1H30	23) ZZZZZZ
6) MH1H19	12) MH1H25	18) MH1H31	24) ZZZZZZ

MH1H14	MH1H31
First Sample in SDG	**Last Sample in SDG**
10/13/2016	10/13/2016
First Sample Receipt Date	**Last Sample Receipt Date**

Note: There are a maximum of 20 samples (excluding PE Sample) in SDG. Attach TRs to this form in alphanumeric order (the order listed above on this form).

P. Aik

Signature

10-14-16

Date

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) P. Aiken		
Case Number 46282	SDG No. MH1H14	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455697187 ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	MH1H20	ZZZZZZ	ZZZZZZ	6100165-07	Good\OnIce
8	MH1H21	ZZZZZZ	ZZZZZZ	6100165-08	Good\OnIce
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By P. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) D. Aiken		
Case Number 46282	SDG No. MH1H14	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455696905 ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	MH1H18	ZZZZZZ	ZZZZZZ	6100165-05	Good\OnIce
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	MH1H23	ZZZZZZ	ZZZZZZ	6100165-10	Good\OnIce
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	MH1H25	ZZZZZZ	ZZZZZZ	6100165-12	Good\OnIce
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	MH1H27	ZZZZZZ	ZZZZZZ	6100165-14	Good\OnIce
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	MH1H29	ZZZZZZ	ZZZZZZ	6100165-16	Good\OnIce
17	MH1H30	ZZZZZZ	ZZZZZZ	6100165-17	Good\OnIce
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By D. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

8

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature)		
Case Number 46282	SDG No. MH1H14	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA / NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455697132 / ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/ ~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Taq #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	MH1H24	ZZZZZZ	ZZZZZZ	6100165-11	Good\OnIce
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) P. Aiken		
Case Number 46282	SDG No. MH1H14	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA / NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455697235 / ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/ ~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	MH1H15	ZZZZZZ	ZZZZZZ	6100165-02	Good\OnIce
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By P. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

10

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) P. Aiken		
Case Number 46282	SDG No. MH1H14	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455697739 ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Taq #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	MH1H22	ZZZZZZ	ZZZZZZ	6100165-09	Good\OnIce
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By P. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) T. Aiken		
Case Number 46282	SDG No. MH1H14	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA / NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455697522 / ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/ ~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	MH1H19	ZZZZZZ	ZZZZZZ	6100165-06	Good\OnIce
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By T. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) P. Aiken		
Case Number 46282	SDG No. MH1H14	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA / NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455697522 / ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/ ~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Taq #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	MH1H17	ZZZZZZ	ZZZZZZ	6100165-04	Good\OnIce
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By P. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) T. Aiken		
Case Number 46282	SDG No. MH1H14	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455696548 ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	MH1H26	ZZZZZZ	ZZZZZZ	6100165-13	Good\OnIce
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	MH1H28	ZZZZZZ	ZZZZZZ	6100165-15	Good\OnIce
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By T. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) T. Aiken		
Case Number 46282	SDG No. MH1H14	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455697338 ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MH1H14	ZZZZZZ	ZZZZZZ	6100165-01	Good\OnIce
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	MH1H16	ZZZZZZ	ZZZZZZ	6100165-03	Good\OnIce
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	MH1H31	ZZZZZZ	ZZZZZZ	6100165-18	Good\OnIce
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By T. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-2
FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

LAB NAME Bonner Analytical Testing Company

LAB CODE Bonner

CONTRACT NO. EPW14029

CASE NO. 46282 SDG NO. MH1H14

MA NO. 2658.0

SOW NO. ISM02.3

All documents delivered in the Complete SDG File must be original documents where possible. (Reference - Exhibit B Section 2.4)

		PAGE NOs. FROM	PAGE NOs. TO	CHECK LAB	CHECK REGION
1.	SDG Cover Page	1	3	✓	
2.	Traffic Report/Chain of Custody Record(s)	4	5	✓	
3.	Sample Log-In Sheet (DC-1)	6	14	✓	
4.	CSF Inventory Sheet (DC-2)	15	18	✓	
5.	SDG Narrative	19	23	✓	
Inorganic Analysis					
ICP-AES					
6.	Inorganic Analysis Data Sheet (Form 1-IN)	24	41	✓	
7.	Initial and Continuing Calibration Verification (Form 2-IN)	42	49	✓	
8.	Blanks (Form 3-IN)	50	54	✓	
9.	ICP Interference Check Sample (Form 4-IN)	55	57	✓	
10.	Matrix Spike Sample Recovery (Form 5A-IN)	58	58	✓	
11.	Post-Digestion/Distillation Spike Sample Recovery (Form 5B-IN)	59	59	✓	
12.	Duplicates (Form 6-IN)	60	60	✓	
13.	Laboratory Control Sample (Form 7-IN)	61	61	✓	
14.	ICP-AES and ICP-MS Serial Dilutions (Form 8-IN)	62	62	✓	
15.	Method Detection Limit (Form 9-IN)	63	63	✓	
16.	ICP-AES Interelement Correction Factors (Form 10A-IN)	64	64	✓	
17.	ICP-AES Interelement Correction Factors (Form 10B-IN)	65	65	✓	
18.	Analysis Log (Form 12-IN)	66	70	✓	
19.	Initial Calibration (Form 15-IN)	71	78	✓	

FORM DC-2
FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

		PAGE NOs. FROM	PAGE NOs. TO	CHECK LAB	CHECK REGION
20.	Initial Calibration Summary (Form 16-IN)	79	81	✓	
21.	ICP-AES Raw Data	82	168	✓	
22.	ICP-AES Preparation Log Books, Preparation records, Analysis records, and PE Instructions	169	182	✓	
ICP-MS					
23.	Inorganic Analysis Data Sheet (Form 1-IN)	183	200	✓	
24.	Initial and Continuing Calibration Verification (Form 2-IN)	201	205	✓	
25.	Blanks (Form 3-IN)	206	209	✓	
26.	ICP Interference Check Sample (Form 4-IN)	210	211	✓	
27.	Matrix Spike Sample Recovery (Form 5A-IN)	212	212	✓	
28.	Post-Digestion/Distillation Spike Sample Recovery (Form 5B-IN)	213	213	✓	
29.	Duplicates (Form 6-IN)	214	214	✓	
30.	Laboratory Control Sample (Form 7-IN)	215	215	✓	
31.	ICP-AES and ICP-MS Serial Dilutions (Form 8-IN)	216	216	✓	
32.	Method Detection Limit (Form 9-IN)	217	217	✓	
33.	ICP-MS Internal Standard Association (Form 11-IN)	218	219	✓	
34.	Analysis Log (Form 12-IN)	220	224	✓	
35.	ICP-MS Tune (Form 13-IN)	225	226	✓	
36.	ICP-MS Internal Standards Relative Intensity Summary (Form 14-IN)	227	232	✓	
37.	Initial Calibration (Form 15-IN)	233	237	✓	
38.	Initial Calibration Summary (Form 16-IN)	238	239	✓	
39.	ICP-MS Raw Data	240	323	✓	
40.	ICP-MS Preparation Log Books, Preparation records, Analysis records, and PE Instructions	324	333	✓	
Mercury		N/A	N/A	✓	
41.	Inorganic Analysis Data Sheet (Form 1-IN)	334	351	✓	
42.	Initial and Continuing Calibration Verification (Form 2-IN)	352	355	✓	
43.	Blanks (Form 3-IN)	356	358	✓	
44.	Matrix Spike Sample Recovery (Form 5A-IN)	359	359	✓	
45.	Duplicates (Form 6-IN)	360	360	✓	
46.	Method Detection Limit (Form 9-IN)	361	361	✓	
47.	Analysis Log (Form 12-IN)	362	363	✓	
48.	Initial Calibration (Form 15-IN)	364	366	✓	

FORM DC-2
FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

49.	Initial Calibration Summary (Form 16-IN)	367	367	✓	
50.	Mercury Raw Data	368	373	✓	
51.	Mercury Preparation Log Books, Preparation records, Analysis records, and PE Instructions	374	383	✓	
Cyanide		~~N/A~~	~~N/A~~		
52.	Inorganic Analysis Data Sheet (Form 1-IN)				
53.	Initial and Continuing Calibration Verification (Form 2-IN)				
54.	Blanks (Form 3-IN)				
55.	Matrix Spike Sample Recovery (Form 5A-IN)				
56.	Post-Digestion/Distillation Spike Sample Recovery (Form 5B-IN)				
57.	Duplicates (Form 6-IN)				
58.	Method Detection Limit (Form 9-IN)				
59.	Analysis Log (Form 12-IN)				
60.	Initial Calibration (Form 15-IN)				
61.	Initial Calibration Summary (Form 16-IN)				
62.	Cyanide Raw Data				
63.	Cyanide Preparation Log Books, Preparation records, Analysis records, and PE Instructions				
Additional		N/A	N/A	✓	
64.	Percent Solids Determination Log	384	384	✓	
65.	EPA Shipping/Receiving Documents	N/A	N/A	✓	
	Airbill (No. of Shipments 9)	385	393	✓	
	Sample Tags	N/A	N/A	✓	
	Sample Log-In Sheet (Lab)	394	397	✓	
66.	Misc. Shipping/Receiving Records (list all individual records) Communication Logs	N/A	N/A	✓	
		N/A	N/A	✓	
67.	Internal Lab Sample Transfer Records & Tracking Sheets (describe or list) In-House Chains and Digestates	398	401	✓	
		N/A	N/A	✓	
68.	Other Records (describe or list)	N/A	N/A	✓	
	Communication Logs	402	414	✓	
	e-mails				
	Corrective Actions	415	415	✓	

FORM DC-2
FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

69. Comments:

Completed by:
(CLP Lab) Patricia Aik (Signature) | Patricia Aiken / Sample Custodian (Print Name & Title) | 10-28-16 (Date)

Audited by:
(EPA) (Signature) | (Print Name & Title) | (Date)

BONNER Analytical
2703 Oak Grove Road
Hattiesburg, MS 39402
601-264-2854 Phone
601-268-7084 Fax

SDG NARRATIVE:

SDG Number: MH1H14
Case Number: 46282
Contract Number: EPW14029
Contract SOW: ISM02.3

Sample Receipt:
On October 13, 2016 we received 419 soils in 10 coolers via FedEx air bills listed below

- 7774 5569 7187
- 7774 5569 6905
- 7774 5569 7132
- 7774 5569 7235
- 7774 5569 7740
- 7774 5569 7739
- 7774 5569 7522
- 7774 5569 7420
- 7774 5569 6548
- 7774 5569 7338

Custody seals were present and intact, Samples were in good condition except for the following discrepancies.

Discrepancies with tags, jars, and/or COC

Issue 1: There is no relinquished time on any of the 24 pages of the COC.

Resolution 1: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Issue 2: The COC lists the Case as 46382 in the instruction box; however, these samples are for Case 46282.

Resolution 2: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Insufficient/inappropriate designation of laboratory QC

Issue 3: The COC states "QC to be determined by lab." The laboratory has provided the list below of SDGs and the sample selected for QC.

SDG	QC
MH1F86	MH1F87
MH1G05	MH1G06
MH1G23	MH1G28
MH1G77	MH1G80
MH1G59	MH1G59
MH1H14	MH1H17
MH1G95	MH1G96
MH1H50	MH1H52
MH1H32	MH1H35

BONNER Analytical
2703 Oak Grove Road
Hattiesburg, MS 39402
601-264-2854 Phone
601-268-7084 Fax

MH1H68	MH1H71
MH1H86	MH1H86
MH1J05	MH1J05
MH1J23	MH1J23
MH1J41	MH1J51
MH1J59	MH1J59
MH1J77	MH1J77
MH1J95	MH1J95
MH1K14	MH1K16
MH1K32	MH1K35
MH1K50	MH1K51
MH1K68	MH1K71
MH1K86	MH1K97
MH1L05	MH1L08

Resolution 3: Per Region 8, the samples selected for QC are acceptable to the Region. The laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Missing temperature blank

Issue 4: There were no temperature blanks in any of the coolers. A thermometer was inserted directly into the cooler, allowed to stabilize, and the temperature was then recorded. All coolers were received at 0°C.

Resolution 4: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Non-standard matrix

Issue 5: The laboratory is asking if they should decant or homogenize the sediment samples.

Resolution 5: Per Region 8, the laboratory shall decant the sediment samples. The laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Laboratory problems

Issue 6: Three of the 10 airbills were not removable. The laboratory took pictures of those labels and removed what parts of the label were possible.

Resolution 6: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Issue 7: The laboratory received 419 samples of the 500 that were scheduled and the shipping end date is tomorrow, 10/14/16. Please advise if this Case is complete.

Resolution 7: Per Region 8, shipping for this Case is complete. . The laboratory will note the issue in the SDG Narrative and proceed with analysis

ISSUE: The lab requests to move the following analytes from ICP-MS to ICP-AES due to elevated concentrations, As, Pb, Cu, Mn, & Zn. Bonner will keep the original MA prices for 1-4 and 11+.

BONNER Analytical
2703 Oak Grove Road
Hattiesburg, MS 39402
601-264-2854 Phone
601-268-7084 Fax

REGION: what concentration levels are the labs finding for the metals in question? Is the lab seeing the elevated levels in all samples?

LAB: "All analytes are above the AES CRQL. If we identify a sample that's below CRQL we will analyze by ICP-MS. In terms of concentrations all analytes were chosen to protect the ICP-MS. For example, a large portion of the samples are over 10ppm for pb, zn & mn. They're actually high enough that we are having to do dilutions on the ICP-AES

REGION: the Region approves reporting the metals in question from the ICP-AES as described below.

Issue: The COC received with the samples for Case 46282 does not list a station location.

Resolution: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Analysis = Al, Ca, Fe, Mg, As, Pb, Cu, Mn, Zn BY ICP-AES Ag, Ba, Be, Cd, Cr, Mo, Ni, Sb, Se, Tl, V, BY ICP-MS MA 2658.0 Hg

Laboratory Instrumentation Disclosure

Interelement corrections are applied to ICP-AES & ICP-MS. Background correction(s) are applied to ICP-AES, HG & CN data. Raw data ppb/ppm concentrations reflect any and all correction(s) applied. ICP-MS evaluates the following analyte masses by collision cell: 51V, 52Cr, 53ClO, 55Mn, 75-77As, 77-82Se & 103Rh.

ICP-AES
The analytical run began 10/17/2016 @ 2213 hrs. The matrix spike failed for As, Mn and Cu; a post spike was analyzed at twice the CRQL for As and at twice the indigenous level for Mn and Cu. MH1H15 and 19 were over the linear range for Mn; 16, 17, 23, 26, 27, 28, 29 and 30 were over the range for Fe; 18 was over the range for Fe and Mn—the samples were reanalyzed at appropriate dilutions.

ICP-MS
The analytical run began 10/18/2016 @ 1747 hrs. The matrix spike failed for Sb and Se; a post spike was analyzed at twice the CRQL for Se and at twice the indigenous level for Sb.

Mercury
No Discrepancies

BONNER Analytical
2703 Oak Grove Road
Hattiesburg, MS 39402
601-264-2854 Phone
601-268-7084 Fax

Sample Equation:

Lab ID 6100165-01 EPA Sample # MH1H14

Date & Time 10/17/2016@2326

ICP-AES: 73900 µg/L (0.100 L) * 100 % * 1000 g * 1 mg = 12500 mg/Kg
(Analyte Al) (1.00 g) 58.9 % 1 kg 1000 µg

Date & Time 10/18/2016@2307

ICP-MS: 2.062 µg/L (~~0.100~~ 0.502 L) * 100 % * 1000 g * 1 mg = 1.7 mg/Kg
(Analyte Sb) (1.00 g) 58.9 % 1 kg 1000 µg

Date & Time 10/18/2016@1154

Hg: 0.3085 µg/L * (0.100 L) * 100 % * 1000 g * 1 mg = 0.18 mg/Kg
(0.50 g) 58.9 % 1 kg 1000 µg

Authorized by _____
Data Package Reviewer

Date: 09/21/2016	**MA:** 2658.0	**Title:** ICP-MS Analysis Plus Molybdenum
Method Source: ISM02.3	**Method:** ICP-MS	
Matrix: Soil/Sediment		

Summary of Modification

The purpose of this modified analysis is to analyze soil/sediment samples by ICP-MS with the addition of the non-routine analyte Molybdenum (Mo). Unless specifically modified by this modification, all analyses, Quality Control (QC), and reporting requirements specified in the SOW listed in your current EPA agreement remain unchanged and in full force and effect.

I. Analyte Modifications **Not applicable** ☐

Analyte	CAS Number	CRQL (mg/kg)	Spike Added (mg/kg)
Molybdenum (Mo)	7439-98-7	2.0	100

II. Calibration and QC Requirements **Not applicable** ☐

The Laboratory shall:

- Perform the Initial Calibration with at least one non-blank standard at or below the modified CRQL, converted to µg/L.
- Add Mo to the ICV and CCV at appropriate mid-range concentrations.
- Evaluate the ICB and CCB against the modified CRQL converted to µg/L.
- Evaluate the Preparation Blanks using the modified CRQL.
- Perform the Matrix Spike at the level specified above. Post-digestion spike requirements are per the SOW.
- Flag the Duplicates based on the modified CRQL.
- Prepare the LCS at 2 times the modified CRQL.

III. Preparation and Method Modifications **Not applicable** ☒

IV. Special Reporting Requirements **Not applicable** ☐

The Laboratory shall:

- Add Molybdenum to Forms 1, 2, 3, 4, 5A (5B), 6, 7, 8, 9, 11, 12, 15, and 16.
- Report the "J" and "U" qualifiers in accordance with the requirements in Exhibit B, Section 3.4.2.2.5.2, using the modified CRQL.

EPA SAMPLE NO.

MH1H14

FORM I-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-01

% Solids: 58.9 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	12500	*	10/17/2016	2326
7440-38-2	Arsenic	14.1	*	10/17/2016	2326
7440-70-2	Calcium	1420	*	10/17/2016	2326
7440-50-8	Copper	200	*	10/17/2016	2326
7439-89-6	Iron	32400	*	10/17/2016	2326
7439-92-1	Lead	307	*	10/17/2016	2326
7439-95-4	Magnesium	5690	*	10/17/2016	2326
7439-96-5	Manganese	2500	*	10/17/2016	2326
7440-66-6	Zinc	366	*	10/17/2016	2326

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H15

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-02

% Solids: 75.1 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	14400	*	10/17/2016	2330
7440-38-2	Arsenic	29.8	*	10/17/2016	2330
7440-70-2	Calcium	2320	*	10/17/2016	2330
7440-50-8	Copper	195	*	10/17/2016	2330
7439-89-6	Iron	44300	*	10/17/2016	2330
7439-92-1	Lead	579	*	10/17/2016	2330
7439-95-4	Magnesium	7210	*	10/17/2016	2330
7439-96-5	Manganese	3800	D*	10/18/2016	1229
7440-66-6	Zinc	501	*	10/17/2016	2330

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H16

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-03

% Solids: 51.8 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	3610	*	10/17/2016	2335
7440-38-2	Arsenic	1.9	U*	10/17/2016	2335
7440-70-2	Calcium	762	J*	10/17/2016	2335
7440-50-8	Copper	21.9	*	10/17/2016	2335
7439-89-6	Iron	288000	D*	10/18/2016	1234
7439-92-1	Lead	259	*	10/17/2016	2335
7439-95-4	Magnesium	530	J*	10/17/2016	2335
7439-96-5	Manganese	137	*	10/17/2016	2335
7440-66-6	Zinc	422	*	10/17/2016	2335

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H17

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-04

% Solids: 68.9 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	5970	*	10/17/2016	2339
7440-38-2	Arsenic	1.5	U*	10/17/2016	2339
7440-70-2	Calcium	783	*	10/17/2016	2339
7440-50-8	Copper	53.8	*	10/17/2016	2339
7439-89-6	Iron	292000	D*	10/18/2016	1238
7439-92-1	Lead	247	*	10/17/2016	2339
7439-95-4	Magnesium	1460	*	10/17/2016	2339
7439-96-5	Manganese	207	*	10/17/2016	2339
7440-66-6	Zinc	385	*	10/17/2016	2339

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H18

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-05

% Solids: 69.7 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8980	*	10/17/2016	2356
7440-38-2	Arsenic	12.6	*	10/17/2016	2356
7440-70-2	Calcium	1460	*	10/17/2016	2356
7440-50-8	Copper	337	*	10/17/2016	2356
7439-89-6	Iron	124000	D*	10/18/2016	1251
7439-92-1	Lead	408	*	10/17/2016	2356
7439-95-4	Magnesium	4190	*	10/17/2016	2356
7439-96-5	Manganese	10600	D*	10/18/2016	1251
7440-66-6	Zinc	412	*	10/17/2016	2356

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H19

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-06

% Solids: 58.8 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	19700	*	10/18/2016	0001
7440-38-2	Arsenic	26.6	*	10/18/2016	0001
7440-70-2	Calcium	3910	*	10/18/2016	0001
7440-50-8	Copper	124	*	10/18/2016	0001
7439-89-6	Iron	31900	*	10/18/2016	0001
7439-92-1	Lead	442	*	10/18/2016	0001
7439-95-4	Magnesium	4870	*	10/18/2016	0001
7439-96-5	Manganese	26500	D*	10/18/2016	1255
7440-66-6	Zinc	1120	*	10/18/2016	0001

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H20

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-07

% Solids: 80.7 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	14000	*	10/18/2016	0005
7440-38-2	Arsenic	23.6	*	10/18/2016	0005
7440-70-2	Calcium	1400	*	10/18/2016	0005
7440-50-8	Copper	57.2	*	10/18/2016	0005
7439-89-6	Iron	51500	*	10/18/2016	0005
7439-92-1	Lead	670	*	10/18/2016	0005
7439-95-4	Magnesium	5790	*	10/18/2016	0005
7439-96-5	Manganese	615	*	10/18/2016	0005
7440-66-6	Zinc	80.4	*	10/18/2016	0005

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H21

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-08

% Solids: 84.1 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	11400	*	10/18/2016	0009
7440-38-2	Arsenic	9.2	*	10/18/2016	0009
7440-70-2	Calcium	1800	*	10/18/2016	0009
7440-50-8	Copper	41.4	*	10/18/2016	0009
7439-89-6	Iron	33700	*	10/18/2016	0009
7439-92-1	Lead	294	*	10/18/2016	0009
7439-95-4	Magnesium	5820	*	10/18/2016	0009
7439-96-5	Manganese	409	*	10/18/2016	0009
7440-66-6	Zinc	62.9	*	10/18/2016	0009

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H22

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-09

% Solids: 78.6 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	4710	*	10/18/2016	0013
7440-38-2	Arsenic	20.3	*	10/18/2016	0013
7440-70-2	Calcium	611	J*	10/18/2016	0013
7440-50-8	Copper	31.6	*	10/18/2016	0013
7439-89-6	Iron	33500	*	10/18/2016	0013
7439-92-1	Lead	268	*	10/18/2016	0013
7439-95-4	Magnesium	2230	*	10/18/2016	0013
7439-96-5	Manganese	241	*	10/18/2016	0013
7440-66-6	Zinc	68.5	*	10/18/2016	0013

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H23

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-10

% Solids: 89.9 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	10200	*	10/18/2016	0018
7440-38-2	Arsenic	53.5	*	10/18/2016	0018
7440-70-2	Calcium	994	*	10/18/2016	0018
7440-50-8	Copper	82.7	*	10/18/2016	0018
7439-89-6	Iron	82300	D*	10/18/2016	1259
7439-92-1	Lead	1950	*	10/18/2016	0018
7439-95-4	Magnesium	4410	*	10/18/2016	0018
7439-96-5	Manganese	489	*	10/18/2016	0018
7440-66-6	Zinc	577	*	10/18/2016	0018

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H24

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-11

% Solids: 74.6 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	10400	*	10/18/2016	0022
7440-38-2	Arsenic	11.8	*	10/18/2016	0022
7440-70-2	Calcium	1460	*	10/18/2016	0022
7440-50-8	Copper	34.2	*	10/18/2016	0022
7439-89-6	Iron	52300	*	10/18/2016	0022
7439-92-1	Lead	44.3	*	10/18/2016	0022
7439-95-4	Magnesium	4390	*	10/18/2016	0022
7439-96-5	Manganese	424	*	10/18/2016	0022
7440-66-6	Zinc	86.3	*	10/18/2016	0022

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H25

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-12

% Solids: 84.9 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	9570	*	10/18/2016	0026
7440-38-2	Arsenic	14.8	*	10/18/2016	0026
7440-70-2	Calcium	833	*	10/18/2016	0026
7440-50-8	Copper	25.2	*	10/18/2016	0026
7439-89-6	Iron	41900	*	10/18/2016	0026
7439-92-1	Lead	78.6	*	10/18/2016	0026
7439-95-4	Magnesium	3270	*	10/18/2016	0026
7439-96-5	Manganese	453	*	10/18/2016	0026
7440-66-6	Zinc	53.7	*	10/18/2016	0026

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H26

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-13

% Solids: 78.6 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	9310	*	10/18/2016	0030
7440-38-2	Arsenic	17.9	*	10/18/2016	0030
7440-70-2	Calcium	1670	*	10/18/2016	0030
7440-50-8	Copper	193	*	10/18/2016	0030
7439-89-6	Iron	64000	D*	10/18/2016	1303
7439-92-1	Lead	76.3	*	10/18/2016	0030
7439-95-4	Magnesium	3390	*	10/18/2016	0030
7439-96-5	Manganese	393	*	10/18/2016	0030
7440-66-6	Zinc	62.7	*	10/18/2016	0030

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H27

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-14

% Solids: 89.8 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	10300	*	10/18/2016	0035
7440-38-2	Arsenic	13.4	*	10/18/2016	0035
7440-70-2	Calcium	1190	*	10/18/2016	0035
7440-50-8	Copper	35.5	*	10/18/2016	0035
7439-89-6	Iron	56900	D*	10/18/2016	1308
7439-92-1	Lead	103	*	10/18/2016	0035
7439-95-4	Magnesium	3580	*	10/18/2016	0035
7439-96-5	Manganese	408	*	10/18/2016	0035
7440-66-6	Zinc	71.9	*	10/18/2016	0035

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H28

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-15

% Solids: 63.8 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	9020	*	10/18/2016	0047
7440-38-2	Arsenic	31.4	*	10/18/2016	0047
7440-70-2	Calcium	1250	*	10/18/2016	0047
7440-50-8	Copper	65.2	*	10/18/2016	0047
7439-89-6	Iron	131000	D*	10/18/2016	1312
7439-92-1	Lead	228	*	10/18/2016	0047
7439-95-4	Magnesium	2350	*	10/18/2016	0047
7439-96-5	Manganese	349	*	10/18/2016	0047
7440-66-6	Zinc	99.8	*	10/18/2016	0047

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H29

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-16

% Solids: 84.6 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	11600	*	10/18/2016	0052
7440-38-2	Arsenic	26.3	*	10/18/2016	0052
7440-70-2	Calcium	677	*	10/18/2016	0052
7440-50-8	Copper	43.9	*	10/18/2016	0052
7439-89-6	Iron	99300	D*	10/18/2016	1316
7439-92-1	Lead	94.9	*	10/18/2016	0052
7439-95-4	Magnesium	2880	*	10/18/2016	0052
7439-96-5	Manganese	420	*	10/18/2016	0052
7440-66-6	Zinc	143	*	10/18/2016	0052

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H30

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-17

% Solids: 71.6 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8730	*	10/18/2016	0056
7440-38-2	Arsenic	11.8	*	10/18/2016	0056
7440-70-2	Calcium	1100	*	10/18/2016	0056
7440-50-8	Copper	48.4	*	10/18/2016	0056
7439-89-6	Iron	98300	D*	10/18/2016	1320
7439-92-1	Lead	93.6	*	10/18/2016	0056
7439-95-4	Magnesium	2220	*	10/18/2016	0056
7439-96-5	Manganese	444	*	10/18/2016	0056
7440-66-6	Zinc	111	*	10/18/2016	0056

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H31

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-18

% Solids: 86.5 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8220	*	10/18/2016	0100
7440-38-2	Arsenic	20.5	*	10/18/2016	0100
7440-70-2	Calcium	1040	*	10/18/2016	0100
7440-50-8	Copper	29.9	*	10/18/2016	0100
7439-89-6	Iron	37700	*	10/18/2016	0100
7439-92-1	Lead	259	*	10/18/2016	0100
7439-95-4	Magnesium	3080	*	10/18/2016	0100
7439-96-5	Manganese	359	*	10/18/2016	0100
7440-66-6	Zinc	146	*	10/18/2016	0100

NOTE: Hardness (total) is reported in mg/L

Comments:

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ62626MH1H14 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Aluminum	2521.0	2550	101	0	140000	143000	102	0	133000	95	0
Arsenic	999.00	973	97	0	2000.0	2110	105	0	1970	98	1
Calcium	10026	10300	103	0	200000	201000	101	0	194000	97	0
Copper	492.00	479	97	0	5000.0	5130	103	0	4910	98	0
Iron	5082.0	5350	105	0	125000	131000	105	0	123000	98	0
Lead	1002.0	995	99	0	5750.0	5620	98	0	5250	91	0
Magnesium	6074.0	6050	100	1	200000	199000	99	0	189000	94	0
Manganese	499.00	508	102	0	9000.0	8890	99	0	8400	93	0
Zinc	1025.0	1030	101	0	8000.0	8160	102	0	7720	97	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ62626MH1H14 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV03				ID:		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Aluminum					140000	133000	95	0			
Arsenic					2000.0	1970	98	0			
Calcium					200000	192000	96	1			
Copper					5000.0	4940	99	0			
Iron					125000	122000	98	1			
Lead					5750.0	5260	92	0			
Magnesium					200000	187000	94	1			
Manganese					9000.0	8360	93	0			
Zinc					8000.0	7730	97	0			

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ62627101816 CLP A Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Arsenic	999.0C	1000	100	0	2000.0	2120	106	0	2140	107	0
Iron	5082.C	5160	102	0	125000	124000	100	1	124000	100	1
Manganese	499.0C	522	105	0	9000.0	9020	100	0	9030	100	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ62627101816 CLP A Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV03				ID: CCV04		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Arsenic					2000.0	2130	107	0	2120	106	0
Iron					125000	124000	99	0	123000	98	1
Manganese					9000.0	9010	100	0	8930	99	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ62627101816 CLP A Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID:CCV05				ID:		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Arsenic					2000.0	2110	106	0			
Iron					125000	122000	98	0			
Manganese					9000.0	8860	99	0			

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ62713CLP 10272016 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Zinc	1025.0	1000	98	0	8000.0	7770	97	0	7670	96	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ62713CLP 10272016 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV03				ID: CCV04		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Zinc					8000.0	7640	96	1	7650	96	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ62713CLP 10272016 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID:CCV05				ID:		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Zinc					8000.0	7610	95	1			

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-AES Preparation Batch: QJ14021

Run Batch: BJ62626MH1H14 Preparation Method: 3050B

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID: CCB03	Q	ID: PBS01	Q
Aluminum	-19.0	J	200	U	-18.3	J	-16.6	J	-3.1	J
Arsenic	10	U	10	U	10	U	10	U	1.0	U
Calcium	5000	U	5000	U	5000	U	5000	U	500	U
Copper	25.0	U	25.0	U	25.0	U	25.0	U	2.5	U
Iron	-22.9	J	-13.8	J	-19.7	J	-17.9	J	2.7	J
Lead	10	U	10	U	10	U	10	U	1.0	U
Magnesium	-50.1	J	-28.2	J	-34.5	J	-34.4	J	-4.9	J
Manganese	-1.6	J	-0.80	J	-1.1	J	-0.85	J	-0.15	J
Zinc	60.0	U	60.0	U	60.0	U	60.0	U	6.0	U

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-AES Preparation Batch:

Run Batch: BJ62627101816 CLP A Preparation Method:

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID: CCB03	Q	ID:	Q
Arsenic	10	U	10	U	10	U	10	U		
Iron	100	U	100	U	100	U	12.8	J		
Manganese	15.0	U	0.61	J	15.0	U	0.64	J		

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-AES Preparation Batch:

Run Batch: BJ62627101816_CLP_A Preparation Method:

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID:	Q	ID: CCB04	Q	ID: CCB05	Q	ID:	Q	ID:	Q
Arsenic			10	U	10	U				
Iron			15.6	J	16.0	J				
Manganese			0.77	J	1.1	J				

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-AES Preparation Batch:

Run Batch: BJ62713CLP 10272016 Preparation Method:

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID: CCB03	Q	ID:	Q
Zinc	60.0	U	60.0	U	60.0	U	60.0	U		

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-AES Preparation Batch:

Run Batch: BJ62713CLP_10272016 Preparation Method:

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID:	Q	ID: CCB04	Q	ID: CCB05	Q	ID:	Q	ID:	Q
Zinc			60.0	U	60.0	U				

NOTE: Hardness (total) is reported in mg/L

FORM 4-IN
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Analytical Method: ICP-AES
ICSA Source: USEPA, Lot:ICSA-1211
Instrument ID: ICAPP02
ICSB Source: USEPA, Lot:ICSA-1211 & ICSB-071C
Run Batch: BJ62626MH1H14

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Aluminum	254900	246800	258000	101	257000	104
Arsenic	0	104	-9.0		95.9	92
Calcium	244500	234900	245000	100	243000	103
Copper	2	511	-11	-550	495	97
Iron	100700	99320	103000	102	103000	104
Lead	0	49	7.4		55.2	113
Magnesium	255400	248000	256000	100	255000	103
Manganese	7	507	10.9	156	508	100
Zinc	0	952	2.0		1050	110

FORM 4-IN
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Analytical Method: ICP-AES ICSA Source: USEPA, Lot:ICSA-1211

Instrument ID: ICAPP02 ICSB Source: USEPA, Lot:ICSA-1211 & ICSB-071C

Run Batch: BJ62627101816 CLP A

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Aluminum	254900	246800	257000	101	257000	104
Arsenic	0	104	-8.5		98.5	95
Calcium	244500	234900	242000	99	243000	103
Iron	100700	99320	97800	97	97900	99
Magnesium	255400	248000	254000	99	254000	102
Manganese	7	507	12.7	181	521	103

FORM 4-IN
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Analytical Method: ICP-AES ICSA Source: USEPA, Lot:ICSA-1211

Instrument ID: ICAPP01 ICSB Source: USEPA, Lot:ICSA-1211 & ICSB-0710

Run Batch: BJ62713CLP 10272016

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Aluminum	254900	246800	246000	97	249000	101
Calcium	244500	234900	223000	91	222000	95
Iron	100700	99320	98000	97	99600	100
Magnesium	255400	248000	250000	98	253000	102
Zinc	0	952	1.4		1010	106

EPA SAMPLE NO.

MH1H17S

FORM 5A-IN
MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Analytical Method: ICP-AES

% Solids: 68.9

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Q	Sample Result (SR)	Q	Spike Added (SA)	%R	Q
Arsenic	75-125	0.25	J	1.5	U	11.6	2	*
Copper	75-125	129		53.8		72.6	104	
Lead		292		247		5.80	767	
Manganese	75-125	409		207		145	139	*
Zinc	75-125	735		385		145	241	*

EPA SAMPLE NO.

MH1H17A

FORM 5B-IN
POST-DIGESTION/DISTILLATION SPIKE
SAMPLE RECOVERY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No. 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Analytical Method: ICP-AES

% Solids: 68.9

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Q	Sample Result (SR)	Q	Spike Added (SA)	%R	Q
Arsenic	75-125	1.0	U	1.5	U	3.0	0	*
Manganese	75-125	586		207		421.0	90	
Zinc	75-125	1210		385		769.0	107	

EPA SAMPLE NO.

FORM 6-IN
DUPLICATES

MH1H17D

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.:46282 MA No.: SDG No.: MH1H14

Matrix: Soil Analytical Method: ICP-AES

% Solids: 68.9

Concentration Units (µg/L, mg/L, or mg/kg dry weight): mg/Kg

Analyte	Control Limit	Sample (S)	Q	Duplicate (D)	Q	RPD	Q
Aluminum		5970		7080		17	
Arsenic		1.5	U	1.5	U		
Calcium	726	783		1100		33	
Copper		53.8		68.9		25	*
Iron		292000		397000		31	*
Lead		247		278		12	
Magnesium	726	1460		1110		27	
Manganese		207		208		1	
Zinc		385		593		42	*

NOTE: Hardness (total) is reported in mg/L

EPA SAMPLE NO.

LCS01

FORM 7-IN
LABORATORY CONTROL SAMPLE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Preparation Method: 3050B

Analytical method: ICP-AES Preparation Batch: QJ14021

Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/Kg

Analyte	True	Found	%R
Aluminum	40.000	32.9	82
Arsenic	2.0000	1.7	85
Calcium	1000.0	902	90
Copper	5.0000	4.2	84
Iron	20.000	20.1	101
Lead	2.0000	1.9	95
Magnesium	1000.0	875	88
Manganese	3.0000	2.5	83
Zinc	12.000	10.8	90

EPA SAMPLE NO.

MH1H17L

FORM 8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Analytical method: ICP-AES

% Solids: 68.9

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/Kg

Analyte	Initial Sample Result (I)	Q	Serial Dilution Result (S)	Q	% Difference	Q
Aluminum	5970		7460		25	*
Arsenic	1.5	U	7.3	U		
Calcium	783		1190	J	52	*
Copper	53.8		66.5		24	*
Iron	292000		396000		36	*
Lead	247		283		14	*
Magnesium	1460		1220	J	16	*
Manganese	207		229		11	*
Zinc	385		608		58	*

NOTE: Hardness (total) is reported in mg/L

FORM 9-IN
METHOD DETECTION LIMIT

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Analytical Method: ICP-AES Instrument ID: ICAPP02

Preparation Method: 3050B

Concentration Units (µg/L, µg, or mg/kg): mg/Kg

Analyte	Wavelength/Mass	MDL	Date Analyzed
Aluminum	396.10 nm	2.0	01/28/2016
Arsenic	189.00 nm	0.13	01/28/2016
Calcium	318.10 nm	5.8	01/28/2016
Copper	324.70 nm	0.051	01/28/2016
Iron	258.90 nm	0.83	01/28/2016
Lead	220.30 nm	0.11	02/03/2016
Magnesium	279.00 nm	2.2	01/28/2016
Manganese	257.60 nm	0.061	01/28/2016
Zinc	206.20 nm	0.26	01/28/2016

FORM 10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Instrument ID: ICAPP02 Date: 01/27/2016

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	Cr
Aluminum	396.1	0	0	0	0	0
Arsenic	189	0	0	0	0	-0.000524
Calcium	318.1	0	0	0	0	0
Copper	324.7	0	0	0	0	0
Iron	258.9	0	0	0	0	0
Lead	220.3	0.000141	0.000001	0.00002	0	0
Magnesium	279	0	0	0	0	0
Manganese	257.6	0	0	0	0	0
Zinc	206.2	0	0	0	0	0

FORM 10B-IN
ICP-AES INTERELEMENT CORRECTION FACTORS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Instrument ID: ICAPP02 Date: 01/27/2016

Analyte	Wave-length (nm)	Interelement Correction Factors for: Cu	Mo			
Aluminum	396.1	0	0.038865			
Arsenic	189	0	0			
Calcium	318.1	0	0			
Copper	324.7	0	0			
Iron	258.9	0	0			
Lead	220.3	0.00009	0			
Magnesium	279	0	0			
Manganese	257.6	0	0			
Zinc	206.2	0	0			

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Instrument ID: ICAPP02 Analytical Method: ICP-AES

Start Date: 10/17/2016 End Date: 10/18/2016

Run Batch: BJ62626MH1H14

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
S01	1.0	2213	X		X				X			X	X	X	X	X									X		
S02	1.0	2218	X		X				X			X	X	X	X	X									X		
S03	1.0	2222	X		X				X			X	X	X	X	X									X		
S04	1.0	2226	X		X				X			X	X	X	X	X									X		
S05	1.0	2230	X		X				X			X	X	X	X	X									X		
S06	1.0	2235	X		X				X			X	X	X	X	X									X		
S07	1.0	2239	X						X				X	X	X	X											
S08	1.0	2243	X										X	X													
S09	1.0	2248											X			X											
ICV01	1.0	2252	X		X				X			X	X	X	X	X									X		
ICB01	1.0	2256	X		X				X			X	X	X	X	X									X		
ICSA01	1.0	2301	X		X				X			X	X	X	X	X									X		
ICSAB01	1.0	2305	X		X				X			X	X	X	X	X									X		
CCV01	1.0	2309	X		X				X			X	X	X	X	X									X		
CCB01	1.0	2313	X		X				X			X	X	X	X	X									X		
PBS01	1.0	2318	X		X				X			X	X	X	X	X									X		
LCS01	1.0	2322	X		X				X			X	X	X	X	X									X		
MH1H14	1.0	2326	X		X				X			X	X	X	X	X									X		
MH1H15	1.0	2330	X		X				X			X	X	X	X										X		
MH1H16	1.0	2335	X		X				X			X		X	X	X									X		
MH1H17	1.0	2339	X		X				X			X		X	X	X									X		
MH1H17S	1.0	2343			X							X		X		X									X		
MH1H17D	1.0	2348	X		X				X			X		X	X	X									X		
MH1H17L	5.0	2352	X		X				X			X		X	X	X									X		
MH1H18	1.0	2356	X		X				X			X		X	X										X		
MH1H19	1.0	0001	X		X				X			X	X	X	X										X		
MH1H20	1.0	0005	X		X				X			X	X	X	X	X									X		
MH1H21	1.0	0009	X		X				X			X	X	X	X	X									X		
MH1H22	1.0	0013	X		X				X			X	X	X	X	X									X		
MH1H23	1.0	0018	X		X				X			X		X	X	X									X		

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: ICAPP02
Analytical Method: ICP-AES
Start Date: 10/17/2016
End Date: 10/18/2016
Run Batch: BJ62626MH1H14

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
MH1H24	1.0	C022	X		X				X			X	X	X	X	X									X		
MH1H25	1.0	C026	X		X				X			X	X	X	X	X									X		
MH1H26	1.0	C030	X		X				X			X		X	X	X									X		
MH1H27	1.0	C035	X		X				X			X		X	X	X									X		
CCV02	1.0	C039	X		X				X			X	X	X	X	X									X		
CCB02	1.0	C043	X		X				X			X	X	X	X	X									X		
MH1H28	1.0	C047	X		X				X			X		X	X	X									X		
MH1H29	1.0	C052	X		X				X			X		X	X	X									X		
MH1H30	1.0	C056	X		X				X			X		X	X	X									X		
MH1H31	1.0	C100	X		X				X			X	X	X	X	X									X		
CCV03	1.0	C105	X		X				X			X	X	X	X	X									X		
CCB03	1.0	C109	X		X				X			X	X	X	X	X									X		

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: ICAPP02
Analytical Method: ICP-AES
Start Date: 10/18/2016
End Date: 10/18/2016
Run Batch: BJ62627101816_CLP_A

EPA Sample NO.	D/F	Time	Analytes																							
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN
S01	1.0	1038			X								X			X										
S02	1.0	1043			X								X			X										
S03	1.0	1047			X								X			X										
S04	1.0	1051			X								X			X										
S05	1.0	1055			X								X			X										
S06	1.0	1059			X								X			X										
S07	1.0	1104											X			X										
S08	1.0	1108											X													
S09	1.0	1112											X			X										
ICV01	1.0	1117			X								X			X										
ICB01	1.0	1121			X								X			X										
ICSA01	1.0	1125	X		X				X				X		X	X										
ICSAB01	1.0	1130	X		X				X				X		X	X										
CCV01	1.0	1134			X								X			X										
CCB01	1.0	1138			X								X			X										
CCV02	1.0	1147			X								X			X										
CCB02	1.0	1151			X								X			X										
CCV03	1.0	1200			X								X			X										
CCB03	1.0	1204			X								X			X										
CCV04	1.0	1217			X								X			X										
CCB04	1.0	1221			X								X			X										
MH1H17A	1.0	1225			X											X										
MH1H15	2.0	1229														X										
MH1H16	6.0	1234											X													
MH1H17	10.0	1238											X													
MH1H17D	10.0	1242											X													
MH1H17L	50.0	1246											X													
MH1H18	6.0	1251											X			X										
MH1H19	10.0	1255														X										
MH1H23	3.0	1259											X													

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.:

SDG No.: MH1H14

Instrument ID: ICAPP02

Analytical Method: ICP-AES

Start Date: 10/18/2016

End Date: 10/18/2016

Run Batch: BJ62627101816_CLP_A

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
MH1H26	3.0	1303											X														
MH1H27	3.0	1308											X														
MH1H28	3.0	1312											X														
MH1H29	3.0	1316											X														
MH1H30	3.0	1320											X														
CCV05	1.0	1325			X								X			X											
CCB05	1.0	1329			X								X			X											

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Instrument ID: ICAPP01 Analytical Method: ICP-AES

Start Date: 10/27/2016 End Date: 10/27/2016

Run Batch: BJ62713CLP_10272016

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
S01	1.0	0855																							X		
S02	1.0	0900																							X		
S03	1.0	0904																							X		
S04	1.0	0908																							X		
S05	1.0	0913																							X		
S06	1.0	0917																							X		
ICV01	1.0	0930																							X		
ICB01	1.0	0934																							X		
ICSA01	1.0	0938	X						X				X		X										X		
ICSAB01	1.0	0943	X						X				X		X										X		
CCV01	1.0	0947																							X		
CCB01	1.0	0951																							X		
CCV02	1.0	1000																							X		
CCB02	1.0	1004																							X		
CCV03	1.0	1013																							X		
CCB03	1.0	1017																							X		
CCV04	1.0	1026																							X		
CCB04	1.0	1030																							X		
MH1H17A	1.0	1034																							X		
CCV05	1.0	1039																							X		
CCB05	1.0	1043																							X		

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: ICAPP02
Start Date: 10/17/2016
Analytical method: ICP-AES
Run Batch: BJ62626MH1H14

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	0.0	22.8		100	96.9	3	800	805	-1
Arsenic	0.0	0.89		10.0	10.8	-8	80.0	76.7	4
Calcium	0.0	23.0		250	236	6	2000	2040	-2
Copper	0.0	3.0		25.0	26.9	-7	200	193	4
Iron	0.0	-1.6		100	77.8	22	800	834	-4
Lead	0.0	0.46		10.0	11.0	-10	80.0	78.2	2
Magnesium	0.0	45.5		250	248	1	2000	2030	-1
Manganese	0.0	-0.061		15.0	14.6	3	120	122	-2
Zinc	0.0	-4.7		40.0	38.5	4	320	324	-1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: ICAPP02
Start Date: 10/17/2016
Analytical method: ICP-AES
Run Batch: BJ62626MH1H14
Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	4000	4040	-1	20000	20000	0	40000	40300	-1
Arsenic	400	385	4	2000	1990	1	4000	4030	-1
Calcium	10000	10300	-3	50000	50600	-1	100000	99800	0
Copper	1000	958	4	5000	4980	0	10000	10100	-1
Iron	4000	4260	-7	20000	21200	-6	40000	41500	-4
Lead	400	392	2	2000	1940	3	4000	3830	4
Magnesium	10000	10100	-1	50000	49800	0	100000	98600	1
Manganese	600	612	-2	3000	3010	0	6000	5930	1
Zinc	1600	1630	-2	8000	8110	-1	16000	15900	1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: ICAPP02
Start Date: 10/17/2016
Analytical method: ICP-AES
Run Batch: BJ62626MH1H14

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	320000	333000	-4	400000	387000	3			
Arsenic									
Calcium	400000	399000	0						
Copper									
Iron	280000	292000	-4	350000	361000	-3	450000	424000	6
Lead	10000	10100	-1	25000	25200	-1			
Magnesium	400000	402000	0						
Manganese	16000	15700	2				22500	22900	-2
Zinc									

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: ICAPP02
Start Date: 10/18/2016
Analytical method: ICP-AES
Run Batch: BJ62627101816 CLP A

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Arsenic	0.0	0.27		10.0	10.6	-6	80.0	77.5	3
Iron	0.0	-42		100	69.8	30	800	837	-5
Manganese	0.0	-3.8		15.0	12.9	14	120	125	-4

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.:

SDG No.: MH1H14

Instrument ID: ICAPP02

Start Date: 10/18/2016

Analytical method: ICP-AES

Run Batch: BJ62627101816 CLP A

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Arsenic	400	390	2	2000	1990	1	4000	4030	-1
Iron	4000	4320	-8	20000	21600	-8	40000	43000	-8
Manganese	600	630	-5	3000	3110	-4	6000	6170	-3

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: ICAPP02
Start Date: 10/18/2016
Analytical method: ICP-AES
Run Batch: BJ62627101816 CLP A

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Arsenic									
Iron	280000	292000	-4	350000	372000	-6	450000	410000	9
Manganese	16000	15900	1				22500	22300	1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Instrument ID: ICAPP01 Start Date: 10/27/2016

Analytical method: ICP-AES Run Batch: BJ62713CLP 10272016

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Zinc	0.0	-4.1		40.0	38.6	4	320	323	-1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: ICAPP01
Start Date: 10/27/2016
Analytical method: ICP-AES
Run Batch: BJ62713CLP 10272016
Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Zinc	1600	1640	-2	8000	8080	-1	16000	15900	1

FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: ICAPP02
Start Date: 10/17/2016
Analytical method: ICP-AES
Run Batch: BJ62626MH1H14

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Aluminum	0.998197	0.000058584	-31.1743479	WLR	Inverse Conc
Arsenic	0.9999115	0.0001700185	-1.7764584	WLR	Inverse Conc
Calcium	0.9999917	0.00001315368	21.0995706	WLR	Inverse Conc
Copper	0.9999187	0.0003781499	2.7438616	WLR	Inverse Conc
Iron	0.9961363	0.00003438119	30.3762901	WLR	Inverse Conc
Lead	0.9998796	0.0005119475	1.7322276	WLR	Inverse Conc
Magnesium	0.9999639	0.00001395547	11.0804867	WLR	Inverse Conc
Manganese	0.9995613	0.0006722826	1.8161663	WLR	Inverse Conc
Zinc	0.9998376	0.001926143	5.5141596	WLR	Inverse Conc

FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: ICAPP02
Start Date: 10/18/2016
Analytical method: ICP-AES
Run Batch: BJ62627101816 CLP A

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Arsenic	0.9999266	0.0001787987	-1.5588078	WLR	Inverse Conc
Iron	0.9910681	0.00002900505	38.8149305	WLR	Inverse Conc
Manganese	0.9998155	0.0005503931	3.7011129	WLR	Inverse Conc

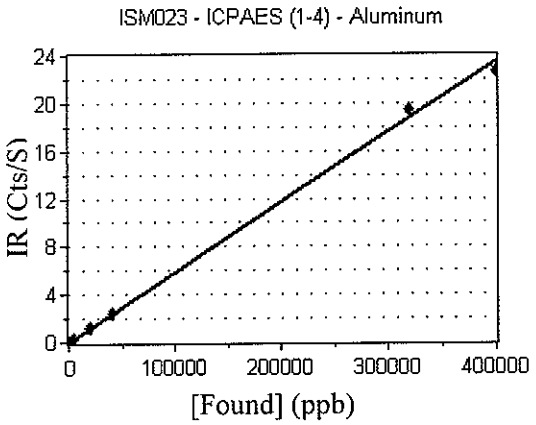
FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: ICAPP01
Start Date: 10/27/2016
Analytical method: ICP-AES
Run Batch: BJ62713CLP 10272016

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Zinc	0.9998957	0.00216718	4.1081415	WLR	Inverse Conc

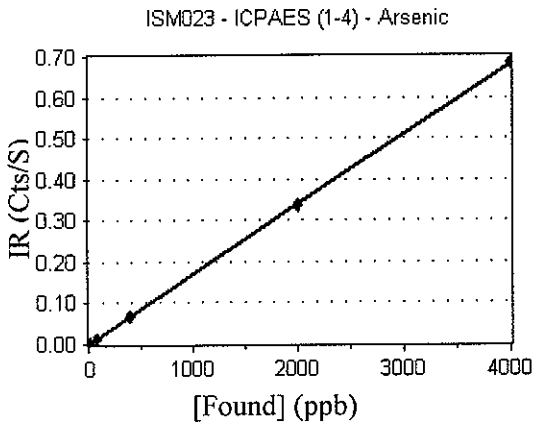
Bonner Analytical Testing Company

Instrument ID: ICAPP02 Calibration ID: B644059 Calibration Date: 10/17/2016



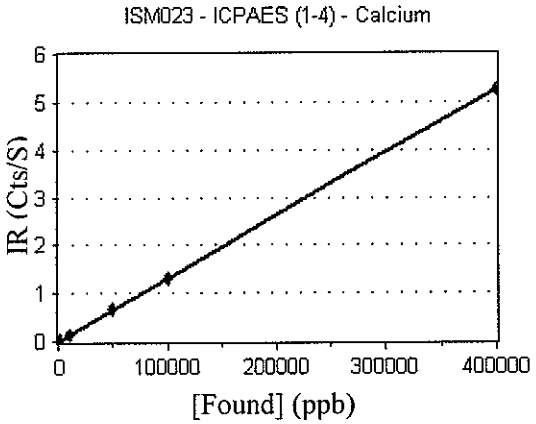
Calibration Plot: Aluminum
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.998197
Fit: [Y] = 5.8584E-05 * [X] + -1.826318E-03
[y-intercept] = 31.17

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62626-CAL1	B6I0028	0	22.81	-0.00049	0
BJ62626-CAL2	B6G0026	100	96.89	0.00385	3
BJ62626-CAL3	B6G0027	800	805.28	0.04535	-1
BJ62626-CAL4	B6G0028	4000	4,040.80	0.2349	-1
BJ62626-CAL5	B6G0029	20000	20,005.91	1.1702	0
BJ62626-CAL6	B6G0030	40000	40,272.54	2.3575	-1
BJ62626-CAL7	B6G0031	320000	332,767.07	19.493	-4
BJ62626-CAL8	B6G0032	400000	386,911.55	22.665	3



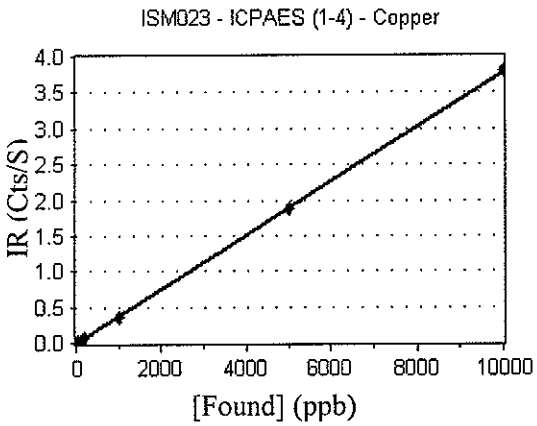
Calibration Plot: Arsenic
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999115
Fit: [Y] = 1.700185E-04 * [X] + -3.020308E-04
[y-intercept] = 1.78

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62626-CAL1	B6I0028	0	0.89	-0.00015	0
BJ62626-CAL2	B6G0026	10	10.78	0.00153	-8
BJ62626-CAL3	B6G0027	80	76.71	0.01274	4
BJ62626-CAL4	B6G0028	400	384.73	0.06511	4
BJ62626-CAL5	B6G0029	2000	1,989.21	0.3379	1
BJ62626-CAL6	B6G0030	4000	4,028.57	0.68463	-1



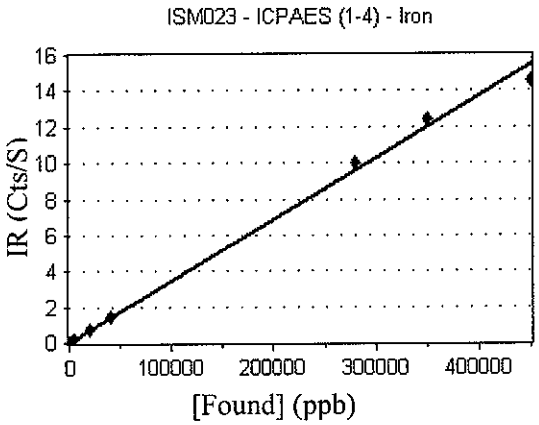
Calibration Plot: Calcium
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999917
Fit: [Y] = 1.315368E-05 * [X] + 2.77537E-04
[y-intercept] = -21.10

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62626-CAL1	B6I0028	0	22.99	0.00058	0
BJ62626-CAL2	B6G0026	250	235.86	0.00338	6
BJ62626-CAL3	B6G0027	2000	2,039.16	0.0271	-2
BJ62626-CAL4	B6G0028	10000	10,283.24	0.13554	-3
BJ62626-CAL5	B6G0029	50000	50,633.93	0.6663	-1
BJ62626-CAL6	B6G0030	100000	99,776.07	1.3127	0
BJ62626-CAL7	B6G0031	400000	399,281.61	5.2523	0



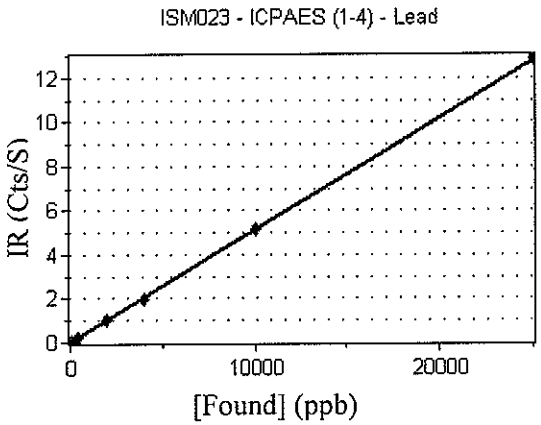
Calibration Plot: Copper
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999187
Fit: [Y] = 3.781499E-04 * [X] + 1.037591E-03
[y-intercept] = -2.74

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62626-CAL1	B6I0028	0	2.97	0.00216	0
BJ62626-CAL2	B6G0026	25	26.87	0.0112	-7
BJ62626-CAL3	B6G0027	200	192.87	0.07397	4
BJ62626-CAL4	B6G0028	1000	957.99	0.3633	4
BJ62626-CAL5	B6G0029	5000	4,979.94	1.8842	0
BJ62626-CAL6	B6G0030	10000	10,067.34	3.808	-1



Calibration Plot: Iron
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9961363
Fit: [Y] = 3.438119E-05 * [X] + 1.044373E-03
[y-intercept] = -30.38

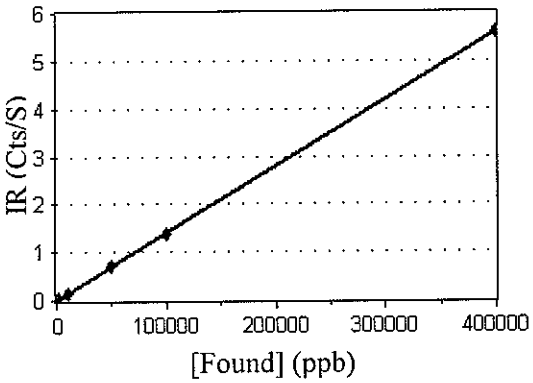
Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62626-CAL1	B6I0028	0	-1.58	0.00099	0
BJ62626-CAL2	B6G0026	100	77.82	0.00372	22
BJ62626-CAL3	B6G0027	800	833.76	0.02971	-4
BJ62626-CAL4	B6G0028	4000	4,264.70	0.14767	-7
BJ62626-CAL5	B6G0029	20000	21,175.41	0.72908	-6
BJ62626-CAL6	B6G0030	40000	41,509.78	1.4282	-4
BJ62626-CAL7	B6G0031	280000	292,047.94	10.042	-4
BJ62626-CAL8	B6G0032	350000	361,359.09	12.425	-3
BJ62626-CAL9	B6J0169	450000	423,631.52	14.566	6



Calibration Plot: Lead
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9998796
Fit: [Y] = 5.119475E-04 * [X] + 8.868096E-04
[y-intercept] = -1.73

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62626-CAL1	B6I0028	0	0.46	0.00112	0
BJ62626-CAL2	B6G0026	10	11.00	0.00652	-10
BJ62626-CAL3	B6G0027	80	78.24	0.04094	2
BJ62626-CAL4	B6G0028	400	391.65	0.20139	2
BJ62626-CAL5	B6G0029	2000	1,942.53	0.99536	3
BJ62626-CAL6	B6G0030	4000	3,834.99	1.9642	4
BJ62626-CAL7	B6G0031	10000	10,054.96	5.1485	-1
BJ62626-CAL8	B6G0032	25000	25,176.63	12.89	-1

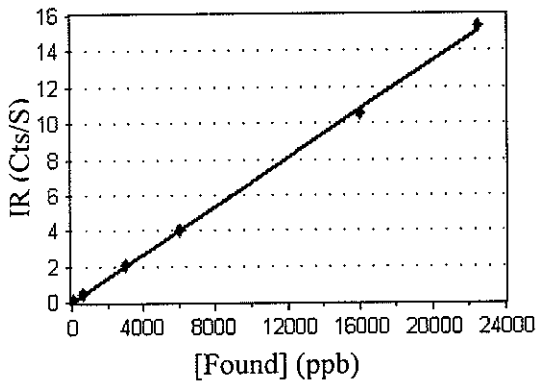
ISM023 - ICPAES (1-4) - Magnesium



Calibration Plot: Magnesium
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999639
Fit: [Y] = 1.395547E-05 * [X] + 1.546334E-04
[y-intercept] = -11.08

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62626-CAL1	B6I0028	0	45.53	0.00079	0
BJ62626-CAL2	B6G0026	250	248.32	0.00362	1
BJ62626-CAL3	B6G0027	2000	2,029.70	0.02848	-1
BJ62626-CAL4	B6G0028	10000	10,068.84	0.14067	-1
BJ62626-CAL5	B6G0029	50000	49,777.28	0.69482	0
BJ62626-CAL6	B6G0030	100000	98,552.42	1.3755	1
BJ62626-CAL7	B6G0031	400000	401,573.39	5.6043	0

ISM023 - ICPAES (1-4) - Manganese

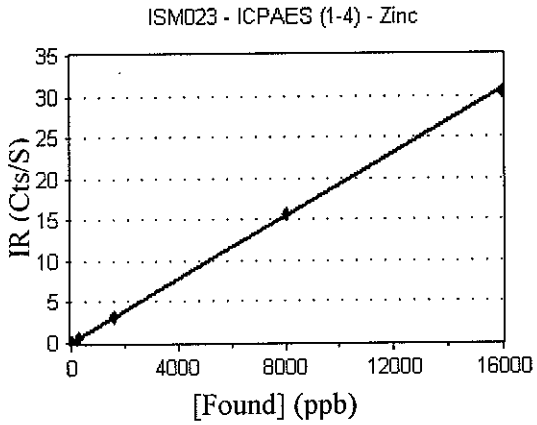


Calibration Plot: Manganese
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9995613
Fit: [Y] = 6.722826E-04 * [X] + 1.220977E-03
[y-intercept] = -1.82

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62626-CAL1	B6I0028	0	-0.06	0.00118	0
BJ62626-CAL2	B6G0026	15	14.62	0.01105	3
BJ62626-CAL3	B6G0027	120	121.97	0.08322	-2
BJ62626-CAL4	B6G0028	600	612.26	0.41283	-2
BJ62626-CAL5	B6G0029	3000	3,010.76	2.0253	0
BJ62626-CAL6	B6G0030	6000	5,931.25	3.9887	1
BJ62626-CAL7	B6G0031	16000	15,688.01	10.548	2
BJ62626-CAL9	B6J0169	22500	22,856.13	15.367	-2

Bonner Analytical Testing Company

Instrument ID: ICAPP02 Calibration ID: B644059 Calibration Date: 10/17/2016 **86**



Calibration Plot: Zinc
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9998376
Fit: [Y] = 1.926143E-03 * [X] + 1.062106E-02
[y-intercept] = -5.51

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62626-CAL1	B6I0028	0	-4.75	0.00148	0
BJ62626-CAL2	B6G0026	40	38.51	0.0848	4
BJ62626-CAL3	B6G0027	320	324.10	0.63488	-1
BJ62626-CAL4	B6G0028	1600	1,631.49	3.1531	-2
BJ62626-CAL5	B6G0029	8000	8,109.67	15.631	-1
BJ62626-CAL6	B6G0030	16000	15,856.24	30.552	1

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL1@S01 Acquired: 10/17/2016 22:13:40 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00070**	**-.00049**	**-.00015**	**.01086**	**-.00194**	**.00058**	**.00057**	**-.00027**	**.00020**	**.00216**
#1	-.00069	-.00071	-.00001	.01075	-.00193	.00035	.00059	-.00039	.00024	.00214
#2	-.00068	-.00111	-.00002	.01132	-.00196	.00066	.00044	-.00041	.00017	.00210
#3	-.00074	.00034	-.00043	.01050	-.00193	.00072	.00067	-.00003	.00019	.00225

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00099**	**.00310**	**.00079**	**.00118**	**.00012**	**.00407**	**-.00095**	**.00112**	**-.00104**	**.00044**
#1	.00086	.00319	.00051	.00103	-.00006	.00370	-.00081	.00108	-.00105	.00046
#2	.00100	.00331	.00101	.00125	.00014	.00517	-.00084	.00130	-.00112	.00042
#3	.00110	.00279	.00086	.00127	.00027	.00333	-.00119	.00097	-.00096	.00045

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00280**	**-.00007**	**-.00014**	**.00148**
#1	.00278	-.00013	-.00017	.00147
#2	.00285	-.00003	-.00015	.00156
#3	.00277	-.00004	-.00009	.00140

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL1@S01 Acquired: 10/17/2016 22:13:40 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4135.4**	**2297.0**	**26284.**	**125690.**	**3767.0**	**57619.**	**11159.**
#1	4126.3	2296.2	26261.	125860.	3763.2	57835.	11145.
#2	4135.1	2292.5	26290.	125560.	3760.6	57626.	11185.
#3	4144.8	2302.3	26301.	125640.	3777.3	57395.	11148.

Sample Name: SEQ-CAL2@S02 Acquired: 10/17/2016 22:18:05 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00128**	**.00385**	**.00153**	**.42012**	**.00101**	**.00338**	**.02319**	**.01188**	**.00155**	**.01120**	**.00372**
#1	.00123	.00376	.00183	.41891	.00098	.00330	.02345	.01198	.00156	.01123	.00376
#2	.00128	.00375	.00134	.41940	.00106	.00358	.02285	.01171	.00155	.01116	.00369
#3	.00134	.00404	.00143	.42206	.00099	.00327	.02326	.01196	.00154	.01120	.00372

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.01219**	**.00362**	**.01105**	**.00604**	**.03734**	**.01791**	**.00652**	**.00253**	**.00238**	**.00407**	**.00386**
#1	.01176	.00354	.01110	.00607	.03784	.01823	.00676	.00262	.00245	.00410	.00376
#2	.01261	.00362	.01121	.00605	.03630	.01755	.00643	.00265	.00236	.00416	.00398
#3	.01222	.00368	.01084	.00599	.03790	.01794	.00636	.00232	.00232	.00395	.00383

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.00341**	**.08480**
#1	.00344	.08480
#2	.00341	.08443
#3	.00337	.08518

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL2@S02 Acquired: 10/17/2016 22:18:05 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4136.0**	**2308.1**	**26328.**	**126670.**	**3784.9**	**58005.**	**11107.**
#1	4138.9	2312.5	26163.	126580.	3787.0	57911.	11049.
#2	4132.8	2304.1	26497.	126680.	3782.6	58000.	11169.
#3	4136.2	2307.6	26325.	126750.	3785.0	58105.	11102.

Sample Name: SEQ-CAL3@S03 Acquired: 10/17/2016 22:22:28 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00350	.04535	.01274	3.2613	.02169	.02710	.18005	.09605	.01207	.07397	.02971
#1	.00353	.04496	.01295	3.2609	.02176	.02749	.18015	.09640	.01210	.07394	.02944
#2	.00354	.04580	.01261	3.2632	.02171	.02667	.18053	.09581	.01202	.07404	.02971
#3	.00344	.04529	.01266	3.2598	.02162	.02713	.17949	.09596	.01210	.07393	.02998

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.08799	.02848	.08322	.04652	.27789	.14385	.04094	.02700	.01658	.01258	.03183
#1	.08894	.02845	.08325	.04644	.27723	.14450	.04108	.02685	.01658	.01258	.03166
#2	.08753	.02878	.08338	.04652	.27834	.14350	.04143	.02730	.01653	.01258	.03180
#3	.08750	.02821	.08303	.04659	.27810	.14357	.04031	.02685	.01662	.01260	.03204

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	.02854	.63488
#1	.02868	.63703
#2	.02847	.63392
#3	.02847	.63371

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL3@S03 Acquired: 10/17/2016 22:22:28 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4088.2	2316.5	26445.	126780.	3775.1	57483.	11157.
#1	4079.3	2310.2	26415.	126530.	3769.2	57387.	11159.
#2	4091.4	2321.2	26361.	127130.	3773.7	57728.	11120.
#3	4094.0	2318.1	26560.	126680.	3782.5	57334.	11190.

Sample Name: SEQ-CAL4@S04 Acquired: 10/17/2016 22:26:43 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02064**	**.23490**	**.06511**	**16.348**	**.11662**	**.13554**	**.88793**	**.47543**	**.06004**	**.36330**	**.14767**
#1	.02056	.23514	.06496	16.342	.11689	.13547	.88826	.47475	.06002	.36343	.14786
#2	.02065	.23465	.06500	16.365	.11630	.13574	.88583	.47499	.05999	.36290	.14799
#3	.02072	.23489	.06536	16.335	.11667	.13540	.88970	.47655	.06011	.36358	.14716

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.43870**	**.14067**	**.41283**	**.23347**	**1.3716**	**.71988**	**.20139**	**.13858**	**.07995**	**.05268**	**.16079**
#1	.44033	.14059	.41394	.23273	1.3707	.71852	.20134	.13823	.07970	.05279	.16060
#2	.43884	.14096	.41198	.23326	1.3747	.72119	.20080	.13807	.08000	.05285	.16068
#3	.43693	.14046	.41258	.23442	1.3694	.71992	.20202	.13945	.08015	.05239	.16109

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.14404**	**3.1531**
#1	.14339	3.1539
#2	.14410	3.1480
#3	.14462	3.1575

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL4@S04 Acquired: 10/17/2016 22:26:43 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3954.4**	**2279.7**	**26666.**	**126560.**	**3756.0**	**57013.**	**11205.**
#1	3956.6	2282.9	26430.	126610.	3757.4	57060.	11110.
#2	3954.1	2280.6	26772.	126360.	3760.9	56919.	11249.
#3	3952.5	2275.5	26796.	126720.	3749.5	57060.	11257.

Sample Name: SEQ-CAL5@S05 Acquired: 10/17/2016 22:30:51 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.10547**	**1.1702**	**.33790**	**79.505**	**.58366**	**.66630**	**4.3143**	**2.3125**	**.29411**	**1.8842**	**.72908**
#1	.10549	1.1680	.33883	80.054	.58428	.66597	4.3062	2.3096	.29491	1.8845	.72746
#2	.10564	1.1715	.33685	79.824	.58347	.66717	4.3166	2.3125	.29455	1.8851	.73035
#3	.10528	1.1711	.33803	78.638	.58323	.66577	4.3200	2.3155	.29288	1.8828	.72941

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.1822**	**.69482**	**2.0253**	**1.1648**	**6.8539**	**3.5708**	**.99536**	**.69644**	**.38889**	**.24836**	**.79745**
#1	2.1826	.69524	2.0232	1.1627	6.8609	3.5721	.99575	.69593	.38862	.24805	.79672
#2	2.1832	.69541	2.0277	1.1652	6.8570	3.5678	.99433	.69569	.38866	.24904	.79695
#3	2.1807	.69381	2.0250	1.1664	6.8438	3.5726	.99601	.69769	.38939	.24799	.79869

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.71951**	**15.631**
#1	.72107	15.625
#2	.72085	15.614
#3	.71662	15.654

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL5@S05 Acquired: 10/17/2016 22:30:51 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3607.2**	**2130.8**	**26588.**	**123080.**	**3600.0**	**55023.**	**11054.**
#1	3611.2	2129.1	26545.	122840.	3604.7	54883.	11041.
#2	3610.6	2132.9	26516.	123050.	3600.2	54975.	11039.
#3	3599.9	2130.3	26702.	123340.	3595.1	55211.	11083.

Sample Name: SEQ-CAL6@S06 Acquired: 10/17/2016 22:35:02 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.21297**	**2.3575**	**.68463**	**157.30**	**1.1491**	**1.3127**	**8.4732**	**4.5666**	**.58250**	**3.8080**	**1.4282**
#1	.21243	2.3554	.68445	159.84	1.1540	1.3173	8.4620	4.5633	.57862	3.7960	1.4331
#2	.21324	2.3635	.68533	156.95	1.1458	1.3111	8.4806	4.5698	.58412	3.8132	1.4304
#3	.21324	2.3536	.68411	155.11	1.1475	1.3098	8.4769	4.5669	.58475	3.8148	1.4210

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.3730**	**1.3755**	**3.9887**	**2.3231**	**13.577**	**7.0727**	**1.9642**	**1.3984**	**.76592**	**.49081**	**1.5713**
#1	4.3790	1.3787	3.9959	2.3211	13.612	7.0671	1.9630	1.3968	.76485	.48966	1.5685
#2	4.3749	1.3775	3.9941	2.3233	13.579	7.0746	1.9645	1.4006	.76709	.49129	1.5754
#3	4.3652	1.3703	3.9761	2.3249	13.542	7.0763	1.9651	1.3979	.76583	.49146	1.5701

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.4374**	**30.552**
#1	1.4277	30.521
#2	1.4427	30.562
#3	1.4418	30.572

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL6@S06 Acquired: 10/17/2016 22:35:02 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3397.4**	**2038.3**	**26224.**	**120910.**	**3483.3**	**53624.**	**10904.**
#1	3400.0	2040.0	26120.	121260.	3487.6	53889.	10839.
#2	3399.0	2039.9	26284.	120800.	3485.6	53553.	10912.
#3	3393.3	2035.2	26268.	120670.	3476.6	53429.	10963.

Sample Name: SEQ-CAL7@S07 Acquired: 10/17/2016 22:39:13 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Al3961	Ca3181	Cr2677	Fe2598	K_7664	Mg2790	Mn2576	Na5895	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**19.493**	**5.2523**	**1.4370**	**10.042**	**10.844**	**5.6043**	**10.548**	**27.838**	**5.1485**
#1	19.439	5.2314	1.4398	9.9691	10.826	5.5732	10.518	27.400	5.1484
#2	19.528	5.2616	1.4363	10.085	10.850	5.6221	10.566	28.379	5.1509
#3	19.511	5.2640	1.4351	10.071	10.857	5.6176	10.558	27.736	5.1463

Int. Std.	Sc2273	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**1711.2**	**49441.**	**10350.**
#1	1711.9	49244.	10412.
#2	1708.0	49433.	10332.
#3	1713.6	49646.	10307.

Sample Name: SEQ-CAL8@S08 Acquired: 10/17/2016 22:43:37 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Al3961	Fe2598	Pb2203
Units	Cts/S	Cts/S	Cts/S
Avg	**22.665**	**12.425**	**12.890**
#1	22.684	12.408	12.877
#2	22.360	12.425	12.890
#3	22.952	12.442	12.904

Int. Std.	Sc2273	Y_3710
Units	Cts/S	Cts/S
Avg	**2081.7**	**11323.**
#1	2085.1	11329.
#2	2078.6	11327.
#3	2081.2	11314.

Sample Name: SEQ-CAL9@S09 Acquired: 10/17/2016 22:48:02 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Fe2598	Mn2576
Units	Cts/S	Cts/S
Avg	**14.566**	**15.367**
#1	14.648	15.437
#2	14.581	15.381
#3	14.469	15.285

Int. Std.	Y_3710
Units	Cts/S
Avg	**10309.**
#1	10297.
#2	10301.
#3	10328.

Sample Name: SEQ-ICV@ICV01 Acquired: 10/17/2016 22:52:33 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**504.90**	**2553.4**	**973.45**	**514.00**	**510.77**	**10346.**	**516.93**	**519.10**	**517.60**	**479.39**	**5354.2**
Stddev	.85	7.5	2.33	.29	.56	48.	.78	.45	.80	.34	10.2
%RSD	.16914	.29228	.23969	.05600	.10965	.46605	.15009	.08621	.15435	.07159	.19064
#1	505.05	2546.5	973.17	513.69	511.34	10344.	517.39	518.82	517.55	479.04	5365.8
#2	505.68	2561.3	971.26	514.04	510.74	10299.	516.03	518.86	516.83	479.72	5349.7
#3	503.99	2552.5	975.90	514.26	510.22	10396.	517.36	519.61	518.43	479.40	5346.9

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10098.**	**6049.9**	**507.70**	**-.09715**	**10076.**	**515.34**	**995.32**	**997.20**	**1022.0**	**-.37990**	**1047.7**
Stddev	47.	33.5	.97	.21346	22.	1.44	1.39	4.87	2.1	.81393	.6
%RSD	.46529	.55312	.19150	219.73	.22146	.27938	.13954	.48799	.20422	214.25	.05719
#1	10144.	6066.3	506.98	-.25174	10096.	514.49	994.76	997.14	1020.3	-1.1088	1047.4
#2	10050.	6011.4	507.30	-.18611	10052.	514.52	994.30	992.36	1021.4	.49838	1048.4
#3	10098.	6072.1	508.80	.14641	10081.	517.00	996.90	1002.1	1024.4	-.52930	1047.3

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-ICV@ICV01 Acquired: 10/17/2016 22:52:33 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**506.32**	**1033.6**
Stddev	1.42	3.2
%RSD	.27955	.30972
#1	507.91	1034.9
#2	505.19	1029.9
#3	505.87	1035.9

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3985.7**	**2274.3**	**26455.**	**125450.**	**3772.7**	**56642.**	**11137.**
Stddev	4.4	.1	60.	279.	3.2	149.	35.
%RSD	.11091	.00347	.22529	.22219	.08564	.26378	.31347
#1	3981.9	2274.2	26387.	125180.	3770.0	56505.	11097.
#2	3984.6	2274.4	26478.	125740.	3771.9	56801.	11162.
#3	3990.5	2274.3	26500.	125430.	3776.3	56618.	11151.

Sample Name: SEQ-ICB@ICB01 Acquired: 10/17/2016 22:56:42 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.25105**	**-19.049**	**.38847**	-.13111	**.05481**	**-51.805**	**.06443**	**.02491**	**-1.0506**	**-.03268**	**-22.852**
Stddev	.26929	1.503	.76284	.02088	.01306	16.793	.03192	.05827	.1118	.08203	1.704
%RSD	107.27	7.8907	196.37	15.922	23.833	32.417	49.544	233.88	10.639	251.03	7.4564
#1	-.34557	-17.436	-.39068	-.15364	.04444	-71.011	.03591	.02205	-.92822	-.11415	-21.896
#2	-.46034	-20.411	1.1339	-.12729	.06948	-44.514	.05847	-.03187	-1.0763	.04991	-21.840
#3	.05276	-19.300	.42221	-.11241	.05051	-39.888	.09892	.08457	-1.1473	-.03380	-24.819

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**115.97**	**-50.132**	**-1.6210**	**-.05138**	**6.8648**	**-.16090**	**.67123**	**.86699**	**-1.3237**	**-.14842**	**.26235**
Stddev	20.01	15.657	.1474	.14234	2.5263	.26262	.70667	.74268	1.6554	.48588	.26108
%RSD	17.252	31.231	9.0923	277.03	36.801	163.22	105.28	85.662	125.06	327.37	99.518
#1	100.14	-51.758	-1.6645	-.20370	5.6758	.11959	-.14467	.52304	-1.4594	-.45221	.21145
#2	109.31	-64.913	-1.4567	-.02871	5.1524	-.20133	1.0893	.35863	-2.9071	-.40500	.03046
#3	138.45	-33.726	-1.7416	.07827	9.7663	-.40096	1.0691	1.7193	.39536	.41196	.54513

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-ICB@ICB01 Acquired: 10/17/2016 22:56:42 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.24339**	**-.09308**
Stddev	.29019	.12700
%RSD	119.23	136.44
#1	.57603	.05356
#2	.04206	-.16744
#3	.11210	-.16536

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4145.2**	**2307.6**	**25985.**	**124780.**	**3803.0**	**57012.**	**11075.**
Stddev	5.5	7.2	141.	255.	11.0	161.	21.
%RSD	.13219	.31271	.54104	.20418	.28863	.28235	.19246
#1	4151.1	2314.5	26005.	125070.	3815.6	57193.	11079.
#2	4140.2	2300.1	25835.	124680.	3795.5	56885.	11052.
#3	4144.2	2308.2	26114.	124590.	3797.8	56958.	11094.

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-IFA@ICSA01 Acquired: 10/17/2016 23:01:04 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-2.1931**	**257820.**	**-9.0482**	**5.6126**	**-.10252**	**244660.**	**2.9470**	**-.71750**	**56.847**	**-10.981**
Stddev	.4391	275.	1.7880	.1166	.03775	417.	.0539	.04116	.443	.126
%RSD	20.022	.10658	19.761	2.0773	36.824	.17061	1.8271	5.7366	.77952	1.1496
#1	-2.5927	257610.	-7.0705	5.6662	-.14610	244180.	2.9398	-.73351	57.351	-10.852
#2	-2.2635	258140.	-9.5239	5.6927	-.08155	244940.	2.8972	-.74826	56.677	-10.986
#3	-1.7230	257720.	-10.550	5.4788	-.07991	244860.	3.0041	-.67074	56.515	-11.105

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**103380.**	**151.75**	**256480.**	**10.922**	**.43190**	**22.704**	**-3.6629**	**7.3514**	**-1.7664**	**-2.5346**
Stddev	97.	22.44	266.	.152	.00729	4.043	.3101	1.4364	1.7173	2.9839
%RSD	.09401	14.787	.10359	1.3924	1.6883	17.805	8.4658	19.539	97.222	117.73
#1	103280.	175.04	256290.	10.813	.42447	20.283	-3.5677	5.9487	-3.6302	.37924
#2	103470.	130.28	256780.	11.096	.43904	27.371	-4.0094	7.2863	-.24798	-2.3991
#3	103400.	149.92	256360.	10.857	.43218	20.459	-3.4116	8.8192	-1.4211	-5.5840

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-IFA@ICSA01 Acquired: 10/17/2016 23:01:04 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**4.5128**	**-3.0452**	**.39562**	**1.9644**
Stddev	1.1030	.3869	.05772	.2465
%RSD	24.442	12.704	14.590	12.549
#1	3.6821	-2.6005	.37581	1.9993
#2	4.0919	-3.3040	.35041	2.1916
#3	5.7643	-3.2312	.46064	1.7023

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3332.8**	**1901.2**	**26025.**	**116170.**	**3471.2**	**52457.**	**10740.**
Stddev	2.6	.8	24.	176.	5.1	92.	14.
%RSD	.07849	.04185	.09154	.15115	.14670	.17623	.12840
#1	3331.8	1901.9	26002.	116160.	3477.0	52395.	10731.
#2	3335.8	1901.4	26022.	116340.	3469.1	52563.	10732.
#3	3330.9	1900.4	26050.	115990.	3467.5	52414.	10755.

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-IFB@ICSAB01 Acquired: 10/17/2016 23:05:21 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**206.09**	**256940.**	**95.876**	**522.78**	**513.86**	**243170.**	**974.27**	**484.01**	**567.94**	**494.64**
Stddev	.82	538.	1.686	.42	.23	438.	1.22	.46	2.24	1.40
%RSD	.39557	.20941	1.7581	.08128	.04412	.17997	.12551	.09466	.39500	.28242
#1	206.52	256610.	96.759	522.85	513.75	243070.	975.67	484.52	570.46	496.00
#2	206.60	256650.	93.932	522.32	514.12	243650.	973.42	483.64	566.17	493.21
#3	205.15	257560.	96.937	523.17	513.71	242790.	973.72	483.88	567.19	494.71

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**102560.**	**99.434**	**254760.**	**508.22**	**.44419**	**27.772**	**1037.6**	**55.160**	**593.94**	**45.951**
Stddev	185.	14.095	511.	.81	.10358	2.873	1.3	.634	2.40	2.390
%RSD	.18056	14.175	.20051	.15883	23.319	10.345	.12192	1.1501	.40365	5.2006
#1	102460.	90.539	254480.	507.91	.56378	29.055	1038.2	54.427	594.60	46.122
#2	102780.	115.69	255340.	509.14	.38588	29.780	1036.1	55.530	595.93	48.250
#3	102450.	92.078	254440.	507.62	.38290	24.481	1038.4	55.522	591.28	43.480

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-IFB@ICSAB01 Acquired: 10/17/2016 23:05:21 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**4.0849**	**99.529**	**501.62**	**1053.0**
Stddev	.2189	.381	1.99	1.7
%RSD	5.3597	.38277	.39726	.16010
#1	4.0854	99.872	503.67	1054.5
#2	3.8657	99.119	501.49	1051.2
#3	4.3036	99.595	499.70	1053.4

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3352.2**	**1909.0**	**26176.**	**117120.**	**3490.0**	**52794.**	**10827.**
Stddev	.9	2.5	129.	314.	3.7	183.	43.
%RSD	.02637	.13335	.49302	.26801	.10641	.34646	.39582
#1	3352.7	1910.6	26298.	116860.	3486.5	52635.	10861.
#2	3351.2	1910.5	26041.	117470.	3493.9	52994.	10779.
#3	3352.7	1906.1	26188.	117040.	3489.8	52753.	10840.

Sample Name: SEQ-CCV@CCV01 Acquired: 10/17/2016 23:09:29 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**512.36**	**142700.**	**2106.6**	**16242.**	**400.22**	**201040.**	**974.59**	**2430.9**	**5827.4**	**5125.6**
Stddev	.36	439.	2.4	319.	.99	336.	2.47	4.3	7.8	5.8
%RSD	.06951	.30734	.11377	1.9641	.24735	.16696	.25375	.17652	.13357	.11340
#1	512.65	142200.	2106.3	15904.	399.74	200660.	975.93	2433.3	5835.4	5120.2
#2	511.96	143000.	2104.3	16284.	401.36	201300.	971.74	2426.0	5819.8	5124.8
#3	512.46	142900.	2109.1	16537.	399.57	201160.	976.11	2433.5	5826.9	5131.8

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**131050.**	**139150.**	**198830.**	**8891.8**	**990.92**	**125790.**	**4062.0**	**5618.4**	**4026.0**	**3469.9**
Stddev	284.	206.	433.	16.2	1.26	52.	5.7	7.7	9.7	9.0
%RSD	.21634	.14807	.21758	.18197	.12667	.04122	.14022	.13710	.24049	.25854
#1	130750.	138910.	198470.	8875.0	991.58	125850.	4055.8	5615.3	4030.3	3477.1
#2	131310.	139240.	199310.	8907.3	989.47	125750.	4067.0	5627.1	4014.9	3459.9
#3	131090.	139290.	198720.	8893.1	991.70	125780.	4063.1	5612.7	4032.8	3472.7

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV01 Acquired: 10/17/2016 23:09:29 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1974.9**	**3941.6**	**4009.6**	**8163.2**
Stddev	5.1	9.9	4.7	7.9
%RSD	.25794	.25157	.11744	.09694
#1	1969.4	3945.7	4014.6	8154.4
#2	1979.5	3930.3	4005.2	8169.8
#3	1975.8	3948.8	4009.0	8165.3

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3237.9**	**1913.9**	**26105.**	**116840.**	**3412.8**	**52305.**	**10794.**
Stddev	4.1	4.5	54.	315.	1.8	191.	28.
%RSD	.12668	.23481	.20736	.26933	.05348	.36585	.25482
#1	3240.3	1917.1	26120.	116500.	3411.3	52085.	10806.
#2	3240.3	1908.7	26045.	116910.	3414.9	52398.	10763.
#3	3233.2	1915.8	26150.	117110.	3412.3	52432.	10814.

Sample Name: SEQ-CCB@CCB01 Acquired: 10/17/2016 23:13:40 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.26773**	**-9.7348**	**.59296**	**1.5879**	**.07960**	**-40.718**	**.17404**	**.30320**	**-.07203**	**.73355**	**-13.818**
Stddev	.13650	7.0955	.61771	.2819	.02581	9.380	.00921	.11457	.24439	.05826	5.802
%RSD	50.985	72.888	104.17	17.753	32.427	23.036	5.2948	37.787	339.30	7.9421	41.992
#1	.33538	-17.352	1.1226	1.3318	.09071	-33.852	.16790	.43511	-.07584	.67471	-14.230
#2	.35721	-3.3131	-.08558	1.5418	.09800	-36.896	.18463	.24585	.17425	.79121	-19.403
#3	.11062	-8.5390	.74184	1.8899	.05009	-51.405	.16958	.22863	-.31448	.73473	-7.8201

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**119.50**	**-28.211**	**-.79764**	**.20170**	**12.502**	**.30422**	**.48715**	**1.6230**	**-.00949**	**-.00748**	**.40725**
Stddev	16.83	6.615	.32517	.06855	8.090	.32711	.70341	.8452	.77516	.33499	.61050
%RSD	14.086	23.450	40.766	33.984	64.710	107.52	144.39	52.079	8164.6	4480.0	149.91
#1	100.08	-35.849	-.89282	.16135	15.510	.51414	1.2356	2.4966	.67858	.33409	-.28387
#2	129.85	-24.447	-1.0646	.16291	3.3388	.47120	-.16023	.80939	-.84929	-.02105	.87315
#3	128.58	-24.335	-.43550	.28084	18.657	-.07267	.38603	1.5629	.14223	-.33548	.63247

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB01 Acquired: 10/17/2016 23:13:40 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.84321**	**.52402**
Stddev	.24672	.15393
%RSD	29.259	29.376
#1	.90725	.67692
#2	1.0516	.52605
#3	.57079	.36908

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4153.0**	**2314.4**	**26023.**	**124910.**	**3810.7**	**57053.**	**11124.**
Stddev	14.5	10.5	142.	422.	12.8	231.	62.
%RSD	.34931	.45242	.54440	.33801	.33554	.40405	.56111
#1	4168.2	2325.1	26030.	124460.	3824.9	56792.	11120.
#2	4151.4	2313.9	26160.	125300.	3807.1	57227.	11188.
#3	4139.3	2304.1	25877.	124950.	3800.1	57141.	11063.

Sample Name: QJ14021-BLK1 Acquired: 10/17/2016 23:18:03 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: PBS01 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.14624**	**-30.837**	**-.79334**	**-.27553**	**.00433**	**-49.625**	**.05676**	**-.12264**	**-.97551**	**.05957**	**26.827**
Stddev	.27162	.219	.79123	.07691	.00536	5.627	.03786	.19457	.27239	.12147	3.932
%RSD	185.74	.71101	99.733	27.915	123.84	11.340	66.700	158.65	27.923	203.92	14.658
#1	-.45266	-30.585	-1.5677	-.36361	.00073	-43.532	.02994	-.25618	-1.0176	-.04897	22.846
#2	.06495	-30.982	.01371	-.24134	.00176	-50.719	.04027	.10060	-.68454	.19078	30.709
#3	-.05101	-30.945	-.82601	-.22164	.01049	-54.626	.10006	-.21236	-1.2244	.03689	26.925

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**54.545**	**-48.747**	**-1.4575**	**.06477**	**-2.6573**	**.10892**	**.92501**	**1.0632**	**.98423**	**-.39727**	**-.72264**
Stddev	3.796	1.069	.2047	.05529	2.2935	.24356	.88346	.5937	1.0986	.62985	.68105
%RSD	6.9588	2.1925	14.041	85.364	86.312	223.62	95.508	55.842	111.62	158.55	94.246
#1	50.633	-48.227	-1.2253	.06650	-.47050	.32881	1.7486	.37792	2.2478	-1.1186	-1.5081
#2	54.788	-49.976	-1.5355	.00864	-5.0444	.15081	1.0345	1.3890	.44986	.04395	-.29567
#3	58.213	-48.038	-1.6117	.11917	-2.4569	-.15287	-.00807	1.4227	.25501	-.11716	-.36418

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14021-BLK1 Acquired: 10/17/2016 23:18:03 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: PBS01 SDG: MH1H14 Case: 46282
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.08502**	**.16750**
Stddev	.04877	.10213
%RSD	57.364	60.972
#1	.07389	.18300
#2	.04277	.05851
#3	.13839	.26100

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4044.1**	**2216.3**	**26246.**	**125740.**	**3766.1**	**56821.**	**11110.**
Stddev	4.0	1.8	66.	281.	1.7	59.	17.
%RSD	.09994	.07982	.25293	.22333	.04521	.10355	.14992
#1	4040.3	2216.5	26179.	125830.	3765.8	56811.	11103.
#2	4048.3	2218.0	26312.	125970.	3767.9	56884.	11129.
#3	4043.7	2214.5	26247.	125430.	3764.6	56768.	11098.

Sample Name: QJ14021-BS1 Acquired: 10/17/2016 23:22:26 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: LCS01 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**17.093**	**328.93**	**16.502**	**359.96**	**8.8063**	**9017.0**	**8.9391**	**90.913**	**17.242**	**42.265**	**200.92**
Stddev	.216	2.27	1.205	.60	.0381	51.1	.0339	.381	.358	.307	5.42
%RSD	1.2639	.68909	7.3022	.16574	.43229	.56624	.37921	.41882	2.0745	.72613	2.6989
#1	16.922	328.17	15.380	359.29	8.7996	8961.4	8.9239	91.065	16.916	42.342	206.39
#2	17.020	327.14	16.351	360.17	8.7720	9028.0	8.9779	90.480	17.186	41.927	200.83
#3	17.335	331.48	17.775	360.43	8.8472	9061.7	8.9153	91.195	17.625	42.526	195.55

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8572.2**	**8752.7**	**25.219**	**.02538**	**8753.8**	**73.736**	**18.886**	**103.67**	**57.645**	**-.71866**	**43.779**
Stddev	18.7	34.3	.185	.01934	38.8	.288	.609	.14	1.030	.98304	.154
%RSD	.21819	.39166	.73270	76.209	.44368	.39025	3.2238	.13933	1.7866	136.79	.35196
#1	8577.7	8716.0	25.349	.04768	8748.9	73.479	19.588	103.57	56.713	-1.0835	43.664
#2	8587.5	8783.9	25.300	.01521	8717.6	73.683	18.560	103.60	57.471	-1.4671	43.954
#3	8551.3	8758.2	25.007	.01324	8794.8	74.047	18.509	103.83	58.751	.39464	43.719

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14021-BS1 Acquired: 10/17/2016 23:22:26 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: LCS01 SDG: MH1H14 Case: 46282
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**89.843**	**108.29**
Stddev	.347	.40
%RSD	.38677	.36552
#1	89.557	108.35
#2	89.742	107.87
#3	90.230	108.66

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4056.8**	**2259.0**	**26951.**	**129160.**	**3856.8**	**58175.**	**11410.**
Stddev	3.7	4.9	126.	434.	4.6	218.	43.
%RSD	.09080	.21798	.46765	.33629	.11973	.37498	.37349
#1	4057.9	2257.2	26851.	129000.	3855.5	58109.	11370.
#2	4059.9	2264.6	26909.	128820.	3861.9	57998.	11406.
#3	4052.7	2255.3	27093.	129650.	3852.9	58419.	11455.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-01 Acquired: 10/17/2016 23:26:43 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H14 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.4001**	**73900.**	**82.858**	**394.05**	**3.9396**	**8391.5**	**10.137**	**47.933**	**41.614**	**1179.6**
#1	5.2737	73638.	82.592	393.76	3.9522	8376.3	10.059	48.019	41.771	1183.3
#2	5.4138	73977.	83.105	393.68	3.9333	8340.3	10.165	47.775	41.467	1180.5
#3	5.5129	74087.	82.876	394.71	3.9333	8457.9	10.187	48.006	41.605	1174.9

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**191200.**	**9681.7**	**33558.**	**14729.**	**8.4991**	**388.69**	**20.087**	**1806.7**	**22.951**	**9.6084**
#1	189820.	9688.7	33295.	14655.	8.5130	387.78	19.655	1805.6	22.271	11.778
#2	191150.	9692.0	33533.	14731.	8.6926	385.12	20.568	1803.3	22.565	8.4094
#3	192630.	9664.3	33846.	14802.	8.2917	393.16	20.038	1811.1	24.016	8.6373

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**896.68**	**.60696**	**156.40**	**2155.6**
#1	896.89	.18668	156.81	2153.0
#2	899.91	1.4019	156.12	2151.8
#3	893.23	.23228	156.27	2162.0

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-01 Acquired: 10/17/2016 23:26:43 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H14 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3888.8**	**2197.3**	**27613.**	**130300.**	**4112.1**	**61551.**	**12254.**
#1	3895.9	2198.0	27722.	130010.	4115.6	61361.	12328.
#2	3892.8	2201.8	27515.	130510.	4119.2	61644.	12231.
#3	3877.8	2192.0	27603.	130370.	4101.4	61649.	12202.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-02 Acquired: 10/17/2016 23:30:55 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H15 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.1950**	**107890.**	**223.64**	**840.53**	**5.2150**	**17401.**	**28.127**	**130.29**	**54.372**	**1466.4**
#1	6.1777	107450.	226.49	839.52	5.2054	17383.	27.956	130.11	54.539	1468.1
#2	6.3924	107980.	221.56	840.96	5.2222	17408.	28.042	130.39	54.291	1468.2
#3	6.0148	108240.	222.87	841.11	5.2173	17413.	28.383	130.38	54.287	1463.1

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**332440.**	**12148.**	**54175.**	**F 27066.**	**21.464**	**356.40**	**35.092**	**4350.0**	**21.080**	**19.152**
#1	331530.	12133.	53940.	27004.	21.588	355.14	35.115	4342.4	21.758	18.621
#2	331880.	12153.	54148.	27056.	21.607	354.23	35.272	4343.8	19.803	19.388
#3	333900.	12157.	54438.	27139.	21.196	359.83	34.890	4363.7	21.678	19.446

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**2489.1**	**2.2408**	**265.38**	**3761.0**
#1	2480.4	3.0687	265.33	3753.4
#2	2492.7	2.2735	265.33	3752.9
#3	2494.2	1.3803	265.49	3776.7

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-02 Acquired: 10/17/2016 23:30:55 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H15 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3755.3**	**2103.3**	**27239.**	**128000.**	**3968.2**	**59372.**	**11931.**
#1	3762.6	2105.2	27324.	127790.	3973.7	59244.	11951.
#2	3756.0	2105.1	27264.	128180.	3972.4	59463.	11961.
#3	3747.2	2099.6	27130.	128040.	3958.5	59410.	11882.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-03 Acquired: 10/17/2016 23:35:05 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H16 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-18.259**	**18709.**	**-44.090**	**88.402**	**.83012**	**3948.0**	**41.621**	**-2.8121**
#1	-18.604	18719.	-45.448	88.422	.82496	3932.6	41.672	-3.0396
#2	-17.949	18696.	-42.690	88.223	.83543	3951.3	41.440	-3.0183
#3	-18.224	18713.	-44.132	88.559	.82997	3960.1	41.752	-2.3784

Elem	Cr2677	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.0699**	**113.47**	**F 1441300.**	**3050.5**	**2744.6**	**711.99**	**3.0344**	**109.18**
#1	-1.4728	113.29	1429400.	3031.4	2730.5	712.05	3.0193	111.71
#2	-1.1198	112.73	1445600.	3044.9	2752.0	713.23	3.1946	106.15
#3	-.61704	114.40	1448900.	3075.2	2751.4	710.70	2.8894	109.68

Elem	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-41.297**	**1339.9**	**74.687**	**-35.941**	**712.30**	**-54.298**	**96.428**	**2187.5**
#1	-41.090	1340.7	72.657	-39.357	713.37	-54.302	96.606	2186.7
#2	-40.948	1342.8	77.504	-29.090	709.79	-54.801	95.881	2184.9
#3	-41.853	1336.1	73.899	-39.377	713.73	-53.791	96.797	2191.0

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-03 Acquired: 10/17/2016 23:35:05 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H16 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3717.0**	**1946.2**	**26270.**	**123560.**	**3702.3**	**55615.**	**11273.**
#1	3719.3	1951.0	26345.	123510.	3708.6	55590.	11294.
#2	3719.1	1949.6	26353.	123590.	3708.4	55690.	11317.
#3	3712.5	1938.1	26113.	123580.	3689.8	55565.	11207.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-04 Acquired: 10/17/2016 23:39:26 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H17 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-21.082**	**41146.**	**-42.122**	**168.38**	**2.0348**	**5392.8**	**46.418**	**1.9650**
#1	-20.775	40966.	-43.400	167.95	2.0434	5406.8	46.619	1.9159
#2	-20.622	41222.	-41.206	168.74	2.0613	5385.8	45.995	1.9557
#3	-21.848	41249.	-41.759	168.44	1.9997	5385.7	46.639	2.0233

Elem	Cr2677	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10.964**	**370.54**	**F 1614400.**	**5863.8**	**10073.**	**1428.6**	**2.9679**	**196.28**
#1	10.984	371.72	1601200.	5846.0	10028.	1421.9	3.2267	199.22
#2	11.325	369.26	1615200.	5885.1	10087.	1433.2	2.9987	194.61
#3	10.584	370.65	1626900.	5860.4	10103.	1430.6	2.6784	195.01

Elem	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-39.259**	**1705.3**	**82.601**	**-45.992**	**1420.5**	**-63.281**	**177.88**	**2655.0**
#1	-38.574	1706.8	81.380	-51.366	1411.8	-63.063	177.63	2659.5
#2	-39.832	1707.1	83.172	-45.552	1424.5	-62.468	176.61	2650.2
#3	-39.370	1702.0	83.250	-41.058	1425.3	-64.311	179.42	2655.3

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-04 Acquired: 10/17/2016 23:39:26 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H17 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3651.5**	**1910.8**	**26351.**	**123790.**	**3715.0**	**56135.**	**11434.**
#1	3651.5	1910.1	26389.	123840.	3710.8	56159.	11450.
#2	3652.8	1909.1	26454.	124070.	3717.2	56405.	11466.
#3	3650.2	1913.3	26210.	123450.	3717.0	55842.	11387.

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14021-MS1 Acquired: 10/17/2016 23:43:45 Type: RQC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H17S SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 53.681	49624.	F 1.7460	3915.9	91.163	17087.	146.24	846.48
Stddev	1.393	251.	.6367	9.3	.396	64.	.51	3.18
%RSD	2.5940	.50588	36.465	.23709	.43400	.37215	.34754	.37576
#1	52.112	49351.	2.3783	3907.6	91.237	17020.	145.85	845.70
#2	54.162	49676.	1.7546	3914.0	91.516	17146.	146.06	843.76
#3	54.770	49845.	1.1051	3925.9	90.736	17096.	146.81	849.98
Check ?	Chk Fail	None	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value	100.00		80.000					
Range	-25.000%	None	-25.000%	3747.5	89.128	None	99.822	844.52
Recovery	74.763		43.868	93.687%	89.128%		99.822%	84.452%
% Recovery	74.763%		54.835%					

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14021-MS1 Acquired: 10/17/2016 23:43:45 Type: RQC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H17S SDG: MH1H14 Case: 46282
Comment:

Elem	Cr2677	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	371.89	887.17	F 2095200.	6248.9	8472.9	F 2817.5	2.5579	F 190.59
Stddev	2.01	2.56	17038.	4.6	85.0	12.3	.1123	5.46
%RSD	.54062	.28808	.81317	.07306	1.0036	.43662	4.3893	2.8662
#1	374.17	888.78	2091900.	6244.4	8376.7	2803.6	2.5331	186.19
#2	371.15	884.22	2080100.	6248.8	8538.1	2821.7	2.6805	188.87
#3	370.36	888.50	2113700.	6253.5	8503.8	2827.0	2.4601	196.71
Check ?	Chk Pass	Chk Pass	Chk Fail	None	None	Chk Fail	None	Chk Fail
Value			100.00			1000.0		4000.0
Range			25.000%			25.000%		-25.000%
	360.93	516.63		None	None		None	
Recovery	90.232%	103.33%	480780.			1388.9		-5.6887
% Recovery			480780.%			138.89%		-.14222%

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14021-MS1 Acquired: 10/17/2016 23:43:45 Type: RQC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H17S SDG: MH1H14 Case: 46282
Comment:

Elem	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**937.81**	F **2012.2**	F **184.53**	**71.592**	F **1691.3**	F **-5.2301**	**1089.5**	F **5067.1**
Stddev	4.79	9.2	1.93	6.191	6.9	.9718	3.9	19.4
%RSD	.51036	.45778	1.0444	8.6471	.40848	18.580	.35778	.38336
#1	934.49	2007.0	182.64	73.095	1683.4	-5.2509	1094.0	5050.4
#2	935.65	2006.8	186.50	64.788	1695.8	-4.2480	1087.8	5062.5
#3	943.30	2022.9	184.45	76.893	1694.8	-6.1912	1086.8	5088.5
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail
Value		40.000	200.00		100.00	100.00		1000.0
Range		25.000%	-25.000%		25.000%	-25.000%		25.000%
	977.07			117.58			911.65	
Recovery	97.707%	306.92	101.93	117.58%	270.82	58.051	91.165%	2412.2
% Recovery		767.29%	50.965%		270.82%	58.051%		241.22%

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14021-MS1 Acquired: 10/17/2016 23:43:45 Type: RQC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H17S SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3528.1**	**1813.7**	**25847.**	**121060.**	**3626.6**	**55064.**	**11310.**
Stddev	2.4	6.3	78.	479.	5.9	214.	48.
%RSD	.06732	.34962	.30246	.39535	.16353	.38791	.42452
#1	3529.4	1820.8	25936.	120850.	3631.4	54872.	11362.
#2	3529.6	1811.9	25815.	120730.	3628.4	55025.	11300.
#3	3525.4	1808.5	25790.	121610.	3620.0	55294.	11267.

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14021-DUP1 Acquired: 10/17/2016 23:48:02 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H17D SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-35.892**	**48776.**	**-61.141**	**202.93**	**2.8373**	**7559.0**	**68.221**	**.49510**
#1	-36.361	48692.	-64.632	203.17	2.8554	7594.4	68.291	.84258
#2	-35.092	48779.	-56.718	202.96	2.8049	7546.9	67.897	.22472
#3	-36.223	48855.	-62.072	202.64	2.8516	7535.8	68.475	.41799

Elem	Cr2677	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**9.8337**	**475.08**	**F 2287000.**	**6351.8**	**7649.1**	**1436.5**	**5.9067**	**190.48**
#1	10.027	473.83	2243800.	6339.7	7663.6	1436.7	5.2616	193.71
#2	9.7309	476.78	2326100.	6346.8	7592.3	1436.2	6.1372	186.44
#3	9.7436	474.63	2291200.	6368.9	7691.3	1436.6	6.3213	191.30

Elem	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-52.705**	**1918.5**	**117.69**	**-98.450**	**1723.6**	**-98.739**	**232.27**	**4087.6**
#1	-52.489	1919.8	117.97	-112.86	1714.5	-99.147	231.04	4090.5
#2	-53.518	1917.2	118.39	-85.446	1730.2	-97.789	232.79	4086.0
#3	-52.107	1918.5	116.72	-97.049	1726.1	-99.280	232.98	4086.2

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14021-DUP1 Acquired: 10/17/2016 23:48:02 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H17D SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3520.9**	**1799.3**	**25874.**	**121030.**	**3638.9**	**55007.**	**11407.**
#1	3522.7	1800.2	25933.	120710.	3640.8	54910.	11391.
#2	3521.8	1797.1	25929.	121420.	3645.2	55158.	11462.
#3	3518.1	1800.6	25759.	120950.	3630.8	54954.	11369.

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-SRD1 Acquired: 10/17/2016 23:52:21 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H17L SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-7.8281**	**10275.**	**-13.621**	**42.605**	**.68145**	**1640.1**	**14.388**	**.01832**	**1.0053**
#1	-7.7294	10265.	-13.315	42.620	.68912	1657.4	14.373	.28174	1.1166
#2	-7.6466	10269.	-13.008	42.593	.67977	1621.1	14.482	-.09265	.93526
#3	-8.1083	10290.	-14.540	42.602	.67544	1641.8	14.310	-.13415	.96396

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**91.589**	**F 550110.**	**1281.7**	**1683.8**	**316.23**	**1.2425**	**8.5438**	**-20.038**	**390.28**
#1	92.020	549160.	1309.6	1683.7	316.43	1.3584	10.590	-20.127	389.97
#2	91.104	551870.	1279.1	1678.2	316.00	1.1550	7.1864	-20.154	389.46
#3	91.642	549310.	1256.3	1689.5	316.25	1.2140	7.8547	-19.834	391.40

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**26.894**	**-3.7136**	**352.88**	**-19.428**	**50.559**	**837.42**
#1	24.903	-4.5722	353.79	-19.732	49.976	836.33
#2	27.974	-3.3283	350.77	-19.634	51.264	838.52
#3	27.805	-3.2402	354.09	-18.919	50.439	837.42

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-SRD1 Acquired: 10/17/2016 23:52:21 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H17L SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4022.8**	**2207.1**	**27127.**	**129170.**	**3919.3**	**57964.**	**11476.**
#1	4028.9	2212.0	27254.	129200.	3927.0	58035.	11504.
#2	4022.4	2205.7	27200.	128940.	3915.0	57811.	11493.
#3	4017.1	2203.5	26928.	129380.	3915.9	58046.	11431.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-05 Acquired: 10/17/2016 23:56:36 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H18 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-7.0274**	**62612.**	**87.803**	**483.06**	**2.5617**	**10208.**	**35.924**	**216.33**	**59.528**
#1	-6.5244	62455.	87.513	482.83	2.5996	10241.	35.968	216.57	59.455
#2	-7.4012	62677.	88.710	483.86	2.5441	10230.	35.865	216.22	59.202
#3	-7.1566	62703.	87.184	482.49	2.5412	10153.	35.939	216.21	59.928

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2350.5**	**F 819230.**	**6401.1**	**29185.**	**F 65862.**	**8.5751**	**178.98**	**4.9964**	**2846.6**
#1	2347.0	821880.	6388.7	29100.	65653.	8.6135	182.99	6.0189	2839.5
#2	2350.3	818370.	6426.7	29276.	66391.	8.3549	175.57	4.6161	2848.1
#3	2354.1	817450.	6388.0	29179.	65542.	8.7569	178.39	4.3542	2852.3

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**43.096**	**31.506**	**1547.1**	**10.112**	**170.75**	**2874.2**
#1	43.762	30.943	1545.2	9.7269	170.77	2870.6
#2	40.877	31.761	1545.6	11.892	171.38	2873.2
#3	44.649	31.813	1550.4	8.7179	170.10	2878.7

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-05 Acquired: 10/17/2016 23:56:36 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H18 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3784.4**	**2034.6**	**26810.**	**126020.**	**3891.6**	**57510.**	**11644.**
#1	3778.6	2035.1	26721.	125760.	3886.1	57369.	11602.
#2	3786.4	2035.5	26931.	126000.	3889.4	57461.	11685.
#3	3788.1	2033.3	26777.	126310.	3899.3	57700.	11643.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-06 Acquired: 10/18/2016 00:01:05 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H19 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**14.021**	**115760.**	**156.31**	**942.58**	**6.1213**	**22962.**	**53.881**	**349.74**	**74.362**
#1	14.088	115730.	153.27	942.90	6.1134	22946.	53.864	349.18	75.014
#2	14.040	115550.	158.36	941.56	6.1195	22890.	53.831	349.46	73.925
#3	13.934	115990.	157.30	943.29	6.1311	23048.	53.950	350.57	74.146

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**730.85**	**187400.**	**13917.**	**28614.**	F **107320.**	**17.930**	**243.12**	**86.514**	**2600.7**
#1	732.09	187290.	13935.	28544.	107330.	18.101	245.95	85.445	2599.7
#2	730.85	186930.	13877.	28550.	105940.	17.932	246.24	87.106	2594.4
#3	729.61	187970.	13938.	28749.	108700.	17.757	237.16	86.990	2608.1

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.610**	**72.049**	**1135.0**	**62.426**	**158.39**	**6593.3**
#1	12.309	71.475	1136.0	60.607	159.14	6582.4
#2	10.749	70.567	1137.6	61.767	157.78	6582.6
#3	11.773	74.105	1131.3	64.903	158.26	6614.8

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-06 Acquired: 10/18/2016 00:01:05 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H19 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3795.6**	**2139.4**	**27266.**	**128720.**	**4219.5**	**62203.**	**12398.**
#1	3793.8	2139.6	27244.	128230.	4215.7	61955.	12382.
#2	3801.9	2143.3	27343.	129210.	4226.5	62472.	12470.
#3	3791.0	2135.4	27212.	128700.	4216.4	62181.	12342.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-07 Acquired: 10/18/2016 00:05:24 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H20 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.5726**	**113100.**	**190.22**	**1022.2**	**4.1962**	**11284.**	**10.887**	**42.902**	**56.233**
#1	7.1560	112670.	190.99	1018.5	4.1614	11160.	10.848	42.860	56.259
#2	7.2379	113150.	191.34	1022.4	4.2122	11276.	10.880	42.996	56.202
#3	8.3237	113480.	188.34	1025.7	4.2150	11416.	10.933	42.848	56.239

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**461.96**	F **415280.**	**18293.**	**46735.**	**4965.5**	**77.802**	**1299.0**	**15.678**	**5410.6**
#1	461.22	411280.	18239.	46184.	4935.3	77.662	1290.3	15.729	5413.8
#2	462.96	414990.	18305.	46743.	4968.4	77.673	1292.9	15.654	5399.7
#3	461.70	419570.	18336.	47277.	4992.9	78.071	1313.9	15.652	5418.4

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**22.122**	**19.478**	**3058.0**	**-13.837**	**387.72**	**649.18**
#1	23.370	19.294	3053.0	-14.321	388.37	649.44
#2	21.078	18.821	3070.5	-14.324	388.17	646.65
#3	21.919	20.320	3050.4	-12.867	386.61	651.44

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-07 Acquired: 10/18/2016 00:05:24 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H20 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3789.9**	**2130.6**	**27142.**	**129340.**	**4013.3**	**59107.**	**11816.**
#1	3788.1	2128.1	27308.	128940.	4020.1	58914.	11915.
#2	3795.6	2135.6	27109.	129330.	4019.9	59030.	11825.
#3	3786.0	2128.0	27009.	129760.	3999.8	59376.	11708.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-08 Acquired: 10/18/2016 00:09:35 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H21 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.9739**	**96135.**	**77.182**	**433.73**	**3.0241**	**15137.**	**7.6169**	**59.894**	**37.788**	**348.06**
#1	-2.1779	95551.	77.002	432.17	3.0280	15116.	7.7240	59.327	37.816	348.99
#2	-2.0583	96522.	77.733	434.65	2.9970	15112.	7.5766	59.822	37.848	347.88
#3	-1.6855	96331.	76.810	434.38	3.0473	15183.	7.5502	60.531	37.701	347.32

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**283590.**	**12113.**	**48909.**	**3435.5**	**13.031**	**562.74**	**31.396**	**2472.1**	**12.261**	**5.0600**
#1	282150.	12022.	48656.	3419.9	13.033	560.38	31.270	2470.3	10.949	4.5471
#2	284250.	12130.	48990.	3442.3	13.341	563.58	31.245	2472.0	11.822	6.5830
#3	284370.	12189.	49080.	3444.3	12.718	564.26	31.672	2474.1	14.011	4.0498

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1786.1**	**-9.5961**	**242.76**	**528.79**
#1	1772.1	-8.7691	242.99	528.04
#2	1796.0	-10.434	242.64	529.46
#3	1790.3	-9.5855	242.64	528.86

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-08 Acquired: 10/18/2016 00:09:35 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H21 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3846.3**	**2173.6**	**26956.**	**128940.**	**4030.6**	**59162.**	**11692.**
#1	3844.6	2177.2	26880.	128420.	4032.0	58882.	11673.
#2	3843.6	2172.0	27125.	129220.	4030.2	59256.	11746.
#3	3850.6	2171.7	26862.	129190.	4029.6	59347.	11657.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-09 Acquired: 10/18/2016 00:13:47 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H22 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.99568**	**37006.**	**159.62**	**330.52**	**1.3952**	**4801.6**	**7.9045**	**21.261**	**20.506**	**248.65**
#1	1.3962	36866.	158.60	330.13	1.4214	4818.8	7.8434	21.167	20.211	247.92
#2	.99065	37077.	161.78	330.95	1.3839	4818.6	7.9368	21.383	21.026	249.49
#3	.60020	37076.	158.48	330.49	1.3805	4767.3	7.9334	21.231	20.280	248.52

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**263340.**	**7024.8**	**17485.**	**1890.1**	**17.873**	**287.32**	**5.6549**	**2106.6**	**14.515**	**8.7248**
#1	263620.	7018.8	17458.	1888.0	17.931	284.87	6.1731	2102.6	15.642	8.0423
#2	264820.	7024.1	17618.	1896.5	17.940	291.75	5.4809	2107.1	13.962	10.389
#3	261590.	7031.5	17378.	1885.6	17.748	285.34	5.3106	2110.1	13.942	7.7431

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1094.5**	**-8.5919**	**137.79**	**538.56**
#1	1089.5	-7.7648	137.73	537.46
#2	1095.5	-8.9871	137.85	538.57
#3	1098.5	-9.0237	137.79	539.64

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-09 Acquired: 10/18/2016 00:13:47 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H22 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4033.2**	**2261.5**	**27242.**	**130210.**	**4010.2**	**58397.**	**11653.**
#1	4034.9	2262.9	27227.	130390.	4016.3	58554.	11623.
#2	4035.3	2266.6	27240.	130110.	4007.5	58272.	11635.
#3	4029.3	2255.0	27258.	130110.	4006.7	58366.	11701.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-10 Acquired: 10/18/2016 00:18:02 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H23 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.525**	**91264.**	**480.66**	**813.51**	**3.2905**	**8937.1**	**34.373**	**40.704**	**60.234**
#1	11.167	91219.	481.35	813.40	3.2581	8959.8	34.216	40.449	60.932
#2	11.615	91257.	479.09	811.88	3.3260	8865.6	34.441	40.944	60.152
#3	11.795	91316.	481.52	815.24	3.2873	8986.0	34.462	40.720	59.618

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**743.82**	**F 705580.**	**17624.**	**39605.**	**4393.7**	**69.089**	**934.18**	**5.4105**	**F 17518.**
#1	744.97	711150.	17680.	39499.	4385.3	69.443	935.59	5.5366	17526.
#2	742.69	701110.	17551.	39472.	4388.7	68.827	934.09	5.0013	17496.
#3	743.80	704490.	17642.	39842.	4407.1	68.996	932.85	5.6935	17533.

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**42.659**	**14.249**	**2840.0**	**-25.472**	**375.34**	**5190.9**
#1	42.499	16.021	2830.8	-26.696	376.86	5189.9
#2	41.718	13.810	2859.8	-24.208	374.91	5189.0
#3	43.760	12.916	2829.4	-25.514	374.25	5193.8

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-10 Acquired: 10/18/2016 00:18:02 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H23 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3762.6**	**2066.3**	**26535.**	**126380.**	**3921.4**	**57110.**	**11470.**
#1	3760.0	2061.7	26424.	125850.	3917.4	56784.	11418.
#2	3762.8	2069.3	26603.	126420.	3921.6	57176.	11530.
#3	3764.8	2068.0	26577.	126860.	3925.2	57372.	11462.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-11 Acquired: 10/18/2016 00:22:22 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H24 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-6.4556**	**77772.**	**88.181**	**714.69**	**4.7330**	**10908.**	**10.365**	**32.210**	**39.185**
#1	-6.7081	77526.	87.171	713.38	4.7562	10884.	10.332	32.125	39.232
#2	-6.4969	77984.	89.724	716.43	4.7281	10923.	10.389	32.016	38.943
#3	-6.1617	77807.	87.649	714.27	4.7146	10917.	10.375	32.489	39.380

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**254.94**	**F 390570.**	**13981.**	**32787.**	**3167.4**	**23.680**	**2561.8**	**5.6381**	**330.78**
#1	255.74	390190.	13999.	32775.	3164.6	23.559	2554.4	5.5993	330.93
#2	255.01	391620.	14020.	32870.	3174.3	23.915	2577.4	5.9140	331.47
#3	254.08	389910.	13923.	32715.	3163.4	23.567	2553.6	5.4009	329.94

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**22.474**	**13.876**	**F 4508.8**	**-14.347**	**343.31**	**643.84**
#1	21.827	14.903	4485.7	-14.142	343.58	643.02
#2	22.737	13.698	4519.2	-14.591	343.30	642.67
#3	22.859	13.027	4521.5	-14.308	343.05	645.82

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-11 Acquired: 10/18/2016 00:22:22 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H24 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3852.8**	**2144.7**	**26921.**	**129780.**	**4010.3**	**58674.**	**11672.**
#1	3854.6	2147.5	26846.	129750.	4015.2	58659.	11623.
#2	3863.3	2145.3	26831.	129900.	4013.3	58657.	11633.
#3	3840.4	2141.3	27086.	129680.	4002.5	58705.	11760.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-12 Acquired: 10/18/2016 00:26:36 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H25 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-3.7929**	**81297.**	**125.61**	**1057.2**	**3.2970**	**7074.0**	**9.4202**	**39.089**	**44.367**
#1	-3.7928	81066.	125.10	1054.4	3.3375	7066.2	9.5830	39.571	43.727
#2	-3.7272	81343.	125.80	1057.5	3.2886	7060.8	9.3362	38.949	44.788
#3	-3.8586	81482.	125.93	1059.6	3.2648	7095.0	9.3415	38.748	44.586

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**213.89**	**F 355690.**	**18030.**	**27751.**	**3842.9**	**34.065**	**976.53**	**4.2332**	**667.04**
#1	214.37	355190.	18060.	27753.	3834.3	34.131	973.84	4.0121	673.32
#2	213.17	355060.	18008.	27735.	3842.0	34.055	972.02	4.0388	662.93
#3	214.14	356810.	18021.	27766.	3852.5	34.009	983.73	4.6486	664.86

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**18.908**	**19.264**	**1821.2**	**-10.998**	**305.10**	**455.78**
#1	18.537	19.608	1809.8	-11.232	304.67	459.08
#2	18.460	18.064	1826.6	-10.247	305.75	453.65
#3	19.727	20.119	1827.2	-11.514	304.89	454.61

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-12 Acquired: 10/18/2016 00:26:36 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H25 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3857.6**	**2163.6**	**26971.**	**129100.**	**3994.0**	**58371.**	**11668.**
#1	3834.5	2150.9	26799.	129210.	3969.7	58411.	11582.
#2	3878.8	2174.7	26875.	128990.	4014.8	58333.	11645.
#3	3859.4	2165.2	27240.	129110.	3997.5	58371.	11778.

Sample Name: 6100165-13 Acquired: 10/18/2016 00:30:49 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H26 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-7.2185**	**73180.**	**140.80**	**552.32**	**4.2286**	**13159.**	**12.181**	**27.206**	**32.766**
#1	-7.0902	72886.	140.77	550.17	4.2350	13099.	12.181	27.238	32.351
#2	-7.6614	73223.	141.60	552.61	4.2118	13102.	12.289	27.059	33.497
#3	-6.9037	73432.	140.01	554.18	4.2388	13276.	12.074	27.320	32.451

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1516.8**	**F 472960.**	**12540.**	**26661.**	**3086.2**	**57.517**	**560.45**	**.74419**	**599.70**
#1	1518.1	469660.	12519.	26488.	3073.3	57.775	556.00	.81355	598.19
#2	1518.0	472580.	12535.	26583.	3086.3	56.968	561.93	.82378	597.71
#3	1514.5	476650.	12565.	26911.	3099.1	57.808	563.43	.59524	603.19

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**22.383**	**13.262**	**2560.2**	**-16.562**	**311.16**	**492.66**
#1	21.710	10.597	2554.3	-17.211	310.76	492.91
#2	22.834	13.013	2562.7	-15.885	312.93	492.58
#3	22.607	16.175	2563.6	-16.589	309.79	492.50

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-13 Acquired: 10/18/2016 00:30:49 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H26 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3852.6**	**2138.8**	**26908.**	**128740.**	**3973.8**	**57940.**	**11649.**
#1	3848.7	2138.2	26828.	129000.	3964.4	58077.	11642.
#2	3860.4	2141.1	27064.	128380.	3987.1	57685.	11729.
#3	3848.7	2137.1	26833.	128830.	3969.9	58057.	11577.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-14 Acquired: 10/18/2016 00:35:01 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H27 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-5.4678**	**92238.**	**119.96**	**1052.1**	**4.2848**	**10690.**	**12.663**	**40.597**	**53.693**
#1	-5.4781	92026.	120.94	1052.1	4.2941	10695.	12.687	40.611	53.560
#2	-5.5946	92290.	118.65	1051.1	4.2919	10656.	12.682	40.571	54.309
#3	-5.3308	92400.	120.30	1053.2	4.2683	10721.	12.620	40.609	53.209

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**319.15**	**F 485580.**	**18822.**	**32127.**	**3661.8**	**37.805**	**968.63**	**5.9322**	**928.92**
#1	319.78	485880.	18837.	32201.	3659.8	37.821	965.87	5.7223	927.78
#2	319.21	484650.	18777.	31983.	3656.8	37.796	965.98	5.6712	926.50
#3	318.44	486190.	18853.	32196.	3668.9	37.799	974.04	6.4030	932.49

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**26.358**	**19.932**	**2802.1**	**-15.713**	**369.85**	**645.76**
#1	26.738	22.926	2790.2	-15.200	370.15	646.11
#2	25.977	17.693	2803.2	-16.119	370.58	643.81
#3	26.358	19.178	2812.8	-15.819	368.81	647.36

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Sample Name: 6100165-14 Acquired: 10/18/2016 00:35:01 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H27 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3829.9**	**2143.2**	**27059.**	**128700.**	**4027.7**	**58347.**	**11819.**
#1	3838.1	2144.7	26987.	128610.	4033.2	58278.	11755.
#2	3827.3	2145.6	27095.	128180.	4028.7	58138.	11860.
#3	3824.4	2139.4	27096.	129310.	4021.1	58625.	11841.

Sample Name: SEQ-CCV@CCV02 Acquired: 10/18/2016 00:39:15 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**490.59**	**133400.**	**1966.8**	**15114.**	**386.57**	**193550.**	**927.53**	**2324.1**	**5680.0**	**4908.8**
Stddev	.57	659.	9.9	32.	1.91	442.	2.32	5.4	15.0	6.3
%RSD	.11696	.49379	.50213	.21194	.49478	.22818	.24976	.23380	.26429	.12806
#1	491.25	132680.	1962.0	15145.	386.94	193910.	925.64	2319.3	5692.1	4912.1
#2	490.25	133560.	1960.3	15081.	384.50	193670.	926.85	2323.0	5684.6	4912.8
#3	490.26	133970.	1978.2	15114.	388.28	193060.	930.12	2330.0	5663.2	4901.6

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**123020.**	**130500.**	**188570.**	**8395.4**	**937.21**	**121310.**	**3846.9**	**5253.7**	**3721.5**	**3213.0**
Stddev	445.	57.	502.	21.6	2.28	329.	10.9	14.6	15.8	12.8
%RSD	.36140	.04331	.26641	.25764	.24282	.27152	.28417	.27817	.42371	.39842
#1	122520.	130560.	188030.	8371.7	935.04	121540.	3843.0	5248.5	3715.6	3207.7
#2	123180.	130500.	188670.	8400.5	937.01	121450.	3838.5	5242.4	3709.5	3203.7
#3	123370.	130450.	189020.	8414.1	939.58	120930.	3859.3	5270.2	3739.4	3227.6

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV02 Acquired: 10/18/2016 00:39:15 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1863.1**	**3808.6**	**3913.0**	**7717.9**
Stddev	9.0	18.1	13.0	23.5
%RSD	.48182	.47470	.33132	.30479
#1	1852.8	3792.6	3923.8	7713.7
#2	1867.7	3805.1	3916.5	7696.8
#3	1868.9	3828.2	3898.6	7743.3

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3384.7**	**2009.9**	**26467.**	**120250.**	**3602.8**	**53378.**	**10983.**
Stddev	15.9	6.6	39.	319.	12.1	109.	7.
%RSD	.46938	.32768	.14861	.26534	.33564	.20340	.06312
#1	3393.6	2012.2	26508.	119950.	3608.0	53255.	10991.
#2	3394.0	2015.0	26430.	120580.	3611.3	53419.	10982.
#3	3366.3	2002.5	26461.	120230.	3588.9	53460.	10977.

Sample Name: SEQ-CCB@CCB02 Acquired: 10/18/2016 00:43:29 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.42063**	**-18.324**	**.64086**	**1.2022**	**.12597**	**-35.984**	**.10437**	**.18710**	**-.64318**	**.14034**	**-19.741**
Stddev	.07634	5.751	.64449	.2193	.01710	12.712	.06865	.04036	.36485	.02566	2.868
%RSD	18.150	31.386	100.57	18.244	13.572	35.326	65.782	21.571	56.725	18.285	14.526
#1	-.34753	-21.397	1.0585	.98243	.13516	-49.536	.09839	.14063	-.73665	.13474	-19.994
#2	-.41450	-21.887	.96547	1.2030	.13650	-24.325	.17581	.20732	-.95220	.16834	-22.474
#3	-.49985	-11.689	-.10139	1.4211	.10624	-34.091	.03889	.21335	-.24069	.11795	-16.755

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.8277**	**-34.532**	**-1.1236**	**.13774**	**-4.9984**	**.32502**	**1.1141**	**1.8537**	**-1.2340**	**-1.2734**	**.84598**
Stddev	7.3500	18.391	.0765	.04030	.8158	.26756	.8800	.8823	.4792	.5525	.32032
%RSD	126.12	53.257	6.8093	29.258	16.321	82.320	78.994	47.598	38.829	43.385	37.864
#1	13.659	-39.701	-1.1134	.10764	-4.5820	.23532	.59745	.85870	-1.0741	-1.2970	1.0296
#2	4.7445	-49.785	-1.2047	.18352	-4.4749	.62591	2.1302	2.1616	-.85529	-1.8137	.47611
#3	-.92064	-14.110	-1.0527	.12206	-5.9384	.11384	.61453	2.5409	-1.7727	-.70953	1.0322

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB02 Acquired: 10/18/2016 00:43:29 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.77719**	**.67502**
Stddev	.05263	.11963
%RSD	6.7723	17.722
#1	.82450	.66414
#2	.72050	.79972
#3	.78657	.56121

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4377.8**	**2448.2**	**26724.**	**129730.**	**4059.9**	**58726.**	**11498.**
Stddev	6.2	4.3	74.	334.	11.2	192.	31.
%RSD	.14276	.17732	.27738	.25748	.27530	.32748	.26949
#1	4380.7	2448.2	26669.	129440.	4065.8	58585.	11499.
#2	4382.1	2452.6	26696.	130090.	4066.8	58945.	11467.
#3	4370.6	2443.9	26809.	129650.	4047.0	58648.	11529.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-15 Acquired: 10/18/2016 00:47:54 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H28 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-13.969**	**57510.**	**200.38**	**691.36**	**8.5430**	**7945.0**	**20.760**	**23.465**	**21.372**
#1	-14.469	57578.	199.43	692.06	8.5939	7936.3	20.808	23.648	21.481
#2	-13.645	57421.	198.55	690.52	8.5294	7942.4	20.712	23.191	21.255
#3	-13.793	57531.	203.15	691.50	8.5057	7956.2	20.759	23.557	21.379

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**415.69**	**F 784370.**	**11493.**	**14976.**	**2227.1**	**60.210**	**490.19**	**-17.737**	**1455.7**
#1	418.20	782360.	11541.	14963.	2225.3	59.817	487.16	-17.703	1457.2
#2	417.72	781870.	11441.	14946.	2224.1	60.614	495.08	-17.362	1451.1
#3	411.13	788870.	11497.	15019.	2232.0	60.198	488.32	-18.147	1458.8

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**42.198**	**18.598**	**2439.2**	**-30.843**	**194.47**	**636.43**
#1	42.854	21.440	2442.9	-30.882	196.07	637.70
#2	41.694	15.293	2435.9	-31.571	194.71	635.64
#3	42.046	19.060	2438.8	-30.076	192.63	635.95

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-15 Acquired: 10/18/2016 00:47:54 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H28 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3807.0**	**2071.2**	**26546.**	**126690.**	**4010.5**	**57980.**	**11762.**
#1	3805.8	2066.8	26584.	126020.	4007.9	57641.	11774.
#2	3809.7	2077.2	26534.	126470.	4008.5	57870.	11773.
#3	3805.7	2069.7	26519.	127570.	4015.1	58427.	11740.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-16 Acquired: 10/18/2016 00:52:15 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H29 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-11.015**	**98493.**	**222.39**	**897.99**	**4.7704**	**5730.1**	**19.942**	**42.904**	**43.623**
#1	-10.936	98309.	222.06	898.46	4.7637	5753.8	20.046	42.995	43.596
#2	-11.107	98583.	220.99	896.62	4.7872	5732.4	19.906	42.653	43.762
#3	-11.002	98588.	224.13	898.87	4.7603	5704.2	19.873	43.064	43.512

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**371.14**	**F 750750.**	**15143.**	**24387.**	**3549.7**	**47.231**	**610.40**	**1.3772**	**802.49**
#1	372.69	755740.	15138.	24446.	3553.2	47.433	613.09	.73034	796.91
#2	370.54	742900.	15150.	24270.	3538.5	47.147	606.38	1.9505	803.12
#3	370.19	753590.	15142.	24445.	3557.4	47.114	611.74	1.4506	807.44

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**37.155**	**15.218**	**1573.9**	**-29.595**	**299.21**	**1209.2**
#1	35.547	17.835	1569.7	-29.507	299.25	1206.4
#2	38.227	13.340	1572.8	-28.715	299.93	1210.1
#3	37.693	14.478	1579.1	-30.564	298.45	1211.2

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-16 Acquired: 10/18/2016 00:52:15 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H29 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3786.1**	**2081.7**	**26651.**	**126290.**	**4059.5**	**58490.**	**11932.**
#1	3791.7	2088.1	26602.	126220.	4059.3	58424.	11878.
#2	3785.7	2080.0	26642.	126090.	4063.2	58367.	11961.
#3	3780.7	2077.0	26708.	126550.	4055.9	58681.	11958.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-17 Acquired: 10/18/2016 00:56:35 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H30 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-10.849**	**62435.**	**84.438**	**500.46**	**9.6129**	**7843.8**	**18.303**	**35.389**	**18.480**
#1	-10.908	62168.	84.331	499.63	9.6709	7831.8	18.362	35.378	18.418
#2	-10.898	62518.	84.705	500.43	9.6505	7834.3	18.226	35.484	18.069
#3	-10.741	62621.	84.279	501.30	9.5174	7865.1	18.321	35.304	18.951

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**346.08**	**F 656490.**	**11274.**	**15901.**	**3173.7**	**52.517**	**492.67**	**-9.5520**	**670.11**
#1	346.10	654000.	11285.	15863.	3161.5	52.569	493.15	-10.050	668.42
#2	345.31	661650.	11245.	15893.	3180.9	52.602	494.79	-9.2386	668.02
#3	346.83	653810.	11293.	15947.	3178.7	52.381	490.08	-9.3675	673.89

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**32.812**	**8.9257**	**1407.2**	**-24.748**	**195.16**	**796.72**
#1	33.164	7.5946	1402.7	-26.083	195.58	795.74
#2	31.812	12.310	1414.5	-23.177	195.00	794.87
#3	33.460	6.8726	1404.4	-24.986	194.89	799.55

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-17 Acquired: 10/18/2016 00:56:35 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H30 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3847.5**	**2107.3**	**26617.**	**127080.**	**4085.1**	**58845.**	**11906.**
#1	3849.2	2105.1	26468.	126890.	4081.9	58746.	11845.
#2	3847.1	2113.2	26636.	127490.	4094.4	59111.	11921.
#3	3846.2	2103.6	26748.	126880.	4079.0	58677.	11951.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-18 Acquired: 10/18/2016 01:00:57 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H31 SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.4056**	**71150.**	**177.35**	**643.22**	**4.3606**	**9028.7**	**11.079**	**35.274**	**75.097**	**258.66**
#1	6.1027	70763.	179.01	642.77	4.3748	9049.8	11.065	35.205	75.412	258.84
#2	6.6988	71336.	176.64	643.83	4.3614	9023.2	11.110	35.465	74.530	258.85
#3	6.4154	71352.	176.41	643.06	4.3456	9013.2	11.062	35.153	75.349	258.30

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**326330.**	**14376.**	**26609.**	**3107.3**	**56.884**	**656.49**	**8.0659**	**2244.7**	**19.358**	**21.483**
#1	326040.	14360.	26618.	3099.8	56.982	655.12	7.4842	2241.8	19.839	20.144
#2	327240.	14355.	26612.	3115.4	56.438	658.95	8.4290	2239.4	20.328	23.632
#3	325720.	14414.	26596.	3106.6	57.230	655.41	8.2843	2252.9	17.907	20.673

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1855.2**	**-11.800**	**275.23**	**1264.1**
#1	1839.4	-12.641	276.38	1262.7
#2	1863.6	-12.028	274.14	1260.4
#3	1862.6	-10.731	275.18	1269.1

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-18 Acquired: 10/18/2016 01:00:57 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1H31 SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3901.1**	**2184.4**	**26988.**	**129450.**	**4128.7**	**59824.**	**11945.**
#1	3897.4	2183.1	26892.	129030.	4126.1	59589.	11879.
#2	3914.1	2192.2	26992.	129890.	4142.8	60096.	11956.
#3	3891.8	2177.8	27081.	129430.	4117.2	59786.	12000.

Sample Name: SEQ-CCV@CCV03 Acquired: 10/18/2016 01:05:09 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**492.40**	**133430.**	**1966.9**	**15461.**	**387.43**	**192420.**	**928.63**	**2325.1**	**5742.7**	**4936.4**
Stddev	.70	237.	5.9	104.	.84	1508.	2.01	4.7	9.8	8.7
%RSD	.14302	.17728	.29801	.67409	.21698	.78345	.21626	.20299	.17046	.17574
#1	492.13	133160.	1963.7	15473.	386.47	192930.	927.49	2320.5	5742.9	4937.5
#2	491.88	133610.	1963.4	15352.	388.03	190730.	927.46	2324.9	5732.8	4927.2
#3	493.20	133510.	1973.7	15559.	387.79	193610.	930.95	2329.9	5752.4	4944.4

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**121850.**	**130280.**	**187350.**	**8360.2**	**937.89**	**120310.**	**3852.9**	**5261.3**	**3723.6**	**3224.7**
Stddev	1123.	158.	1315.	35.0	2.05	1279.	13.9	22.2	6.6	4.1
%RSD	.92144	.12154	.70188	.41847	.21843	1.0632	.36148	.42104	.17801	.12568
#1	121890.	130420.	187740.	8363.8	936.42	120590.	3845.4	5243.2	3720.5	3225.2
#2	120700.	130110.	185880.	8323.6	937.01	118920.	3844.4	5254.8	3719.1	3220.4
#3	122950.	130320.	188420.	8393.3	940.23	121430.	3869.0	5286.0	3731.2	3228.4

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV03 Acquired: 10/18/2016 01:05:09 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1872.9**	**3818.4**	**3949.1**	**7729.5**
Stddev	14.7	14.5	7.8	25.4
%RSD	.78575	.38052	.19781	.32872
#1	1865.8	3808.6	3954.5	7715.8
#2	1889.9	3811.6	3940.1	7713.9
#3	1863.2	3835.1	3952.6	7758.8

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3382.6**	**2011.9**	**26421.**	**119710.**	**3608.6**	**53056.**	**11022.**
Stddev	6.9	7.5	125.	99.	6.5	23.	102.
%RSD	.20316	.37148	.47342	.08258	.17877	.04252	.92731
#1	3386.7	2018.6	26279.	119810.	3614.3	53082.	10931.
#2	3386.5	2013.3	26517.	119620.	3610.0	53048.	11132.
#3	3374.7	2003.8	26466.	119690.	3601.6	53039.	11003.

Sample Name: SEQ-CCB@CCB03 Acquired: 10/18/2016 01:09:22 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.34308**	**-16.600**	**.30028**	**1.5780**	**.13905**	**-45.075**	**.16081**	**.42316**	**-.27696**	**.48733**	**-17.874**
Stddev	.26475	3.683	.72435	.0548	.02493	16.307	.05420	.05880	.04396	.12254	3.458
%RSD	77.169	22.190	241.23	3.4749	17.931	36.177	33.704	13.894	15.872	25.146	19.346
#1	-.36180	-14.391	-.46610	1.5249	.11566	-62.392	.17908	.47882	-.32480	.35956	-15.254
#2	-.59798	-20.852	.39334	1.6345	.13620	-42.819	.20351	.42898	-.23836	.60387	-21.794
#3	-.06947	-14.556	.97360	1.5747	.16528	-30.013	.09983	.36167	-.26772	.49857	-16.575

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**43.942**	**-34.378**	**-.85416**	**.14583**	**3.4272**	**.64140**	**1.1463**	**1.4020**	**-.49849**	**-1.9312**	**.57671**
Stddev	10.830	7.168	.15025	.14374	2.8323	.50378	.5860	.4131	1.5058	.7385	.83963
%RSD	24.646	20.849	17.591	98.570	82.641	78.543	51.117	29.469	302.07	38.240	145.59
#1	35.932	-30.437	-.87998	.02584	6.4581	.93752	1.6636	1.8544	-2.0994	-1.6581	1.4983
#2	56.264	-42.651	-.69266	.30513	.84784	.92697	1.2654	1.0448	-.28552	-2.7674	.37671
#3	39.631	-30.046	-.98982	.10650	2.9756	.05972	.50996	1.3068	.88949	-1.3682	-.14485

Bonner Analytical Testing Co. ICAPP02

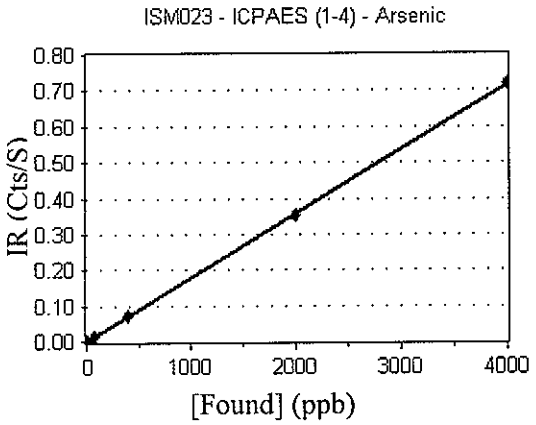
Sample Name: SEQ-CCB@CCB03 Acquired: 10/18/2016 01:09:22 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.77751**	**.89022**
Stddev	.32340	.23109
%RSD	41.595	25.959
#1	.41636	1.1556
#2	1.0404	.73324
#3	.87580	.78183

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4387.8**	**2456.4**	**26824.**	**130310.**	**4066.7**	**59029.**	**11481.**
Stddev	5.8	8.2	145.	230.	8.8	95.	30.
%RSD	.13208	.33190	.54200	.17650	.21640	.16132	.26149
#1	4391.3	2460.5	26703.	130190.	4075.8	58938.	11456.
#2	4391.1	2461.6	26783.	130580.	4066.2	59128.	11474.
#3	4381.2	2447.0	26985.	130160.	4058.2	59020.	11514.

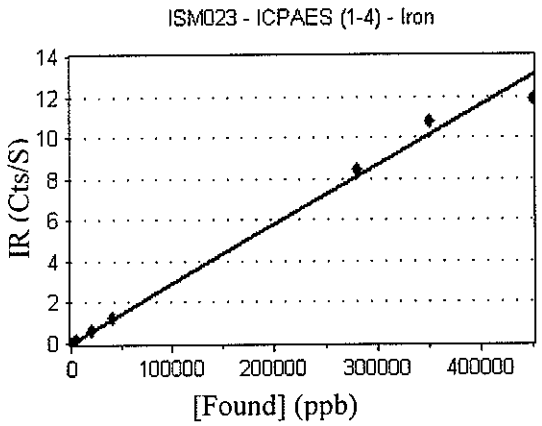
Bonner Analytical Testing Company

Instrument ID: ICAPP02 Calibration ID: B644060 Calibration Date: 10/18/2016



Calibration Plot: Arsenic
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999266
Fit: [Y] = 1.787987E-04 * [X] + -2.787128E-04
[y-intercept] = 1.56

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62627-CAL1	B6I0028	0	0.27	-0.00023	0
BJ62627-CAL2	B6G0026	10	10.56	0.00161	-6
BJ62627-CAL3	B6G0027	80	77.51	0.01358	3
BJ62627-CAL4	B6G0028	400	390.15	0.06948	2
BJ62627-CAL5	B6G0029	2000	1,985.86	0.35479	1
BJ62627-CAL6	B6G0030	4000	4,025.92	0.71955	-1



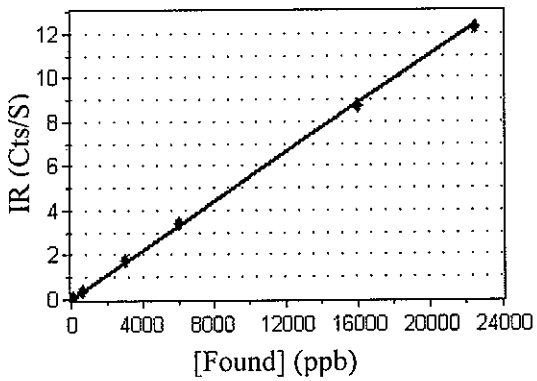
Calibration Plot: Iron
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9910681
Fit: [Y] = 2.900505E-05 * [X] + 1.125829E-03
[y-intercept] = -38.81

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62627-CAL1	B6I0028	0	-42.26	-0.0001	0
BJ62627-CAL2	B6G0026	100	69.79	0.00315	30
BJ62627-CAL3	B6G0027	800	837.24	0.02541	-5
BJ62627-CAL4	B6G0028	4000	4,318.36	0.12638	-8
BJ62627-CAL5	B6G0029	20000	21,607.42	0.62785	-8
BJ62627-CAL6	B6G0030	40000	43,029.55	1.2492	-8
BJ62627-CAL7	B6G0031	280000	292,493.00	8.4849	-4
BJ62627-CAL8	B6G0032	350000	372,137.75	10.795	-6
BJ62627-CAL9	B6J0169	450000	410,406.95	11.905	9

Bonner Analytical Testing Company

Instrument ID: ICAPP02 Calibration ID: B644060 Calibration Date: 10/18/2016 **131**

ISM023 - ICPAES (1-4) - Manganese



Calibration Plot: Manganese
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9998155
Fit: [Y] = 5.503931E-04 * [X] + 2.037067E-03
[y-intercept] = -3.70

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62627-CAL1	B6I0028	0	-3.76	-0.00003	0
BJ62627-CAL2	B6G0026	15	12.89	0.00913	14
BJ62627-CAL3	B6G0027	120	125.12	0.0709	-4
BJ62627-CAL4	B6G0028	600	629.74	0.34864	-5
BJ62627-CAL5	B6G0029	3000	3,108.80	1.7131	-4
BJ62627-CAL6	B6G0030	6000	6,169.70	3.3978	-3
BJ62627-CAL7	B6G0031	16000	15,886.58	8.7459	1
BJ62627-CAL9	B6J0169	22500	22,302.17	12.277	1

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL1@S01 Acquired: 10/18/2016 10:38:39 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00081**	**-.00282**	**-.00023**	**.01212**	**-.00161**	**.00012**	**.00067**	**-.00023**	**.00004**	**.00267**
#1	-.00077	-.00302	-.00033	.01243	-.00156	.00008	.00059	-.00023	.00003	.00270
#2	-.00082	-.00298	-.00034	.01222	-.00165	-.00000	.00062	-.00037	.00003	.00272
#3	-.00084	-.00246	-.00003	.01172	-.00162	.00029	.00079	-.00008	.00005	.00260

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00010**	**.00258**	**.00001**	**-.00003**	**.00013**	**.01908**	**.00468**	**.00082**	**-.00088**	**.00052**
#1	-.00022	.00286	-.00003	.00015	.00012	.01944	.00464	.00135	-.00109	.00059
#2	-.00012	.00344	.00012	-.00028	.00005	.01931	.00481	.00070	-.00090	.00063
#3	.00003	.00143	-.00006	.00003	.00021	.01850	.00458	.00042	-.00066	.00033

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00310**	**-.00005**	**-.00004**	**.01218**
#1	.00305	-.00006	-.00009	.01222
#2	.00309	.00004	-.00005	.01231
#3	.00317	-.00012	.00003	.01200

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL1@S01 Acquired: 10/18/2016 10:38:39 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3756.7**	**2162.8**	**21871.**	**119600.**	**3675.1**	**54375.**	**9339.5**
#1	3765.6	2165.9	21844.	119470.	3692.4	54223.	9330.3
#2	3749.2	2161.3	21856.	119180.	3674.4	54218.	9329.9
#3	3755.2	2161.3	21914.	120140.	3658.6	54685.	9358.2

Sample Name: SEQ-CAL2@S02 Acquired: 10/18/2016 10:43:04 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00140**	**.00359**	**.00161**	**.46379**	**.00157**	**.00354**	**.02556**	**.01244**	**.00170**	**.01150**	**.00315**
#1	.00144	.00305	.00171	.46351	.00154	.00346	.02554	.01221	.00174	.01161	.00322
#2	.00133	.00383	.00178	.46372	.00157	.00370	.02557	.01248	.00168	.01147	.00304
#3	.00144	.00390	.00135	.46414	.00159	.00346	.02556	.01263	.00167	.01143	.00317

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.01297**	**.00348**	**.00913**	**.00622**	**.04315**	**.01914**	**.00704**	**.00263**	**.00256**	**.00428**	**.00424**
#1	.01300	.00358	.00907	.00623	.04330	.01922	.00682	.00236	.00273	.00437	.00416
#2	.01329	.00349	.00922	.00610	.04269	.01893	.00714	.00257	.00248	.00427	.00435
#3	.01262	.00337	.00910	.00632	.04346	.01928	.00717	.00297	.00248	.00420	.00423

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.00382**	**.09627**
#1	.00380	.09589
#2	.00388	.09648
#3	.00378	.09644

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL2@S02 Acquired: 10/18/2016 10:43:04 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3760.5**	**2168.5**	**22126.**	**119920.**	**3680.5**	**54451.**	**9446.3**
#1	3765.4	2175.5	21999.	120370.	3685.8	54535.	9407.2
#2	3769.5	2171.5	22161.	120060.	3689.8	54569.	9463.9
#3	3746.5	2158.5	22217.	119340.	3666.0	54249.	9467.9

Sample Name: SEQ-CAL3@S03 Acquired: 10/18/2016 10:47:27 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00368**	**.04944**	**.01358**	**3.6067**	**.02363**	**.02867**	**.19701**	**.10096**	**.01351**	**.07799**	**.02541**
#1	.00362	.04940	.01365	3.6074	.02367	.02870	.19667	.10062	.01363	.07800	.02537
#2	.00365	.04922	.01340	3.6075	.02371	.02846	.19694	.10046	.01344	.07795	.02527
#3	.00375	.04971	.01369	3.6053	.02352	.02886	.19740	.10180	.01345	.07803	.02558

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.10165**	**.02759**	**.07090**	**.04854**	**.33259**	**.15623**	**.04469**	**.02793**	**.01768**	**.01315**	**.03431**
#1	.10185	.02742	.07134	.04858	.33135	.15609	.04396	.02796	.01757	.01314	.03471
#2	.10164	.02766	.07079	.04824	.33202	.15659	.04417	.02767	.01770	.01307	.03411
#3	.10147	.02769	.07057	.04879	.33441	.15602	.04595	.02816	.01776	.01323	.03412

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.03143**	**.71312**
#1	.03137	.71249
#2	.03157	.71487
#3	.03133	.71199

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL3@S03 Acquired: 10/18/2016 10:47:27 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3739.8**	**2191.2**	**22231.**	**120860.**	**3678.5**	**54140.**	**9365.5**
#1	3745.5	2197.3	22183.	120990.	3687.8	54132.	9337.8
#2	3746.3	2192.2	22182.	120620.	3682.2	54080.	9360.3
#3	3727.8	2183.9	22330.	120970.	3665.5	54208.	9398.5

Sample Name: SEQ-CAL4@S04 Acquired: 10/18/2016 10:51:43 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02153**	**.25466**	**.06948**	**17.963**	**.12472**	**.14261**	**.96940**	**.50284**	**.06705**	**.37962**	**.12638**
#1	.02164	.25257	.06927	17.933	.12484	.14222	.96878	.50298	.06714	.37975	.12605
#2	.02141	.25609	.06894	17.966	.12441	.14301	.97009	.50286	.06715	.38039	.12626
#3	.02155	.25532	.07021	17.991	.12492	.14261	.96932	.50269	.06685	.37872	.12684

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.50924**	**.13501**	**.34864**	**.24426**	**1.6354**	**.77210**	**.21620**	**.14337**	**.08552**	**.05323**	**.17373**
#1	.50913	.13491	.34829	.24421	1.6370	.77203	.21666	.14292	.08540	.05301	.17310
#2	.50933	.13509	.34835	.24465	1.6323	.76973	.21634	.14326	.08544	.05323	.17442
#3	.50927	.13502	.34927	.24392	1.6368	.77453	.21560	.14394	.08571	.05347	.17368

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.15811**	**3.5087**
#1	.15854	3.5082
#2	.15821	3.4966
#3	.15758	3.5213

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL4@S04 Acquired: 10/18/2016 10:51:43 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3655.0**	**2178.1**	**22362.**	**120890.**	**3662.9**	**53797.**	**9391.5**
#1	3658.3	2180.0	22440.	120730.	3664.4	53724.	9416.2
#2	3652.5	2180.4	22350.	121340.	3660.6	53975.	9392.7
#3	3654.2	2173.9	22297.	120580.	3663.8	53692.	9365.5

Sample Name: SEQ-CAL5@S05 Acquired: 10/18/2016 10:55:49 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.11007**	**1.2762**	**.35479**	**88.119**	**.62263**	**.70659**	**4.7165**	**2.4618**	**.32947**	**1.9705**	**.62785**
#1	.11018	1.2744	.35575	87.336	.62247	.70454	4.7207	2.4630	.32932	1.9714	.62544
#2	.11015	1.2800	.35438	89.525	.62055	.70801	4.7124	2.4593	.32986	1.9729	.63131
#3	.10986	1.2743	.35423	87.497	.62487	.70722	4.7166	2.4631	.32923	1.9674	.62679

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.5578**	**.66574**	**1.7131**	**1.2223**	**8.1666**	**3.7912**	**1.0622**	**.72151**	**.41574**	**.25151**	**.87123**
#1	2.5573	.66459	1.7074	1.2202	8.1545	3.7957	1.0628	.72118	.41598	.25129	.86979
#2	2.5621	.66849	1.7194	1.2232	8.1832	3.7856	1.0599	.72104	.41592	.25185	.87239
#3	2.5539	.66414	1.7125	1.2234	8.1622	3.7922	1.0639	.72232	.41533	.25139	.87150

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.79060**	**17.123**
#1	.79017	17.153
#2	.79192	17.100
#3	.78972	17.115

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CAL5@S05 Acquired: 10/18/2016 10:55:49 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3381.7**	**2070.0**	**22286.**	**117650.**	**3509.9**	**51929.**	**9248.4**
#1	3381.0	2068.2	22219.	117680.	3507.5	51953.	9237.2
#2	3379.9	2071.7	22235.	117870.	3510.6	51966.	9203.4
#3	3384.2	2070.0	22405.	117380.	3511.5	51867.	9304.5

Sample Name: SEQ-CAL6@S06 Acquired: 10/18/2016 10:59:59 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.22201**	**2.5742**	**.71955**	**173.55**	**1.2277**	**1.3955**	**9.2749**	**4.8719**	**.64891**	**3.9712**	**1.2492**
#1	.22210	2.5692	.71898	173.59	1.2281	1.3944	9.2793	4.8715	.64588	3.9695	1.2461
#2	.22158	2.5688	.71792	173.10	1.2306	1.3943	9.2615	4.8638	.64914	3.9659	1.2448
#3	.22234	2.5847	.72174	173.97	1.2244	1.3977	9.2840	4.8805	.65171	3.9781	1.2566

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.1307**	**1.3296**	**3.3978**	**2.4448**	**16.269**	**7.4986**	**2.0958**	**1.4531**	**.81909**	**.49725**	**1.7244**
#1	5.1338	1.3272	3.3927	2.4462	16.282	7.4967	2.0993	1.4519	.81929	.49605	1.7297
#2	5.1246	1.3258	3.3866	2.4399	16.210	7.4898	2.0902	1.4507	.81653	.49753	1.7208
#3	5.1337	1.3358	3.4142	2.4482	16.315	7.5091	2.0979	1.4568	.82145	.49817	1.7227

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.5746**	**33.311**
#1	1.5715	33.309
#2	1.5745	33.306
#3	1.5778	33.318

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Sample Name: SEQ-CAL6@S06 Acquired: 10/18/2016 10:59:59 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3208.9**	**1995.8**	**22127.**	**115260.**	**3394.3**	**50557.**	**9129.1**
#1	3207.1	1996.4	22232.	115600.	3398.4	50737.	9164.0
#2	3209.7	1998.2	22031.	114830.	3398.1	50455.	9114.7
#3	3209.8	1992.7	22119.	115350.	3386.3	50479.	9108.6

Sample Name: SEQ-CAL7@S07 Acquired: 10/18/2016 11:04:10 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Al3961	Ca3181	Cr2677	Fe2598	K_7664	Mg2790	Mn2576	Na5895	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**20.912**	**5.4025**	**1.5856**	**8.4849**	**12.468**	**5.2369**	**8.7459**	**32.205**	**5.4224**
#1	20.848	5.3801	1.5887	8.4393	12.464	5.2156	8.7197	32.160	5.4404
#2	20.905	5.4024	1.5830	8.4665	12.461	5.2320	8.7361	32.294	5.4151
#3	20.982	5.4250	1.5851	8.5488	12.477	5.2631	8.7820	32.163	5.4118

Int. Std.	Sc2273	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**1715.8**	**46915.**	**8886.7**
#1	1709.4	46967.	8948.7
#2	1720.3	47101.	8864.8
#3	1717.7	46677.	8846.4

Sample Name: SEQ-CAL8@S08 Acquired: 10/18/2016 11:08:34 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Al3961	Fe2598	Pb2203
Units	Cts/S	Cts/S	Cts/S
Avg	**25.099**	**10.795**	**13.893**
#1	24.747	10.740	13.884
#2	25.310	10.820	13.876
#3	25.242	10.825	13.918

Int. Std.	Sc2273	Y_3710
Units	Cts/S	Cts/S
Avg	**2024.4**	**9534.3**
#1	2025.7	9543.6
#2	2026.3	9529.6
#3	2021.1	9529.8

Sample Name: SEQ-CAL9@S09 Acquired: 10/18/2016 11:12:56 Type: Cal
Method: ISM023_New_TotalMetals(v20) Mode: IR Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Fe2598	Mn2576
Units	Cts/S	Cts/S
Avg	**11.905**	**12.277**
#1	11.881	12.275
#2	11.919	12.288
#3	11.914	12.269

Int. Std.	Y_3710
Units	Cts/S
Avg	**8810.8**
#1	8802.7
#2	8796.9
#3	8832.8

Sample Name: SEQ-ICV@ICV01 Acquired: 10/18/2016 11:17:26 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**503.76**	**2596.0**	**1000.1**	**511.85**	**508.66**	**10435.**	**514.13**	**511.51**	**513.90**	**477.12**	**5161.0**
Stddev	.88	19.3	3.7	.90	.57	29.	.82	.44	1.78	1.28	19.7
%RSD	.17467	.74488	.37019	.17659	.11225	.27424	.15869	.08527	.34707	.26879	.38120
#1	504.77	2591.5	996.79	510.81	508.08	10406.	513.25	511.02	515.82	478.60	5151.2
#2	503.20	2617.1	999.31	512.39	508.67	10464.	514.86	511.85	512.29	476.43	5183.7
#3	503.31	2579.3	1004.1	512.35	509.22	10434.	514.26	511.68	513.58	476.34	5148.1

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10063.**	**6174.3**	**522.19**	**-.24272**	**9961.3**	**518.62**	**1004.7**	**997.73**	**1021.7**	**-.64107**	**1029.6**
Stddev	64.	42.8	1.31	.10461	18.5	1.75	2.4	.22	3.0	.45083	5.0
%RSD	.63222	.69384	.25063	43.099	.18559	.33724	.24304	.02166	.29541	70.325	.48959
#1	10131.	6176.2	521.24	-.31219	9977.0	518.35	1004.4	997.92	1018.7	-.27637	1025.4
#2	10052.	6216.1	523.69	-.29357	9966.0	517.02	1002.4	997.78	1021.8	-.50171	1028.2
#3	10005.	6130.5	521.65	-.12241	9940.9	520.49	1007.3	997.50	1024.7	-1.1451	1035.1

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Sample Name: SEQ-ICV@ICV01 Acquired: 10/18/2016 11:17:26 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**499.98**	**1058.7**
Stddev	1.05	4.4
%RSD	.20960	.41502
#1	500.84	1057.6
#2	500.28	1054.9
#3	498.81	1063.5

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3671.2**	**2159.7**	**22472.**	**121070.**	**3673.0**	**54309.**	**9467.5**
Stddev	6.6	4.5	94.	277.	5.1	60.	49.4
%RSD	.18108	.21052	.41742	.22881	.13774	.11136	.52188
#1	3676.5	2163.0	22406.	121350.	3678.3	54354.	9439.5
#2	3673.4	2161.6	22432.	120790.	3668.2	54240.	9438.5
#3	3663.7	2154.5	22580.	121080.	3672.4	54332.	9524.6

Sample Name: SEQ-ICB@ICB01 Acquired: 10/18/2016 11:21:37 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.48043**	**2.6731**	**.68440**	**-.16194**	**.05051**	**10.678**	**.06029**	**.02630**	**.02724**	**-.10812**	**.23285**
Stddev	.40832	5.3880	.72071	.15350	.01822	9.465	.01169	.24197	.29572	.05421	2.7364
%RSD	84.991	201.56	105.31	94.788	36.081	88.640	19.387	920.07	1085.6	50.144	1175.2
#1	.92556	6.2671	.73455	-.13746	.04005	20.920	.06095	.28568	.25649	-.04954	1.1395
#2	.39246	-3.5220	-.06007	-.02215	.07156	2.2538	.04829	-.01347	-.30656	-.15653	2.4008
#3	.12326	5.2742	1.3787	-.32621	.03992	8.8599	.07164	-.19332	.13178	-.11829	-2.8418

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**112.86**	**3.4046**	**.25366**	**.02705**	**20.381**	**-.01541**	**2.1211**	**.86067**	**-.62990**	**.94673**	**-.27854**
Stddev	24.83	9.0144	.57553	.05051	8.085	.33034	.4109	1.2135	1.0040	.66390	.87384
%RSD	22.001	264.77	226.89	186.75	39.672	2143.0	19.373	141.00	159.40	70.126	313.72
#1	115.12	6.5857	-.28004	-.00762	11.961	-.38395	1.6559	2.2613	-1.1576	.19022	-1.0699
#2	136.48	10.397	.86346	.08499	28.084	.08366	2.2730	.19509	-1.2600	1.4324	-.42498
#3	86.974	-6.7691	.17757	.00377	21.096	.25405	2.4345	.12558	.52794	1.2176	.65926

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-ICB@ICB01 Acquired: 10/18/2016 11:21:37 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**-.10681**	**-.10019**
Stddev	.22736	.23623
%RSD	212.85	235.78
#1	-.04010	.10518
#2	-.36007	-.35836
#3	.07973	-.04741

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3790.1**	**2175.5**	**22031.**	**120590.**	**3705.4**	**55041.**	**9438.5**
Stddev	7.4	6.6	118.	162.	10.0	37.	41.9
%RSD	.19454	.30358	.53497	.13471	.26866	.06756	.44373
#1	3796.8	2181.3	22034.	120700.	3716.9	55063.	9437.7
#2	3791.4	2177.0	22148.	120400.	3698.9	54998.	9480.7
#3	3782.2	2168.3	21912.	120670.	3700.5	55062.	9397.0

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-IFA@ICSA01 Acquired: 10/18/2016 11:25:59 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-2.3020**	**257250.**	**-8.5250**	**5.5636**	**-.07885**	**242090.**	**2.7877**	**-.51368**	**56.812**	**-13.133**
Stddev	.0271	1309.	2.0974	.0167	.01646	422.	.0269	.21134	.380	.030
%RSD	1.1761	.50896	24.603	.30013	20.879	.17434	.96509	41.142	.66864	.23031
#1	-2.3058	255770.	-8.2005	5.5793	-.07519	241610.	2.7621	-.47722	56.481	-13.158
#2	-2.2733	257680.	-6.6088	5.5461	-.06453	242280.	2.8157	-.32295	56.728	-13.099
#3	-2.3270	258280.	-10.766	5.5653	-.09684	242380.	2.7854	-.74089	57.227	-13.141

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**97848.**	**148.89**	**253980.**	**12.746**	**.44488**	**-47.349**	**-10.139**	**8.8665**	**-1.7152**	**-2.8964**
Stddev	342.	14.58	1060.	.228	.17433	5.803	.123	.5601	.4434	.9922
%RSD	.34925	9.7927	.41737	1.7863	39.186	12.256	1.2094	6.3164	25.851	34.258
#1	97468.	132.94	252750.	13.004	.38644	-53.635	-10.047	8.2202	-1.7345	-2.4015
#2	98130.	161.54	254580.	12.573	.30727	-46.215	-10.091	9.2091	-2.1486	-2.2490
#3	97946.	152.20	254590.	12.660	.64092	-42.196	-10.278	9.1702	-1.2625	-4.0388

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-IFA@ICSA01 Acquired: 10/18/2016 11:25:59 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**3.1334**	**-2.8845**	**.03297**	**-3.0075**
Stddev	.5316	.9627	.19882	.1447
%RSD	16.966	33.373	603.03	4.8124
#1	3.1041	-3.4226	.13757	-3.0332
#2	2.6170	-3.4579	.15765	-2.8516
#3	3.6790	-1.7731	-.19632	-3.1377

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3204.3**	**1876.8**	**22618.**	**112860.**	**3408.3**	**50558.**	**9318.6**
Stddev	1.0	2.4	138.	161.	11.4	55.	60.0
%RSD	.03163	.12807	.60985	.14234	.33357	.10836	.64410
#1	3203.2	1875.2	22776.	112680.	3419.5	50552.	9386.6
#2	3204.6	1875.7	22558.	112990.	3408.6	50616.	9296.1
#3	3205.1	1879.6	22520.	112890.	3396.8	50507.	9273.0

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-IFB@ICSAB01 Acquired: 10/18/2016 11:30:16 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**207.22**	**257240.**	**98.542**	**521.24**	**511.22**	**242600.**	**967.96**	**486.18**	**557.40**	**493.54**
Stddev	.12	1405.	2.077	1.51	.56	1139.	.74	1.26	1.53	.47
%RSD	.05928	.54612	2.1078	.28971	.10927	.46937	.07696	.25864	.27479	.09476
#1	207.11	256180.	97.681	520.08	511.45	243160.	968.46	485.11	556.90	493.42
#2	207.35	258830.	97.034	522.95	511.63	243350.	968.31	485.87	559.12	494.06
#3	207.19	256700.	100.91	520.69	510.58	241290.	967.10	487.57	556.17	493.15

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**97941.**	**90.522**	**253750.**	**521.22**	**.15989**	**-39.576**	**1039.3**	**56.551**	**600.48**	**47.081**
Stddev	540.	6.914	1692.	2.69	.24443	4.031	.7	.271	2.84	1.251
%RSD	.55130	7.6375	.66686	.51616	152.87	10.186	.06920	.47924	.47363	2.6580
#1	97944.	83.271	253630.	520.15	.06757	-44.001	1040.1	56.333	603.52	46.703
#2	98480.	97.039	255490.	524.28	.43703	-36.112	1039.0	56.854	600.05	48.477
#3	97400.	91.257	252110.	519.23	-.02493	-38.616	1038.8	56.466	597.88	46.061

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-IFB@ICSAB01 Acquired: 10/18/2016 11:30:16 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**4.1037**	**98.936**	**491.59**	**1041.3**
Stddev	.3089	.818	.52	.3
%RSD	7.5266	.82691	.10528	.02979
#1	4.2618	98.329	492.05	1041.6
#2	4.3015	98.612	491.71	1041.2
#3	3.7478	99.866	491.03	1041.1

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3212.9**	**1873.1**	**22686.**	**113110.**	**3413.3**	**50732.**	**9349.1**
Stddev	1.9	.3	193.	205.	4.1	105.	100.1
%RSD	.05777	.01498	.84916	.18145	.12092	.20683	1.0704
#1	3214.7	1873.4	22649.	113300.	3417.8	50808.	9333.7
#2	3211.0	1872.9	22514.	112890.	3412.3	50612.	9257.6
#3	3212.9	1873.0	22894.	113150.	3409.7	50777.	9455.9

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV01 Acquired: 10/18/2016 11:34:25 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**512.76**	**142150.**	**2118.3**	**16019.**	**397.33**	**199080.**	**962.30**	**2424.3**	**5661.1**	**5127.0**
Stddev	.88	149.	4.3	196.	.91	837.	2.25	7.3	18.2	3.2
%RSD	.17092	.10496	.20275	1.2219	.22813	.42059	.23372	.30255	.32091	.06199
#1	511.84	142010.	2120.5	15911.	396.31	200000.	961.18	2421.3	5653.9	5128.7
#2	512.86	142130.	2113.4	16245.	398.03	198890.	960.83	2419.0	5681.8	5128.9
#3	513.59	142310.	2121.2	15902.	397.66	198360.	964.89	2432.7	5647.7	5123.3

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**124470.**	**138110.**	**197230.**	**9021.0**	**994.63**	**123230.**	**4058.8**	**5605.3**	**4061.6**	**3480.6**
Stddev	697.	199.	613.	7.5	1.82	970.	8.5	7.8	6.2	7.8
%RSD	.55996	.14412	.31101	.08276	.18312	.78711	.20862	.13963	.15267	.22384
#1	125270.	138310.	197930.	9029.3	993.02	124310.	4052.6	5596.7	4067.9	3487.9
#2	124190.	138110.	196890.	9019.0	994.25	122920.	4055.3	5607.2	4055.5	3472.4
#3	123960.	137910.	196850.	9014.8	996.61	122440.	4068.4	5612.0	4061.3	3481.5

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV01 Acquired: 10/18/2016 11:34:25 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1972.6**	**3936.2**	**3915.9**	**8067.0**
Stddev	4.5	5.5	10.5	12.7
%RSD	.23004	.14066	.26937	.15701
#1	1969.8	3931.1	3909.9	8053.8
#2	1970.1	3935.6	3928.1	8068.1
#3	1977.8	3942.1	3909.7	8079.1

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3111.6**	**1883.7**	**22653.**	**113000.**	**3349.8**	**50334.**	**9325.1**
Stddev	7.8	6.7	88.	584.	11.4	264.	53.4
%RSD	.25113	.35413	.38715	.51683	.33921	.52454	.57308
#1	3119.6	1888.7	22552.	113280.	3355.1	50423.	9263.6
#2	3111.2	1886.3	22703.	112330.	3357.6	50037.	9351.6
#3	3104.0	1876.1	22705.	113390.	3336.8	50541.	9360.1

Sample Name: SEQ-CCB@CCB01 Acquired: 10/18/2016 11:38:36 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.03522**	**9.5905**	**1.7751**	**.56769**	**-.01245**	**25.840**	**.09148**	**.06467**	**.03733**	**.12791**	**10.958**
Stddev	.35093	5.5761	.5778	.12399	.02298	15.749	.00700	.18385	.19113	.26774	4.059
%RSD	996.39	58.143	32.548	21.840	184.60	60.949	7.6544	284.28	512.04	209.32	37.044
#1	-.29435	3.2506	1.1863	.67528	-.01968	7.9193	.09342	-.06115	-.06216	.14814	13.634
#2	.40419	13.734	2.3412	.43210	.01328	37.478	.08371	-.02049	-.08354	-.14938	12.952
#3	-.00417	11.787	1.7980	.59569	-.03094	32.123	.09731	.27566	.25768	.38497	6.2873

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**145.70**	**7.7498**	**.61465**	**.09758**	**31.837**	**-.18104**	**1.8603**	**1.0821**	**-1.0083**	**-.27813**	**.05181**
Stddev	19.96	5.5975	.15461	.00432	4.470	.03203	.5409	.6540	.6502	.31996	.17164
%RSD	13.702	72.228	25.155	4.4270	14.039	17.692	29.073	60.432	64.486	115.04	331.28
#1	133.57	1.5010	.52462	.09421	35.022	-.19772	1.5218	1.6947	-1.1492	-.63050	.21258
#2	168.74	12.305	.79318	.10245	26.727	-.20129	2.4841	1.1583	-.29916	-.00578	-.12895
#3	134.78	9.4437	.52614	.09608	33.760	-.14411	1.5751	.39343	-1.5764	-.19811	.07181

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB01 Acquired: 10/18/2016 11:38:36 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**-.24916**	**.04284**
Stddev	.28441	.10974
%RSD	114.14	256.14
#1	.05135	.07999
#2	-.28471	.12918
#3	-.51412	-.08065

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3818.3**	**2187.8**	**22574.**	**121790.**	**3715.4**	**55570.**	**9654.5**
Stddev	3.8	3.9	42.	469.	13.2	286.	66.5
%RSD	.09956	.17690	.18635	.38528	.35405	.51447	.68860
#1	3822.7	2188.5	22541.	121950.	3723.2	55690.	9580.0
#2	3816.6	2191.2	22622.	122160.	3722.7	55776.	9707.9
#3	3815.8	2183.6	22560.	121270.	3700.2	55243.	9675.5

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV02 Acquired: 10/18/2016 11:47:14 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**514.67**	**142820.**	**2135.0**	**16330.**	**401.86**	**198710.**	**970.86**	**2442.9**	**5680.2**	**5147.5**
Stddev	.98	403.	.6	128.	.89	1154.	1.48	4.8	17.9	5.3
%RSD	.18999	.28205	.03001	.78254	.22265	.58064	.15240	.19564	.31481	.10352
#1	515.79	142460.	2134.8	16209.	400.87	197850.	971.24	2445.0	5661.3	5141.6
#2	514.12	143250.	2135.7	16463.	402.62	200020.	969.23	2437.5	5682.6	5148.9
#3	514.08	142730.	2134.4	16318.	402.08	198260.	972.12	2446.3	5696.9	5151.9

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**124320.**	**138420.**	**197200.**	**9027.9**	**999.45**	**123100.**	**4097.0**	**5642.1**	**4086.3**	**3507.6**
Stddev	665.	294.	1046.	38.8	1.35	651.	3.8	13.2	5.6	2.8
%RSD	.53463	.21220	.53066	.42948	.13493	.52846	.09307	.23478	.13744	.07842
#1	123750.	138340.	196430.	9007.8	999.88	122680.	4099.0	5650.7	4085.1	3508.3
#2	125050.	138740.	198390.	9072.6	997.94	123850.	4092.6	5626.8	4081.4	3504.6
#3	124170.	138170.	196770.	9003.3	1000.5	122760.	4099.4	5648.7	4092.4	3510.0

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV02 Acquired: 10/18/2016 11:47:14 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1990.2**	**3961.4**	**3934.7**	**8141.4**
Stddev	2.9	5.0	6.1	8.6
%RSD	.14472	.12652	.15618	.10576
#1	1987.6	3966.8	3928.2	8145.5
#2	1993.3	3956.8	3935.4	8131.6
#3	1989.6	3960.7	3940.5	8147.3

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3109.1**	**1878.1**	**22660.**	**112510.**	**3339.2**	**50094.**	**9338.1**
Stddev	5.4	1.2	144.	457.	6.1	215.	80.7
%RSD	.17444	.06347	.63689	.40606	.18313	.42912	.86382
#1	3112.7	1877.9	22777.	112960.	3342.5	50286.	9393.9
#2	3111.6	1879.3	22499.	112520.	3343.0	50134.	9245.6
#3	3102.8	1876.9	22704.	112040.	3332.2	49862.	9374.7

Sample Name: SEQ-CCB@CCB02 Acquired: 10/18/2016 11:51:28 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.07388**	**2.1358**	**.49597**	**.51545**	**.02024**	**-6.6600**	**.18983**	**.41682**	**.40347**	**-1.8997**	**3.0724**
Stddev	.25695	4.5923	1.8579	.09956	.01845	14.672	.05905	.09915	.40649	.1532	4.2727
%RSD	347.80	215.01	374.60	19.315	91.174	220.29	31.104	23.787	100.75	8.0634	139.07
#1	.36055	2.9319	2.5743	.51474	.02808	-15.465	.22015	.50619	-.06561	-2.0528	7.3703
#2	-.00322	6.2781	-1.0041	.41625	-.00084	-14.792	.12179	.43410	.65258	-1.7465	3.0215
#3	-.13569	-2.8024	-.08230	.61536	.03348	10.277	.22756	.31017	.62343	-1.8998	-1.1746

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**100.25**	**8.6406**	**.30373**	**.15827**	**-74.222**	**-5.5881**	**1.5788**	**.69613**	**-1.2143**	**-.30078**	**.10329**
Stddev	36.28	8.8923	.20727	.10852	2.515	.3856	.6194	1.6181	1.2731	.54501	.32547
%RSD	36.194	102.91	68.241	68.563	3.3886	6.8996	39.234	232.44	104.84	181.20	315.10
#1	141.93	15.100	.17054	.27540	-71.946	-6.0262	2.0992	2.2173	-2.2476	-.29097	-.11535
#2	83.093	-1.5014	.54253	.13828	-76.922	-5.3003	1.7436	-1.0040	.20787	-.85063	.47734
#3	75.723	12.323	.19811	.06114	-73.797	-5.4379	.89364	.87511	-1.6032	.23927	-.05212

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB02 Acquired: 10/18/2016 11:51:28 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**-.13542**	**-3.6898**
Stddev	.09843	.2772
%RSD	72.682	7.5132
#1	-.04862	-3.4113
#2	-.11529	-3.6925
#3	-.24236	-3.9657

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3831.1**	**2186.0**	**22653.**	**122150.**	**3730.3**	**55770.**	**9696.4**
Stddev	2.3	3.1	127.	450.	7.1	203.	72.9
%RSD	.06109	.14112	.55959	.36825	.18957	.36473	.75219
#1	3833.8	2185.0	22666.	122090.	3725.8	55711.	9686.4
#2	3830.3	2189.4	22520.	121730.	3738.4	55603.	9629.1
#3	3829.3	2183.5	22772.	122620.	3726.6	55997.	9773.9

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV03 Acquired: 10/18/2016 12:00:02 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**514.26**	**143360.**	**2132.5**	**16408.**	**401.80**	**197890.**	**967.98**	**2432.8**	**5664.2**	**5136.3**
Stddev	.54	408.	9.3	231.	.75	232.	.89	.7	21.0	13.0
%RSD	.10520	.28490	.43524	1.4054	.18736	.11733	.09202	.03002	.37069	.25371
#1	514.88	142890.	2123.5	16142.	401.54	198140.	968.76	2433.0	5676.9	5140.5
#2	514.00	143580.	2142.0	16521.	401.20	197690.	968.17	2432.0	5640.0	5121.7
#3	513.90	143610.	2132.0	16559.	402.64	197830.	967.01	2433.5	5675.7	5146.7

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**124220.**	**138290.**	**197260.**	**9013.7**	**996.44**	**122550.**	**4098.8**	**5644.4**	**4070.9**	**3490.2**
Stddev	76.	94.	249.	13.4	1.70	127.	10.8	10.6	4.6	8.5
%RSD	.06144	.06810	.12600	.14904	.17081	.10403	.26269	.18783	.11295	.24417
#1	124180.	138330.	197190.	9001.8	998.33	122670.	4086.9	5632.3	4075.9	3500.0
#2	124170.	138350.	197050.	9010.9	995.03	122420.	4108.0	5652.0	4069.8	3485.7
#3	124300.	138180.	197530.	9028.3	995.96	122570.	4101.3	5649.0	4066.9	3484.8

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV03 Acquired: 10/18/2016 12:00:02 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1986.8**	**3953.1**	**3924.1**	**8154.7**
Stddev	5.8	4.2	7.9	29.8
%RSD	.29284	.10745	.20141	.36525
#1	1980.6	3948.2	3926.4	8124.8
#2	1992.2	3955.3	3915.3	8184.4
#3	1987.7	3955.9	3930.6	8154.9

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3110.3**	**1881.8**	**22714.**	**112770.**	**3350.9**	**50345.**	**9356.7**
Stddev	11.0	6.6	57.	179.	4.3	92.	26.4
%RSD	.35285	.35158	.24913	.15852	.12743	.18308	.28262
#1	3122.8	1889.4	22731.	112950.	3355.7	50381.	9355.8
#2	3106.0	1877.5	22759.	112760.	3349.4	50413.	9383.6
#3	3102.2	1878.4	22650.	112590.	3347.6	50240.	9330.8

Sample Name: SEQ-CCB@CCB03 Acquired: 10/18/2016 12:04:17 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.02343**	**10.439**	**-.06523**	**.90341**	**-.00230**	**-3.5695**	**.11972**	**.00057**	**.32290**	**-1.8891**	**12.817**
Stddev	.27472	3.539	.16721	.06240	.00582	3.9383	.01474	.10459	.15456	.1032	7.434
%RSD	1172.4	33.905	256.35	6.9074	252.64	110.33	12.313	18378.	47.865	5.4601	58.004
#1	-.23924	7.8117	-.16946	.93706	-.00810	-6.8688	.10284	-.05637	.43676	-1.8122	19.382
#2	.00074	9.0423	-.15387	.83140	.00355	.79051	.12625	.12128	.14696	-2.0063	14.323
#3	.30880	14.464	.12764	.94176	-.00236	-4.6300	.13007	-.06320	.38500	-1.8488	4.7447

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**115.74**	**8.0586**	**.63810**	**.08639**	**-72.423**	**-5.4287**	**1.6737**	**.99446**	**-1.2309**	**-.13819**	**.34570**
Stddev	22.29	3.9097	.13038	.21407	1.906	.1646	.5372	1.7329	.7926	1.1876	.74299
%RSD	19.261	48.516	20.433	247.79	2.6313	3.0311	32.097	174.26	64.389	859.43	214.92
#1	134.19	6.4289	.68000	.26199	-73.593	-5.6164	2.0694	2.9667	-2.1434	-.26806	.19771
#2	122.07	12.519	.49191	.14925	-70.224	-5.3601	1.8895	-.28437	-.71410	1.1091	1.1515
#3	90.971	5.2273	.74237	-.15207	-73.452	-5.3095	1.0621	.30106	-.83523	-1.2556	-.31215

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB03 Acquired: 10/18/2016 12:04:17 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.04937**	**-4.1100**
Stddev	.12759	.1058
%RSD	258.42	2.5747
#1	-.07357	-4.2276
#2	.18115	-4.0224
#3	.04054	-4.0800

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3835.5**	**2185.8**	**22608.**	**122590.**	**3739.6**	**56013.**	**9645.6**
Stddev	8.8	4.6	77.	398.	4.7	161.	26.5
%RSD	.22918	.21077	.34097	.32435	.12475	.28680	.27444
#1	3843.8	2188.7	22562.	123040.	3744.5	56194.	9621.5
#2	3836.4	2188.2	22566.	122390.	3739.1	55960.	9641.4
#3	3826.3	2180.5	22697.	122330.	3735.2	55887.	9673.9

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV04 Acquired: 10/18/2016 12:17:04 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**513.08**	**142110.**	**2123.1**	**16010.**	**399.33**	**197560.**	**967.02**	**2435.4**	**5646.4**	**5124.9**
Stddev	.68	310.	4.8	92.	.90	662.	3.60	5.9	6.5	4.7
%RSD	.13246	.21781	.22761	.57474	.22599	.33487	.37191	.24336	.11452	.09165
#1	513.63	141820.	2117.9	15916.	399.88	197480.	968.03	2441.2	5653.7	5130.0
#2	513.28	142070.	2127.4	16014.	398.29	196940.	963.02	2429.4	5641.3	5124.1
#3	512.32	142430.	2124.0	16100.	399.83	198250.	970.00	2435.7	5644.3	5120.8

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**122890.**	**137500.**	**195430.**	**8927.9**	**994.05**	**122220.**	**4079.2**	**5617.4**	**4061.2**	**3485.7**
Stddev	615.	141.	945.	26.4	2.55	615.	3.9	11.3	4.3	8.1
%RSD	.50048	.10241	.48357	.29624	.25692	.50299	.09468	.20128	.10574	.23283
#1	122920.	137610.	195540.	8920.8	995.93	122270.	4075.1	5608.2	4058.1	3483.1
#2	122270.	137340.	194430.	8905.8	991.15	121580.	4079.9	5614.0	4059.4	3479.2
#3	123500.	137560.	196310.	8957.2	995.09	122810.	4082.7	5630.0	4066.1	3494.8

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV04 Acquired: 10/18/2016 12:17:04 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1972.2**	**3941.4**	**3909.8**	**8107.8**
Stddev	2.5	24.8	3.0	21.2
%RSD	.12711	.63044	.07659	.26092
#1	1971.5	3941.5	3910.9	8089.8
#2	1975.0	3916.4	3906.5	8102.5
#3	1970.2	3966.1	3912.1	8131.1

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3129.3**	**1887.0**	**22798.**	**113460.**	**3356.7**	**50592.**	**9426.3**
Stddev	12.5	2.8	12.	118.	10.5	66.	24.6
%RSD	.40052	.14977	.05246	.10426	.31293	.13070	.26066
#1	3128.5	1888.2	22784.	113340.	3353.8	50525.	9423.8
#2	3142.2	1889.0	22802.	113580.	3368.3	50657.	9452.1
#3	3117.2	1883.7	22807.	113470.	3347.9	50595.	9403.1

Sample Name: SEQ-CCB@CCB04 Acquired: 10/18/2016 12:21:17 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.05603**	**8.0421**	**.67182**	**1.3848**	**.00886**	**13.752**	**.12418**	**.32077**	**.41656**	**-1.7539**	**15.569**
Stddev	.35803	5.8466	.24143	.1367	.00880	13.170	.03054	.09660	.24885	.0853	4.388
%RSD	639.04	72.700	35.936	9.8691	99.335	95.765	24.594	30.117	59.739	4.8615	28.186
#1	-.28287	7.0945	.91136	1.5330	.01725	28.586	.14781	.25188	.70105	-1.6595	18.937
#2	.02043	2.7271	.42855	1.3576	-.00030	9.2384	.08969	.27923	.30932	-1.8253	10.606
#3	.43052	14.305	.67554	1.2638	.00964	3.4329	.13503	.43119	.23931	-1.7770	17.165

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**150.32**	**22.793**	**.76855**	**.26712**	**-74.450**	**-5.5003**	**.54518**	**1.7426**	**.34035**	**-1.0864**	**.70835**
Stddev	19.25	7.390	.14177	.05526	.280	.1510	1.2712	.6390	1.5408	.4339	.35451
%RSD	12.809	32.422	18.447	20.688	.37625	2.7454	233.18	36.667	452.70	39.940	50.047
#1	168.69	19.059	.93221	.32554	-74.773	-5.6476	-.91167	2.1057	1.9829	-1.2219	.44108
#2	151.99	31.305	.68985	.26016	-74.283	-5.5076	1.1179	1.0048	-1.0731	-.60094	1.1105
#3	130.29	18.015	.68358	.21567	-74.292	-5.3458	1.4293	2.1173	.11124	-1.4365	.57347

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB04 Acquired: 10/18/2016 12:21:17 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.12838**	**-4.0896**
Stddev	.37414	.0568
%RSD	291.43	1.3879
#1	.08536	-4.0288
#2	-.22239	-4.1411
#3	.52217	-4.0990

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3833.1**	**2188.5**	**22687.**	**122220.**	**3735.0**	**55745.**	**9661.8**
Stddev	5.3	5.5	162.	335.	10.8	166.	58.9
%RSD	.13899	.25260	.71413	.27433	.28950	.29851	.60996
#1	3831.1	2193.8	22549.	121970.	3745.2	55580.	9597.2
#2	3839.1	2188.8	22648.	122600.	3736.0	55913.	9675.4
#3	3829.0	2182.8	22865.	122080.	3723.7	55743.	9712.7

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14021-PS1 Acquired: 10/18/2016 12:25:40 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H17A SDG: MH1H14 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-4.2249**	**42671.**	**-29.476**	**640.27**	**10.513**	**16515.**	**52.705**	**72.191**
#1	-3.1451	42533.	-27.975	700.41	11.039	17906.	52.869	75.987
#2	-4.0541	42769.	-28.426	635.13	10.482	16348.	52.635	70.887
#3	-5.4755	42712.	-32.027	585.27	10.018	15290.	52.612	69.699

Elem	Cr2677	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**29.261**	**422.08**	**F 1532000.**	**17232.**	**20903.**	**4035.5**	**3.3106**	**11507.**
#1	30.155	425.04	1516900.	18471.	22272.	3970.5	3.2149	12848.
#2	29.780	421.21	1533300.	17221.	20789.	4035.8	3.3568	11400.
#3	27.849	419.98	1545900.	16006.	19650.	4100.2	3.3603	10273.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**16.821**	**1812.8**	**173.15**	**-28.935**	**1475.8**	**-28.434**	**260.26**	**2870.2**
#1	20.356	1813.3	176.44	-29.179	1472.9	-25.191	265.99	2874.5
#2	15.311	1812.8	173.47	-26.070	1477.9	-27.554	260.25	2865.7
#3	14.796	1812.2	169.53	-31.556	1476.5	-32.556	254.55	2870.5

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14021-PS1 Acquired: 10/18/2016 12:25:40 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H17A SDG: MH1H14 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3340.5**	**1791.2**	**22369.**	**115570.**	**3458.7**	**52433.**	**9773.5**
#1	3341.7	1789.9	22273.	115640.	3457.4	52452.	9742.0
#2	3339.7	1794.4	22486.	115000.	3463.3	52154.	9822.3
#3	3340.0	1789.2	22347.	116070.	3455.4	52694.	9756.2

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-02RE1 Acquired: 10/18/2016 12:29:56 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H15 SDG: MH1H14 Case: 46282
Comment: @2X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.1405**	**56388.**	**112.67**	**433.91**	**2.6236**	**8900.8**	**14.466**	**68.130**	**28.472**	**741.09**
#1	2.8988	56135.	114.53	432.45	2.5968	8865.4	14.384	68.117	28.313	743.24
#2	3.3042	56480.	111.14	434.13	2.6364	8911.3	14.479	67.935	28.495	739.17
#3	3.2186	56550.	112.35	435.17	2.6376	8925.6	14.533	68.338	28.608	740.85

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**163000.**	**6301.7**	**27896.**	**14257.**	**11.064**	**78.436**	**10.321**	**2225.0**	**10.342**	**7.2277**
#1	162000.	6293.3	27721.	14189.	11.106	76.726	10.200	2227.0	10.085	7.6583
#2	163300.	6308.6	27929.	14275.	10.933	78.536	10.177	2220.7	10.445	5.7842
#3	163690.	6303.4	28040.	14307.	11.154	80.047	10.586	2227.4	10.498	8.2406

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1279.6**	**1.5648**	**133.25**	**1905.3**
#1	1275.1	1.3375	133.45	1906.3
#2	1282.6	.88203	133.31	1899.9
#3	1281.1	2.4748	133.00	1909.8

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-02RE1 Acquired: 10/18/2016 12:29:56 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H15 SDG: MH1H14 Case: 46282
Comment: @2X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3617.1**	**2092.5**	**23234.**	**123000.**	**3772.5**	**56143.**	**10015.**
#1	3615.4	2090.1	23291.	123530.	3766.6	56369.	10053.
#2	3613.5	2094.9	23229.	122540.	3773.2	55932.	10018.
#3	3622.4	2092.5	23181.	122920.	3777.8	56128.	9974.4

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-03RE1 Acquired: 10/18/2016 12:34:06 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H16 SDG: MH1H14 Case: 46282
Comment: @6X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-3.2517**	**3222.6**	**-7.7289**	**14.607**	**.10871**	**660.14**	**6.6800**	**-.63848**	**-.14892**	**14.097**
#1	-2.9065	3211.4	-7.8252	14.529	.11053	670.09	6.6059	-.74480	-.74323	14.213
#2	-3.6526	3236.0	-8.3393	14.625	.11628	651.16	6.6916	-.79168	.03431	14.341
#3	-3.1960	3220.4	-7.0221	14.667	.09930	659.18	6.7426	-.37896	.26217	13.737

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**248280.**	**483.74**	**477.85**	**124.81**	**.54043**	**-96.144**	**-17.932**	**222.27**	**13.333**	**-5.1837**
#1	247950.	504.05	482.50	124.56	.54596	-92.291	-17.933	224.68	12.642	-2.9723
#2	248150.	472.55	485.84	124.33	.45825	-92.920	-17.965	221.48	14.065	-8.6889
#3	248750.	474.61	465.20	125.53	.61708	-103.22	-17.899	220.65	13.292	-3.8899

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**117.65**	**-8.8656**	**15.447**	**356.04**
#1	117.08	-9.4013	15.301	355.55
#2	117.92	-8.6259	15.458	356.31
#3	117.94	-8.5695	15.582	356.25

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-03RE1 Acquired: 10/18/2016 12:34:06 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H16 SDG: MH1H14 Case: 46282
Comment: @6X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3744.1**	**2151.8**	**23328.**	**124010.**	**3731.0**	**55584.**	**9828.5**
#1	3749.4	2158.1	23395.	124060.	3735.9	55560.	9862.0
#2	3744.9	2150.1	23201.	124230.	3736.7	55675.	9775.8
#3	3737.9	2147.1	23388.	123730.	3720.4	55518.	9847.6

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-04RE1 Acquired: 10/18/2016 12:38:23 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H17 SDG: MH1H14 Case: 46282
Comment: @10X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-2.5854**	**4976.3**	**-6.2059**	**19.814**	**.22175**	**633.93**	**5.3220**	**.20377**	**1.2314**	**38.587**
#1	-2.5256	4943.1	-6.5780	19.663	.20888	627.09	5.3239	.31885	1.4098	38.548
#2	-2.7789	4988.5	-6.7514	19.843	.22060	627.05	5.2997	.01538	1.3053	38.499
#3	-2.4517	4997.2	-5.2882	19.935	.23577	647.64	5.3423	.27710	.97904	38.713

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**200970.**	**660.07**	**1258.4**	**178.32**	**.24808**	**-93.609**	**-15.520**	**200.39**	**10.518**	**-3.2679**
#1	198480.	654.06	1254.5	175.99	.23416	-90.818	-15.742	200.22	9.3650	-6.3394
#2	201500.	667.96	1242.5	178.90	.34541	-95.609	-15.109	200.80	9.6481	-2.0099
#3	202930.	658.19	1278.2	180.07	.16468	-94.399	-15.710	200.16	12.542	-1.4543

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**165.63**	**-5.8871**	**20.574**	**305.56**
#1	163.96	-5.2961	20.525	306.14
#2	165.40	-6.5145	20.771	305.18
#3	167.53	-5.8507	20.427	305.36

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-04RE1 Acquired: 10/18/2016 12:38:23 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H17 SDG: MH1H14 Case: 46282
Comment: @10X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3754.5**	**2165.1**	**23340.**	**124490.**	**3740.3**	**55870.**	**9818.3**
#1	3751.8	2162.1	23439.	124510.	3724.4	55861.	9873.1
#2	3747.3	2164.3	23303.	124000.	3739.9	55717.	9796.8
#3	3764.4	2168.9	23279.	124950.	3756.6	56033.	9785.0

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14021-DUP2 Acquired: 10/18/2016 12:42:39 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H17D SDG: MH1H14 Case: 46282
Comment: @10X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-3.4592**	**5426.4**	**-8.6666**	**21.954**	**.29569**	**838.26**	**7.0846**	**-.06541**	**1.2400**	**43.837**
#1	-3.2430	5418.0	-11.916	21.793	.28097	853.37	7.0334	.07182	1.1270	43.590
#2	-3.5879	5441.2	-6.3316	22.040	.29520	836.59	7.1889	-.14289	1.3815	43.731
#3	-3.5466	5420.2	-7.7517	22.028	.31092	824.83	7.0314	-.12516	1.2114	44.190

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**273500.**	**652.98**	**887.58**	**166.49**	**.44339**	**-98.243**	**-18.770**	**201.22**	**13.956**	**-5.4062**
#1	274210.	654.05	895.99	166.61	.44693	-98.435	-18.810	202.46	14.197	-5.8707
#2	273580.	638.23	885.46	167.37	.31916	-95.846	-19.006	200.44	13.854	-5.9387
#3	272710.	666.65	881.30	165.48	.56407	-100.45	-18.493	200.74	13.819	-4.4092

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**182.93**	**-8.8604**	**24.645**	**426.63**
#1	181.27	-7.9777	24.945	429.62
#2	183.71	-9.7604	24.257	426.26
#3	183.80	-8.8433	24.732	424.01

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14021-DUP2 Acquired: 10/18/2016 12:42:39 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H17D SDG: MH1H14 Case: 46282
Comment: @10X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3734.8**	**2141.5**	**23330.**	**124120.**	**3728.7**	**55731.**	**9794.0**
#1	3726.2	2137.6	23408.	124310.	3721.8	55717.	9792.6
#2	3740.0	2140.0	23396.	123680.	3728.2	55647.	9819.5
#3	3738.3	2146.9	23185.	124360.	3736.1	55830.	9769.8

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-SRD2 Acquired: 10/18/2016 12:46:55 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H17L SDG: MH1H14 Case: 46282
Comment: @50X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.73371**	**1082.0**	**-1.6085**	**4.1038**	**.06086**	**160.03**	**1.4275**	**-.18966**	**.05002**
#1	-.62051	1073.3	-1.9985	4.0886	.09199	168.65	1.4025	-.09756	-.21420
#2	-.62911	1080.0	-1.7092	4.0973	.04531	159.05	1.4578	-.04923	.28750
#3	-.95151	1092.6	-1.1178	4.1256	.04529	152.39	1.4222	-.42218	.07677

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.8904**	**54558.**	**113.88**	**173.88**	**33.222**	**.05577**	F **-119.27**	**-8.9953**	**40.557**
#1	7.0253	54484.	115.66	191.75	33.377	.16764	-120.30	-8.8221	40.113
#2	7.0655	54461.	104.32	165.56	32.787	.15597	-119.78	-9.3793	40.254
#3	6.5804	54730.	121.65	164.34	33.502	-.15630	-117.74	-8.7844	41.305

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.0675**	**-1.2444**	**35.273**	**-2.0540**	**4.6229**	**81.774**
#1	.83424	.53143	35.111	-2.1812	4.8628	82.224
#2	1.9612	-1.9835	35.143	-2.2035	4.5162	81.964
#3	.40719	-2.2810	35.566	-1.7775	4.4898	81.136

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-SRD2 Acquired: 10/18/2016 12:46:55 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H17L SDG: MH1H14 Case: 46282
Comment: @50X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3829.9**	**2225.2**	**23406.**	**125540.**	**3768.3**	**56425.**	**9866.7**
#1	3828.3	2227.8	23427.	125310.	3770.0	56325.	9864.1
#2	3830.4	2222.6	23400.	125460.	3782.1	56383.	9884.1
#3	3831.0	2225.2	23390.	125840.	3752.7	56568.	9851.8

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-05RE1 Acquired: 10/18/2016 12:51:14 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H18 SDG: MH1H14 Case: 46282
Comment: @6X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.1431**	**10993.**	**13.807**	**84.168**	**.43685**	**1776.5**	**6.1940**	**38.538**	**10.720**	**385.40**
#1	-1.4350	10950.	12.647	84.306	.42774	1738.7	6.1865	38.705	10.712	385.32
#2	-1.2166	11023.	15.061	83.863	.45278	1789.9	6.2131	38.306	10.390	385.14
#3	-.77788	11006.	13.713	84.334	.43003	1800.9	6.1824	38.602	11.058	385.74

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**144500.**	**1079.1**	**5201.9**	**12302.**	**1.4044**	**-86.813**	**-8.0654**	**481.51**	**6.7358**	**5.0102**
#1	143980.	1062.7	5203.7	12280.	1.3571	-87.046	-7.9247	479.37	6.8691	7.2517
#2	144200.	1095.9	5170.7	12296.	1.3960	-94.734	-8.3162	483.07	6.2413	3.9815
#3	145310.	1078.7	5231.4	12329.	1.4602	-78.658	-7.9553	482.10	7.0969	3.7975

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**263.35**	**2.2044**	**28.484**	**479.63**
#1	261.85	2.0595	28.337	479.33
#2	265.21	2.3346	28.571	480.38
#3	262.98	2.2191	28.544	479.17

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-05RE1 Acquired: 10/18/2016 12:51:14 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H18 SDG: MH1H14 Case: 46282
Comment: @6X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3730.5**	**2161.6**	**23375.**	**124140.**	**3742.9**	**55728.**	**9828.6**
#1	3739.5	2169.7	23586.	124250.	3748.4	55771.	9917.4
#2	3726.3	2154.7	23352.	124340.	3736.5	55843.	9848.9
#3	3725.7	2160.4	23186.	123830.	3743.9	55571.	9719.6

Sample Name: 6100165-06RE1 Acquired: 10/18/2016 12:55:31 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H19 SDG: MH1H14 Case: 46282
Comment: @10X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.1627**	**15597.**	**19.532**	**126.44**	**.73871**	**3069.4**	**7.5488**	**48.550**	**10.273**	**93.978**	**24067.**
#1	1.8883	15424.	19.106	125.13	.72776	3041.0	7.5872	48.277	10.385	94.096	23821.
#2	2.4512	15705.	18.542	126.89	.74049	3073.0	7.5540	48.735	10.107	93.792	24205.
#3	2.1486	15661.	20.948	127.30	.74787	3094.3	7.5050	48.638	10.328	94.046	24176.

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1850.4**	**3885.1**	**15575.**	**2.1278**	**-79.040**	**4.6179**	**328.52**	**.19160**	**8.0586**	**145.21**	**8.0166**
#1	1814.6	3845.8	15415.	2.0028	-74.649	4.4890	328.96	.28627	9.5553	144.59	8.2537
#2	1866.8	3910.3	15664.	2.1034	-81.434	4.2995	329.55	-.82764	7.2994	145.64	8.3850
#3	1869.8	3899.2	15646.	2.2771	-81.038	5.0652	327.05	1.1162	7.3211	145.41	7.4111

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**20.362**	**828.52**
#1	20.222	831.14
#2	20.265	829.10
#3	20.599	825.33

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-06RE1 Acquired: 10/18/2016 12:55:31 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H19 SDG: MH1H14 Case: 46282
Comment: @10X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3766.4**	**2196.9**	**23227.**	**124710.**	**3790.3**	**56655.**	**9855.1**
#1	3768.0	2197.8	23308.	125010.	3797.6	56717.	9895.2
#2	3769.3	2195.9	23168.	123840.	3796.4	56236.	9827.3
#3	3762.0	2197.1	23207.	125280.	3777.0	57014.	9842.9

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-10RE1 Acquired: 10/18/2016 12:59:47 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H23 SDG: MH1H14 Case: 46282
Comment: @3X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.4171**	**33103.**	**168.12**	**292.65**	**1.1457**	**3141.8**	**12.410**	**14.899**	**20.784**	**256.22**
#1	4.1889	33034.	170.80	292.10	1.1573	3107.6	12.337	14.823	20.893	256.53
#2	4.2632	33222.	166.40	293.51	1.1281	3151.9	12.408	14.766	20.656	256.39
#3	4.7993	33054.	167.16	292.35	1.1518	3165.9	12.485	15.107	20.802	255.73

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**246610.**	**6431.4**	**14193.**	**1607.0**	**25.003**	**219.95**	**-7.2645**	**6141.3**	**15.151**	**3.5456**
#1	245510.	6432.5	14127.	1601.8	24.860	226.27	-6.9642	6153.0	14.277	2.9977
#2	248070.	6447.2	14266.	1614.4	25.002	218.70	-7.6294	6137.2	17.103	3.8121
#3	246250.	6414.5	14184.	1604.8	25.147	214.88	-7.1997	6133.8	14.072	3.8271

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1016.1**	**-7.6164**	**129.19**	**1833.9**
#1	1019.6	-7.0447	129.26	1834.9
#2	1015.6	-7.5081	128.75	1834.9
#3	1013.2	-8.2964	129.56	1832.0

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-10RE1 Acquired: 10/18/2016 12:59:47 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H23 SDG: MH1H14 Case: 46282
Comment: @3X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3664.7**	**2106.2**	**23452.**	**123190.**	**3728.5**	**55363.**	**9930.4**
#1	3652.6	2098.5	23435.	122890.	3713.5	55194.	9934.4
#2	3665.3	2109.1	23454.	123410.	3732.8	55480.	9906.3
#3	3676.1	2111.1	23466.	123270.	3739.1	55416.	9950.5

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-13RE1 Acquired: 10/18/2016 13:03:58 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H26 SDG: MH1H14 Case: 46282
Comment: @3X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-2.2516**	**26876.**	**49.960**	**202.73**	**1.4673**	**4781.9**	**4.3985**	**9.7773**	**11.733**	**533.35**
#1	-2.3274	26702.	47.769	202.28	1.4820	4782.8	4.3662	9.7915	11.918	532.42
#2	-1.9176	26874.	50.603	203.07	1.4713	4797.3	4.3678	10.206	11.564	533.68
#3	-2.5099	27052.	51.508	202.84	1.4487	4765.6	4.4613	9.3343	11.718	533.96

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**167690.**	**4583.2**	**9826.3**	**1157.7**	**20.975**	**87.820**	**-7.5680**	**218.96**	**6.7638**	**2.5128**
#1	167200.	4605.3	9790.3	1152.4	21.183	85.802	-7.2756	218.46	7.7743	1.2137
#2	167890.	4559.2	9858.8	1156.9	21.066	87.952	-7.9123	219.97	6.9846	5.6001
#3	167970.	4585.2	9829.8	1163.9	20.676	89.706	-7.5161	218.44	5.5323	.72464

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**919.76**	**-5.9060**	**108.31**	**171.99**
#1	909.47	-5.6888	108.14	172.02
#2	921.37	-6.2649	108.65	171.84
#3	928.44	-5.7644	108.13	172.12

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-13RE1 Acquired: 10/18/2016 13:03:58 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H26 SDG: MH1H14 Case: 46282
Comment: @3X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3701.2**	**2144.5**	**23299.**	**123950.**	**3764.2**	**55606.**	**9842.1**
#1	3694.3	2138.7	23402.	123640.	3756.0	55521.	9867.7
#2	3700.1	2148.4	23211.	123990.	3764.9	55589.	9824.3
#3	3709.3	2146.4	23285.	124220.	3771.6	55707.	9834.4

Sample Name: 6100165-14RE1 Acquired: 10/18/2016 13:08:09 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H27 SDG: MH1H14 Case: 46282
Comment: @3X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.4317**	**33741.**	**42.142**	**383.24**	**1.4464**	**3831.1**	**4.5185**	**14.834**	**18.758**	**110.07**
#1	-1.5992	33756.	41.509	382.16	1.4410	3807.5	4.4958	14.333	18.562	109.87
#2	-.90169	33736.	42.961	382.93	1.4591	3835.1	4.5387	15.123	19.172	110.55
#3	-1.7943	33733.	41.955	384.63	1.4391	3850.8	4.5210	15.045	18.539	109.77

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**170340.**	**6880.4**	**11738.**	**1357.2**	**13.544**	**247.55**	**-6.0128**	**333.10**	**6.5585**	**3.4628**
#1	169580.	6905.9	11726.	1353.7	13.491	243.89	-6.0011	332.99	6.7758	2.3866
#2	170330.	6866.1	11717.	1359.1	13.366	249.57	-6.1141	334.29	5.3547	3.1081
#3	171120.	6869.2	11772.	1358.8	13.774	249.18	-5.9233	332.01	7.5449	4.8938

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1005.9**	**-6.1760**	**127.44**	**222.98**
#1	998.61	-5.7487	127.75	223.02
#2	1010.3	-6.5966	127.45	223.23
#3	1008.8	-6.1828	127.13	222.69

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-14RE1 Acquired: 10/18/2016 13:08:09 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H27 SDG: MH1H14 Case: 46282
Comment: @3X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3674.6**	**2132.8**	**23316.**	**124010.**	**3758.8**	**55770.**	**9871.5**
#1	3671.3	2133.8	23241.	123920.	3757.6	55780.	9861.8
#2	3679.2	2131.2	23301.	123880.	3756.0	55714.	9870.8
#3	3673.3	2133.5	23407.	124210.	3762.6	55814.	9882.0

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-15RE1 Acquired: 10/18/2016 13:12:21 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H28 SDG: MH1H14 Case: 46282
Comment: @3X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-4.6822**	**20900.**	**68.850**	**248.57**	**2.9495**	**2805.9**	**7.4096**	**8.7102**	**7.7740**	**142.27**
#1	-4.6520	20791.	68.259	247.35	2.9434	2794.5	7.4703	8.6058	7.5901	142.95
#2	-4.7465	20940.	69.569	249.67	2.9389	2828.5	7.4247	8.6217	8.0379	141.46
#3	-4.6480	20968.	68.721	248.70	2.9663	2794.6	7.3338	8.9032	7.6942	142.40

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**278910.**	**4101.5**	**5448.1**	**821.65**	**21.527**	**52.817**	**-15.636**	**516.07**	**13.444**	**2.6737**
#1	277190.	4092.3	5417.9	815.10	21.678	55.511	-15.198	518.41	13.485	1.2875
#2	280580.	4095.1	5476.8	826.72	21.530	50.765	-15.683	515.98	12.450	2.8718
#3	278960.	4117.1	5449.7	823.12	21.374	52.175	-16.026	513.82	14.396	3.8618

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**851.92**	**-9.8608**	**65.728**	**217.38**
#1	847.98	-10.246	65.887	218.03
#2	853.92	-10.015	65.742	218.01
#3	853.87	-9.3219	65.556	216.11

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-15RE1 Acquired: 10/18/2016 13:12:21 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H28 SDG: MH1H14 Case: 46282
Comment: @3X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3670.8**	**2107.5**	**23394.**	**123690.**	**3759.3**	**56020.**	**9985.4**
#1	3664.1	2104.6	23348.	123870.	3748.5	56044.	9982.4
#2	3677.9	2108.4	23441.	123420.	3768.9	55908.	9976.4
#3	3670.2	2109.6	23391.	123780.	3760.4	56108.	9997.2

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-16RE1 Acquired: 10/18/2016 13:16:35 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H29 SDG: MH1H14 Case: 46282
Comment: @3X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-3.7918**	**37242.**	**81.146**	**338.87**	**1.6576**	**2124.2**	**7.3947**	**15.990**	**15.812**	**132.70**
#1	-3.5863	37172.	81.030	339.16	1.6593	2144.4	7.3453	16.092	15.639	132.96
#2	-4.5143	37304.	80.852	338.72	1.6046	2111.1	7.4046	16.043	16.028	132.50
#3	-3.2750	37249.	81.557	338.74	1.7090	2117.1	7.4341	15.836	15.770	132.62

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**280130.**	**5743.5**	**9232.8**	**1364.1**	**17.811**	**118.19**	**-9.4672**	**296.56**	**13.466**	**2.0517**
#1	280610.	5764.9	9235.1	1363.9	17.662	121.32	-9.7981	296.66	12.106	.96795
#2	279690.	5727.1	9231.9	1362.9	18.242	109.77	-9.2753	295.39	14.555	4.3732
#3	280100.	5738.7	9231.2	1365.5	17.530	123.48	-9.3284	297.64	13.738	.81376

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**578.34**	**-9.2749**	**106.55**	**432.95**
#1	574.43	-10.227	106.76	433.01
#2	586.53	-9.1864	105.96	432.88
#3	574.06	-8.4108	106.92	432.96

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-16RE1 Acquired: 10/18/2016 13:16:35 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H29 SDG: MH1H14 Case: 46282
Comment: @3X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3651.2**	**2104.9**	**23314.**	**123270.**	**3764.2**	**55859.**	**9983.4**
#1	3646.7	2101.9	23407.	123220.	3752.2	55914.	9988.5
#2	3651.5	2104.3	23238.	123060.	3757.4	55708.	9977.6
#3	3655.5	2108.5	23297.	123530.	3783.0	55954.	9984.1

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-17RE1 Acquired: 10/18/2016 13:20:48 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H30 SDG: MH1H14 Case: 46282
Comment: @3X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-3.3537**	**22629.**	**28.163**	**180.86**	**3.2495**	**2771.8**	**6.5287**	**12.587**	**6.6441**	**118.69**
#1	-3.6134	22573.	27.733	180.23	3.2423	2763.8	6.5782	12.170	6.5373	118.39
#2	-3.1818	22684.	30.330	181.45	3.2552	2751.2	6.4807	12.810	7.0085	119.05
#3	-3.2660	22630.	26.427	180.91	3.2509	2800.4	6.5272	12.780	6.3865	118.63

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**234420.**	**4014.3**	**5779.2**	**1172.4**	**18.925**	**62.787**	**-12.663**	**236.72**	**10.029**	**.21516**
#1	233300.	4034.5	5725.9	1167.8	18.882	62.756	-12.415	235.67	11.042	-.59876
#2	234450.	3973.5	5783.2	1174.6	19.021	62.241	-12.901	237.02	8.8206	.28031
#3	235510.	4035.1	5828.4	1174.8	18.872	63.363	-12.673	237.47	10.225	.96393

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**487.42**	**-8.4088**	**65.892**	**271.43**
#1	485.45	-8.0590	66.161	271.04
#2	489.35	-8.5020	65.622	272.19
#3	487.45	-8.6654	65.892	271.06

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100165-17RE1 Acquired: 10/18/2016 13:20:48 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1H30 SDG: MH1H14 Case: 46282
Comment: @3X

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3689.3**	**2125.7**	**23326.**	**123830.**	**3777.4**	**56149.**	**9953.8**
#1	3687.7	2128.1	23477.	123590.	3780.4	56025.	10037.
#2	3692.4	2123.8	23309.	123760.	3781.5	56174.	9953.1
#3	3687.7	2125.2	23190.	124130.	3770.1	56247.	9871.6

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV05 Acquired: 10/18/2016 13:25:05 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**511.85**	**142340.**	**2111.2**	**16407.**	**396.42**	**197780.**	**960.43**	**2423.4**	**5648.3**	**5121.6**
Stddev	1.35	64.	3.3	286.	.71	456.	2.82	12.4	18.5	3.8
%RSD	.26430	.04518	.15732	1.7422	.18007	.23032	.29381	.51320	.32737	.07429
#1	512.86	142380.	2111.5	16270.	396.18	197990.	957.19	2410.3	5669.6	5125.5
#2	512.37	142370.	2107.7	16216.	397.23	197260.	962.34	2435.0	5638.0	5117.9
#3	510.31	142260.	2114.3	16736.	395.86	198090.	961.76	2424.9	5637.2	5121.5

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**122460.**	**136780.**	**194480.**	**8864.7**	**992.06**	**123610.**	**4062.4**	**5586.2**	**4054.5**	**3466.9**
Stddev	488.	102.	538.	8.9	2.40	549.	8.0	11.0	8.0	3.3
%RSD	.39818	.07420	.27687	.10052	.24177	.44384	.19629	.19650	.19698	.09391
#1	122800.	136860.	194830.	8872.3	989.29	123920.	4062.9	5594.0	4046.1	3466.1
#2	121900.	136670.	193860.	8854.9	993.40	122980.	4054.3	5573.7	4062.1	3464.2
#3	122680.	136830.	194750.	8866.9	993.50	123940.	4070.2	5591.0	4055.2	3470.5

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV05 Acquired: 10/18/2016 13:25:05 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1952.0**	**3939.6**	**3910.5**	**8046.7**
Stddev	6.5	9.0	12.0	27.8
%RSD	.33221	.22749	.30791	.34576
#1	1949.3	3933.7	3924.4	8050.2
#2	1959.4	3935.1	3902.8	8017.3
#3	1947.3	3949.9	3904.2	8072.6

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3123.5**	**1893.6**	**22907.**	**113590.**	**3367.1**	**50610.**	**9399.7**
Stddev	5.8	3.9	5.	397.	13.6	196.	28.9
%RSD	.18456	.20390	.02304	.34937	.40513	.38760	.30767
#1	3125.2	1897.8	22909.	113170.	3382.0	50389.	9375.0
#2	3128.2	1892.8	22912.	113640.	3355.3	50678.	9431.5
#3	3117.1	1890.3	22902.	113950.	3364.0	50763.	9392.5

Sample Name: SEQ-CCB@CCB05 Acquired: 10/18/2016 13:29:18 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.18905**	**13.559**	**.34532**	**1.7053**	**.02770**	**4.4268**	**.13905**	**.12442**	**.21777**	**-1.6289**	**15.997**
Stddev	.30160	2.075	.64844	.1600	.01199	19.733	.05764	.14073	.19010	.2277	2.040
%RSD	159.54	15.306	187.78	9.3799	43.291	445.77	41.456	113.11	87.295	13.978	12.752
#1	.05462	11.253	-.23171	1.5384	.01404	6.7470	.16266	.26420	.08387	-1.4623	13.673
#2	-.02196	14.149	1.0471	1.8573	.03259	-16.364	.07335	.12629	.43535	-1.5359	17.489
#3	.53449	15.276	.22060	1.7200	.03649	22.898	.18114	-.01724	.13408	-1.8883	16.830

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Ti3234	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**66.279**	**31.596**	**1.1162**	**.25761**	**-73.226**	**-5.2866**	**1.4664**	**1.4103**	**.05635**	**-.60438**	**.38486**
Stddev	8.326	8.540	.1489	.02904	1.832	.1575	1.2109	1.5537	.41694	.16384	.91958
%RSD	12.562	27.029	13.338	11.271	2.5020	2.9785	82.579	110.17	739.91	27.109	238.94
#1	68.897	32.783	.94714	.26425	-73.688	-5.2306	.64852	2.8694	-.41198	-.73705	1.4039
#2	56.959	22.525	1.2277	.28275	-71.207	-5.4644	.89313	1.5848	.38715	-.42124	.13378
#3	72.981	39.481	1.1737	.22583	-74.782	-5.1648	2.8575	-.22331	.19388	-.65486	-.38310

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB05 Acquired: 10/18/2016 13:29:18 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: SDG: Case:
Comment:

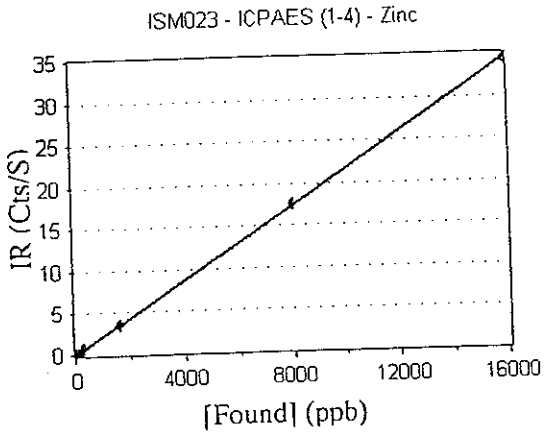
Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**-.04099**	**-3.8100**
Stddev	.23616	.0899
%RSD	576.19	2.3588
#1	.10649	-3.7257
#2	.08391	-3.9046
#3	-.31337	-3.7996

Int. Std.	In2306	Sc2273	Sc3630	Sc3642	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3858.3**	**2204.2**	**22907.**	**122930.**	**3751.3**	**55981.**	**9792.1**
Stddev	1.4	2.5	87.	156.	5.4	97.	60.1
%RSD	.03707	.11452	.37882	.12679	.14497	.17333	.61419
#1	3859.7	2204.0	22818.	122960.	3751.7	55992.	9722.8
#2	3856.9	2206.8	22992.	123070.	3745.7	56072.	9830.7
#3	3858.3	2201.8	22909.	122770.	3756.5	55879.	9822.9

Bonner Analytical Testing Company

168-A

Instrument ID: ICAPP01 Calibration ID: B644076 Calibration Date: 10/27/2016



Calibration Plot: Zinc
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9998957
Fit: [Y] = 2.16718E-03 * [X] + 8.903082E-03
[y-intercept] = -4.11

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62713-CAL1	B6I0028	0	-4.15	-0.00008	0
BJ62713-CAL2	B6G0026	40	38.58	0.09251	4
BJ62713-CAL3	B6G0027	320	322.86	0.70859	-1
BJ62713-CAL4	B6G0028	1600	1,638.76	3.5604	-2
BJ62713-CAL5	B6G0029	8000	8,078.28	17.516	-1
BJ62713-CAL6	B6G0030	16000	15,881.51	34.427	1

168-B

Bonner Analytical Testing Company

Sample Name: SEQ-CAL1@S01 Acquired: 10/27/2016 8:55:36 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00141	-.00007	-.00041	.00668	.01485	-.00107	-.00014	-.00013	-.00028	.00000
#1	-.00136	-.00005	-.00049	.00673	.01440	-.00101	-.00034	-.00011	-.00035	.00001
#2	-.00145	-.00048	-.00042	.00677	.01417	-.00114	-.00003	-.00012	-.00026	-.00000
#3	-.00142	.00032	-.00033	.00656	.01598	-.00106	-.00004	-.00017	-.00024	.00000

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00105	.00015	.00602	-.00095	.00012	.00004	-.00010	.00568	-.00070	-.00029
#1	.00104	.00020	.00513	-.00112	.00013	.00025	-.00005	.00480	-.00066	-.00022
#2	.00102	.00020	.00820	-.00053	.00017	.00002	-.00005	.00659	-.00047	-.00032
#3	.00110	.00005	.00473	-.00119	.00007	-.00016	-.00019	.00565	-.00097	-.00034

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00062	-.00064	-.00142	.00010	.00022	.00004	-.00001	.00263	-.00018	.00003
#1	-.00096	-.00072	-.00156	.00015	.00026	.00006	.00007	.00249	-.00017	-.00001
#2	-.00022	-.00061	-.00133	.00004	.00019	-.00000	.00001	.00280	-.00010	.00008
#3	-.00067	-.00059	-.00139	.00011	.00022	.00006	-.00012	.00258	-.00026	.00001

Bonner Analytical Testing Company

Sample Name: SEQ-CAL1@S01 Acquired: 10/27/2016 8:55:36 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	Cts/S
Avg	-.00008
#1	-.00009
#2	-.00017
#3	.00003

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3298.4	2455.8	212880.	14640.	4314.5	38785.	5971.8
#1	3259.5	2423.8	213370.	14714.	4268.1	38831.	6002.1
#2	3317.5	2470.4	212170.	14632.	4332.6	38665.	5962.4
#3	3318.3	2473.4	213090.	14575.	4342.9	38858.	5951.1

ICAPP01

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Bonner Analytical Testing Company

Sample Name: SEQ-CAL2@S02 Acquired: 10/27/2016 9:00:06 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00124	.00912	.00170	.01212	.49563	.00621	.00332	.01689	.01410	.00031	.01280
#1	.00120	.00902	.00161	.01222	.49590	.00617	.00336	.01681	.01398	.00030	.01282
#2	.00131	.00905	.00185	.01200	.49577	.00623	.00320	.01684	.01423	.00031	.01278
#3	.00122	.00930	.00166	.01215	.49522	.00624	.00340	.01701	.01409	.00031	.01278

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00297	.02476	.00403	.00335	.00556	.00287	.07966	.02188	.01407	.00291	.00956
#1	.00303	.02635	.00411	.00345	.00543	.00273	.08103	.02207	.01405	.00314	.00957
#2	.00283	.02429	.00433	.00333	.00558	.00299	.07907	.02169	.01403	.00279	.00960
#3	.00304	.02363	.00364	.00326	.00565	.00289	.07889	.02187	.01414	.00279	.00952

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00112	.00136	.00075	.00266	.01725	.00426	.00299	.00528	.09251
#1	.00102	.00129	.00075	.00264	.01717	.00427	.00306	.00529	.09223
#2	.00107	.00131	.00068	.00268	.01742	.00422	.00275	.00527	.09239
#3	.00127	.00149	.00082	.00266	.01718	.00428	.00315	.00528	.09291

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CAL2@S02 Acquired: 10/27/2016 9:00:06 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3304.0	2474.7	215410.	14662.	4339.5	39058.	5996.6
#1	3310.1	2478.6	215170.	14654.	4348.1	39041.	6009.4
#2	3306.4	2476.4	215890.	14713.	4343.1	39130.	6002.9
#3	3295.6	2468.9	215190.	14620.	4327.3	39003.	5977.5

168D

Bonner Analytical Testing Company

Sample Name: SEQ-CAL3@S03 Acquired: 10/27/2016 9:04:34 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00362	.06620	.01499	.05130	3.7702	.05628	.02591	.13139	.11117	.00231	.09194
#1	.00357	.06754	.01499	.05094	3.7666	.05597	.02602	.13124	.11067	.00228	.09167
#2	.00369	.06593	.01498	.05096	3.7802	.05638	.02579	.13138	.11090	.00231	.09185
#3	.00361	.06512	.01500	.05200	3.7639	.05649	.02593	.13156	.11195	.00233	.09228

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02163	.15911	.03715	.02349	.04238	.02334	.58045	.17621	.11321	.02659	.08059
#1	.02145	.15993	.03663	.02340	.04265	.02331	.57832	.17569	.11277	.02673	.08031
#2	.02170	.15867	.03719	.02375	.04234	.02327	.58371	.17678	.11318	.02660	.08060
#3	.02175	.15872	.03764	.02331	.04214	.02345	.57932	.17616	.11369	.02643	.08085

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01840	.00964	.00385	.02039	.13817	.01540	.02447	.04121	.70859
#1	.01837	.00971	.00384	.02031	.13796	.01544	.02433	.04126	.70686
#2	.01833	.00964	.00385	.02041	.13831	.01542	.02460	.04121	.70939
#3	.01848	.00956	.00385	.02044	.13823	.01533	.02448	.04118	.70953

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CAL3@S03 Acquired: 10/27/2016 9:04:34 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3262.5	2464.7	218410.	14486.	4286.6	39187.	5976.3
#1	3264.0	2470.3	218940.	14394.	4298.5	39253.	5929.8
#2	3266.0	2463.5	217930.	14486.	4286.5	39100.	5981.1
#3	3257.4	2460.3	218370.	14577.	4274.8	39209.	6018.1

ICAPP01

168E

Bonner Analytical Testing Company

Sample Name: SEQ-CAL4@S04 Acquired: 10/27/2016 9:08:51 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02299	.32385	.07899	.23498	18.947	.29077	.12819	.65814	.55572	.01156	.45655
#1	.02307	.32350	.07977	.23475	18.956	.29123	.12843	.65860	.55585	.01161	.45820
#2	.02301	.32432	.07847	.23536	18.958	.29055	.12794	.65648	.55480	.01153	.45548
#3	.02289	.32372	.07871	.23484	18.928	.29053	.12822	.65934	.55651	.01155	.45598

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.10977	.79378	.19538	.11726	.20990	.11880	2.9936	.89201	.57603	.13591	.41133
#1	.10958	.79206	.19651	.11716	.20982	.11862	2.9879	.89058	.57631	.13553	.41138
#2	.11004	.79576	.19496	.11716	.21045	.11885	2.9989	.89210	.57535	.13582	.41062
#3	.10968	.79351	.19469	.11747	.20943	.11893	2.9939	.89336	.57641	.13638	.41200

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.09803	.04803	.01805	.10161	.68663	.06774	.12482	.20832	3.5604
#1	.09784	.04791	.01803	.10167	.68658	.06752	.12485	.20826	3.5562
#2	.09815	.04801	.01802	.10146	.68638	.06781	.12454	.20818	3.5540
#3	.09810	.04816	.01808	.10169	.68694	.06789	.12508	.20851	3.5712

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CAL4@S04 Acquired: 10/27/2016 9:08:51 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3138.0	2395.3	215660.	14499.	4211.7	38467.	5978.9
#1	3140.7	2400.3	215280.	14538.	4216.3	38428.	5995.7
#2	3147.7	2396.7	216020.	14519.	4219.5	38488.	5984.8
#3	3125.6	2388.9	215690.	14439.	4199.3	38484.	5956.2

ICAPP01

168F

Bonner Analytical Testing Company

Sample Name: SEQ-CAL5@S05 Acquired: 10/27/2016 9:13:00 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.11617	1.6199	.40964	1.1459	91.789	1.4364	.61282	3.1813	2.7029	.05635	2.3388
#1	.11665	1.6196	.40928	1.1412	92.171	1.4407	.61399	3.1700	2.6936	.05649	2.3460
#2	.11596	1.6179	.40911	1.1457	91.760	1.4364	.61265	3.1823	2.7003	.05638	2.3380
#3	.11588	1.6220	.41052	1.1509	91.437	1.4320	.61182	3.1915	2.7150	.05618	2.3324

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.54406	4.0622	1.0293	.58493	1.0189	.60170	15.692	4.4462	2.8363	.68180	2.1105
#1	.54318	4.0581	1.0281	.58516	1.0188	.59796	15.646	4.4367	2.8246	.68070	2.0978
#2	.54416	4.0677	1.0308	.58415	1.0194	.60107	15.734	4.4431	2.8356	.68097	2.1097
#3	.54485	4.0609	1.0289	.58548	1.0184	.60607	15.694	4.4587	2.8489	.68373	2.1239

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.49724	.23905	.08681	.49394	3.3999	.32283	.62304	1.0254	17.516
#1	.49513	.23759	.08655	.49234	3.3944	.32280	.61982	1.0296	17.491
#2	.49629	.23929	.08703	.49380	3.3998	.32219	.62216	1.0251	17.517
#3	.50030	.24028	.08687	.49568	3.4055	.32350	.62714	1.0216	17.542

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CAL5@S05 Acquired: 10/27/2016 9:13:00 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2868.7	2229.4	209690.	14314.	4006.0	37282.	5922.0
#1	2878.5	2228.2	209490.	14291.	4016.7	37226.	5915.4
#2	2870.9	2232.3	209410.	14345.	4008.8	37229.	5928.2
#3	2856.7	2227.6	210170.	14306.	3992.6	37389.	5922.3

ICAPP01

168G

Bonner Analytical Testing Company

Sample Name: SEQ-CAL6@S06 Acquired: 10/27/2016 9:17:11 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.23334	3.2558	.83826	2.2873	182.28	2.8571	1.2005	6.2817	5.3755	.11218	4.7228
#1	.23359	3.2393	.83559	2.2819	181.90	2.8552	1.2019	6.2769	5.3728	.11207	4.7260
#2	.23372	3.2618	.83708	2.2855	182.45	2.8595	1.2004	6.2934	5.3802	.11241	4.7350
#3	.23270	3.2662	.84211	2.2945	182.49	2.8564	1.1992	6.2748	5.3734	.11207	4.7075

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.0805	8.2706	2.1222	1.1737	1.9970	1.2138	32.319	8.8933	5.5584	1.3603	4.2755
#1	1.0765	8.2521	2.1074	1.1712	1.9932	1.2123	32.167	8.8657	5.5521	1.3556	4.2685
#2	1.0833	8.2838	2.1216	1.1749	1.9998	1.2135	32.398	8.8930	5.5612	1.3614	4.2784
#3	1.0817	8.2760	2.1374	1.1748	1.9978	1.2157	32.392	8.9213	5.5619	1.3639	4.2797

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.0071	.47761	.17028	.97622	6.7413	.63675	1.2370	2.0454	34.427
#1	1.0052	.47688	.16968	.97448	6.7156	.63443	1.2369	2.0440	34.354
#2	1.0064	.47784	.17005	.97743	6.7320	.63626	1.2382	2.0489	34.462
#3	1.0098	.47811	.17113	.97676	6.7762	.63958	1.2359	2.0431	34.464

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CAL6@S06 Acquired: 10/27/2016 9:17:11 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2682.3	2117.7	203470.	14234.	3846.3	36115.	5856.6
#1	2683.4	2125.5	203570.	14191.	3853.0	36115.	5837.1
#2	2680.5	2118.8	203170.	14275.	3844.3	36072.	5856.1
#3	2683.1	2108.9	203680.	14235.	3841.5	36159.	5876.5

Bonner Analytical Testing Company

Sample Name: SEQ-ICV@ICV01 Acquired: 10/27/2016 9:30:10 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 463.25	2482.4	954.15	F -.09488	501.21	495.67	9687.9	513.72	514.90
Stddev	1.51	9.8	5.12	.29661	2.20	1.05	57.9	1.04	.57
%RSD	.32620	.39420	.53678	312.63	.43986	.21085	.59785	.20269	.11018
#1	464.72	2490.9	959.83	.05416	499.94	496.40	9661.5	514.81	515.06
#2	461.70	2471.7	949.87	.09766	499.94	494.47	9648.0	512.73	514.27
#3	463.35	2484.6	952.75	-.43645	503.76	496.13	9754.4	513.64	515.37

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 520.51	W 464.80	5195.9	W 9305.0	1.3992	5851.3	503.42	.04752	9823.7
Stddev	.46	.54	27.6	51.7	.4073	30.7	3.97	.18149	39.2
%RSD	.08806	.11704	.53161	.55596	29.109	.52406	.78951	381.88	.39923
#1	520.92	464.75	5184.5	9257.7	1.0123	5846.3	501.79	-.07398	9808.3
#2	520.02	464.28	5175.8	9297.0	1.3612	5823.5	500.53	-.03960	9794.5
#3	520.59	465.37	5227.4	9360.3	1.8242	5884.2	507.96	.25615	9868.3

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	509.74	.90578	987.09	F 3.0163	995.14	1044.1	F 5.8896	F .49706	F 11.418
Stddev	1.21	.53627	1.74	.5115	3.36	2.8	4.0627	.36466	.092
%RSD	.23726	59.206	.17675	16.960	.33738	.26718	68.980	73.363	.80678
#1	511.10	.34574	989.10	3.2277	999.01	1042.8	1.6541	.07801	11.367
#2	508.79	.95700	985.99	3.3883	993.16	1042.2	9.7540	.67092	11.362
#3	509.34	1.4146	986.19	2.4329	993.24	1047.3	6.2607	.74227	11.524

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-ICV@ICV01 Acquired: 10/27/2016 9:30:10 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	F .47824	1046.8	491.30	1002.5
Stddev	.65249	.9	.71	3.7
%RSD	136.43	.08282	.14426	.37173
#1	-.24524	1047.8	491.12	1006.7
#2	.65788	1046.1	490.69	999.67
#3	1.0221	1046.4	492.08	1001.2

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3118.7	2365.6	215710.	13926.	4036.6	38778.	5908.3
Stddev	6.3	6.9	425.	132.	6.6	101.	49.1
%RSD	.20055	.29145	.19702	.94477	.16316	.26121	.83066
#1	3111.4	2358.2	215240.	14008.	4033.3	38663.	5936.3
#2	3122.3	2371.8	216070.	13996.	4044.2	38853.	5936.9
#3	3122.3	2366.8	215830.	13774.	4032.3	38819.	5851.6

168-I

Bonner Analytical Testing Company

Sample Name: SEQ-ICB@ICB01 Acquired: 10/27/2016 9:34:22 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.7215	6.8726	.60021	-.17149	-.28298	-.00315	-4.8436	.01262	-.16604	-.05432	-.23061
Stddev	.0274	6.4762	.69212	.19872	.14271	.00765	11.087	.01989	.10041	.01200	.13418
%RSD	1.5900	94.232	115.31	115.88	50.432	242.87	228.90	157.69	60.475	22.083	58.188
#1	1.7469	5.6553	1.0973	-.38605	-.16442	.00158	-6.5092	.02974	-.16048	-.04048	-.15441
#2	1.6925	13.871	.89364	.00622	-.44137	-.01197	-15.004	-.00921	-.26911	-.06099	-.38554
#3	1.7253	1.0915	-.19029	-.13464	-.24314	.00094	6.9819	.01732	-.06852	-.06151	-.15187

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.3016	24.041	1.3503	8.2256	.08171	.17104	19.145	.12212	-.57926	-.37623	-.24944
Stddev	5.1864	12.433	.5495	15.665	.17809	.13196	3.281	.25019	1.3128	1.3559	.37062
%RSD	225.34	51.717	40.695	190.45	217.96	77.149	17.135	204.87	226.63	360.38	148.58
#1	2.8452	26.948	1.7184	-5.6374	.25187	.04055	22.118	-.16395	-2.0183	1.1362	-.66941
#2	-7.5267	10.412	1.6139	5.0940	.09660	.30441	15.626	.30002	-.27223	-.78185	-.11074
#3	-2.2233	34.764	.71866	25.220	-.10336	.16815	19.692	.23030	.55279	-1.4830	.03182

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.4005	.26241	6.8868	.18508	-.12226	-.07306	.82204	.08702	.01240
Stddev	.9422	2.0841	9.6956	.07577	.01126	.47346	.70330	.18141	.07704
%RSD	39.251	794.20	140.79	40.940	9.2085	648.06	85.555	208.48	621.26
#1	1.6800	1.8629	17.071	.23090	-.11033	-.61872	1.0927	.19556	.04002
#2	3.4667	1.0184	-2.2319	.22671	-.13270	.17057	1.3498	-.12241	.07183
#3	2.0548	-2.0942	5.8209	.09762	-.12374	.22898	.02362	.18790	-.07464

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-ICB@ICB01 Acquired: 10/27/2016 9:34:22 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3252.5	2452.9	216320.	13824.	4082.6	39188.	5894.2
Stddev	45.8	36.0	352.	19.	56.2	64.	4.4
%RSD	1.4072	1.4697	.16285	.13495	1.3777	.16333	.07442
#1	3305.1	2493.5	216100.	13816.	4146.8	39131.	5895.4
#2	3231.0	2440.4	216730.	13845.	4058.4	39257.	5897.8
#3	3221.5	2424.8	216150.	13811.	4042.4	39177.	5889.3

168-J

Bonner Analytical Testing Company

Sample Name: SEQ-IFA@ICSA01 Acquired: 10/27/2016 9:38:50 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.4412	246480.	-7.5759	-.57782	5.3111	-.07955	223120.	4.3260	-.50621	59.043
Stddev	.0994	1027.	1.1669	.64915	.1272	.00998	676.	.1364	.21555	.526
%RSD	2.2378	.41659	15.403	112.34	2.3942	12.542	.30279	3.1520	42.581	.89131
#1	4.4244	246530.	-6.7661	-1.2487	5.1764	-.08006	223660.	4.4092	-.69044	58.486
#2	4.5480	245420.	-7.0482	.04714	5.3278	-.08926	222360.	4.1686	-.26916	59.533
#3	4.3514	247480.	-8.9134	-.53189	5.4291	-.06932	223330.	4.4001	-.55903	59.108

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-8.6047	97982.	24.476	3.9889	250410.	11.387	.65298	44.986	-5.5501	-6.9632
Stddev	.1643	477.	23.993	.8452	956.	.141	.49036	2.842	.1766	1.3581
%RSD	1.9097	.48716	98.024	21.189	.38189	1.2374	75.096	6.3178	3.1818	19.504
#1	-8.4175	98025.	3.3867	3.5695	250700.	11.461	.47714	42.663	-5.5644	-6.7915
#2	-8.6714	97485.	50.579	3.4354	249340.	11.224	1.2070	48.155	-5.7191	-5.6991
#3	-8.7252	98437.	19.462	4.9617	251180.	11.475	.27479	44.141	-5.3668	-8.3989

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.97346	-35.243	3.7820	3.0272	17.129	.35939	95.050	3.1850	-.64172	.62916
Stddev	1.1806	2.367	2.0825	3.9794	5.107	.19159	.373	.8717	2.0443	.01771
%RSD	121.28	6.7169	55.064	131.46	29.815	53.310	.39277	27.369	318.57	2.8156
#1	.36058	-34.373	2.5834	6.9773	11.759	.49591	95.159	3.9377	-1.8860	.63881
#2	-1.3975	-33.434	6.1867	-.98094	17.702	.14037	94.635	3.3873	-1.7568	.63996
#3	-1.8835	-37.922	2.5760	3.0853	21.925	.44188	95.358	2.2299	1.7177	.60872

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-IFA@ICSA01 Acquired: 10/27/2016 9:38:50 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	1.3965
Stddev	.1846
%RSD	13.216
#1	1.6087
#2	1.2735
#3	1.3073

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2606.4	1977.8	196930.	13860.	3713.3	35551.	5765.2
Stddev	3.1	5.5	50.	45.	7.8	21.	15.9
%RSD	.12023	.27757	.02522	.32530	.21111	.05770	.27511
#1	2605.2	1977.2	196890.	13846.	3707.7	35530.	5760.5
#2	2610.0	1983.5	196990.	13910.	3722.2	35571.	5782.9
#3	2604.0	1972.6	196910.	13823.	3710.0	35553.	5752.2

168-K

Bonner Analytical Testing Company

Sample Name: SEQ-IFB@ICSAB01 Acquired: 10/27/2016 9:43:10 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	188.95	248980.	96.364	-1.8077	502.82	493.81	222480.	968.63	483.51	578.29
Stddev	1.38	666.	.900	.1141	1.42	1.86	438.	1.95	.75	2.27
%RSD	.73293	.26769	.93385	6.3115	.28327	.37763	.19665	.20157	.15512	.39259
#1	190.44	248420.	97.210	-1.9393	501.66	495.36	222130.	970.68	484.27	580.81
#2	187.70	249720.	95.418	-1.7367	504.41	491.74	222970.	966.79	483.49	576.41
#3	188.73	248790.	96.465	-1.7472	502.38	494.33	222350.	968.43	482.77	577.65

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	470.26	99578.	51.573	4.5816	253160.	492.41	.50208	40.313	1033.9	-6.5682
Stddev	.26	164.	11.729	.5637	700.	1.73	.22865	1.656	3.6	2.4206
%RSD	.05470	.16451	22.743	12.303	.27659	.35205	45.541	4.1074	.35303	36.854
#1	470.38	99407.	63.948	3.9948	252830.	490.41	.63081	38.838	1038.0	-5.1619
#2	469.96	99734.	40.619	5.1188	253970.	493.46	.23808	42.104	1032.6	-5.1795
#3	470.43	99591.	50.152	4.6312	252690.	493.36	.63734	39.997	1031.0	-9.3633

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	49.811	-34.493	609.40	53.143	9.3455	-.08707	96.226	4.6272	102.62	479.11
Stddev	1.391	1.223	1.42	.475	15.286	.98290	.515	1.4314	.15	1.70
%RSD	2.7927	3.5445	.23270	.89386	163.57	1128.9	.53556	30.934	.14904	.35463
#1	48.358	-34.443	609.10	53.608	14.515	-.99616	95.681	3.0281	102.55	479.01
#2	51.131	-35.740	610.95	52.659	21.377	-.22096	96.705	5.7889	102.52	477.46
#3	49.943	-33.297	608.17	53.163	-7.8554	.95591	96.292	5.0646	102.80	480.85

Bonner Analytical Testing Company

Sample Name: SEQ-IFB@ICSAB01 Acquired: 10/27/2016 9:43:10 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	1013.0
Stddev	3.8
%RSD	.37158
#1	1017.2
#2	1011.9
#3	1009.9

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2589.0	1957.4	196000.	13597.	3645.1	35438.	5692.6
Stddev	5.9	5.4	682.	75.	2.1	148.	20.0
%RSD	.22723	.27371	.34793	.55514	.05682	.41643	.35075
#1	2582.2	1951.7	195440.	13660.	3642.8	35307.	5707.2
#2	2592.2	1957.9	196760.	13513.	3645.6	35598.	5669.8
#3	2592.6	1962.4	195800.	13618.	3646.8	35410.	5700.8

168-L

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV01 Acquired: 10/27/2016 9:47:21 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	453.22	134520.	2061.0	2016.5	15250.	388.20	F 177420.	960.71	2405.3
Stddev	1.96	159.	4.4	10.9	222.	1.22	467.	2.72	9.9
%RSD	.43139	.11855	.21126	.54080	1.4558	.31410	.26343	.28356	.41106
#1	453.04	134700.	2063.0	2024.9	15066.	387.54	177640.	963.72	2415.0
#2	455.26	134440.	2056.0	2004.1	15497.	389.61	177750.	958.42	2395.2
#3	451.36	134410.	2064.0	2020.4	15188.	387.46	176890.	959.99	2405.8

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5876.1	4888.6	123220.	135150.	1081.7	191510.	8361.0	1052.9	132140.
Stddev	16.7	22.1	207.	190.	2.1	507.	22.5	3.5	53.
%RSD	.28389	.45298	.16797	.14050	.19727	.26466	.26892	.33405	.04005
#1	5870.0	4869.6	123430.	135370.	1084.2	191930.	8383.7	1056.3	132200.
#2	5895.0	4912.9	123230.	135090.	1080.3	191660.	8360.8	1049.3	132110.
#3	5863.3	4883.3	123010.	135000.	1080.8	190950.	8338.7	1053.0	132110.

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4017.3	41036.	5588.0	42816.	4091.0	3620.9	F 17991.	1872.6	938.97
Stddev	12.6	160.	18.8	196.	17.6	20.6	69.	7.4	2.47
%RSD	.31260	.39076	.33708	.45722	.42966	.56899	.38132	.39490	.26340
#1	4030.1	41173.	5606.1	42977.	4104.6	3636.7	18059.	1877.7	941.69
#2	4005.0	40859.	5568.5	42598.	4071.2	3597.6	17993.	1864.1	938.34
#3	4016.7	41076.	5589.4	42873.	4097.3	3628.3	17922.	1876.0	936.86

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV01 Acquired: 10/27/2016 9:47:21 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	1923.1	3949.4	3794.9	7772.7
Stddev	4.3	11.4	12.3	20.1
%RSD	.22172	.28866	.32506	.25878
#1	1927.0	3961.9	3786.3	7795.8
#2	1923.6	3939.5	3809.0	7759.6
#3	1918.6	3946.8	3789.4	7762.6

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2499.5	1958.7	191410.	13598.	3544.9	34660.	5670.0
Stddev	10.0	5.9	453.	71.	12.9	105.	19.3
%RSD	.39910	.30359	.23658	.52463	.36256	.30226	.33995
#1	2488.0	1952.2	191350.	13546.	3530.6	34675.	5658.3
#2	2505.2	1963.8	190990.	13568.	3555.5	34549.	5659.5
#3	2505.3	1960.2	191890.	13679.	3548.5	34757.	5692.2

ICAPP01

168-M

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB01 Acquired: 10/27/2016 9:51:32 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.1824	20.527	.50887	1.2289	1.2747	-.00584	32.225	.03923	.00303	.13570	-.30487
Stddev	.1407	17.462	1.0955	.4000	1.5885	.01754	31.662	.02918	.17189	.12236	.21490
%RSD	6.4469	85.070	215.29	32.546	124.62	300.50	98.253	74.374	5672.4	90.168	70.491
#1	2.0631	38.688	-.65504	1.6869	3.0969	-.02239	68.699	.03276	-.17027	.26463	-.54972
#2	2.1466	19.034	.66167	1.0513	.54532	-.00765	11.815	.07111	.17347	.12128	-.21740
#3	2.3376	3.8589	1.5200	.94847	.18179	.01254	16.162	.01384	.00589	.02119	-.14749

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	14.787	127.34	1.5404	29.646	1.1333	.30760	45.856	.26121	1.3753	.45934	.00734
Stddev	21.495	12.86	.2035	24.623	1.1582	.14846	14.114	.30008	.9142	.57791	.28384
%RSD	145.37	10.097	13.213	83.054	102.19	48.265	30.778	114.88	66.478	125.81	3868.9
#1	38.790	142.12	1.7635	54.430	2.4431	.30054	62.104	.01850	1.4061	.26250	-.28495
#2	8.2570	118.80	1.3647	29.322	.71215	.16280	38.821	.16838	2.2737	.00558	.28189
#3	-2.6863	121.08	1.4930	5.1876	.24468	.45947	36.642	.59673	.44598	1.1100	.02506

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.3611	1.1221	-2.0829	-.18213	.03608	.66856	2.0330	-.06528	.32987
Stddev	1.3357	.4263	10.193	.17617	.10970	.98824	.5263	.15293	.13921
%RSD	98.138	37.989	489.34	96.727	304.02	147.82	25.888	234.25	42.202
#1	2.6484	1.1311	4.5795	-.01676	.13237	1.7106	1.9905	.11025	.49053
#2	1.4531	1.5439	-13.816	-.36740	.05923	-.25529	1.5292	-.13635	.25416
#3	-.01831	.69146	2.9881	-.16222	-.08334	.55040	2.5793	-.16975	.24493

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB01 Acquired: 10/27/2016 9:51:32 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3220.4	2427.4	213840.	13442.	3973.0	38953.	5803.5
Stddev	7.0	2.7	541.	40.	7.7	105.	24.9
%RSD	.21888	.10995	.25286	.29848	.19449	.27049	.42873
#1	3212.3	2425.8	213950.	13412.	3979.8	38958.	5782.2
#2	3225.1	2430.5	214320.	13427.	3974.7	39056.	5797.3
#3	3223.8	2426.0	213250.	13488.	3964.6	38845.	5830.9

168-N

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV02 Acquired: 10/27/2016 10:00:09 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 437.97	132870.	2036.6	2015.7	14973.	380.87	F 172380.	955.62	2390.8
Stddev	.95	169.	4.1	3.6	197.	.44	721.	1.56	3.4
%RSD	.21655	.12745	.19930	.18047	1.3175	.11668	.41827	.16319	.14356
#1	439.06	133040.	2034.4	2014.7	15192.	380.53	173010.	955.62	2392.2
#2	437.36	132710.	2041.2	2012.7	14808.	381.38	172530.	954.06	2386.9
#3	437.48	132860.	2034.0	2019.8	14919.	380.72	171590.	957.18	2393.3

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5822.6	4741.7	122380.	134080.	1090.7	189840.	8227.0	1058.2	133120.
Stddev	9.7	1.8	266.	534.	3.4	607.	21.1	3.1	432.
%RSD	.16613	.03785	.21736	.39847	.31282	.31991	.25689	.29078	.32452
#1	5812.1	4740.3	122680.	134680.	1091.0	190350.	8251.0	1057.7	133550.
#2	5831.1	4741.1	122180.	133640.	1087.1	190010.	8218.9	1055.4	132680.
#3	5824.6	4743.8	122280.	133940.	1093.9	189170.	8211.1	1061.5	133120.

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3986.8	40979.	5555.9	42926.	4084.7	3619.5	F 17621.	1854.9	930.60
Stddev	2.1	88.	2.4	141.	8.6	6.7	46.	1.9	1.55
%RSD	.05186	.21569	.04265	.32881	.21050	.18419	.25932	.10470	.16642
#1	3989.1	40955.	5553.2	42862.	4084.6	3619.6	17642.	1854.7	931.26
#2	3985.5	40905.	5557.8	42829.	4076.1	3612.7	17568.	1853.0	928.83
#3	3985.6	41076.	5556.7	43088.	4093.3	3626.1	17652.	1856.9	931.71

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV02 Acquired: 10/27/2016 10:00:09 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	1900.7	3928.1	3732.8	7669.4
Stddev	2.1	10.7	1.6	7.1
%RSD	.10977	.27172	.04332	.09225
#1	1901.9	3930.8	3730.9	7677.4
#2	1901.8	3916.3	3733.9	7666.4
#3	1898.3	3937.2	3733.5	7664.2

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2494.6	1958.2	192170.	13313.	3515.1	34836.	5612.6
Stddev	1.8	.4	55.	69.	7.8	31.	31.8
%RSD	.07403	.01916	.02873	.51688	.22312	.09036	.56661
#1	2494.9	1958.3	192110.	13238.	3521.0	34801.	5576.6
#2	2496.2	1957.7	192200.	13374.	3518.0	34860.	5636.7
#3	2492.6	1958.5	192210.	13325.	3506.2	34848.	5624.5

ICAPP01

168-0

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB02 Acquired: 10/27/2016 10:04:23 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.2410	12.202	.47884	.77041	.34219	-.01043	23.107	.04455	.15313	.27783	-.05019
Stddev	.3167	2.485	.97062	.15041	.33548	.02269	16.586	.01560	.04986	.15322	.07616
%RSD	14.132	20.361	202.70	19.523	98.038	217.58	71.779	35.026	32.559	55.147	151.74
#1	2.2067	14.363	.82621	.78898	.57571	-.01103	5.8841	.05692	.10322	.14934	.01349
#2	2.5734	9.4875	-.61767	.91066	.49310	-.03281	24.464	.02702	.15323	.23675	-.13456
#3	1.9428	12.756	1.2280	.61158	-.04224	.01256	38.973	.04970	.20293	.44740	-.02951

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.4902	119.95	2.2810	18.903	.75758	.39709	39.372	.18841	-.07296	.54599	1.2070
Stddev	9.0142	21.15	.5705	22.050	.37091	.09223	2.012	.34148	.33260	.79029	1.9718
%RSD	258.27	17.631	25.012	116.64	48.960	23.227	5.1100	181.24	455.86	144.74	163.35
#1	12.425	137.48	1.6322	44.345	.97501	.47089	39.815	-.15303	-.41711	.76434	1.1423
#2	3.6471	125.91	2.5063	5.3446	.32931	.29369	37.175	.52992	.24673	-.33052	-.73157
#3	-5.6014	96.462	2.7044	7.0195	.96843	.42668	41.125	.18835	-.04850	1.2042	3.2104

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.1251	-.09608	-2.4625	-.21972	-.08890	.19134	1.8601	.17288	.05008
Stddev	1.5514	.97185	1.7604	.17979	.02399	.43546	1.0141	.16120	.03223
%RSD	73.002	1011.5	71.489	81.828	26.985	227.59	54.520	93.246	64.356
#1	3.3261	.80582	-2.1112	-.40261	-.10922	.01292	2.6583	.33713	.07794
#2	2.6756	-1.1253	-.90428	-.04319	-.06243	-.12658	2.2031	.16659	.05750
#3	.37353	.03126	-4.3721	-.21336	-.09504	.68768	.71899	.01491	.01479

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Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB02 Acquired: 10/27/2016 10:04:23 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3211.0	2420.9	211880.	13613.	3944.9	38903.	5837.1
Stddev	9.3	5.4	498.	16.	3.3	89.	8.0
%RSD	.28832	.22231	.23515	.11428	.08388	.22847	.13745
#1	3221.6	2424.1	211310.	13595.	3946.8	38810.	5829.6
#2	3206.5	2423.9	212070.	13622.	3946.9	38912.	5845.5
#3	3204.8	2414.7	212250.	13622.	3941.1	38987.	5836.3

Ke8-P

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV03 Acquired: 10/27/2016 10:13:03 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 437.07	132790.	2029.2	2026.2	14852.	384.32	F 172130.	956.35	2396.2
Stddev	3.20	1178.	24.7	26.0	232.	3.98	1458.	11.48	32.5
%RSD	.73302	.88734	1.2177	1.2847	1.5644	1.0347	.84701	1.2007	1.3577
#1	440.05	131800.	2057.7	2056.2	14643.	387.56	170950.	969.56	2433.8
#2	437.49	134090.	2013.2	2012.8	15102.	385.53	173760.	950.73	2378.5
#3	433.68	132480.	2016.8	2009.7	14810.	379.88	171680.	948.76	2376.3

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5911.6	4802.1	122400.	134620.	1097.2	190310.	8181.7	1069.2	135260.
Stddev	58.7	40.3	1108.	812.	6.4	1830.	70.5	14.7	732.
%RSD	.99344	.84024	.90560	.60309	.58148	.96136	.86164	1.3744	.54108
#1	5957.9	4832.1	121530.	134250.	1092.2	189070.	8124.7	1086.1	134880.
#2	5931.3	4817.9	123650.	135550.	1104.4	192420.	8260.5	1061.6	136100.
#3	5845.5	4756.2	122020.	134050.	1095.0	189460.	8160.0	1059.8	134790.

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3989.5	41169.	5555.3	43302.	4089.1	3650.6	F 17545.	1849.5	923.88
Stddev	50.4	519.	71.8	523.	59.0	43.3	171.	22.8	7.55
%RSD	1.2635	1.2607	1.2918	1.2080	1.4416	1.1870	.97425	1.2325	.81718
#1	4047.6	41767.	5638.2	43906.	4157.0	3700.6	17400.	1875.8	917.95
#2	3964.0	40914.	5516.2	43008.	4060.1	3625.2	17733.	1836.7	932.38
#3	3957.0	40828.	5511.7	42993.	4050.3	3625.9	17500.	1836.0	921.30

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV03 Acquired: 10/27/2016 10:13:03 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	1913.4	3938.5	3738.2	7639.9
Stddev	16.0	45.7	36.7	97.4
%RSD	.83571	1.1604	.98062	1.2749
#1	1898.5	3990.7	3770.5	7752.3
#2	1930.3	3919.0	3745.9	7587.8
#3	1911.5	3905.7	3698.4	7579.6

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2492.9	1961.3	190330.	13357.	3491.9	34684.	5597.7
Stddev	27.3	23.0	1438.	103.	40.2	276.	41.8
%RSD	1.0962	1.1742	.75565	.76881	1.1514	.79531	.74718
#1	2462.0	1934.7	189230.	13352.	3445.7	34457.	5598.4
#2	2502.7	1973.3	189810.	13258.	3511.8	34605.	5555.5
#3	2513.9	1975.9	191960.	13463.	3518.3	34991.	5639.2

ICAPP01

Bonner Analytical Testing Company

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Sample Name: SEQ-CCB@CCB03 Acquired: 10/27/2016 10:17:16 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.0235	9.8470	.43682	1.1630	-.25941	.01436	7.0416	.02507	.00396	-.03007	-.21182
Stddev	.2205	7.1567	.09564	.2970	.30458	.00687	13.538	.03775	.17109	.13190	.28387
%RSD	10.899	72.679	21.895	25.540	117.41	47.868	192.26	150.59	4319.1	438.58	134.01
#1	2.2120	17.336	.36115	1.2020	.05660	.01223	13.595	.04037	-.06120	-.16641	.05808
#2	1.7810	3.0773	.40498	1.4387	-.55109	.00880	16.056	-.01793	.19806	-.02071	-.50786
#3	2.0775	9.1274	.54432	.84843	-.28372	.02204	-8.5265	.05277	-.12498	.09689	-.18570

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.4988	129.00	1.2648	-2.1182	.61544	.45137	39.552	.41371	.51480	1.2894	1.0081
Stddev	8.6190	21.53	.3711	8.8668	.24556	.12799	5.923	.11451	.94123	.3448	1.6763
%RSD	191.58	16.688	29.343	418.60	39.901	28.357	14.976	27.678	182.83	26.744	166.28
#1	14.115	151.27	1.4866	5.9540	.76728	.58732	45.517	.53198	1.4290	.98799	2.4514
#2	1.9135	108.30	.83636	-11.609	.74690	.33319	39.467	.40578	.56670	1.2148	1.4036
#3	-2.5316	127.44	1.4715	-.7000	.33213	.43360	33.671	.30338	-.45131	1.6655	-.83056

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.41788	2.1845	9.6664	-.23246	-.07074	.46733	2.9574	.02174	.15443
Stddev	.62327	2.1217	8.0267	.35008	.10662	.23673	.5082	.14148	.03157
%RSD	149.15	97.128	83.037	150.60	150.73	50.656	17.183	650.83	20.440
#1	.71009	4.3684	15.091	-.19104	-.16541	.49457	2.3873	.15182	.19065
#2	.84136	2.0542	.44574	.09507	.04475	.68925	3.3627	-.12890	.13984
#3	-.29781	.13092	13.463	-.60140	-.09155	.21815	3.1222	.04230	.13280

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB03 Acquired: 10/27/2016 10:17:16 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3204.7	2414.1	211970.	13305.	3902.9	38937.	5767.8
Stddev	10.0	7.0	468.	72.	12.3	113.	38.6
%RSD	.31245	.29013	.22061	.54147	.31483	.29097	.66976
#1	3209.9	2420.8	211460.	13224.	3911.4	38811.	5723.2
#2	3211.1	2414.7	212090.	13360.	3908.5	38968.	5791.1
#3	3193.2	2406.8	212370.	13333.	3888.8	39031.	5789.0

16e8-R

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV04 Acquired: 10/27/2016 10:26:07 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 428.58	132420.	2045.9	2044.3	15015.	378.01	F 170770.	957.97	2408.7
Stddev	12.14	355.	7.2	8.0	67.	11.56	210.	3.09	7.4
%RSD	2.8321	.26840	.35179	.39024	.44786	3.0575	.12283	.32225	.30790
#1	414.75	132030.	2045.0	2049.0	14939.	364.67	170990.	959.19	2413.7
#2	433.53	132710.	2039.1	2035.1	15039.	384.28	170760.	954.46	2400.2
#3	437.47	132530.	2053.5	2048.8	15067.	385.08	170570.	960.26	2412.3

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5823.6	4740.0	122110.	134310.	F 1100.1	189030.	8140.7	1078.7	135390.
Stddev	191.3	157.6	303.	141.	4.2	304.	14.2	3.5	41.
%RSD	3.2848	3.3241	.24809	.10468	.37801	.16060	.17402	.32773	.03026
#1	5602.7	4559.3	121770.	134460.	1095.4	188680.	8124.3	1081.1	135360.
#2	5931.5	4811.9	122310.	134270.	1101.9	189220.	8149.0	1074.6	135440.
#3	5936.5	4848.8	122270.	134190.	1103.2	189200.	8148.8	1080.3	135380.

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4015.7	41555.	5593.6	43814.	4121.2	3699.2	F 17462.	1854.3	924.75
Stddev	11.0	131.	22.9	154.	14.1	11.5	51.	7.5	3.95
%RSD	.27443	.31427	.40914	.35064	.34259	.31081	.29334	.40611	.42716
#1	4018.8	41641.	5595.0	43920.	4134.6	3707.5	17419.	1857.8	920.19
#2	4003.4	41405.	5570.0	43638.	4106.5	3686.0	17519.	1845.6	926.89
#3	4024.8	41619.	5615.7	43884.	4122.5	3704.0	17448.	1859.4	927.16

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV04 Acquired: 10/27/2016 10:26:07 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	1909.2	3956.4	3669.0	7653.4
Stddev	7.2	5.3	111.8	27.8
%RSD	.37542	.13423	3.0470	.36293
#1	1900.9	3951.7	3540.0	7650.9
#2	1913.5	3955.3	3731.2	7627.0
#3	1913.1	3962.1	3735.9	7682.4

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2483.8	1949.3	192500.	13386.	3469.7	35118.	5611.4
Stddev	2.4	6.1	5426.	32.	10.3	933.	19.9
%RSD	.09596	.31503	2.8185	.23608	.29801	2.6560	.35399
#1	2484.2	1948.9	198760.	13360.	3461.2	36195.	5589.2
#2	2486.0	1955.6	189370.	13421.	3481.2	34572.	5627.5
#3	2481.3	1943.4	189360.	13377.	3466.8	34588.	5617.4

168-S

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB04 Acquired: 10/27/2016 10:30:22 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.1655	7.2853	.17517	1.5185	-.24922	-.01450	16.490	.03719	-.04032	.12311	-.19103
Stddev	.0934	2.3667	.17646	.4440	.02703	.00664	11.405	.02174	.03833	.15604	.05798
%RSD	4.3149	32.485	100.74	29.240	10.845	45.784	69.161	58.467	95.078	126.75	30.352
#1	2.0592	10.018	.25356	1.9165	-.24919	-.00959	28.574	.06221	-.03999	-.04887	-.14239
#2	2.2028	5.9258	-.02690	1.5993	-.27626	-.02206	14.980	.02642	-.00215	.25564	-.25519
#3	2.2346	5.9121	.29884	1.0396	-.22221	-.01187	5.9154	.02293	-.07881	.16256	-.17550

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08662	110.17	1.1447	6.6843	.00493	.33483	36.055	.29387	-1.2704	.16607	.19709
Stddev	4.3167	1.62	.5841	20.039	.21103	.12260	5.401	.08317	.3609	.55335	.52942
%RSD	4983.2	1.4719	51.029	299.79	4281.8	36.615	14.979	28.300	28.412	333.20	268.62
#1	1.3491	111.52	.50044	-14.610	.16337	.38371	33.240	.21906	-1.6697	-.38181	.80310
#2	3.3292	108.37	1.6398	9.4922	-.23462	.42544	42.281	.38342	-.96735	.72474	-.17555
#3	-4.9382	110.62	1.2939	25.171	.08603	.19533	32.643	.27912	-1.1741	.15528	-.03628

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.3729	1.9237	-.17058	.25734	-.11282	.40166	2.4858	-.06673	.28899
Stddev	.4372	1.6940	14.608	.32262	.04660	.57527	1.1071	.15244	.06305
%RSD	31.845	88.059	8563.8	125.37	41.300	143.22	44.538	228.45	21.817
#1	1.7880	3.4018	-16.694	-.06574	-.06973	-.20362	3.7588	-.11772	.22824
#2	1.4141	2.2942	5.1504	.57949	-.16227	.46732	1.9510	.10467	.35411
#3	.91654	.07512	11.032	.25826	-.10646	.94129	1.7477	-.18713	.28463

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB04 Acquired: 10/27/2016 10:30:22 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3208.2	2418.4	210500.	13290.	3906.0	38738.	5746.8
Stddev	4.6	2.0	475.	115.	5.4	119.	47.2
%RSD	.14264	.08123	.22585	.86369	.13913	.30829	.82098
#1	3204.3	2420.0	210970.	13352.	3909.7	38858.	5779.9
#2	3213.2	2418.9	210020.	13361.	3899.7	38620.	5767.7
#3	3207.0	2416.2	210500.	13158.	3908.4	38735.	5692.8

ICAPP01

168-T

Bonner Analytical Testing Company

Sample Name: QJ14021-PS1 Acquired: 10/27/2016 10:34:51 Type: Unk
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H17A SDG: MH1H14 Case: 46282
Comment: 64uL Zn @ 1000PPM

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	*****	48815.	-37.868	25.810	198.63	-.38384	5420.7	105.11
#1	-----	48289.	-36.504	25.380	196.34	-.40151	5320.1	104.68
#2	72.506	49018.	-37.701	26.309	199.98	-.38298	5477.0	105.20
#3	74.559	49138.	-39.399	25.742	199.58	-.36705	5465.1	105.45

Elem	Co2286	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.1576	19.593	465.08	F 1829700.	7465.1	45.717	11479.	1606.3
#1	2.9561	20.014	465.41	1806900.	7414.7	45.070	11295.	1585.9
#2	3.6233	19.699	465.55	1836500.	7466.0	46.589	11542.	1616.5
#3	2.8934	19.067	464.29	1845700.	7514.5	45.494	11600.	1616.6

Elem	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.9011	312.82	-63.862	7680.0	2063.2	75326.	25.893	-60.167
#1	7.4994	305.50	-64.277	7652.2	2062.9	75108.	25.231	-61.703
#2	6.5745	316.82	-64.005	7680.7	2068.6	75257.	26.365	-58.700
#3	6.6294	316.13	-63.303	7707.2	2058.1	75614.	26.083	-60.099

ICAPP01

Bonner Analytical Testing Company

Sample Name: QJ14021-PS1 Acquired: 10/27/2016 10:34:51 Type: Unk
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H17A SDG: MH1H14 Case: 46282
Comment: 64uL Zn @ 1000PPM

Elem	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	15392.	36.295	146.75	1861.2	-22.314	197.92	8367.5
#1	15192.	35.611	145.04	1830.9	-22.775	198.14	8366.0
#2	15502.	36.114	147.54	1871.0	-22.396	197.71	8370.7
#3	15482.	37.160	147.67	1881.7	-21.769	197.91	8365.7

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2175.5	1760.6	190250.	12387.	3533.1	35482.	5573.4
#1	2173.1	1757.9	189890.	12501.	3534.1	35395.	5608.1
#2	2170.9	1755.8	190310.	12393.	3535.2	35486.	5574.9
#3	2182.4	1768.0	190550.	12268.	3529.9	35564.	5537.1

168-4

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV05 Acquired: 10/27/2016 10:39:05 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 432.41	130480.	2039.8	2050.1	14707.	385.87	F 167230.	957.76	2407.4
Stddev	4.58	1517.	32.5	34.8	151.	2.89	1944.	16.03	38.9
%RSD	1.0591	1.1625	1.5912	1.6991	1.0245	.74965	1.1626	1.6741	1.6143
#1	437.01	131790.	2055.4	2068.4	14859.	388.70	168890.	965.51	2426.3
#2	432.36	128820.	2002.5	2009.9	14557.	386.00	165090.	939.32	2362.7
#3	427.85	130830.	2061.6	2072.0	14706.	382.92	167700.	968.45	2433.2

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5998.7	4829.8	120620.	133640.	F 1101.4	187140.	F 7974.5	1086.7	135830.
Stddev	49.3	32.4	1386.	1547.	10.1	2221.	92.3	18.6	1439.
%RSD	.82246	.67062	1.1494	1.1572	.91839	1.1866	1.1572	1.7113	1.0595
#1	6043.3	4863.1	121810.	135010.	1107.6	188890.	8049.3	1095.7	137080.
#2	6007.1	4828.0	119100.	131960.	1089.7	184650.	7871.4	1065.3	134260.
#3	5945.7	4798.4	120960.	133940.	1106.8	187890.	8002.7	1099.2	136160.

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4011.1	41678.	5582.5	F 44146.	4121.7	3715.1	F 16986.	1848.8	907.46
Stddev	59.7	696.	80.0	726.	67.9	61.0	158.	29.0	8.67
%RSD	1.4882	1.6710	1.4323	1.6440	1.6480	1.6416	.93206	1.5686	.95592
#1	4041.4	42049.	5625.8	44565.	4159.3	3747.7	17074.	1861.7	913.47
#2	3942.3	40875.	5490.2	43308.	4043.2	3644.7	16803.	1815.6	897.52
#3	4049.5	42110.	5631.5	44566.	4162.4	3752.9	17080.	1869.1	911.40

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV05 Acquired: 10/27/2016 10:39:05 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	1884.7	3956.1	3737.2	7612.9
Stddev	18.5	53.2	27.0	113.2
%RSD	.98232	1.3450	.72285	1.4866
#1	1895.6	3985.9	3763.8	7662.9
#2	1863.4	3894.7	3738.1	7483.3
#3	1895.3	3987.8	3709.8	7692.5

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2509.2	1968.8	189390.	13348.	3480.6	34671.	5606.1
Stddev	28.4	22.3	922.	149.	47.2	157.	63.9
%RSD	1.1328	1.1332	.48690	1.1127	1.3570	.45328	1.1405
#1	2498.0	1957.8	188610.	13309.	3458.1	34536.	5571.1
#2	2541.5	1994.5	189140.	13512.	3534.8	34634.	5679.9
#3	2488.0	1954.1	190410.	13223.	3448.7	34844.	5567.2

168-V

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB05 Acquired: 10/27/2016 10:43:19 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.2121	5.5494	.48953	.83051	-.44133	-.02068	-1.9815	.04178	.03678	.14727	.06170
Stddev	.0190	6.7724	.66702	.42214	.08458	.00789	8.7469	.06721	.10835	.16002	.08041
%RSD	.86008	122.04	136.26	50.828	19.164	38.154	441.43	160.84	294.60	108.66	130.31
#1	2.2334	11.948	.68737	1.1370	-.43410	-.01377	7.4982	.09344	.04461	.15987	.11208
#2	2.1967	-1.5436	1.0353	.34901	-.52930	-.01899	-9.7396	-.03420	-.07527	-.01868	.10406
#3	2.2062	6.2441	-.25402	1.0055	-.36061	-.02928	-3.7031	.06611	.14100	.30060	-.03103

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.2250	87.119	1.1931	10.498	.19209	.41482	35.350	.33207	-.14883	.55727	2.2047
Stddev	5.9790	11.242	.3894	11.141	.23476	.14646	3.373	.30011	1.4608	.43652	1.2139
%RSD	141.52	12.905	32.640	106.12	122.22	35.306	9.5431	90.375	981.50	78.332	55.057
#1	11.128	86.946	1.6414	15.807	.30682	.38579	39.207	.04710	-.88243	.53578	3.6008
#2	.69077	98.446	.93826	-2.3038	-.07797	.57362	32.953	.30380	1.5333	1.0041	1.3988
#3	.85580	75.964	.99973	17.992	.34742	.28505	33.888	.64531	-1.0974	.13190	1.6146

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.94845	1.6160	5.8150	.13816	-.07613	.69001	1.6999	-.13603	.08988
Stddev	.88589	1.5471	10.168	.54847	.06713	.41685	.4367	.20500	.10723
%RSD	93.405	95.738	174.86	396.98	88.180	60.412	25.691	150.71	119.31
#1	-.05076	1.4760	16.253	.50239	-.08039	1.0959	2.0362	-.19284	-.00138
#2	1.2583	.14358	5.2520	-.49265	-.00697	.26304	1.8571	.09139	.06302
#3	1.6378	3.2283	-4.0599	.40474	-.14103	.71105	1.2063	-.30662	.20798

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB05 Acquired: 10/27/2016 10:43:19 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3225.7	2430.9	211350.	13337.	3916.7	38983.	5734.9
Stddev	39.1	28.5	519.	117.	40.1	58.	48.1
%RSD	1.2127	1.1723	.24543	.87354	1.0248	.14943	.83954
#1	3205.3	2416.5	211900.	13208.	3898.9	39044.	5679.7
#2	3270.8	2463.7	211270.	13369.	3962.7	38976.	5756.8
#3	3200.9	2412.5	210870.	13434.	3888.5	38928.	5768.2

PREPARATION BENCH SHEET

QJ14021

Bonner Analytical Testing Co.

Matrix: Soil

Analysis: ISM023 - ICPAES (1-4)

Prepared: 10/17/2016 11:30 using METALS - 3050B

Case: 46282

SDG: MH1H14

Work Order: 6100165

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100165-01	MH1H14	1	100				
6100165-02	MH1H15	1	100				
6100165-02RE1	MH1H15	1	100				
6100165-03	MH1H16	1	100				
6100165-03RE1	MH1H16	1	100				
6100165-04	MH1H17	1	100				
6100165-04RE1	MH1H17	1	100				
6100165-05	MH1H18	1	100				
6100165-05RE1	MH1H18	1	100				
6100165-06	MH1H19	1	100				
6100165-06RE1	MH1H19	1	100				
6100165-07	MH1H20	1	100				
6100165-08	MH1H21	1	100				
6100165-09	MH1H22	1	100				
6100165-10	MH1H23	1	100				
6100165-10RE1	MH1H23	1	100				
6100165-11	MH1H24	1	100				
6100165-12	MH1H25	1	100				
6100165-13	MH1H26	1	100				
6100165-13RE1	MH1H26	1	100				
6100165-14	MH1H27	1	100				
6100165-14RE1	MH1H27	1	100				
6100165-15	MH1H28	1	100				
6100165-15RE1	MH1H28	1	100				
6100165-16	MH1H29	1	100				
6100165-16RE1	MH1H29	1	100				
6100165-17	MH1H30	1	100				
6100165-17RE1	MH1H30	1	100				
6100165-18	MH1H31	1	100				
QJ14021-PS1	MH1H17A	1	100	B6J0179	10000		
QJ14021-PS2	MH1H17A	0.1	10	B6J0181	10000		
QJ14021-MS1	MH1H17S	1	100	B6B0060	200	B6B0061	200
QJ14021-BS1	LCS01	1	100	B6I0067	500		
QJ14021-DUP1	MH1H17D	1	100				
QJ14021-DUP2	MH1H17D	1	100				
QJ14021-BLK1	PBS01	1	100				

PREPARATION BENCH SHEET

QJ14021

Bonner Analytical Testing Co.

Matrix: Soil

Analysis: QC

Prepared: 10/17/2016 11:30 using METALS - 3050B

Case:

SDG: MH1H14

Work Order: 6100165

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)

Table 1: Quality Controls (QC), Reagents (R) and Standards (Std)

LIMS ID	Description	Vendor	LotNum	Expiration
B3E0023	R - Distilled Water	In-House	NA	04/25/20
B6B0060	QC - CLPP-SPK-1	Inorganic Ventures	J2-MEB568046	02/10/17
B6B0061	QC - CLPP-SPK-5-REV1	Inorganic Ventures	K2-MEB619111	03/01/17
B6E0054	R - Hydrogen Peroxide 30%	Fisher	143279	05/16/19
B6H0063	R - Nitric Acid - 1:1	In House	NA	08/15/17
B6I0064	R - Hydrochloric - Concentrate	Fisher	4116040	05/13/19
B6I0067	QC - BA-AES-CRQL-A	Inorganic Ventures	K2-MEB650368	08/16/17
B6I0123	R - Nitric Acid, Concentrated	Fisher	1116020	04/17/18
B6J0179	PS-MH1H17	In House	NA	04/24/17
B6J0181	PS-MH1H17 B	In House	NA	04/25/17

Table 2: Metals Apparatus

Balance ID		Mettler III	
Dig. Block ID		4	
Start Temp	Stop Temp	95.6	94.6
Start Time	Stop Time	1130	1900

Comments:

MSB2
~~LEM~~ 10/17/2016

Perpared By Date

10/27/16

Preparation Reviewed By Date 10/27/16

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICAPP02 **Case:** 46282 **FileID:** MH1H14 **Std. Prep Date:** 10/13/16

Analyst: MSB2 **SDG:** MH1H14 **Calibration ID:** B644059 **Std. Log Page No.:** 30

Lab Number	EPA ID	Analyzed Date/Time	STD ID	DF	Elements list are used per QC/sample
BJ62626-CAL1	S01	10/17/16 22:13	B6I0028	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-CAL2	S02	10/17/16 22:18	B6G0026	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-CAL3	S03	10/17/16 22:22	B6G0027	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-CAL4	S04	10/17/16 22:26	B6G0028	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-CAL5	S05	10/17/16 22:30	B6G0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-CAL6	S06	10/17/16 22:35	B6G0030	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-CAL7	S07	10/17/16 22:39	B6G0031	1	Al Ca Fe Mg Mn Pb
BJ62626-CAL8	S08	10/17/16 22:43	B6G0032	1	Al Fe Pb
BJ62626-CAL9	S09	10/17/16 22:48	B6J0169	1	Fe Mn
BJ62626-ICV1	ICV01	10/17/16 22:52	B6G0039	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-ICB1	ICB01	10/17/16 22:56	B6I0028	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-IFA1	ICSA01	10/17/16 23:01	B6H0021	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-IFB1	ICSAB01	10/17/16 23:05	B6H0022	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-CCV1	CCV01	10/17/16 23:09	B6G0037	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-CCB1	CCB01	10/17/16 23:13	B6I0028	1	Al As Ca Cu Fe Mg Mn Pb Zn
QJ14021-BLK1	PBS01	10/17/16 23:18		1	Al As Ca Cu Fe Mg Mn Pb Zn
QJ14021-BS1	LCS01	10/17/16 23:22		1	Al As Ca Cu Fe Mg Mn Pb Zn
6100165-01	MH1H14	10/17/16 23:26		1	Al As Ca Cu Fe Mg Mn Pb Zn
6100165-02	MH1H15	10/17/16 23:30		1	Al As Ca Cu Fe Mg Pb Zn
6100165-03	MH1H16	10/17/16 23:35		1	Al As Ca Cu Mg Mn Pb Zn
6100165-04	MH1H17	10/17/16 23:39		1	Al As Ca Cu Mg Mn Pb Zn
QJ14021-MS1	MH1H17S	10/17/16 23:43		1	As Cu Mn Pb Zn
QJ14021-DUP1	MH1H17D	10/17/16 23:48		1	Al As Ca Cu Mg Mn Pb Zn
BJ62626-SRD1	MH1H17L	10/17/16 23:52		5	Al As Ca Cu Mg Mn Pb Zn
6100165-05	MH1H18	10/17/16 23:56		1	Al As Ca Cu Mg Pb Zn
6100165-06	MH1H19	10/18/16 0:01		1	Al As Ca Cu Fe Mg Pb Zn
6100165-07	MH1H20	10/18/16 0:05		1	Al As Ca Cu Fe Mg Mn Pb Zn
6100165-08	MH1H21	10/18/16 0:09		1	Al As Ca Cu Fe Mg Mn Pb Zn
6100165-09	MH1H22	10/18/16 0:13		1	Al As Ca Cu Fe Mg Mn Pb Zn
6100165-10	MH1H23	10/18/16 0:18		1	Al As Ca Cu Mg Mn Pb Zn
6100165-11	MH1H24	10/18/16 0:22		1	Al As Ca Cu Fe Mg Mn Pb Zn
6100165-12	MH1H25	10/18/16 0:26		1	Al As Ca Cu Fe Mg Mn Pb Zn
6100165-13	MH1H26	10/18/16 0:30		1	Al As Ca Cu Mg Mn Pb Zn

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICAPP02 **Case:** 46282 **FileID:** MH1H14 **Std. Prep Date:** 10/13/16

Analyst: MSB2 **SDG:** MH1H14 **Calibration ID:** B644059 **Std. Log Page No.:** 30

Lab Number	EPA ID	Analyzed Date/Time	STD ID	DF	Elements list are used per QC/sample
6100165-14	MH1H27	10/18/16 0:35		1	Al As Ca Cu Mg Mn Pb Zn
BJ62626-CCV2	CCV02	10/18/16 0:39	B6G0037	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-CCB2	CCB02	10/18/16 0:43	B6I0028	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100165-15	MH1H28	10/18/16 0:47		1	Al As Ca Cu Mg Mn Pb Zn
6100165-16	MH1H29	10/18/16 0:52		1	Al As Ca Cu Mg Mn Pb Zn
6100165-17	MH1H30	10/18/16 0:56		1	Al As Ca Cu Mg Mn Pb Zn
6100165-18	MH1H31	10/18/16 1:00		1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-CCV3	CCV03	10/18/16 1:05	B6G0037	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62626-CCB3	CCB03	10/18/16 1:09	B6I0028	1	Al As Ca Cu Fe Mg Mn Pb Zn

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICAPP02 **Case:** 46282 **FileID:** 101816_CLP_A **Std. Prep Date:** 10/18/16
Analyst: MSB2 **SDG:** MH1H14 **Calibration ID:** B644060 **Std. Log Page No.:** 32

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
BJ62627-CAL1	S01	10/18/16 10:38	B6I0028	B6I0029	1	As Fe Mn
BJ62627-CAL2	S02	10/18/16 10:43	B6G0026	B6I0029	1	As Fe Mn
BJ62627-CAL3	S03	10/18/16 10:47	B6G0027	B6I0029	1	As Fe Mn
BJ62627-CAL4	S04	10/18/16 10:51	B6G0028	B6I0029	1	As Fe Mn
BJ62627-CAL5	S05	10/18/16 10:55	B6G0029	B6I0029	1	As Fe Mn
BJ62627-CAL6	S06	10/18/16 10:59	B6G0030	B6I0029	1	As Fe Mn
BJ62627-CAL7	S07	10/18/16 11:04	B6G0031	B6I0029	1	Fe Mn
BJ62627-CAL8	S08	10/18/16 11:08	B6G0032	B6I0029	1	Fe
BJ62627-CAL9	S09	10/18/16 11:12	B6J0169	B6I0029	1	Fe Mn
BJ62627-ICV1	ICV01	10/18/16 11:17	B6G0039	B6I0029	1	As Fe Mn
BJ62627-ICB1	ICB01	10/18/16 11:21	B6I0028	B6I0029	1	As Fe Mn
BJ62627-IFA1	ICSA01	10/18/16 11:25	B6H0021	B6I0029	1	Al As Ca Fe Mg Mn
BJ62627-IFB1	ICSAB01	10/18/16 11:30	B6H0022	B6I0029	1	Al As Ca Fe Mg Mn
BJ62627-CCV1	CCV01	10/18/16 11:34	B6G0037	B6I0029	1	As Fe Mn
BJ62627-CCB1	CCB01	10/18/16 11:38	B6I0028	B6I0029	1	As Fe Mn
BJ62627-CCV2	CCV02	10/18/16 11:47	B6G0037	B6I0029	1	As Fe Mn
BJ62627-CCB2	CCB02	10/18/16 11:51	B6I0028	B6I0029	1	As Fe Mn
BJ62627-CCV3	CCV03	10/18/16 12:00	B6G0037	B6I0029	1	As Fe Mn
BJ62627-CCB3	CCB03	10/18/16 12:04	B6I0028	B6I0029	1	As Fe Mn
BJ62627-CCV4	CCV04	10/18/16 12:17	B6G0037	B6I0029	1	As Fe Mn
BJ62627-CCB4	CCB04	10/18/16 12:21	B6I0028	B6I0029	1	As Fe Mn
QJ14021-PS1	MH1H17A	10/18/16 12:25		B6I0029	1	As Mn
6100165-02RE1	MH1H15	10/18/16 12:29		B6I0029	2	Mn
6100165-03RE1	MH1H16	10/18/16 12:34		B6I0029	6	Fe
6100165-04RE1	MH1H17	10/18/16 12:38		B6I0029	10	Fe
QJ14021-DUP2	MH1H17D	10/18/16 12:42		B6I0029	10	Fe
BJ62627-SRD2	MH1H17L	10/18/16 12:46		B6I0029	50	Fe
6100165-05RE1	MH1H18	10/18/16 12:51		B6I0029	6	Fe Mn
6100165-06RE1	MH1H19	10/18/16 12:55		B6I0029	10	Mn
6100165-10RE1	MH1H23	10/18/16 12:59		B6I0029	3	Fe
6100165-13RE1	MH1H26	10/18/16 13:03		B6I0029	3	Fe
6100165-14RE1	MH1H27	10/18/16 13:08		B6I0029	3	Fe
6100165-15RE1	MH1H28	10/18/16 13:12		B6I0029	3	Fe

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICAPP02 **Case:** 46282 **FileID:** 101816 CLP A **Std. Prep Date:** 10/18/16

Analyst: MSB2 **SDG:** MH1H14 **Calibration ID:** B644060 **Std. Log Page No.:** 32

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
6100165-16RE1	MH1H29	10/18/16 13:16		B6I0029	3	Fe
6100165-17RE1	MH1H30	10/18/16 13:20		B6I0029	3	Fe
BJ62627-CCV5	CCV05	10/18/16 13:25	B6G0037	B6I0029	1	As Fe Mn
BJ62627-CCB5	CCB05	10/18/16 13:29	B6I0028	B6I0029	1	As Fe Mn

File Name: CLP_10272016 SDG No.: MH1H14 Standards Prep Date: 10/24/16

Instrument: ICAPP0~~1~~2 Case No.: 46202 Standards Log Page No.: 33

Analyst: MQJ 10/27/16

Lab ID	EPA Sample #	Date&Time	Elements circled for S0-S# were used throughout this run unless otherwised noted. Al, As, ~~Sb, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, Pb, Mg, Mn,~~ Ni, K, Se, Ag, Na, Tl, V, Zn
BJ62713-CAL1	S01	10/27/16 8:55	
BJ62713-CAL2	S02	10/27/16 9:00	
BJ62713-CAL3	S03	10/27/16 9:04	
BJ62713-CAL4	S04	10/27/16 9:08	
BJ62713-CAL5	S05	10/27/16 9:13	
BJ62713-CAL6	S06	10/27/16 9:17	
BJ62713-ICV1	ICV01	10/27/16 9:30	
BJ62713-ICB1	ICB01	10/27/16 9:34	
BJ62713-IFA1	ICSA01	10/27/16 9:38	
BJ62713-IFB1	ICSAB01	10/27/16 9:43	
BJ62713-CCV1	CCV01	10/27/16 9:47	
BJ62713-CCB1	CCB01	10/27/16 9:51	
BJ62713-CCV2	CCV02	10/27/16 10:00	
BJ62713-CCB2	CCB02	10/27/16 10:04	
BJ62713-CCV3	CCV03	10/27/16 10:13	
BJ62713-CCB3	CCB03	10/27/16 10:17	
BJ62713-CCV4	CCV04	10/27/16 10:26	
BJ62713-CCB4	CCB04	10/27/16 10:30	
QJ14021-PS2	MH1H17A	10/27/16 10:34	
BJ62713-CCV5	CCV05	10/27/16 10:39	
BJ62713-CCB5	CCB05	10/27/16 10:43	

MH 10/27

File Name: MH1H14 SDG No.: Standards Prep Date:

Instrument: ICAPP02 Case No.: Standards Log Page No.:

Analyst: MSB2

Lab ID	EPA Sample #	Date&Time	Elements circled for S0-S# were used throughout this run unless otherwised noted. Al, As, Sb, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn
QJ14021-BS1	LCS01	10/17/16 23:22	
6100165-04	MH1H17	10/17/16 23:39	
QJ14021-MS1	MH1H17S	10/17/16 23:43	
6100165-04RE1	MH1H17	10/18/16 12:38	

10/27/16

Bonner Analytical Testing Company
ISM02.3 STANDARD & QC LOG

Standards for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/13/16

QC for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/13/16

Description	EPA ID	Amount Spiked	Volume Made	Manufacturer	Lot#	Date Lot Expires	LIMS ID
Initial Calibration High	S8		50 mL	NA	NA	2 weeks	B6G0032
Pb @ 1000 ppm		1.25 Ml	Composite	Inorganic Ventures	J2-PB03066	Mar-17	B6G0036
Al @ 10000 ppm		2.0 mL		Inorganic Ventures	J2-AL05009	Mar-17	B6G0034
Fe @ 10000 ppm		1.75 mL		Inorganic Ventures	K2-FE04057	Mar-17	B6G0035
Initial Calibration High	S7		50 mL	Inorganic Ventures	NA	2 weeks	B6G0031
BAT-12		4.0 mL	Composite		J2-MEB613057	Feb-17	B6G0025
Initial Calibration High	S6		50 mL	Inorganic Ventures	NA	2 weeks	B6G0030
BAT-5		5.0 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		5.0 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Mid	S5		50 mL	Inorganic Ventures	NA	2 weeks	B6G0029
BAT-5		2.5 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		2.5 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Low	S4		50 mL	Inorganic Ventures	NA	2 weeks	B6G0028
BAT-5		0.5 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		0.5 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Low	S3	2.0 mL	50 mL	Inorganic Ventures	From S5	2 weeks	B6G0027
Initial Calibration Low	S2		50 mL	NA	NA	2 weeks	B6G0026
Initial Calibration Mid (S4)		0.25 mL	Composite	Inorganic Ventures	From S5	2 weeks	B6G0029
Ag @ 350 ppb		1.0 mL		In-house	NA	Mar-17	B6G0033
Initial Calibration Blank	S1	NA	50 mL	In-house	NA	1 yr	
Continuing Calibration Blank	CCB						
Initial Calibration Blank	ICB						
Initial Calibration Verification	ICV	NA	50 mL	NA	NA	1 week	B6G0039
ICV-1		5.0 mL	Composite	EPA REF MATERIAL	0307	NA	B3A0040
ICV-3		1.0 mL		In-House	NA	Mar-17	B6G0038
Interelement Check Standard A	ICSA	25 mL	250 mL	EPA REF Material	1211	2 weeks	B5L0034
Interelement Check Standard AB	ICSAB	NA	250 mL	EPA REF Material	NA	2 weeks	B5L0033
ICS PART A		25 mL	Composite		1211	NA	B5L0034
ICS PART B		25 mL			0710	NA	B5L0033
Continuing Calibration Verification	CCV		100 mL	Inorganic Ventures	NA	2 weeks	B6G0037
BAT-5		5.0 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		5.0 mL			K2-MEB619109	Mar-17	B6G0024
BAT-12		3.0 mL			J2-MEB613057	Feb-17	B6G0025
Matrix Spike (see Note 3)	MS	NA	50 mL	Inorganic Ventures	NA	NA	
CLPP-SPK-1		200 uL (soil) 50uL (water)	Composite		J2-MEB568046	Feb-17	B6B0060
CLPP-SPK-5-REV1					K2-MEB619111	Feb-17	B6B0061
Lab Control Sample	LCS		50 mL	Inorganic Ventures	NA	NA	
BA-AES-CRQL-A		500uL (soil) 250uL (water)	Composite		K2-MEB650368	Aug-17	B6I0067

Note[1]: All standards and QC (exception: MS & LCS) are brought to final volume with the same acidified water source that is used for the S0, CCB & ICB.

Note[2]: ICV-3 includes all non-routine target metals.

Prepared By: [signature] Analyst

Reviewed By: [signature] 10/17/16 Supervisor/Date

Bonner Analytical Testing Company
ISM02.3 STANDARD & QC LOG

Standards for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/19/16

QC for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/19/16

Description	EPA ID	Amount Spiked	Volume Made	Manufacturer	Lot#	Date Lot Expires	LIMS ID
Initial Calibration High	S8		50 mL	NA	NA	2 weeks	B6G0032
Pb @ 1000 ppm		1.25 Ml	Composite	Inorganic Ventures	J2-PB03066	Mar-17	B6G0036
Al @ 10000 ppm		2.0 mL		Inorganic Ventures	J2-AL05009	Mar-17	B6G0034
Fe @ 10000 ppm		1.75 mL		Inorganic Ventures	K2-FE04057	Mar-17	B6G0035
Initial Calibration High	S7		50 mL	Inorganic Ventures	NA	2 weeks	B6G0031
BAT-12		4.0 mL	Composite		J2-MEB613057	Feb-17	B6G0025
Initial Calibration High	S6		50 mL	Inorganic Ventures	NA	2 weeks	B6G0030
BAT-5		5.0 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		5.0 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Mid	S5		50 mL	Inorganic Ventures	NA	2 weeks	B6G0029
BAT-5		2.5 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		2.5 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Low	S4		50 mL	Inorganic Ventures	NA	2 weeks	B6G0028
BAT-5		0.5 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		0.5 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Low	S3	2.0 mL	50 mL	Inorganic Ventures	From S5	2 weeks	B6G0027
Initial Calibration Low	S2		50 mL	NA	NA	2 weeks	B6G0026
Initial Calibration Mid (S4)		0.25 mL	Composite	Inorganic Ventures	From S5	2 weeks	B6G0029
Ag @ 350 ppb		1.0 mL		In-house	NA	Mar-17	B6G0033
Initial Calibration Blank	S1	NA	50 mL	In-house	NA	1 yr	
Continuing Calibration Blank	CCB						
Initial Calibration Blank	ICB						
Initial Calibration Verification	ICV	NA	50 mL	NA	NA	1 week	B6G0039
ICV-1		5.0 mL	Composite	EPA REF MATERIAL	0307	NA	B3A0040
ICV-3		1.0 mL		In-House	NA	Mar-17	B6G0038
Interelement Check Standard A	ICSA	25 mL	250 mL	EPA REF Material	1211	2 weeks	B5L0034
Interelement Check Standard AB	ICSAB	NA	250 mL	EPA REF Material	NA	2 weeks	B5L0033
ICS PART A		25 mL	Composite		1211	NA	B5L0034
ICS PART B		25 mL			0710	NA	B5L0033
Continuing Calibration Verification	CCV		100 mL	Inorganic Ventures	NA	2 weeks	B6G0037
BAT-5		5.0 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		5.0 mL			K2-MEB619109	Mar-17	B6G0024
BAT-12		3.0 mL			J2-MEB613057	Feb-17	B6G0025
Matrix Spike (see Note 3)	MS	NA	50 mL	Inorganic Ventures	NA	NA	
CLPP-SPK-1		200 uL (soil) 50uL (water)	Composite		J2-MEB568046	Feb-17	B6B0060
CLPP-SPK-5-REV1					K2-MEB619111	Feb-17	B6B0061
Lab Control Sample	LCS		50 mL	Inorganic Ventures	NA	NA	
BA-AES-CRQL-A		500uL (soil) 250uL (water)	Composite		K2-MEB650368	Aug-17	B6I0067

Note[1]: All standards and QC (exception: MS & LCS) are brought to final volume with the same acidified water source that is used for the S0, CCB & ICB.

Note[2]: ICV-3 includes all non-routine target metals.

Prepared By: _____ Analyst

Reviewed By: _____ Supervisor/Date

Bonner Analytical Testing Company
ISM02.3 STANDARD & QC LOG

Standards for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/24/16

QC for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/24/16

Description	EPA ID	Amount Spiked	Volume Made	Manufacturer	Lot#	Date Lot Expires	LIMS ID
Initial Calibration High	S8		50 mL	NA	NA	2 weeks	B6G0032
Pb @ 1000 ppm		1.25 Ml	Composite	Inorganic Ventures	J2-PB03066	Mar-17	B6G0036
Al @ 10000 ppm		2.0 mL		Inorganic Ventures	J2-AL05009	Mar-17	B6G0034
Fe @ 10000 ppm		1.75 mL		Inorganic Ventures	K2-FE04057	Mar-17	B6G0035
Initial Calibration High	S7		50 mL	Inorganic Ventures	NA	2 weeks	B6G0031
BAT-12		4.0 mL	Composite		J2-MEB613057	Feb-17	B6G0025
Initial Calibration High	S6		50 mL	Inorganic Ventures	NA	2 weeks	B6G0030
BAT-5		5.0 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		5.0 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Mid	S5		50 mL	Inorganic Ventures	NA	2 weeks	B6G0029
BAT-5		2.5 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		2.5 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Low	S4		50 mL	Inorganic Ventures	NA	2 weeks	B6G0028
BAT-5		0.5 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		0.5 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Low	S3	2.0 mL	50 mL	Inorganic Ventures	From S5	2 weeks	B6G0027
Initial Calibration Low	S2		50 mL	NA	NA	2 weeks	B6G0026
Initial Calibration Mid (S4)		0.25 mL	Composite	Inorganic Ventures	From S5	2 weeks	B6G0029
Ag @ 350 ppb		1.0 mL		In-house	NA	Mar-17	B6G0033
Initial Calibration Blank	S1	NA	50 mL	In-house	NA	1 yr	
Continuing Calibration Blank	CCB						
Initial Calibration Blank	ICB						
Initial Calibration Verification	ICV	NA	50 mL	NA	NA	1 week	B6G0039
ICV-1		5.0 mL	Composite	EPA REF MATERIAL	0307	NA	B3A0040
ICV-3		1.0 mL		In-House	NA	Mar-17	B6G0038
Interelement Check Standard A	ICSA	25 mL	250 mL	EPA REF Material	1211	2 weeks	B5L0034
Interelement Check Standard AB	ICSAB	NA	250 mL	EPA REF Material	NA	2 weeks	B5L0033
ICS PART A		25 mL	Composite		1211	NA	B5L0034
ICS PART B		25 mL			0710	NA	B5L0033
Continuing Calibration Verification	CCV		100 mL	Inorganic Ventures	NA	2 weeks	B6G0037
BAT-5		5.0 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		5.0 mL			K2-MEB619109	Mar-17	B6G0024
BAT-12		3.0 mL			J2-MEB613057	Feb-17	B6G0025
Matrix Spike (see Note 3)	MS	NA	50 mL	Inorganic Ventures	NA	NA	
CLPP-SPK-1		200 uL (soil)	Composite		J2-MEB568046	Feb-17	B6B0060
CLPP-SPK-5-REV1		50uL (water)			K2-MEB619111	Feb-17	B6B0061
Lab Control Sample	LCS		50 mL	Inorganic Ventures	NA	NA	
BA-AES-CRQL-A		500uL (soil) 250uL (water)	Composite		K2-MEB650368	Aug-17	B6I0067

Note[1]: All standards and QC (exception: MS & LCS) are brought to final volume with the same acidified water source that is used for the S0, CCB & ICB.

Note[2]: ICV-3 includes all non-routine target metals.

Prepared By: _____ Analyst

Reviewed By: _____ Supervisor/Date

LOG BOOK#: 33

REAGENTS PREPARATION LOG

ICAPP Reference Standard

LIMS ID: B6I0029

Preparation Date: 8/9/16

Prepared By: MHX BONNER

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled H2O	Neat	~20 L	BATCO	NA	NA	NA
Scandium	NEAT ~~10,000~~	~~0.309g~~ ~~10.0 ml~~ 0.614	ALDRICH	MKBS4635V	8/4/15	8/4/18
Indium (III) Chloride	Neat	1.98g	ALDRICH	MKBS6036V	8/4/15	8/4/18
Yttrium (III) Oxide	Neat	0.130g	ALDRICH	MKBT0144V	12/20/12	NA

Balance ID: Mettler IV

Instrument: ICAPP01 & ICAPP02

Fil Volume: 20 Liters

Concentration: Sc (10ppm); In (50ppm); Y (2.5ppm)

Used For: ICAPP Reference Standard

Expiration Date: 12 months after preparation date

Comments: Added 200 ml of conc. HNO_3 to acidify & stabilize soln.

Reviewed By: [signature] 8/9/16

Supervisor/Date

REAGENTS PREPARATION LOG

Acidified Water

LIMS ID: B61008

Preparation Date: 9/8/2016

Prepared By: MATT Johnson

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled H2O	Neat	18800 mL	BATCO	NA	NA	NA
Nitric Acid	Neat	200 mL	Fisher	111 6020	08/04/16	02/17/18
Hydrochloric Acid	Neat	1000 mL	Fisher	4116040	08/04/16	05/13/19

Balance ID: NA

Instrument: ICAPP01 & ICAPP02

Final Volume: 20 Liters

Concentration: 1% HNO3 / 5% HCl

Used For: ICAPP Acidified Water

Expiration Date: 12 months after preparation date

Comments:

Reviewed By: [signature] 9/8/16

Supervisor/Date

Metals Weekly Digestion Block Temperature Verification

Date	10/02/2016	10/02/2016	10/10/2016	10/10/2016	10/17/16	10/17/16	10/24/16	10/24/16
Initials	LEM	LEM	LEM	LEM	[illegible]	[illegible]	[illegible]	[illegible]
	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer
ICP Digester 01	115.0	95.0	95.0	96.5	115.0	96.4	115.0	95.0
ICP Digester 02	114.0	96.5	115.0	94.5	115.5	96.6	115.0	95.6
ICP Digester 03	NOT IN USE	NOT IN USE	NIU	NIU	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE
ICP Digester 04	92.0	94.0	NIU	NIU	[illegible]	93.5	NOT IN USE	NOT IN USE
Reviewed/Date:	[illegible]	10/03/16	[illegible]	10/18/16	[illegible]	10/18/2016	[illegible]	10/24/16

Date								
Initials								
	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer
ICP Digester 01								
ICP Digester 02								
ICP Digester 03								
ICP Digester 04								
Reviewed/Date:								

If temperature does not agree with the certified thermometer than either recalibrate the digestion block or use the thermometer to regulate the digestion block and record the thermometer temperature on digestion logs.

A copy of this page must accompany each SDG digested during the week.

**Certification cannot exceed 1 year

Thermometer Serial No./ID: H157522

**Date of certification: 03/10/2016

Bonner Analytical Testing Company
ISM02.3 ICP-AES Standards Concentration Page

Element	Wavelength (nm)	Stock Std. (mg/L)	Cal1@S1 (mg/L)	Cal2@S2 (mg/L)	Cal3@S3 (mg/L)	Cal4@S4 (mg/L)	Cal5@S5 (mg/L)	Cal6@S6 (mg/L)	Stock Std. (mg/L)	Cal7@S7 (mg/L)	Stock Std. (mg/L)	Cal8@S7 (mg/L)	CCV (mg/L)	ICV (µg/L)	ICSA (µg/L)	ICSAB (µg/L)	MS Water (µg/L)	MS Soil (mg/kg)	LCS (µg/L)	CRQL (µg/L)
Ag	328.0	10	0.00	0.010	0.02	0.1	0.5	1.0					0.5	501	(0)	201	50	10	20	10
Al	396.1	400	0.00	0.10	0.80	4.0	20.0	40.0	4000	320	10000	400	140.0	2521	254900	246800	2000		400	200
As	189.0	40	0.00	0.01	0.08	0.4	2.0	4.0					2.0	999	(0)	104	40	8	20	10
Ba	455.4	320	0.00	0.08	0.64	3.2	16.0	32.0					16.0	497	(6)	(537)	2000	400	400	200
Be	313.1	8	0.00	0.002	0.016	0.08	0.4	0.8					0.4	495	(0)	495	50	10	10	5
Ca	318.1	1000	0.00	0.250	2.0	10.0	50.0	100	5000	400			200.0	10026	244500	234900			10000	5000
Cd	214.4	20	0.00	0.005	0.04	0.2	1.0	2.0					1.0	496	(1)	972	50	10	10	5
Co	228.6	50	0.00	0.0125	0.10	0.5	2.5	5.0					2.5	499	(0)	476	500	100	100	50
Cr	267.7	40	0.00	0.01	0.08	0.4	2.0	4.0	125	10.0			5.8	490	52	542	200	40	20	10
Cu	324.7	100	0.00	0.025	0.20	1.0	5.0	10.0					5.0	492	(2)	511	250	50	50	25
Fe	259.8	400	0.00	0.1000	0.80	4.0	20.0	40.0	3500	280	10000	350	125.0	5082	100700	99320	1000		200	100
K	766.4	1000	0.00	0.25	2.0	10.0	50.0	100	3000	240			140.0	10021					1000	500
Mg	279.0	1000	0.00	0.25	2.0	10.0	50.0	100	5000	400			200.0	6074	255400	248000			10000	5000
Mn	257.6	60	0.00	0.015	0.12	0.6	3.0	6.0	200	16.0			9.0	499	(7)	507	500	100	30	15
Na	589.5	1000	0.00	0.25	2.0	10.0	50.0	100	2500	200			125.0	10097					1000	500
Ni	231.6	80	0.00	0.02	0.16	0.8	4.0	8.0					4.0	503	(2)	954	500	100	80	40
Pb	220.3	40	0.00	0.01	0.08	0.4	2.0	4.0	125	10.0	1000	25.0	5.8	1002	(0)	(49)	20	4	20	10
Sb	206.8	80	0.00	0.02	0.16	0.8	4.0	8.0					4.0	994	(0)	618	100	20	120	60
Se	196.0	70	0.00	0.0175	0.14	0.7	3.5	7.0					3.5	1029	(0)	(46)	100	20	70	35
Tl	190.8	80	0.00	0.02	0.16	0.8	4.0	8.0					4.0	1028	(0)	(108)	50	10	50	25
V	292.4	80	0.00	0.02	0.16	0.8	4.0	8.0					4.0	501	(0)	491	500	100	100	50
Zn	206.2	160	0.00	0.04	0.32	1.6	8.0	16.0					8.0	1025	(0)	952	500	100	120	60

() Indicates analyte value(s) that are less than the CRQL, and the value should be used as a set point for the +/- the CRQL acceptance criteria calculation.
The following calibration curve and QC concentrations coincide with the EPA IDs of the Standard & QC Log (ISM).

EPA SAMPLE NO.

MH1H14

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-01

% Solids: 58.9 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	1.7	*	10/18/2016	2307
7440-39-3	Barium	56.1		10/18/2016	2307
7440-41-7	Beryllium	0.68	J	10/18/2016	2307
7440-43-9	Cadmium	1.8		10/18/2016	2307
7440-47-3	Chromium	3.8		10/18/2016	2307
7440-48-4	Cobalt	6.6		10/18/2016	2307
7439-98-7	Molybdenum	2.3	J	10/18/2016	2307
7440-02-0	Nickel	2.9		10/18/2016	2307
7782-49-2	Selenium	2.2	J*	10/18/2016	2307
7440-22-4	Silver	1.9	*	10/18/2016	2307
7440-28-0	Thallium	0.30	J	10/18/2016	2307
7440-62-2	Vanadium	14.7		10/18/2016	2307

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H15

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-02

% Solids: 75.1 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	1.7	*	10/18/2016	2311
7440-39-3	Barium	51.0		10/18/2016	2311
7440-41-7	Beryllium	0.38	J	10/18/2016	2311
7440-43-9	Cadmium	1.7		10/18/2016	2311
7440-47-3	Chromium	3.9		10/18/2016	2311
7440-48-4	Cobalt	10.8		10/18/2016	2311
7439-98-7	Molybdenum	3.4		10/18/2016	2311
7440-02-0	Nickel	4.0		10/18/2016	2311
7782-49-2	Selenium	1.2	J*	10/18/2016	2311
7440-22-4	Silver	2.0	*	10/18/2016	2311
7440-28-0	Thallium	0.17	J	10/18/2016	2311
7440-62-2	Vanadium	19.3		10/18/2016	2311

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H16

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-03

% Solids: 51.8 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	0.95	J*	10/18/2016	2315
7440-39-3	Barium	9.6	J	10/18/2016	2315
7440-41-7	Beryllium	0.23	J	10/18/2016	2315
7440-43-9	Cadmium	0.71	J	10/18/2016	2315
7440-47-3	Chromium	1.9		10/18/2016	2315
7440-48-4	Cobalt	1.0		10/18/2016	2315
7439-98-7	Molybdenum	2.6	J	10/18/2016	2315
7440-02-0	Nickel	0.75	J	10/18/2016	2315
7782-49-2	Selenium	0.40	J*	10/18/2016	2315
7440-22-4	Silver	1.9	*	10/18/2016	2315
7440-28-0	Thallium	0.97	U	10/18/2016	2315
7440-62-2	Vanadium	12.4		10/18/2016	2315

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H17

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-04

% Solids: 68.9 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	2.5	*	10/18/2016	2319
7440-39-3	Barium	16.1		10/18/2016	2319
7440-41-7	Beryllium	0.39	J	10/18/2016	2319
7440-43-9	Cadmium	0.46	J	10/18/2016	2319
7440-47-3	Chromium	2.9		10/18/2016	2319
7440-48-4	Cobalt	1.5		10/18/2016	2319
7439-98-7	Molybdenum	2.2	J	10/18/2016	2319
7440-02-0	Nickel	1.1		10/18/2016	2319
7782-49-2	Selenium	1.1	J*	10/18/2016	2319
7440-22-4	Silver	1.9	*	10/18/2016	2319
7440-28-0	Thallium	0.11	J	10/18/2016	2319
7440-62-2	Vanadium	19.2		10/18/2016	2319

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H18

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-05

% Solids: 69.7 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	1.4	*	10/18/2016	2335
7440-39-3	Barium	33.7		10/18/2016	2335
7440-41-7	Beryllium	0.29	J	10/18/2016	2335
7440-43-9	Cadmium	1.7		10/18/2016	2335
7440-47-3	Chromium	4.9		10/18/2016	2335
7440-48-4	Cobalt	20.7		10/18/2016	2335
7439-98-7	Molybdenum	2.5	J	10/18/2016	2335
7440-02-0	Nickel	2.5		10/18/2016	2335
7782-49-2	Selenium	0.93	J*	10/18/2016	2335
7440-22-4	Silver	0.88	*	10/18/2016	2335
7440-28-0	Thallium	0.55	J	10/18/2016	2335
7440-62-2	Vanadium	10.5		10/18/2016	2335

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H19

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-06

% Solids: 58.8 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	1.9	*	10/18/2016	2339
7440-39-3	Barium	204		10/18/2016	2339
7440-41-7	Beryllium	0.92		10/18/2016	2339
7440-43-9	Cadmium	10.2		10/18/2016	2339
7440-47-3	Chromium	4.6		10/18/2016	2339
7440-48-4	Cobalt	81.5		10/18/2016	2339
7439-98-7	Molybdenum	5.2		10/18/2016	2339
7440-02-0	Nickel	15.7		10/18/2016	2339
7782-49-2	Selenium	2.9	J*	10/18/2016	2339
7440-22-4	Silver	2.3	*	10/18/2016	2339
7440-28-0	Thallium	1.1		10/18/2016	2339
7440-62-2	Vanadium	17.5		10/18/2016	2339

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H20

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-07

% Solids: 80.7 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	0.57	J*	10/18/2016	2343
7440-39-3	Barium	48.2		10/18/2016	2343
7440-41-7	Beryllium	0.18	J	10/18/2016	2343
7440-43-9	Cadmium	0.19	J	10/18/2016	2343
7440-47-3	Chromium	2.9		10/18/2016	2343
7440-48-4	Cobalt	3.2		10/18/2016	2343
7439-98-7	Molybdenum	1.5	J	10/18/2016	2343
7440-02-0	Nickel	1.4		10/18/2016	2343
7782-49-2	Selenium	1.5	J*	10/18/2016	2343
7440-22-4	Silver	0.71	*	10/18/2016	2343
7440-28-0	Thallium	0.16	J	10/18/2016	2343
7440-62-2	Vanadium	18.8		10/18/2016	2343

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H21

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-08

% Solids: 84.1 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	0.49	J*	10/18/2016	2347
7440-39-3	Barium	47.8		10/18/2016	2347
7440-41-7	Beryllium	0.24	J	10/18/2016	2347
7440-43-9	Cadmium	0.10	J	10/18/2016	2347
7440-47-3	Chromium	5.0		10/18/2016	2347
7440-48-4	Cobalt	7.2		10/18/2016	2347
7439-98-7	Molybdenum	2.8		10/18/2016	2347
7440-02-0	Nickel	3.8		10/18/2016	2347
7782-49-2	Selenium	1.6	J*	10/18/2016	2347
7440-22-4	Silver	1.3	*	10/18/2016	2347
7440-28-0	Thallium	0.20	J	10/18/2016	2347
7440-62-2	Vanadium	23.7		10/18/2016	2347

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H22

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-09

% Solids: 78.6 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	1.1	J*	10/18/2016	2351
7440-39-3	Barium	44.4		10/18/2016	2351
7440-41-7	Beryllium	0.14	J	10/18/2016	2351
7440-43-9	Cadmium	0.25	J	10/18/2016	2351
7440-47-3	Chromium	3.4		10/18/2016	2351
7440-48-4	Cobalt	3.0		10/18/2016	2351
7439-98-7	Molybdenum	4.0		10/18/2016	2351
7440-02-0	Nickel	2.2		10/18/2016	2351
7782-49-2	Selenium	1.7	J*	10/18/2016	2351
7440-22-4	Silver	4.3	*	10/18/2016	2351
7440-28-0	Thallium	0.15	J	10/18/2016	2351
7440-62-2	Vanadium	18.9		10/18/2016	2351

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H23

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-10

% Solids: 89.9 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	1.8	*	10/18/2016	2355
7440-39-3	Barium	48.6		10/18/2016	2355
7440-41-7	Beryllium	0.19	J	10/18/2016	2355
7440-43-9	Cadmium	0.38	J	10/18/2016	2355
7440-47-3	Chromium	4.5		10/18/2016	2355
7440-48-4	Cobalt	3.2		10/18/2016	2355
7439-98-7	Molybdenum	6.9		10/18/2016	2355
7440-02-0	Nickel	2.1		10/18/2016	2355
7782-49-2	Selenium	2.1	J*	10/18/2016	2355
7440-22-4	Silver	2.4	*	10/18/2016	2355
7440-28-0	Thallium	0.17	J	10/18/2016	2355
7440-62-2	Vanadium	25.4		10/18/2016	2355

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H24

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-11

% Solids: 74.6 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	0.58	J*	10/19/2016	0008
7440-39-3	Barium	53.7		10/19/2016	0008
7440-41-7	Beryllium	0.37	J	10/19/2016	0008
7440-43-9	Cadmium	0.14	J	10/19/2016	0008
7440-47-3	Chromium	3.3		10/19/2016	0008
7440-48-4	Cobalt	5.6		10/19/2016	0008
7439-98-7	Molybdenum	3.4		10/19/2016	0008
7440-02-0	Nickel	2.7		10/19/2016	0008
7782-49-2	Selenium	2.4	J*	10/19/2016	0008
7440-22-4	Silver	0.41	J*	10/19/2016	0008
7440-28-0	Thallium	0.25	J	10/19/2016	0008
7440-62-2	Vanadium	20.8		10/19/2016	0008

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H25

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.: 2658.0 SDG No.: MH1H14
Matrix: Soil
Lab Sample ID: 6100165-12
% Solids: 84.9
Date Received: 10/13/2016
Analytical method: ICP-MS
Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	0.54	J*	10/19/2016	0012
7440-39-3	Barium	68.0		10/19/2016	0012
7440-41-7	Beryllium	0.16	J	10/19/2016	0012
7440-43-9	Cadmium	0.077	J	10/19/2016	0012
7440-47-3	Chromium	2.6		10/19/2016	0012
7440-48-4	Cobalt	4.1		10/19/2016	0012
7439-98-7	Molybdenum	3.1		10/19/2016	0012
7440-02-0	Nickel	1.4		10/19/2016	0012
7782-49-2	Selenium	2.0	J*	10/19/2016	0012
7440-22-4	Silver	0.46	J*	10/19/2016	0012
7440-28-0	Thallium	0.23	J	10/19/2016	0012
7440-62-2	Vanadium	18.8		10/19/2016	0012

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H26

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-13

% Solids: 78.6 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	0.59	J*	10/19/2016	0016
7440-39-3	Barium	45.1		10/19/2016	0016
7440-41-7	Beryllium	0.36	J	10/19/2016	0016
7440-43-9	Cadmium	0.18	J	10/19/2016	0016
7440-47-3	Chromium	3.1		10/19/2016	0016
7440-48-4	Cobalt	6.3		10/19/2016	0016
7439-98-7	Molybdenum	4.5		10/19/2016	0016
7440-02-0	Nickel	2.0		10/19/2016	0016
7782-49-2	Selenium	1.9	J*	10/19/2016	0016
7440-22-4	Silver	0.48	J*	10/19/2016	0016
7440-28-0	Thallium	0.20	J	10/19/2016	0016
7440-62-2	Vanadium	21.1		10/19/2016	0016

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H27

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-14

% Solids: 89.8 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	0.62	J*	10/19/2016	0020
7440-39-3	Barium	59.6		10/19/2016	0020
7440-41-7	Beryllium	0.24	J	10/19/2016	0020
7440-43-9	Cadmium	0.10	J	10/19/2016	0020
7440-47-3	Chromium	4.3		10/19/2016	0020
7440-48-4	Cobalt	3.3		10/19/2016	0020
7439-98-7	Molybdenum	4.0		10/19/2016	0020
7440-02-0	Nickel	1.9		10/19/2016	0020
7782-49-2	Selenium	2.1	J*	10/19/2016	0020
7440-22-4	Silver	0.64	*	10/19/2016	0020
7440-28-0	Thallium	0.21	J	10/19/2016	0020
7440-62-2	Vanadium	27.0		10/19/2016	0020

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H28

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-15

% Solids: 63.8 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	0.74	J*	10/19/2016	0024
7440-39-3	Barium	36.6		10/19/2016	0024
7440-41-7	Beryllium	0.99		10/19/2016	0024
7440-43-9	Cadmium	0.19	J	10/19/2016	0024
7440-47-3	Chromium	2.6		10/19/2016	0024
7440-48-4	Cobalt	4.6		10/19/2016	0024
7439-98-7	Molybdenum	7.8		10/19/2016	0024
7440-02-0	Nickel	2.2		10/19/2016	0024
7782-49-2	Selenium	2.1	J*	10/19/2016	0024
7440-22-4	Silver	0.59	J*	10/19/2016	0024
7440-28-0	Thallium	0.18	J	10/19/2016	0024
7440-62-2	Vanadium	19.0		10/19/2016	0024

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H29

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-16

% Solids: 84.6 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	0.42	J*	10/19/2016	0028
7440-39-3	Barium	48.5		10/19/2016	0028
7440-41-7	Beryllium	0.37	J	10/19/2016	0028
7440-43-9	Cadmium	0.18	J	10/19/2016	0028
7440-47-3	Chromium	3.3		10/19/2016	0028
7440-48-4	Cobalt	4.8		10/19/2016	0028
7439-98-7	Molybdenum	4.1		10/19/2016	0028
7440-02-0	Nickel	1.9		10/19/2016	0028
7782-49-2	Selenium	2.1	J*	10/19/2016	0028
7440-22-4	Silver	0.71	*	10/19/2016	0028
7440-28-0	Thallium	0.17	J	10/19/2016	0028
7440-62-2	Vanadium	23.3		10/19/2016	0028

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H30

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-17

% Solids: 71.6 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	0.66	J*	10/19/2016	0032
7440-39-3	Barium	44.9		10/19/2016	0032
7440-41-7	Beryllium	1.0		10/19/2016	0032
7440-43-9	Cadmium	0.30	J	10/19/2016	0032
7440-47-3	Chromium	2.6		10/19/2016	0032
7440-48-4	Cobalt	4.2		10/19/2016	0032
7439-98-7	Molybdenum	7.4		10/19/2016	0032
7440-02-0	Nickel	1.8		10/19/2016	0032
7782-49-2	Selenium	2.0	J*	10/19/2016	0032
7440-22-4	Silver	0.54	J*	10/19/2016	0032
7440-28-0	Thallium	0.18	J	10/19/2016	0032
7440-62-2	Vanadium	19.4		10/19/2016	0032

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H31

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-18

% Solids: 86.5 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	0.73	J*	10/19/2016	0036
7440-39-3	Barium	51.2		10/19/2016	0036
7440-41-7	Beryllium	0.33	J	10/19/2016	0036
7440-43-9	Cadmium	0.22	J	10/19/2016	0036
7440-47-3	Chromium	2.6		10/19/2016	0036
7440-48-4	Cobalt	3.9		10/19/2016	0036
7439-98-7	Molybdenum	6.7		10/19/2016	0036
7440-02-0	Nickel	1.9		10/19/2016	0036
7782-49-2	Selenium	2.4	J*	10/19/2016	0036
7440-22-4	Silver	1.5	*	10/19/2016	0036
7440-28-0	Thallium	0.19	J	10/19/2016	0036
7440-62-2	Vanadium	17.1		10/19/2016	0036

NOTE: Hardness (total) is reported in mg/L

Comments:

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ62106101816B Analytical method: ICP-MS

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Antimony	199.00	195	98	3	500.00	532	106	1	534	107	2
Barium	99.000	100	101	2	500.00	524	105	1	519	104	2
Beryllium	99.000	106	107	1	500.00	494	99	0	507	101	2
Cadmium	99.000	97.8	99	2	500.00	514	103	1	512	102	2
Chromium	98.000	98.9	101	1	500.00	507	101	0	493	99	2
Cobalt	100.00	102	102	2	500.00	496	99	1	500	100	1
Molybdenum	10.000	10.5	105	2	1250.0	1240	99	0	1240	99	1
Nickel	101.00	100	99	2	500.00	499	100	1	506	101	1
Selenium	206.00	205	100	1	500.00	507	101	1	489	98	3
Silver	100.00	99.7	100	1	65.000	65.7	101	1	65.7	101	2
Thallium	206.00	211	102	0	500.00	483	97	1	484	97	0
Vanadium	100.00	98.1	98	1	500.00	499	100	0	485	97	2

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ62106101816B Analytical method: ICP-MS

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV03				ID: CCV04		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Antimony					500.00	530	106	2	543	109	1
Barium					500.00	516	103	1	525	105	0
Beryllium					500.00	491	98	1	504	101	1
Cadmium					500.00	507	101	1	521	104	1
Chromium					500.00	491	98	2	494	99	0
Cobalt					500.00	496	99	1	510	102	0
Molybdenum					1250.0	1220	98	1	1260	101	1
Nickel					500.00	500	100	2	513	103	0
Selenium					500.00	487	98	1	487	97	2
Silver					65.000	65.5	101	1	66.2	102	1
Thallium					500.00	486	97	1	497	100	0
Vanadium					500.00	482	96	1	483	97	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ62106101816B Analytical method: ICP-MS

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID:CCV05				ID:CCV06		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Antimony					500.00	523	105	0	534	107	1
Barium					500.00	502	100	0	508	102	0
Beryllium					500.00	505	101	1	484	97	1
Cadmium					500.00	505	101	0	507	101	1
Chromium					500.00	470	94	1	475	95	0
Cobalt					500.00	495	99	1	502	100	0
Molybdenum					1250.0	1250	100	0	1240	99	0
Nickel					500.00	496	99	1	500	100	1
Selenium					500.00	457	91	1	468	94	0
Silver					65.000	64.3	99	1	64.8	100	0
Thallium					500.00	499	100	0	495	99	0
Vanadium					500.00	456	91	1	462	93	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ62106101816B Analytical method: ICP-MS

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV07				ID: CCV08		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Antimony					500.00	538	108	1	537	107	0
Barium					500.00	512	102	1	514	103	0
Beryllium					500.00	463	93	1	470	94	1
Cadmium					500.00	510	102	1	512	102	0
Chromium					500.00	482	96	2	475	95	1
Cobalt					500.00	506	101	1	509	102	0
Molybdenum					1250.0	1270	102	1	1270	102	1
Nickel					500.00	503	101	0	504	101	1
Selenium					500.00	472	95	2	467	93	2
Silver					65.000	65.2	100	0	65.7	101	0
Thallium					500.00	500	100	1	497	99	0
Vanadium					500.00	469	94	1	464	93	1

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ62107M101916A Analytical method: ICP-MS

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Antimony	199.0C	202	101	1	500.00	530	106	0	530	106	2
Selenium	206.0C	207	101	1	500.00	512	102	1	510	102	0

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-MS Preparation Batch: QJ14030

Run Batch: BJ62106101816B Preparation Method: 200.8

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID: CCB03	Q	ID: PBS01	Q
Antimony	2.0	U	0.21	J	0.20	J	0.13	J	1.0	U
Barium	10	U	0.19	J	0.18	J	0.10	J	5.0	U
Beryllium	1.0	U	0.22	J	0.22	J	0.14	J	0.50	U
Cadmium	0.052	J	0.19	J	0.16	J	0.087	J	0.50	U
Chromium	2.0	U	2.0	U	2.0	U	2.0	U	1.0	U
Cobalt	0.053	J	0.19	J	0.17	J	0.11	J	0.50	U
Molybdenum	4.0	U	0.49	J	0.44	J	0.35	J	2.0	U
Nickel	1.0	U	0.28	J	0.19	J	1.0	U	0.14	J
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	2.5	U
Silver	0.051	J	0.036	J	0.027	J	0.014	J	0.50	U
Thallium	0.12	J	0.24	J	0.21	J	0.14	J	0.50	U
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U	2.5	U

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-MS Preparation Batch: QJ14030

Run Batch: BJ62106101816B Preparation Method: 200.8

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID:	Q	ID: CCB04	Q	ID: CCB05	Q	ID: CCB06	Q	ID:	Q
Antimony			2.0	U	2.0	U	2.0	U		
Barium			0.093	J	10	U	0.062	J		
Beryllium			0.13	J	0.12	J	0.12	J		
Cadmium			0.093	J	0.067	J	0.072	J		
Chromium			2.0	U	2.0	U	2.0	U		
Cobalt			0.085	J	0.080	J	0.083	J		
Molybdenum			0.29	J	0.41	J	0.43	J		
Nickel			1.0	U	1.0	U	1.0	U		
Selenium			5.0	U	5.0	U	5.0	U		
Silver			0.014	J	0.010	J	0.012	J		
Thallium			0.12	J	0.10	J	0.11	J		
Vanadium			5.0	U	5.0	U	5.0	U		

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-MS Preparation Batch: QJ14030

Run Batch: BJ62106101816B Preparation Method: 200.8

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
	ID:	Q	ID: CCB07	Q	ID: CCB08	Q	ID:	Q	ID:	Q
Antimony			2.0	U	2.0	U				
Barium			0.066	J	10	U				
Beryllium			0.11	J	1.0	U				
Cadmium			0.057	J	0.047	J				
Chromium			2.0	U	2.0	U				
Cobalt			0.055	J	0.047	J				
Molybdenum			0.39	J	0.36	J				
Nickel			1.0	U	1.0	U				
Selenium			5.0	U	5.0	U				
Silver			0.0074	J	0.0068	J				
Thallium			0.090	J	0.077	J				
Vanadium			5.0	U	5.0	U				

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-MS Preparation Batch:

Run Batch: BJ62107M101916A Preparation Method:

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID:	Q	ID:	Q
Antimony	2.0	U	2.0	U	2.0	U				
Selenium	5.0	U	5.0	U	5.0	U				

NOTE: Hardness (total) is reported in mg/L

FORM 4-IN
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Analytical Method: ICP-MS ICSA Source: USEPA, Lot:ICSA-0803

Instrument ID: ICPMS01 ICSB Source: USEPA, Lot:ICSA-0803 & ICSB-0803

Run Batch: BJ62106101816B

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Antimony	1.5	22	1.2	80	21.1	96
Barium	1.2	22	2.1	175	23.1	105
Beryllium	0	19	0.34		18.8	99
Cadmium	0.7	20	0.48	69	19.3	97
Chromium	21	40	21.5	102	43.4	109
Cobalt	1	20	1.4	140	20.8	104
Molybdenum	2000	2000	2060	103	2050	103
Nickel	6	24	5.7	95	24.1	100
Selenium	0.3	19	-0.016	-5	19.7	104
Silver	0	18	0.026		18.2	101
Thallium	0	21	0.062		19.6	93
Vanadium	0.5	19	-0.55	-110	21.2	112

FORM 4-IN
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Analytical Method: ICP-MS ICSA Source: USEPA, Lot:ICSA-0803

Instrument ID: ICPMS01 ICSB Source: USEPA, Lot:ICSA-0803 & ICSB-0803

Run Batch: BJ62107M101916A

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Antimony	1.5	22	1.1	73	20.8	95
Selenium	0.3	19	-0.097	-32	20.2	106

EPA SAMPLE NO.

MH1H17S

FORM 5A-IN
MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Analytical Method: ICP-MS

% Solids: 68.9

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Q	Sample Result (SR)	Q	Spike Added (SA)	%R	Q
Antimony	75-125	11.0		2.5		14.5	60	*
Barium	75-125	280		16.1		290	91	
Beryllium	75-125	6.1		0.39	J	7.26	79	
Cadmium	75-125	6.7		0.46	J	7.26	86	
Chromium	75-125	30.0		2.9		29.0	93	
Cobalt	75-125	65.0		1.5		72.6	88	
Molybdenum	75-125	110		2.2	J	145	77	
Nickel	75-125	63.0		1.1		72.6	85	
Selenium	75-125	9.5		1.1	J	14.5	58	*
Silver	75-125	7.7		1.9		7.26	80	
Thallium	75-125	6.7		0.11	J	7.26	91	
Vanadium	75-125	85.0		19.2		72.6	91	

EPA SAMPLE NO.

MH1H17A

FORM 5B-IN
POST-DIGESTION/DISTILLATION SPIKE
SAMPLE RECOVERY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No. 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Analytical Method: ICP-MS

% Solids: 68.9

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Q	Sample Result (SR)	Q	Spike Added (SA)	%R	Q
Antimony	75-125	6.5		2.5		4.9	81	
Selenium	75-125	10.0		1.1	J	7.3	129	*

EPA SAMPLE NO.

FORM 6-IN
DUPLICATES

MH1H17D

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Analytical Method: ICP-MS

% Solids: 68.9

Concentration Units (µg/L, mg/L, or mg/kg dry weight): mg/Kg

Analyte	Control Limit	Sample (S)	Q	Duplicate (D)	Q	RPD	Q
Antimony	1.5	2.5		0.78	J	105	*
Barium	7.3	16.1		18.0		11	
Beryllium		0.39	J	0.35	J		
Cadmium		0.46	J	0.34	J		
Chromium	1.5	2.9		2.9		2	
Cobalt	0.73	1.5		1.5		2	
Molybdenum		2.2	J	1.8	J		
Nickel	0.73	1.1		0.97		9	
Selenium		1.1	J	0.69	J		
Silver	0.73	1.9		1.6		20	
Thallium		0.11	J	0.12	J		
Vanadium		19.2		21.4		11	

NOTE: Hardness (total) is reported in mg/L

EPA SAMPLE NO.

LCS01

FORM 7-IN
LABORATORY CONTROL SAMPLE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Preparation Method: 200.8

Analytical method: ICP-MS Preparation Batch: QJ14030

Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/Kg

Analyte	True	Found	%R
Antimony	2.0000	2.1	105
Barium	10.000	10.4	104
Beryllium	1.0000	1.0	100
Cadmium	1.0000	1.0	100
Chromium	2.0000	1.9	95
Cobalt	1.0000	1.0	100
Molybdenum	4.0000	4.0	100
Nickel	1.0000	1.0	100
Selenium	5.0000	4.8	96
Silver	1.0000	1.0	100
Thallium	1.0000	1.0	100
Vanadium	5.0000	4.8	96

EPA SAMPLE NO.

MH1H17L

FORM 8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Matrix: Soil Analytical method: ICP-MS

% Solids: 68.9

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/Kg

Analyte	Initial Sample Result (I)	Q	Serial Dilution Result (S)	Q	% Difference	Q
Antimony	2.5		2.8	J	11	*
Barium	16.1		17.1	J	6	
Beryllium	0.39	J	0.49	J	25	
Cadmium	0.46	J	0.56	J	21	
Chromium	2.9		2.4	J	18	
Cobalt	1.5		1.8	J	15	
Molybdenum	2.2	J	2.5	J	13	
Nickel	1.1		1.7	J	59	
Selenium	1.1	J	1.2	J	9	
Silver	1.9		2.2	J	13	*
Thallium	0.11	J	3.6	U	100	
Vanadium	19.2		19.6		2	

NOTE: Hardness (total) is reported in mg/L

FORM 9-IN
METHOD DETECTION LIMIT

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

Analytical Method: ICP-MS Instrument ID: ICPMS01

Preparation Method: 200.8

Concentration Units (µg/L, µg, or mg/kg): mg/Kg

Analyte	Wavelength/Mass		MDL	Date Analyzed
Antimony	121.00	u	0.03	06/28/2016
Barium	137.00	u	0.044	06/27/2016
Beryllium	9.00	u	0.04	06/28/2016
Cadmium	111.00	u	0.042	06/29/2016
Chromium	52.00	u	0.082	06/29/2016
Cobalt	59.00	u	0.03	06/28/2016
Nickel	60.00	u	0.045	06/28/2016
Selenium	78.00	u	0.068	06/29/2016
Silver	107.00	u	0.027	06/28/2016
Thallium	205.00	u	0.038	06/29/2016
Vanadium	51.00	u	0.082	06/28/2016
Molybdenum	95.00	u	0.045	06/28/2016

FORM 11-IN
ICP-MS INTERNAL STANDARD ASSOCIATION

Lab Name: Bonner Analytical Testing Co
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H14
Instrument ID: ICPMS01
Date: 10/18/2016
Run Batch: BJ62106101816B

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Antimony	Sc	Tb
Barium	Sc	Tb
Beryllium	Sc	
Cadmium	Sc	Tb
Chromium	Rh	
Cobalt	Sc	Tb
Molybdenum	Sc	Tb
Nickel	Sc	Tb
Selenium	Rh	
Silver	Sc	Tb
Thallium	Ho	
Vanadium	Rh	

FORM 11-IN
ICP-MS INTERNAL STANDARD ASSOCIATION

Lab Name: Bonner Analytical Testing Co
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.: 2658.0 SDG No.: MH1H14
Instrument ID: ICPMS01
Date: 10/19/2016
Run Batch: BJ62107M101916A

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Antimony	Sc	Tb
Selenium	Rh	

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.: 2658.0 SDG No.: MH1H14

Instrument ID: ICPMS01

Analytical Method: ICP-MS

Start Date: 10/18/2016

End Date: 10/19/2016

Run Batch: BJ62106101816B

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
TUNE01	1.0	1736																									
S01	1.0	1747		X		X	X	X		X	X							X		X	X		X	X			
S02	1.0	1751																									
S03	1.0	1756				X																					
S04	1.0	1800		X			X	X		X	X							X		X	X		X	X			
S05	1.0	1804		X		X	X	X		X	X							X		X	X		X	X			
S06	1.0	1808		X		X	X	X		X	X							X		X	X		X	X			
S07	1.0	1811		X		X	X	X		X	X							X		X	X		X	X			
S08	1.0	1815		X		X	X	X		X	X							X		X	X		X	X			
ICV01	1.0	1820		X		X	X	X		X	X							X		X	X		X	X			
ICB01	1.0	1823		X		X	X	X		X	X							X		X	X		X	X			
ICSA01	1.0	1827		X		X	X	X		X	X							X		X	X		X	X			
ICSAB01	1.0	1831		X		X	X	X		X	X							X		X	X		X	X			
CCV01	1.0	1835		X		X	X	X		X	X							X		X	X		X	X			
CCB01	1.0	1839		X		X	X	X		X	X							X		X	X		X	X			
CCV02	1.0	1910		X		X	X	X		X	X							X		X	X		X	X			
CCB02	1.0	1914		X		X	X	X		X	X							X		X	X		X	X			
CCV03	1.0	1945		X		X	X	X		X	X							X		X	X		X	X			
CCB03	1.0	1949		X		X	X	X		X	X							X		X	X		X	X			
CCV04	1.0	2006		X		X	X	X		X	X							X		X	X		X	X			
CCB04	1.0	2010		X		X	X	X		X	X							X		X	X		X	X			
CCV05	1.0	2108		X		X	X	X		X	X							X		X	X		X	X			
CCB05	1.0	2112		X		X	X	X		X	X							X		X	X		X	X			
CCV06	1.0	2250		X		X	X	X		X	X							X		X	X		X	X			
CCB06	1.0	2254		X		X	X	X		X	X							X		X	X		X	X			
PBS01	1.0	2258		X		X	X	X		X	X							X		X	X		X	X			
LCS01	1.0	2303		X		X	X	X		X	X							X		X	X		X	X			
MH1H14	1.0	2307		X		X	X	X		X	X							X		X	X		X	X			
MH1H15	1.0	2311		X		X	X	X		X	X							X		X	X		X	X			
MH1H16	1.0	2315		X		X	X	X		X	X							X		X	X		X	X			

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.: 2658.0

SDG No.: MH1H14

Instrument ID: ICPMS01

Analytical Method: ICP-MS

Start Date: 10/18/2016

End Date: 10/19/2016

Run Batch: BJ62106101816B

EPA Sample NO.	D/F	Time	Analytes																							
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN
MH1H17	1.0	2319		X		X	X	X		X	X							X		X	X		X	X		
MH1H17S	1.0	2323		X		X	X	X		X	X							X		X	X		X	X		
MH1H17D	1.0	2327		X		X	X	X		X	X							X		X	X		X	X		
MH1H17L	5.0	2331		X		X	X	X		X	X							X		X	X		X	X		
MH1H18	1.0	2335		X		X	X	X		X	X							X		X	X		X	X		
MH1H19	1.0	2339		X		X	X	X		X	X							X		X	X		X	X		
MH1H20	1.0	2343		X		X	X	X		X	X							X		X	X		X	X		
MH1H21	1.0	2347		X		X	X	X		X	X							X		X	X		X	X		
MH1H22	1.0	2351		X		X	X	X		X	X							X		X	X		X	X		
MH1H23	1.0	2355		X		X	X	X		X	X							X		X	X		X	X		
CCV07	1.0	2359		X		X	X	X		X	X							X		X	X		X	X		
CCB07	1.0	C004		X		X	X	X		X	X							X		X	X		X	X		
MH1H24	1.0	C008		X		X	X	X		X	X							X		X	X		X	X		
MH1H25	1.0	C012		X		X	X	X		X	X							X		X	X		X	X		
MH1H26	1.0	C016		X		X	X	X		X	X							X		X	X		X	X		
MH1H27	1.0	C020		X		X	X	X		X	X							X		X	X		X	X		
MH1H28	1.0	C024		X		X	X	X		X	X							X		X	X		X	X		
MH1H29	1.0	C028		X		X	X	X		X	X							X		X	X		X	X		
MH1H30	1.0	C032		X		X	X	X		X	X							X		X	X		X	X		
MH1H31	1.0	C036		X		X	X	X		X	X							X		X	X		X	X		
ZZZZZZ	1.0	C040																								
CCV08	1.0	C045		X		X	X	X		X	X							X		X	X		X	X		
CCB08	1.0	C049		X		X	X	X		X	X							X		X	X		X	X		

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H14
Instrument ID: ICPMS01
Analytical Method: ICP-MS
Start Date: 10/18/2016
End Date: 10/19/2016
Run Batch: BJ62106101816B

EPA Sample NO.	D/F	Time	Analytes																							
			B	Au	Li	Bi	Mo	Os	Pd	P	Pt	Si	S	Sn	Sr	Ti	U	Zr								
TUNE01	1.0	1736																								
S01	1.0	1747					X																			
S02	1.0	1751					X																			
S03	1.0	1756					X																			
S04	1.0	1800					X																			
S05	1.0	1804					X																			
S06	1.0	1808					X																			
S07	1.0	1811					X																			
S08	1.0	1815					X																			
ICV01	1.0	1820					X																			
ICB01	1.0	1823					X																			
ICSA01	1.0	1827					X																			
ICSAB01	1.0	1831					X																			
CCV01	1.0	1835					X																			
CCB01	1.0	1839					X																			
CCV02	1.0	1910					X																			
CCB02	1.0	1914					X																			
CCV03	1.0	1945					X																			
CCB03	1.0	1949					X																			
CCV04	1.0	2006					X																			
CCB04	1.0	2010					X																			
CCV05	1.0	2108					X																			
CCB05	1.0	2112					X																			
CCV06	1.0	2250					X																			
CCB06	1.0	2254					X																			
PBS01	1.0	2258					X																			
LCS01	1.0	2303					X																			
MH1H14	1.0	2307					X																			
MH1H15	1.0	2311					X																			
MH1H16	1.0	2315					X																			

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H14
Instrument ID: ICPMS01
Analytical Method: ICP-MS
Start Date: 10/18/2016
End Date: 10/19/2016
Run Batch: BJ62106101816B

EPA Sample NO.	D/F	Time	Analytes																							
			B	Au	Li	Bi	Mo	Os	Pd	P	Pt	Si	S	Sn	Sr	Ti	U	Zr								
MH1H17	1.0	2319					X																			
MH1H17S	1.0	2323					X																			
MH1H17D	1.0	2327					X																			
MH1H17L	5.0	2331					X																			
MH1H18	1.0	2335					X																			
MH1H19	1.0	2339					X																			
MH1H20	1.0	2343					X																			
MH1H21	1.0	2347					X																			
MH1H22	1.0	2351					X																			
MH1H23	1.0	2355					X																			
CCV07	1.0	2359					X																			
CCB07	1.0	0004					X																			
MH1H24	1.0	0008					X																			
MH1H25	1.0	0012					X																			
MH1H26	1.0	0016					X																			
MH1H27	1.0	0020					X																			
MH1H28	1.0	0024					X																			
MH1H29	1.0	0028					X																			
MH1H30	1.0	0032					X																			
MH1H31	1.0	0036					X																			
ZZZZZZ	1.0	0040																								
CCV08	1.0	0045					X																			
CCB08	1.0	0049					X																			

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.: 2658.0

SDG No.: MH1H14

Instrument ID: ICPMS01

Analytical Method: ICP-MS

Start Date: 10/19/2016

End Date: 10/19/2016

Run Batch: BJ62107M101916A

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
TUNE01	1.0	0739																									
S01	1.0	0751		X																X							
S04	1.0	0803		X																X							
S05	1.0	0807		X																X							
S06	1.0	0811		X																X							
S07	1.0	0815		X																X							
S08	1.0	0819		X																X							
ICV01	1.0	0823		X																X							
ICB01	1.0	0828		X																X							
ICSA01	1.0	0832		X																X							
ICSAB01	1.0	0836		X																X							
CCV01	1.0	0840		X																X							
CCB01	1.0	0845		X																X							
ZZZZZZ	1.0	0849																									
ZZZZZZ	1.0	0853																									
ZZZZZZ	1.0	0857																									
ZZZZZZ	1.0	0901																									
MH1H17A	1.0	0905		X																X							
ZZZZZZ	2.0	0909																									
CCV02	1.0	0914		X																X							
CCB02	1.0	0918		X																X							

EPA SAMPLE NO.

TUNE01

FORM 13-IN
ICP-MS TUNE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

ICP-MS Instrument ID: ICPMS01 Date: 10/18/16

Run Batch: BJ62106101816B

Element - Mass	Avg. Measured Mass (u)	Average Peak Width (u)	%Height	%RSD
Be - 9	9.0	0.8	5	0.8
Mg - 24	23.9	0.7	5	1.1
Mg - 25	24.9	0.7	5	1.2
Mg - 26	25.9	0.7	5	1.7
Co - 59	58.9	0.7	5	0.8
In - 113	112.9	0.7	5	1.3
In - 115	114.9	0.7	5	1.3
Pb - 206	205.9	0.7	5	1.2
Pb - 207	206.9	0.7	5	1.5
Pb - 208	207.9	0.7	5	1.3

EPA SAMPLE NO.

TUNE01

FORM 13-IN
ICP-MS TUNE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H14

ICP-MS Instrument ID: ICPMS01 Date: 10/19/16

Run Batch: BJ62107M101916A

Element - Mass	Avg. Measured Mass (u)	Average Peak Width (u)	%Height	%RSD
Be - 9	9.0	0.7	5	0.9
Mg - 24	23.9	0.7	5	0.3
Mg - 25	24.9	0.7	5	0.8
Mg - 26	25.9	0.7	5	0.5
Co - 59	58.9	0.7	5	0.7
In - 113	112.9	0.7	5	0.6
In - 115	114.9	0.7	5	0.6
Pb - 206	205.9	0.7	5	0.9
Pb - 207	206.9	0.7	5	1.0
Pb - 208	207.9	0.7	5	0.7

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H14

ICP-MS Instrument ID: ICPMS01 Start Date: 10/18/2016

Run Batch: BJ62106101816B End Date: 10/19/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element Rh-103	Q	Element In-115	Q
S01	17:47	100		100				100			
S02	17:51	102		102				102			
S03	17:56	102		102				103			
S04	18:00	103		103				104			
S05	18:04	102		101				103			
S06	18:08	102		102				102			
S07	18:11	100		99				97			
S08	18:15	92		86				89			
ICV01	18:20	91		80				91			
ICB01	18:23	92		83				90			
ICSA01	18:27	89		93				90			
ICSAB01	18:31	88		103				95			
CCV01	18:35	95		111				107			
CCB01	18:39	91		100				104			
CCV02	19:10	97		102				100			
CCB02	19:14	93		92				98			
CCV03	19:45	96		100				100			
CCB03	19:49	94		91				97			
CCV04	20:06	96		97				97			
CCB04	20:10	94		90				98			
CCV05	21:08	89		84				92			
CCB05	21:12	87		78				90			
CCV06	22:50	94		93				96			
CCB06	22:54	91		84				95			
PBS01	22:58	90		83				95			
LCS01	23:03	91		84				98			
MH1H14	23:07	92		92				99			
MH1H15	23:11	94		100				98			
MH1H16	23:15	87		90				89			
MH1H17	23:19	85		90				85			

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H14

ICP-MS Instrument ID: ICPMS01 Start Date: 10/18/2016

Run Batch: BJ62106101816B End Date: 10/19/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element Rh-103	Q	Element In-115	Q
MH1H17S	23:23	81		84				81			
MH1H17D	23:27	80		80				79			
MH1H17L	23:31	83		76				85			
MH1H18	23:35	82		79				83			
MH1H19	23:39	89		85				91			
MH1H20	23:43	90		93				95			
MH1H21	23:47	94		105				95			
MH1H22	23:51	92		94				96			
MH1H23	23:55	92		99				98			
CCV07	23:59	89		88				96			
CCB07	0:04	88		84				94			
MH1H24	0:08	91		95				97			
MH1H25	0:12	96		105				101			
MH1H26	0:16	96		106				102			
MH1H27	0:20	97		110				102			
MH1H28	0:24	94		107				98			
MH1H29	0:28	96		109				99			
MH1H30	0:32	93		103				96			
MH1H31	0:36	99		107				104			
ZZZZZZ	0:40										
CCV08	0:45	91		89				95			
CCB08	0:49	85		78				90			

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H14

ICP-MS Instrument ID: ICPMS01 Start Date: 10/18/2016

Run Batch: BJ62106101816B End Date: 10/19/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Tb-159	Q	Element Ho-165	Q	Element Bi-209	Q	Element	Q	Element	Q
S01	17:47	100		100							
S02	17:51	102		102							
S03	17:56	102		102							
S04	18:00	103		103							
S05	18:04	102		103							
S06	18:08	104		103							
S07	18:11	108		110							
S08	18:15	103		105							
ICV01	18:20	98		100							
ICB01	18:23	98		100							
ICSA01	18:27	102		103							
ICSAB01	18:31	105		106							
CCV01	18:35	115		116							
CCB01	18:39	104		105							
CCV02	19:10	112		113							
CCB02	19:14	105		105							
CCV03	19:45	113		115							
CCB03	19:49	106		107							
CCV04	20:06	114		115							
CCB04	20:10	107		108							
CCV05	21:08	109		111							
CCB05	21:12	102		104							
CCV06	22:50	116		118							
CCB06	22:54	108		110							
PBS01	22:58	104		106							
LCS01	23:03	105		108							
MH1H14	23:07	117		117							
MH1H15	23:11	115		115							
MH1H16	23:15	104		106							
MH1H17	23:19	104		105							

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H14

ICP-MS Instrument ID: ICPMS01 Start Date: 10/18/2016

Run Batch: BJ62106101816B End Date: 10/19/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Tb-159	Q	Element Ho-165	Q	Element Bi-209	Q	Element	Q	Element	Q
MH1H17S	23:23	100		103							
MH1H17D	23:27	99		101							
MH1H17L	23:31	99		100							
MH1H18	23:35	101		101							
MH1H19	23:39	111		113							
MH1H20	23:43	107		107							
MH1H21	23:47	111		112							
MH1H22	23:51	108		109							
MH1H23	23:55	108		109							
CCV07	23:59	110		112							
CCB07	0:04	105		108							
MH1H24	0:08	108		109							
MH1H25	0:12	110		110							
MH1H26	0:16	110		110							
MH1H27	0:20	110		110							
MH1H28	0:24	110		112							
MH1H29	0:28	110		110							
MH1H30	0:32	110		111							
MH1H31	0:36	111		111							
ZZZZZZ	0:40										
CCV08	0:45	110		112							
CCB08	0:49	102		105							

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H14

ICP-MS Instrument ID: ICPMS01 Start Date: 10/19/2016

Run Batch: BJ62107M101916A End Date: 10/19/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element Rh-103	Q	Element In-115	Q
S01	7:51	100		100				100			
S04	8:03	100		95				99			
S05	8:07	101		95				97			
S06	8:11	100		94				97			
S07	8:15	100		95				97			
S08	8:19	97		89				94			
ICV01	8:23	97		86				95			
ICB01	8:28	98		88				95			
ICSA01	8:32	95		97				93			
ICSAB01	8:36	89		104				92			
CCV01	8:40	97		113				108			
CCB01	8:45	95		105				106			
ZZZZZZ	8:49										
ZZZZZZ	8:53										
ZZZZZZ	8:57										
ZZZZZZ	9:01										
MH1H17A	9:05	100		115				107			
ZZZZZZ	9:09										
CCV02	9:14	99		107				102			
CCB02	9:18	97		96				100			

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H14

ICP-MS Instrument ID: ICPMS01 Start Date: 10/19/2016

Run Batch: BJ62107M101916A End Date: 10/19/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Tb-159	Q	Element Ho-165	Q	Element Bi-209	Q	Element	Q	Element	Q
S01	7:51	100		100							
S04	8:03	101		101							
S05	8:07	100		100							
S06	8:11	101		102							
S07	8:15	105		105							
S08	8:19	105		105							
ICV01	8:23	104		105							
ICB01	8:28	103		103							
ICSA01	8:32	104		105							
ICSAB01	8:36	109		109							
CCV01	8:40	121		121							
CCB01	8:45	112		113							
ZZZZZZ	8:49										
ZZZZZZ	8:53										
ZZZZZZ	8:57										
ZZZZZZ	9:01										
MH1H17A	9:05	122		120							
ZZZZZZ	9:09										
CCV02	9:14	116		118							
CCB02	9:18	107		108							

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H14
Instrument ID: ICPMS01
Start Date: 10/18/2016
Analytical method: ICP-MS
Run Batch: BJ62106101816B

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	0.0	0.00010							
Barium	0.0	-0.00020					5.0	5.0	-1
Beryllium	0.0	0.0019							
Cadmium	0.0	0.0							
Chromium	0.0	0.0017							
Cobalt	0.0	0.00010							
Nickel	0.0	0.11							
Selenium	0.0	0.025							
Silver	0.0	0.0							
Thallium	0.0	0.0050							
Vanadium	0.0	-0.081							
Molybdenum	0.0	0.0		2.0	2.0	-1	4.0	4.1	-1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H14
Instrument ID: ICPMS01
Start Date: 10/18/2016
Analytical method: ICP-MS
Run Batch: BJ62106101816B
Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	2.0	2.0	1	10.0	10	0	50.0	49.2	2
Barium				10.0	10.2	-2	50.0	50.4	-1
Beryllium	1.0	0.96	4	10.0	10.3	-3	50.0	49.1	2
Cadmium	1.0	1.0	-3	10.0	9.9	1	50.0	49.1	2
Chromium	2.0	2.0	0	10.0	10.1	-1	50.0	50.0	0
Cobalt	1.0	0.99	1	10.0	10.2	-3	50.0	50.8	-2
Nickel	1.0	0.97	3	10.0	10.1	-1	50.0	50.0	0
Selenium	5.0	4.8	3	10.0	9.7	3	50.0	50.1	0
Silver	1.0	0.99	1	1.3	1.3	0	6.5	6.5	0
Thallium	1.0	0.94	6	10.0	9.5	5	50.0	48.3	3
Vanadium	5.0	5.1	-1	10.0	9.8	2	50.0	49.4	1
Molybdenum	10.0	9.9	1	25.0	24.9	0	125	124	1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H14
Instrument ID: ICPMS01
Start Date: 10/18/2016
Analytical method: ICP-MS
Run Batch: BJ62106101816B

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	500	523	-5	1000	996	0			
Barium	500	512	-2	1000	990	1			
Beryllium	500	497	1	1000	1040	-4			
Cadmium	500	505	-1	1000	1010	-1			
Chromium	500	497	1	1000	1010	-1			
Cobalt	500	496	1	1000	989	1			
Nickel	500	502	0	1000	1000	0			
Selenium	500	494	1	1000	978	2			
Silver	65.0	65.5	-1	130	129	1			
Thallium	500	480	4	1000	1000	0			
Vanadium	500	491	2	1000	989	1			
Molybdenum	1250	1270	-1	2500	2480	1			

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H14
Instrument ID: ICPMS01
Start Date: 10/19/2016
Analytical method: ICP-MS
Run Batch: BJ62107M101916A
Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	0.0	0.0010		2.0	2.0	2	10.0	9.8	2
Selenium	0.0	-0.028		5.0	5.3	-6	10.0	9.6	4

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H14
Instrument ID: ICPMS01
Start Date: 10/19/2016
Analytical method: ICP-MS
Run Batch: BJ62107M101916A
Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	50.0	48.9	2	500	513	-3	1000	1010	-1
Selenium	50.0	49.9	0	500	502	0	1000	992	1

FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H14
Instrument ID: ICPMS01
Start Date: 10/18/2016
Analytical method: ICP-MS
Run Batch: BJ62106101816B

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Antimony	0.9999732	4166.739496	0.008741	WLR	Standard Devi
Barium	0.999863	1446.299669	0.056972	WLR	Standard Devi
Beryllium	0.999762	444.002247	0.033182	WLR	Standard Devi
Cadmium	0.999999	1278.174406	0.007772	WLR	Standard Devi
Chromium	0.999974	1264.243043	0.252178	WLR	Standard Devi
Cobalt	0.999998	7196.422184	0.004695	WLR	Standard Devi
Nickel	0.999999	1547.952558	0.512386	WLR	Standard Devi
Selenium	0.999985	38.394503	0.274057	WLR	Standard Devi
Silver	0.999971	5740.938410	0.002903	WLR	Standard Devi
Thallium	0.999821	10222.798649	-0.002071	WLR	Standard Devi
Vanadium	0.999995	955.099455	0.051503	WLR	Standard Devi
Molybdenum	0.999955	2066.399298	0.004865	WLR	Standard Devi

FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H14
Instrument ID: ICPMS01
Start Date: 10/19/2016
Analytical method: ICP-MS
Run Batch: BJ62107M101916A

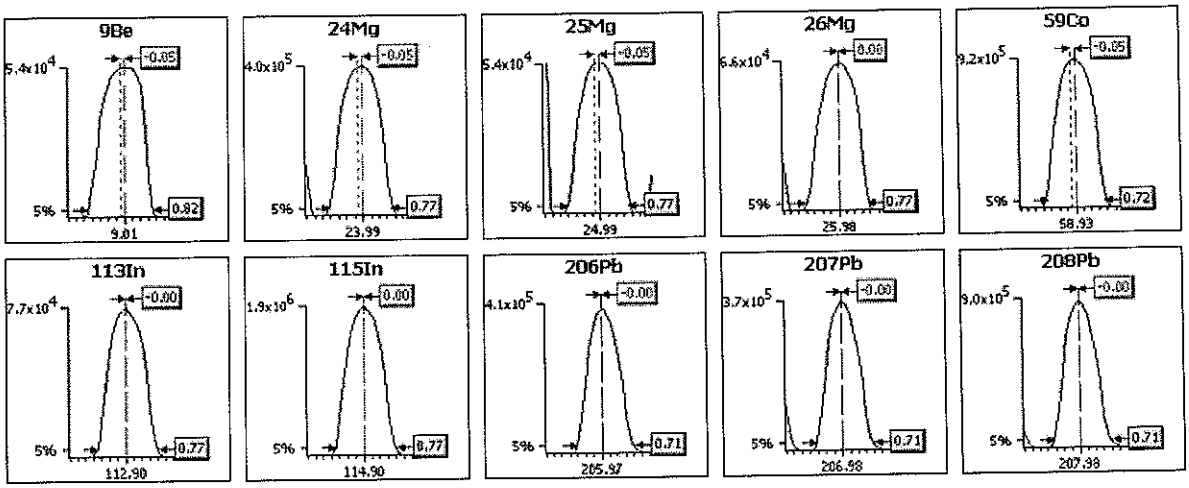
Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Antimony	0.999969	3942.996329	0.004951	WLR	Standard Devi
Selenium	0.999986	32.017410	0.270729	WLR	Standard Devi

Performance Report

Sample details
Sample name : SEQ-TUN1@TUNE01
Acquired at : 10/18/2016 17:36:27
Report name : 200_8 + IS TEST_NO SCREEN [7/9/2015 09:58:10]

Mass Calibration verification

Acquisition parameters
Sweeps : 10
Dwell : 10.0 mSecs
Point spacing : 0.05 amu
Peak width measured at 5% of the peak maximum



Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.85	0.65	0.11	0.82	-0.05
24Mg	0.85	0.65	0.11	0.77	-0.05
25Mg	0.85	0.65	0.11	0.77	-0.05
26Mg	0.85	0.65	0.11	0.77	0.00
59Co	0.85	0.65	0.11	0.72	-0.05
113In	0.85	0.65	0.11	0.77	-0.00
115In	0.85	0.65	0.11	0.77	0.00
206Pb	0.85	0.65	0.11	0.71	-0.00
207Pb	0.85	0.65	0.11	0.71	-0.00
208Pb	0.85	0.65	0.11	0.71	-0.00

Sample details
Sample name : SEQ-TUN1@TUNE01
Acquired at : 10/18/2016 17:36:27
Report name : 200_8 + IS TEST_NO SCREEN [7/9/2015 09:58:10]

Tune conditions

Major	
Extraction	-200
Lens 1	0.3
Focus	18.4
D1	-41.6
Pole Bias	1.5
Hexapole Bias	-3.5
Nebuliser	0.78
Sampling Depth	130

Minor	
Lens 2	-26.7
Lens 3	-189.0
Forward power	1400
Horizontal	95
Vertical	375
D2	-160
DA	-32.9
Cool	13.0
Auxiliary	0.90

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
CCT 7% h2/He	0.00
Dont touch this thing	0.00

Sensitivity and stability results

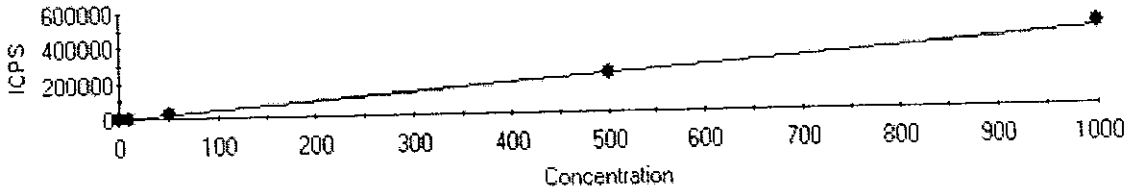
Acquisition parameters
Sweeps : 30

Run	Time	6Li	9Be	24Mg	25Mg	26Mg	45Sc	59Co	89Y	113In	115In	159Tb	206Pb	207Pb	208Pb	209Bi
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	3.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Countrate	>4000	>4000	>4000	>4000	>4000	>5000	>4000	>5000	>10000	>20000	>20000	>20000	>20000	>20000	>20000
1	17:37:06	119230.11	56451.396	414164.14	56374.253	66754.190	1320113.7	950634.16	119669.16	81244.757	1955252.9	175066.24	419486.71	371797.13	919168.45	110406.38
2	17:37:13	120246.70	57313.431	422344.57	56293.756	67177.290	1327372.1	962530.30	120196.04	81772.793	1979319.7	178043.23	430595.08	377317.75	929533.80	113504.18
3	17:37:21	119142.30	57518.051	424791.38	56360.837	68789.277	1335676.8	967431.92	121905.24	82899.597	1996835.9	179188.74	427518.18	381017.36	934580.67	113892.32
4	17:37:28	121283.67	56739.850	425091.60	57749.511	68453.423	1333725.8	970209.15	124871.76	83437.820	2020109.2	181646.80	431999.41	385862.08	943402.51	112569.33
5	17:37:36	120175.77	57263.116	423007.69	57357.038	69592.019	1343158.3	966429.96	123662.06	83747.313	2010595.3	181657.01	430434.40	383804.33	949475.25	114699.04
x		120015.71	57057.169	421879.88	56827.079	68153.240	1332009.4	963447.10	122060.85	82620.456	1992422.6	179120.40	428006.75	379959.73	935232.13	113014.25
σ		875.60	443.89	4466.89	677.98	1169.89	8713.56	7673.22	2218.50	1075.51	25833.83	2757.64	5033.99	5575.51	11838.06	1646.85
%RSD		0.7296	0.7780	1.0588	1.1931	1.7166	0.6542	0.7964	1.8175	1.3017	1.2966	1.5395	1.1761	1.4674	1.2658	1.4572

Result : The performance report passed.

Fully Quant Calibration

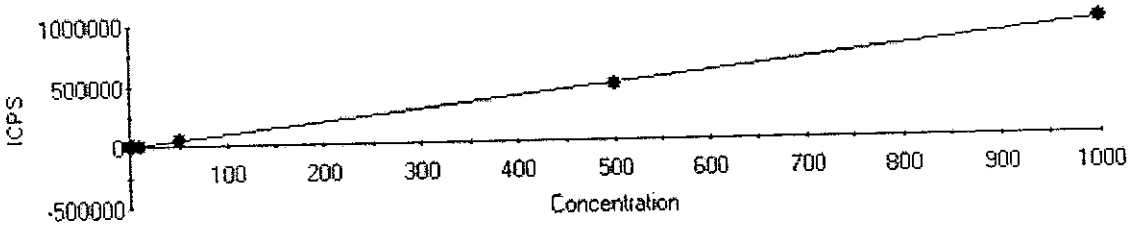
9Be FQ Block 1



Intercept CPS=14.733058 Intercept Conc=0.033182
Sensitivity=444.002247 Correlation Coeff=0.999762

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.002	0.002	15.59	0.00
SEQ-CAL4@S04	1.000	0.957	0.043	439.43	4.35
SEQ-CAL5@S05	10.000	10.310	0.310	4592.55	3.10
SEQ-CAL6@S06	50.000	49.104	0.896	21817.00	1.79
SEQ-CAL7@S07	500.000	497.079	2.921	220718.79	0.58
SEQ-CAL8@S08	1000.000	1042.227	42.227	462766.02	4.22

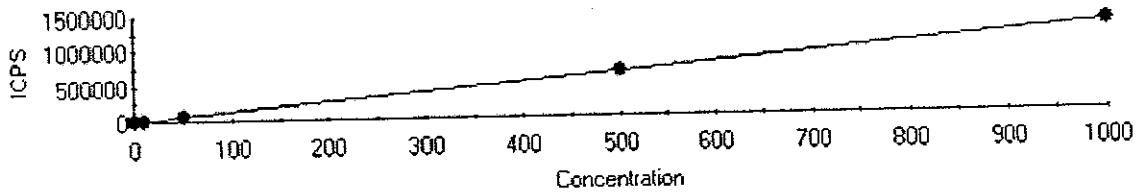
51V FQ Block 1



Intercept CPS=49.190604 Intercept Conc=0.051503
Sensitivity=955.099455 Correlation Coeff=0.999995

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.081	0.081	-28.07	0.00
SEQ-CAL4@S04	5.000	5.072	0.072	4893.88	1.45
SEQ-CAL5@S05	10.000	9.813	0.187	9421.22	1.87
SEQ-CAL6@S06	50.000	49.426	0.574	47256.01	1.15
SEQ-CAL7@S07	500.000	491.206	8.794	469199.83	1.76
SEQ-CAL8@S08	1000.000	989.014	10.986	944656.38	1.10

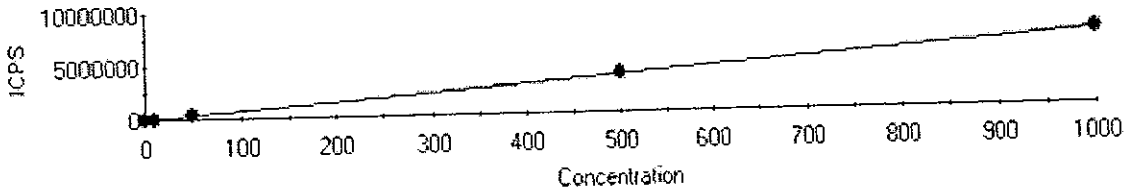
52Cr FQ Block 1



Intercept CPS=318.814905 Intercept Conc=0.252178
Sensitivity=1264.243043 Correlation Coeff=0.999974

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.002	0.002	320.92	0.00
SEQ-CAL4@S04	2.000	1.999	0.001	2846.56	0.03
SEQ-CAL5@S05	10.000	10.074	0.074	13054.81	0.74
SEQ-CAL6@S06	50.000	49.986	0.014	63512.84	0.03
SEQ-CAL7@S07	500.000	497.237	2.763	628946.74	0.55
SEQ-CAL8@S08	1000.000	1009.859	9.859	1277026.30	0.99

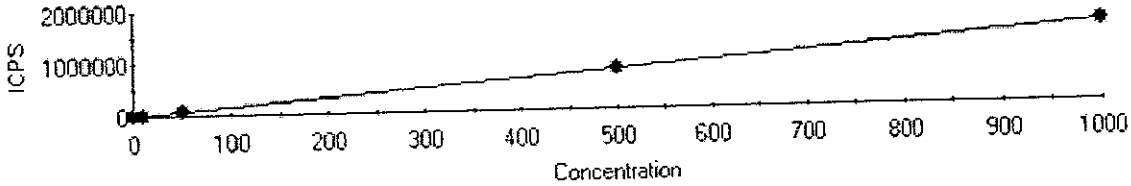
59Co FQ Block 1



Intercept CPS=33.789817 Intercept Conc=0.004695
Sensitivity=7196.422184 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	34.57	0.00
SEQ-CAL4@S04	1.000	0.992	0.008	7169.96	0.84
SEQ-CAL5@S05	10.000	10.248	0.248	73780.17	2.48
SEQ-CAL6@S06	50.000	50.807	0.807	365665.12	1.61
SEQ-CAL7@S07	500.000	496.297	3.703	3571592.98	0.74
SEQ-CAL8@S08	1000.000	988.733	11.267	7115372.17	1.13

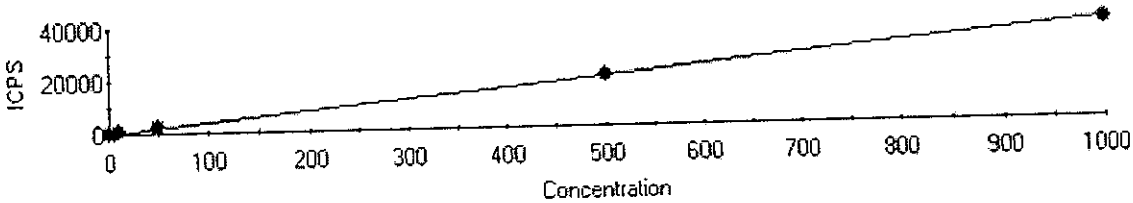
60Ni FQ Block 1



Intercept CPS=793.149529 Intercept Conc=0.512386
Sensitivity=1547.952558 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.113	0.113	967.58	0.00
SEQ-CAL4@S04	1.000	0.967	0.033	2289.46	3.34
SEQ-CAL5@S05	10.000	10.113	0.113	16447.93	1.13
SEQ-CAL6@S06	50.000	49.957	0.043	78124.40	0.09
SEQ-CAL7@S07	500.000	502.302	2.302	778333.06	0.46
SEQ-CAL8@S08	1000.000	1002.506	2.506	1552625.30	0.25

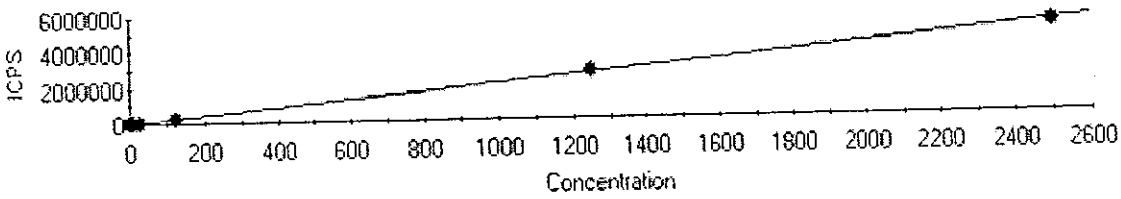
78Se FQ Block 1



Intercept CPS=10.522266 Intercept Conc=0.274057
Sensitivity=38.394503 Correlation Coeff=0.999985

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.025	0.025	11.49	0.00
SEQ-CAL4@S04	5.000	4.826	0.174	195.81	3.48
SEQ-CAL5@S05	10.000	9.747	0.253	384.77	2.53
SEQ-CAL6@S06	50.000	50.065	0.065	1932.74	0.13
SEQ-CAL7@S07	500.000	494.463	5.537	18995.19	1.11
SEQ-CAL8@S08	1000.000	977.586	22.414	37544.44	2.24

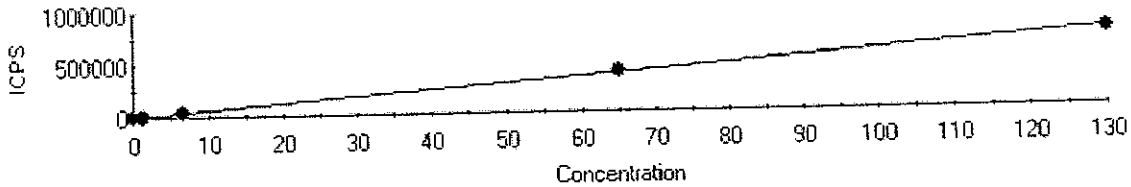
95Mo FQ Block 1



Intercept CPS=10.052072 Intercept Conc=0.004865
Sensitivity=2066.399298 Correlation Coeff=0.999955

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.000	0.000	9.97	0.00
SEQ-CAL2@S02	2.000	2.011	0.011	4164.94	0.53
SEQ-CAL3@S03	4.000	4.056	0.056	8391.56	1.40
SEQ-CAL4@S04	10.000	9.860	0.140	20384.53	1.40
SEQ-CAL5@S05	25.000	24.929	0.071	51524.14	0.28
SEQ-CAL6@S06	125.000	123.518	1.482	255246.79	1.19
SEQ-CAL7@S07	1250.000	1268.025	18.025	2620255.39	1.44
SEQ-CAL8@S08	2500.000	2484.204	15.796	5133368.32	0.63

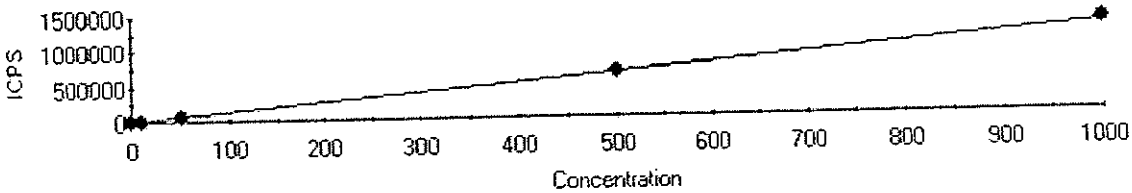
107Ag FQ Block 1



Intercept CPS=16.668477 Intercept Conc=0.002903
Sensitivity=5740.938410 Correlation Coeff=0.999971

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	16.67	0.00
SEQ-CAL4@S04	1.000	0.988	0.012	5688.13	1.21
SEQ-CAL5@S05	1.300	1.294	0.006	7448.17	0.42
SEQ-CAL6@S06	6.500	6.531	0.031	37509.37	0.47
SEQ-CAL7@S07	65.000	65.464	0.464	375841.38	0.71
SEQ-CAL8@S08	130.000	128.854	1.146	739758.29	0.88

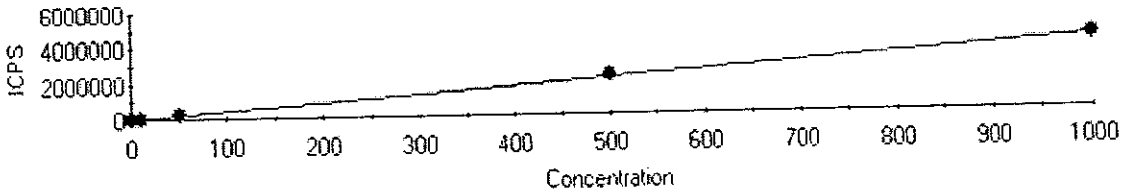
111Cd FQ Block 1



Intercept CPS=9.934010 Intercept Conc=0.007772
Sensitivity=1278.174406 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	9.94	0.00
SEQ-CAL4@S04	1.000	1.028	0.028	1323.46	2.77
SEQ-CAL5@S05	10.000	9.892	0.108	12654.02	1.08
SEQ-CAL6@S06	50.000	49.115	0.885	62787.35	1.77
SEQ-CAL7@S07	500.000	504.534	4.534	644892.16	0.91
SEQ-CAL8@S08	1000.000	1009.226	9.226	1289976.18	0.92

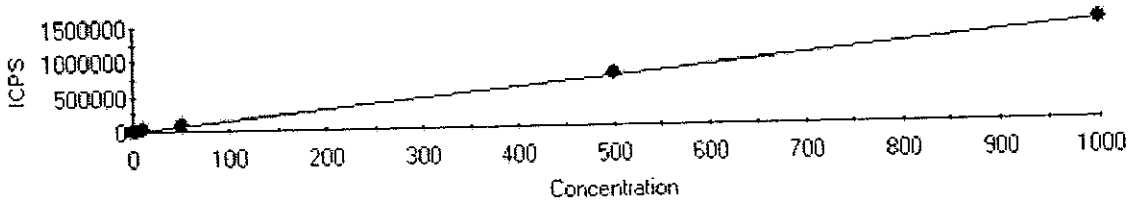
121Sb FQ Block 1



Intercept CPS=36.420725 Intercept Conc=0.008741
Sensitivity=4166.739496 Correlation Coeff=0.999732

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	36.71	0.00
SEQ-CAL4@S04	2.000	1.982	0.018	8294.80	0.90
SEQ-CAL5@S05	10.000	9.983	0.017	41634.57	0.17
SEQ-CAL6@S06	50.000	49.249	0.751	205244.99	1.50
SEQ-CAL7@S07	500.000	522.615	22.615	2177636.83	4.52
SEQ-CAL8@S08	1000.000	996.498	3.502	4152183.40	0.35

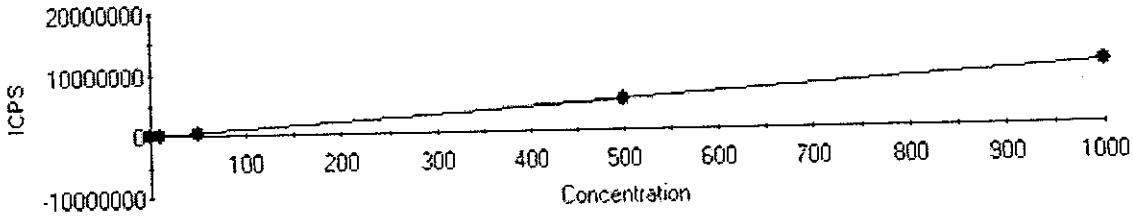
137Ba FQ Block 1



Intercept CPS=82.399248 Intercept Conc=0.056972
Sensitivity=1446.299669 Correlation Coeff=0.999863

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.000	0.000	82.17	0.00
SEQ-CAL3@S03	5.000	5.048	0.048	7383.09	0.96
SEQ-CAL5@S05	10.000	10.163	0.163	14780.98	1.63
SEQ-CAL6@S06	50.000	50.423	0.423	73009.18	0.85
SEQ-CAL7@S07	500.000	512.216	12.216	740900.24	2.44
SEQ-CAL8@S08	1000.000	989.524	10.476	1431230.20	1.05

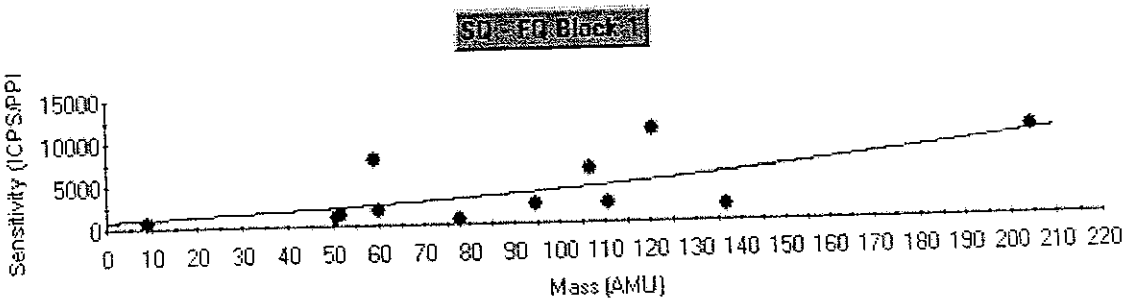
205Tl FQ Block 1



Intercept CPS=-21.172567 Intercept Conc=-0.002071
Sensitivity=10222.798649 Correlation Coeff=0.999821

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.005	0.005	29.72	0.00
SEQ-CAL4@S04	1.000	0.940	0.060	9583.35	6.05
SEQ-CAL5@S05	10.000	9.517	0.483	97264.72	4.83
SEQ-CAL6@S06	50.000	48.257	1.743	493297.48	3.49
SEQ-CAL7@S07	500.000	480.302	19.698	4910009.31	3.94
SEQ-CAL8@S08	1000.000	1000.736	0.736	10230297.55	0.07

Semi Quant Calibration



Coeff 0=781.609626 Coeff 1=19.366098 Coeff 2=0.121073

Symbol	Mass	RSF	Available	Excluded	Sensitivity Measured	Corrected	Calculated	%Error
9Be	9.01	0.7500	1	1	444.00	592.00	965.97	63.2
51V	50.94	0.9900	1	1	955.10	967.07	2082.41	115.3
52Cr	51.94	0.9800	1	1	1264.24	1540.17	2114.13	37.3
59Co	58.93	0.9300	1	1	7196.42	7738.09	2343.42	-69.7
60Ni	59.93	0.9100	1	1	1547.95	6502.47	2377.09	-63.4
78Se	77.92	0.1000	1	1	38.39	1626.20	3025.61	86.1
95Mo	94.91	0.9800	1	1	2066.40	14266.38	3710.08	-74.0
107Ag	106.91	0.9300	1	1	5740.94	12021.52	4235.65	-64.8
111Cd	110.90	0.5660	1	1	1278.17	17560.33	4418.56	-74.8
121Sb	120.90	0.3900	1	1	4166.74	18661.92	4892.86	-73.8
137Ba	136.91	0.9100	1	1	1446.30	14040.11	5702.24	-59.4
205Tl	204.97	1.0000	1	1	10222.80	14500.42	9837.82	-32.2

Dilution Corrected Concentrations

SEQ-CAL1@S01 10/18/2016 17:47:39

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:52	98.1%	0.0049	98.6%	-0.0007	-0.1060	0.0070	2.1910	0.0023	0.1118	0.0112	0.0735	0.0104	-0.1153	0.0000	-0.0021	0.0000	-0.0005	-0.0015	0.0010
2	17:48:05	100.0%	0.0192	100.3%	0.0005	-0.0477	-0.0075	-5.3450	-0.0001	0.0660	-0.0112	-0.0724	0.0102	-0.2907	0.0000	0.0025	-0.0032	0.0030	0.0012	-0.0001
3	17:48:18	101.9%	-0.0183	101.1%	0.0002	-0.0889	0.0056	3.1540	-0.0019	0.1602	0.0000	0.0745	-0.0205	0.4061	0.0000	-0.0004	0.0031	-0.0025	0.0003	-0.0010
x		100.0%	0.0019	100.0%	0.0000	-0.0809	0.0017	-0.0000	0.0001	0.1127	0.0000	0.0252	0.0000	-0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	-0.0000
σ		1.9%	0.0190	1.2%	0.0006	0.0300	0.0080	4.6540	0.0022	0.0471	0.0112	0.0845	0.0178	0.3624	0.0000	0.0023	0.0032	0.0028	0.0014	0.0010
%RSD		1.9	985.8000	1.2	0.0000	37.0300	479.9000	0.0000	1974.0000	41.8000	0.0000	335.3000	0.0000	0.0000	0.0000	0.0000	7679.0000	0.0000	0.0000	0.0000

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:52	99.9%	-0.0096	0.0000	0.0000	-0.0051	0.0000	0.0022	-0.0006	-0.0010	98.9%	97.7%	0.0027	0.0000
2	17:48:05	100.4%	-0.0002	0.0000	0.0000	0.0001	0.0000	-0.0026	0.0025	-0.0037	99.3%	100.9%	0.0056	0.0000
3	17:48:18	99.6%	0.0098	-0.0000	0.0000	0.0051	0.0000	0.0004	-0.0017	0.0042	101.9%	101.4%	0.0066	0.0000
x		100.0%	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0000	0.0001	-0.0002	100.0%	100.0%	0.0050	0.0000
σ		0.4%	0.0097	0.0000	0.0000	0.0051	0.0000	0.0024	0.0022	0.0040	1.6%	2.0%	0.0020	0.0000
%RSD		0.4	0.0000	0.0000	0.0000	289000.0000	0.0000	0.0000	3161.0000	2572.0000	1.6	2.0	40.1100	0.0000

SEQ-CAL2@S02 10/18/2016 17:51:52

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:52:06	102.1%	0.2272	100.9%	0.0003	0.9988	0.4432	5.5960	0.2104	0.1178	0.0218	1.1820	0.0317	0.3852	0.0000	0.6877	1.9210	1.2500	0.6823	1.6860
2	17:52:19	100.8%	0.3047	102.2%	0.0117	0.9826	0.4313	6.4940	0.2211	0.2106	0.0429	0.8769	-0.0086	1.0350	0.0000	0.6786	1.9460	1.2470	0.6917	1.7440
3	17:52:32	101.8%	0.2501	103.4%	-0.0005	0.9498	0.4154	1.5910	0.1996	0.1083	0.0648	1.1900	0.0112	0.5371	0.0000	0.6693	2.1650	1.2080	0.6987	1.7110
x		101.6%	0.2607	102.2%	0.0038	0.9770	0.4300	4.5600	0.2104	0.1456	0.0432	1.0830	0.0114	0.6525	0.0000	0.6785	2.0110	1.2350	0.6909	1.7140
σ		0.7%	0.0398	1.2%	0.0068	0.0250	0.0140	2.6110	0.0107	0.0565	0.0215	0.1785	0.0201	0.3400	0.0000	0.0092	0.1342	0.0235	0.0082	0.0290
%RSD		0.7	15.2700	1.2	178.0000	2.5540	3.2460	57.2500	5.1060	38.8200	49.7500	16.4800	176.0000	52.1000	0.0000	1.3550	6.6760	1.9000	1.1870	1.6930

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:52:06	101.4%	-0.0007	0.1936	0.0110	0.1805	0.0000	1.5440	0.4098	2.0610	100.1%	99.9%	0.2059	0.0000
2	17:52:19	103.1%	0.0053	0.2100	0.0108	0.2237	0.0000	1.5520	0.4213	2.1490	101.8%	102.1%	0.1953	0.0000
3	17:52:32	102.8%	0.0030	0.2121	0.0080	0.2126	0.0000	1.5190	0.4243	2.2220	103.5%	104.1%	0.2085	0.0000
x		102.4%	0.0026	0.2052	0.0099	0.2056	0.0000	1.5380	0.4185	2.1440	101.8%	102.0%	0.2032	0.0000
σ		0.9%	0.0030	0.0101	0.0017	0.0224	0.0000	0.0172	0.0077	0.0805	1.7%	2.1%	0.0070	0.0000
%RSD		0.9	117.8000	4.9300	16.8900	10.9000	0.0000	1.1170	1.8310	3.7550	1.7	2.1	3.4450	0.0000

SEQ-CAL3@S03 10/18/2016 17:56:04

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:18	101.6%	0.5687	101.0%	-0.0168	2.5190	1.0230	11.9700	0.4613	0.6902	0.0764	2.9900	0.2260	-0.2985	0.0000	1.3450	3.9490	2.4870	1.3710	3.4350
2	17:56:31	101.3%	0.5016	102.5%	0.0182	2.5350	1.0280	-1.9430	0.5374	0.6499	0.1088	2.1590	0.2045	-0.6374	0.0000	1.4170	4.1280	2.4790	1.3820	3.5010
3	17:56:44	103.8%	0.5891	103.8%	0.0027	2.5160	1.0020	3.7410	0.5061	0.6416	0.1068	2.9250	0.2221	0.0232	0.0000	1.3840	4.0910	2.4110	1.3560	3.6040
x		102.3%	0.5531	102.4%	0.0014	2.5230	1.0180	4.5900	0.5016	0.6606	0.0973	2.6910	0.2175	-0.3042	0.0000	1.3820	4.0560	2.4590	1.3700	3.5130
σ		1.4%	0.0458	1.4%	0.0176	0.0103	0.0136	6.9970	0.0382	0.0260	0.0182	0.4617	0.0115	0.3303	0.0000	0.0362	0.0945	0.0419	0.0129	0.0850
%RSD		1.3	8.2730	1.3	1261.0000	0.4087	1.3340	152.4000	7.6250	3.9400	18.6900	17.1500	5.2750	108.6000	0.0000	2.6160	2.3290	1.7030	0.9440	2.4180

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:18	102.0%	0.0479	0.5159	0.0150	0.4913	0.0000	3.0640	1.0130	4.9010	100.7%	99.7%	0.4799	0.0000
2	17:56:31	102.3%	0.0147	0.5068	0.0255	0.4377	0.0000	3.0290	0.9750	5.0550	102.4%	103.5%	0.4950	0.0000
3	17:56:44	104.0%	0.0245	0.4861	0.0053	0.4871	0.0000	3.1360	1.0260	5.1880	103.8%	104.2%	0.4939	0.0000
x		102.8%	0.0290	0.5029	0.0153	0.4721	0.0000	3.0760	1.0050	5.0480	102.3%	102.4%	0.4896	0.0000
σ		1.1%	0.0171	0.0152	0.0101	0.0298	0.0000	0.0545	0.0266	0.1436	1.5%	2.4%	0.0084	0.0000
%RSD		1.1	58.8000	3.0280	66.2000	6.3160	0.0000	1.7710	2.6420	2.8450	1.5	2.4	1.7170	0.0000

SEQ-CAL4@S04 10/18/2016 18:00:14

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:28	100.9%	0.8558	102.2%	0.0066	5.0410	1.9950	15.5400	0.9735	0.9582	0.1606	4.7090	0.1527	0.8539	0.0000	3.3150	9.6060	5.9710	3.4260	8.8160
2	18:00:41	103.2%	1.1090	103.2%	0.0762	5.0840	2.0020	1.6190	0.9982	0.9467	0.2243	4.7240	0.3420	-0.3094	0.0000	3.3010	9.7860	6.0500	3.4500	8.7230
3	18:00:54	103.4%	0.9052	104.8%	0.0040	5.0920	2.0020	14.2000	1.0030	0.9950	0.2154	5.0440	0.3256	0.6958	0.0000	3.4000	10.1900	6.1860	3.4770	8.8960
x		102.5%	0.9565	103.4%	0.0289	5.0720	1.9990	10.4500	0.9916	0.9666	0.2001	4.8260	0.2734	0.4134	0.0000	3.3380	9.8600	6.0690	3.4510	8.8120
σ		1.4%	0.1339	1.3%	0.0409	0.0271	0.0042	7.6790	0.0159	0.0252	0.0345	0.1890	0.1049	0.6310	0.0000	0.0536	0.2984	0.1089	0.0258	0.0866
%RSD		1.3	14.0000	1.3	141.5000	0.5337	0.2121	73.4700	1.6050	2.6120	17.2600	3.9160	38.3500	152.6000	0.0000	1.6040	3.0270	1.7950	0.7463	0.9832

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:28	103.9%	0.0248	1.0010	0.0500	1.0760	0.0000	7.4850	2.0280	9.9300	101.4%	101.2%	0.9464	0.0000
2	18:00:41	104.2%	0.0437	0.9734	0.0531	0.9627	0.0000	7.5290	1.9560	9.9760	103.9%	103.8%	0.9321	0.0000
3	18:00:54	103.4%	0.0374	0.9891	0.0487	1.0450	0.0000	7.7030	1.9610	10.1600	104.2%	104.3%	0.9400	0.0000
x		103.9%	0.0353	0.9879	0.0506	1.0280	0.0000	7.5720	1.9820	10.0200	103.1%	103.1%	0.9395	0.0000
σ		0.4%	0.0096	0.0140	0.0023	0.0584	0.0000	0.1151	0.0402	0.1217	1.5%	1.7%	0.0072	0.0000
%RSD		0.4	27.2000	1.4120	4.4600	5.6790	0.0000	1.5200	2.0270	1.2140	1.5	1.7	0.7621	0.0000

SEQ-CAL5@S05 10/18/2016 18:04:25

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:38	101.5%	10.7100	99.9%	5.8700	9.7030	10.1100	80.7900	10.0500	9.8800	0.4504	9.6170	0.5162	-0.1263	0.0000	7.9480	24.4700	15.0500	8.4840	22.0300
2	18:04:51	103.4%	10.1500	101.2%	6.2400	9.6950	9.9560	53.5600	10.2600	10.1800	0.4034	9.4860	0.6887	-0.6417	0.0000	8.2100	24.8100	15.1100	8.7040	22.1700
3	18:05:05	101.7%	10.0700	101.9%	6.2380	10.0400	10.1500	48.6600	10.4400	10.2800	0.3351	10.1400	0.5899	0.0306	0.0000	8.2100	25.5100	15.5000	8.7140	22.5500
x		102.2%	10.3100	101.0%	6.1160	9.8130	10.0700	61.0000	10.2500	10.1100	0.3963	9.7470	0.5983	-0.2458	0.0000	8.1230	24.9300	15.2200	8.6340	22.2500
σ		1.0%	0.3525	1.0%	0.2131	0.1965	0.1038	17.3100	0.1934	0.2076	0.0580	0.3454	0.0866	0.3518	0.0000	0.1511	0.5322	0.2403	0.1297	0.2685
%RSD		1.0	3.4180	1.0	3.4850	2.0030	1.0310	28.3700	1.8870	2.0530	14.6300	3.5430	14.4700	143.1000	0.0000	1.8610	2.1350	1.5780	1.5020	1.2070

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:38	101.5%	0.4737	1.2620	0.3694	9.7750	0.0000	9.2750	9.8990	9.9950	100.4%	101.1%	9.4190	0.0000
2	18:04:51	105.0%	0.4307	1.3240	0.3378	10.0700	0.0000	9.3880	9.9840	10.1800	102.3%	102.8%	9.5930	0.0000
3	18:05:05	103.1%	0.5219	1.2980	0.3779	9.8270	0.0000	9.6800	10.0700	10.3100	104.0%	104.3%	9.5370	0.0000
x		103.2%	0.4755	1.2940	0.3617	9.8920	0.0000	9.4480	9.9830	10.1600	102.2%	102.8%	9.5170	0.0000
σ		1.7%	0.0457	0.0308	0.0211	0.1599	0.0000	0.2089	0.0842	0.1605	1.8%	1.6%	0.0885	0.0000
%RSD		1.7	9.6040	2.3770	5.8480	1.6170	0.0000	2.2110	0.8435	1.5800	1.7	1.6	0.9301	0.0000

SEQ-CAL6@S06 10/18/2016 18:08:35

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:48	101.1%	49.1100	100.4%	30.1900	49.3500	49.9400	270.7000	50.3900	50.0300	1.9320	50.2000	2.9530	0.3754	0.0000	39.5500	122.4000	74.8100	42.4400	109.0000
2	18:09:01	102.3%	48.7000	102.4%	29.7500	49.0600	49.5600	279.1000	50.6700	49.7500	1.7670	49.9400	2.8230	0.8709	0.0000	40.4900	123.4000	75.3500	42.5800	109.7000
3	18:09:14	102.0%	49.5000	102.2%	30.6500	49.8700	50.4600	287.4000	51.3600	50.0900	1.7230	50.0500	2.7430	0.3819	0.0000	41.1400	124.8000	76.4800	43.5600	111.3000
x		101.8%	49.1000	101.7%	30.2000	49.4300	49.9900	279.1000	50.8100	49.9600	1.8070	50.0600	2.8400	0.5427	0.0000	40.3900	123.5000	75.5400	42.8600	110.0000
σ		0.7%	0.3994	1.1%	0.4514	0.4094	0.4517	8.3140	0.5004	0.1860	0.1100	0.1334	0.1063	0.2843	0.0000	0.7985	1.1820	0.8518	0.6104	1.1710
%RSD		0.7	0.8133	1.1	1.4950	0.8283	0.9037	2.9790	0.9848	0.3724	6.0850	0.2664	3.7430	52.3800	0.0000	1.9770	0.9569	1.1280	1.4240	1.0640

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:48	102.2%	2.2680	6.4720	1.7420	48.9200	0.0000	45.9900	48.4300	50.0000	102.2%	101.3%	48.0000	0.0000
2	18:09:01	102.9%	2.4990	6.5010	1.8400	48.8000	0.0000	46.7500	49.4200	50.1100	104.8%	104.5%	48.0000	0.0000
3	18:09:14	101.7%	2.3710	6.6190	1.7860	49.6300	0.0000	47.5000	49.9000	51.1500	105.5%	104.5%	48.7700	0.0000
x		102.3%	2.3790	6.5310	1.7890	49.1100	0.0000	46.7400	49.2500	50.4200	104.2%	103.4%	48.2600	0.0000
σ		0.6%	0.1157	0.0779	0.0493	0.4471	0.0000	0.7570	0.7478	0.6330	1.7%	1.8%	0.4450	0.0000
%RSD		0.6	4.8610	1.1920	2.7570	0.9103	0.0000	1.6190	1.5180	1.2550	1.7	1.8	0.9221	0.0000

SEQ-CAL7@S07 10/18/2016 18:11:47

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:00	100.2%	494.6000	98.0%	298.0000	492.4000	497.5000	2596.0000	r494.0000	499.0000	18.7500	501.3000	27.4000	3.8360	0.0000	410.5000	1281.0000	r762.4000	437.5000	r1110.0000
2	18:12:13	99.9%	494.2000	99.7%	299.3000	485.4000	493.4000	2598.0000	r494.1000	501.5000	19.4000	485.4000	27.7200	6.7690	0.0000	412.3000	r1257.0000	r767.2000	443.1000	r1118.0000
3	18:12:26	100.4%	502.4000	98.7%	304.9000	495.7000	500.7000	2526.0000	r500.8000	506.4000	19.0900	496.6000	27.4600	7.2640	0.0000	419.7000	r1266.0000	r772.9000	445.1000	r1125.0000
x		100.2%	497.1000	98.8%	300.7000	491.2000	497.2000	2573.0000	r496.3000	502.3000	19.0800	494.5000	27.5300	5.9560	0.0000	414.2000	r1268.0000	r767.5000	441.9000	r1118.0000
σ		0.3%	4.6100	0.9%	3.6450	5.2620	3.6600	40.9200	r3.8720	3.7690	0.3259	8.1750	0.1733	1.8530	0.0000	4.8810	r12.0100	r5.2610	3.9210	r7.3220
%RSD		0.3	0.9273	0.9	1.2120	1.0710	0.7360	1.5900	r0.7802	0.7504	1.7080	1.6530	0.6296	31.1100	0.0000	1.1780	r0.9468	r0.6855	0.8873	r0.6551

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:00	96.7%	23.9500	64.9600	17.2800	500.7000	0.0000	486.2000	515.2000	504.2000	106.2%	107.4%	r482.7000	0.0000
2	18:12:13	98.0%	24.0600	65.9700	17.5700	507.0000	0.0000	r469.4000	520.3000	514.6000	107.6%	110.8%	r475.6000	0.0000
3	18:12:26	96.2%	24.3000	65.4600	17.7600	505.9000	0.0000	500.8000	532.3000	517.9000	109.1%	110.5%	r482.6000	0.0000
x		96.9%	24.1000	65.4600	17.5400	504.5000	0.0000	r485.5000	522.6000	512.2000	107.6%	109.6%	r480.3000	0.0000
σ		0.9%	0.1767	0.5045	0.2412	3.3980	0.0000	r15.6800	8.8030	7.1660	1.5%	1.9%	r4.0650	0.0000
%RSD		0.9	0.7333	0.7706	1.3760	0.6736	0.0000	r3.2290	1.6840	1.3990	1.4	1.7	r0.8464	0.0000

SEQ-CAL8@S08 10/18/2016 18:15:55

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:16:08	92.6%	u1029.0000	85.9%	595.9000	984.8000	u1002.0000	4084.0000	r974.5000	981.3000	38.5900	963.5000	54.7500	12.7700	0.0000	r798.4000	r2441.0000	r1501.0000	r852.6000	r2176.0000
2	18:16:22	92.5%	u1051.0000	85.8%	610.0000	982.0000	u1007.0000	4143.0000	r998.4000	u1018.0000	38.9700	975.3000	54.7800	13.4800	0.0000	r816.3000	~2510.0000	r1534.0000	r865.7000	r2213.0000
3	18:16:35	91.6%	u1045.0000	86.5%	608.1000	u1000.0000	u1021.0000	4533.0000	r993.3000	u1009.0000	38.7200	993.9000	54.9300	10.9700	0.0000	r815.0000	~2501.0000	r1533.0000	r875.4000	r2241.0000
x		92.2%	u1042.0000	86.1%	604.7000	u989.0000	u1010.0000	4253.0000	r988.7000	u1003.0000	38.7600	977.6000	54.8200	12.4100	0.0000	r809.9000	~2484.0000	r1523.0000	r864.5000	r2210.0000
σ		0.5%	u11.3600	0.3%	7.6450	u9.7440	u9.7560	244.0000	r12.6100	u18.9300	0.1952	15.3500	0.0968	1.2950	0.0000	r9.9840	~37.5400	r18.6200	r11.4100	r32.6700
%RSD		0.6	u1.0900	0.4	1.2640	u0.9852	u0.9661	5.7360	r1.2750	u1.8880	0.5035	1.5700	0.1766	10.4300	0.0000	r1.2330	~1.5110	r1.2230	r1.3200	r1.4790

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:16:08	89.0%	46.9100	127.4000	34.1200	994.9000	0.0000	r917.3000	r987.1000	r982.2000	102.3%	103.8%	~1001.0000	0.0000
2	18:16:22	89.4%	47.0800	130.0000	35.2700	u1018.0000	0.0000	r935.9000	r994.9000	r991.6000	103.4%	105.4%	~1000.0000	0.0000
3	18:16:35	87.9%	48.0300	129.2000	35.0700	u1015.0000	0.0000	r942.3000	~1007.0000	r994.8000	104.8%	106.7%	~1001.0000	0.0000
x		88.8%	47.3400	128.9000	34.8200	u1009.0000	0.0000	r931.8000	~996.5000	r989.5000	103.5%	105.3%	~1001.0000	0.0000
σ		0.8%	0.6045	1.3510	0.6180	u12.4900	0.0000	r12.9900	~10.3000	r6.5190	1.3%	1.4%	~0.5096	0.0000
%RSD		0.8	1.2770	1.0480	1.7750	u1.2380	0.0000	r1.3940	~1.0340	r0.6588	1.2	1.4	~0.0509	0.0000

SEQ-ICV@ICV01 10/18/2016 18:20:00 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:20:00	90.3%	105.1000	78.4%	0.2063	97.9100	98.2500	508.2000	99.5200	98.0700	7.2900	202.6000	11.0400	3.5510	0.0000	3.3560	10.3000	6.2970	3.5750	8.9320
2	18:20:14	90.7%	106.7000	80.3%	0.1686	99.0700	99.3600	514.3000	102.2000	99.7800	8.5320	207.9000	11.6500	1.8590	0.0000	3.4550	10.6900	6.5390	3.5540	9.2870
3	18:20:27	91.5%	106.4000	81.4%	0.1637	97.4100	99.0900	593.9000	104.0000	103.0000	8.1890	205.8000	11.4100	3.1680	0.0000	3.4610	10.5700	6.4870	3.6690	9.1510
x		90.8%	107.145%	80.0%	0.1795	98.131%	100.918%	538.8000	102.914%	102.334%	8.0040	102.213%	11.3600	2.8590	0.0000	3.4240	10.5200	6.4410	3.5990	9.1240
σ		0.6%	n/a	1.5%	0.0233	n/a	n/a	47.8300	n/a	n/a	0.6410	n/a	0.3050	0.8875	0.0000	0.0593	0.1981	0.1273	0.0611	0.1792
%RSD		0.7	0.7827	1.9	12.9900	0.8687	0.5872	8.8770	2.2020	2.5000	8.0080	1.2850	2.6840	31.0400	0.0000	1.7310	1.8840	1.9770	1.6970	1.9640

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:20:00	91.1%	4.5040	98.8700	3.2960	95.3900	0.0000	0.2673	190.0000	97.7000	94.7%	96.7%	r210.3000	0.0000
2	18:20:14	90.7%	4.5700	99.7600	3.3280	97.9800	0.0000	0.2558	195.1000	100.2000	98.5%	100.7%	r210.2000	0.0000
3	18:20:27	91.2%	4.8080	100.4000	3.4550	100.1000	0.0000	0.2031	201.2000	102.1000	100.2%	101.5%	r212.0000	0.0000
x		91.0%	4.6270	100.680%	3.3600	98.810%	0.0000	0.2421	98.704%	100.021%	97.8%	99.6%	r102.860%	0.0000
σ		0.3%	0.1602	n/a	0.0842	n/a	0.0000	0.0342	n/a	n/a	2.8%	2.6%	rn/a	0.0000
%RSD		0.3	3.4630	0.7672	2.5070	2.4120	0.0000	14.1400	2.8520	2.2290	2.9	2.6	r0.4748	0.0000

SEQ-ICB@ICB01 10/18/2016 18:23:33 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:46	91.9%	0.0494	81.8%	0.0077	-0.0090	0.0244	-15.5600	0.0508	0.1632	0.0387	-0.0152	0.0454	-0.2272	0.0000	0.0142	0.0649	0.0403	0.0219	0.0455
2	18:23:59	91.8%	0.0739	84.1%	0.0005	-0.0129	0.0040	-11.3400	0.0586	0.1158	0.0136	0.1754	0.0219	-0.2319	0.0000	0.0252	0.0527	0.0364	0.0314	0.0684
3	18:24:12	93.1%	0.1629	84.2%	0.0249	-0.0273	0.0227	-13.6100	0.0492	0.1787	-0.0112	-0.0823	-0.0803	1.4810	0.0000	0.0177	0.0522	0.0480	0.0163	0.0842
x		92.3%	0.0954	83.4%	0.0111	-0.0164	0.0170	-13.5000	0.0529	0.1526	0.0137	0.0260	-0.0043	0.3405	0.0000	0.0191	0.0566	0.0416	0.0232	0.0660
σ		0.7%	0.0597	1.4%	0.0125	0.0096	0.0113	2.1150	0.0050	0.0328	0.0250	0.1337	0.0668	0.9874	0.0000	0.0056	0.0072	0.0059	0.0077	0.0195
%RSD		0.8	62.6100	1.6	113.3000	58.5800	66.2600	15.6600	9.4840	21.4800	182.0000	514.5000	1540.0000	290.0000	0.0000	29.4700	12.7100	14.1800	32.9800	29.5100

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:46	89.4%	-0.0246	0.0527	0.0015	0.0792	0.0000	0.0158	0.1227	0.0563	97.0%	99.4%	0.1291	0.0000
2	18:23:59	90.1%	0.0026	0.0532	0.0015	0.0406	0.0000	0.0111	0.1121	0.0330	97.7%	99.8%	0.1230	0.0000
3	18:24:12	90.5%	-0.0012	0.0355	0.0015	0.0372	0.0000	0.0190	0.1145	0.0123	99.9%	100.7%	0.1067	0.0000
x		90.0%	-0.0077	0.0505	0.0015	0.0524	0.0000	0.0153	0.1164	0.0339	98.2%	99.9%	0.1196	0.0000
σ		0.6%	0.0147	0.0138	0.0000	0.0233	0.0000	0.0040	0.0055	0.0220	1.5%	0.7%	0.0116	0.0000
%RSD		0.6	190.2000	27.2800	1.4920	44.4900	0.0000	26.1400	4.7580	64.9200	1.6	0.7	9.6960	0.0000

SEQ-IFA@ICSA01 10/18/2016 18:27:13 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:26	88.5%	0.2918	90.1%	500.7000	-0.8035	21.2200	103.7000	1.3640	5.8600	0.0138	-0.0478	-0.0583	1.1210	0.0000	671.2000	±2051.0000	±1250.0000	713.9000	±1799.0000
2	18:27:40	88.2%	0.3299	93.1%	512.8000	-0.3957	21.8000	48.3700	1.3840	5.6400	0.0014	-0.0789	0.0343	0.1635	0.0000	680.9000	±2053.0000	±1255.0000	728.4000	±1815.0000
3	18:27:54	89.4%	0.3948	94.7%	515.2000	-0.4497	21.5000	55.5900	1.3610	5.6920	-0.0112	0.0777	-0.0349	0.7193	0.0000	±677.2000	±2089.0000	±1273.0000	±722.5000	±1842.0000
x		88.7%	1.#IO%	92.6%	509.6000	-109.929%	102.409%	69.2200	136.973%	95.518%	0.0013	-5.443%	-0.0197	0.6680	0.0000	-676.4000	±2064.0000	±1260.0000	±721.6000	±1819.0000
σ		0.7%	n/a	2.3%	7.8170	n/a	n/a	30.0700	n/a	n/a	0.0125	n/a	0.0482	0.4808	0.0000	±4.9330	±21.5600	±12.3600	±7.2970	±21.3400
%RSD		0.8	15.3700	2.5	1.5340	40.3000	1.3360	43.4500	0.9319	2.0060	950.9000	507.8000	244.8000	71.9800	0.0000	±0.7292	±1.0450	±0.9816	±1.0110	±1.1730

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:26	89.5%	-0.0061	0.0252	0.8015	0.4515	0.0000	0.1424	1.1080	2.0910	99.9%	100.3%	0.0726	0.0000
2	18:27:40	89.0%	0.0066	0.0279	0.7578	0.5293	0.0000	0.1533	1.1390	1.9370	102.9%	103.7%	0.0618	0.0000
3	18:27:54	90.5%	-0.0030	0.0262	0.7452	0.4491	0.0000	0.1263	1.2520	2.1570	104.5%	105.3%	0.0522	0.0000
x		89.7%	-0.0009	1.#IO%	0.7682	68.087%	0.0000	0.1407	77.769%	171.816%	102.4%	103.1%	1.#IO%	0.0000
σ		0.8%	0.0066	n/a	0.0295	n/a	0.0000	0.0136	n/a	n/a	2.3%	2.6%	n/a	0.0000
%RSD		0.9	762.8000	5.1720	3.8450	9.5690	0.0000	9.6700	6.5070	5.4790	2.3	2.5	16.4100	0.0000

SEQ-IFB@ICSAB01 10/18/2016 18:31:24 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:37	88.0%	19.3100	100.1%	501.3000	21.8600	43.8600	192.5000	20.9500	23.8900	0.7725	19.9600	1.0160	1.2140	0.0000	673.3000	±2035.0000	±1251.0000	±706.3000	±1803.0000
2	18:31:50	87.8%	18.2800	104.0%	495.8000	21.0400	43.3400	204.4000	20.6500	24.0000	0.7162	19.5700	1.1470	1.3710	0.0000	±668.6000	±2048.0000	±1255.0000	±708.9000	±1819.0000
3	18:32:03	88.9%	18.9100	103.9%	506.9000	20.8100	42.9600	212.1000	20.8000	24.4900	0.8115	19.5300	1.0350	1.3440	0.0000	±670.9000	±2055.0000	±1259.0000	±711.4000	±1816.0000
x		88.3%	99.140%	102.7%	501.3000	111.762%	108.473%	203.0000	103.995%	100.530%	0.7667	103.614%	1.0660	1.3100	0.0000	±670.9000	±2046.0000	±1255.0000	±708.9000	±1813.0000
σ		0.6%	n/a	2.2%	5.5650	n/a	n/a	9.8830	n/a	n/a	0.0479	n/a	0.0710	0.0841	0.0000	±2.3370	±9.9110	±3.9940	±2.5420	±8.8170
%RSD		0.7	2.7660	2.2	1.1100	2.6030	1.0380	4.8690	0.7209	1.3360	6.2430	1.2110	6.6600	6.4240	0.0000	±0.3483	±0.4845	±0.3182	±0.3586	±0.4864

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:37	94.0%	0.9212	18.1400	1.4250	19.1900	0.0000	0.1366	20.9100	22.4600	103.0%	103.6%	19.5600	0.0000
2	18:31:50	95.1%	0.8811	18.2000	1.4450	19.4300	0.0000	0.1385	21.3200	23.2900	104.2%	105.3%	19.6300	0.0000
3	18:32:03	96.3%	0.8966	18.2800	1.3850	19.1800	0.0000	0.1297	21.1900	23.5200	107.6%	107.9%	19.6900	0.0000
x		95.1%	0.8996	101.154%	1.4180	96.344%	0.0000	0.1349	96.095%	104.945%	105.0%	105.6%	93.467%	0.0000
σ		1.2%	0.0202	n/a	0.0307	n/a	0.0000	0.0047	n/a	n/a	2.4%	2.1%	n/a	0.0000
%RSD		1.2	2.2420	0.3791	2.1650	0.7280	0.0000	3.4590	0.9779	2.4170	2.3	2.0	0.3259	0.0000

SEQ-CCV@CCV01 10/18/2016 18:35:33 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:35:46	95.7%	496.6000	109.4%	291.9000	498.8000	507.0000	2463.0000	±493.5000	496.5000	20.5800	510.4000	28.5100	5.4900	0.0000	407.6000	±1238.0000	±755.6000	434.3000	±1097.0000
2	18:35:59	94.5%	494.3000	111.6%	293.1000	499.7000	508.7000	2304.0000	±494.0000	497.4000	19.9300	507.3000	28.1700	8.2200	0.0000	406.8000	±1238.0000	±753.4000	433.7000	±1096.0000
3	18:36:12	95.4%	491.9000	111.8%	295.4000	498.5000	503.8000	2430.0000	±499.0000	503.0000	20.5600	504.5000	28.2700	4.8120	0.0000	411.2000	±1239.0000	±761.8000	442.3000	±1105.0000
x		95.2%	98.853%	110.9%	293.5000	99.805%	101.295%	2399.0000	±99.102%	99.796%	20.3600	101.477%	28.3200	6.1740	0.0000	408.5000	±1238.0000	±756.9000	436.8000	±1099.0000
σ		0.6%	n/a	1.3%	1.7640	n/a	n/a	84.3400	±n/a	n/a	0.3675	n/a	0.1724	1.8040	0.0000	2.3720	±0.4829	±4.3240	4.8250	±4.6450
%RSD		0.7	0.4754	1.2	0.6010	0.1257	0.4911	3.5160	±0.6082	0.6975	1.8050	0.5838	0.6089	29.2200	0.0000	0.5805	±0.0390	±0.5713	1.1050	±0.4225

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:35:46	106.9%	24.3700	64.9600	18.1700	512.4000	0.0000	±462.9000	526.6000	521.0000	112.6%	114.3%	±480.2000	0.0000
2	18:35:59	107.1%	24.2200	65.9200	18.1300	511.3000	0.0000	488.7000	530.1000	521.1000	116.1%	115.1%	±489.0000	0.0000
3	18:36:12	107.5%	24.5000	66.1600	17.9000	517.4000	0.0000	496.8000	540.6000	531.2000	116.5%	117.5%	±480.3000	0.0000
x		107.1%	24.3600	101.043%	18.0700	102.734%	0.0000	±483.1000	106.485%	104.887%	115.1%	115.7%	±96.635%	0.0000
σ		0.3%	0.1419	n/a	0.1459	n/a	0.0000	±17.1100	n/a	n/a	2.2%	1.7%	±n/a	0.0000
%RSD		0.3	0.5823	0.9684	0.8073	0.6294	0.0000	±3.5410	1.3690	1.1180	1.9	1.4	±1.0530	0.0000

SEQ-CCB@CCB01 10/18/2016 18:39:45 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:58	89.0%	0.2608	99.6%	0.1198	0.0910	0.1428	-7.8280	0.1643	0.2491	0.0319	0.1444	-0.0291	0.6910	0.0000	0.1506	0.4311	0.2943	0.1558	0.4699
2	18:40:11	91.9%	0.1781	99.5%	0.1424	0.0482	0.1104	-7.5370	0.2043	0.3296	0.0211	0.0883	0.0007	0.1910	0.0000	0.1838	0.5179	0.3386	0.1631	0.5108
3	18:40:24	91.3%	0.2353	100.7%	0.1403	0.0713	0.0919	-3.2360	0.1885	0.2725	0.0103	0.0049	-0.0193	0.3580	0.0000	0.1929	0.5263	0.3117	0.1843	0.4846
x		90.7%	0.2248	99.9%	0.1342	0.0702	0.1151	-6.2000	0.1857	0.2837	0.0211	0.0792	-0.0159	0.4133	0.0000	0.1758	0.4917	0.3149	0.1677	0.4884
σ		1.5%	0.0424	0.6%	0.0125	0.0215	0.0258	2.5710	0.0202	0.0414	0.0108	0.0702	0.0152	0.2546	0.0000	0.0223	0.0527	0.0223	0.0148	0.0208
%RSD		1.7	18.8600	0.6	9.3160	30.5800	22.4100	41.4700	10.8600	14.5900	51.0400	88.6900	95.1900	61.5900	0.0000	12.6800	10.7100	7.0930	8.8460	4.2490

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:58	103.7%	0.0193	0.0370	0.0095	0.1633	0.0000	0.1719	0.2117	0.1759	103.8%	104.3%	0.2342	0.0000
2	18:40:11	103.8%	0.0070	0.0411	0.0068	0.1917	0.0000	0.1809	0.2215	0.1808	103.5%	105.0%	0.2292	0.0000
3	18:40:24	103.8%	0.0182	0.0309	0.0093	0.2292	0.0000	0.1811	0.2026	0.2035	105.4%	106.4%	0.2447	0.0000
x		103.8%	0.0148	0.0363	0.0085	0.1947	0.0000	0.1780	0.2119	0.1867	104.2%	105.2%	0.2360	0.0000
σ		0.1%	0.0068	0.0051	0.0015	0.0330	0.0000	0.0053	0.0095	0.0147	1.0%	1.1%	0.0079	0.0000
%RSD		0.1	46.0900	14.1500	17.8300	16.9600	0.0000	2.9590	4.4710	7.8890	0.9	1.1	3.3670	0.0000

SEQ-CCV@CCV02 10/18/2016 19:10:27 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:10:40	97.4%	496.8000	102.2%	291.6000	474.4000	484.4000	2690.0000	±495.3000	499.5000	18.0400	475.2000	25.6800	3.9200	0.0000	401.5000	±1219.0000	±745.5000	428.2000	±1087.0000
2	19:10:53	97.7%	512.4000	101.1%	297.0000	496.5000	505.1000	2655.0000	±501.4000	511.3000	19.8000	505.8000	28.4200	4.6490	0.0000	407.4000	±1241.0000	±758.4000	438.0000	±1097.0000
3	19:11:07	97.5%	510.5000	101.6%	296.7000	483.4000	490.6000	2527.0000	±501.8000	508.6000	19.7900	485.7000	27.8500	4.6800	0.0000	412.1000	±1250.0000	±762.5000	443.6000	±1114.0000
x		97.5%	101.310%	101.6%	295.1000	96.947%	98.673%	2624.0000	±99.903%	101.295%	19.2100	97.780%	27.3200	4.4160	0.0000	407.0000	±1237.0000	±755.5000	436.6000	±1100.0000
σ		0.2%	n/a	0.5%	3.0590	n/a	n/a	85.5800	±n/a	n/a	1.0170	n/a	1.4450	0.4298	0.0000	5.2780	±16.4200	±8.8790	7.8040	±13.6600
%RSD		0.2	1.6820	0.5	1.0370	2.2910	2.1490	3.2610	±0.7352	1.2280	5.2960	3.1750	5.2910	9.7320	0.0000	1.2970	±1.3280	±1.1750	1.7870	±1.2420

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:10:40	102.2%	23.6700	64.1800	17.4300	501.4000	0.0000	479.2000	519.3000	509.5000	110.1%	110.6%	±482.8000	0.0000
2	19:10:53	98.1%	24.2000	66.5800	17.9000	518.9000	0.0000	493.9000	539.7000	523.5000	111.8%	113.0%	±481.9000	0.0000
3	19:11:07	100.7%	24.2800	66.1900	17.9900	516.6000	0.0000	496.5000	541.6000	523.9000	113.1%	114.5%	±485.8000	0.0000
x		100.3%	24.0500	100.999%	17.7700	102.459%	0.0000	489.9000	106.708%	103.795%	111.7%	112.7%	±96.697%	0.0000
σ		2.1%	0.3332	n/a	0.2981	n/a	0.0000	9.3060	n/a	n/a	1.5%	2.0%	±n/a	0.0000
%RSD		2.1	1.3860	1.9600	1.6770	1.8620	0.0000	1.9000	2.3140	1.5830	1.4	1.7	±0.4213	0.0000

SEQ-CCB@CCB02 10/18/2016 19:14:39 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:14:53	91.3%	0.2237	90.6%	0.1819	-0.0208	0.1014	-1.1830	0.1691	0.2338	-0.0112	0.1657	0.0626	-0.8061	0.0000	0.1591	0.4369	0.2750	0.1499	0.3990
2	19:15:05	93.9%	0.2218	91.3%	0.0864	0.0239	0.1040	-9.1720	0.1626	0.2368	0.0346	0.1412	0.0639	-0.2756	0.0000	0.1534	0.4918	0.2708	0.1833	0.4427
3	19:15:18	93.3%	0.2006	93.1%	0.1006	0.1217	0.1016	-16.7500	0.1728	0.1092	0.0003	0.0247	0.0747	-0.6280	0.0000	0.1330	0.3810	0.2372	0.1660	0.3543
x		92.8%	0.2154	91.7%	0.1230	0.0416	0.1024	-9.0340	0.1682	0.1932	0.0079	0.1105	0.0671	-0.5699	0.0000	0.1485	0.4366	0.2610	0.1664	0.3987
σ		1.3%	0.0128	1.3%	0.0516	0.0728	0.0014	7.7830	0.0051	0.0728	0.0238	0.0753	0.0066	0.2700	0.0000	0.0137	0.0554	0.0207	0.0167	0.0442
%RSD		1.4	5.9390	1.4	41.9300	175.1000	1.3960	86.1500	3.0510	37.6900	300.8000	68.1800	9.8670	47.3800	0.0000	9.2220	12.7000	7.9320	10.0200	11.0800

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:14:53	98.7%	0.0016	0.0318	0.0127	0.1418	0.0000	0.1468	0.2056	0.1748	103.1%	103.3%	0.2388	0.0000
2	19:15:05	97.6%	0.0094	0.0278	0.0084	0.1663	0.0000	0.1436	0.1802	0.2007	104.9%	105.7%	0.2048	0.0000
3	19:15:18	96.9%	-0.0029	0.0222	0.0083	0.1745	0.0000	0.1378	0.2032	0.1555	105.8%	107.2%	0.1968	0.0000
x		97.7%	0.0027	0.0273	0.0098	0.1609	0.0000	0.1427	0.1963	0.1770	104.6%	105.4%	0.2135	0.0000
σ		0.9%	0.0062	0.0048	0.0025	0.0170	0.0000	0.0046	0.0140	0.0227	1.4%	1.9%	0.0223	0.0000
%RSD		1.0	230.9000	17.7800	25.9900	10.5600	0.0000	3.2150	7.1420	12.8000	1.3	1.8	10.4400	0.0000

SEQ-CCV@CCV03 10/18/2016 19:45:06 - QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:19	96.3%	487.9000	99.7%	286.6000	489.3000	499.7000	2608.0000	r490.3000	491.8000	20.1800	494.9000	27.8500	6.7920	0.0000	395.6000	r1209.0000	r739.9000	424.5000	r1081.0000
2	19:45:32	96.3%	492.3000	99.6%	291.2000	479.5000	486.0000	2260.0000	r495.9000	498.8000	19.3300	483.9000	26.7600	6.7150	0.0000	404.6000	r1225.0000	r744.3000	431.8000	r1081.0000
3	19:45:45	95.8%	493.2000	99.6%	297.2000	476.9000	487.8000	2255.0000	r501.0000	509.2000	19.3800	483.1000	27.1600	6.7380	0.0000	409.0000	r1231.0000	r751.5000	435.5000	r1094.0000
x		96.1%	98.228%	99.6%	291.7000	96.382%	98.236%	2374.0000	r99.146%	99.989%	19.6300	97.459%	27.2600	6.7490	0.0000	403.0000	r1222.0000	r745.2000	430.6000	r1085.0000
σ		0.3%	n/a	0.0%	5.3410	n/a	n/a	202.5000	r n/a	n/a	0.4819	n/a	0.5536	0.0394	0.0000	6.8370	r11.5700	r5.8600	5.6040	r7.5680
%RSD		0.3	0.5845	0.0	1.8310	1.3580	1.5180	8.5300	r1.0760	1.7560	2.4550	1.3570	2.0310	0.5844	0.0000	1.6960	r0.9473	r0.7863	1.3020	r0.6975

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:19	97.6%	23.7600	65.0300	17.7200	501.7000	0.0000	478.2000	519.8000	511.3000	110.4%	112.0%	r488.5000	0.0000
2	19:45:32	100.9%	23.7600	65.4100	17.9300	507.7000	0.0000	487.0000	535.4000	515.8000	113.8%	115.4%	r488.4000	0.0000
3	19:45:45	100.6%	24.0200	65.9600	17.6800	511.4000	0.0000	488.7000	535.3000	519.4000	115.3%	117.5%	r479.8000	0.0000
x		99.7%	23.8400	100.720%	17.7800	101.384%	0.0000	484.6000	106.034%	103.103%	113.2%	115.0%	r97.109%	0.0000
σ		1.8%	0.1531	n/a	0.1338	n/a	0.0000	5.6580	n/a	n/a	2.5%	2.8%	r n/a	0.0000
%RSD		1.8	0.6420	0.7131	0.7525	0.9693	0.0000	1.1680	1.6960	0.7917	2.2	2.4	r1.0330	0.0000

SEQ-CCB@CCB03 10/18/2016 19:49:18 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:31	92.7%	0.1175	89.7%	0.0616	0.0242	0.0239	-19.8800	0.1044	0.0881	-0.0112	-0.0374	0.0106	0.0759	0.0000	0.1133	0.3703	0.2026	0.1271	0.3222
2	19:49:44	94.2%	0.1067	91.2%	0.0808	0.0296	0.0309	-15.4100	0.1152	0.1810	0.0120	-0.0637	0.0102	-0.2686	0.0000	0.1215	0.3628	0.2283	0.1599	0.3717
3	19:49:57	93.9%	0.1870	92.0%	0.0667	-0.0500	0.0022	-9.7210	0.1022	0.0986	0.0002	0.1408	0.0001	0.2541	0.0000	0.1182	0.3292	0.2146	0.1289	0.3072
x		93.6%	0.1371	91.0%	0.0697	0.0013	0.0190	-15.0000	0.1072	0.1226	0.0004	0.0133	0.0070	0.0205	0.0000	0.1177	0.3541	0.2152	0.1386	0.3337
σ		0.8%	0.0436	1.2%	0.0099	0.0445	0.0150	5.0910	0.0070	0.0509	0.0116	0.1113	0.0060	0.2658	0.0000	0.0041	0.0219	0.0129	0.0184	0.0338
%RSD		0.9	31.8000	1.3	14.2200	3497.0000	78.8900	33.9300	6.4950	41.5000	3267.0000	839.9000	85.4900	1299.0000	0.0000	3.5240	6.1920	5.9800	13.2800	10.1100

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:31	97.8%	0.0041	0.0144	0.0042	0.1010	0.0000	0.1239	0.1425	0.0970	105.2%	106.6%	0.1306	0.0000
2	19:49:44	96.3%	-0.0008	0.0136	0.0014	0.0750	0.0000	0.1006	0.1293	0.1231	105.5%	107.0%	0.1383	0.0000
3	19:49:57	97.6%	0.0014	0.0152	0.0014	0.0806	0.0000	0.0838	0.1276	0.0941	107.0%	108.5%	0.1394	0.0000
x		97.3%	0.0016	0.0144	0.0023	0.0868	0.0000	0.1028	0.1331	0.1047	105.9%	107.4%	0.1361	0.0000
σ		0.8%	0.0025	0.0008	0.0016	0.0123	0.0000	0.0201	0.0081	0.0160	1.0%	1.0%	0.0048	0.0000
%RSD		0.8	157.1000	5.4190	70.2400	14.1700	0.0000	19.5900	6.1000	15.2600	0.9	1.0	3.5240	0.0000

SEQ-CCV@CCV04 10/18/2016 20:06:35 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:48	96.5%	500.9000	98.2%	300.4000	481.7000	493.0000	2327.0000	r510.7000	512.5000	19.8100	479.7000	27.0200	7.9340	0.0000	412.4000	r1273.0000	r777.1000	443.5000	r1130.0000
2	20:07:02	95.7%	499.7000	97.2%	303.3000	481.2000	491.6000	2586.0000	r509.2000	513.5000	18.6700	484.0000	27.1200	6.7580	0.0000	415.2000	r1262.0000	r764.9000	442.9000	r1125.0000
3	20:07:15	96.1%	511.2000	96.3%	302.8000	485.0000	496.1000	2437.0000	r511.0000	512.6000	19.9200	497.3000	26.4700	4.6960	0.0000	417.4000	r1259.0000	r763.3000	444.4000	r1120.0000
x		96.1%	100.786%	97.2%	302.2000	96.530%	98.708%	2450.0000	r102.059%	102.571%	19.4700	97.397%	26.8700	6.4630	0.0000	415.0000	r1265.0000	r768.4000	443.6000	r1125.0000
σ		0.4%	n/a	1.0%	1.5770	n/a	n/a	130.1000	r n/a	n/a	0.6901	n/a	0.3476	1.6390	0.0000	2.5400	r7.5490	r7.5500	0.7743	r5.1710
%RSD		0.5	1.2530	1.0	0.5219	0.4264	0.4667	5.3090	r0.1892	0.1029	3.5450	1.8910	1.2930	25.3600	0.0000	0.6121	r0.5969	r0.9826	0.1746	r0.4596

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:48	96.7%	24.4800	65.8300	17.9800	518.0000	0.0000	r473.5000	539.8000	524.0000	112.2%	113.6%	r497.6000	0.0000
2	20:07:02	98.1%	24.4700	66.3700	18.1600	520.2000	0.0000	498.4000	542.8000	525.0000	114.1%	115.1%	r499.5000	0.0000
3	20:07:15	97.2%	24.8800	66.4500	18.3900	525.3000	0.0000	497.8000	545.6000	524.6000	115.6%	116.3%	r495.3000	0.0000
x		97.3%	24.6100	101.872%	18.1700	104.233%	0.0000	r489.9000	108.550%	104.900%	114.0%	115.0%	r99.491%	0.0000
σ		0.7%	0.2306	n/a	0.2065	n/a	0.0000	r14.2400	n/a	n/a	1.7%	1.3%	r n/a	0.0000
%RSD		0.7	0.9369	0.5079	1.1370	0.7173	0.0000	r2.9070	0.5367	0.0970	1.5	1.2	r0.4278	0.0000

SEQ-CCB@CCB04 10/18/2016 20:10:57 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:11:10	93.6%	0.1022	88.7%	0.0588	-0.0747	0.0243	-6.2740	0.0844	0.1155	0.0002	-0.0374	0.0428	0.0758	0.0000	0.0917	0.2986	0.1709	0.1047	0.2794
2	20:11:24	93.9%	0.1498	90.3%	0.0743	-0.0762	-0.0039	-6.5040	0.0895	0.0839	0.0117	0.0813	0.0007	0.7831	0.0000	0.0988	0.2987	0.1811	0.1223	0.2566
3	20:11:37	93.2%	0.1416	90.2%	0.0478	0.0080	-0.0056	-21.0200	0.0803	0.0853	0.0002	-0.0668	0.0106	0.0767	0.0000	0.0828	0.2849	0.1807	0.1076	0.2754
x		93.6%	0.1312	89.7%	0.0603	-0.0476	0.0049	-11.2700	0.0847	0.0949	0.0040	-0.0076	0.0180	0.3118	0.0000	0.0911	0.2941	0.1776	0.1115	0.2704
σ		0.4%	0.0254	0.9%	0.0134	0.0482	0.0168	8.4490	0.0046	0.0179	0.0066	0.0784	0.0220	0.4081	0.0000	0.0080	0.0080	0.0058	0.0095	0.0122
%RSD		0.4	19.3900	1.0	22.1400	101.2000	340.9000	74.9900	5.4270	18.8300	163.2000	1029.0000	121.8000	130.9000	0.0000	8.8060	2.7080	3.2530	8.4910	4.5000

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:11:10	97.8%	-0.0158	0.0103	0.0000	0.0831	0.0000	0.0781	0.1175	0.1068	104.9%	106.3%	0.1290	0.0000
2	20:11:24	97.7%	-0.0193	0.0124	0.0014	0.0895	0.0000	0.0983	0.1235	0.0954	106.5%	108.0%	0.1276	0.0000
3	20:11:37	97.7%	-0.0112	0.0187	0.0014	0.1068	0.0000	0.0974	0.1061	0.0754	108.6%	110.0%	0.1156	0.0000
x		97.8%	-0.0154	0.0138	0.0009	0.0931	0.0000	0.0912	0.1157	0.0925	106.6%	108.1%	0.1241	0.0000
σ		0.1%	0.0041	0.0044	0.0008	0.0123	0.0000	0.0114	0.0088	0.0159	1.9%	1.9%	0.0074	0.0000
%RSD		0.1	26.3500	31.7100	86.6100	13.1700	0.0000	12.5100	7.6130	17.2000	1.8	1.7	5.9660	0.0000

SEQ-CCV@CCV05 10/18/2016 21:08:00 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:14	88.4%	510.7000	83.0%	296.2000	456.2000	472.1000	2286.0000	±501.7000	499.7000	18.7000	454.6000	25.0200	7.1450	0.0000	397.9000	1253.0000	769.5000	427.1000	±1088.0000
2	21:08:27	89.8%	504.9000	84.5%	293.4000	459.0000	471.9000	2441.0000	±491.5000	494.2000	17.4000	463.3000	25.1200	6.7310	0.0000	395.5000	1245.0000	±736.8000	422.5000	±1073.0000
3	21:08:40	89.2%	499.0000	85.0%	293.6000	452.6000	465.2000	2257.0000	±492.9000	493.9000	18.5400	453.8000	25.5600	5.9020	0.0000	399.7000	1257.0000	±737.8000	424.8000	±1078.0000
x		89.1%	100.970%	84.2%	294.4000	91.189%	93.943%	2328.0000	±99.077%	99.186%	18.2100	91.445%	25.2300	6.5920	0.0000	397.7000	1252.0000	±748.0000	424.8000	±1080.0000
σ		0.7%	n/a	1.1%	1.5480	n/a	n/a	99.0800	±n/a	n/a	0.7054	n/a	0.2904	0.6329	0.0000	2.0730	6.1330	±18.6300	2.2980	±7.7310
%RSD		0.7	1.1620	1.3	0.5259	0.7014	0.8402	4.2570	±1.1120	0.6604	3.8730	1.1610	1.1510	9.6010	0.0000	0.5212	0.4900	±2.4910	0.5411	±0.7160

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:08:14	91.1%	23.7200	64.6700	17.4300	506.0000	0.0000	±458.9000	522.6000	503.3000	106.6%	108.7%	±500.6000	0.0000
2	21:08:27	91.6%	23.7400	63.7200	17.3100	506.2000	0.0000	480.7000	523.1000	499.7000	110.6%	111.2%	±500.6000	0.0000
3	21:08:40	92.6%	23.7100	64.4300	17.7600	503.1000	0.0000	480.5000	523.1000	501.8000	110.8%	112.1%	±497.1000	0.0000
x		91.8%	23.7200	98.880%	17.5000	101.019%	0.0000	±473.4000	104.587%	100.314%	109.3%	110.7%	±99.892%	0.0000
σ		0.7%	0.0156	n/a	0.2317	n/a	0.0000	±12.5500	n/a	n/a	2.4%	1.7%	±n/a	0.0000
%RSD		0.8	0.0658	0.7685	1.3240	0.3415	0.0000	±2.6520	0.0582	0.3608	2.2	1.6	±0.4042	0.0000

SEQ-CCB@CCB05 10/18/2016 21:12:22 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:12:36	87.1%	0.1119	77.6%	0.0540	-0.0031	-0.0228	-23.9500	0.0823	0.1713	0.0135	-0.1463	0.0107	0.1464	0.0000	0.1460	0.4589	0.2005	0.1495	0.3607
2	21:12:49	87.0%	0.1480	78.7%	0.0375	-0.0912	-0.0138	-14.6900	0.0754	0.1004	0.0138	-0.0150	-0.0245	0.1593	0.0000	0.1205	0.4044	0.2141	0.1300	0.3523
3	21:13:02	87.0%	0.0906	78.9%	0.0418	-0.0428	-0.0081	-16.6700	0.0820	0.1071	0.0011	-0.1781	0.0334	-0.2343	0.0000	0.1369	0.3788	0.2183	0.1538	0.3430
x		87.1%	0.1168	78.4%	0.0444	-0.0457	-0.0149	-18.4400	0.0799	0.1263	0.0095	-0.1131	0.0065	0.0238	0.0000	0.1345	0.4140	0.2110	0.1445	0.3520
σ		0.0%	0.0290	0.7%	0.0086	0.0441	0.0074	4.8760	0.0039	0.0391	0.0072	0.0865	0.0291	0.2236	0.0000	0.0129	0.0409	0.0093	0.0127	0.0089
%RSD		0.0	24.8200	0.9	19.2500	96.5200	49.7600	26.4500	4.9360	30.9800	76.1200	76.4300	445.9000	939.4000	0.0000	9.6190	9.8780	4.4170	8.7810	2.5160

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:12:36	90.6%	-0.0179	0.0089	0.0031	0.0765	0.0000	0.0858	0.1048	0.0665	100.7%	102.3%	0.1041	0.0000
2	21:12:49	89.4%	-0.0091	0.0120	0.0061	0.0638	0.0000	0.0951	0.0980	0.0528	102.1%	104.1%	0.0935	0.0000
3	21:13:02	90.5%	-0.0016	0.0099	0.0015	0.0606	0.0000	0.1078	0.0786	0.0473	103.0%	104.8%	0.1107	0.0000
x		90.2%	-0.0095	0.0103	0.0036	0.0670	0.0000	0.0962	0.0938	0.0555	101.9%	103.7%	0.1028	0.0000
σ		0.7%	0.0082	0.0016	0.0023	0.0084	0.0000	0.0111	0.0136	0.0099	1.2%	1.3%	0.0086	0.0000
%RSD		0.8	85.7700	15.1500	65.2000	12.5300	0.0000	11.5100	14.5100	17.7700	1.1	1.2	8.4030	0.0000

SEQ-CCV@CCV06 10/18/2016 22:50:18 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:50:31	93.9%	478.8000	93.1%	294.8000	460.1000	473.9000	2507.0000	±503.8000	497.9000	18.3200	468.9000	24.9100	7.4640	0.0000	407.8000	±1242.0000	±757.7000	431.7000	±1106.0000
2	22:50:44	94.7%	483.7000	93.3%	295.3000	463.8000	475.0000	2356.0000	±500.2000	498.5000	18.4900	466.5000	27.1600	6.1850	0.0000	407.2000	±1242.0000	±754.2000	433.1000	±1097.0000
3	22:50:57	93.3%	488.0000	92.5%	297.6000	462.9000	476.9000	2554.0000	±501.0000	502.6000	18.0800	468.0000	25.1900	4.4230	0.0000	410.3000	±1243.0000	±759.6000	437.7000	±1108.0000
x		94.0%	96.705%	93.0%	295.9000	92.455%	95.054%	2472.0000	±100.330%	99.930%	18.2900	93.560%	25.7500	6.0240	0.0000	408.5000	±1243.0000	±757.2000	434.1000	±1103.0000
σ		0.7%	n/a	0.4%	1.4780	n/a	n/a	103.5000	±n/a	n/a	0.2092	n/a	1.2280	1.5270	0.0000	1.6190	±0.7311	±2.7550	3.1220	±5.7920
%RSD		0.8	0.9561	0.5	0.4995	0.4162	0.3122	4.1850	±0.3732	0.5118	1.1440	0.2593	4.7700	25.3500	0.0000	0.3965	±0.0588	±0.3639	0.7192	±0.5250

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:50:31	96.0%	23.8900	64.8200	17.6300	504.4000	0.0000	482.3000	530.1000	506.9000	114.5%	116.2%	±495.0000	0.0000
2	22:50:44	96.3%	23.7200	64.5600	17.5800	504.6000	0.0000	488.3000	528.9000	507.9000	116.5%	118.0%	±492.9000	0.0000
3	22:50:57	95.7%	24.2600	64.9100	17.9200	512.2000	0.0000	493.2000	541.6000	509.9000	118.1%	119.0%	±497.3000	0.0000
x		96.0%	23.9600	99.638%	17.7100	101.413%	0.0000	487.9000	106.705%	101.649%	116.4%	117.7%	±99.011%	0.0000
σ		0.3%	0.2754	n/a	0.1838	n/a	0.0000	5.4770	n/a	n/a	1.8%	1.4%	±n/a	0.0000
%RSD		0.3	1.1500	0.2821	1.0380	0.8770	0.0000	1.1230	1.3140	0.2981	1.6	1.2	±0.4407	0.0000

SEQ-CCB@CCB06 10/18/2016 22:54:41 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:54:54	90.3%	0.1033	82.5%	0.0593	0.0183	-0.0230	-27.8400	0.0728	0.1031	0.0006	-0.0292	-0.0335	0.2887	0.0000	0.1403	0.4391	0.2320	0.1564	0.3744
2	22:55:07	91.5%	0.1445	84.5%	0.0490	0.0014	-0.0186	-28.2500	0.0920	0.0724	-0.0112	0.0349	-0.0117	0.1149	0.0000	0.1666	0.4521	0.2861	0.1527	0.3745
3	22:55:20	89.9%	0.1071	85.6%	0.0679	0.0157	-0.0182	-26.4800	0.0848	0.1204	0.0005	-0.0620	-0.0006	-0.0837	0.0000	0.1434	0.4026	0.2406	0.1324	0.3491
x		90.6%	0.1183	84.2%	0.0587	0.0118	-0.0199	-27.5200	0.0832	0.0987	-0.0034	-0.0188	-0.0153	0.1066	0.0000	0.1501	0.4313	0.2529	0.1472	0.3660
σ		0.8%	0.0228	1.6%	0.0095	0.0091	0.0027	0.9288	0.0097	0.0243	0.0068	0.0493	0.0167	0.1864	0.0000	0.0144	0.0257	0.0291	0.0129	0.0146
%RSD		0.9	19.2700	1.9	16.1100	77.3000	13.4600	3.3740	11.6200	24.6700	202.2000	262.4000	109.8000	174.7000	0.0000	9.5820	5.9530	11.4900	8.7610	4.0010

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:54:54	94.6%	0.0081	0.0150	0.0015	0.0607	0.0000	0.2313	0.1173	0.0573	106.6%	108.5%	0.1015	0.0000
2	22:55:07	93.7%	-0.0122	0.0080	0.0029	0.0758	0.0000	0.2118	0.1025	0.0582	107.4%	109.4%	0.1109	0.0000
3	22:55:20	95.5%	-0.0057	0.0138	0.0014	0.0799	0.0000	0.2549	0.1007	0.0718	109.4%	110.8%	0.1074	0.0000
x		94.6%	-0.0033	0.0123	0.0019	0.0721	0.0000	0.2327	0.1069	0.0624	107.8%	109.6%	0.1066	0.0000
σ		0.9%	0.0104	0.0037	0.0008	0.0101	0.0000	0.0216	0.0091	0.0081	1.4%	1.1%	0.0047	0.0000
%RSD		1.0	317.3000	30.3800	43.3000	14.0400	0.0000	9.2880	8.5020	13.0500	1.3	1.0	4.4310	0.0000

QJ14030-BLK1@PB501@MH1H14@46282 10/18/2016 22:58:58 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:58	89.7%	0.0134	80.6%	0.0295	-0.0842	-0.1503	-43.9800	0.0059	0.3425	-0.0112	-0.0296	-0.0440	0.6512	0.0000	0.0214	0.0497	0.0358	0.0166	0.0559
2	22:59:11	89.4%	0.0567	83.5%	0.0110	-0.0853	-0.1586	-43.2700	0.0050	0.2487	-0.0112	-0.0310	0.0109	0.2808	0.0000	0.0144	0.0551	0.0365	0.0210	0.0580
3	22:59:24	90.6%	0.0473	83.9%	0.0047	-0.0408	-0.1765	-49.4400	0.0045	0.2542	0.0006	0.0314	-0.0329	0.6507	0.0000	0.0254	0.0721	0.0244	0.0227	0.0662
x		89.9%	0.0391	82.7%	0.0151	-0.0701	-0.1618	-45.5600	0.0051	0.2818	-0.0073	-0.0098	-0.0220	0.5276	0.0000	0.0204	0.0590	0.0322	0.0201	0.0600
σ		0.6%	0.0228	1.8%	0.0129	0.0254	0.0134	3.3760	0.0008	0.0526	0.0068	0.0356	0.0290	0.2137	0.0000	0.0055	0.0117	0.0068	0.0031	0.0055
%RSD		0.7	58.2700	2.2	85.7800	36.2200	8.2730	7.4090	14.5800	18.6700	93.7400	364.8000	131.7000	40.5000	0.0000	27.0700	19.8100	21.1400	15.5700	9.1010

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:58:58	94.7%	-0.0066	0.0009	0.0000	-0.0078	0.0000	0.0241	0.0066	-0.0165	101.7%	103.8%	0.0193	0.0000
2	22:59:11	95.2%	-0.0187	-0.0004	0.0000	-0.0050	0.0000	0.0271	0.0012	-0.0292	104.2%	106.0%	0.0159	0.0000
3	22:59:24	94.8%	-0.0072	0.0002	0.0029	0.0141	0.0000	0.0287	0.0044	-0.0249	105.7%	108.2%	0.0180	0.0000
x		94.9%	-0.0108	0.0002	0.0010	0.0004	0.0000	0.0266	0.0041	-0.0235	103.9%	106.0%	0.0178	0.0000
σ		0.3%	0.0068	0.0007	0.0017	0.0119	0.0000	0.0023	0.0027	0.0064	2.0%	2.2%	0.0017	0.0000
%RSD		0.3	63.2100	300.7000	173.2000	2917.0000	0.0000	8.6690	66.3800	27.3600	1.9	2.1	9.7340	0.0000

QJ14030-BS1@LCS01 10/18/2016 23:03:01 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:03:01	90.9%	1.8110	82.6%	0.0115	9.6560	3.8150	-11.4200	2.0350	2.0310	0.3315	9.5030	0.5801	0.7837	0.0000	2.6430	7.9300	4.7680	2.6510	6.9260
2	23:03:14	90.8%	1.9080	84.7%	0.0104	9.7300	3.7320	2.4680	2.0890	1.9970	0.3460	9.8860	0.3682	0.4410	0.0000	2.6430	8.0700	5.1230	2.7540	7.2050
3	23:03:28	91.4%	2.2580	84.9%	0.0204	9.4550	3.7000	-0.1432	2.0840	2.0970	0.3268	9.4560	0.5710	-0.2835	0.0000	2.5480	8.0680	4.9830	2.8610	7.2380
x		91.0%	99.612%	84.1%	0.0141	96.137%	93.727%	-3.0330	103.464%	102.073%	0.3347	96.148%	0.5064	0.3138	0.0000	2.6110	8.0230	4.9580	2.7560	7.1230
σ		0.3%	n/a	1.2%	0.0055	n/a	n/a	7.3820	n/a	n/a	0.0100	n/a	0.1198	0.5449	0.0000	0.0550	0.0800	0.1789	0.1048	0.1714
%RSD		0.3	11.7900	1.5	38.9700	1.4800	1.5810	243.4000	1.4590	2.4850	2.9860	2.4520	23.6600	173.7000	0.0000	2.1050	0.9968	3.6090	3.8040	2.4060

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:03:01	97.7%	0.0795	1.9500	0.0684	2.0740	0.0000	0.0094	4.1040	20.6700	102.4%	104.9%	1.9350	0.0000
2	23:03:14	96.8%	0.0972	2.0650	0.0625	1.9110	0.0000	0.0076	4.0370	20.5500	104.6%	107.8%	1.9870	0.0000
3	23:03:28	99.0%	0.0922	2.0420	0.0817	2.0060	0.0000	0.0219	4.1710	20.9100	107.3%	109.8%	2.0560	0.0000
x		97.9%	0.0896	100.960%	0.0709	99.844%	0.0000	0.0130	102.595%	103.545%	104.7%	107.5%	99.646%	0.0000
σ		1.1%	0.0091	n/a	0.0098	n/a	0.0000	0.0078	n/a	n/a	2.5%	2.4%	n/a	0.0000
%RSD		1.1	10.1500	3.0090	13.8900	4.0920	0.0000	60.0900	1.6370	0.8736	2.3	2.3	3.0510	0.0000

6100165-01@MH1H14 10/18/2016 23:07:05

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:07:05	90.2%	0.8460	90.5%	25.9300	17.5800	4.4690	-3.3330	7.7410	3.4210	0.3885	2.0070	0.1082	0.9598	0.0000	1.0950	2.6250	1.6590	0.9259	2.2650
2	23:07:19	91.2%	0.8337	91.8%	26.2800	17.1700	4.4890	7.8900	7.8570	3.4300	0.4509	2.9410	0.2340	0.9368	0.0000	1.1010	2.6570	1.7410	0.9337	2.4120
3	23:07:32	93.4%	0.7280	94.7%	25.7300	17.1900	4.3170	2.2690	7.8020	3.3790	0.3919	2.8920	0.1591	1.0990	0.0000	1.1310	2.6810	1.7530	0.9226	2.3100
x		91.6%	0.8026	92.3%	25.9800	17.3200	4.4250	2.2750	7.8000	3.4100	0.4104	2.6130	0.1671	0.9985	0.0000	1.1090	2.6540	1.7180	0.9274	2.3290
σ		1.7%	0.0649	2.1%	0.2782	0.2334	0.0943	5.6120	0.0578	0.0273	0.0351	0.5260	0.0633	0.0876	0.0000	0.0191	0.0285	0.0509	0.0057	0.0754
%RSD		1.8	8.0810	2.3	1.0710	1.3480	2.1320	246.6000	0.7410	0.8006	8.5470	20.1300	37.8500	8.7740	0.0000	1.7250	1.0750	2.9640	0.6138	3.2380

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:07:05	97.7%	0.2278	2.2010	0.0606	2.0860	0.0000	0.3507	2.0380	65.4800	114.2%	113.6%	0.3424	0.0000
2	23:07:19	99.0%	0.1491	2.2570	0.1056	2.1120	0.0000	0.4109	2.1050	66.5600	117.0%	117.1%	0.3588	0.0000
3	23:07:32	99.6%	0.1993	2.2400	0.0820	2.0580	0.0000	0.3815	2.0420	66.2300	120.6%	119.7%	0.3425	0.0000
x		98.8%	0.1921	2.2330	0.0827	2.0850	0.0000	0.3810	2.0620	66.0900	117.3%	116.8%	0.3479	0.0000
σ		1.0%	0.0398	0.0288	0.0225	0.0271	0.0000	0.0301	0.0377	0.5526	3.2%	3.1%	0.0094	0.0000
%RSD		1.0	20.7300	1.2910	27.2400	1.2980	0.0000	7.9020	1.8290	0.8361	2.8	2.6	2.7090	0.0000

6100165-02@MH1H15 10/18/2016 23:11:09

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:11:09	93.0%	0.5046	97.7%	25.0500	29.1500	5.8430	-4.0280	16.0400	6.1650	0.2640	1.9560	0.1519	1.1440	0.0000	1.9990	4.9970	3.2420	1.8300	4.5840
2	23:11:22	93.1%	0.5914	101.0%	25.2200	28.8300	5.8600	-16.4400	16.1900	6.0340	0.1816	2.1670	0.1184	1.1230	0.0000	1.9190	5.1090	3.2940	1.7860	4.5560
3	23:11:35	93.5%	0.6270	101.2%	25.2500	29.2200	5.6830	-8.7130	16.4600	5.8920	0.1713	1.5010	0.2138	-0.2769	0.0000	1.9310	5.2490	3.3860	1.7840	4.6300
x		93.2%	0.5743	100.0%	25.1700	29.0700	5.7960	-9.7260	16.2300	6.0300	0.2056	1.8750	0.1614	0.6633	0.0000	1.9490	5.1190	3.3070	1.8000	4.5900
σ		0.3%	0.0629	2.0%	0.1069	0.2051	0.0974	6.2660	0.2120	0.1367	0.0508	0.3402	0.0484	0.8143	0.0000	0.0432	0.1264	0.0726	0.0262	0.0372
%RSD		0.3	10.9600	2.0	0.4246	0.7056	1.6810	64.4300	1.3060	2.2670	24.6900	18.1500	29.9900	122.8000	0.0000	2.2160	2.4690	2.1950	1.4580	0.8098

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:11:09	97.3%	0.1560	3.0240	0.1013	2.5980	0.0000	0.5141	2.5270	74.9800	113.7%	113.7%	0.2734	0.0000
2	23:11:22	98.4%	0.1899	3.0830	0.1116	2.5900	0.0000	0.5391	2.5810	77.5500	115.3%	115.5%	0.2598	0.0000
3	23:11:35	97.8%	0.1915	3.0580	0.1219	2.6740	0.0000	0.5594	2.6650	77.4200	117.2%	117.1%	0.2497	0.0000
x		97.8%	0.1791	3.0550	0.1116	2.6210	0.0000	0.5375	2.5910	76.6500	115.4%	115.4%	0.2610	0.0000
σ		0.5%	0.0201	0.0296	0.0103	0.0462	0.0000	0.0227	0.0698	1.4520	1.7%	1.7%	0.0119	0.0000
%RSD		0.6	11.2000	0.9680	9.2400	1.7620	0.0000	4.2180	2.6960	1.8950	1.5	1.4	4.5430	0.0000

6100165-03@MH1H16 10/18/2016 23:15:12

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:15:12	86.4%	0.2538	88.9%	16.7300	12.9400	1.9850	-14.5700	1.0410	0.7621	0.0522	0.6131	0.0814	-0.4143	0.0000	1.6010	2.7180	2.2610	0.9037	2.3950
2	23:15:26	86.2%	0.2307	91.0%	16.4800	12.5700	1.9140	-17.0600	1.0240	0.7297	0.0385	0.3377	0.0464	0.7297	0.0000	1.6530	2.7870	2.3670	0.9205	2.3870
3	23:15:38	86.9%	0.2378	91.4%	16.6100	13.1000	1.8860	-17.3800	1.0280	0.8456	0.0525	0.2877	-0.0127	0.5730	0.0000	1.6110	2.5650	2.2380	0.9510	2.2890
x		86.5%	0.2408	90.5%	16.6100	12.8700	1.9280	-16.3400	1.0310	0.7792	0.0477	0.4128	0.0384	0.2962	0.0000	1.6220	2.6900	2.2890	0.9251	2.3570
σ		0.4%	0.0119	1.3%	0.1280	0.2727	0.0512	1.5370	0.0085	0.0598	0.0080	0.1753	0.0476	0.6202	0.0000	0.0278	0.1135	0.0689	0.0239	0.0590
%RSD		0.4	4.9270	1.5	0.7710	2.1190	2.6560	9.4100	0.8213	7.6730	16.7800	42.4500	124.0000	209.4000	0.0000	1.7110	4.2190	3.0090	2.5890	2.5050

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:15:12	88.1%	0.0867	1.9930	0.0216	0.7362	0.0000	0.9024	1.0020	9.8810	101.6%	103.8%	0.0630	0.0000
2	23:15:26	89.9%	0.0385	2.0140	0.0197	0.6195	0.0000	0.9513	0.9744	10.1000	104.3%	105.8%	0.0751	0.0000
3	23:15:38	87.6%	0.0446	2.0310	0.0320	0.8601	0.0000	0.9712	0.9617	9.9940	105.9%	108.2%	0.0678	0.0000
x		88.5%	0.0566	2.0120	0.0244	0.7386	0.0000	0.9416	0.9794	9.9930	103.9%	105.9%	0.0686	0.0000
σ		1.2%	0.0263	0.0191	0.0066	0.1203	0.0000	0.0354	0.0207	0.1113	2.2%	2.2%	0.0061	0.0000
%RSD		1.4	46.3900	0.9467	27.1300	16.2900	0.0000	3.7600	2.1110	1.1140	2.1	2.1	8.8740	0.0000

6100165-04@MH1H17 10/18/2016 23:19:15

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:19:15	84.7%	0.5934	88.7%	30.7700	26.9800	4.0100	2.5970	2.0920	1.4410	0.1750	2.0370	0.0992	1.0450	0.0000	1.8560	3.0420	2.4340	1.0770	2.7880
2	23:19:28	84.7%	0.5253	90.1%	30.9300	25.9100	3.9430	14.4500	2.1720	1.4960	0.0918	0.8941	0.1563	0.5870	0.0000	1.5200	3.1360	2.4250	1.0800	2.7840
3	23:19:41	85.6%	0.5114	91.0%	31.3500	26.4400	3.9640	5.9110	2.0720	1.4340	0.0541	1.4200	0.0847	0.4062	0.0000	1.5070	3.0570	2.4490	1.1150	2.7590
x		85.0%	0.5434	89.9%	31.0200	26.4400	3.9720	7.6510	2.1120	1.4570	0.1070	1.4510	0.1134	0.6794	0.0000	1.5270	3.0780	2.4360	1.0910	2.7770
σ		0.5%	0.0439	1.2%	0.3009	0.5342	0.0344	6.1130	0.0529	0.0338	0.0619	0.5722	0.0379	0.3293	0.0000	0.1978	0.0505	0.0124	0.0211	0.0156
%RSD		0.6	8.0710	1.3	0.9700	2.0200	0.8654	79.9000	2.5060	2.3220	57.8200	39.4400	33.3900	48.4700	0.0000	12.1500	1.6390	0.5096	1.9350	0.5601

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:19:15	83.9%	0.0816	2.6030	0.0348	0.6635	0.0000	2.2550	3.3850	22.0000	100.8%	102.3%	0.1512	0.0000
2	23:19:28	86.7%	0.0227	2.6920	0.0155	0.6426	0.0000	2.2430	3.5000	22.0400	105.4%	105.0%	0.1412	0.0000
3	23:19:41	85.4%	0.0510	2.6870	0.0336	0.6085	0.0000	2.3500	3.4550	22.5900	105.2%	107.3%	0.1567	0.0000
x		85.3%	0.0517	2.6610	0.0279	0.6382	0.0000	2.2830	3.4470	22.2100	103.8%	104.9%	0.1497	0.0000
σ		1.4%	0.0295	0.0501	0.0108	0.0278	0.0000	0.0583	0.0580	0.3281	2.6%	2.5%	0.0079	0.0000
%RSD		1.7	56.9600	1.8830	38.7500	4.3520	0.0000	2.5540	1.6840	1.4770	2.5	2.4	5.2460	0.0000

QJ14030-MS1@MH1H17S 10/18/2016 23:23:18 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:23:18	82.0%	8.3600	81.9%	27.2700	116.9000	41.3100	235.5000	90.0700	85.8600	0.5977	13.5100	0.8686	0.0500	0.0000	51.3400	155.3000	96.2400	54.1100	139.3000
2	23:23:31	80.7%	8.3780	84.5%	26.6000	116.4000	41.1600	265.1000	89.5500	85.8800	0.4422	12.0200	0.6184	1.1060	0.0000	51.4100	156.3000	96.7200	54.2900	139.9000
3	23:23:45	80.9%	8.6730	85.1%	27.0100	119.9000	41.1900	239.8000	90.0100	86.8300	0.6949	13.6600	0.5328	1.7630	0.0000	52.5000	159.2000	98.1500	55.6500	142.4000
x		81.2%	79.271%	83.9%	26.9600	91.270%	93.122%	246.8000	87.763%	84.734%	0.5783	580.596%	0.6733	0.9730	0.0000	51.7500	156.9000	97.0400	54.6800	140.5000
σ		0.7%	n/a	1.7%	0.3366	n/a	n/a	16.0300	n/a	n/a	0.1275	n/a	0.1745	0.8643	0.0000	0.6495	2.0030	0.9944	0.8442	1.6560
%RSD		0.8	2.0730	2.0	1.2490	1.6040	0.1914	6.4940	0.3118	0.6423	22.0500	6.9420	25.9100	88.8200	0.0000	1.2550	1.2760	1.0250	1.5440	1.1790

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:23:18	80.6%	0.4158	10.4900	0.3814	9.0800	0.0000	1.1930	15.2100	380.8000	99.0%	101.4%	9.0550	0.0000
2	23:23:31	81.2%	0.4563	10.5800	0.3874	9.4030	0.0000	1.1320	15.2900	384.5000	100.6%	102.1%	9.3210	0.0000
3	23:23:45	80.6%	0.4719	10.8000	0.3973	9.2380	0.0000	1.2170	15.6700	390.5000	100.8%	104.6%	9.2760	0.0000
x		80.8%	0.4480	79.608%	0.3887	86.018%	0.0000	1.1810	59.714%	90.773%	100.1%	102.7%	90.678%	0.0000
σ		0.4%	0.0290	n/a	0.0080	n/a	0.0000	0.0435	n/a	n/a	1.0%	1.7%	n/a	0.0000
%RSD		0.4	6.4710	1.5250	2.0710	1.7490	0.0000	3.6830	1.6280	1.2710	1.0	1.6	1.5490	0.0000

QJ14030-DUP1@MH1H17D 10/18/2016 23:27:23

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:27:23	79.5%	0.4802	79.0%	35.7500	29.4500	4.0590	4.7570	2.0280	1.3240	0.0603	0.9128	0.1726	0.7419	0.0000	1.3120	2.5500	2.1280	0.8729	2.1180
2	23:27:36	80.1%	0.4688	80.8%	37.6000	29.4100	4.0520	-14.6200	2.0930	1.4100	0.0306	0.7377	0.0760	0.0557	0.0000	1.4780	2.4980	2.1050	0.8509	2.2200
3	23:27:49	79.8%	0.5041	81.0%	37.2500	29.6900	4.0770	0.6687	2.0960	1.2670	0.1864	1.1900	0.0771	0.2849	0.0000	1.4440	2.4600	2.1130	0.8335	2.1740
x		79.8%	0.4844	80.3%	36.8700	29.5200	4.0630	-3.0650	2.0720	1.3340	0.0924	0.9468	0.1086	0.3608	0.0000	1.4110	2.5030	2.1150	0.8524	2.1710
σ		0.3%	0.0180	1.1%	0.9855	0.1493	0.0129	10.2100	0.0382	0.0722	0.0827	0.2280	0.0554	0.3493	0.0000	0.0880	0.0448	0.0117	0.0198	0.0511
%RSD		0.3	3.7190	1.4	2.6730	0.5058	0.3183	333.3000	1.8430	5.4120	89.4600	24.0800	51.0600	96.8100	0.0000	6.2380	1.7880	0.5542	2.3190	2.3540

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:27:23	78.0%	0.0435	2.1370	0.0219	0.4538	0.0000	1.4280	1.0800	24.7300	96.8%	98.9%	0.1590	0.0000
2	23:27:36	80.1%	0.0473	2.2190	0.0214	0.4691	0.0000	1.5200	1.0690	24.6000	99.2%	101.4%	0.1594	0.0000
3	23:27:49	79.1%	0.0464	2.1820	0.0379	0.4822	0.0000	1.5550	1.0630	25.1700	100.5%	102.0%	0.1622	0.0000
x		79.1%	0.0457	2.1790	0.0271	0.4684	0.0000	1.5010	1.0700	24.8300	98.9%	100.7%	0.1602	0.0000
σ		1.0%	0.0020	0.0408	0.0094	0.0142	0.0000	0.0660	0.0088	0.3008	1.9%	1.6%	0.0018	0.0000
%RSD		1.3	4.4330	1.8710	34.6600	3.0300	0.0000	4.3950	0.8198	1.2110	1.9	1.6	1.0940	0.0000

SEQ-SRD1@MH1H17L@5X 10/18/2016 23:31:27

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:31:27	82.2%	0.1374	74.8%	7.1760	5.4410	0.6481	-48.8400	0.4849	0.5352	0.0021	0.2416	0.0974	-0.1912	0.0000	0.3479	0.6403	0.5147	0.2640	0.6094
2	23:31:40	82.5%	0.1137	76.7%	6.9720	5.3610	0.6525	-57.2700	0.4866	0.4418	0.0151	0.4065	-0.0144	-0.1975	0.0000	0.3502	0.6851	0.5349	0.2481	0.5954
3	23:31:53	83.7%	0.1556	75.6%	7.2670	5.4270	0.6498	-48.5200	0.4917	0.4086	0.0412	0.3031	0.0472	-0.1988	0.0000	0.3617	0.7529	0.5660	0.2353	0.6194
x		82.8%	0.1356	75.7%	7.1390	5.4100	0.6501	-51.5400	0.4877	0.4619	0.0194	0.3171	0.0434	-0.1958	0.0000	0.3533	0.6928	0.5386	0.2491	0.6081
σ		0.8%	0.0210	0.9%	0.1511	0.0431	0.0022	4.9660	0.0036	0.0656	0.0199	0.0833	0.0560	0.0041	0.0000	0.0074	0.0567	0.0258	0.0144	0.0121
%RSD		0.9	15.4700	1.2	2.1170	0.7965	0.3388	9.6340	0.7336	14.2100	102.5000	26.2700	129.0000	2.0930	0.0000	2.0890	8.1820	4.7920	5.7630	1.9830

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:31:27	84.2%	0.0003	0.5937	0.0145	0.1767	0.0000	0.5105	0.7664	4.5990	96.6%	97.8%	0.0414	0.0000
2	23:31:40	85.1%	0.0149	0.5903	0.0063	0.1603	0.0000	0.4889	0.7259	4.8240	99.1%	100.2%	0.0476	0.0000
3	23:31:53	85.2%	-0.0075	0.6265	0.0141	0.1278	0.0000	0.5120	0.8086	4.7560	100.3%	101.4%	0.0455	0.0000
x		84.8%	0.0026	0.6035	0.0116	0.1549	0.0000	0.5038	0.7670	4.7260	98.7%	99.8%	0.0448	0.0000
σ		0.6%	0.0114	0.0200	0.0046	0.0249	0.0000	0.0129	0.0414	0.1156	1.9%	1.8%	0.0032	0.0000
%RSD		0.7	444.9000	3.3150	39.9000	16.0500	0.0000	2.5690	5.3950	2.4460	1.9	1.8	7.0470	0.0000

6100165-05@MH1H18 10/18/2016 23:35:30

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:30	81.3%	0.3253	77.5%	17.7500	14.8900	6.8000	2.6190	28.4700	3.5350	0.2473	1.4900	0.0885	1.0870	0.0000	1.4740	3.3510	2.2380	1.1410	2.9790
2	23:35:43	81.4%	0.4388	79.5%	17.8500	14.7100	6.8790	-7.7160	28.5700	3.5200	0.1088	1.2480	0.1483	0.0186	0.0000	1.5020	3.4360	2.3940	1.2340	3.1780
3	23:35:57	81.5%	0.4369	79.8%	17.6800	14.5000	6.8110	20.5300	29.3700	3.4240	0.0549	1.1670	0.1350	0.2166	0.0000	1.5490	3.6630	2.4800	1.2660	3.0580
x		81.4%	0.4003	79.0%	17.7600	14.7000	6.8300	5.1430	28.8000	3.4930	0.1370	1.3020	0.1239	0.4409	0.0000	1.5080	3.4840	2.3710	1.2140	3.0720
σ		0.1%	0.0650	1.3%	0.0853	0.1970	0.0430	14.2900	0.4945	0.0601	0.0992	0.1684	0.0314	0.5686	0.0000	0.0379	0.1613	0.1229	0.0646	0.1003
%RSD		0.1	16.2300	1.6	0.4803	1.3400	0.6296	277.8000	1.7170	1.7210	72.4200	12.9400	25.3300	129.0000	0.0000	2.5160	4.6310	5.1860	5.3220	3.2650

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:35:30	82.0%	0.1527	1.1870	0.1127	2.4840	0.0000	0.3779	1.8620	46.5100	98.7%	98.6%	0.7486	0.0000
2	23:35:43	83.7%	0.1368	1.2190	0.1055	2.3490	0.0000	0.3503	1.9040	46.8500	100.7%	102.4%	0.7881	0.0000
3	23:35:57	84.4%	0.1315	1.2900	0.1043	2.3810	0.0000	0.3901	1.9060	47.6700	102.7%	103.3%	0.7697	0.0000
x		83.4%	0.1403	1.2320	0.1075	2.4050	0.0000	0.3728	1.8910	47.0100	100.7%	101.4%	0.7688	0.0000
σ		1.2%	0.0110	0.0526	0.0045	0.0704	0.0000	0.0204	0.0250	0.5991	2.0%	2.5%	0.0198	0.0000
%RSD		1.4	7.8680	4.2680	4.2160	2.9280	0.0000	5.4660	1.3230	1.2740	2.0	2.5	2.5730	0.0000

6100165-06@MH1H19 10/18/2016 23:39:34

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:39:34	86.0%	1.2670	82.6%	23.7600	20.4800	5.4170	11.9500	94.9500	18.6900	0.4310	2.8480	0.1734	1.0930	0.0000	2.2040	5.9390	3.7000	2.0260	5.2290
2	23:39:47	88.0%	0.9697	85.3%	23.3100	20.2400	5.4450	-3.2280	96.2900	18.2200	0.3667	3.5520	0.2065	1.0790	0.0000	2.2860	6.0800	3.7120	2.0110	5.4540
3	23:40:00	88.2%	0.9924	87.1%	24.0100	20.9400	5.5240	0.8083	96.1500	18.3900	0.3483	3.7770	0.1057	1.6860	0.0000	2.3070	6.2840	3.7810	2.0130	5.2960
x		87.4%	1.0760	85.0%	23.6900	20.5500	5.4620	3.1770	95.8000	18.4400	0.3820	3.3920	0.1619	1.2860	0.0000	2.2660	6.1010	3.7310	2.0170	5.3260
σ		1.2%	0.1655	2.3%	0.3563	0.3563	0.0554	7.8610	0.7334	0.2388	0.0434	0.4848	0.0514	0.3465	0.0000	0.0545	0.1733	0.0437	0.0083	0.1155
%RSD		1.4	15.3800	2.7	1.5040	1.7340	1.0140	247.5000	0.7656	1.2950	11.3600	14.2900	31.7300	26.9400	0.0000	2.4050	2.8400	1.1700	0.4097	2.1690

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:39:34	90.8%	0.7268	2.7470	0.4531	11.9200	0.0000	0.3827	2.2680	235.5000	108.3%	110.1%	1.2170	0.0000
2	23:39:47	91.5%	0.6717	2.7280	0.4524	11.9900	0.0000	0.3904	2.3000	241.8000	111.2%	112.4%	1.2870	0.0000
3	23:40:00	90.0%	0.6153	2.7800	0.4642	12.2500	0.0000	0.3991	2.2740	242.0000	114.8%	116.1%	1.2580	0.0000
x		90.8%	0.6713	2.7520	0.4566	12.0500	0.0000	0.3907	2.2810	239.8000	111.4%	112.9%	1.2540	0.0000
σ		0.8%	0.0557	0.0262	0.0066	0.1727	0.0000	0.0082	0.0173	3.6990	3.2%	3.0%	0.0351	0.0000
%RSD		0.8	8.3010	0.9523	1.4490	1.4330	0.0000	2.0880	0.7600	1.5430	2.9	2.7	2.8010	0.0000

6100165-07@MH1H20 10/18/2016 23:43:37

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:43:37	88.6%	0.2400	90.7%	30.1100	30.4500	4.7450	-12.7300	5.0530	2.2900	0.1079	2.2890	0.1346	0.8512	0.0000	0.8778	2.4240	1.5880	0.8020	2.1290
2	23:43:50	89.5%	0.2557	93.6%	30.3500	30.4400	4.7360	-5.6980	5.0420	2.3510	0.2596	2.5350	0.1100	-0.0778	0.0000	0.9154	2.5630	1.5290	0.8396	2.1770
3	23:44:04	89.7%	0.3628	94.8%	30.2500	30.2200	4.7140	-28.3400	5.1700	2.3140	0.1988	2.4190	0.2300	0.2763	0.0000	0.8978	2.3500	1.6280	0.8428	2.2100
x		89.3%	0.2862	93.0%	30.2400	30.3700	4.7320	-15.5900	5.0880	2.3180	0.1888	2.4150	0.1582	0.3499	0.0000	0.8970	2.4460	1.5820	0.8282	2.1720
σ		0.5%	0.0669	2.1%	0.1217	0.1328	0.0163	11.5900	0.0707	0.0309	0.0764	0.1231	0.0634	0.4689	0.0000	0.0188	0.1081	0.0500	0.0227	0.0406
%RSD		0.6	23.3700	2.3	0.4025	0.4372	0.3442	74.3400	1.3900	1.3320	40.4500	5.0970	40.0800	134.0000	0.0000	2.0970	4.4190	3.1600	2.7430	1.8710

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:43:37	93.7%	0.0273	1.1650	0.0113	0.3849	0.0000	0.3992	0.8851	76.2100	103.9%	103.5%	0.2555	0.0000
2	23:43:50	94.8%	0.0400	1.1400	0.0164	0.2282	0.0000	0.4261	0.8930	78.8300	107.2%	108.7%	0.2501	0.0000
3	23:44:04	95.6%	0.0396	1.1500	0.0107	0.3105	0.0000	0.4116	0.9951	78.1400	109.5%	110.2%	0.2606	0.0000
x		94.7%	0.0356	1.1520	0.0128	0.3079	0.0000	0.4123	0.9244	77.7300	106.9%	107.5%	0.2554	0.0000
σ		1.0%	0.0072	0.0125	0.0031	0.0784	0.0000	0.0135	0.0614	1.3570	2.8%	3.6%	0.0053	0.0000
%RSD		1.0	20.3100	1.0830	24.3700	25.4700	0.0000	3.2670	6.6400	1.7450	2.6	3.3	2.0640	0.0000

6100165-08@MH1H21 10/18/2016 23:47:40

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:40	92.2%	0.4584	102.3%	23.7700	39.9600	8.4790	21.7300	12.0200	6.3960	0.2005	2.7150	0.1112	1.0130	0.0000	1.9560	4.6600	3.0880	1.7280	4.0970
2	23:47:54	91.7%	0.3440	105.5%	24.2400	39.9600	8.4500	31.1400	12.1500	6.2190	0.3068	2.6890	0.1436	0.2866	0.0000	1.8880	4.8240	3.0080	1.6360	4.1740
3	23:48:07	94.2%	0.3951	108.7%	24.5500	39.4800	8.2320	15.2000	12.1700	6.3560	0.2200	2.4240	0.1531	1.1600	0.0000	1.8490	4.7200	2.9860	1.7520	4.2470
x		92.7%	0.3992	105.5%	24.1800	39.8000	8.3870	22.6900	12.1100	6.3240	0.2424	2.6090	0.1360	0.8199	0.0000	1.8970	4.7340	3.0280	1.7050	4.1720
σ		1.3%	0.0573	3.2%	0.3895	0.2780	0.1351	8.0130	0.0784	0.0930	0.0566	0.1608	0.0220	0.4678	0.0000	0.0544	0.0829	0.0538	0.0611	0.0747
%RSD		1.4	14.3500	3.0	1.6110	0.6985	1.6110	35.3100	0.6476	1.4700	23.3300	6.1610	16.1700	57.0500	0.0000	2.8650	1.7520	1.7760	3.5850	1.7910

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:47:40	94.9%	0.0655	2.2300	0.0039	0.1885	0.0000	0.6773	0.7968	79.3200	108.8%	108.3%	0.3372	0.0000
2	23:47:54	94.8%	0.0415	2.2410	0.0063	0.1690	0.0000	0.6939	0.8459	80.2600	111.3%	112.3%	0.3058	0.0000
3	23:48:07	96.5%	0.0658	2.2390	0.0186	0.1534	0.0000	0.7082	0.8470	81.4000	113.0%	115.0%	0.3440	0.0000
x		95.4%	0.0576	2.2360	0.0096	0.1703	0.0000	0.6931	0.8299	80.3300	111.1%	111.9%	0.3290	0.0000
σ		1.0%	0.0139	0.0055	0.0079	0.0176	0.0000	0.0155	0.0287	1.0430	2.1%	3.4%	0.0204	0.0000
%RSD		1.0	24.1900	0.2457	81.9200	10.3300	0.0000	2.2300	3.4540	1.2980	1.9	3.0	6.2020	0.0000

6100165-09@MH1H22 10/18/2016 23:51:44

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:51:44	91.1%	0.2333	93.0%	39.0200	29.3400	5.2000	-2.3260	4.5650	3.4540	0.2541	2.3680	0.1298	0.0858	0.0000	2.2300	6.2590	3.9810	2.2200	5.5620
2	23:51:57	90.7%	0.2511	95.1%	39.1100	29.7200	5.2530	0.2238	4.5920	3.5030	0.1861	2.7350	0.1305	0.0910	0.0000	2.2710	6.5190	4.0430	2.1920	5.7310
3	23:52:10	92.3%	0.1873	95.3%	40.1400	30.0800	5.4700	-2.8190	4.7800	3.3190	0.1755	2.8730	0.1540	0.8176	0.0000	2.2790	6.2910	4.1310	2.2270	5.6390
x		91.4%	0.2239	94.5%	39.4200	29.7100	5.3080	-1.6400	4.6450	3.4250	0.2052	2.6650	0.1381	0.3315	0.0000	2.2600	6.3560	4.0520	2.2130	5.6440
σ		0.9%	0.0329	1.3%	0.6210	0.3742	0.1430	1.6330	0.1170	0.0951	0.0427	0.2496	0.0138	0.4210	0.0000	0.0264	0.1421	0.0751	0.0188	0.0850
%RSD		0.9	14.6900	1.4	1.5750	1.2590	2.6940	99.5600	2.5190	2.7750	20.7900	9.3630	9.9610	127.0000	0.0000	1.1690	2.2360	1.8540	0.8479	1.5070

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:51:44	96.7%	0.0468	6.6790	0.0207	0.4323	0.0000	1.9440	1.7750	68.8900	105.5%	106.1%	0.2286	0.0000
2	23:51:57	96.2%	0.0098	6.7470	0.0216	0.3638	0.0000	1.9960	1.7880	70.2200	107.8%	109.5%	0.2312	0.0000
3	23:52:10	95.6%	0.0424	6.8130	0.0199	0.3812	0.0000	2.0430	1.8520	70.3900	111.8%	112.5%	0.2443	0.0000
x		96.2%	0.0330	6.7460	0.0208	0.3924	0.0000	1.9940	1.8050	69.8300	108.4%	109.4%	0.2347	0.0000
σ		0.5%	0.0202	0.0668	0.0009	0.0356	0.0000	0.0495	0.0409	0.8196	3.2%	3.2%	0.0084	0.0000
%RSD		0.6	61.1900	0.9905	4.2300	9.0750	0.0000	2.4830	2.2640	1.1740	2.9	2.9	3.5980	0.0000

6100165-10@MH1H23 10/18/2016 23:55:49

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:55:49	91.0%	0.2449	97.2%	44.7500	45.4800	7.9420	23.6700	5.6600	3.7420	0.3099	3.5330	0.2258	-0.0968	0.0000	4.3200	12.2500	7.7000	4.3660	10.7800
2	23:56:02	91.9%	0.4001	98.8%	46.2400	46.0600	8.1930	26.1200	5.7610	3.9070	0.2416	4.2270	0.2159	0.2602	0.0000	4.4820	12.3600	7.9900	4.4840	11.2600
3	23:56:15	92.0%	0.3723	100.0%	46.7900	45.5200	8.0920	26.3500	5.8170	3.6840	0.3180	3.6120	0.2025	0.0716	0.0000	4.3930	12.8000	7.8340	4.5180	11.5500
x		91.6%	0.3391	98.7%	45.9300	45.6900	8.0760	25.3800	5.7460	3.7780	0.2898	3.7910	0.2148	0.0784	0.0000	4.3980	12.4700	7.8410	4.4560	11.2000
σ		0.6%	0.0827	1.4%	1.0600	0.3264	0.1264	1.4870	0.0796	0.1153	0.0420	0.3797	0.0117	0.1786	0.0000	0.0812	0.2880	0.1451	0.0796	0.3881
%RSD		0.6	24.4000	1.4	2.3080	0.7145	1.5650	5.8600	1.3850	3.0530	14.4700	10.0200	5.4420	227.9000	0.0000	1.8450	2.3090	1.8500	1.7860	3.4660

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:55:49	97.3%	0.0634	4.3280	0.0364	0.6784	0.0000	3.4930	3.2120	86.1000	106.2%	106.6%	0.2976	0.0000
2	23:56:02	97.1%	0.0723	4.2730	0.0332	0.7324	0.0000	3.5930	3.1750	87.5900	108.0%	108.7%	0.2994	0.0000
3	23:56:15	98.3%	0.0655	4.2910	0.0351	0.6545	0.0000	3.6140	3.1110	88.5300	111.2%	111.0%	0.2979	0.0000
x		97.6%	0.0671	4.2970	0.0349	0.6884	0.0000	3.5670	3.1660	87.4100	108.5%	108.8%	0.2983	0.0000
σ		0.6%	0.0046	0.0283	0.0016	0.0399	0.0000	0.0648	0.0512	1.2240	2.5%	2.2%	0.0009	0.0000
%RSD		0.7	6.9050	0.6580	4.6700	5.7960	0.0000	1.8170	1.6170	1.4000	2.4	2.0	0.3167	0.0000

SEQ-CCV@CCV07 10/18/2016 23:59:56 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:00:09	88.5%	464.6000	86.9%	298.8000	474.6000	487.0000	2320.0000	±508.9000	504.2000	18.2200	470.8000	27.3700	5.3960	0.0000	405.1000	1274.0000	±766.6000	434.3000	±1120.0000
2	00:00:22	89.1%	468.7000	88.9%	297.0000	468.9000	485.3000	2720.0000	±505.5000	500.9000	19.4600	481.7000	26.0700	4.6110	0.0000	407.4000	1287.0000	±765.4000	436.0000	±1117.0000
3	00:00:36	88.8%	455.3000	89.6%	297.2000	462.2000	473.1000	2382.0000	±503.9000	504.4000	18.0600	464.4000	26.1600	6.2140	0.0000	409.4000	±1256.0000	±766.0000	434.5000	±1120.0000
x		88.8%	92.571%	88.5%	297.7000	93.717%	96.363%	2474.0000	±101.223%	100.641%	18.5800	94.457%	26.5300	5.4070	0.0000	407.3000	±1273.0000	±766.0000	434.9000	±1119.0000
σ		0.3%	n/a	1.4%	0.9701	n/a	n/a	214.9000	±n/a	n/a	0.7660	n/a	0.7293	0.8017	0.0000	2.1880	±15.5500	±0.6195	0.9406	±1.9380
%RSD		0.3	1.4870	1.6	0.3259	1.3310	1.5690	8.6870	±0.5005	0.3902	4.1230	1.8490	2.7490	14.8300	0.0000	0.5372	±1.2220	±0.0809	0.2163	±0.1732

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:00:09	94.6%	24.4000	65.4400	17.8900	507.0000	0.0000	484.3000	533.7000	508.9000	108.0%	109.4%	±502.4000	0.0000
2	00:00:22	95.6%	24.0700	64.8900	17.9900	508.5000	0.0000	489.8000	543.5000	511.0000	111.0%	111.9%	±503.6000	0.0000
3	00:00:36	98.3%	24.2800	65.1600	18.2700	513.2000	0.0000	492.8000	535.5000	514.7000	112.1%	115.2%	±494.1000	0.0000
x		96.2%	24.2500	100.251%	18.0500	101.920%	0.0000	489.0000	107.515%	102.310%	110.4%	112.1%	±100.006%	0.0000
σ		1.9%	0.1671	n/a	0.1977	n/a	0.0000	4.3440	n/a	n/a	2.1%	2.9%	±n/a	0.0000
%RSD		2.0	0.6892	0.4170	1.0950	0.6339	0.0000	0.8884	0.9728	0.5724	1.9	2.6	±1.0370	0.0000

SEQ-CCB@CCB07 10/19/2016 00:04:18 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:04:31	87.3%	0.1016	83.5%	0.0623	-0.0708	-0.0514	-17.4800	0.0667	0.1277	0.0007	-0.0888	0.0551	-0.0699	0.0000	0.1351	0.3825	0.2339	0.1320	0.3610
2	00:04:45	86.8%	0.1283	83.7%	0.0375	-0.0445	-0.0324	-25.7400	0.0520	0.1037	0.0007	-0.0286	0.0111	0.4746	0.0000	0.1216	0.4007	0.2411	0.1365	0.3291
3	00:04:58	88.0%	0.1008	84.1%	0.0535	-0.0192	-0.0385	-25.3000	0.0463	0.1176	0.0007	0.1865	0.0547	-0.2569	0.0000	0.1284	0.3849	0.2320	0.1179	0.3024
x		87.4%	0.1102	83.8%	0.0511	-0.0448	-0.0408	-22.8400	0.0550	0.1163	0.0007	0.0230	0.0403	0.0493	0.0000	0.1284	0.3894	0.2357	0.1288	0.3308
σ		0.6%	0.0156	0.3%	0.0126	0.0258	0.0097	4.6430	0.0105	0.0120	0.0000	0.1447	0.0253	0.3800	0.0000	0.0068	0.0099	0.0048	0.0097	0.0293
%RSD		0.7	14.1800	0.3	24.5700	57.5800	23.7200	20.3300	19.1600	10.3500	5.8120	628.7000	62.7700	771.5000	0.0000	5.2740	2.5470	2.0390	7.5440	8.8700

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:04:31	93.7%	-0.0083	0.0082	0.0044	0.0609	0.0000	0.2572	0.0775	0.0609	104.6%	106.2%	0.0939	0.0000
2	00:04:45	94.3%	0.0050	0.0076	0.0029	0.0662	0.0000	0.2350	0.0706	0.0628	105.0%	107.4%	0.0910	0.0000
3	00:04:58	94.3%	-0.0223	0.0063	0.0043	0.0437	0.0000	0.2169	0.0803	0.0747	106.8%	109.5%	0.0858	0.0000
x		94.1%	-0.0085	0.0074	0.0039	0.0569	0.0000	0.2364	0.0761	0.0661	105.5%	107.7%	0.0902	0.0000
σ		0.3%	0.0137	0.0010	0.0008	0.0118	0.0000	0.0202	0.0050	0.0075	1.2%	1.6%	0.0041	0.0000
%RSD		0.3	160.7000	13.7200	21.4800	20.7200	0.0000	8.5580	6.5380	11.3600	1.1	1.5	4.5410	0.0000

6100165-11@MH1H24 10/19/2016 00:08:38

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:08:38	88.8%	0.5966	91.8%	44.8600	31.4600	4.9240	-15.7200	8.2600	4.0340	0.2098	3.4060	0.1428	0.9926	0.0000	1.8220	5.0940	3.3200	1.7750	4.5170
2	00:08:52	89.6%	0.5686	94.8%	44.9700	30.7900	4.9230	1.3380	8.4200	4.2560	0.2417	3.7500	0.0769	1.3270	0.0000	1.7900	5.0360	3.1690	1.8150	4.5910
3	00:09:05	90.4%	0.4736	97.8%	45.3500	30.9100	4.8550	-7.8060	8.2630	3.8470	0.2157	3.4620	0.0756	0.9480	0.0000	1.8920	5.2570	3.1810	1.7740	4.5980
x		89.6%	0.5462	94.8%	45.0600	31.0500	4.9010	-7.3980	8.3140	4.0460	0.2224	3.5400	0.0984	1.0990	0.0000	1.8350	5.1290	3.2230	1.7880	4.5690
σ		0.8%	0.0645	3.0%	0.2565	0.3584	0.0395	8.5390	0.0913	0.2048	0.0170	0.1846	0.0384	0.2070	0.0000	0.0522	0.1147	0.0842	0.0235	0.0448
%RSD		0.9	11.8000	3.2	0.5693	1.1540	0.8053	115.4000	1.0980	5.0630	7.6270	5.2160	39.0500	19.0100	0.0000	2.8420	2.2360	2.6110	1.3150	0.9816

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:08:38	95.9%	0.0293	0.6095	0.0084	0.2213	0.0000	0.2082	0.8247	80.1000	104.6%	105.6%	0.3587	0.0000
2	00:08:52	97.1%	0.0043	0.6045	0.0203	0.2063	0.0000	0.2062	0.8581	79.8600	108.0%	109.3%	0.3652	0.0000
3	00:09:05	98.4%	0.0255	0.6275	0.0158	0.2105	0.0000	0.2084	0.9028	80.4300	110.4%	111.0%	0.3748	0.0000
x		97.1%	0.0197	0.6139	0.0148	0.2127	0.0000	0.2076	0.8619	80.1300	107.7%	108.7%	0.3662	0.0000
σ		1.2%	0.0135	0.0121	0.0060	0.0077	0.0000	0.0012	0.0392	0.2863	2.9%	2.8%	0.0081	0.0000
%RSD		1.3	68.3500	1.9740	40.5700	3.6300	0.0000	0.5784	4.5460	0.3574	2.7	2.5	2.2110	0.0000

6100165-12@MH1H25 10/19/2016 00:12:43

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:12:43	93.7%	0.2593	102.7%	41.4600	31.9800	4.4660	-13.3500	6.9260	2.4430	0.2336	3.3040	0.1571	0.2261	0.0000	1.8020	5.1410	3.1850	1.7310	4.6910
2	00:12:57	94.3%	0.3293	105.6%	42.2800	32.0600	4.5480	-13.4800	6.8210	2.3680	0.2336	3.3620	0.2625	0.9145	0.0000	1.8380	5.2590	3.3250	1.7680	4.5100
3	00:13:10	95.9%	0.2256	107.3%	41.8800	31.7700	4.4560	5.9070	6.9910	2.2580	0.2522	3.6550	0.1656	0.3821	0.0000	1.9270	5.2200	3.2290	1.7660	4.5770
x		94.6%	0.2714	105.2%	41.8700	31.9400	4.4900	-6.9720	6.9130	2.3560	0.2398	3.4400	0.1951	0.5076	0.0000	1.8560	5.2060	3.2460	1.7550	4.5920
σ		1.1%	0.0529	2.4%	0.4095	0.1501	0.0501	11.1500	0.0857	0.0933	0.0108	0.1881	0.0585	0.3609	0.0000	0.0647	0.0600	0.0718	0.0212	0.0915
%RSD		1.2	19.4900	2.2	0.9779	0.4699	1.1170	160.0000	1.2390	3.9580	4.4970	5.4680	30.0000	71.1100	0.0000	3.4850	1.1530	2.2110	1.2090	1.9930

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:12:43	100.3%	0.0194	0.7713	0.0118	0.1177	0.0000	0.3349	0.9325	114.2000	107.4%	108.2%	0.3883	0.0000
2	00:12:57	100.3%	0.0306	0.7732	0.0115	0.1509	0.0000	0.3367	0.9124	115.5000	109.5%	110.1%	0.3827	0.0000
3	00:13:10	101.7%	0.0058	0.8022	0.0125	0.1241	0.0000	0.3625	0.9164	116.7000	112.0%	112.5%	0.4071	0.0000
x		100.7%	0.0186	0.7822	0.0119	0.1309	0.0000	0.3447	0.9204	115.5000	109.6%	110.3%	0.3927	0.0000
σ		0.8%	0.0124	0.0173	0.0005	0.0176	0.0000	0.0155	0.0107	1.2560	2.3%	2.2%	0.0128	0.0000
%RSD		0.8	66.8500	2.2120	4.4750	13.4800	0.0000	4.4830	1.1570	1.0880	2.1	2.0	3.2590	0.0000

6100165-13@MH1H26 10/19/2016 00:16:48

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:16:48	94.7%	0.5577	104.2%	35.9100	33.5300	4.9550	-10.6300	9.9450	3.1000	0.1428	3.0630	0.1862	0.0442	0.0000	2.3940	6.8420	4.3900	2.4670	6.1660
2	00:17:01	94.0%	0.5626	105.8%	36.7800	32.7700	4.8930	1.0280	9.9320	3.0240	0.1305	2.7220	0.0926	0.2050	0.0000	2.5040	7.1800	4.5370	2.4370	6.3310
3	00:17:14	96.9%	0.5635	108.2%	36.9100	33.1400	4.9010	24.0400	10.0200	3.1980	0.1313	3.0240	0.1341	0.0415	0.0000	2.5130	7.3140	4.5810	2.4900	6.3120
x		95.2%	0.5613	106.1%	36.5300	33.1500	4.9160	4.8140	9.9650	3.1080	0.1349	2.9360	0.1377	0.0969	0.0000	2.4700	7.1120	4.5030	2.4640	6.2700
σ		1.5%	0.0031	2.0%	0.5447	0.3844	0.0335	17.6400	0.0457	0.0872	0.0069	0.1868	0.0469	0.0936	0.0000	0.0663	0.2431	0.0998	0.0267	0.0900
%RSD		1.6	0.5558	1.9	1.4910	1.1600	0.6816	366.4000	0.4588	2.8070	5.0900	6.3610	34.0400	96.5900	0.0000	2.6820	3.4180	2.2170	1.0830	1.4360

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:16:48	101.5%	0.0270	0.7430	0.0221	0.2911	0.0000	0.3684	0.9265	69.8400	106.9%	107.8%	0.3171	0.0000
2	00:17:01	102.4%	0.0406	0.7368	0.0280	0.2668	0.0000	0.4150	0.9310	71.0500	110.2%	110.7%	0.3096	0.0000
3	00:17:14	101.8%	0.0311	0.7688	0.0212	0.2830	0.0000	0.4170	0.9148	71.5400	111.9%	112.1%	0.3153	0.0000
x		101.9%	0.0329	0.7495	0.0238	0.2803	0.0000	0.4001	0.9241	70.8100	109.7%	110.2%	0.3140	0.0000
σ		0.5%	0.0070	0.0170	0.0037	0.0124	0.0000	0.0275	0.0084	0.8784	2.5%	2.2%	0.0039	0.0000
%RSD		0.5	21.1700	2.2610	15.4000	4.4130	0.0000	6.8780	0.9069	1.2400	2.3	2.0	1.2530	0.0000

6100165-14@MH1H27 10/19/2016 00:20:50

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:20:50	94.4%	0.4247	108.2%	47.9500	48.7000	7.6200	11.8700	5.8870	3.3080	0.2188	3.9590	0.1050	1.5650	0.0000	2.4850	6.9870	4.4150	2.4450	6.3380
2	00:21:04	95.1%	0.4554	110.6%	49.1800	49.1700	7.8050	-2.5990	6.0050	3.5100	0.1760	3.9530	0.1976	0.7264	0.0000	2.6280	7.1740	4.6100	2.5100	6.3840
3	00:21:17	96.4%	0.4327	111.2%	49.6100	47.7200	7.5230	17.4000	6.0350	3.3300	0.1815	3.1970	0.1930	1.1810	0.0000	2.6230	7.1290	4.6480	2.6090	6.2700
x		95.3%	0.4376	110.0%	48.9200	48.5300	7.6490	8.8910	5.9760	3.3830	0.1921	3.7030	0.1652	1.1570	0.0000	2.5790	7.0970	4.5580	2.5210	6.3310
σ		1.0%	0.0159	1.6%	0.8606	0.7420	0.1434	10.3300	0.0784	0.1105	0.0233	0.4382	0.0522	0.4200	0.0000	0.0808	0.0975	0.1249	0.0824	0.0573
%RSD		1.1	3.6360	1.4	1.7590	1.5290	1.8750	116.1000	1.3120	3.2670	12.1300	11.8300	31.5700	36.2800	0.0000	3.1330	1.3740	2.7410	3.2690	0.9055

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:20:50	101.9%	0.0189	1.1630	0.0218	0.2086	0.0000	0.3051	1.1030	105.9000	106.9%	106.7%	0.3607	0.0000
2	00:21:04	101.3%	0.0369	1.1310	0.0199	0.1807	0.0000	0.3007	1.1140	107.3000	110.8%	111.0%	0.3736	0.0000
3	00:21:17	104.2%	0.0159	1.1540	0.0148	0.1719	0.0000	0.3168	1.1150	107.8000	112.3%	113.5%	0.3766	0.0000
x		102.5%	0.0239	1.1490	0.0188	0.1871	0.0000	0.3075	1.1110	107.0000	110.0%	110.4%	0.3703	0.0000
σ		1.5%	0.0114	0.0167	0.0036	0.0192	0.0000	0.0083	0.0066	1.0080	2.8%	3.4%	0.0084	0.0000
%RSD		1.5	47.5300	1.4530	19.2500	10.2400	0.0000	2.7130	0.5942	0.9416	2.5	3.1	2.2800	0.0000

6100165-15@MH1H28 10/19/2016 00:24:55

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:55	92.0%	1.2570	106.5%	53.3500	24.2100	3.4210	-7.9660	5.7100	2.7100	0.2643	2.5840	0.1838	0.6140	0.0000	3.3590	9.8950	6.3170	3.3670	8.7010
2	00:25:08	93.3%	1.2530	106.8%	54.6700	23.8300	3.2370	0.5644	5.8480	2.9220	0.2246	2.3770	0.1264	-0.1114	0.0000	3.3950	9.8960	6.3520	3.4880	8.8460
3	00:25:22	94.0%	1.2770	108.3%	54.7100	24.6400	3.3540	-24.8900	5.8650	2.8930	0.2519	2.9600	0.1400	0.4323	0.0000	3.3580	10.0300	6.4440	3.4790	8.8230
x		93.1%	1.2630	107.2%	54.2400	24.2300	3.3370	-10.7600	5.8080	2.8410	0.2470	2.6400	0.1501	0.3116	0.0000	3.3710	9.9400	6.3710	3.4450	8.7900
σ		1.0%	0.0130	1.0%	0.7704	0.4063	0.0935	12.9500	0.0853	0.1147	0.0203	0.2958	0.0300	0.3775	0.0000	0.0208	0.0771	0.0657	0.0672	0.0779
%RSD		1.1	1.0330	0.9	1.4200	1.6770	2.8010	120.4000	1.4680	4.0380	8.2160	11.2000	19.9800	121.1000	0.0000	0.6160	0.7759	1.0300	1.9510	0.8862

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:24:55	97.2%	0.0415	0.7719	0.0141	0.2146	0.0000	0.1991	0.9387	46.2300	107.7%	108.9%	0.2298	0.0000
2	00:25:08	99.4%	0.0686	0.7471	0.0177	0.2496	0.0000	0.2370	0.9928	46.8700	110.2%	111.7%	0.2242	0.0000
3	00:25:22	97.5%	0.0455	0.7537	0.0198	0.2764	0.0000	0.1985	0.8943	47.0700	113.5%	114.0%	0.2293	0.0000
x		98.0%	0.0519	0.7576	0.0172	0.2469	0.0000	0.2115	0.9419	46.7300	110.5%	111.5%	0.2277	0.0000
σ		1.2%	0.0146	0.0129	0.0029	0.0310	0.0000	0.0221	0.0493	0.4380	3.0%	2.6%	0.0031	0.0000
%RSD		1.2	28.1500	1.6980	16.6900	12.5600	0.0000	10.4200	5.2340	0.9375	2.7	2.3	1.3510	0.0000

6100165-16@MH1H29 10/19/2016 00:28:57

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:28:57	94.9%	0.7079	106.4%	31.9600	40.2100	5.6260	-10.4800	8.0790	3.2270	0.2287	3.1930	0.1939	0.7841	0.0000	2.4890	6.9560	4.4830	2.3210	6.1050
2	00:29:11	94.0%	0.5862	110.3%	31.5500	39.4600	5.6930	8.2990	8.0210	3.1180	0.2828	3.3920	0.2016	-0.1067	0.0000	2.5500	6.7370	4.5340	2.4070	6.1690
3	00:29:24	95.3%	0.5618	111.0%	31.7600	38.7900	5.4880	11.8900	8.0190	3.2670	0.2209	3.9110	0.1472	1.4160	0.0000	2.4970	7.1650	4.6370	2.5260	6.2140
x		94.7%	0.6187	109.2%	31.7600	39.4900	5.6020	3.2350	8.0400	3.2040	0.2442	3.4990	0.1809	0.6977	0.0000	2.5120	6.9530	4.5520	2.4180	6.1630
σ		0.7%	0.0782	2.5%	0.2051	0.7135	0.1044	12.0100	0.0340	0.0770	0.0337	0.3707	0.0294	0.7649	0.0000	0.0332	0.2138	0.0785	0.1032	0.0551
%RSD		0.7	12.6400	2.3	0.6457	1.8070	1.8630	371.3000	0.4227	2.4030	13.8000	10.6000	16.2700	109.6000	0.0000	1.3220	3.0750	1.7250	4.2690	0.8933

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:28:57	97.7%	0.0554	1.1860	0.0166	0.3435	0.0000	0.4139	0.6768	80.9300	108.8%	108.7%	0.2923	0.0000
2	00:29:11	98.7%	0.0739	1.1950	0.0162	0.2849	0.0000	0.4477	0.7237	81.9800	110.8%	109.1%	0.2920	0.0000
3	00:29:24	101.0%	0.0518	1.2280	0.0124	0.2834	0.0000	0.4366	0.7504	83.4400	111.1%	112.8%	0.2972	0.0000
x		99.1%	0.0604	1.2030	0.0150	0.3040	0.0000	0.4327	0.7170	82.1200	110.2%	110.2%	0.2938	0.0000
σ		1.7%	0.0119	0.0219	0.0023	0.0343	0.0000	0.0172	0.0373	1.2630	1.3%	2.3%	0.0029	0.0000
%RSD		1.7	19.6500	1.8210	15.4200	11.2800	0.0000	3.9820	5.2000	1.5380	1.2	2.1	0.9938	0.0000

6100165-17@MH1H30 10/19/2016 00:32:57

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:32:57	91.9%	1.5720	102.0%	34.2700	27.2200	3.6370	15.1300	5.9280	2.6410	0.2217	3.0180	0.1647	0.8148	0.0000	3.4970	10.3800	6.4220	3.4840	9.2580
2	00:33:11	92.9%	1.4310	104.1%	35.0400	28.1100	3.7420	-11.3300	5.9090	2.5870	0.3179	2.9570	0.1546	0.4661	0.0000	3.5560	10.5400	6.6710	3.5750	9.2940
3	00:33:24	92.8%	1.4400	104.0%	35.3600	27.8600	3.7470	-10.5200	6.1310	2.4320	0.1984	2.7150	0.1985	1.7140	0.0000	3.6360	10.6400	6.5870	3.7660	9.2780
x		92.5%	1.4810	103.4%	34.8900	27.7300	3.7080	-2.2380	5.9890	2.5530	0.2460	2.8970	0.1726	0.9984	0.0000	3.5630	10.5200	6.5600	3.6090	9.2770
σ		0.6%	0.0790	1.2%	0.5630	0.4578	0.0620	15.0500	0.1229	0.1085	0.0634	0.1603	0.0230	0.6440	0.0000	0.0699	0.1313	0.1264	0.1442	0.0182
%RSD		0.6	5.3360	1.2	1.6130	1.6510	1.6720	672.2000	2.0520	4.2500	25.7500	5.5350	13.3300	64.5100	0.0000	1.9620	1.2480	1.9270	3.9960	0.1958

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:32:57	95.8%	0.0768	0.7444	0.0248	0.4332	0.0000	0.2692	0.9130	63.6200	108.1%	108.7%	0.2615	0.0000
2	00:33:11	94.9%	0.0626	0.7994	0.0180	0.4523	0.0000	0.2608	0.9559	64.6100	109.7%	110.9%	0.2626	0.0000
3	00:33:24	95.8%	0.0441	0.7937	0.0253	0.3975	0.0000	0.2546	0.9750	64.4300	112.7%	112.9%	0.2544	0.0000
x		95.5%	0.0612	0.7792	0.0227	0.4277	0.0000	0.2615	0.9480	64.2200	110.2%	110.9%	0.2595	0.0000
σ		0.5%	0.0164	0.0302	0.0041	0.0279	0.0000	0.0073	0.0317	0.5297	2.3%	2.1%	0.0044	0.0000
%RSD		0.5	26.7900	3.8830	18.0700	6.5110	0.0000	2.8100	3.3480	0.8249	2.1	1.9	1.7010	0.0000

6100165-18@MH1H31 10/19/2016 00:36:57

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:57	97.0%	0.5996	104.4%	31.2900	30.1600	4.4750	-13.1600	6.6980	3.4060	0.3032	3.5780	0.1537	0.5352	0.0000	3.9290	11.4800	7.0720	4.0580	10.3000
2	00:37:10	97.7%	0.5769	108.3%	31.5100	29.3900	4.5060	-1.0850	6.6370	3.3770	0.2567	4.3670	0.2732	0.8510	0.0000	3.8510	11.4900	7.2930	4.0490	10.1800
3	00:37:24	98.5%	0.5572	108.1%	32.0700	29.0000	4.3840	-3.7100	6.7970	3.2500	0.2103	4.5680	0.1302	0.6619	0.0000	4.0370	11.7800	7.2690	4.0470	10.2400
x		97.7%	0.5779	106.9%	31.6200	29.5100	4.4550	-5.9860	6.7110	3.3440	0.2567	4.1710	0.1857	0.6827	0.0000	3.9390	11.5800	7.2120	4.0510	10.2400
σ		0.7%	0.0212	2.2%	0.4003	0.5914	0.0631	6.3530	0.0808	0.0833	0.0464	0.5232	0.0767	0.1589	0.0000	0.0935	0.1705	0.1212	0.0058	0.0579
%RSD		0.7	3.6700	2.0	1.2660	2.0040	1.4160	106.1000	1.2040	2.4900	18.0900	12.5400	41.2900	23.2700	0.0000	2.3740	1.4730	1.6800	0.1430	0.5656

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:36:57	102.9%	0.0676	2.5480	0.0220	0.4214	0.0000	0.8111	1.2780	88.4300	107.8%	108.6%	0.3333	0.0000
2	00:37:10	104.1%	0.0452	2.5290	0.0200	0.3754	0.0000	0.8744	1.2490	88.1300	111.6%	110.7%	0.3319	0.0000
3	00:37:24	105.8%	0.0493	2.6690	0.0235	0.3268	0.0000	0.8176	1.2420	89.3700	113.7%	114.1%	0.3347	0.0000
x		104.3%	0.0540	2.5820	0.0218	0.3746	0.0000	0.8344	1.2560	88.6400	111.0%	111.1%	0.3333	0.0000
σ		1.4%	0.0119	0.0762	0.0018	0.0473	0.0000	0.0348	0.0194	0.6475	3.0%	2.8%	0.0014	0.0000
%RSD		1.4	22.0500	2.9500	8.0960	12.6300	0.0000	4.1760	1.5450	0.7305	2.7	2.5	0.4270	0.0000

SEQ-IBL1@ZZZZZZ 10/19/2016 00:40:58

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:58	92.5%	0.5732	105.2%	30.6400	26.4800	4.0340	6.2070	2.1280	1.4250	0.0595	1.7730	0.0881	0.1048	0.0000	1.5850	3.1550	2.7430	1.0610	2.7380
2	00:41:11	91.7%	0.5021	106.6%	30.9700	27.0800	4.0810	-0.0788	2.1550	1.4220	0.1068	1.6230	0.0884	0.2884	0.0000	1.6460	3.1330	2.5740	1.1740	2.8300
3	00:41:24	92.5%	0.5616	107.3%	31.4500	27.4500	4.1490	4.1530	2.0810	1.4740	0.0607	1.7770	0.0787	0.4912	0.0000	1.6800	3.1980	2.6750	1.1660	2.9370
x		92.3%	0.5456	106.4%	31.0200	27.0100	4.0880	3.4270	2.1210	1.4400	0.0757	1.7240	0.0851	0.2948	0.0000	1.6370	3.1620	2.6640	1.1340	2.8350
σ		0.4%	0.0382	1.0%	0.4096	0.4880	0.0575	3.2050	0.0374	0.0291	0.0270	0.0881	0.0056	0.1933	0.0000	0.0481	0.0328	0.0851	0.0630	0.0994
%RSD		0.5	6.9920	1.0	1.3200	1.8070	1.4050	93.5200	1.7630	2.0210	35.6100	5.1070	6.5260	65.5600	0.0000	2.9400	1.0360	3.1930	5.5610	3.5070

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:58	94.7%	0.0519	2.7500	0.0266	0.6637	0.0000	2.2720	7.7840	22.7800	102.1%	102.4%	0.1421	0.0000
2	00:41:11	94.6%	0.0683	2.7820	0.0326	0.6007	0.0000	2.3260	7.8580	23.1900	104.7%	104.4%	0.1382	0.0000
3	00:41:24	93.1%	0.0741	2.8370	0.0350	0.6511	0.0000	2.4220	8.1030	23.0600	105.3%	105.7%	0.1536	0.0000
x		94.1%	0.0648	2.7890	0.0314	0.6385	0.0000	2.3400	7.9150	23.0100	104.0%	104.2%	0.1446	0.0000
σ		0.9%	0.0116	0.0442	0.0043	0.0333	0.0000	0.0759	0.1668	0.2084	1.7%	1.6%	0.0080	0.0000
%RSD		1.0	17.8300	1.5850	13.7600	5.2170	0.0000	3.2430	2.1070	0.9056	1.7	1.6	5.5170	0.0000

SEQ-CCV@CCV08 10/19/2016 00:45:04 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:45:17	91.5%	476.0000	88.6%	298.5000	458.4000	468.6000	2320.0000	r508.8000	502.4000	17.8600	456.7000	25.3800	4.9390	0.0000	407.7000	1286.0000	r772.1000	434.8000	r1126.0000
2	00:45:30	91.4%	466.2000	89.2%	299.1000	470.2000	481.9000	2597.0000	r508.4000	500.2000	18.3500	474.6000	26.9900	5.4650	0.0000	408.8000	r1263.0000	r767.3000	436.6000	r1123.0000
3	00:45:43	91.2%	468.2000	88.4%	303.3000	462.7000	473.0000	2605.0000	r510.8000	508.7000	18.8800	468.6000	26.6400	5.0030	0.0000	412.5000	r1271.0000	r774.1000	443.3000	r1126.0000
x		91.4%	94.028%	88.7%	300.3000	92.750%	94.902%	2508.0000	r101.860%	100.753%	18.3600	93.321%	26.3400	5.1360	0.0000	409.7000	r1273.0000	r771.2000	438.2000	r1125.0000
σ		0.2%	n/a	0.4%	2.6250	n/a	n/a	162.3000	rn/a	n/a	0.5114	n/a	0.8467	0.2867	0.0000	2.5280	r11.3800	r3.4650	4.4560	r1.7640
%RSD		0.2	1.1070	0.4	0.8740	1.2900	1.4330	6.4730	r0.2499	0.8763	2.7850	1.9550	3.2150	5.5820	0.0000	0.6170	r0.8939	r0.4493	1.0170	r0.1569

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:45:17	96.1%	23.7700	65.5700	17.9400	510.2000	0.0000	486.6000	536.7000	513.4000	107.7%	110.5%	r497.5000	0.0000
2	00:45:30	93.6%	24.2600	65.6900	18.1100	513.4000	0.0000	489.1000	536.0000	514.1000	110.8%	112.7%	r496.9000	0.0000
3	00:45:43	95.0%	24.3100	65.8900	17.8000	511.5000	0.0000	496.0000	538.3000	515.6000	112.8%	113.9%	r497.0000	0.0000
x		94.9%	24.1100	101.103%	17.9500	102.341%	0.0000	490.6000	107.402%	102.873%	110.4%	112.4%	r99.429%	0.0000
σ		1.3%	0.2984	n/a	0.1541	n/a	0.0000	4.9140	n/a	n/a	2.6%	1.8%	rn/a	0.0000
%RSD		1.4	1.2370	0.2462	0.8586	0.3081	0.0000	1.0020	0.2204	0.2162	2.3	1.6	r0.0674	0.0000

SEQ-CCB@CCB08 10/19/2016 00:49:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:49:39	85.2%	0.0635	77.6%	0.0363	-0.0646	-0.0451	-24.5800	0.0457	0.1811	0.0012	-0.0815	0.0335	-0.2319	0.0000	0.1390	0.3919	0.2278	0.1108	0.2982
2	00:49:52	85.2%	0.0911	78.5%	0.0377	-0.0318	-0.0424	-22.5800	0.0515	0.1051	0.0264	-0.0464	0.0340	-0.0305	0.0000	0.1051	0.3451	0.2265	0.1286	0.3390
3	00:50:05	85.5%	0.0998	79.0%	0.0243	0.0277	-0.0467	-30.9200	0.0437	0.1349	0.0011	0.0135	0.0686	0.1464	0.0000	0.1060	0.3561	0.2199	0.1302	0.2750
x		85.3%	0.0848	78.4%	0.0328	-0.0229	-0.0447	-26.0300	0.0470	0.1403	0.0096	-0.0381	0.0454	-0.0387	0.0000	0.1167	0.3643	0.2247	0.1232	0.3041
σ		0.2%	0.0190	0.7%	0.0074	0.0468	0.0022	4.3530	0.0041	0.0383	0.0146	0.0480	0.0201	0.1893	0.0000	0.0193	0.0245	0.0042	0.0108	0.0324
%RSD		0.2	22.3600	0.9	22.5600	204.2000	4.8340	16.7200	8.6440	27.2700	152.1000	126.0000	44.2900	489.6000	0.0000	16.5600	6.7130	1.8850	8.7550	10.6600

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:49:39	90.2%	0.0056	0.0082	0.0015	0.0587	0.0000	0.1794	0.0590	0.0439	101.7%	104.3%	0.0871	0.0000
2	00:49:52	89.0%	-0.0026	0.0107	0.0000	0.0469	0.0000	0.2074	0.0640	0.0391	101.4%	105.4%	0.0751	0.0000
3	00:50:05	90.6%	-0.0266	0.0016	0.0015	0.0348	0.0000	0.2130	0.0536	0.0471	103.2%	105.6%	0.0684	0.0000
x		89.9%	-0.0078	0.0068	0.0010	0.0468	0.0000	0.1999	0.0589	0.0434	102.1%	105.1%	0.0769	0.0000
σ		0.8%	0.0167	0.0047	0.0009	0.0119	0.0000	0.0180	0.0052	0.0040	1.0%	0.7%	0.0095	0.0000
%RSD		0.9	213.1000	69.0600	86.6100	25.5100	0.0000	9.0120	8.7930	9.3310	0.9	0.7	12.3100	0.0000

Mass Uncorrected ICPS

SEQ-CAL1@S01 10/18/2016 17:47:39

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	17:47:52	117328.9500	16.6667	146812.6400	60.0002	412.0093	327.3392	192.0020	50.0001	953.3833	6.6667	13.3333	13.3333	13.3333	115823.1500	13.3333	10.0000	20.0000	0.0000	13.3333
2	17:48:05	119628.6300	23.3334	149262.0400	63.3336	421.3431	310.6720	174.6683	33.3334	896.7109	0.0000	7.7778	10.0000	10.0000	116224.9000	30.0001	3.3333	33.3334	10.0000	10.0000
3	17:48:18	121830.9200	6.6667	150437.8500	63.3336	433.3437	324.6725	193.3354	20.0000	1053.3944	3.3333	13.3333	13.3333	23.3334	120594.6000	20.0000	16.6667	13.3333	6.6667	6.6667
x		119596.1600	15.5556	148837.5100	62.2224	422.2320	320.8946	186.6686	34.4445	967.8295	3.3333	11.4815	12.2222	15.5556	117547.5500	21.1111	10.0000	22.2223	5.5556	10.0000
σ		2251.1616	8.3887	1849.5181	1.9245	10.6949	8.9529	10.4139	15.0309	79.3344	3.3333	3.2075	1.9245	6.9389	2646.4544	8.3887	6.6667	10.1835	5.0918	3.3333
%RSD		1.8823	53.9274	1.2426	3.0930	2.5329	2.7900	5.5788	43.6380	8.1971	100.0000	27.9363	15.7459	44.6072	2.2514	39.7360	66.6667	45.8258	91.6515	33.3334

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:47:52	44321.1100	120.0008	16.6667	0.0000	3.3333	205183.0000	166.6682	33.3334	80.0004	168218.7600	162360.7100	6.6667	102484.4300
2	17:48:05	44555.5860	143.3345	16.6667	0.0000	10.0000	210669.7000	146.6678	46.6668	76.6670	168935.2000	167811.3400	36.6667	105026.5300
3	17:48:18	44200.5260	170.0016	16.6667	0.0000	16.6667	212341.2600	163.3348	30.0001	90.0004	173326.7200	168619.4200	46.6668	105704.3200
x		44359.0740	144.4456	16.6667	0.0000	10.0000	209397.9900	158.8903	36.6667	82.2226	170160.2300	166270.4900	30.0001	104405.0900
σ		180.5488	25.0189	0.0000	0.0000	6.6667	3744.7450	10.7154	8.8192	6.9390	2765.5574	3392.7922	20.8167	1697.5153
%RSD		0.4070	17.3206	0.0000	0.0000	66.6667	1.7883	6.7439	24.0523	8.4392	1.6253	2.0405	69.3889	1.6259

SEQ-CAL2@S02 10/18/2016 17:51:52

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	9
1	17:52:06	122161.9800	116.6674	150193.8700	63.3336	1510.1254	891.3770	266.0039	1560.1339	983.3865	10.0000	56.6668	30.0001	23.3334	119095.0200	2507.0123	4000.8802	4644.5195	2557.0262	6385.
2	17:52:19	120608.1100	153.3346	152135.7600	86.6671	1525.4613	890.7103	270.6707	1660.1516	1143.4052	16.6667	45.5557	30.0001	36.6667	119186.2100	2510.3466	4114.2641	4701.2153	2630.3805	6702.
3	17:52:32	121817.4100	130.0009	153844.1500	63.3336	1456.1166	867.3747	256.6703	1520.1271	993.3876	23.3334	57.7780	26.6667	26.6667	123449.2000	2510.3466	4637.8494	4617.8392	2693.7324	6665.
x		121529.1700	133.3343	152057.9300	71.1114	1497.2344	883.1540	264.4483	1580.1375	1040.0598	16.6667	53.3335	28.8889	28.8889	120576.8100	2509.2351	4250.9979	4654.5246	2627.0464	6584.
σ		816.0538	18.5595	1826.3859	13.4716	36.4253	13.6693	7.1287	72.1237	89.6394	6.6667	6.7587	1.9245	6.9389	2487.9795	1.9250	339.7860	42.5790	68.4140	173.
%RSD		0.6715	13.9195	1.2011	18.9444	2.4328	1.5478	2.6957	4.5644	8.6187	40.0000	12.6725	6.6617	24.0193	2.0634	0.0767	7.9931	0.9148	2.6042	2.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:52:06	44974.3070	143.3345	1133.4040	26.6667	243.3366	212228.6700	7222.8682	1750.1685	3070.5185	170317.3000	166025.6600	2080.2380	104139.7500
2	17:52:19	45728.0530	160.0014	1246.7522	26.6667	303.3384	214883.2800	7376.3247	1826.8502	3250.5810	173238.3900	169787.5300	2016.8904	106786.8600
3	17:52:32	45587.3490	156.6680	1276.7563	20.0000	293.3381	218989.5500	7329.6203	1866.8583	3410.6397	176167.2100	173092.3100	2196.9321	107754.8500
x		45429.9030	153.3346	1218.9708	24.4445	280.0043	215367.1700	7309.6044	1814.6257	3243.9131	173240.9600	169635.1700	2098.0201	106227.1500
σ		400.7808	8.8193	75.6064	3.8490	32.1465	3406.3115	78.6619	59.2977	170.1586	2924.9539	3535.7872	91.3286	1871.4137
%RSD		0.8822	5.7517	6.2025	15.7459	11.4807	1.5816	1.0761	3.2678	5.2455	1.6884	2.0843	4.3531	1.7617

SEQ-CAL3@S03 10/18/2016 17:56:04

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	
1	17:56:18	121597.8300	270.0040	150390.4100	30.0001	3041.1753	1643.4819	366.6741	3387.2976	1880.1944	26.6667	127.7787	80.0004	10.0000	120567.5800	4897.9858	8243.7361	9251.3716	5151.4592	13
2	17:56:31	121243.1400	243.3366	152528.9300	100.0006	2974.4865	1655.4841	338.0063	3997.5454	1843.5202	36.6667	95.5561	66.6669	3.3333	122415.3600	5238.1753	8747.5399	9361.4842	5271.5280	13
3	17:56:44	124216.2100	286.6712	154434.0300	70.0003	3045.1766	1650.1498	352.6735	3814.1333	1853.5223	36.6667	127.7787	86.6671	16.6667	124452.7400	5184.8114	8784.2419	9224.6778	5241.5106	14
x		122352.3900	266.6706	152451.1200	66.6670	3020.2795	1649.7052	352.4513	3732.9921	1859.0790	33.3334	117.0378	77.7781	10.0000	122478.5600	5106.9909	8591.8393	9279.1779	5221.4992	13
σ		1623.8246	21.8588	2022.9307	35.1191	39.7083	6.0134	14.3352	313.1110	18.9580	5.7735	18.6037	10.1836	6.6667	1943.3538	182.9598	302.0242	72.5182	62.4858	
%RSD		1.3272	8.1969	1.3269	52.6784	1.3147	0.3645	4.0673	8.3877	1.0198	17.3205	15.8955	13.0931	66.6667	1.5867	3.5825	3.5152	0.7815	1.1967	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:56:18	45235.5980	260.0037	3003.8295	36.6667	646.6897	214269.0400	14241.1460	4294.3474	7226.2042	171370.1400	165699.8000	4867.9697	104234.1600
2	17:56:31	45366.2470	183.3352	2997.1606	63.3336	586.6856	219843.1100	14301.2400	4197.6356	7569.8170	174193.0400	172073.2400	5214.8286	105957.2400
3	17:56:44	46150.1780	210.0024	2913.8002	13.3333	660.0240	220635.3000	14999.0300	4474.4342	7873.4080	176629.3800	173234.9900	5238.1753	108959.0700
x		45584.0080	217.7804	2971.5968	37.7779	631.1331	218249.1500	14513.8050	4322.1390	7556.4764	174064.1900	170336.0100	5106.9912	106383.4900
σ		494.6502	38.9216	50.1642	25.0186	39.0658	3469.5602	421.2897	140.4765	323.8081	2631.9840	4056.8777	207.3276	2391.1259
%RSD		1.0851	17.8719	1.6881	66.2256	6.1898	1.5897	2.9027	3.2502	4.2852	1.5121	2.3817	4.0597	2.2476

SEQ-CAL4@S04 10/18/2016 18:00:14

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	18:00:28	120733.0800	403.3423	152088.3100	76.6670	5628.4085	2952.4794	527.3486	7186.1725	2323.6303	53.3335	198.8911	80.0004	33.3334	121189.0900	12154.7870	20222.4670	22380.8490	12979.25
2	18:00:41	123499.8800	523.3484	153661.1000	216.6693	5592.3863	2969.8183	498.6803	7456.3900	2333.6328	73.3336	200.0022	120.0008	10.0000	123151.8700	12301.6510	20940.7570	23052.5240	13289.70
3	18:00:54	123675.5800	436.6771	155997.0400	73.3336	5639.0817	2946.4774	522.6817	7596.5059	2443.6617	70.0003	211.1136	133.3343	30.0001	124993.4200	12795.6650	22016.6280	23801.1160	13523.38
x		122636.1800	454.4559	153915.4800	122.2233	5619.9588	2956.2584	516.2369	7413.0228	2366.9749	65.5558	203.3356	111.1118	24.4445	123111.4600	12417.3680	21059.9510	23078.1630	13264.11
σ		1650.4689	61.9470	1966.7445	81.8096	24.4676	12.1207	15.3824	208.5759	66.6008	10.7152	6.7588	27.7559	12.6198	1902.4847	335.7441	902.9998	710.4807	272.96
%RSD		1.3458	13.6310	1.2778	66.9345	0.4354	0.4100	2.9797	2.8136	2.8137	16.3452	3.3240	24.9801	51.6265	1.5453	2.7038	4.2878	3.0786	2.05

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:00:28	46109.9750	206.6690	5865.2248	123.3342	1416.7771	216750.1600	34846.6580	8627.4252	14665.1520	172504.6300	168188.2100	9765.2420	106442.8600
2	18:00:41	46230.5850	256.6703	5805.1863	133.3343	1293.4253	219498.2600	35730.0770	8487.2934	15052.4510	176717.7400	172640.5100	9872.0239	108206.8400
3	18:00:54	45865.4090	243.3366	5948.6123	123.3342	1413.4432	221987.6300	36817.7380	8567.3684	15409.7160	177241.1100	173445.6200	10002.1660	108638.6100
x		46068.6560	235.5586	5873.0078	126.6676	1374.5485	219412.0200	35798.1580	8560.6957	15042.4400	175487.8300	171424.7800	9879.8106	107762.7700
σ		186.0613	25.8922	72.0291	5.7736	70.2745	2619.7976	987.3018	70.3038	372.3827	2596.7419	2831.7122	118.6538	1163.2809
%RSD		0.4039	10.9918	1.2264	4.5581	5.1126	1.1940	2.7580	0.8212	2.4755	1.4797	1.6519	1.2010	1.0795

SEQ-CAL5@S05 10/18/2016 18:04:25

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	
1	18:04:38	121439.0600	4767.9167	148713.1600	11430.5150	10443.9960	13305.0630	1845.5206	72340.0120	16084.2160	140.0011	385.5637	176.6684	13.3333	118622.2300	28624.9960	50630.5990	55455.2930	31
2	18:04:51	123665.4400	4577.8190	150675.0700	12308.3270	10606.1830	13546.7520	1822.8494	74850.2100	16778.8030	130.0009	393.3418	230.0029	3.3333	121303.9400	30029.5160	52152.4990	56548.6640	32
3	18:05:05	121668.7700	4567.8139	151627.3700	12385.0970	10724.9890	13562.1090	1808.8466	76735.8340	17062.6640	106.6673	412.2316	206.6690	16.6667	122732.9300	30347.2350	54191.0370	58604.9600	33
x		122257.7600	4637.8499	150338.5300	12041.3130	10591.7230	13471.3080	1825.7389	74642.0190	16641.8940	125.5564	397.0457	204.4468	11.1111	120886.3700	29667.2490	52324.7110	56869.6390	32
σ		1224.4881	112.7522	1485.9696	530.3575	141.0538	144.1773	18.5070	2205.2936	503.3867	17.1056	13.7143	26.7366	6.9389	2086.9188	916.4905	1786.4554	1599.1773	
%RSD		1.0016	2.4311	0.9884	4.4045	1.3317	1.0703	1.0137	2.9545	3.0248	13.6238	3.4541	13.0775	62.4500	1.7263	3.0892	3.4142	2.8120	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:04:38	45034.6040	1270.0887	7276.2441	896.7109	12548.6550	213757.2000	42529.2480	41380.6320	14581.6850	170836.9100	168164.4400	97368.6590	105734.6700
2	18:04:51	46562.2710	1186.7441	7753.3048	833.3715	13146.1650	216163.0900	43771.7920	42445.5250	15115.8900	174080.9200	170898.0500	100772.1100	107646.9100
3	18:05:05	45738.1030	1423.4448	7689.9177	943.3823	12979.2590	221755.3900	45697.9020	43353.1260	15533.2590	176911.4500	173486.3800	101709.1300	108527.2900
x		45778.3260	1293.4259	7573.1555	891.1549	12891.3600	217225.2300	43999.6470	42393.0950	15076.9450	173943.1000	170849.6200	99949.9670	107302.9600
σ		764.6274	120.0636	259.0788	55.2154	308.3007	4103.5198	1596.5681	987.2916	476.9810	3039.6129	2661.3029	2284.0459	1427.7299
%RSD		1.6703	9.2826	3.4210	6.1959	2.3915	1.8891	3.6286	2.3289	3.1636	1.7475	1.5577	2.2852	1.3306

SEQ-CAL6@S06 10/18/2016 18:08:35

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96
1	18:08:48	120925.6200	21899.6790	149397.5800	58816.3180	50480.4340	64865.9280	8143.6459	364840.2800	78715.9890	593.3527	1981.3270	980.0528	23.3334	118787.7100	143811.9100	255867.4500	278360.73
2	18:09:01	122486.3000	22160.3100	152420.4700	59138.3970	50574.2860	64796.0990	8158.9930	374470.2300	79909.6690	546.6831	1983.5497	953.3833	33.3334	122506.5700	150549.6800	263813.1100	286741.94
3	18:09:14	122070.7700	22474.4130	152088.3100	60806.0110	50815.6270	65186.2070	8212.3744	379172.5800	80373.7330	526.6819	1964.6567	906.7119	23.3334	123280.2600	153156.0100	267048.8900	291437.78
x		121827.5600	22178.1340	151302.1200	59586.9090	50623.4490	64949.4110	8171.6711	372827.7000	79666.4640	555.5726	1976.5111	946.7160	26.6667	121524.8500	149172.5300	262243.1500	285513.48
σ		808.2680	287.7810	1657.7234	1067.9847	172.9199	208.0217	36.0756	7305.9651	855.2136	34.2128	10.3262	37.1223	5.7735	2401.7911	4821.8737	5753.6724	8624.51
%RSD		0.6635	1.2976	1.0956	1.7923	0.3416	0.3203	0.4415	1.9596	1.0735	6.1581	0.5224	3.9212	21.6507	1.9764	3.2324	2.1940	2.37

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:08:48	45349.4970	5598.3899	37677.9180	4277.6728	63527.8620	216142.6200	212972.4300	205015.9600	73731.1210	173887.2700	168503.9700	497243.4700	106085.3900
2	18:09:01	45640.9500	6295.5124	38718.9450	4624.5093	64850.4850	220481.6300	221629.0300	214204.2000	75713.9860	178359.3300	173700.4100	512616.3500	109272.8100
3	18:09:14	45101.6020	5991.9741	39512.3480	4497.7790	66116.2200	222291.5900	225874.9700	216958.3700	77619.9590	179436.9000	173741.1800	520950.6600	110608.8200
x		45364.0160	5961.9588	38636.4040	4466.6537	64831.5220	219638.6100	220158.8100	212059.5100	75688.3550	177227.8300	171981.8600	510270.1600	108655.6700
σ		269.9672	349.5291	919.9963	175.5006	1294.2831	3159.9797	6575.7166	6253.4066	1944.5455	2942.7552	3012.0037	12026.4800	2324.0061
%RSD		0.5951	5.8627	2.3812	3.9291	1.9964	1.4387	2.9868	2.9489	2.5691	1.6604	1.7513	2.3569	2.1389

SEQ-CAL7@S07 10/18/2016 18:11:47

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95
1	18:12:00	119892.0600	215224.5500	145850.6700	566748.8700	471232.0700	608248.1000	74883.1470	r3516920.2000	765475.4000	5418.2809	18614.5940	8503.9756	86.6671	117359.3400	1495644.2000	2684456.7
2	18:12:13	119520.5500	218801.7700	148401.4600	579254.6900	471015.9600	611360.1300	75316.7060	r3577415.8000	782243.1900	5681.7750	18266.1100	8774.2323	143.3345	117669.9800	1525494.8000	r2675442.2
3	18:12:26	120169.0200	220252.8500	146951.5200	584388.1100	471723.2500	609451.4900	74851.5550	r3599893.9000	784524.4300	5491.6582	18357.4050	8547.3496	150.0012	119449.6300	1553001.0000	r2696110.1
x		119860.5400	218093.0600	147067.8800	576797.2200	471323.7600	609686.5700	75017.1360	r3564743.3000	777414.3400	5530.5714	18412.7030	8608.5191	126.6676	118159.6500	1524713.4000	r2685336.4
σ		325.3794	2587.9853	1279.3679	9072.7634	362.4527	1569.2787	259.9160	r42913.8900	10402.1520	135.9888	180.7031	145.1411	34.8015	1127.9029	28686.3700	r10361.9
%RSD		0.2715	1.1866	0.8699	1.5730	0.0769	0.2574	0.3465	r1.2038	1.3380	2.4589	0.9814	1.6860	27.4746	0.9546	1.8814	r0.3

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:12:00	42874.1950	58215.8040	381500.3300	42867.4980	657568.3800	240475.7200	2284873.5000	2218015.0000	762221.6500	180735.5800	178542.8800	r5298607.0000	114169.1000
2	18:12:13	43450.2550	59363.1890	393259.1500	44237.3710	675834.3800	245993.7800	r2238415.5000	2272421.0000	788663.9600	183058.0300	184217.7700	r5386834.0000	116015.5900
3	18:12:26	42683.3010	60097.9930	391328.4600	44850.3630	676723.6900	245363.7600	2400019.6000	2338452.4000	801220.6000	185694.0200	183721.2000	r5451402.7000	118129.2100
x		43002.5840	59225.6620	388695.9800	43985.0770	670042.1500	243944.4200	r2307769.5000	2276296.1000	784035.4000	183162.5400	182160.6200	r5378947.9000	116104.6300
σ		399.2707	948.6008	6305.9466	1015.2229	10811.7500	3020.4553	r83199.4360	60312.1270	19907.2130	2480.8717	3142.8731	r76702.4770	1981.5587
%RSD		0.9285	1.6017	1.6223	2.3081	1.6136	1.2382	r3.6052	2.6496	2.5391	1.3545	1.7253	r1.4260	1.7067

SEQ-CAL8@S08 10/18/2016 18:15:55

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94M
1	18:16:08	110848.3800	u392608.5900	127839.2500	994736.1300	860631.2500	u1126737.3000	136404.3900	r6143279.5000	1333234.2000	10259.1190	32918.3800	15716.9080	233.3363	104591.5600	r2646683.600
2	18:16:22	110649.3100	u400676.0500	127764.8800	1017798.2000	862597.8400	u1138556.9000	137901.3800	r6298055.5000	u1383573.2000	10409.2890	33478.1970	15810.4030	246.6700	105056.8800	r2716387.400
3	18:16:35	109681.0100	u401522.1800	128674.2400	1021999.3000	u865948.3600	u1134705.7000	138067.2100	r6314290.7000	u1381994.6000	10172.3550	33560.7220	15553.2930	200.0022	105353.6200	r2737965.300
x		110392.9000	u398268.9400	128092.7900	1011511.2000	u863059.1500	u1133333.3000	137457.6600	r6251875.2000	u1366267.3000	10280.2540	33319.1000	15693.5350	226.6695	105000.6800	r2700345.400
σ		624.4950	u4920.2317	504.9210	14678.7300	u2688.4042	u6028.1393	915.9215	r94396.3350	u28618.3880	119.8730	349.4778	130.1386	24.0376	384.1238	r47708.434
%RSD		0.5657	u1.2354	0.3942	1.4512	u0.3115	u0.5319	0.6663	r1.5099	u2.0946	1.1661	1.0489	0.8292	10.6047	0.3658	r1.766

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:16:08	39462.1300	104652.2500	687807.6100	77885.5490	1205512.6000	243549.2700	r4000985.0000	r3954293.2000	r1401166.0000	174009.5800	172657.4900	rM10623219.0000	115688.1200
2	18:16:22	39646.2620	105545.8300	705581.9600	80948.8020	u1239968.1000	246339.6300	r4107913.0000	r4012134.4000	r1426372.0000	175915.7400	175259.9200	rM10777939.0000	119290.9000
3	18:16:35	39000.1430	108776.9100	708665.1500	81312.0210	u1249816.5000	247760.8100	r4180524.0000	rM4107360.0000	r1447977.2000	178257.3600	177468.8200	rM10924899.0000	119675.9100
x		39369.5120	106325.0000	700684.9100	80048.7910	u1231765.7000	245883.2400	r4096474.0000	rM4024595.8000	r1425171.7000	176060.8900	175128.7500	rM10775352.0000	118218.3100
σ		332.8680	2169.9166	11258.1120	1882.2043	u23263.0020	2142.5417	r90314.4570	rM77290.5230	r23428.6500	2127.6096	2408.3459	rM150856.6100	2199.6495
%RSD		0.8455	2.0408	1.6067	2.3513	u1.8886	0.8714	r2.2047	rM1.9205	r1.6439	1.2085	1.3752	rM1.4000	1.8607

SEQ-ICV@ICV01 10/18/2016 18:20:00 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96M
1	18:20:00	108095.5200	36610.2360	116690.8100	363.3406	88614.4610	113421.8300	14062.8690	573542.3600	122395.0900	1986.8838	7096.1018	3270.5882	76.6670	97742.6400	10229.0850	18054.5770	19687.962
2	18:20:14	108584.6300	38069.5440	119544.1900	313.3387	89231.7880	114162.3400	14153.6760	604131.4000	127781.7800	2313.6277	7245.1081	3400.6359	46.6668	99498.1970	10853.1410	19303.8070	21071.058
3	18:20:27	109522.4500	38464.5350	121185.7100	310.0053	88763.9080	114505.9600	14355.3250	623506.2000	133746.6600	2233.6077	7213.9723	3373.9593	70.0003	101705.7600	11033.3580	19380.6370	21218.066
x		108734.2000	37714.7720	119140.2400	328.8949	88870.0520	114030.0400	14190.6230	600393.3200	127974.5100	2178.0397	7185.0607	3348.3945	64.4447	99648.8650	10705.1950	18913.0070	20659.029
σ		725.1262	976.7315	2274.5155	29.8774	322.0611	554.0419	149.6881	25190.7960	5678.2421	170.3122	78.5979	68.6897	15.7528	1985.8508	422.0544	744.4137	844.174
%RSD		0.6669	2.5898	1.9091	9.0842	0.3624	0.4859	1.0548	4.1957	4.4370	7.8195	1.0939	2.0514	24.4439	1.9928	3.9425	3.9360	4.086

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:20:00	40402.9160	9348.1372	490937.5600	6919.2989	106176.4400	179766.6500	1213.4143	701291.6300	128728.3300	161166.0500	160779.2900	r2079115.9000	106631.7200
2	18:20:14	40212.0730	9788.6004	511347.8200	7212.8603	112640.2000	186588.7300	1206.7468	744589.8100	136896.3600	167648.3700	167369.9800	r2163473.8000	110058.8700
3	18:20:27	40443.0940	10449.3350	522425.1000	7603.1781	116846.1200	190406.6800	1003.3887	779839.2500	141773.6000	170487.1000	168795.9800	r2200324.9000	113699.9400
x		40352.6940	9862.0243	508236.8300	7245.1124	111887.5900	185587.3500	1141.1833	741906.9000	135799.4300	166433.8400	165648.4200	r2147638.2000	110130.1800
σ		123.4277	554.2586	15972.6340	343.0785	5374.5090	5390.2334	119.3801	39342.4760	6591.4499	4777.7455	4276.6447	r62136.7850	3534.6471
%RSD		0.3059	5.6201	3.1428	4.7353	4.8035	2.9044	10.4611	5.3029	4.8538	2.8707	2.5818	r2.8933	3.2095

SEQ-ICB@ICB01 10/18/2016 18:23:33 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	18:23:46	109934.0400	30.0001	121766.7300	63.3336	349.3401	312.6720	140.0011	333.3394	873.3753	13.3333	8.8889	20.0000	10.0000	101813.6200	63.3336	126.6676	150.0012	76.6670	160.0014
2	18:23:59	109937.4100	40.0001	125243.4900	53.3335	373.3410	292.0047	146.6678	390.0084	833.3715	6.6667	15.5556	13.3333	10.0000	103323.8500	100.0006	106.6673	140.0011	110.0007	240.0032
3	18:24:12	111364.6300	73.3336	125375.2900	93.3338	349.3401	314.6721	145.3345	333.3394	920.0466	0.0000	6.6667	13.3333	40.0001	105326.6400	76.6670	106.6673	180.0018	60.0002	296.6715
x		110412.0300	47.7779	124128.5000	70.0003	357.3404	306.4496	144.0011	352.2291	875.5978	6.6667	10.3704	15.5556	20.0000	103488.0400	80.0004	113.3340	156.6680	82.2226	232.2254
σ		824.9782	22.6897	2046.4146	20.8168	13.8570	12.5496	3.5277	32.7178	43.3802	6.6667	4.6259	3.8490	17.3206	1762.2541	18.5594	11.5472	20.8170	25.4590	68.6662
%RSD		0.7472	47.4898	1.6486	29.7382	3.8778	4.0952	2.4498	9.2888	4.9544	100.0000	44.6072	24.7436	86.6026	1.7029	23.1991	10.1886	13.2873	30.9635	29.5688

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:23:46	39666.3500	76.6670	336.6729	3.3333	100.0006	188487.2900	210.0024	500.0138	153.3346	165034.5300	165231.3900	1290.0915	108321.5200
2	18:23:59	39987.7530	136.6677	293.3381	3.3333	56.6668	193943.6100	193.3354	466.6786	123.3342	166256.4900	165866.1200	1233.4170	108975.9400
3	18:24:12	40165.1990	130.0009	203.3356	3.3333	53.3335	194359.0100	230.0029	483.3462	96.6672	170069.3900	167454.8500	1076.7304	108426.0900
x		39939.7670	114.4452	277.7822	3.3333	70.0003	192263.3000	211.1136	483.3462	124.4453	167120.1400	166184.1200	1200.0797	108574.5200
σ		252.8631	32.8863	68.0162	0.0000	26.0344	3276.7089	18.3590	16.6676	28.3501	2626.1893	1145.3351	110.5182	351.5519
%RSD		0.6331	28.7354	24.4854	0.0000	37.1918	1.7043	8.6963	3.4484	22.7811	1.5714	0.6892	9.2092	0.3238

SEQ-IFA@ICSA01 10/18/2016 18:27:13 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	18:27:26	105920.1400	130.0009	134115.3700	875889.0500	358.0070	24307.1190	3105.1969	8981.1008	9004.4572	6.6667	7.7778	13.3333	33.3334	108510.4200	2269485.2000	±3990281.0000	±4331625.1000
2	18:27:40	105475.0100	150.0012	138500.3900	926470.1400	385.3415	24801.7860	3053.8462	9411.5359	8974.4275	3.3333	6.6667	23.3334	16.6667	113372.5500	2374793.7000	±4119061.1000	±4486734.4000
3	18:27:54	106979.1000	180.0018	140998.3500	947585.8700	387.3416	24884.6790	3081.1887	9418.2095	9211.3310	0.0000	12.2222	13.3333	26.6667	114560.6400	±2402275.8000	±4263878.0000	±4629537.0000
x		106124.7500	153.3347	137871.3700	916648.3500	376.8967	24664.5280	3080.0773	9270.2820	9063.4052	3.3333	8.8889	16.6667	25.5556	112147.8700	±2348851.6000	±4124406.7000	±4482632.2000
σ		772.6381	25.1665	3484.3355	36843.7130	16.3895	312.2876	25.6934	250.4605	128.9844	3.3333	2.9397	5.7735	8.3887	3205.6462	±70093.3580	±136876.7900	±148998.3300
%RSD		0.7280	16.4128	2.5272	4.0194	4.3485	1.2661	0.8342	2.7018	1.4231	100.0000	33.0719	34.6411	32.8254	2.8584	±2.9842	±3.3187	±3.3239

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:27:26	39716.5680	123.3342	153.3346	1850.1883	2156.9225	202493.7000	776.6998	4487.7741	3040.5084	170021.8500	166735.1400	723.3621	104682.6000
2	18:27:40	39468.8260	156.6680	173.3350	1803.5122	2323.6303	206638.7500	850.0397	4751.2413	2907.1314	175028.8700	172372.1500	633.3554	108058.4200
3	18:27:54	40141.7630	136.6677	166.6682	1803.5122	2290.2885	212904.2000	740.0301	5308.2160	3280.5918	177798.5100	175154.5900	540.0160	108790.4100
x		39775.7190	138.8900	164.4459	1819.0709	2256.9471	207345.5500	788.9232	4849.0771	3076.0772	174283.0700	171420.6300	632.2445	107177.1400
σ		340.3456	16.7777	10.1837	26.9484	88.2134	5241.1156	56.0142	418.8796	189.2539	3941.6072	4289.6183	91.6781	2191.1211
%RSD		0.8557	12.0798	6.1927	1.4814	3.9085	2.5277	7.1001	8.6383	6.1524	2.2616	2.5024	14.5004	2.0444

SEQ-IFB@ICSAB01 10/18/2016 18:31:24 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	
1	18:31:37	105158.0400	8597.3967	148957.1000	972853.9900	21251.4770	52403.2680	6504.3260	151420.6400	37939.0000	220.0027	730.0293	336.6729	36.6667	120854.6800	2451984.2000	±4261997.2000	±4664
2	18:31:50	104928.7400	8460.6018	154857.8100	999884.2800	20836.5180	52414.6670	6536.3490	154664.5600	39492.2610	206.6690	724.4733	383.3414	40.0001	123709.3700	±2502568.5000	±4406409.7000	±4805
3	18:32:03	106254.0000	8740.8668	154647.6100	1021493.6000	20932.7390	52611.1300	6581.7150	156244.5700	40399.5680	236.6697	732.2517	353.3402	40.0001	122263.3300	±2543299.7000	±4478969.8000	±4886
x		105446.9300	8599.6218	152820.8400	998077.2900	21006.9110	52476.3550	6540.7967	154109.9200	39276.9430	221.1138	728.9181	357.7848	38.8890	122275.7900	±2499284.1000	±4382458.9000	±4785
σ		708.2881	140.1457	3347.7478	24370.1050	217.1955	116.8577	38.8857	2459.3317	1244.3349	15.0312	4.0065	23.6496	1.9245	1427.3813	±45746.2690	±110451.3600	±112
%RSD		0.6717	1.6297	2.1906	2.4417	1.0339	0.2227	0.5945	1.5958	3.1681	6.7979	0.5496	6.6100	4.9487	1.1673	±1.8304	±2.5203	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:31:37	41682.0050	2366.9748	105889.7900	3510.6777	26675.7470	216036.8100	796.7016	88939.6130	33354.4100	175287.1000	172246.4700	207136.5600	107154.4800
2	18:31:50	42184.3140	2326.9644	108851.1300	3647.3982	27641.9600	221622.2000	823.3706	92585.7450	35184.6230	177383.8600	175157.9800	211420.1600	108345.1400
3	18:32:03	42716.7910	2403.6511	111128.4300	3554.0279	27795.7620	223633.9100	796.7016	93915.9520	36436.2050	183088.6300	179338.3100	217071.0100	109272.8100
x		42194.3700	2365.8634	108623.1200	3570.7013	27371.1560	220430.9800	805.5913	91813.7700	34991.7460	178586.5300	175580.9200	211875.9100	108257.4700
σ		517.4667	38.3554	2626.7523	69.8686	607.1321	3936.1464	15.3974	2576.4212	1549.9248	4037.4229	3564.7865	4982.8849	1061.8800
%RSD		1.2264	1.6212	2.4182	1.9567	2.2181	1.7857	1.9113	2.8061	4.4294	2.2608	2.0303	2.3518	0.9809

SEQ-CCV@CCV01 10/18/2016 18:35:33 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95
1	18:35:46	114219.7300	241310.7500	162889.6900	619581.0000	526728.4000	685449.0800	83968.0020	±3900168.5000	845124.8000	6575.7107	20957.4620	9815.2958	130.0009	132390.3600	1622973.6000	±2834819.7
2	18:35:59	112822.4400	244894.7000	166052.8200	634313.4400	527362.9900	688756.2100	83986.8410	±3985596.8000	864396.5900	6378.9039	20860.5730	9771.9158	186.6686	133672.2500	1659124.8000	±2903719.5
3	18:36:12	113936.2000	244257.9100	166453.3800	640795.1700	529157.5600	684928.6300	83865.0580	±4035636.1000	876196.6800	6605.7324	20831.6180	9775.2527	116.6674	133469.3000	1682094.7000	±2914154.5
x		113659.4500	243487.7900	165131.9600	631563.2000	527749.6500	686377.9700	83939.9670	±3973800.5000	861906.0200	6520.1157	20883.2180	9787.4881	144.4456	133177.3000	1654731.0000	±2884231.2
σ		738.6091	1912.0649	1952.1642	10871.2060	1259.8928	2075.9911	65.5534	±68499.8800	15684.9480	123.2108	65.9074	24.1399	37.1689	689.0251	29804.4130	±43108.5
%RSD		0.6498	0.7853	1.1822	1.7213	0.2387	0.3025	0.0781	±1.7238	1.8198	1.8897	0.3156	0.2466	25.7321	0.5174	1.8012	±1.4

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:35:46	47413.3200	64367.0680	414411.7100	48948.0880	729597.7000	267773.0600	±2356516.0000	2446730.9000	843777.8900	191567.3500	190096.9600	±5612591.8000	120668.9100
2	18:35:59	47487.0360	65619.3060	431429.9600	50104.3620	747216.0500	269860.1000	2549222.1000	2530470.3000	868351.5000	197590.9000	191420.9800	±5755662.0000	123297.1600
3	18:36:12	47681.3830	66579.5830	434239.0800	49615.0220	758285.3500	273365.8800	2599256.7000	2588354.3000	888055.4100	198258.5400	195431.6400	±5770567.3000	124885.2800
x		47527.2460	65521.9860	426693.5900	49555.8240	745033.0400	270333.0100	±2501664.9000	2521851.9000	866728.2700	195805.5900	192316.5300	±5712940.4000	122950.4500
σ		138.4814	1109.4638	10728.7500	580.4054	14467.8820	2826.2388	±128167.9400	71203.9870	22183.3440	3685.5779	2777.8041	±87223.3780	2129.4609
%RSD		0.2914	1.6933	2.5144	1.1712	1.9419	1.0455	±5.1233	2.8235	2.5594	1.8823	1.4444	±1.5268	1.7320

SEQ-CCB@CCB01 10/18/2016 18:39:45 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98
1	18:39:58	106294.4700	130.0009	148215.1200	293.3381	556.0170	518.0148	197.3355	1216.7481	1180.0766	13.3333	16.6667	16.6667	30.0001	117497.7700	570.0179	913.3792	1120.0690	593.3527	1803.51
2	18:40:11	109778.8500	93.3338	148093.1600	336.6729	516.0146	476.0125	193.3354	1503.4576	1303.4268	10.0000	14.4445	16.6667	20.0000	120334.5200	690.0262	1093.3991	1283.4239	620.0211	1956.87
3	18:40:24	109026.5400	120.0008	149810.9600	336.6729	567.3510	451.3445	200.0022	1406.7755	1230.0832	6.6667	11.1111	13.3333	23.3334	121293.8100	733.3629	1126.7365	1200.0792	710.0277	1883.52
x		108366.6200	114.4452	148706.4100	322.2280	546.4609	481.7906	196.8910	1375.6604	1237.8622	10.0000	14.0741	15.5556	24.4445	119708.7000	664.4690	1044.5049	1201.1907	641.1339	1881.30
σ		1833.5322	18.9544	958.5084	25.0194	26.9693	33.7086	3.3556	145.8654	62.0419	3.3333	2.7962	1.9245	5.0918	1973.8814	84.6184	114.7750	81.6831	61.1357	76.70
%RSD		1.6920	16.5620	0.6446	7.7645	4.9353	6.9965	1.7043	10.6033	5.0120	33.3334	19.8680	12.3718	20.8299	1.6489	12.7347	10.9885	6.8002	9.5356	4.07

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:39:58	46012.8180	193.3354	233.3363	23.3334	223.3361	214374.8200	963.3844	940.0486	346.6733	176612.3900	173360.6900	2473.6698	110841.6300
2	18:40:11	46059.7210	163.3348	256.6703	16.6667	260.0037	217306.5400	1003.3887	980.0528	353.3402	176177.4000	174522.6000	2436.9933	112987.8100
3	18:40:24	46026.2190	193.3354	200.0022	23.3334	313.3387	220136.7600	1020.0572	913.3792	393.3418	179277.1200	176965.8300	2640.3834	113136.3000
x		46032.9190	183.3352	230.0029	21.1111	265.5595	217272.7100	995.6101	944.4936	364.4518	177355.6400	174949.7100	2517.0155	112321.9100
σ		24.1589	17.3208	28.4807	3.8490	45.2578	2881.1174	29.1262	33.5583	25.2406	1678.2091	1840.1275	108.4021	1284.1125
%RSD		0.0525	9.4476	12.3828	18.2321	17.0424	1.3260	2.9255	3.5530	6.9256	0.9462	1.0518	4.3068	1.1432

SEQ-CCV@CCV02 10/18/2016 19:10:27 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95M
1	19:10:40	116343.0600	225348.8200	152054.4200	578076.4600	481384.4700	626337.2200	77471.3660	±3673513.0000	798172.5100	5511.6703	18662.4700	8437.2468	93.3338	124402.0600	1521419.0000	±2656088.80
2	19:10:53	116761.7100	229989.5600	150458.1900	582857.7300	482255.5300	626474.9000	77166.7920	±3690888.5000	811112.7400	5805.1863	19053.2790	8961.0810	103.3339	123341.0800	1543886.5000	±2706767.70
3	19:11:07	116559.1400	230307.4600	151220.6800	585407.3200	481555.8600	624674.4500	76837.3520	±3715396.0000	811509.2200	5955.2833	18781.6030	9017.8038	106.6673	122401.8400	1573529.6000	±2747658.60
x		116554.6400	228548.6100	151244.4300	582113.8400	481731.9500	625828.8600	77158.5030	±3693265.8000	806931.4900	5757.3800	18832.4510	8805.3772	101.1117	123381.6600	1546278.4000	±2703505.00
σ		209.3611	2775.6568	798.3802	3721.6117	461.4568	1002.1105	317.0880	±21042.4860	7588.0917	225.6373	200.3050	320.0693	6.9390	1000.7226	26137.5230	±45871.97
%RSD		0.1796	1.2145	0.5279	0.6393	0.0958	0.1601	0.4110	±0.5698	0.9404	3.9191	1.0636	3.6349	6.8627	0.8111	1.6904	±1.69

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:10:40	45346.1470	59792.6560	391749.3500	44937.4580	684167.7500	250463.3700	2339271.9000	2321940.7000	799255.0300	187310.0000	183945.6700	±5460515.0000	117220.9000
2	19:10:53	43500.4940	61309.3750	407663.3000	46294.2410	710975.5000	257317.5200	2424558.3000	2428421.0000	829637.7600	190267.1300	187868.0100	±5565803.8000	119672.5300
3	19:11:07	44649.3780	62030.9110	408649.4600	46917.4240	713927.2400	258442.0900	2459413.8000	2459585.6000	838844.5100	192466.0300	190382.8500	±5686082.6000	122094.4200
x		44498.6730	61044.3140	402687.3700	46049.7080	703023.5000	255407.6600	2407748.0000	2403315.8000	822579.1000	190014.3900	187398.8400	±5570800.5000	119662.6200
σ		932.0098	1142.4270	9485.4275	1012.3798	16396.1170	4318.6425	61809.8500	72175.0720	20717.1480	2587.2921	3244.1325	±112866.7600	2436.7747
%RSD		2.0945	1.8715	2.3555	2.1984	2.3322	1.6909	2.5671	3.0031	2.5186	1.3616	1.7311	±2.0260	2.0364

SEQ-CCB@CCB01 10/18/2016 19:14:39 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:14:53	109185.1000	103.3339	134866.3600	376.6745	466.0119	441.3440	196.0021	1150.0727	1063.3955	0.0000	16.6667	16.6667	0.0000	111405.1200	566.6843	873.3753	990.0539	540.0160	1450.1156
2	19:15:05	112221.7400	103.3339	135833.9400	210.0024	452.0112	439.3440	177.3351	1116.7353	1076.7304	13.3333	15.5556	26.6667	10.0000	111884.2800	553.3502	993.3876	986.7202	666.6911	1626.8122
3	19:15:18	111489.4800	96.6672	138581.6100	240.0032	492.0133	433.3437	160.0014	1206.7468	910.0456	3.3333	11.1111	23.3334	3.3333	114023.9600	490.0132	783.3671	880.0426	613.3540	1323.4297
x		110965.4400	101.1117	136427.3000	275.5600	470.0122	438.0106	177.7795	1157.8516	1016.7238	5.5556	14.4445	22.2222	4.4444	112437.7900	536.6826	883.3767	952.2722	606.6871	1466.7858
σ		1584.6970	3.8490	1927.3907	88.8432	20.2988	4.1635	18.0045	45.5071	92.6264	6.9389	2.9397	5.0918	5.0918	1394.3999	40.9631	105.3669	62.5749	63.6002	152.3767
%RSD		1.4281	3.8067	1.4128	32.2410	4.3188	0.9506	10.1274	3.9303	9.1103	124.9000	20.3519	22.9129	114.5644	1.2402	7.6326	11.9277	6.5711	10.4832	10.3885

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:14:53	43791.8880	143.3345	193.3354	30.0001	186.6686	205690.9500	813.3697	880.0426	336.6729	175416.2200	171791.3100	2500.3438	112906.8100
2	19:15:05	43279.4430	163.3348	173.3350	20.0000	220.0027	210308.1400	810.0361	786.7007	380.0079	178570.0800	175708.4500	2190.2638	113838.3200
3	19:15:18	42974.6690	136.6677	143.3345	20.0000	233.3363	212344.6700	793.3679	893.3772	316.6722	179957.0300	178206.3800	2133.5837	114354.7400
x		43348.6670	147.7790	170.0016	23.3334	213.3359	209447.9200	805.5912	853.3735	344.4510	177981.1100	175235.3800	2274.7304	113699.9600
σ		412.9840	13.8780	25.1666	5.7735	24.0376	3409.2479	10.7161	58.1240	32.3764	2326.9897	3233.5899	197.4315	733.8143
%RSD		0.9527	9.3911	14.8037	24.7436	11.2675	1.6277	1.3302	6.8111	9.3994	1.3074	1.8453	8.6793	0.6454

SEQ-CCV@CCV03 10/18/2016 19:45:06 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95M
1	19:45:19	115134.4900	215931.0100	148357.4100	554617.2200	473253.1000	617240.2000	75992.2940	+3559267.1000	769425.5500	5891.9087	18565.6050	8787.5785	143.3345	122661.9800	1479104.0000	+2600556.50
2	19:45:32	115164.8700	217804.9300	148296.4300	563524.0400	477467.1000	620574.8000	75806.0820	+3610910.7000	782827.0500	5831.8700	18764.9020	8730.8572	146.6678	122618.0600	1530865.3000	+2668809.10
3	19:45:45	114574.1400	218170.2000	148262.5500	575227.3200	473504.3600	620877.8100	75816.1660	+3651827.3000	800275.9100	5828.5345	18674.7170	8834.2904	146.6678	122928.8800	1555275.1000	+2694411.40
x		114957.8300	217302.0400	148305.4700	564456.1900	474741.5200	619564.2700	75871.5140	+3607335.0000	784176.1700	5850.7711	18668.4080	8784.2420	145.5567	122736.3100	1521748.1000	+2654592.30
σ		332.6334	1201.3144	48.0721	10336.6170	2363.7625	2018.3969	104.7199	+46383.5770	15469.3670	35.6652	99.7984	51.7972	1.9245	168.2143	38895.3950	+48515.71
%RSD		0.2894	0.5528	0.0324	1.8313	0.4979	0.3258	0.1380	+1.2858	1.9727	0.6096	0.5346	0.5897	1.3222	0.1371	2.5560	+1.82

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:45:19	43316.2850	59400.0950	392949.5200	45228.8980	678362.6700	251833.7900	2317105.0000	2308680.9000	800061.5500	187919.0400	186187.2900	+5592337.4000	120959.4000
2	19:45:32	44776.6680	60302.6750	401368.9700	46491.9130	697880.1800	255524.6700	2403817.6000	2424387.0000	826518.6000	193701.8700	191802.2200	+5758896.7000	123756.6700
3	19:45:45	44639.3280	61363.0690	407360.1600	46153.5280	707895.1600	255462.9700	2430892.7000	2443461.8000	840818.2900	196225.1300	195397.5800	+5763548.1000	126696.7500
x		44244.0940	60355.2800	400559.5500	45958.1130	694712.6700	254273.8100	2383938.5000	2392176.6000	822466.1500	192615.3500	191129.0300	+5704927.4000	123804.2700
σ		806.4353	982.5434	7239.3352	653.7901	15018.8810	2113.3431	59441.5470	72935.6190	20678.3600	4258.3031	4641.9051	+97533.5080	2868.9751
%RSD		1.8227	1.6279	1.8073	1.4226	2.1619	0.8311	2.4934	3.0489	2.5142	2.2108	2.4287	+1.7096	2.3173

SEQ-CCB@CCB03 10/18/2016 19:49:18 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:49:31	110841.6300	60.0002	133476.0600	163.3348	386.0082	341.3397	144.0011	716.6949	850.0397	0.0000	8.8889	16.6667	16.6667	111678.4400	410.0093	743.3637	736.6965	460.0116	1176.7428
2	19:49:44	112690.8200	56.6668	135766.2700	200.0022	412.6760	344.6732	152.0013	800.0352	996.7213	6.6667	7.7778	10.0000	10.0000	113969.9500	443.3441	736.6965	836.7052	583.3520	1370.1032
3	19:49:57	112275.7300	90.0004	136991.1100	176.6684	380.0079	314.0054	162.0014	720.0285	886.7099	3.3333	15.5556	16.6667	20.0000	114169.1000	436.6771	676.6919	796.7016	476.6792	1146.7390
x		111936.0600	68.8892	135411.1500	180.0018	392.8974	333.3395	152.6679	745.5862	911.1570	3.3333	10.7407	14.4445	15.5556	113272.5000	430.0102	718.9174	790.0344	506.6810	1231.1950
σ		970.2637	18.3587	1784.2278	18.5596	17.3896	16.8265	9.0187	47.1837	76.3355	3.3333	4.2066	3.8490	5.0918	1384.0775	17.6392	36.7200	50.3366	66.9201	121.2299
%RSD		0.8668	26.6496	1.3176	10.3108	4.4260	5.0479	5.9074	6.3284	8.3779	100.0000	39.1649	26.6470	32.7327	1.2219	4.1020	5.1077	6.3714	13.2075	9.8465

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:49:31	43389.9680	150.0012	96.6672	10.0000	136.6677	207047.9100	716.6949	626.6883	226.6695	179059.5600	177173.1400	1400.1078	114854.3100
2	19:49:44	42723.4890	140.0011	93.3338	3.3333	110.0007	210069.3800	616.6876	576.6850	266.6706	179501.4900	177910.6700	1490.1221	116208.0200
3	19:49:57	43316.2850	146.6678	103.3339	3.3333	113.3340	210939.1800	546.6831	576.6850	226.6695	182061.6500	180419.3900	1523.4610	118254.1500
x		43143.2470	145.5567	97.7783	5.5556	120.0008	209352.1500	626.6885	593.3527	240.0032	180207.5700	178501.0700	1471.2303	116438.8300
σ		365.3832	5.0918	5.0918	3.8490	14.5299	2042.3784	85.4460	28.8694	23.0946	1620.8139	1701.7523	63.8097	1711.6316
%RSD		0.8469	3.4982	5.2075	69.2821	12.1081	0.9756	13.6345	4.8655	9.6226	0.8994	0.9534	4.3372	1.4700

SEQ-CCV@CCV04 10/18/2016 20:06:35 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95
1	20:06:48	115475.4400	218497.9300	146209.7000	573159.3000	460087.0700	603258.8900	73761.3650	+3665975.2000	793041.2900	5728.4709	17826.3500	8470.6111	163.3348	121445.8200	1538089.4000	+2733502.5
2	20:07:02	114415.5000	215651.1500	144661.9000	572864.9200	467644.4100	609886.6000	75131.8530	+3627107.2000	788555.1000	5474.9815	18237.1630	8597.3967	143.3345	120777.0000	1549055.1000	+2709639.3
3	20:07:15	114958.9600	218538.8900	143300.6000	566770.1400	466088.1300	610023.3300	74786.3550	+3614138.4000	781731.9000	5788.5090	18573.3980	8283.7724	103.3339	120945.8900	1556280.7000	+2703168.0
x		114949.9600	217562.6600	144724.0700	570931.4500	464606.5400	607722.9400	74559.8570	+3635740.3000	787776.0900	5663.9871	18212.3040	8450.5934	136.6677	121056.2300	1547808.4000	+2715436.6
σ		530.0285	1655.5408	1455.5499	3606.8099	3990.5770	3866.5811	712.7658	+26975.1800	5694.7966	166.4136	374.1444	157.7675	30.5509	347.7975	9159.5132	+15976.5
%RSD		0.4611	0.7609	1.0057	0.6317	0.8589	0.6362	0.9560	+0.7419	0.7229	2.9381	2.0543	1.8669	22.3542	0.2873	0.5918	+0.5

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:06:48	42914.3850	61245.6140	398159.0000	45939.1130	701841.7500	251892.0400	+2303236.5000	2408938.0000	827480.4700	190883.1800	188960.3000	+5781075.1000	123290.4000
2	20:07:02	43510.5420	61426.8300	402768.8900	46572.3230	707988.7000	253495.7100	2439447.6000	2439306.1000	838275.4400	194164.9300	191420.9800	+5878668.1000	126314.8300
3	20:07:15	43125.3800	62534.3430	404005.3100	47259.1870	716707.0400	254023.4700	2446572.1000	2463246.6000	844416.6500	196725.7700	193358.0000	+5887653.6000	127217.2800
x		43183.4360	61735.5960	401644.4000	46590.2070	708845.8300	253137.0700	+2396418.8000	2437163.6000	836724.1900	193924.6300	191246.4200	+5849132.2000	125607.5000
σ		302.2890	697.6443	3081.1018	660.2187	7469.6197	1110.0485	+80726.7840	27217.6640	8573.9885	2928.6988	2204.0408	+59110.2250	2056.7780
%RSD		0.7000	1.1301	0.7671	1.4171	1.0538	0.4385	+3.3707	1.1168	1.0247	1.5102	1.1525	+1.0106	1.6375

SEQ-CCB@CCB04 10/18/2016 20:10:57 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	20:11:10	111924.7800	53.3335	132058.9300	156.6680	379.3413	342.0064	172.6683	580.0185	880.0426	3.3333	8.8889	26.6667	16.6667	111577.2100	333.3394	596.6862	620.0211	376.6745	1013.3898
2	20:11:24	112312.8500	73.3336	134355.5400	186.6686	376.0078	306.6718	168.0016	623.3547	850.0397	6.6667	13.3333	26.6667	30.0001	111789.8000	363.3406	606.6869	666.6911	446.6776	946.7160
3	20:11:37	111489.4800	70.0003	134250.6800	140.0011	363.3406	304.6718	137.3344	563.3508	853.3734	3.3333	7.7778	16.6667	16.6667	113470.4300	310.0053	583.3520	670.0247	396.6753	1023.3909
x		111909.0400	65.5558	133555.0500	161.1126	372.8965	317.7833	159.3347	588.9080	861.1519	4.4444	10.0000	23.3334	21.1111	112279.1500	335.5618	595.5751	652.2456	406.6758	994.4989
σ		411.9134	10.7152	1296.7420	23.6491	8.4419	21.0016	19.1952	30.9739	16.4445	1.9245	2.9397	5.7735	7.6980	1037.1422	26.7370	11.7070	27.9570	36.0572	41.6823
%RSD		0.3681	16.3452	0.9709	14.6786	2.2639	6.6088	12.0471	5.2596	1.9096	43.3013	29.3973	24.7436	36.4643	0.9237	7.9678	1.9657	4.2863	8.8663	4.1913

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:11:10	43396.6670	103.3339	73.3336	0.0000	113.3340	208162.9400	506.6808	520.0149	240.0032	178444.3100	176792.5000	1380.1047	114931.9500
2	20:11:24	43346.4280	96.6672	86.6671	3.3333	123.3342	211174.5500	606.6869	553.3502	226.6695	181140.1800	179654.4600	1386.7724	116863.0000
3	20:11:37	43353.1260	116.6674	123.3342	3.3333	146.6678	210748.1600	610.0205	486.6797	200.0022	184792.5900	182966.2000	1276.7563	117207.3900
x		43365.4070	105.5562	94.4450	2.2222	127.7787	210028.5500	574.4627	520.0149	222.2250	181459.0300	179804.3900	1347.8778	116334.1200
σ		27.2781	10.1836	25.8918	1.9245	17.1056	1629.6697	58.7245	33.3352	20.3675	3186.1302	3089.5802	61.6832	1226.4587
%RSD		0.0629	9.6476	27.4147	86.6025	13.3869	0.7759	10.2225	6.4104	9.1653	1.7558	1.7183	4.5763	1.0543

SEQ-CCV@CCV05 10/18/2016 21:08:00 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95M
1	21:08:14	105845.9500	188167.4400	123503.2600	478131.3500	411009.7100	544312.1800	66672.2590	±3079032.6000	661663.4200	5094.7605	15918.3690	7386.3328	140.0011	106510.3100	1311508.1000	2379626.70
2	21:08:27	107427.6800	189491.1800	125804.4900	482615.9200	416350.7000	546634.8500	67263.9270	±3078278.8000	667863.0600	4764.5816	16301.2690	7443.0457	133.3343	107417.5600	1336787.0000	2424331.40
3	21:08:40	106739.6400	188330.7700	126517.6200	485598.6200	414272.2300	544887.1400	66753.5190	±3103404.8000	670901.6900	5131.4478	16143.2090	7643.2117	120.0008	108662.2200	1356606.2000	2458198.10
x		106671.0900	188663.1300	125275.1200	482115.3000	413877.5500	545278.0600	66896.5680	±3086905.4000	666809.3900	4996.9300	16120.9490	7490.8634	131.1121	107530.0300	1334967.1000	2420718.70
σ		793.0877	721.7472	1575.3620	3758.7243	2692.2815	1209.6737	320.7259	±14293.8560	4708.4042	202.0540	192.4181	134.9503	10.1836	1080.3544	22604.0850	39410.04
%RSD		0.7435	0.3826	1.2575	0.7796	0.6505	0.2218	0.4794	±0.4630	0.7061	4.0436	1.1936	1.8015	7.7671	1.0047	1.6932	1.62

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:08:14	40433.0500	53081.1840	350235.7400	39937.5330	616487.6200	226602.7500	±2022284.0000	2119687.3000	735510.1400	181384.9900	180813.7800	±5565486.7000	121371.5000
2	21:08:27	40623.8980	54583.3730	354575.8900	40741.0870	634081.3900	228871.8800	2180858.3000	2185207.4000	754206.0700	188143.6200	184915.0500	±5691621.8000	125074.5200
3	21:08:40	41079.2700	54730.9230	359919.8600	41963.2940	632642.8400	232642.4600	2187499.8000	2192856.3000	759569.5400	188528.1300	186374.4000	±5696526.9000	127203.7600
x		40712.0720	54131.8270	354910.5000	40880.6380	627737.2800	229372.3700	±2130214.0000	2165917.0000	749761.9100	186018.9100	184034.4100	±5651211.8000	124549.9300
σ		332.0112	912.8693	4850.7209	1020.0651	9769.0095	3050.8022	±93529.0960	40218.3270	12630.3800	4017.6981	2883.0138	±74280.6250	2951.3068
%RSD		0.8155	1.6864	1.3667	2.4952	1.5562	1.3301	±4.3906	1.8569	1.6846	2.1598	1.5666	±1.3144	2.3696

SEQ-CCB@CCB05 10/18/2016 21:12:22 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	21:12:36	104207.1800	50.0001	115512.5700	130.0009	310.0053	262.6705	119.3341	500.0138	846.7061	6.6667	4.4444	16.6667	16.6667	98611.9520	470.0122	826.7043	656.6904	486.6797	1186.7441
2	21:12:49	104186.9500	63.3336	117204.0200	106.6673	284.0044	269.3373	136.6677	466.6786	770.0326	6.6667	8.8889	6.6667	16.6667	100620.4500	396.6753	740.0301	710.0277	430.0102	1176.7428
3	21:13:02	104166.7200	43.3334	117359.3400	113.3340	318.0056	279.3376	135.3343	506.6808	780.0335	3.3333	3.3333	16.6667	10.0000	101294.5400	450.0111	696.6934	726.6957	510.0143	1150.0727
x		104186.9500	52.2224	116691.9800	116.6674	304.0051	270.4485	130.4454	491.1244	798.9241	5.5556	5.5556	13.3333	14.4445	100175.6500	438.8995	754.4759	697.8046	475.5681	1171.1866
σ		20.2299	10.1836	1024.3398	12.0187	17.7770	8.3890	9.6457	21.4315	41.6815	1.9245	2.9397	5.7735	3.8490	1395.5121	37.9101	66.1983	36.5683	41.1432	18.9566
%RSD		0.0194	19.5004	0.8778	10.3016	5.8476	3.1019	7.3944	4.3638	5.2172	34.6410	52.9150	43.3013	26.6470	1.3931	8.6375	8.7741	5.2405	8.6514	1.6186

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:12:36	40178.5920	90.0004	60.0002	6.6667	96.6672	189596.6800	500.0138	433.3437	170.0016	171346.3700	170062.6000	1066.7292	114293.9800
2	21:12:49	39642.9140	110.0007	76.6670	13.3333	83.3337	193123.0800	546.6831	413.3427	153.3346	173764.9600	173058.3400	973.3854	116852.8700
3	21:13:02	40155.1550	126.6676	66.6669	3.3333	80.0004	194478.1800	603.3533	340.0064	146.6678	175276.9100	174233.8100	1163.4078	118075.1800
x		39992.2200	108.8896	67.7780	7.7778	86.6671	192399.3100	550.0167	395.5643	156.6680	173462.7500	172451.5800	1067.8408	116407.3500
σ		302.7348	18.3588	8.3888	5.0918	8.8193	2519.9519	51.7504	49.1428	12.0187	1982.6221	2150.7838	95.0160	1929.5692
%RSD		0.7570	16.8600	12.3768	65.4654	10.1760	1.3098	9.4089	12.4235	7.6715	1.1430	1.2472	8.8980	1.6576

SEQ-CCV@CCV06 10/18/2016 22:50:18 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95M
1	22:50:31	112356.7200	198033.7100	138635.7600	534006.4600	437736.9900	575343.6800	70909.4740	±3455438.9000	736535.0000	5254.8516	17287.5330	7749.9687	153.3346	118311.5600	1484304.9000	±2603165.20
2	22:50:44	113359.0500	200486.6100	138926.8200	536034.0500	441511.7900	578380.2300	70959.8650	±3443668.4000	740278.1400	5321.5571	17250.7960	8440.5832	130.0009	118463.5200	1493910.9000	±2625167.90
3	22:50:57	111614.3300	200490.0100	137698.3400	535613.6600	439317.9100	577263.8500	71210.4800	±3425906.2000	741476.8300	5171.4705	17207.3810	7759.9772	96.6672	118007.6500	1504296.0000	±2626340.80
x		112443.3700	199670.1100	138420.3100	535218.0600	439522.2300	576995.9200	71026.6060	±3441671.2000	739429.9900	5249.2931	17248.5700	7983.5097	126.6676	118260.9100	1494170.6000	±2618224.60
σ		875.5827	1417.1630	641.9545	1070.1221	1895.6749	1535.9053	161.2201	±14867.2900	2577.7766	75.1975	40.1223	395.8689	28.4804	232.1182	9998.1026	±13054.99
%RSD		0.7787	0.7098	0.4638	0.1999	0.4313	0.2662	0.2270	±0.4320	0.3486	1.4325	0.2326	4.9586	22.4844	0.1963	0.6691	±0.49

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:50:31	42572.7850	58779.4140	385733.4600	44357.9560	674185.0800	249072.6000	2325226.5000	2349280.9000	803975.2600	194845.9300	193245.6500	±5881353.1000	128089.4000
2	22:50:44	42700.0460	58923.6760	387923.7700	44662.7760	681422.6300	254815.1700	2380752.2000	2371636.8000	816956.1600	198316.4400	196187.6600	±5945372.1000	131642.9600
3	22:50:57	42452.2230	60363.0740	390789.3300	45627.5500	693550.2500	255367.0000	2414882.1000	2440150.9000	826944.8700	200994.3000	197866.8100	±6049329.0000	131500.9200
x		42575.0180	59355.3880	388148.8500	44882.7610	683052.6500	253084.9200	2373620.3000	2387022.9000	815958.7600	198052.2300	195766.7000	±5958684.8000	130411.0900
σ		123.9267	875.6574	2535.4403	662.7683	9784.9433	3485.7100	45251.3180	47348.5330	11517.2440	3082.6889	2339.1625	±84775.5270	2011.9000
%RSD		0.2911	1.4753	0.6532	1.4767	1.4325	1.3773	1.9064	1.9836	1.4115	1.5565	1.1949	±1.4227	1.5427

SEQ-CCB@CCB06 10/18/2016 22:54:41 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	22:54:54	108082.0300	50.0001	122803.8800	146.6678	319.3389	274.0041	116.6674	473.3457	810.0361	3.3333	8.8889	6.6667	20.0000	109154.7300	480.0127	840.0388	803.3688	540.0160	1306.7606
2	22:55:07	109448.2300	66.6669	125743.6600	133.3343	298.6716	276.6709	115.3341	603.3533	786.7007	0.0000	11.1111	10.0000	16.6667	110872.0000	576.6850	880.0426	1003.3887	536.6825	1330.0973
3	22:55:20	107616.5600	53.3335	127464.0400	166.6682	328.6726	282.6711	121.3341	566.6843	863.3743	3.3333	7.7778	10.0000	13.3333	109815.9600	506.6808	796.7016	860.0407	473.3457	1260.0873
x		108382.2700	56.6668	125337.1900	148.8901	315.5610	277.7820	117.7785	547.7944	820.0370	2.2222	9.2593	8.8889	16.6667	109947.5600	521.1261	838.9277	888.9327	516.6814	1298.9817
σ		952.0325	8.8192	2356.5177	16.7777	15.3532	4.4390	3.1506	67.0307	39.3030	1.9245	1.6973	1.9245	3.3333	866.1616	49.9288	41.6816	103.0924	37.5669	35.6473
%RSD		0.8784	15.5633	1.8801	11.2685	4.8654	1.5980	2.6750	12.2365	4.7928	86.6025	18.3303	21.6506	20.0000	0.7878	9.5809	4.9684	11.5973	7.2708	2.7443

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:54:54	41946.5500	153.3346	96.6672	3.3333	83.3337	203267.3400	1170.0753	510.0143	166.6682	181357.7900	180466.9900	1103.4003	120165.6400
2	22:55:07	41551.4090	110.0007	60.0002	6.6667	103.3339	209124.6400	1100.0666	456.6781	170.0016	182830.1700	181925.6300	1216.7481	121753.2200
3	22:55:20	42381.8960	126.6676	93.3338	3.3333	110.0007	210604.8900	1313.4282	456.6781	193.3354	186105.6400	184217.7700	1193.4117	124233.1000
x		41959.9520	130.0009	83.3337	4.4444	98.8894	207665.6200	1194.5234	474.4569	176.6684	183431.2000	182203.4600	1171.1867	122050.6500
σ		415.4058	21.8584	20.2760	1.9245	13.8779	3880.2632	108.7616	30.7937	14.5300	2430.3199	1890.7627	59.8531	2049.9782
%RSD		0.9900	16.8141	24.3311	43.3013	14.0338	1.8685	9.1050	6.4903	8.2244	1.3249	1.0377	5.1105	1.6796

QJ14030-BLK1@PBS01@MH1H14@46282 10/18/2016 22:58:58 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	22:58:58	107397.3200	16.6667	120013.6500	96.6672	128.6676	122.0008	66.6669	63.3336	1096.7328	0.0000	8.8889	10.0000	26.6667	103199.1100	86.6671	100.0006	136.6677	60.0002	196.6688
2	22:59:11	106958.8600	33.3334	124290.5500	70.0003	132.6676	112.6674	67.3336	60.0002	1010.0561	0.0000	8.8889	20.0000	20.0000	106038.1700	66.6669	113.3340	143.3345	76.6670	210.0024
3	22:59:24	108409.2300	30.0001	124902.1800	60.0002	134.6677	90.6671	52.0001	56.6668	1023.3909	3.3333	11.1111	13.3333	26.6667	107731.2400	103.3339	146.6678	103.3339	83.3337	240.0032
x		107588.4700	26.6667	123068.7900	75.5559	132.0010	108.4451	62.0002	60.0002	1043.3933	1.1111	9.6296	14.4445	24.4445	105656.1700	85.5560	120.0008	127.7787	73.3336	215.5581
σ		743.8352	8.8192	2663.4432	18.9543	3.0551	16.0879	8.6667	3.3334	46.6721	1.9245	1.2830	5.0918	3.8490	2290.0827	18.3587	24.0373	21.4306	12.0186	22.1950
%RSD		0.6914	33.0719	2.1642	25.0865	2.3144	14.8351	13.9785	5.5556	4.4731	173.2051	13.3235	35.2506	15.7459	2.1675	21.4582	20.0310	16.7717	16.3889	10.2965

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:58:58	42016.8740	116.6674	20.0000	0.0000	0.0000	197434.2200	250.0034	60.0002	56.6668	173122.8900	172609.9400	183.3352	116086.4800
2	22:59:11	42251.2900	93.3338	13.3333	0.0000	3.3333	202275.5900	270.0040	40.0001	40.0001	177322.6800	176170.6000	150.0012	117886.0800
3	22:59:24	42033.6180	120.0008	16.6667	6.6667	26.6667	208405.0600	280.0043	53.3335	46.6668	179875.4400	179892.4300	176.6684	120081.2000
x		42100.5940	110.0007	16.6667	2.2222	10.0000	202704.9500	266.6706	51.1113	47.7779	176773.6700	176224.3200	170.0016	118017.9200
σ		130.7749	14.5298	3.3333	3.8490	14.5297	5498.0095	15.2757	10.1836	8.3887	3409.5879	3641.5455	17.6387	2000.6209
%RSD		0.3106	13.2089	20.0000	173.2051	145.2967	2.7123	5.7283	19.9243	17.5578	1.9288	2.0664	10.3756	1.6952

Q314030-BS1@LCS01 10/18/2016 23:03:01 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	23:03:01	108736.4300	676.6919	122993.0800	70.0003	9424.2157	5022.7205	695.3599	12418.4760	3337.2791	100.0006	366.6741	206.6690	30.0001	106759.8800	8577.3779	14798.7020	15873.8470	8937.7247
2	23:03:14	108709.4500	730.0293	126078.2400	70.0003	9499.6274	4877.9750	706.6941	13066.0500	3373.9593	103.3339	377.7856	133.3343	23.3334	107073.5400	8780.9054	15416.3940	17460.0840	9504.9663
3	23:03:28	109333.5300	863.3743	126331.7300	86.6671	9438.2302	4949.3469	712.6946	13092.7550	3524.0162	100.0006	370.0075	186.6686	10.0000	108989.4400	8557.3590	15583.3450	17172.8710	9985.4810
x		108926.4700	756.6985	125134.3500	75.5559	9454.0244	4950.0141	704.9162	12859.0940	3411.7516	101.1117	371.4891	175.5573	21.1111	107607.6200	8638.5474	15266.1470	16835.6010	9476.0574
σ		352.7829	96.1562	1858.7220	9.6226	40.1102	72.3750	8.8030	381.8193	98.9388	1.9245	5.7020	37.9090	10.1835	1206.9225	123.6913	413.3361	845.1928	524.4760
%RSD		0.3239	12.7073	1.4854	12.7357	0.4243	1.4621	1.2488	2.9693	2.8999	1.9034	1.5349	21.5935	48.2377	1.1216	1.4319	2.7075	5.0203	5.5347

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:03:01	43329.6820	306.6718	10349.2210	153.3346	2480.3383	200026.6400	190.0020	16244.5010	29333.9170	174176.0500	174485.2300	20736.9580	115144.6200
2	23:03:14	42961.2730	353.3402	11213.5780	143.3345	2340.3012	205264.8100	186.6686	16348.0190	29815.4800	177951.4600	179222.7300	21876.2900	117693.6200
3	23:03:28	43935.9140	346.6733	11240.2780	190.0020	2490.3411	207399.1100	253.3369	17169.5320	30942.5700	182520.7200	182547.9200	23055.8660	120891.8400
x		43408.9560	335.5618	10934.3590	162.2237	2436.9935	204230.1900	210.0025	16587.3510	30030.6550	178216.0700	178751.9600	21889.7050	117910.0200
σ		492.1330	25.2405	506.9204	24.5708	83.8872	3793.5689	37.5657	506.8335	825.6311	4178.6206	4051.9086	1159.5125	2879.7168
%RSD		1.1337	7.5219	4.6360	15.1463	3.4422	1.8575	17.8882	3.0555	2.7493	2.3447	2.2668	5.2971	2.4423

6100165-01@MH1H14 10/18/2016 23:07:05

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	23:07:05	108534.0400	353.3402	134720.8900	45704.6020	16877.6530	5832.5371	804.7023	51763.6190	5665.0979	116.6674	85.5560	63.3336	33.3334	291465.3100	3930.8497	5408.2749	6108.7184	3447.320.
2	23:07:19	109782.2200	353.3402	136635.8200	46987.7860	16780.1390	5934.6031	842.0390	53339.3550	5765.1608	136.6677	122.2230	103.3339	33.3334	304829.7300	4024.2238	5575.0423	6525.6746	3540.689-
3	23:07:32	112488.3400	320.0056	140923.8700	47450.1780	16873.6450	5755.8215	810.7028	54623.6140	5868.5603	120.0008	121.1119	83.3337	36.6667	311303.6600	4260.9984	5801.8508	6775.8576	3607.382:
x		110268.2000	342.2287	137426.8600	46714.1880	16843.8120	5840.9872	819.1480	53242.1960	5766.2730	124.4453	109.6303	83.3337	34.4445	302532.9000	4072.0239	5595.0560	6470.0835	3531.797.
σ		2021.4485	19.2457	3176.2483	904.3784	55.1790	89.6898	20.0499	1432.4708	101.7357	10.7153	20.8564	20.0002	1.9245	10116.6490	170.1857	197.5497	337.0259	80.400:
%RSD		1.8332	5.6236	2.3112	1.9360	0.3276	1.5355	2.4477	2.6905	1.7643	8.6105	19.0243	24.0001	5.5873	3.3440	4.1794	3.5308	5.2090	2.276:

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:07:05	43343.0790	696.6934	12902.4830	150.0012	2753.7503	223804.7100	1833.5182	8954.4078	103003.5800	194239.8300	188830.9800	3950.8583	162441.7900
2	23:07:19	43915.8170	516.6813	13490.0010	266.6706	2843.7781	232290.3000	2163.5908	9441.5670	107070.1600	199140.8400	194747.1800	4271.0030	167858.8700
3	23:07:32	44200.5260	660.0240	13803.8050	213.3358	2857.1156	236373.5500	2083.5721	9441.5670	109819.3300	205234.1300	198943.2500	4164.2869	171271.6500
x		43819.8070	624.4662	13398.7630	210.0026	2818.2147	230822.8500	2026.8937	9279.1806	106631.0300	199538.2700	194173.8100	4128.7161	167190.7700
σ		436.7119	95.1280	457.5356	58.4061	56.2246	6411.6297	172.1810	281.2615	3429.0303	5507.9139	5080.4588	163.0096	4452.6826
%RSD		0.9966	15.2335	3.4148	27.8121	1.9950	2.7777	8.4948	3.0311	3.2158	2.7603	2.6164	3.9482	2.6632

6100165-02@MH1H15 10/18/2016 23:11:09

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	9:
1	23:11:09	112444.4700	233.3363	145434.0800	47614.3660	27557.7050	7499.0917	992.7209	114773.3000	10289.1530	80.0004	83.3337	80.0004	36.6667	227863.6900	7493.0868	10763.0340	12455.1930	7112.
2	23:11:22	112636.8300	280.0043	150292.1400	49517.8280	27486.8250	7604.5126	980.0528	119517.1800	10402.6150	56.6668	92.2227	70.0003	36.6667	231295.4100	7379.6607	11287.0020	12975.9210	7116.
3	23:11:35	113092.4300	296.6715	150644.5700	49708.8660	27727.5540	7339.6283	965.3846	121928.8900	10215.7370	53.3335	66.6669	73.3336	10.0000	240924.0300	7483.0785	11687.5080	13443.2660	7166.
x		112724.5700	270.0041	148790.2600	48947.0200	27590.6950	7481.0775	979.3861	118739.7900	10302.5010	63.3336	80.7411	74.4447	27.7778	233361.0400	7451.9420	11245.8480	12958.1260	7131.
σ		332.7747	32.8305	2911.8777	1158.0581	123.7089	133.3578	13.6803	3640.5847	94.1516	14.5298	12.9737	5.0918	15.3960	6770.7626	62.7971	463.6089	494.2766	29.
%RSD		0.2952	12.1593	1.9570	2.3659	0.4484	1.7826	1.3968	3.0660	0.9139	22.9417	16.0682	6.8397	55.4257	2.9014	0.8427	4.1225	3.8144	0.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:11:09	43172.2690	543.3496	18385.2390	260.0037	3547.3586	250326.3400	2687.0637	11390.4650	119618.5000	193504.4000	189086.2100	3153.8803	194978.7300
2	23:11:22	43651.2140	643.3561	19186.8930	293.3381	3617.3862	259055.8600	2870.4531	11884.4300	126010.6500	196279.6200	192084.7600	3043.8428	201024.9700
3	23:11:35	43386.6190	653.3568	19210.2750	323.3391	3770.7819	262317.4100	3003.8295	12405.1250	127450.5100	199447.4500	194641.6200	2963.8164	204412.6000
x		43403.3670	613.3542	18927.4690	292.2270	3645.1756	257233.2100	2853.7821	11893.3400	124359.8900	196410.4900	191937.5300	3053.8465	200138.7700
σ		239.9117	60.8316	469.7307	31.6823	114.2745	6199.8406	159.0396	507.3887	4168.8003	2973.6895	2780.6334	95.4260	4778.9603
%RSD		0.5527	9.9179	2.4817	10.8417	3.1350	2.4102	5.5729	4.2662	3.3522	1.5140	1.4487	3.1248	2.3878

6100165-03@MH1H16 10/18/2016 23:15:12

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	23:15:12	103431.7400	113.3340	132366.6900	28959.3860	11244.2830	2491.0079	388.6750	6792.5367	1783.5083	16.6667	30.0001	26.6667	6.6667	127653.3300	5424.9515	5291.5396	7850.0545	3173.8873
2	23:15:26	103249.6800	106.6673	135515.9100	29196.8100	11142.1570	2461.6666	382.6747	6849.2459	1780.1743	13.3333	21.1111	36.6667	26.6667	130456.0300	5741.8127	5561.7008	8423.9011	3313.9372
3	23:15:38	104099.2900	110.0007	136077.5400	29554.6300	11299.6850	2366.9748	368.6741	6909.2913	1956.8773	16.6667	18.8889	16.6667	23.3334	131237.1500	5645.0855	5164.8001	8036.8843	3453.9894
x		103593.5700	110.0007	134653.3800	29236.9420	11228.7080	2439.8831	380.0079	6850.3579	1840.1866	15.5556	23.3334	26.6667	18.8889	129782.1700	5603.9499	5339.3468	8103.6133	3313.9380
σ		447.3262	3.3334	2000.1452	299.6446	79.9103	64.8224	10.2636	58.3852	101.0708	1.9245	5.8795	10.0000	10.7152	1884.5457	162.3864	202.7232	292.6851	140.0510
%RSD		0.4318	3.0303	1.4854	1.0249	0.7117	2.6568	2.7009	0.8523	5.4924	12.3718	25.1977	37.5001	56.7274	1.4521	2.8977	3.7968	3.6118	4.2261

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:15:12	39067.0960	333.3394	10926.5620	50.0001	913.3792	213443.2800	4127.6035	4084.2506	14207.7600	172823.9500	172572.5700	646.6897	173924.6400
2	23:15:26	39870.5730	230.0029	11320.3770	46.6668	790.0343	221591.4700	4454.4244	4074.2461	14905.5430	177448.4300	175939.5300	790.0343	175759.4300
3	23:15:38	38849.5000	246.6700	11530.6410	76.6670	1103.4003	220928.9700	4594.4941	4067.5764	14938.9310	180232.4000	179950.2300	726.6957	180575.7800
x		39262.3900	270.0041	11259.1940	57.7780	935.6046	218654.5700	4392.1740	4075.3577	14684.0780	176834.9300	176154.1100	721.1399	176753.2800
σ		537.8218	55.4795	306.6519	16.4431	157.8608	4525.2484	239.5893	8.3925	412.8410	3742.1381	3693.5061	71.8336	3435.1472
%RSD		1.3698	20.5476	2.7236	28.4590	16.8726	2.0696	5.4549	0.2059	2.8115	2.1162	2.0967	9.9611	1.9435

6100165-04@MH1H17 10/18/2016 23:19:15

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	23:19:15	101584.4100	246.6700	131967.6100	53040.9500	22048.0370	4520.4570	646.0230	13576.7970	2723.7413	46.6668	74.4447	53.3335	30.0001	143835.6100	6255.4848	5891.9087	8407.2190	3764.11.
2	23:19:28	101594.5300	223.3361	134044.3300	54180.9770	21969.1800	4598.4961	681.3589	14361.3350	2853.7812	26.6667	38.8890	63.3336	23.3334	149275.6000	5268.1927	6242.1423	8610.7427	3880.82
3	23:19:41	102636.1300	220.0027	135411.0300	55468.7080	22022.6430	4551.8059	658.0238	13823.8360	2790.4282	16.6667	55.5557	40.0001	20.0000	150990.2300	5251.5164	6118.7251	8744.2033	4027.55
x		101938.3600	230.0029	133807.6600	54230.2120	22013.2870	4556.9197	661.8019	13920.6560	2789.3169	30.0001	56.2965	52.2224	24.4445	148033.8100	5591.7313	6084.2587	8587.3884	3890.83
σ		604.3095	14.5300	1733.8667	1214.6275	40.2525	39.2701	17.9684	401.1301	65.0271	15.2753	17.7895	11.7063	5.0918	3735.4599	574.8879	177.6425	169.7017	132.00
%RSD		0.5928	6.3173	1.2958	2.2398	0.1829	0.8618	2.7151	2.8815	2.3313	50.9176	31.5996	22.4163	20.8299	2.5234	10.2810	2.9197	1.9762	3.39

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:19:15	37212.6740	320.0056	14191.0680	80.0004	820.0370	210823.2000	10025.5250	13630.2100	31327.2170	171506.0000	170144.1000	1560.1339	1436496.8000
2	23:19:28	38461.1880	193.3354	15129.2450	36.6667	820.0370	214613.6900	10312.5120	14581.6850	32608.3770	179355.3100	174573.5700	1493.4560	1497928.5000
3	23:19:41	37882.0970	260.0037	15165.9730	80.0004	780.0335	217200.7200	10826.4430	14431.4460	33451.4320	179069.7600	178474.9000	1696.8250	1527844.8000
x		37851.9860	257.7816	14828.7620	65.5558	806.7025	214212.5400	10388.1600	14214.4470	32462.3420	176643.6900	174397.5200	1583.4716	1487423.4000
σ		624.8012	63.3644	552.5648	25.0187	23.0960	3207.6317	405.7822	511.5098	1069.6105	4451.6589	4168.1892	103.6737	46571.2370
%RSD		1.6506	24.5806	3.7263	38.1639	2.8630	1.4974	3.9062	3.5985	3.2949	2.5201	2.3901	6.5472	3.1310

Q114030-MS1@MH1H17S 10/18/2016 23:23:18 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	23:23:18	98298.5860	3053.8462	121966.0500	43480.3990	91624.0750	42363.8120	5358.9124	542533.0800	112080.0100	146.6678	426.6767	233.3363	13.3333	136964.0400	163279.9300	284420.7000	314176.6700
2	23:23:31	96795.9240	3157.2148	125821.3900	43748.3460	92074.5920	42525.2300	5432.9563	555619.0400	115455.1900	110.0007	383.3414	186.6686	30.0001	137779.5600	167692.5100	293495.7600	323712.6200
3	23:23:45	96991.3240	3290.5954	126700.1300	44726.4220	93917.9720	42223.8300	5350.2406	562089.1700	117484.2700	170.0016	431.1213	173.3350	40.0001	142498.1300	172164.9500	300502.5100	330275.8100
x		97361.9450	3167.2188	124829.1900	43985.0550	92538.8800	42370.9570	5380.7031	553413.7600	115006.4900	142.2234	413.7131	197.7800	27.7778	139080.5800	167712.4600	292806.3200	322721.7000
σ		817.0177	118.6913	2518.1823	655.8710	1215.3862	150.8270	45.4599	9962.8080	2729.9277	30.2464	26.3964	31.5061	13.4715	2987.6455	4442.5416	8063.0404	8095.1871
%RSD		0.8392	3.7475	2.0173	1.4911	1.3134	0.3560	0.8449	1.8002	2.3737	21.2668	6.3804	15.9299	48.4975	2.1481	2.6489	2.7537	2.5084

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:23:18	35763.5420	1020.0572	54429.1190	836.7052	10682.9400	199495.1500	5151.4592	58668.7020	524114.9900	168398.7200	168531.1400	93801.4450	169376.6300
2	23:23:31	36027.9160	1133.4040	56209.9070	870.0416	11317.0400	206100.0600	5008.0457	60275.8310	539556.8900	171098.4300	169838.4700	97314.7530	172497.8400
3	23:23:45	35750.1560	1173.4091	57682.4210	896.7109	11176.8670	208521.0100	5394.9337	62074.5410	550052.0000	171601.1100	173897.4600	99157.8420	175973.5100
x		35847.2050	1108.9568	56107.1490	867.8192	11058.9490	204705.4100	5184.8128	60339.6910	537907.9600	170366.0800	170755.6900	96758.0130	172615.9900
σ		156.6437	79.5452	1629.0830	30.0645	333.0903	4671.7573	195.5887	1703.8173	13046.8890	1722.2284	2798.2728	2721.2526	3300.0234
%RSD		0.4370	7.1730	2.9035	3.4644	3.0120	2.2822	3.7723	2.8237	2.4255	1.0109	1.6388	2.8124	1.9118

Q114030-DUP1@MH1H17D 10/18/2016 23:27:23

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	23:27:23	95364.2460	180.0018	117524.7900	54928.7780	22362.1360	4252.9946	610.0205	11817.6760	2300.2910	16.6667	35.5556	63.3336	23.3334	133547.1000	4060.9068	4534.4639	6752.5069	2803.7656
2	23:27:36	96017.7370	180.0018	120206.1700	59094.7820	22821.2750	4358.3778	592.0193	12475.2210	2463.6671	10.0000	31.1112	30.0001	13.3333	137979.2200	4681.2049	4547.8039	6835.9025	2797.0969
3	23:27:49	95684.2480	193.3354	120625.0000	58759.2840	22819.9390	4328.3635	613.3540	12545.3170	2290.2885	46.6668	44.4446	33.3334	16.6667	139234.8100	4607.8341	4511.1190	6912.6271	2760.4190
x		95688.7440	184.4463	119451.9800	57594.2810	22667.7830	4313.2453	605.1313	12279.4050	2351.4155	24.4445	37.0371	42.2223	17.7778	136920.3800	4449.9820	4531.1289	6833.6788	2787.0939
σ		326.7689	7.6982	1682.0898	2314.4807	264.6989	54.2939	11.4770	401.4015	97.3413	19.5316	6.7890	18.3587	5.0918	2988.0407	338.9402	18.5685	80.0833	23.3405
%RSD		0.3415	4.1737	1.4082	4.0186	1.1677	1.2588	1.8966	3.2689	4.1397	79.9019	18.3303	43.4809	28.6411	2.1823	7.6167	0.4098	1.1719	0.8374

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:27:23	34612.4330	216.6693	10783.0580	46.6668	523.3484	192088.1700	5968.6254	4084.2506	33257.3890	164779.9700	164410.0300	1586.8051	165788.0500
2	23:27:36	35525.9460	230.0029	11457.2150	46.6668	553.3502	199784.7400	6495.6531	4137.6080	33876.3340	168795.9800	168541.3200	1630.1461	172215.9000
3	23:27:49	35077.5440	230.0029	11360.4270	83.3337	573.3514	199600.7600	6705.8057	4154.2823	35047.4280	171037.3000	169600.7600	1670.1534	173656.2500
x		35071.9740	225.5584	11200.2330	58.8891	550.0167	197157.8900	6390.0281	4125.3803	34060.3840	168204.4200	167517.3700	1629.0349	170553.4000
σ		456.7824	7.6982	364.5113	21.1697	25.1676	4391.4733	379.7712	36.5821	909.1016	3170.3296	2742.6755	41.6852	4189.2791
%RSD		1.3024	3.4129	3.2545	35.9484	4.5758	2.2274	5.9432	0.8868	2.6691	1.8848	1.6372	2.5589	2.4563

SEQ-SRD1@MH1H17L@5X 10/18/2016 23:31:27

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	
1	23:31:27	98470.4310	56.6668	111357.8800	10492.7190	4530.4619	958.0505	147.3345	2710.4040	1250.0859	3.3333	16.6667	33.3334	10.0000	101975.4200	1053.3944	1106.7340	1593.4730	823.3706	192
2	23:31:40	98793.9120	50.0001	114094.8400	10445.9980	4465.7633	972.7187	134.0010	2787.0938	1166.7415	6.6667	22.2222	3.3333	10.0000	104463.4300	1086.7316	1213.4143	1696.8250	793.3679	192
3	23:31:53	100172.2100	63.3336	112488.3400	10736.3360	4577.8190	972.0520	150.0012	2783.7595	1113.4015	13.3333	18.8889	20.0000	10.0000	106581.1300	1116.7353	1326.7635	1786.8423	750.0309	199
x		99145.5160	56.6668	112647.0200	10558.3510	4524.6814	967.6070	143.7789	2760.4191	1176.7430	7.7778	19.2593	18.8889	10.0000	104340.0000	1085.6204	1215.6373	1692.3801	788.9232	194
σ		903.7302	6.6667	1375.3618	155.8998	56.2511	8.2829	8.5723	43.3464	68.8889	5.0918	2.7962	15.0309	0.0000	2305.3361	31.6851	110.0316	96.7612	36.8713	4
%RSD		0.9115	11.7647	1.2209	1.4766	1.2432	0.8560	5.9621	1.5703	5.8542	65.4654	14.5189	79.5750	0.0000	2.2094	2.9186	9.0513	5.7175	4.6736	7

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:31:27	37339.8610	123.3342	2920.4690	30.0001	203.3356	184819.8000	2173.5932	2843.7781	6158.7521	164399.8500	162689.4900	393.3418	394497.7900
2	23:31:40	37728.1260	156.6680	2977.1541	13.3333	190.0020	186262.1300	2140.2519	2763.7534	6622.4112	168670.3500	166667.2400	466.6786	403921.7200
3	23:31:53	37811.8050	110.0007	3153.8803	30.0001	153.3346	191632.0200	2236.9418	3080.5218	6569.0392	170748.6100	168636.4000	450.0111	419364.6000
x		37626.5970	130.0009	3017.1678	24.4445	182.2241	187571.3200	2183.5956	2896.0178	6450.0675	167939.6000	165997.7100	436.6772	405928.0300
σ		251.8212	24.0374	121.7417	9.6225	25.8920	3589.8555	49.1149	164.7189	253.6940	3236.8489	3029.4606	38.4437	12554.2210
%RSD		0.6693	18.4901	4.0350	39.3648	14.2089	1.9139	2.2493	5.6878	3.9332	1.9274	1.8250	8.8037	3.0927

6100165-05@MH1H18 10/18/2016 23:35:30

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	23:35:30	97769.5940	123.3342	115316.7800	26792.7570	12086.0290	7311.6058	961.3842	163059.3600	4994.7050	63.3336	55.5557	50.0001	30.0001	145742.2900	4541.1339	5931.9347	7072.7502	3650.7329
2	23:35:43	97887.5190	166.6682	118385.8500	27658.6780	12135.4280	7545.1298	972.0520	167852.0800	5104.7662	30.0001	48.8890	50.0001	13.3333	151054.6200	4737.9010	6228.7998	7746.6325	4040.8979
3	23:35:57	98008.8160	166.6682	118845.1200	27508.2220	12212.1970	7533.1198	1022.7242	173520.3600	5011.3809	16.6667	46.6668	50.0001	16.6667	151993.4100	4934.6723	6705.8057	8106.9465	4187.6309
x		97888.6430	152.2235	117515.9200	27319.8860	12144.5510	7463.2851	985.3868	168143.9300	5036.9507	36.6668	50.3705	50.0001	20.0000	149596.7700	4737.9024	6288.8467	7642.1097	3959.7539
σ		119.6149	25.0189	1918.3024	462.6637	63.5771	131.4954	32.7721	5236.6013	59.3188	24.0371	4.6260	0.0000	8.8192	3370.9230	196.7692	390.4142	524.9611	277.4944
%RSD		0.1222	16.4356	1.6324	1.6935	0.5235	1.7619	3.3258	3.1144	1.1777	65.5556	9.1838	0.0000	44.0959	2.2533	4.1531	6.2080	6.8693	7.0079

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:35:30	36379.3110	443.3441	5995.3096	240.0032	2820.4374	335228.9200	1690.1571	7049.3988	63138.4970	167977.7000	163914.5400	7523.1116	168582.0700
2	23:35:43	37122.3060	420.0097	6298.8481	230.0029	2730.4100	347043.4200	1613.4765	7372.9886	64974.7010	171370.1400	170235.7900	8227.0543	172008.7000
3	23:35:57	37420.1900	413.3427	6742.4994	230.0029	2800.4313	356325.6800	1803.5122	7479.7425	67184.0060	174770.6300	171703.0000	8103.6102	175521.5600
x		36973.9360	425.5655	6345.5524	233.3363	2783.7596	346199.3400	1702.3819	7300.7100	65099.0680	171372.8300	168617.7800	7951.2587	172037.4400
σ		536.0666	15.7535	375.7781	5.7737	47.2726	10573.6790	95.6058	224.0917	2025.6198	3396.4673	4138.6639	375.8884	3469.8361
%RSD		1.4499	3.7018	5.9219	2.4744	1.6982	3.0542	5.6160	3.0695	3.1116	1.9819	2.4545	4.7274	2.0169

6100165-06@MH1H19 10/18/2016 23:39:34

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	
1	23:39:34	104416.2300	476.6792	122898.4800	38230.2170	18293.7210	6510.9975	902.0448	581096.8600	25335.2540	120.0008	108.8895	80.0004	33.3334	328641.4900	7302.9321	11320.3770	12588.7100	698
2	23:39:47	106867.8000	380.0079	127024.6200	38759.1160	18129.3920	6592.3894	882.7095	608687.4200	25525.7860	103.3339	134.4454	90.0004	33.3334	345073.8600	7810.0200	11947.8460	13022.6540	714
3	23:40:00	107167.9700	396.6753	129651.3100	40757.8280	18454.0450	6572.3749	886.0432	620981.9000	26321.3830	96.6672	140.0011	70.0003	43.3334	356138.5600	8076.9198	12655.4690	13593.4890	732
x		106150.6700	417.7875	126524.8000	39249.0540	18292.3860	6558.5873	890.2658	603588.7300	25727.4740	106.6673	127.7787	80.0004	36.6667	343284.6400	7729.9573	11974.5640	13068.2840	715
σ		1509.5488	51.6781	3404.0475	1333.1296	162.3302	42.4115	10.3361	20425.5150	523.0883	12.0186	16.5927	10.0001	5.7735	13835.5770	393.1561	667.9470	503.9411	17
%RSD		1.4221	12.3695	2.6904	3.3966	0.8874	0.6467	1.1610	3.3840	2.0332	11.2674	12.9855	12.5001	15.7460	4.0304	5.0861	5.5780	3.8562	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:39:34	40295.7750	1766.8383	14965.6420	1043.3932	14601.7170	197911.0900	1853.5223	9304.7594	348002.3800	184306.2000	183081.8300	13676.9470	146043.7300
2	23:39:47	40600.4600	1693.4911	15319.5640	1073.3967	15122.5680	205281.8600	1943.5411	9718.5253	367487.0900	189283.5900	186891.5200	14765.3140	151217.2900
3	23:40:00	39924.1410	1603.4747	16014.0920	1130.0702	15860.4900	214057.4800	2036.8948	9872.0239	378568.1600	195295.4200	193003.9300	14898.8650	153935.6800
x		40273.4590	1687.9347	15433.0990	1082.2867	15194.9250	205750.1400	1944.6527	9631.7695	364685.8800	189628.4000	187659.0900	14447.0420	150398.9000
σ		338.7112	81.8234	533.3667	44.0171	632.4983	8083.3736	91.6913	293.4147	15474.2280	5502.7203	5005.3837	670.2566	4009.1184
%RSD		0.8410	4.8475	3.4560	4.0670	4.1626	3.9287	4.7150	3.0463	4.2432	2.9018	2.6673	4.6394	2.6657

6100165-07@MH1H20 10/18/2016 23:43:37

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	23:43:37	106655.3300	110.0007	134994.9100	53094.5960	27644.6350	5919.9269	790.0343	33535.0730	4000.8802	33.3334	92.2227	66.6669	30.0001	149306.0900	3047.1773	4821.2781	5638.4147	2877.121
2	23:43:50	107667.1500	120.0008	139265.2700	55213.8300	27994.3700	5975.9635	812.0363	34515.3980	4217.6448	76.6670	102.2228	43.3334	13.3333	156451.4200	3277.2573	5258.1869	5598.3899	3107.197
3	23:44:04	107886.3900	166.6682	141082.9800	55760.4850	27909.4430	6004.6491	770.0326	35884.0150	4220.9797	60.0002	98.8894	86.6671	20.0000	159259.5500	3267.2537	4901.3209	6058.6849	3170.552
x		107402.9600	132.2232	138447.7200	54689.6370	27849.4830	5966.8465	790.7011	34644.8290	4146.5016	56.6669	97.7783	65.5558	21.1111	155005.6900	3197.2294	4993.5953	5765.1632	3051.624
σ		656.6803	30.2464	3125.2893	1408.1284	182.4142	43.0906	21.0098	1179.8081	126.1228	21.8583	5.0918	21.6882	8.3887	5131.8079	130.0452	232.6118	254.9838	154.407
%RSD		0.6114	22.8752	2.2574	2.5748	0.6550	0.7222	2.6571	3.4054	3.0417	38.5733	5.2075	33.0835	39.7360	3.3107	4.0674	4.6582	4.4228	5.059

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:43:37	41564.8030	203.3356	6532.3461	26.6667	493.3467	205990.9600	1953.5432	3690.7490	111486.1000	176823.0900	172025.6800	2680.3951	146897.3200
2	23:43:50	42036.9670	240.0032	6595.7252	40.0001	306.6718	212904.2000	2140.2519	3840.8112	118956.5600	182411.9000	180796.7800	2757.0847	151752.7700
3	23:44:04	42428.7810	243.3366	6769.1859	26.6667	420.0097	219764.5800	2110.2449	4354.3759	120226.4400	186309.7600	183282.4800	2913.8002	154515.3900
x		42010.1830	228.8918	6632.4191	31.1112	406.6761	212886.5800	2068.0133	3961.9787	116889.7000	181848.2500	178701.6500	2783.7600	151055.1600
σ		432.6110	22.1950	122.6096	7.6980	94.0490	6886.8260	100.2630	348.0105	4722.5297	4768.3853	5913.6318	118.9671	3856.6491
%RSD		1.0298	9.6967	1.8486	24.7436	23.1263	3.2350	4.8483	8.7838	4.0402	2.6222	3.3092	4.2736	2.5531

6100165-08@MH1H21 10/18/2016 23:47:40

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97
1	23:47:40	111745.9300	223.3361	152308.6200	47259.1870	36817.7380	10472.6950	1380.7715	89215.6310	11030.0210	60.0002	108.8895	63.3336	33.3334	203904.7100	7406.3491	10128.9730	11964.5350	6765.8
2	23:47:54	111168.9200	176.6684	157004.1600	49661.9440	36823.7620	10423.9730	1394.1069	92824.8310	11066.7320	90.0004	107.7784	60.0002	20.0000	212313.9600	7342.9644	10769.7090	11971.2100	6579.0
3	23:48:07	114209.6000	206.6690	161756.3900	51803.8470	36969.6860	10352.5580	1356.7679	95643.8260	11614.0810	66.6669	100.0006	80.0004	36.6667	217398.7100	7366.3166	10793.0700	12168.1380	7212.8
x		112374.8200	202.2245	157023.0600	49574.9930	36870.3950	10416.4090	1377.2154	92561.4290	11236.9440	72.2225	105.5562	67.7780	30.0001	211205.8000	7371.8767	10563.9170	12034.6280	6852.5
σ		1614.9468	23.6492	4723.9147	2273.5776	86.0410	60.4249	18.9218	3222.1823	327.1250	15.7529	4.8433	10.7153	8.8192	6814.9090	32.0561	376.8538	115.6716	325.6
%RSD		1.4371	11.6945	3.0084	4.5861	0.2334	0.5801	1.3739	3.4811	2.9112	21.8115	4.5883	15.8093	29.3973	3.2267	0.4348	3.5674	0.9612	4.7

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:47:40	42083.8490	316.6722	13560.1060	10.0000	270.0040	225055.0100	3453.9894	3577.3704	123435.6800	185214.3800	180099.8100	3710.7572	152925.5100
2	23:47:54	42030.2690	263.3372	13980.7420	16.6667	250.0034	230755.2700	3624.0555	3890.8324	127893.3300	189321.0200	186762.2400	3487.3354	158018.1700
3	23:48:07	42813.9130	333.3394	14284.5470	50.0001	233.3363	234492.4300	3774.1166	3977.5366	132157.0000	192363.9100	191240.5800	4020.8890	162021.0400
x		42309.3440	304.4496	13941.7980	25.5556	251.1146	230100.9000	3617.3872	3815.2465	127828.6700	188966.4400	186034.2100	3739.6605	157654.9100
σ		437.7903	36.5667	363.7875	21.4304	18.3591	4752.6163	160.1678	210.5188	4361.0194	3587.9276	5605.9494	267.9485	4558.6327
%RSD		1.0347	12.0108	2.6093	83.8579	7.3110	2.0654	4.4277	5.5178	3.4116	1.8987	3.0134	7.1650	2.8915

6100165-09@MH1H22 10/18/2016 23:51:44

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97
1	23:51:44	109758.6100	110.0007	138378.5500	70515.7630	27573.0850	6668.4449	900.7113	31022.8430	5798.5153	76.6670	98.8894	53.3335	16.6667	149600.8800	7873.4080	12695.5250	14398.0590	8123.6
2	23:51:57	109228.9500	120.0008	141506.1500	72269.4540	27776.3690	6693.7968	908.0453	31909.2360	6001.9807	56.6668	111.1118	53.3335	16.6667	154562.8600	8197.0272	13516.7080	14945.6090	8197.0
3	23:52:10	111239.7800	93.3338	141881.9400	74403.2300	27941.5410	6919.2989	926.7139	33421.3210	5765.1608	53.3335	115.5563	73.3336	30.0001	156983.8100	8357.1729	13256.3250	15523.2420	8470.6
x		110075.7800	107.7784	140588.8800	72396.1490	27763.6650	6760.5135	911.8235	32117.8000	5855.2189	62.2224	108.5192	60.0002	21.1111	153715.8500	8142.5360	13156.1860	14955.6370	8263.7
σ		1042.2609	13.4717	1923.3984	1946.8281	184.5561	138.0952	13.4067	1212.7651	128.1889	12.6199	8.6306	11.5471	7.6980	3763.6417	246.4429	419.6499	562.6584	182.8
%RSD		0.9469	12.4994	1.3681	2.6891	0.6647	2.0427	1.4703	3.7760	2.1893	20.2819	7.9531	19.2451	36.4643	2.4484	3.0266	3.1898	3.7622	2.2

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:51:44	42911.0360	253.3369	38129.7960	50.0001	566.6843	229787.8900	9077.8635	7506.4311	102565.3400	179583.0700	176418.6800	2456.9986	222387.2200
2	23:51:57	42659.8580	170.0016	39368.3920	53.3335	490.0132	237331.3600	9518.3136	7726.6155	106807.1000	183449.1200	182014.0400	2563.6948	229746.8700
3	23:52:10	42425.4320	253.3369	40543.5400	50.0001	523.3484	239404.6700	9968.7961	8193.6908	110234.3100	190243.3100	187116.0700	2787.0938	236818.2300
x		42665.4420	225.5584	39347.2430	51.1113	526.6820	235507.9700	9521.6577	7808.9125	106535.5800	184425.1700	181849.6000	2602.5958	229650.7700
σ		242.8504	48.1136	1207.0109	1.9245	38.4441	5061.0424	445.4757	350.9431	3841.6906	5396.7264	5350.5899	168.4508	7215.9878
%RSD		0.5692	21.3309	3.0676	3.7653	7.2993	2.1490	4.6786	4.4941	3.6060	2.9262	2.9423	6.4724	3.1422

6100165-10@MH1H23 10/18/2016 23:55:49

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	
1	23:55:49	109670.8900	120.0008	144651.7400	84467.2620	42902.9980	10079.5850	1344.7661	40034.6250	6472.3032	93.3338	142.2233	80.0004	13.3333	159334.1800	15683.5170	25569.2410	28628.3390	1642
2	23:56:02	110767.4000	190.0020	147015.8800	88717.4580	43363.8440	10365.9060	1382.1051	41414.1180	6832.5667	73.3336	167.7793	83.3337	20.0000	164294.6400	16538.3630	26224.4370	30193.3900	1714
3	23:56:15	110946.2300	180.0018	148821.5800	90902.2160	43386.6190	10369.2440	1385.4389	42415.3850	6582.3822	96.6672	146.6678	76.6670	16.6667	167268.1300	16528.3450	27678.7390	30193.3900	1762
x		110461.5000	163.3348	146829.7300	88028.9780	43217.8200	10271.5780	1370.7700	41288.0430	6629.0840	87.7782	152.2235	80.0004	16.6667	163632.3100	16250.0750	26490.8060	29671.7070	1706
σ		690.5056	37.8600	2091.1395	3272.2564	272.8815	166.2796	22.5816	1195.3766	184.6165	12.6199	13.6538	3.3334	3.3333	4008.2305	490.6793	1079.6802	903.5826	60
%RSD		0.6251	23.1794	1.4242	3.7172	0.6314	1.6188	1.6474	2.8952	2.7849	14.3770	8.9696	4.1667	20.0000	2.4495	3.0196	4.0757	3.0453	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:55:49	43162.2210	300.0050	25335.2540	90.0004	906.7119	254016.6100	16525.0060	13827.1740	130023.2300	180735.5800	177227.5200	3220.5704	333306.8100
2	23:56:02	43068.4450	326.6725	25422.1630	83.3337	993.3876	258599.8200	17273.0610	13890.6040	134453.6500	183724.6000	180735.5800	3303.9336	341302.0700
3	23:56:15	43600.9740	316.6722	26080.6910	90.0004	910.0456	263641.5700	17780.7050	13937.3420	139488.6600	189283.5900	184564.7000	3357.2865	348975.3000
x		43277.2130	314.4499	25612.7030	87.7782	936.7150	258752.6700	17192.9240	13885.0400	134655.1800	184581.2600	180842.6000	3293.9301	341194.7300
σ		284.2785	13.4720	407.6127	3.8490	49.1082	4814.2990	631.6737	55.2944	4735.9316	4337.9138	3669.7617	68.9048	7834.7959
%RSD		0.6569	4.2843	1.5914	4.3850	5.2426	1.8606	3.6740	0.3982	3.5171	2.3501	2.0293	2.0919	2.2963

SEQ-CCV@CCV07 10/18/2016 23:59:56 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95M
1	00:00:09	106031.4300	179368.9100	129411.2600	505208.4400	443462.0200	582712.8700	71295.1400	±3261679.0000	697075.1300	5151.4592	17110.5320	8343.8273	113.3340	110828.1300	1381458.1000	2502171.10
2	00:00:22	106699.1700	184955.8600	132271.9900	513356.4100	445186.6600	586623.4100	72609.4810	±3313593.2000	708254.9600	5558.3654	17681.6230	8016.8666	100.0006	112768.4400	1423101.5000	2590120.50
3	00:00:36	106402.3900	181191.1800	133401.6500	518090.6400	449568.5900	588391.7100	72264.0780	±3331780.5000	719426.4200	5308.2160	17539.1250	8307.1271	133.3343	114989.3400	1443213.0000	±2550909.00
x		106377.6600	181838.6500	131694.9700	512218.4900	446072.4200	585909.3300	72056.2330	±3302350.9000	708252.1700	5339.3468	17443.7600	8222.6070	115.5563	112861.9700	1415924.2000	±2547733.60
σ		334.5584	2849.1990	2056.8249	6516.0494	3148.1719	2905.9816	681.3758	±36377.8030	11175.6430	205.2316	297.2494	179.1188	16.7776	2082.1783	31496.8420	±44060.60
%RSD		0.3145	1.5669	1.5618	1.2721	0.7058	0.4960	0.9456	±1.1016	1.5779	3.8438	1.7040	2.1784	14.5190	1.8449	2.2245	±1.72

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:00:09	41963.2940	56317.2340	365315.4700	42234.5460	636066.4500	238586.9200	2192626.0000	2221985.4000	759439.3000	183755.2100	181901.8300	±5619230.5000	120277.1000
2	00:00:22	42388.5940	56927.6860	371255.6700	43523.9400	653865.0500	245808.8800	2273838.5000	2320482.5000	782565.9400	188820.7800	186003.5800	±5758812.2000	123378.2400
3	00:00:36	43611.0220	57944.0770	376261.9800	44619.2300	666089.7800	246473.1800	2309684.3000	2308084.0000	796015.1000	190750.4400	191472.0400	±5816340.5000	126443.2600
x		42654.3030	57062.9990	370944.3700	43459.2390	652007.0900	243622.9900	2258716.3000	2283517.3000	779340.1100	187775.4800	186459.1500	±5731461.0000	123366.2000
σ		855.3964	821.8189	5479.8901	1193.6580	15097.6490	4373.9959	59976.4350	53647.5550	18500.0450	3612.8627	4801.3419	±101361.4800	3083.0985
%RSD		2.0054	1.4402	1.4773	2.7466	2.3156	1.7954	2.6553	2.3493	2.3738	1.9240	2.5750	±1.7685	2.4991

SEQ-CCB@CCB07 10/19/2016 00:04:18 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:04:31	104547.7300	50.0001	124337.8500	153.3346	299.3383	238.0031	132.6676	440.0107	850.0397	3.3333	6.6667	26.6667	13.3333	107485.0200	463.3451	733.3629	810.0361	456.6781	1260.0873
2	00:04:45	104004.8900	60.0002	124591.2900	113.3340	274.6708	262.0038	119.3341	350.0067	820.0370	3.3333	8.8889	23.3334	23.3334	108439.5900	420.0097	770.0326	836.7052	473.3457	1153.4065
3	00:04:58	105390.7100	50.0001	125142.1100	140.0011	300.0050	254.6702	119.3341	316.6722	843.3724	3.3333	16.6667	23.3334	10.0000	110305.1600	446.6776	746.6973	813.3697	413.3427	1070.0630
x		104647.7700	53.3335	124690.4200	135.5566	291.3380	251.5590	123.7786	368.8965	837.8164	3.3333	10.7407	24.4445	15.5556	108743.2500	443.3442	750.0309	820.0370	447.7888	1161.1856
σ		698.3078	5.7735	411.1897	20.3673	14.4381	12.2991	7.6981	63.8021	15.7542	0.0000	5.2509	1.9245	6.9389	1434.3876	21.8592	18.5508	14.5310	30.9734	95.2507
%RSD		0.6673	10.8254	0.3298	15.0249	4.9558	4.8891	6.2193	17.2954	1.8804	0.0000	48.8878	7.8730	44.6072	1.3191	4.9305	2.4747	1.7720	6.9170	8.2029

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:04:31	41584.8950	116.6674	60.0002	10.0000	83.3337	204538.7200	1276.7563	346.6733	170.0016	177999.0400	176602.1900	996.7213	117291.8100
2	00:04:45	41836.0430	146.6678	56.6668	6.6667	90.0004	207688.9500	1183.4104	320.0056	173.3350	178716.2400	178624.4600	976.7191	118642.5000
3	00:04:58	41812.6020	86.6671	50.0001	10.0000	63.3336	207777.6100	1116.7353	363.3406	193.3354	181759.0100	181990.2400	936.7149	119659.0200
x		41744.5130	116.6675	55.5557	8.8889	78.8892	206668.4300	1192.3006	343.3398	178.8906	179491.4300	179072.3000	970.0518	118531.1100
σ		138.7298	30.0004	5.0918	1.9245	13.8779	1844.9106	80.3801	21.8589	12.6200	1996.2573	2721.7976	30.5537	1187.5335
%RSD		0.3323	25.7144	9.1652	21.6506	17.5916	0.8927	6.7416	6.3666	7.0546	1.1122	1.5199	3.1497	1.0019

6100165-11@MH1H24 10/19/2016 00:08:38

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97
1	00:08:38	107619.9300	256.6703	136629.0500	80030.7270	29205.5040	6277.5000	827.3710	55425.1100	6565.7034	63.3336	135.5566	73.3336	33.3334	173054.9400	6365.5612	10219.0740	11877.7540	6422.2
2	00:08:52	108621.7400	253.3369	141130.3700	82872.6860	29036.2970	6351.5514	872.7085	58353.3490	7112.7815	73.3336	150.0012	60.0002	40.0001	179175.1400	6458.9604	10432.6490	11707.5340	6782.5
3	00:09:05	109615.9100	220.0027	145535.6800	86166.4300	29483.7340	6351.5514	855.3736	59004.1950	6699.1341	66.6669	141.1122	53.3335	33.3334	183728.0100	7016.0397	11193.5540	12078.0180	6812.5
x		108619.5300	243.3366	141098.3700	83023.2810	29241.8450	6326.8676	851.8177	57594.2180	6792.5397	67.7780	142.2233	62.2224	35.5556	178652.7000	6613.5204	10615.0920	11887.7690	6672.4
σ		998.4924	20.2764	4453.4011	3070.6225	225.9212	42.7536	22.8770	1906.4820	285.2491	5.0918	7.2862	10.1836	3.8490	5355.6765	351.7061	512.2176	185.4450	217.1
%RSD		0.9193	8.3327	3.1562	3.6985	0.7726	0.6757	2.6857	3.3102	4.1994	7.5124	5.1230	16.3664	10.8253	2.9978	5.3180	4.8254	1.5600	3.2

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:08:38	42552.6910	210.0024	3457.3240	20.0000	293.3381	204392.1500	1103.4003	3470.6624	118071.8100	177982.0500	175606.5100	3850.8154	128048.8300
2	00:08:52	43061.7460	156.6680	3540.6894	50.0001	283.3378	205459.1300	1130.0702	3727.4307	121540.4000	183728.0100	181762.4100	4057.5720	130334.3000
3	00:09:05	43634.4670	213.3358	3774.1166	40.0001	296.6715	214344.1100	1170.0753	4020.8890	125429.3600	187939.4600	184615.7200	4230.9843	134487.4700
x		43082.9680	193.3354	3590.7100	36.6667	291.1158	208065.1300	1134.5153	3739.6607	121680.5200	183216.5000	180661.5500	4046.4572	130956.8700
σ		541.2004	31.7986	164.2131	15.2753	6.9391	5463.8656	33.5590	275.3171	3680.7785	4998.3748	4604.3875	190.3280	3264.1559
%RSD		1.2562	16.4474	4.5733	41.6598	2.3836	2.6260	2.9580	7.3621	3.0250	2.7281	2.5486	4.7036	2.4925

6100165-12@MH1H25 10/19/2016 00:12:43

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97
1	00:12:43	113156.5500	133.3343	152806.8800	82620.4060	31052.9450	5983.3017	804.0355	51478.6750	4724.5607	73.3336	137.7788	66.6669	20.0000	162221.2300	6799.2083	11130.1430	12288.3000	6749.1
2	00:12:57	113787.6900	170.0016	157207.6300	86664.4640	31121.8470	6085.3694	815.3699	52108.9170	4731.2308	73.3336	140.0011	113.3340	33.3334	169488.6900	7106.1096	11667.4820	13146.1650	7066.0
3	00:13:10	115779.2700	123.3342	159754.7900	87260.1210	31391.4380	6050.6796	855.3736	54311.7540	4627.8443	80.0004	153.3346	73.3336	23.3334	170276.5500	7593.1698	11800.9880	13009.3020	7192.8
x		114241.1700	142.2234	156589.7700	85514.9970	31188.7430	6039.7836	824.9263	52633.1150	4694.5453	75.5559	143.7048	84.4449	25.5556	167328.8200	7166.1626	11532.8710	12814.5890	7002.6
σ		1368.9013	24.5708	3514.9265	2524.4199	178.8874	51.8989	26.9702	1487.5054	57.8609	3.8490	8.4133	25.2398	6.9389	4440.8107	400.3729	355.1035	460.8884	228.5
%RSD		1.1983	17.2762	2.2447	2.9520	0.5736	0.8593	3.2694	2.8262	1.2325	5.0943	5.8546	29.8891	27.1522	2.6539	5.5870	3.0791	3.5966	3.2

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:12:43	44491.9420	200.0022	4674.5348	30.0001	173.3350	215026.6100	1780.1743	4147.6126	175936.1300	182714.5500	179841.4400	4271.0030	138574.8400
2	00:12:57	44485.2430	233.3363	4797.9324	30.0001	223.3361	219583.6200	1830.1842	4150.9475	181657.0100	186275.7400	183095.4300	4284.3427	141062.6700
3	00:13:10	45091.5520	173.3350	5074.7494	33.3334	190.0020	226448.9900	1996.8860	4254.3286	187568.5800	190501.9800	187041.2200	4657.8596	144773.6600
x		44689.5790	202.2245	4849.0722	31.1112	195.5577	220353.0800	1869.0815	4184.2962	181720.5700	186497.4200	183326.0300	4404.4018	141470.3900
σ		348.1351	30.0623	204.9497	1.9245	25.4593	5749.9323	113.4713	60.6727	5816.4884	3898.4419	3605.4239	219.6023	3119.4579
%RSD		0.7790	14.8658	4.2266	6.1859	13.0188	2.6094	6.0710	1.4500	3.2008	2.0903	1.9667	4.9860	2.2050

6100165-13@MH1H26 10/19/2016 00:16:48

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	9
1	00:16:48	114580.8900	273.3374	155057.8500	72605.4490	32934.2150	6679.1194	890.7103	74826.6850	5845.2119	46.6668	130.0009	73.3336	16.6667	169033.6700	9087.8735	14908.8820	17039.2870	9678.
2	00:17:01	113791.0700	280.0043	157536.5900	75566.0960	32560.8740	6660.4390	915.3794	76060.1910	5825.1990	43.3334	117.7785	46.6668	20.0000	175154.5900	9715.1884	15994.0570	18004.4780	9775.
3	00:17:14	117210.7700	286.6712	161040.5200	77522.4650	32877.3430	6631.0842	961.3842	78349.5100	6242.1423	43.3334	128.8898	56.6668	16.6667	176707.5400	9938.7632	16605.1510	18525.5230	10179.
x		115194.2400	280.0043	157878.3200	75231.3370	32790.8110	6656.8808	922.4913	76412.1290	5970.8511	44.4446	125.5564	58.8891	17.7778	173631.9300	9580.6084	15836.0300	17856.4290	9877.
σ		1790.4585	6.6669	3005.9393	2475.5425	201.1512	24.2144	35.8697	1787.5877	235.1581	1.9245	6.7587	13.4716	1.9245	4057.2058	441.1204	859.1054	754.0977	265.
%RSD		1.5543	2.3810	1.9040	3.2906	0.6134	0.3638	3.8883	2.3394	3.9384	4.3301	5.3830	22.8762	10.8253	2.3367	4.6043	5.4250	4.2231	2.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:16:48	45007.8050	220.0027	4524.4589	56.6668	410.0093	218637.9000	1946.8751	4130.9383	107549.1000	181966.4400	179188.7400	3470.6624	143574.8700
2	00:17:01	45419.8470	260.0037	4594.4941	73.3336	386.6749	226421.6600	2226.9394	4257.6635	112471.4600	187585.6000	184112.3300	3480.6662	148828.3500
3	00:17:14	45148.5000	240.0032	4881.3101	56.6668	416.6762	231979.1700	2276.9518	4257.6635	115124.3600	190427.1000	186462.8500	3590.7090	150783.5100
x		45192.0510	240.0032	4666.7544	62.2224	404.4534	225679.5700	2150.2554	4215.4218	111714.9800	186659.7100	183254.6400	3514.0125	147728.9100
σ		209.4447	20.0005	189.0816	9.6226	15.7534	6701.5202	177.8988	73.1648	3843.8724	4305.6531	3712.1286	66.6092	3727.9603
%RSD		0.4635	8.3334	4.0517	15.4648	3.8950	2.9695	8.2734	1.7356	3.4408	2.3067	2.0257	1.8955	2.5235

6100165-14@MH1H27 10/19/2016 00:20:50

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	
1	00:20:50	114358.1200	220.0027	161064.2700	100627.1900	47964.1980	10137.6490	1334.7646	45811.8060	6388.9109	70.0003	165.5571	76.6670	46.6668	190239.9100	9638.4401	15549.9540	17496.8210	979
2	00:21:04	115249.2600	240.0032	164674.7600	105539.0800	48078.8010	10322.5240	1323.4297	47858.9790	6889.2761	56.6668	164.4459	90.0004	30.0001	197349.0700	10479.3700	16421.4850	18792.7370	1033
3	00:21:17	116822.4900	230.0029	165496.1400	107009.4500	48133.7570	10244.4360	1363.4356	48388.4370	6622.4112	60.0002	138.8900	100.0006	40.0001	201433.8700	10549.4510	16461.5570	19113.4050	1084
x		115476.6200	230.0029	163745.0500	104391.9100	48058.9190	10234.8700	1340.5433	47353.0740	6633.5327	62.2224	156.2977	88.8893	38.8890	196340.9500	10222.4200	16144.3320	18467.6550	1032
σ		1247.8183	10.0003	2357.6763	3342.2050	86.5105	92.8078	20.6195	1360.7762	250.3679	6.9389	15.0857	11.7064	8.3887	5664.6663	506.9541	515.1361	855.9175	52
%RSD		1.0806	4.3479	1.4398	3.2016	0.1800	0.9068	1.5381	2.8737	3.7743	11.1518	9.6519	13.1696	21.5710	2.8851	4.9592	3.1908	4.6347	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:20:50	45185.3490	203.3356	7196.1804	56.6668	303.3384	220942.6300	1663.4855	4971.3589	164175.8500	181850.8200	177353.2700	3910.8410	138371.7800
2	00:21:04	44950.8580	256.6703	7206.1883	53.3335	273.3374	229381.1400	1693.4911	5181.4762	172032.4800	188490.7000	184639.5300	4217.6448	141956.4200
3	00:21:17	46230.5850	203.3356	7423.0293	40.0001	263.3372	232379.1900	1793.5102	5238.1753	174882.7600	191043.1600	188647.2300	4344.3711	144614.4900
x		45455.5970	221.1138	7275.1327	50.0001	280.0043	227567.6500	1716.8289	5130.3368	170363.7000	187128.2300	183546.6800	4157.6190	141647.5600
σ		681.3229	30.7928	128.1800	8.8192	20.8173	5930.0350	68.0816	140.5674	5545.0949	4745.2072	5725.7428	222.9112	3132.7928
%RSD		1.4989	13.9262	1.7619	17.6384	7.4346	2.6058	3.9655	2.7399	3.2549	2.5358	3.1195	5.3615	2.2117

6100165-15@MH1H28 10/19/2016 00:24:55

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	9
1	00:24:55	110952.9700	610.0205	158455.6900	110180.3300	22910.8340	4514.4540	644.0228	43842.1300	5318.2218	80.0004	106.6673	80.0004	26.6667	218760.8000	12939.2020	21886.3140	24880.6680	13406
2	00:25:08	112481.5900	610.0205	159008.5500	113325.3000	23114.6820	4382.3894	650.0232	45168.6000	5701.7875	70.0003	101.1117	50.0001	13.3333	224108.7300	13232.9570	22153.6270	25325.2260	14060
3	00:25:22	113315.1800	630.0218	161152.4700	114962.3300	23287.7900	4447.0874	601.3532	45999.4170	5741.8127	76.6670	121.1119	63.3336	23.3334	229548.6300	13359.8090	22915.5120	26227.7800	14317
x		112249.9100	616.6876	159538.9000	112822.6500	23104.4350	4447.9769	631.7998	45003.3820	5587.2740	75.5559	109.6303	64.4447	21.1111	224139.3800	13177.3230	22318.4840	25477.8910	13928
σ		1198.0216	11.5478	1424.4729	2430.3042	188.6868	66.0368	26.5376	1088.0921	233.8639	5.0918	10.3241	15.0309	6.9389	5393.9763	215.7525	534.0371	686.4093	469
%RSD		1.0673	1.8726	0.8929	2.1541	0.8167	1.4846	4.2003	2.4178	4.1857	6.7391	9.4172	23.3238	32.8684	2.4065	1.6373	2.3928	2.6941	3

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:24:55	43118.6820	260.0037	4764.5816	36.6667	313.3387	220119.6900	1143.4052	4234.3192	71923.3930	183197.4600	180987.1800	2533.6864	142217.1100
2	00:25:08	44073.2430	333.3394	4677.8699	46.6668	366.6741	222452.1100	1350.1002	4551.1389	74346.0990	187537.9600	185765.4600	2537.0206	146467.1300
3	00:25:22	43266.0460	280.0043	4824.6132	53.3335	413.3427	227750.9200	1186.7441	4204.3053	76678.6880	193215.0100	189511.6000	2647.0520	150637.7900
x		43485.9900	291.1158	4755.6882	45.5557	364.4518	223440.9000	1226.7499	4329.9211	74316.0600	187983.4800	185421.4100	2572.5863	146440.6800
σ		513.8856	37.9095	73.7748	8.3887	50.0390	3910.5243	109.0002	192.1671	2377.7899	5023.6114	4272.6114	64.5107	4210.4009
%RSD		1.1817	13.0221	1.5513	18.4143	13.7299	1.7501	8.8853	4.4381	3.1996	2.6724	2.3043	2.5076	2.8752

6100165-16@MH1H29 10/19/2016 00:28:57

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	9
1	00:28:57	114439.1300	350.0067	158326.8000	65988.6310	37928.2890	7256.8953	952.0498	62047.6920	6175.4301	70.0003	130.0009	86.6671	30.0001	237204.7800	9631.7664	15449.7840	17737.2870	9281
2	00:29:11	113348.9300	303.3384	164158.8900	67523.1710	37737.4980	7417.0244	1011.3896	63742.6910	6202.1149	86.6671	138.8900	73.3336	13.3333	241581.1200	10155.6690	15399.6990	18455.3810	9902
3	00:29:24	114857.6900	293.3381	165258.5400	68423.1970	37979.8370	7326.9514	1012.7231	64115.2980	6495.6531	70.0003	162.2237	86.6671	43.3334	245644.5300	9992.1550	16454.8790	18966.4310	10442
x		114215.2500	315.5611	162581.4100	67311.6660	37881.8750	7333.6237	992.0542	63301.8940	6291.0661	75.5559	143.7048	82.2226	28.8889	241476.8100	9926.5303	15768.1200	18386.3660	9875
σ		778.8970	30.2470	3725.3951	1230.9865	127.6630	80.2728	34.6512	1102.0325	177.6793	9.6226	16.6422	7.6981	15.0309	4220.8393	268.0458	595.2769	617.4715	581
%RSD		0.6820	9.5851	2.2914	1.8288	0.3370	1.0946	3.4929	1.7409	2.8243	12.7357	11.5808	9.3625	52.0299	1.7479	2.7003	3.7752	3.3583	5

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:28:57	43319.6340	296.6715	7349.6364	43.3334	490.0132	219846.5300	2206.9345	3083.8563	126855.6100	185091.9200	180691.3800	3223.9049	133719.6000
2	00:29:11	43771.7920	353.3402	7603.1781	43.3334	420.0097	222660.4500	2433.6590	3377.2939	131389.3300	188620.0000	181429.1900	3233.9084	136189.1900
3	00:29:24	44783.3680	296.6715	7846.7183	33.3334	420.0097	228550.6100	2386.9800	3514.0124	134169.4900	189069.1900	187609.4100	3403.9705	138997.8900
x		43958.2640	315.5611	7599.8443	40.0001	443.3442	223685.8600	2342.5245	3325.0542	130804.8100	187593.7100	183243.3300	3287.2613	136302.2300
σ		749.4719	32.7177	248.5577	5.7735	40.4165	4441.7206	119.7214	219.7847	3691.8095	2178.2173	3799.0948	101.1968	2640.9597
%RSD		1.7050	10.3681	3.2706	14.4338	9.1163	1.9857	5.1108	6.6100	2.8224	1.1611	2.0733	3.0785	1.9376

6100165-17@MH1H30 10/19/2016 00:32:57

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	9
1	00:32:57	110912.4800	726.6957	151766.3300	67855.6330	25480.3250	4710.5534	712.0279	43835.4310	5014.7161	66.6669	121.1119	76.6670	30.0001	239079.6100	13159.5180	22451.0220	24733.6010	13570
2	00:33:11	112201.4900	676.6919	154939.1800	70828.1770	25892.8220	4793.9303	666.0244	44582.3830	5028.0568	93.3338	117.7785	66.6669	23.3334	246449.2100	13626.8720	23209.5900	26154.2350	14177
3	00:33:24	112026.0100	680.0254	154769.6600	71432.8810	25915.5530	4845.2909	674.6917	46351.1970	4787.9272	60.0002	110.0007	103.3339	46.6668	251802.9600	14080.8970	23687.4870	26114.1200	15105
x		111713.3300	694.4710	153825.0600	70038.8970	25762.9000	4783.2582	684.2480	44923.0040	4943.5667	73.3336	116.2970	82.2226	33.3334	245777.2600	13622.4290	23116.0330	25667.3190	14284
σ		699.0801	27.9571	1784.9253	1914.7842	244.9807	67.9997	24.4453	1292.0086	134.9527	17.6385	5.7019	18.9543	12.0186	6388.2319	460.7055	623.5192	808.8722	773
%RSD		0.6258	4.0257	1.1604	2.7339	0.9509	1.4216	3.5726	2.8761	2.7299	24.0524	4.9028	23.0524	36.0556	2.5992	3.3820	2.6973	3.1514	5

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:32:57	42499.1080	343.3398	4514.4540	63.3336	603.3533	213477.4100	1466.7850	4070.9113	98429.9960	183993.2900	180806.9800	2883.7907	126808.2900
2	00:33:11	42113.9890	313.3387	4931.3371	46.6668	640.0225	216944.7200	1450.1156	4331.0314	101537.2200	186636.3600	184421.8400	2953.8131	129248.9700
3	00:33:24	42515.8530	270.0040	4964.6886	66.6669	573.3514	222544.3200	1443.4479	4494.4441	103451.9600	191809.0300	187786.3400	2913.8002	131923.6500
x		42376.3160	308.8942	4803.4932	58.8891	605.5758	217655.4800	1453.4495	4298.7956	101139.7300	187479.5600	184338.3900	2917.1347	129326.9700
σ		227.3367	36.8694	250.8702	10.7152	33.3911	4575.0568	12.0204	213.5986	2534.4705	3975.5119	3490.4320	35.1301	2558.5701
%RSD		0.5365	11.9359	5.2227	18.1956	5.5139	2.1020	0.8270	4.9688	2.5059	2.1205	1.8935	1.2043	1.9784

6100165-18@MH1H31 10/19/2016 00:36:57

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	9
1	00:36:57	117068.9600	293.3381	155396.9000	63413.7360	30070.3170	6150.7467	826.7043	50553.5050	6358.8898	96.6672	152.2235	73.3336	26.6667	193375.0200	14968.9800	25111.3010	27561.7170	15990
2	00:37:10	117916.4800	293.3381	161189.7900	66240.4530	29740.5680	6263.4903	868.0414	51948.0000	6545.6890	83.3337	185.5574	120.0008	33.3334	196712.1500	15206.0400	26053.9480	29457.6490	16538
3	00:37:24	118791.0800	283.3378	160874.2800	67298.1790	29798.7580	6200.7807	857.3738	53228.7100	6335.5402	70.0003	196.6688	70.0003	30.0001	200895.4900	16050.8240	26899.7390	29574.6950	16651
x		117925.5100	290.0046	159153.6600	65650.7890	29869.8810	6205.0059	850.7065	51910.0710	6413.3730	83.3337	178.1499	87.7782	30.0001	196994.2200	15408.6150	26021.6620	28864.6870	16393
σ		861.0977	5.7737	3257.2726	2008.2333	176.0040	56.4904	21.4600	1338.0057	115.1822	13.3335	23.1301	27.9553	3.3333	3768.1591	568.6595	894.6562	1129.9215	353
%RSD		0.7302	1.9909	2.0466	3.0590	0.5892	0.9104	2.5226	2.5775	1.7960	16.0001	12.9835	31.8476	11.1111	1.9128	3.6905	3.4381	3.9145	2

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:36:57	45651.0000	323.3391	15553.2930	56.6668	593.3527	225140.4200	4107.5944	5718.4646	137065.5500	183374.3000	180596.1800	3677.4103	218426.2300
2	00:37:10	46190.3810	276.6709	15997.3960	53.3335	550.0166	231319.3400	4574.4840	5788.5090	141485.8400	189862.1300	184000.0900	3730.7654	224740.7100
3	00:37:24	46924.1250	290.0046	17042.6270	63.3336	486.6797	233394.7200	4337.7013	5825.1990	145640.6800	193541.8500	189763.4300	3880.8282	231661.2100
x		46255.1690	296.6715	16197.7720	57.7780	543.3497	229951.4900	4339.9266	5777.3909	141397.3600	188926.0900	184786.5700	3763.0013	224942.7200
σ		639.0301	24.0378	764.6183	5.0918	53.6481	4293.7866	233.4527	54.2288	4288.2483	5147.9957	4633.9553	105.4707	6619.8006
%RSD		1.3815	8.1025	4.7205	8.8127	9.8736	1.8673	5.3792	0.9386	3.0328	2.7249	2.5077	2.8028	2.9429

SEQ-IBL1@ZZZZZZ 10/19/2016 00:40:58

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97
1	00:40:58	111003.5900	283.3378	156634.5300	62530.9860	24468.2170	5132.7819	740.0301	16087.5550	3143.8769	20.0000	74.4447	40.0001	16.6667	166687.6100	5938.6057	6779.1934	10496.0560	4100.9
2	00:41:11	110045.3800	253.3369	158652.4100	64038.0900	24941.5010	5182.1432	732.6962	16531.6840	3183.8908	33.3334	68.8892	43.3334	20.0000	170558.4200	6282.1699	6859.2534	10035.5360	4621.1
3	00:41:24	110956.3500	283.3378	159683.5600	65454.7930	24900.0540	5180.1421	738.6967	16067.5200	3290.5954	20.0000	73.3336	43.3334	23.3334	173537.3400	6448.9533	7042.7269	10492.7190	4621.1
x		110668.4400	273.3374	158323.5000	64007.9560	24769.9240	5165.0224	737.1410	16228.9200	3206.1210	24.4445	72.2225	42.2223	20.0000	170261.1300	6223.2429	6893.7246	10341.4370	4447.7
σ		540.1036	17.3210	1550.8958	1462.1361	262.1063	27.9390	3.9066	262.3931	75.8434	7.6980	2.9397	1.9245	3.3333	3434.5296	260.2267	135.1062	264.9230	300.3
%RSD		0.4880	6.3369	0.9796	2.2843	1.0582	0.5409	0.5300	1.6168	2.3656	31.4919	4.0704	4.5580	16.6667	2.0172	4.1815	1.9598	2.5618	6.7

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:40:58	42013.5250	276.6709	16354.6980	66.6669	890.0436	231746.6800	10849.8040	33481.5420	33913.1380	173707.2100	170327.4900	1466.7850	1367941.3000
2	00:41:11	41959.9450	323.3391	16878.9880	83.3337	823.3706	237129.5200	11340.4020	34532.1280	35328.5130	178213.1700	173663.0400	1453.4495	1412054.7000
3	00:41:24	41300.2680	340.0064	17316.4770	90.0004	896.7109	240698.1600	11871.0790	35817.0850	35335.2050	179226.1300	175739.0400	1636.8140	1448834.1000
x		41757.9130	313.3388	16850.0540	80.0004	870.0417	236524.7900	11353.7620	34610.2520	34858.9520	177048.8400	173243.1900	1519.0162	1409610.0000
σ		397.2364	32.8306	481.5417	12.0186	40.5556	4506.2746	510.7686	1169.7298	819.1059	2937.9223	2730.0962	102.2336	40501.7530
%RSD		0.9513	10.4777	2.8578	15.0232	4.6613	1.9052	4.4987	3.3797	2.3498	1.6594	1.5759	6.7303	2.8733

SEQ-CCV@CCV08 10/19/2016 00:45:04 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95M
1	00:45:17	109559.5600	187275.9800	131866.1600	514159.9600	435612.5000	569649.3300	69882.9040	+3315467.9000	706135.9200	5131.4478	16861.1780	7860.0631	106.6673	113730.3100	1405321.1000	2552004.60
2	00:45:30	109461.7300	184612.3200	132728.5700	518661.8700	436270.2800	570315.9000	70384.0820	+3341946.8000	709194.1000	5131.4478	17057.0980	8140.3096	113.3340	113899.0700	1429758.1000	+2545084.80
3	00:45:43	109205.3400	183809.6300	131605.7600	521740.7600	436412.8900	568588.5600	70300.7740	+3338042.7000	717229.2400	5364.9159	17109.4180	8153.6549	106.6673	116012.2100	1445178.3000	+2564842.60
X		109408.8700	185232.6400	132066.8300	518187.5300	436098.5600	569551.2600	70189.2530	+3331819.1000	710853.0900	5209.2705	17009.2310	8051.3425	108.8895	114547.2000	1426752.5000	+2553977.30
σ		182.9306	1814.5215	587.6903	3812.5944	426.9308	818.0944	268.5561	+14294.4790	5729.7139	134.7928	130.8599	165.7872	3.8490	1271.5394	20097.8610	+10025.57
%RSD		0.1672	0.9796	0.4450	0.7358	0.0979	0.1436	0.3826	+0.4290	0.8060	2.5876	0.7693	2.0591	3.5348	1.1101	1.4086	+0.39

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:45:17	42633.0660	55324.5000	369086.6400	42696.6970	644886.4900	241081.4500	2216571.7000	2246669.2000	767825.0100	183265.4800	183704.2000	+5619441.9000	120945.8900
2	00:45:30	41501.1800	57417.4180	376123.0700	43845.4790	660485.5500	245541.8100	2271062.7000	2288840.4000	786755.4200	188460.0700	187405.2700	+5725661.0000	124290.5500
3	00:45:43	42160.8720	57796.4750	379012.7900	43309.5860	661756.5100	247051.9000	2320376.6000	2317198.2000	798775.5100	191975.8300	189457.1400	+5789024.6000	125287.4200
X		42098.3730	56846.1310	374740.8300	43283.9210	655709.5200	244558.3900	2269337.0000	2284235.9000	784451.9800	187900.4600	186855.5400	+5711375.8000	123507.9500
σ		568.5255	1331.3307	5105.3944	574.8208	9394.5337	3104.3380	51923.9620	35489.2410	15603.2900	4382.0594	2915.6046	+85689.0820	2274.1105
%RSD		1.3505	2.3420	1.3624	1.3280	1.4327	1.2694	2.2881	1.5537	1.9891	2.3321	1.5604	+1.5003	1.8413

SEQ-CCB@CCB08 10/19/2016 00:49:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:49:39	102012.5000	33.3334	115566.5900	103.3339	252.0035	236.0031	114.6674	290.0046	860.0407	3.3333	6.6667	16.6667	10.0000	102049.5800	450.0111	710.0277	746.6973	363.3406	986.7202
2	00:49:52	102009.1300	43.3334	116873.1300	106.6673	288.0046	236.0031	117.3341	326.6725	773.3662	10.0000	7.7778	20.0000	13.3333	104015.0000	346.6733	630.0218	746.6973	423.3432	1126.7365
3	00:50:05	102410.2700	46.6668	117612.5800	86.6671	296.0048	235.3364	102.6673	283.3378	816.7034	3.3333	10.0000	33.3334	16.6667	103778.9900	353.3402	656.6904	733.3629	433.3437	926.7139
X		102143.9700	41.1112	116684.1000	98.8894	278.6710	235.7808	111.5562	300.0050	816.7034	5.5556	8.1482	23.3334	13.3333	103281.1900	383.3415	665.5800	742.2525	406.6758	1013.3902
σ		230.6308	6.9389	1036.0107	10.7153	23.4386	0.3849	7.8127	23.3341	43.3372	3.8490	1.6973	8.8192	3.3333	1073.1144	57.8337	40.7370	7.6986	37.8610	102.6437
%RSD		0.2258	16.8784	0.8879	10.8356	8.4108	0.1632	7.0034	7.7779	5.3064	69.2821	20.8299	37.7965	25.0000	1.0390	15.0867	6.1205	1.0372	9.3099	10.1287

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:49:39	39991.1010	140.0011	56.6668	3.3333	76.6670	195605.3100	893.3772	260.0037	140.0011	173037.9600	173408.2500	906.7119	114793.5500
2	00:49:52	39472.1740	123.3342	70.0003	0.0000	63.3336	199641.6500	1013.3898	280.0043	133.3343	172514.8200	175219.1500	786.7007	117328.9500
3	00:50:05	40178.5920	73.3336	23.3334	3.3333	50.0001	203396.8600	1050.0606	243.3366	146.6678	175582.7300	175626.9000	716.6949	117106.1000
X		39880.6220	112.2230	50.0002	2.2222	63.3336	199547.9400	985.6092	261.1149	140.0011	173711.8400	174751.4300	803.3692	116409.5300
σ		365.9382	34.6948	24.0371	1.9245	13.3334	3896.6180	81.9527	18.3591	6.6668	1641.2162	1180.9622	96.0989	1403.9094
%RSD		0.9176	30.9160	48.0741	86.6025	21.0527	1.9527	8.3149	7.0310	4.7619	0.9448	0.6758	11.9620	1.2060

Analyte ICPS

SEQ-CAL1@S01 10/18/2016 17:47:39

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	17:47:52	98.1%	2.1635	98.6%	-1.3883	-101.2623	8.8047	4.7048	16.8862	173.1027	3.3332	2.8225	3.3007	-2.2278	-221.0311	-7.5859	0.0760	-2.0078	-5.5300	3.8541
2	17:48:05	100.0%	8.5339	100.3%	0.9503	-45.6000	-9.5131	-11.4752	-0.5102	102.1935	-3.3392	-2.7788	3.2330	-5.6167	-1195.0637	8.9544	-6.7135	11.1253	4.4875	-0.2085
3	17:48:18	101.9%	-8.1373	101.1%	0.4380	-84.9234	7.0222	6.7704	-14.0212	247.9889	0.0061	2.8589	-6.5337	7.8445	1416.0948	-1.3685	6.3816	-9.1175	1.0425	-3.6456
x		100.0%	0.8534	100.0%	0.0000	-77.2619	2.1046	-0.0000	0.7849	174.4284	0.0000	0.9675	0.0000	-0.0000	0.0000	0.0000	-0.0853	-0.0000	0.0000	-0.0000
σ		1.9%	8.4125	1.2%	1.2293	28.6111	10.1006	9.9913	15.4943	72.9067	3.3362	3.2445	5.6585	7.0016	1319.5371	8.3546	6.5490	10.2697	5.0895	3.7542
%RSD		1.9	985.7899	1.2	0.0000	37.0314	479.9370	0.0000	1973.9292	41.7975	0.0000	335.3320	0.0000	0.0000	0.0000	0.0000	7679.1260	0.0000	0.0000	0.0000

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:47:52	99.9%	-22.7256	0.2077	0.0000	-6.5631	-1668.8008	9.8187	-2.6776	-1.4408	98.9%	97.7%	27.9989	528.2783
2	17:48:05	100.4%	-0.5371	0.0422	0.0000	0.0946	1980.0543	-11.7103	10.4271	-5.3260	99.3%	100.9%	57.5026	-348.9618
3	17:48:18	99.6%	23.2627	-0.2482	0.0000	6.4753	-311.2534	1.8916	-6.8923	6.0898	101.9%	101.4%	67.1893	-179.3165
x		100.0%	0.0000	0.0006	0.0000	0.0023	-0.0000	-0.0000	0.2858	-0.2257	100.0%	100.0%	50.8969	0.0000
σ		0.4%	22.9989	0.2308	0.0000	6.5197	1844.2329	10.8884	9.0320	5.8041	1.6%	2.0%	20.4132	465.2992
%RSD		0.4	0.0000	40269.5190	0.0000	289014.9300	0.0000	0.0000	3160.6894	2572.1548	1.6	2.0	40.1068	0.0000

SEQ-CAL2@S02 10/18/2016 17:51:52

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	17:52:06	102.1%	100.8808	100.9%	0.5564	953.9151	560.3684	12.0140	1513.7966	182.3979	6.5240	45.3694	10.0696	7.4416	850.1348	2472.0025	3968.8994	4597.1298	2537.8454	6342.2908
2	17:52:19	100.8%	135.2773	102.2%	22.5800	938.4550	545.2299	13.9426	1591.1616	326.0513	12.8285	33.6696	-2.7219	19.9965	-759.4392	2439.0450	4022.0611	4585.2421	2572.5094	6559.6806
3	17:52:32	101.8%	111.0372	103.4%	-0.9430	907.1294	525.1898	3.4148	1436.5789	167.7080	19.3655	45.6990	3.5528	10.3756	1816.5665	2405.8864	4473.7087	4442.0889	2598.6318	6434.3893
x		101.6%	115.7318	102.2%	7.3978	933.1665	543.5960	9.7905	1513.8457	225.3857	12.9060	41.5793	3.6335	12.6046	635.7540	2438.9780	4154.8897	4541.4869	2569.6622	6445.4535
σ		0.7%	17.6723	1.2%	13.1695	23.8370	17.6461	5.6051	77.2914	87.4878	6.4211	6.8520	6.3961	6.5675	1301.3149	33.0581	277.3819	86.2862	30.4931	109.1165
%RSD		0.7	15.2701	1.2	178.0192	2.5544	3.2462	57.2504	5.1056	38.8169	49.7528	16.4794	176.0315	52.1042	204.6884	1.3554	6.6760	1.9000	1.1867	1.6929

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:52:06	101.4%	-1.5760	1111.4918	26.5452	230.7527	1881.9192	7036.1990	1707.3952	2980.4730	100.1%	99.9%	2104.4781	-117.8190
2	17:52:19	103.1%	12.6299	1205.7032	26.1461	285.9005	1252.9204	7075.9571	1755.5835	3107.9657	101.8%	102.1%	1996.2844	163.7045
3	17:52:32	102.8%	7.2022	1217.4595	19.3320	271.8010	2167.2166	6924.8905	1767.7502	3212.9692	103.5%	104.1%	2131.5203	-903.0646
x		102.4%	6.0853	1178.2182	24.0078	262.8180	1767.3521	7012.3489	1743.5763	3100.4693	101.8%	102.0%	2077.4276	-285.7264
σ		0.9%	7.1685	58.0849	4.0543	28.6503	467.7912	78.3065	31.9188	116.4292	1.7%	2.1%	71.5611	552.8505
%RSD		0.9	117.7996	4.9299	16.8873	10.9012	26.4685	1.1167	1.8307	3.7552	1.7	2.1	3.4447	193.4895

SEQ-CAL3@S03 10/18/2016 17:56:04

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	17:56:18	101.6%	252.4829	101.0%	-32.5219	2405.6253	1292.8214	25.7037	3319.8793	1068.4324	22.8108	114.7805	71.8739	-5.7663	1932.9890	4833.1815	8160.3461	9147.0710	5100.3962	12921.4340
2	17:56:31	101.3%	222.7144	102.5%	35.3684	2421.4559	1299.9159	-4.1720	3867.5207	1006.0077	32.5135	82.9124	65.0265	-12.3132	1960.9804	5092.6732	8529.8058	9117.0488	5140.9398	13166.9670
3	17:56:44	103.8%	261.5495	103.8%	5.2493	2403.3870	1267.2920	8.0317	3641.9438	993.1095	31.9045	112.2973	70.6379	0.4473	2382.9334	4974.9693	8454.3717	8866.5294	5045.1112	13555.2270
x		102.3%	245.5823	102.4%	2.6986	2410.1561	1286.6764	9.8545	3609.7813	1022.5166	29.0762	103.3300	69.1795	-5.8774	2092.3010	4966.9413	8381.5079	9043.5497	5095.4824	13214.5430
σ		1.4%	20.3164	1.4%	34.0169	9.8497	17.1581	15.0211	275.2337	40.2839	5.4346	17.7258	3.6492	6.3810	252.0839	129.9320	195.2101	154.0373	48.1029	319.5639
%RSD		1.3	8.2727	1.3	1260.5379	0.4087	1.3335	152.4287	7.6247	3.9397	18.6909	17.1545	5.2750	108.5674	12.0482	2.6159	2.3291	1.7033	0.9440	2.4183

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:56:18	102.0%	113.5355	2961.4720	36.3542	628.0296	2910.0843	13964.9370	4222.9250	7088.2230	100.7%	99.7%	4905.9081	182.0153
2	17:56:31	102.3%	34.7639	2909.6659	61.8375	559.4927	5090.0047	13805.8280	4062.5619	7310.6288	102.4%	103.5%	5060.1438	-2027.0470
3	17:56:44	104.0%	58.1116	2790.9269	12.8473	622.6382	3006.5816	14292.8630	4274.7125	7503.2295	103.8%	104.2%	5048.7594	167.4974
x		102.8%	68.8037	2887.3550	37.0130	603.3869	3668.8902	14021.2090	4186.7331	7300.6937	102.3%	102.4%	5004.9371	-559.1781
σ		1.1%	40.4596	87.4342	24.5017	38.1089	1231.6667	248.3461	110.6090	207.6816	1.5%	2.4%	85.9503	1271.2325
%RSD		1.1	58.8045	3.0282	66.1976	6.3158	33.5706	1.7712	2.6419	2.8447	1.5	2.4	1.7173	227.3395

SEQ-CAL4@S04 10/18/2016 18:00:14

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	18:00:28	100.9%	379.9880	102.2%	12.8244	4815.0983	2521.5521	33.3588	7005.5995	1483.1772	47.9691	180.8165	48.5701	16.4951	1420.7677	11914.4840	19849.0840	21958.0030	12742.3090	33162.5430
2	18:00:41	103.2%	492.1869	103.2%	147.6334	4856.0581	2530.7790	3.4755	7183.3418	1465.4855	67.0257	181.3834	108.7735	-5.9774	1473.6690	11864.2330	20220.9500	22247.7740	12832.4080	32810.3530
3	18:00:54	103.4%	401.9027	104.8%	7.7614	4862.9140	2530.8928	30.4853	7219.5757	1540.2573	64.3621	193.6578	103.5547	13.4422	2001.6996	12219.9460	21053.4140	22749.6770	12933.8010	33461.3760
x		102.5%	424.6925	103.4%	56.0731	4844.6901	2527.7413	22.4399	7136.1723	1496.3067	59.7856	185.2859	86.9661	7.9866	1632.0455	11999.5540	20374.4830	22318.4850	12836.1730	33144.7570
σ		1.4%	59.4700	1.3%	79.3339	25.8555	5.3603	16.4864	114.5215	39.0767	10.3197	7.2558	33.3541	12.1891	321.2208	192.5118	616.6702	400.5454	95.8017	325.8759
%RSD		1.3	14.0031	1.3	141.4831	0.5337	0.2121	73.4691	1.6048	2.6115	17.2612	3.9160	38.3530	152.6195	19.6821	1.6043	3.0267	1.7947	0.7463	0.9832

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:00:28	103.9%	58.8741	5747.9885	121.2279	1374.9852	3319.8268	34116.4480	8451.3306	14361.3740	101.4%	101.2%	9675.0691	818.0412
2	18:00:41	104.2%	103.5919	5588.2629	128.7281	1230.5282	1999.7564	34318.9060	8152.1319	14428.1360	103.9%	103.8%	9528.9424	-196.8714
3	18:00:54	103.4%	88.7045	5678.1381	118.0784	1335.0651	2763.4051	35109.0870	8171.6704	14693.9750	104.2%	104.3%	9609.5672	-266.7097
x		103.9%	83.7235	5671.4631	122.6781	1313.5261	2694.3294	34514.8130	8258.3776	14494.4950	103.1%	103.1%	9604.5263	118.1534
σ		0.4%	22.7712	80.0717	5.4710	74.5982	662.7406	524.5167	167.3875	175.9506	1.5%	1.7%	73.1936	607.1257
%RSD		0.4	27.1981	1.4118	4.4596	5.6792	24.5976	1.5197	2.0269	1.2139	1.5	1.7	0.7621	513.8454

SEQ-CAL5@S05 10/18/2016 18:04:25

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	18:04:38	101.5%	4757.1706	99.9%	11376.9460	9267.4922	12786.6680	173.4436	72324.4210	15294.4370	134.5618	369.2579	164.1815	-2.4392	961.0413	28568.9320	50556.5530	55360.6050	31556.7030	82862.0300
2	18:04:51	103.4%	4507.2572	101.2%	12093.8910	9259.8895	12586.9430	114.9762	73809.3850	15758.3930	120.5104	364.2077	219.0416	-12.3970	1800.9394	29509.1670	51270.6470	55575.9910	32374.1440	83405.7290
3	18:05:05	101.7%	4469.0356	101.9%	12090.9300	9588.6925	12834.3890	104.4741	75105.3350	15911.5230	100.1120	389.2803	187.6308	0.5916	1999.4413	29510.4940	52715.0660	56987.2170	32409.0010	84818.3960
x		102.2%	4577.8211	101.0%	11853.9220	9372.0247	12736.0000	130.9646	73746.3800	15654.7840	118.3947	374.2487	190.2846	-4.7482	1587.1407	29196.1980	51514.0890	55974.6040	32113.2830	83695.3850
σ		1.0%	156.4925	1.0%	413.0757	187.6783	131.2738	37.1608	1391.5271	321.3252	17.3221	13.2604	27.5262	6.7952	551.2269	543.2280	1099.6552	883.5362	482.3274	1009.8352
%RSD		1.0	3.4185	1.0	3.4847	2.0025	1.0307	28.3747	1.8869	2.0526	14.6308	3.5432	14.4658	143.1102	34.7308	1.8606	2.1347	1.5785	1.5020	1.2066

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:04:38	101.5%	1123.6576	7246.7007	895.0865	12494.1900	3366.7755	42275.3840	41246.5870	14455.0540	100.4%	101.1%	96293.2170	132.6968
2	18:04:51	105.0%	1021.4850	7598.5922	818.4582	12876.9190	2209.3412	42789.8940	41599.4940	14723.2320	102.3%	102.8%	98064.5910	320.9282
3	18:05:05	103.1%	1237.9845	7449.2155	915.7347	12561.1560	5019.0717	44120.4440	41948.3540	14917.4460	104.0%	104.3%	97499.8690	-397.8699
x		103.2%	1127.7090	7431.5028	876.4265	12644.0880	3531.7295	43061.9070	41598.1450	14698.5780	102.2%	102.8%	97285.8920	18.5850
σ		1.7%	108.3066	176.6131	51.2526	204.3988	1412.1097	952.1319	350.8856	232.1798	1.8%	1.6%	904.8651	372.7382
%RSD		1.7	9.6041	2.3765	5.8479	1.6166	39.9835	2.2111	0.8435	1.5796	1.7	1.6	0.9301	2005.5828

SEQ-CAL6@S06 10/18/2016 18:08:35

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	18:08:48	101.1%	21802.8490	100.4%	58516.2950	47134.8480	63130.4550	581.1981	362652.4500	77445.8990	577.0548	1927.5330	939.3152	7.2512	-7.8281	142160.6400	252917.2400	275096.6700	157850.5000
2	18:09:01	102.3%	21624.6530	102.4%	57663.8960	46856.7950	62657.4150	599.1825	364608.6200	77003.5980	527.9897	1917.3173	897.8911	16.8246	1025.8631	145538.8700	255007.3300	277102.9900	158369.4600
3	18:09:14	102.0%	21979.3020	102.2%	59413.4040	47628.8230	63794.2020	616.8976	369632.9200	77544.2570	514.6717	1921.7894	872.3279	7.3766	1664.3524	147868.9000	257785.6300	281239.7200	162016.4300
x		101.8%	21802.2680	101.7%	58531.1980	47206.8220	63194.0240	599.0927	365631.3300	77331.2510	539.9054	1922.2132	903.1781	10.4841	894.1291	145189.4700	255236.7300	277813.1200	159412.1300
σ		0.7%	177.3255	1.1%	874.8495	391.0145	571.0535	17.8499	3600.8567	287.9865	32.8542	5.1210	33.8052	5.4914	843.8378	2870.1274	2442.2876	3132.4894	2270.2681
%RSD		0.7	0.8133	1.1	1.4947	0.8283	0.9037	2.9795	0.9848	0.3724	6.0852	0.2664	3.7429	52.3778	94.3754	1.9768	0.9569	1.1276	1.4242

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:08:48	102.2%	5380.2574	37158.0800	4219.8829	62529.1720	901.1784	209605.6600	201795.9200	72320.5400	102.2%	101.3%	490673.7800	268.1102
2	18:09:01	102.9%	5927.7166	37319.7090	4458.4669	62372.0500	128.2310	213075.4800	205927.5100	72479.9240	104.8%	104.5%	490710.6800	187.5962
3	18:09:14	101.7%	5622.5620	38000.3200	4326.3623	63431.0180	1226.1323	216506.2800	207902.2700	73979.8640	105.5%	104.5%	498571.4900	1441.6169
x		102.3%	5643.5120	37492.7030	4334.9040	62777.4130	751.8472	213062.4700	205208.5700	72926.7760	104.2%	103.4%	493318.6500	632.4411
σ		0.6%	274.3302	446.9760	119.5211	571.4636	563.9784	3450.3281	3116.0102	915.4763	1.7%	1.8%	4549.1287	701.9221
%RSD		0.6	4.8610	1.1922	2.7572	0.9103	75.0124	1.6194	1.5185	1.2553	1.7	1.8	0.9221	110.9862

SEQ-CAL7@S07 10/18/2016 18:11:47

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	
1	18:12:00	100.2%	219617.3500	98.0%	577547.6000	470336.5000	628994.9600	5572.1385	±3555052.2000	772459.4800	5602.5949	19248.7570	8713.6554	74.0961	-1348.4762	1475569.4000	2646589.6000	±280366
2	18:12:13	99.9%	219429.9500	99.7%	580186.6800	463638.4300	623828.7100	5576.6459	±3555894.6000	776248.5800	5797.2775	18637.6470	8817.3848	130.7599	-2851.3344	1481924.0000	±2597328.1000	±282138
3	18:12:26	100.4%	223064.8700	98.7%	590887.2000	473476.9900	633060.1100	5422.3011	±3603730.9000	783911.6700	5703.9249	19067.6060	8733.1851	140.3178	-996.8658	1508629.3000	±2616818.3000	±284231
x		100.2%	220704.0600	98.8%	582873.8200	469150.6400	628627.9300	5523.6952	±3571559.2000	777539.9100	5701.2658	18984.6700	8754.7418	115.0579	-1732.2255	1488707.6000	±2620245.3000	±282245
σ		0.3%	2046.6691	0.9%	7064.1212	5025.3374	4626.6310	87.8388	±27864.6610	5834.2809	97.3685	313.8830	55.1223	35.7945	984.9929	17542.8340	±24808.9430	±1934
%RSD		0.3	0.9273	0.9	1.2119	1.0712	0.7360	1.5902	±0.7802	0.7504	1.7078	1.6534	0.6296	31.1099	56.8629	1.1784	±0.9468	±

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:12:00	96.7%	56806.3360	372928.0500	41876.4320	639940.7300	-4095.3199	2216043.8000	2146697.9000	729182.4600	106.2%	107.4%	±4934421.0000	1910.3876
2	18:12:13	98.0%	57065.0450	378720.5200	42575.3200	648097.8000	-1218.9720	±2139732.4000	2167966.2000	744207.7800	107.6%	110.8%	±4862046.8000	301.7172
3	18:12:26	96.2%	57626.3210	375825.5500	43037.5080	646608.1600	-4725.7760	2282520.5000	2218137.1000	749063.2900	109.1%	110.5%	±4933623.6000	2497.6000
x		96.9%	57165.9010	375824.7100	42496.4200	644882.2300	-3346.6893	±2212765.6000	2177600.4000	740817.8500	107.6%	109.6%	±4910030.5000	1569.9016
σ		0.9%	419.1931	2896.2353	584.5453	4343.7930	1869.4262	±71450.4760	36681.0980	10364.8760	1.5%	1.9%	±41556.9940	1136.8480
%RSD		0.9	0.7333	0.7706	1.3755	0.6736	55.8590	±3.2290	1.6845	1.3991	1.4	1.7	±0.8464	72.4152

SEQ-CAL8@S08 10/18/2016 18:15:55

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	
1	18:16:08	92.6%	±457081.8600	85.9%	1154977.8000	940624.7400	±1266237.8000	8768.2138	±7012774.4000	1518972.1000	11528.8560	36992.7730	17413.2420	246.7190	-3276.6995	±2869780.4000	±504443
2	18:16:22	92.5%	±466745.9800	85.8%	1182255.1000	937955.0400	±1273580.1000	8893.8707	±7185072.6000	±1575253.9000	11643.3180	37447.2790	17422.3710	260.4195	-3153.2410	±2934063.9000	±518711
3	18:16:35	91.6%	±464426.0400	86.5%	1178645.3000	±955241.7800	±1290304.5000	9731.7595	±7148168.0000	±1561270.5000	11566.7780	38161.7110	17470.5390	211.9115	-3878.9950	±2929575.5000	±516851
x		92.2%	±462751.2900	86.1%	1171959.4000	±944607.1800	±1276707.5000	9131.2813	±7115338.4000	±1551832.2000	11579.6510	37533.9210	17435.3840	239.6833	-3436.3118	±2911139.9000	±513335
σ		0.5%	±5045.0328	0.3%	14816.8360	±9306.0590	±12334.3860	523.8110	±90719.3850	±29303.9750	58.3066	589.2659	30.7856	25.0076	388.3127	±35888.6070	±7756
%RSD		0.6	±1.0902	0.4	1.2643	±0.9852	±0.9661	5.7364	±1.2750	±1.8883	0.5035	1.5700	0.1766	10.4336	11.3003	±1.2328	±

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:16:08	89.0%	111274.5800	731138.7000	82666.7720	1271618.1000	-7498.0306	±4180968.3000	±4112865.7000	±1420586.7000	102.3%	103.8%	±10230262.0000	6997.4086
2	18:16:22	89.4%	111661.5900	746190.8500	85469.2420	±1300723.6000	-7216.8625	±4265867.9000	±4145617.5000	±1434139.3000	103.4%	105.4%	±10225138.0000	8761.0956
3	18:16:35	87.9%	113928.7300	741895.3200	84982.5520	±1297557.0000	-8837.0263	±4294892.1000	±4197957.8000	±1438717.4000	104.8%	106.7%	±10235556.0000	7713.1895
x		88.8%	112288.3000	739741.6200	84372.8550	±1289966.2000	-7850.6398	±4247242.7000	±4152147.0000	±1431147.8000	103.5%	105.3%	±10230319.0000	7823.8979
σ		0.8%	1433.7754	7753.7516	1497.4164	±15968.6470	865.7266	±59201.6190	±42920.1650	±9428.2933	1.3%	1.4%	±5209.2248	887.0401
%RSD		0.8	1.2769	1.0482	1.7748	±1.2379	11.0275	±1.3939	±1.0337	±0.6588	1.2	1.4	±0.0509	11.3376

SEQ-ICV@ICV01 10/18/2016 18:20:00 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	18:20:00	90.3%	46681.1150	78.4%	399.8932	93518.5620	124209.0100	1091.1023	716156.4700	151807.7300	2178.0955	7780.4130	3511.3798	68.6015	-1140.5228	12061.9680	21281.9750	23158.1010	13297.1510
2	18:20:14	90.7%	47383.4390	80.3%	326.7058	94622.5260	125616.8900	1104.0240	735196.8100	154460.3000	2548.8889	7981.7613	3703.9216	35.9069	-2476.7129	12420.3880	22079.8010	24047.3790	13218.8040
3	18:20:27	91.5%	47226.5260	81.4%	317.3400	93033.9470	125274.4000	1275.0618	748258.0800	159451.3500	2446.5418	7901.9566	3628.4406	61.2056	-1640.4093	12440.7370	21840.5690	23857.1350	13645.4600
x		90.8%	107.145%	80.0%	347.9797	98.131%	100.918%	1156.7294	102.914%	102.334%	2391.1754	102.213%	3614.5806	55.2380	-1752.5484	12307.6980	21734.1150	23687.5380	13387.1380
σ		0.6%	n/a	1.5%	45.2017	n/a	n/a	102.6824	n/a	n/a	191.4968	n/a	97.0163	17.1448	675.1166	213.0509	409.4272	468.2693	227.1167
%RSD		0.7	0.7827	1.9	12.9897	0.8687	0.5872	8.8770	2.2018	2.5000	8.0085	1.2854	2.6840	31.0380	38.5220	1.7310	1.8838	1.9769	1.6965

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:20:00	91.1%	10681.7660	567588.3700	7986.5176	121920.1400	-4394.3612	1218.2572	791833.2200	141298.3100	94.7%	96.7%	±2150146.5000	5862.4504
2	18:20:14	90.7%	10839.5600	572735.4600	8064.4446	125237.7900	-3484.1707	1165.9382	812907.1800	144955.2700	98.5%	100.7%	±2149282.7000	4924.7344
3	18:20:27	91.2%	11404.5480	576322.3300	8372.4709	127941.9100	-2482.7068	925.7336	838222.3400	147727.5300	100.2%	101.5%	±2167425.2000	7587.6437
x		91.0%	10975.2910	100.680%	8141.1444	98.810%	-3453.7462	1103.3097	98.704%	100.021%	97.8%	99.6%	±102.860%	6124.9428
σ		0.3%	380.0272	n/a	204.0886	n/a	956.1903	155.9944	n/a	n/a	2.8%	2.6%	±n/a	1350.7214
%RSD		0.3	3.4626	0.7672	2.5069	2.4122	27.6856	14.1388	2.8523	2.2292	2.9	2.6	±0.4748	22.0528

SEQ-ICB@ICB01 10/18/2016 18:23:33 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	18:23:46	91.9%	21.9365	81.8%	14.9982	-8.6080	30.8478	-33.4112	365.8868	252.5710	11.5715	-0.5818	14.4406	-4.3895	-591.4958	51.1270	134.1700	148.2743	81.5045	171.0666
2	18:23:59	91.8%	32.8025	84.1%	1.0205	-12.3385	5.1107	-24.3395	421.8524	179.2646	4.0562	6.7338	6.9534	-4.4794	-1314.1083	90.6746	109.0092	133.8021	116.9333	257.1980
3	18:24:12	93.1%	72.3239	84.2%	48.2962	-26.0274	28.7139	-29.2221	354.3489	276.6438	-3.3392	-3.1595	-25.5338	28.6041	-72.8169	63.7866	107.8628	176.4239	60.6002	316.8466
x		92.3%	42.3543	83.4%	21.4383	-15.6579	21.5575	-28.9909	380.6960	236.1598	4.0962	0.9975	-1.3799	6.5784	-659.4737	68.5294	117.0140	152.8334	86.3460	248.3704
σ		0.7%	26.5170	1.4%	24.2869	9.1719	14.2832	4.5403	36.1063	50.7215	7.4555	5.1322	21.2502	19.0749	623.4315	20.1959	14.8686	21.6736	28.4769	73.2898
%RSD		0.8	62.6076	1.6	113.2874	58.5764	66.2564	15.6610	9.4843	21.4776	182.0102	514.5064	1539.9513	289.9623	94.5347	29.4704	12.7067	14.1812	32.9800	29.5083

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:23:46	89.4%	-58.3617	359.8776	3.7225	101.1819	-1163.3714	72.0866	511.0545	81.3687	97.0%	99.4%	1319.3772	4591.5963
2	18:23:59	90.1%	6.1331	305.6560	3.6579	51.9576	1425.3017	50.4528	466.9121	47.7638	97.7%	99.8%	1257.5965	4830.4786
3	18:24:12	90.5%	-2.8718	204.1096	3.6138	47.5789	-958.1293	86.6799	477.2996	17.8077	99.9%	100.7%	1090.2876	3248.0869
x		90.0%	-18.3668	289.8811	3.6647	66.9061	-232.0663	69.7398	485.0888	48.9801	98.2%	99.9%	1222.4204	4223.3873
σ		0.6%	34.9280	79.0731	0.0547	29.7643	1438.9867	18.2272	23.0790	31.7980	1.5%	0.7%	118.5265	853.0383
%RSD		0.6	190.1692	27.2778	1.4919	44.4866	620.0756	26.1360	4.7577	64.9202	1.6	0.7	9.6961	20.1980

SEQ-IFA@ICSA01 10/18/2016 18:27:13 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	18:27:26	88.5%	129.5384	90.1%	970386.1700	-767.4525	26829.5860	222.5990	9813.9283	9071.5834	4.1067	-1.8353	-18.5594	21.6572	-1672.3550	2412509.5000	±4237956.9000	±4596336.7000	2655180.4000
2	18:27:40	88.2%	146.4637	93.1%	993975.6700	-377.9297	27555.9500	103.8351	9962.6749	8730.9853	0.4071	-3.0296	10.9012	3.1591	-179.9368	2447642.6000	±4241734.7000	±4616314.5000	2709155.4000
3	18:27:54	89.4%	175.2764	94.7%	998652.1900	-429.5208	27180.2590	119.3488	9794.9244	8811.7157	-3.3392	2.9840	-11.1110	13.8957	-959.3064	±2434245.7000	±4316956.4000	±4683153.6000	±2687119.5000
x		88.7%	1.#IO%	92.6%	987671.3400	-109.929%	102.409%	148.5943	136.973%	95.518%	0.3915	-5.443%	-6.2564	12.9040	-937.1994	±2431465.9000	±4265549.3000	±4631935.0000	±2683818.5000
σ		0.7%	n/a	2.3%	15150.9190	n/a	n/a	64.5577	n/a	n/a	3.7230	n/a	15.3185	9.2888	746.4547	±17730.7270	±44559.9160	±45467.4780	±27138.5050
%RSD		0.8	15.3730	2.5	1.5340	40.3028	1.3361	43.4456	0.9319	2.0062	950.8668	507.8015	244.8452	71.9839	79.6474	±0.7292	±1.0446	±0.9816	±1.0112

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:27:26	89.5%	-14.5456	144.4234	1942.0215	577.1018	1755.8508	648.9126	4618.2788	3024.6469	99.9%	100.3%	742.5188	-20.2626
2	18:27:40	89.0%	15.5465	159.9578	1836.1365	676.4756	-356.5279	698.8620	4745.1956	2801.4622	102.9%	103.7%	632.1083	-177.7903
3	18:27:54	90.5%	-7.1691	150.3439	1805.6769	573.9868	2439.8135	575.6065	5218.4403	3119.7810	104.5%	105.3%	533.7982	-1138.7378
x		89.7%	-2.0561	1.#IO%	1861.2783	68.087%	1279.7121	641.1271	77.769%	171.816%	102.4%	103.1%	1.#IO%	-445.5969
σ		0.8%	15.6841	n/a	71.5650	n/a	1457.7079	61.9955	n/a	n/a	2.3%	2.6%	n/a	605.4230
%RSD		0.9	762.8139	5.1724	3.8449	9.5691	113.9090	9.6698	6.5073	5.4795	2.3	2.5	16.4144	135.8679

SEQ-IFB@ICSAB01 10/18/2016 18:31:24 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	18:31:37	88.0%	8575.7613	100.1%	971549.9700	20877.2830	55450.1070	413.1940	150740.3500	36974.4150	230.7933	766.3939	323.0886	23.4491	1892.5524	2420073.1000	±4205491.0000	±4601236.4000
2	18:31:50	87.8%	8116.9517	104.0%	960919.5100	20094.8280	54798.0260	438.7937	148583.1800	37154.2700	213.9844	751.3004	364.9170	26.4897	1270.7709	±2403274.0000	±4231532.0000	±4615136.7000
3	18:32:03	88.9%	8397.7399	103.9%	982491.9700	19872.1020	54314.9940	455.3011	149711.5000	37914.2270	242.4295	749.8815	329.2513	25.9654	-1427.0784	±2411675.3000	±4245894.3000	±4630598.8000
x		88.3%	99.140%	102.7%	971653.8200	111.762%	108.473%	435.7629	103.995%	100.530%	229.0691	103.614%	339.0856	25.3014	578.7483	±2411674.1000	±4227639.1000	±4615657.3000
σ		0.6%	n/a	2.2%	10786.6050	n/a	n/a	21.2165	n/a	n/a	14.3007	n/a	22.5818	1.6254	1764.6979	±8399.5384	±20481.0530	±14688.1210
%RSD		0.7	2.7658	2.2	1.1101	2.6030	1.0385	4.8688	0.7209	1.3357	6.2430	1.2107	6.6596	6.4241	304.9163	±0.3483	±0.4845	±0.3182

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:31:37	94.0%	2184.8569	104152.0600	3452.7413	24530.2070	2680.7950	622.6557	87146.6050	32479.9180	103.0%	103.6%	199971.2600	-974.3121
2	18:31:50	95.1%	2089.9669	104493.5400	3501.8829	24835.7280	3348.9613	631.4800	88836.0350	33681.9600	104.2%	105.3%	200713.9000	-1563.4186
3	18:32:03	96.3%	2126.6658	104942.1900	3355.6869	24520.3770	1285.1495	591.0202	88284.0510	34013.7580	107.6%	107.9%	201274.9000	-3100.6970
x		95.1%	2133.8299	101.154%	3436.7704	96.344%	2438.3019	615.0520	96.095%	104.945%	105.0%	105.6%	93.467%	-1879.4759
σ		1.2%	47.8489	n/a	74.3950	n/a	1053.0584	21.2747	n/a	n/a	2.4%	2.1%	n/a	1097.8603
%RSD		1.2	2.2424	0.3791	2.1647	0.7280	43.1882	3.4590	0.9779	2.4168	2.3	2.0	0.3259	58.4131

SEQ-CCV@CCV01 10/18/2016 18:35:33 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo
1	18:35:46	95.7%	220478.6000	109.4%	565805.8800	476432.8100	640975.3700	5288.5264	±3551564.1000	768611.4700	6148.7808	19596.9140	9066.8592	106.0540	2129.0678	1465202.0000	±2558634.8000
2	18:35:59	94.5%	219490.8300	111.6%	568118.3700	477289.8500	643069.1500	4945.4407	±3555287.3000	770019.0100	5955.3874	19475.9690	8960.3901	158.8002	463.2333	1462076.6000	±2557985.2000
3	18:36:12	95.4%	218393.2000	111.8%	572534.2300	476135.6300	636885.8500	5217.3865	±3590854.4000	778566.6000	6142.1237	19369.6050	8990.8060	92.9658	-42.0062	1478154.4000	±2559944.2000
x		95.2%	98.853%	110.9%	568819.5000	99.805%	101.295%	5150.4512	±99.102%	99.796%	6082.0973	101.477%	9006.0184	119.2733	850.0983	1468477.7000	±2558854.7000
σ		0.6%	n/a	1.3%	3418.5315	n/a	n/a	181.0724	±n/a	n/a	109.7845	n/a	54.8405	34.8512	1136.0630	8524.7314	±997.8492
%RSD		0.7	0.4754	1.2	0.6010	0.1257	0.4911	3.5157	±0.6082	0.6975	1.8050	0.5838	0.6089	29.2196	133.6390	0.5805	±0.0390

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:35:46	106.9%	57793.6000	372909.4100	44037.0840	654877.4400	3995.0206	±2114654.3000	2194094.9000	753562.9800	112.6%	114.3%	±4909139.0000	1133.3091
2	18:35:59	107.1%	57439.4290	378448.0400	43937.7590	653532.9100	-1885.3014	2227449.7000	2208841.0000	753622.3200	116.1%	115.1%	±4999456.1000	2686.2073
3	18:36:12	107.5%	58112.0660	379800.4000	43381.2800	661267.5500	-6.4498	2264329.8000	2252504.5000	768277.0000	116.5%	117.5%	±4909538.7000	1839.5042
x		107.1%	57781.6980	101.043%	43785.3740	102.734%	701.0898	±2202144.6000	106.485%	104.887%	115.1%	115.7%	±96.635%	1886.3402
σ		0.3%	336.4765	n/a	353.4624	n/a	3003.3325	±77980.4650	n/a	n/a	2.2%	1.7%	±n/a	777.5078
%RSD		0.3	0.5823	0.9684	0.8073	0.6294	428.3806	±3.5411	1.3692	1.1178	1.9	1.4	±1.0534	41.2178

SEQ-CCB@CCB01 10/18/2016 18:39:45 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	18:39:58	89.0%	115.8138	99.6%	232.1572	86.9371	180.5819	-16.8047	1182.0277	385.6034	9.5149	5.5454	-9.2419	13.3492	-1393.0882	541.3609	890.8755	1082.1359	579.3092	1767.3414
2	18:40:11	91.9%	79.0699	99.5%	275.9317	45.9935	139.6219	-16.1806	1470.0457	510.1574	6.2916	3.3889	0.2088	3.6890	1582.5027	660.8062	1070.0883	1245.1563	606.5459	1921.4790
3	18:40:24	91.3%	104.4880	100.7%	272.0228	68.1314	116.1812	-6.9470	1356.2401	421.8134	3.0860	0.1864	-6.1542	6.9156	892.5954	693.5527	1087.4839	1146.2475	685.5434	1822.8649
x		90.7%	99.7905	99.9%	260.0372	67.0207	145.4617	-13.3108	1336.1045	439.1914	6.2975	3.0402	-5.0624	7.9846	360.6700	631.9066	1016.1492	1157.8465	623.7995	1837.2284
σ		1.5%	18.8170	0.6%	24.2238	20.4944	32.5951	5.5200	145.0609	64.0697	3.2145	2.6965	4.8190	4.9180	1557.4800	80.1060	108.8384	82.1268	55.1787	78.0662
%RSD		1.7	18.8565	0.6	9.3155	30.5792	22.4080	41.4702	10.8570	14.5881	51.0438	88.6931	95.1918	61.5940	431.8297	12.6769	10.7109	7.0931	8.8456	4.2491

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:39:58	103.7%	45.7018	212.4854	22.9068	208.7210	500.6716	783.4182	882.0705	254.3397	103.8%	104.3%	2393.6729	1897.2323
2	18:40:11	103.8%	16.4988	235.8297	16.3900	245.0560	3757.7530	824.3740	922.9809	261.5500	103.5%	105.0%	2342.9352	3234.1637
3	18:40:24	103.8%	43.2593	177.2156	22.6105	292.8954	3296.9359	825.5759	844.0375	294.3136	105.4%	106.4%	2501.9783	1887.5146
x		103.8%	35.1533	208.5102	20.6358	248.8908	2518.4535	811.1227	883.0296	270.0677	104.2%	105.2%	2412.8621	2339.6369
σ		0.1%	16.2014	29.5085	3.6799	42.2180	1762.5751	24.0003	39.4804	21.3047	1.0%	1.1%	81.2394	774.6982
%RSD		0.1	46.0878	14.1521	17.8326	16.9624	69.9864	2.9589	4.4710	7.8887	0.9	1.1	3.3669	33.1119

SEQ-CCV@CCV02 10/18/2016 19:10:27 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo
1	19:10:40	97.4%	220566.5500	102.2%	565106.7100	453083.0400	612384.5900	5774.4571	±3564243.0000	773152.4700	5388.3557	18245.7120	8167.1466	75.7296	856.2500	1443260.5000	±2518023.4000
2	19:10:53	97.7%	227497.4700	101.1%	575596.2200	474176.7100	638520.9700	5699.2322	±3608408.6000	791526.7500	5916.4254	19418.8160	9037.7159	89.8009	-36.5197	1464377.8000	±2565140.8000
3	19:11:07	97.5%	226663.1800	101.6%	575143.3600	461649.2200	620294.1000	5425.3764	±3611468.4000	787311.8900	5913.2237	18648.9660	8858.3509	90.4012	-1788.3445	1481115.8000	±2583896.6000
x		97.5%	101.310%	101.6%	571948.7600	96.947%	98.673%	5633.0219	±99.903%	101.295%	5739.3349	97.780%	8687.7378	85.3105	-322.8714	1462918.0000	±2555686.9000
σ		0.2%	n/a	0.5%	5929.7174	n/a	n/a	183.7177	±n/a	n/a	303.9611	n/a	459.6785	8.3028	1345.3505	18969.8180	±33938.9480
%RSD		0.2	1.6824	0.5	1.0368	2.2914	2.1489	3.2614	±0.7352	1.2277	5.2961	3.1752	5.2911	9.7324	416.6831	1.2967	±1.3280

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:10:40	102.2%	56133.9080	368464.4500	42240.6080	640832.8600	-3081.9986	2184266.0000	2163894.6000	736875.3100	110.1%	110.6%	±4935839.8000	1546.1059
2	19:10:53	98.1%	57395.3400	382240.8800	43370.6150	663275.9000	1251.3555	2251078.4000	2248711.0000	757107.3800	111.8%	113.0%	±4925973.9000	1503.7088
3	19:11:07	100.7%	57589.7500	379966.5000	43584.9980	660307.3200	21.3547	2262946.8000	2256733.9000	757787.5400	113.1%	114.5%	±4965950.2000	2219.7847
x		100.3%	57039.6660	100.999%	43065.4070	102.459%	-603.0961	2232763.7000	106.708%	103.795%	111.7%	112.7%	±96.697%	1756.5331
σ		2.1%	790.4090	n/a	722.2951	n/a	2233.1466	42417.4100	n/a	n/a	1.5%	2.0%	±n/a	401.7473
%RSD		2.1	1.3857	1.9595	1.6772	1.8618	370.2804	1.8998	2.3139	1.5830	1.4	1.7	±0.4213	22.8716

SEQ-CCB@CCB02 10/18/2016 19:14:39 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:14:53	91.3%	99.3055	90.6%	352.6438	-19.8436	128.2454	-2.5397	1216.7028	361.8533	-3.3392	6.3603	19.9164	-15.5726	-325.0485	571.8305	902.7338	1011.3061	557.5870	1500.8003
2	19:15:05	93.9%	98.4932	91.3%	167.3931	22.8508	131.4887	-19.6914	1170.4138	366.5686	10.3267	5.4213	20.3213	-5.3231	-1099.8917	551.3282	1016.3204	995.9839	681.6255	1665.0597
3	19:15:18	93.3%	89.0881	93.1%	195.0379	116.2100	128.4887	-35.9523	1243.3736	168.9754	0.1015	0.9468	23.7470	-12.1319	-718.7972	478.1861	787.2394	872.4302	617.3425	1332.8265
x		92.8%	95.6289	91.7%	238.3583	39.7391	129.4076	-19.3945	1210.1634	299.1324	2.3630	4.2428	21.3282	-11.0092	-714.5792	533.7816	902.0978	959.9067	618.8517	1499.5622
σ		1.3%	5.6791	1.3%	99.9347	69.5813	1.8064	16.7083	36.9169	112.7440	7.1081	2.8928	2.1045	5.2161	387.4389	49.2263	114.5419	76.1433	62.0330	166.1200
%RSD		1.4	5.9386	1.4	41.9263	175.0955	1.3959	86.1500	3.0506	37.6903	300.8093	68.1809	9.8670	47.3799	54.2192	9.2222	12.6973	7.9324	10.0239	11.0779

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:14:53	98.7%	3.7158	182.6701	30.8964	181.2966	709.1257	669.2266	856.4985	252.8810	103.1%	103.3%	2441.1633	4867.2095
2	19:15:05	97.6%	22.2674	159.8132	20.3380	212.5564	2574.1973	654.6602	750.7481	290.2075	104.9%	105.7%	2093.7890	3312.4972
3	19:15:18	96.9%	-6.8361	127.2737	20.0623	223.0257	1890.8355	627.9823	846.6371	224.8990	105.8%	107.2%	2011.8533	2284.3651
x		97.7%	6.3824	156.5857	23.7656	205.6263	1724.7195	650.6230	817.9612	255.9958	104.6%	105.4%	2182.2685	3488.0239
σ		0.9%	14.7338	27.8389	6.1770	21.7106	943.5671	20.9165	58.4167	32.7655	1.4%	1.9%	227.9216	1300.3378
%RSD		1.0	230.8520	17.7787	25.9915	10.5583	54.7084	3.2148	7.1417	12.7992	1.3	1.8	10.4442	37.2801

SEQ-CCV@CCV03 10/18/2016 19:45:06 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	9
1	19:45:19	96.3%	216615.0500	99.7%	555447.2800	467347.7400	631780.7300	5599.6237	±352835.5000	761298.5400	6030.4103	19002.0280	8858.3137	131.2125	900.9126	1421851.8000	±2497689.1000	±2720884.
2	19:45:32	96.3%	218584.8800	99.6%	564343.4000	457961.7900	614468.4100	4850.9572	±3568963.0000	772088.6500	5774.1418	18579.3760	8510.0717	129.7274	-386.8580	1454217.6000	±2532277.1000	±2737218.
3	19:45:45	95.8%	219001.5200	99.6%	576086.5300	455506.0000	616661.0000	4842.0317	±3605112.8000	788294.4800	5788.6026	18546.9510	8639.0287	130.1745	-607.2945	1470072.4000	±2543592.6000	±2763589.
x		96.1%	98.228%	99.6%	565292.4000	96.382%	98.236%	5097.5375	±99.146%	99.989%	5864.3849	97.459%	8669.1380	130.3715	-31.0800	1448713.9000	±2524519.6000	±2740564.
σ		0.3%	n/a	0.0%	10352.3010	n/a	n/a	434.8423	±n/a	n/a	143.9639	n/a	176.0626	0.7619	814.6200	24576.9090	±23914.8070	±21548.
%RSD		0.3	0.5845	0.0	1.8313	1.3578	1.5180	8.5304	±1.0764	1.7558	2.4549	1.3571	2.0309	0.5844	2621.0419	1.6965	±0.9473	±0.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:45:19	97.6%	56345.5910	373343.7400	42935.3850	641222.0300	152.2399	2179564.5000	2165813.1000	739492.7000	110.4%	112.0%	±4994135.9000	3609.0106
2	19:45:32	100.9%	56344.3940	375525.7300	43449.2700	648901.9800	-1111.8902	2219922.0000	2231039.9000	745992.8600	113.8%	115.4%	±4992322.9000	2871.6768
3	19:45:45	100.6%	56973.8510	378674.6900	42850.0190	653670.1500	-3027.9348	2227561.7000	2230395.5000	751276.7400	115.3%	117.5%	±4904421.4000	3399.4669
x		99.7%	56554.6120	100.720%	43078.2250	101.384%	-1329.1950	2209016.0000	106.034%	103.103%	113.2%	115.0%	±97.109%	3293.3848
σ		1.8%	363.0723	n/a	324.1570	n/a	1601.1852	25790.2710	n/a	n/a	2.5%	2.8%	±n/a	379.9413
%RSD		1.8	0.6420	0.7131	0.7525	0.9693	120.4628	1.1675	1.6964	0.7917	2.2	2.4	±1.0331	11.5365

SEQ-CCB@CCB03 10/18/2016 19:49:18 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:49:31	92.7%	52.1724	89.7%	119.4707	23.1533	30.1486	-42.6780	750.9946	136.4210	-3.3392	-1.4348	3.3746	1.4664	-96.9074	407.1212	765.2365	745.0066	472.9059	1211.9236
2	19:49:44	94.2%	47.3895	91.2%	156.5503	28.2353	39.0534	-33.0904	828.8098	280.2223	3.5827	-2.4467	3.2415	-5.1897	891.9921	436.7292	749.7376	839.5811	594.5885	1398.0494
3	19:49:57	93.9%	83.0502	92.0%	129.2855	-47.7443	2.7498	-20.8699	735.1792	152.6507	0.0744	5.4078	0.0299	4.9089	-175.2607	424.9033	680.1739	789.3112	479.4115	1155.4381
x		93.6%	60.8707	91.0%	135.1021	1.2148	23.9840	-32.2128	771.6612	189.7646	0.1059	0.5087	2.2153	0.3952	206.6080	422.9179	731.7160	791.2996	515.6353	1255.1370
σ		0.8%	19.3563	1.2%	19.2119	42.4759	18.9206	10.9305	50.1199	78.7578	3.4611	4.2728	1.8938	5.1338	594.8515	14.9035	45.3045	47.3186	68.4528	126.9473
%RSD		0.9	31.7991	1.3	14.2203	3496.5609	78.8887	33.9322	6.4951	41.5029	3267.2059	839.8727	85.4869	1299.1153	287.9131	3.5240	6.1915	5.9799	13.2754	10.1142

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:49:31	97.8%	9.8181	82.4716	10.2414	129.1357	502.3091	564.7155	593.6034	140.2277	105.2%	106.6%	1335.1224	3375.4210
2	19:49:44	96.3%	-1.8535	78.1323	3.3814	100.9248	1741.9043	458.6392	538.8132	178.0422	105.5%	107.0%	1413.8003	4193.7302
3	19:49:57	97.6%	3.2126	87.0787	3.3422	102.9786	92.1209	381.9446	531.8053	136.1086	107.0%	108.5%	1425.1602	4569.2563
x		97.3%	3.7257	82.5609	5.6550	111.0130	778.7781	468.4331	554.7407	151.4595	105.9%	107.4%	1391.3610	4046.1358
σ		0.8%	5.8527	4.4739	3.9720	15.7282	858.9369	91.7782	33.8381	23.1132	1.0%	1.0%	49.0342	610.4496
%RSD		0.8	157.0891	5.4189	70.2382	14.1679	110.2929	19.5926	6.0998	15.2603	0.9	1.0	3.5242	15.0872

SEQ-CCV@CCV04 10/18/2016 20:06:35 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	9
1	20:06:48	96.5%	222410.2300	98.2%	582190.9000	460090.3700	623248.4500	4995.2537	±3675296.4000	793392.7300	5917.9775	18415.9410	8593.3466	153.2608	169.5029	1482219.7000	±2631198.1000	±2857609.
2	20:07:02	95.7%	221861.1000	97.2%	587883.7500	459610.1600	621461.6300	5551.5418	±3664360.1000	794814.8100	5578.4140	18582.2980	8624.8877	130.5572	-370.6146	1492408.8000	±2606947.8000	±2812745.
3	20:07:15	96.1%	226968.1700	96.3%	585968.1700	463228.9300	627155.5300	5231.0466	±3677257.4000	793408.0600	5950.7624	19094.2080	8419.6171	90.7174	-11.2049	1500439.4000	±2602075.5000	±2806839.
x		96.1%	100.786%	97.2%	585680.9400	96.530%	98.708%	5259.2807	±102.059%	102.571%	5815.7180	97.397%	8545.9505	124.8451	-70.7722	1491689.3000	±2613407.1000	±2825731.
σ		0.4%	n/a	1.0%	3056.9377	n/a	n/a	279.2167	±n/a	n/a	206.1640	n/a	110.5387	31.6605	274.9416	9131.1206	±15598.8710	±27765.
%RSD		0.5	1.2530	1.0	0.5219	0.4264	0.4667	5.3090	±0.1892	0.1029	3.5449	1.8906	1.2935	25.3598	388.4881	0.6121	±0.5969	±0.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:06:48	96.7%	58050.7290	377933.1800	43556.4020	662056.7900	-284.1968	±2158028.4000	2249159.0000	757811.5000	112.2%	113.6%	±5086921.4000	4074.9069
2	20:07:02	98.1%	58049.8800	381017.0300	43996.7610	664961.2900	-1540.8548	2271720.5000	2261903.7000	759276.3900	114.1%	115.1%	±5106300.6000	5307.3927
3	20:07:15	97.2%	59002.4610	381487.2900	44555.0390	671393.6000	-1855.1334	2269115.3000	2273424.6000	758665.1200	115.6%	116.3%	±5062873.7000	4984.2857
x		97.3%	58371.0240	101.872%	44036.0670	104.233%	-1226.7283	±2232954.7000	108.550%	104.900%	114.0%	115.0%	±99.491%	4788.8618
σ		0.7%	546.8679	n/a	500.4776	n/a	831.2443	±64901.2150	n/a	n/a	1.7%	1.3%	±n/a	639.0604
%RSD		0.7	0.9369	0.5079	1.1365	0.7173	67.7611	±2.9065	0.5367	0.0970	1.5	1.2	±0.4278	13.3447

SEQ-CCB@CCB04 10/18/2016 20:10:57 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	20:11:10	93.6%	45.3767	88.7%	113.9070	-71.3483	30.7762	-13.4694	607.6596	178.7627	0.0680	-1.4362	13.5964	1.4637	758.4131	329.7939	617.1299	628.5024	389.2479	1050.9024
2	20:11:24	93.9%	66.5051	90.3%	144.0521	-72.8269	-4.9787	-13.9638	643.9619	129.8148	3.4832	3.1226	0.2366	15.1283	-951.4547	355.1650	617.3011	666.1530	455.0420	965.1161
3	20:11:37	93.2%	62.8730	90.2%	92.5611	7.6519	-7.0737	-45.1303	577.8751	132.0066	0.0715	-2.5640	3.3749	1.4808	50.4105	297.6179	588.7136	664.3608	400.3176	1035.7184
x		93.6%	58.2516	89.7%	116.8401	-45.5077	6.2413	-24.1878	609.8322	146.8613	1.2076	-0.2926	5.7360	6.0243	-47.5437	327.5256	607.7149	653.0054	414.8691	1017.2456
σ		0.4%	11.2969	0.9%	25.8705	46.0436	21.2737	18.1384	33.0969	27.6491	1.9708	3.0109	6.9858	7.8843	859.1323	28.8405	16.4558	21.2391	35.2282	45.7794
%RSD		0.4	19.3934	1.0	22.1418	101.1774	340.8540	74.9898	5.4272	18.8267	163.2014	1029.1333	121.7893	130.8755	1807.0358	8.8056	2.7078	3.2525	8.4914	4.5003

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:11:10	97.8%	-37.3538	59.0725	0.0000	106.1850	3014.6239	355.9174	489.5749	154.5133	104.9%	106.3%	1319.1388	3680.5049
2	20:11:24	97.7%	-45.8498	71.4129	3.3828	114.4381	2676.7084	447.8121	514.5031	137.9120	106.5%	108.0%	1304.6326	3745.7578
3	20:11:37	97.7%	-26.6042	107.4832	3.3499	136.5052	-86.0369	444.0904	442.2466	109.0309	108.6%	110.0%	1181.4245	2101.0520
x		97.8%	-36.6026	79.3229	2.2442	119.0428	1868.4318	415.9400	482.1082	133.8187	106.6%	108.1%	1268.3986	3175.7716
σ		0.1%	9.6448	25.1560	1.9436	15.6758	1701.0313	52.0144	36.7023	23.0158	1.9%	1.9%	75.6702	931.3061
%RSD		0.1	26.3499	31.7135	86.6056	13.1682	91.0406	12.5053	7.6129	17.1992	1.8	1.7	5.9658	29.3253

SEQ-CCV@CCV05 10/18/2016 21:08:00 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	9
1	21:08:14	88.4%	226751.5400	83.0%	574022.7500	435697.1300	596845.7500	4907.2846	±3610406.6000	773518.4400	5586.1195	17453.5110	7956.0518	138.0225	-134.2985	1430287.6000	2589586.7000	2829974.
2	21:08:27	89.8%	224169.5900	84.5%	568674.6600	438411.4300	596576.5400	5240.4137	±3537291.5000	765034.0700	5199.3232	17789.5720	7987.7507	130.0212	-1984.3154	1421703.7000	2572422.9000	±2709383.
3	21:08:40	89.2%	221540.8300	85.0%	568990.3800	432314.5200	588072.5700	4844.6835	±3547293.5000	764467.2400	5537.8077	17421.5750	8129.4959	114.0092	-1168.1058	1436543.0000	2597157.2000	±2713320.
x		89.1%	100.970%	84.2%	570562.5900	91.189%	93.943%	4997.4606	±99.077%	99.186%	5441.0835	91.445%	8024.4328	127.3510	-1095.5732	1429511.4000	2586388.9000	±2750892.
σ		0.7%	n/a	1.1%	3000.7348	n/a	n/a	212.7190	±n/a	n/a	210.7594	n/a	92.3574	12.2273	927.1388	7450.0505	12673.4280	±68514.
%RSD		0.7	1.1623	1.3	0.5259	0.7014	0.8402	4.2565	±1.1120	0.6604	3.8735	1.1613	1.1510	9.6013	84.6259	0.5212	0.4900	±2.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:08:14	91.1%	56251.3900	371268.0100	42244.1870	646746.9200	-443.5602	±2091516.7000	2177462.3000	727888.9700	106.6%	108.7%	±5117862.3000	7198.1637
2	21:08:27	91.6%	56304.1500	365807.8700	41933.9530	646990.5500	-6063.8385	2191195.4000	2179632.8000	722676.6200	110.6%	111.2%	±5117769.9000	8052.4112
3	21:08:40	92.6%	56232.8540	369864.2800	43023.8390	643056.4000	-3092.6618	2190032.1000	2179685.2000	725706.8000	110.8%	112.1%	±5082072.8000	9071.3594
x		91.8%	56262.7980	98.880%	42400.6600	101.019%	-3200.0201	±2157581.4000	104.587%	100.314%	109.3%	110.7%	±99.892%	8107.3114
σ		0.7%	36.9916	n/a	561.5382	n/a	2811.6768	±5216.7040	n/a	n/a	2.4%	1.7%	±n/a	937.8038
%RSD		0.8	0.0657	0.7685	1.3244	0.3415	87.8643	±2.6519	0.0582	0.3608	2.2	1.6	±0.4042	11.5674

SEQ-CCB@CCB05 10/18/2016 21:12:22 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	21:12:36	87.1%	49.6919	77.6%	104.6525	-2.9840	-28.8142	-51.4219	592.4741	265.1530	4.0211	-5.6154	3.4019	2.8282	-1698.4836	524.9528	948.2365	737.2488	556.0877	1356.7507
2	21:12:49	87.0%	65.6943	78.7%	72.7270	-87.0890	-17.4356	-31.5433	542.3157	155.4796	4.1206	-0.5759	-7.7828	3.0769	-1025.1513	433.1887	835.5520	787.2477	483.6307	1325.3058
3	21:13:02	87.0%	40.2233	78.9%	80.9576	-40.8471	-10.2329	-35.7883	590.4281	165.7996	0.3431	-6.8400	10.6194	-4.5257	-678.7520	492.2071	782.7981	802.8340	572.2114	1290.1450
x		87.1%	51.8698	78.4%	86.1124	-43.6400	-18.8276	-39.5845	575.0726	195.4774	2.8282	-4.3437	2.0795	0.4598	-1134.1290	483.4495	855.5289	775.7768	537.3100	1324.0671
σ		0.0%	12.8744	0.7%	16.5753	42.1220	9.3686	10.4689	28.3868	60.5610	2.1528	3.3200	9.2721	4.3193	518.5270	46.5047	84.5090	34.2643	47.1814	33.3201
%RSD		0.0	24.8206	0.9	19.2484	96.5214	49.7597	26.4470	4.9362	30.9811	76.1174	76.4318	445.8873	939.3537	45.7203	9.6193	9.8780	4.4168	8.7810	2.5165

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:12:36	90.6%	-42.4802	51.0140	7.5030	97.7376	468.3258	390.8609	436.6689	96.1371	100.7%	102.3%	1064.1156	7334.2852
2	21:12:49	89.4%	-21.6323	68.5878	14.7931	81.5592	1346.6113	433.6777	408.4614	76.3725	102.1%	104.1%	956.3790	7858.4278
3	21:13:02	90.5%	-3.7265	57.1103	3.6802	77.4595	1689.0433	491.4806	327.4253	68.4223	103.0%	104.8%	1131.4070	8267.4442
x		90.2%	-22.6130	58.9040	8.6588	85.5854	1167.9935	438.6731	390.8519	80.3106	101.9%	103.7%	1050.6339	7820.0524
σ		0.7%	19.3954	8.9232	5.6459	10.7219	629.6555	50.4955	56.7108	14.2710	1.2%	1.3%	88.2894	467.7616
%RSD		0.8	85.7711	15.1487	65.2042	12.5277	53.9092	11.5110	14.5095	17.7697	1.1	1.2	8.4034	5.9816

SEQ-CCV@CCV06 10/18/2016 22:50:18 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	9
1	22:50:31	93.9%	212591.6300	93.1%	571459.3600	439459.9700	599165.4100	5381.4301	±3625338.6000	770671.2300	5471.9980	18002.3690	7921.6064	144.1957	351.5927	1465979.3000	±2566470.8000	±2786401.4
2	22:50:44	94.7%	214774.0900	93.3%	572307.4200	442993.5300	600533.2600	5057.6130	±3599773.7000	771666.4400	5524.9767	17910.5200	8639.2088	119.4793	-358.0141	1463753.8000	±2567280.0000	±2773433.1
3	22:50:57	93.3%	216694.0100	92.5%	576790.7300	442102.8200	602874.3300	5482.8931	±3605187.4000	777971.2200	5400.4212	17969.7720	8012.5814	85.4367	-634.8810	1474762.3000	±2569396.6000	±2793403.7
x		94.0%	96.705%	93.0%	573519.1700	92.455%	95.054%	5307.3120	±100.330%	99.930%	5465.7986	93.560%	8191.1322	116.3706	-213.7675	1468165.1000	±2567715.8000	±2784412.8
σ		0.7%	n/a	0.4%	2864.8091	n/a	n/a	222.1169	±n/a	n/a	62.5087	n/a	390.7027	29.5026	508.8103	5820.6670	±1510.8187	±10132.7
%RSD		0.8	0.9561	0.5	0.4995	0.4162	0.3122	4.1851	±0.3732	0.5118	1.1436	0.2593	4.7698	25.3523	238.0204	0.3965	±0.0588	±0.3

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:50:31	96.0%	56669.5480	372140.0500	42718.7310	644706.3200	-942.6369	2198253.2000	2208712.9000	733171.8100	114.5%	116.2%	±5060396.3000	5798.2666
2	22:50:44	96.3%	56266.0520	370634.5200	42590.5430	644971.4900	1538.4720	2225545.2000	2203807.6000	734584.5500	116.5%	118.0%	±5038767.8000	7157.2408
3	22:50:57	95.7%	57543.9360	372652.4000	43418.0750	654681.3200	896.4457	2248107.7000	2256681.5000	737470.3600	118.1%	119.0%	±5083364.4000	6091.0935
x		96.0%	56826.5120	99.638%	42909.1170	101.413%	497.4269	2223968.7000	106.705%	101.649%	116.4%	117.7%	±99.011%	6348.8670
σ		0.3%	653.2419	n/a	445.4069	n/a	1287.7839	24964.6210	n/a	n/a	1.8%	1.4%	±n/a	715.2189
%RSD		0.3	1.1495	0.2821	1.0380	0.8770	258.8891	1.1225	1.3141	0.2981	1.6	1.2	±0.4407	11.2653

SEQ-CCB@CCB06 10/18/2016 22:54:41 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	22:54:54	90.3%	45.8668	82.5%	114.8783	17.4989	-29.0516	-59.7679	524.1111	159.6434	0.1858	-1.1221	-10.6434	5.5777	3247.2486	504.3136	907.4021	853.2122	581.6556	1408.1154
2	22:55:07	91.5%	64.1778	84.5%	95.0469	1.3134	-23.4491	-60.6569	661.7742	112.0394	-3.3392	1.3396	-3.7274	2.2203	2893.1227	598.9276	934.1617	1052.0641	567.9017	1408.5734
3	22:55:20	89.9%	47.5435	85.6%	131.6987	15.0326	-22.9568	-56.8457	610.4199	186.4225	0.1496	-2.3816	-0.1759	-1.6172	-25.4989	515.4806	831.8745	884.6862	492.5786	1312.9519
x		90.6%	52.5294	84.2%	113.8746	11.2817	-25.1525	-59.0902	598.7684	152.7018	-1.0013	-0.7214	-4.8489	2.0603	2038.2908	539.5739	891.1461	929.9875	547.3787	1376.5469
σ		0.8%	10.1226	1.6%	18.3465	8.7204	3.3857	1.9939	69.5672	37.6742	2.0248	1.8927	5.3231	3.6001	1796.0435	51.7041	53.0458	106.8863	47.9539	55.0754
%RSD		0.9	19.2704	1.9	16.1111	77.2970	13.4606	3.3744	11.6184	24.6718	202.2266	262.3773	109.7792	174.7412	88.1152	9.5824	5.9525	11.4933	8.7606	4.0010

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:54:54	94.6%	19.1734	86.1188	3.5364	77.5205	2750.5017	1054.3149	488.7201	82.8008	106.6%	108.5%	1037.7735	6301.6330
2	22:55:07	93.7%	-28.9036	46.1075	6.9603	96.8972	5610.3068	965.1770	427.1827	84.1371	107.4%	109.4%	1133.2165	6864.9258
3	22:55:20	95.5%	-13.4797	79.4716	3.4261	102.0698	3712.8134	1161.8742	419.7639	103.8435	109.4%	110.8%	1098.3170	7718.6483
x		94.6%	-7.7366	70.5660	4.6409	92.1625	4024.5406	1060.4554	445.2222	90.2605	107.8%	109.6%	1089.7690	6961.7357
σ		0.9%	24.5476	21.4408	2.0094	12.9414	1455.1638	98.4922	37.8524	11.7822	1.4%	1.1%	48.2923	713.4509
%RSD		1.0	317.2906	30.3841	43.2968	14.0420	36.1573	9.2877	8.5019	13.0536	1.3	1.0	4.4314	10.2482

Q114030-BLK1@PB501@MH1H14@46282 10/18/2016 22:58:58 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	22:58:58	89.7%	5.9365	80.6%	57.2560	-80.4423	-190.0132	-94.4093	42.7688	530.1268	-3.3392	-1.1379	-13.9989	12.5806	218.6286	76.8260	102.7023	131.5259	61.8512	210.1229
2	22:59:11	89.4%	25.1836	83.5%	21.3341	-81.5209	-200.5269	-92.9011	36.3207	385.0011	-3.3392	-1.1899	3.4538	5.4252	-274.8945	51.9396	113.8621	134.1525	77.9737	218.0148
3	22:59:24	90.6%	21.0160	83.9%	9.0390	-38.9742	-223.1317	-106.1393	32.0398	393.5173	0.1785	1.2036	-10.4743	12.5694	644.0033	91.1566	148.9497	89.5375	84.4520	248.9839
x		89.9%	17.3787	82.7%	29.2097	-66.9791	-204.5573	-97.8166	37.0431	436.2151	-2.1666	-0.3747	-7.0065	10.1918	195.9125	73.3074	121.8380	118.4053	74.7590	225.7072
σ		0.6%	10.1260	1.8%	25.0547	24.2590	16.9231	7.2471	5.4008	81.4413	2.0310	1.3671	9.2287	4.1280	459.8699	19.8438	24.1334	25.0347	11.6383	20.5408
%RSD		0.7	58.2666	2.2	85.7753	36.2187	8.2730	7.4088	14.5799	18.6700	93.7383	364.8068	131.7166	40.5031	234.7323	27.0694	19.8077	21.1432	15.5677	9.1006

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:58:58	94.7%	-15.5902	5.3401	0.0000	-9.9777	4233.8883	109.9902	27.7072	-23.8828	101.7%	103.8%	197.7744	7411.8363
2	22:59:11	95.2%	-44.3353	-2.4247	0.0000	-6.4490	3251.4339	123.3302	5.1410	-42.1748	104.2%	106.0%	162.7443	6850.2020
3	22:59:24	94.8%	-16.9927	0.9684	7.0404	17.9933	7479.8845	130.7526	18.4067	-36.0362	105.7%	108.2%	184.4631	6577.1915
x		94.9%	-25.6394	1.2946	2.3468	0.5222	4988.4022	121.3577	17.0850	-34.0313	103.9%	106.0%	181.6606	6946.4099
σ		0.3%	16.2063	3.8926	4.0648	15.2329	2212.8979	10.5208	11.3410	9.3093	2.0%	2.2%	17.6824	425.5584
%RSD		0.3	63.2087	300.6855	173.2051	2916.8925	44.3609	8.6693	66.3803	27.3552	1.9	2.1	9.7338	6.1263

Q114030-BS1@LCS01 10/18/2016 23:03:01 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	23:03:01	90.9%	804.1515	82.6%	22.2238	9222.1673	4823.2314	-24.5229	14641.2580	3143.7317	99.0371	364.8630	184.5142	15.1402	2065.2520	9500.6084	16387.5750	17534.2030	9861.2618	26051.1400
2	23:03:14	90.8%	847.0790	84.7%	20.1613	9293.3065	4717.8714	5.2978	15033.7370	3091.0081	103.3568	379.5551	117.0957	8.5200	-387.6566	9499.9923	16675.4610	18840.8290	10244.4610	27099.6650
3	23:03:28	91.4%	1002.4500	84.9%	39.5381	9030.5448	4678.2006	-0.3075	14999.1040	3245.4794	97.6245	363.0489	181.6059	-5.4763	545.1615	9158.1502	16672.0950	18324.4520	10640.9150	27225.3610
x		91.0%	99.612%	84.1%	27.3078	96.137%	93.727%	-6.5109	103.464%	102.073%	100.0061	96.148%	161.0719	6.0613	740.9190	9386.2503	16578.3770	18233.1610	10248.8790	26792.0550
σ		0.3%	n/a	1.2%	10.6419	n/a	n/a	15.8487	n/a	n/a	2.9865	n/a	38.1123	10.5258	1238.1159	197.5407	165.2475	658.0789	389.8451	644.7219
%RSD		0.3	11.7943	1.5	38.9702	1.4801	1.5814	243.4193	1.4592	2.4848	2.9863	2.4520	23.6617	173.6564	167.1054	2.1046	0.9968	3.6092	3.8038	2.4064

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:03:01	97.7%	188.6605	11196.4280	165.8201	2650.7667	3993.2410	42.6750	17098.3680	29897.9250	102.4%	104.9%	19781.8370	5312.4880
2	23:03:14	96.8%	230.5344	11854.9960	151.4642	2442.7960	4624.1028	34.6719	16820.2160	29720.8910	104.6%	107.8%	20316.4850	4776.8825
3	23:03:28	99.0%	218.6460	11724.9510	198.0666	2563.5204	3607.9925	99.7128	17379.9380	30235.8750	107.3%	109.8%	21021.1930	5701.0219
x		97.9%	212.6137	100.960%	171.7836	99.844%	4075.1121	59.0199	102.595%	103.545%	104.7%	107.5%	99.646%	5263.4641
σ		1.1%	21.5789	n/a	23.8667	n/a	512.9787	35.4675	n/a	n/a	2.5%	2.4%	n/a	464.0161
%RSD		1.1	10.1493	3.0089	13.8935	4.0916	12.5881	60.0942	1.6367	0.8736	2.3	2.3	3.0512	8.8158

6100165-01@MH1H14 10/18/2016 23:07:05

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	23:07:05	90.2%	375.6316	90.5%	50257.4370	16795.2360	5650.4414	-7.1560	55710.7660	5296.2756	116.0630	77.0392	34.4195	18.5422	178789.7600	3935.9033	5423.3202	6102.5450	3443.9356	8519.1960
2	23:07:19	91.2%	370.1607	91.8%	50937.9080	16399.1810	5675.6881	16.9382	56542.3130	5309.9930	134.7079	112.9344	74.4143	18.0973	186944.1900	3957.0998	5489.7105	6401.8530	3472.7445	9072.6572
3	23:07:32	93.4%	323.2426	94.7%	49873.1730	16420.0470	5457.6529	4.8714	56145.7500	5230.9001	117.0920	111.0241	50.6042	21.2257	184024.7900	4064.1484	5540.9039	6447.0841	3431.4675	8687.9775
x		91.6%	356.3450	92.3%	50356.1730	16538.1550	5594.5941	4.8845	56132.9430	5279.0563	122.6210	100.3326	53.1460	19.2884	183252.9100	3985.7172	5484.6449	6317.1607	3449.3825	8759.9436
σ		1.7%	28.7977	2.1%	539.1907	222.8830	119.2645	12.0471	415.9213	42.2646	10.4802	20.1953	20.1182	1.6924	4131.6519	68.7453	58.9553	187.2335	21.1707	283.6621
%RSD		1.8	8.0814	2.3	1.0708	1.3477	2.1318	246.6380	0.7410	0.8006	8.5469	20.1283	37.8546	8.7744	2.2546	1.7248	1.0749	2.9639	0.6138	3.2382

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:07:05	97.7%	540.2929	12634.6700	146.7804	2665.9883	6373.0243	1598.4168	8491.8748	94708.3660	114.2%	113.6%	3500.0039	38622.9920
2	23:07:19	99.0%	353.7459	12957.3590	255.9213	2699.4939	10087.1160	1872.8628	8771.4497	96268.1050	117.0%	117.1%	3667.6528	38902.7550
3	23:07:32	99.6%	472.7672	12859.9340	198.5810	2630.3396	7242.4527	1739.0241	8507.4121	95790.9010	120.6%	119.7%	3501.5520	38732.2980
x		98.8%	455.6020	12817.3210	200.4276	2665.2739	7900.8544	1736.7679	8590.2456	95589.1240	117.3%	116.8%	3556.4029	38752.6820
σ		1.0%	94.4507	165.5109	54.5939	34.5827	1942.6140	137.2369	157.1196	799.2067	3.2%	3.1%	96.3484	140.9908
%RSD		1.0	20.7310	1.2913	27.2387	1.2975	24.5874	7.9019	1.8290	0.8361	2.8	2.6	2.7092	0.3638

6100165-02@MH1H15 10/18/2016 23:11:09

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	23:11:09	93.0%	224.0638	97.7%	48552.2310	27841.6980	7386.4268	-8.6474	115410.6600	9543.1862	78.8603	75.1023	48.3122	22.1021	103015.5900	7184.3324	10326.1580	11923.2630	6807.1868	17243.9150
2	23:11:22	93.1%	262.5612	101.0%	48874.6160	27538.9120	7409.0145	-35.2880	116529.3200	9341.1019	54.2465	83.1959	37.6531	21.6888	100524.9100	6896.5028	10557.9890	12113.0700	6641.8799	17138.4910
3	23:11:35	93.5%	278.3797	101.2%	48938.7680	27905.6380	7185.3217	-18.7058	118428.7500	9120.0930	51.1897	57.6389	67.9915	-5.3484	107982.0900	6939.3431	10847.3070	12450.2430	6634.6496	17415.5120
x		93.2%	255.0016	100.0%	48788.5380	27762.0830	7326.9210	-20.8804	116789.5800	9334.7937	61.4322	71.9790	51.3189	12.8142	103840.8700	7006.7261	10577.1520	12162.1920	6694.5721	17265.9730
σ		0.3%	27.9359	2.0%	207.1468	195.8980	123.1475	13.4528	1525.7847	211.6171	15.1704	13.0616	15.3910	15.7306	3796.4669	155.2959	261.1027	266.9020	97.5942	139.8216
%RSD		0.3	10.9552	2.0	0.4246	0.7056	1.6808	64.4277	1.3064	2.2670	24.6946	18.1465	29.9910	122.7597	3.6560	2.2164	2.4686	2.1945	1.4578	0.8098

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:11:09	97.3%	370.0041	17360.4130	245.4178	3320.9122	24596.1480	2343.4323	10527.7450	108437.2900	113.7%	113.7%	2794.4961	67040.8690
2	23:11:22	98.4%	450.4691	17698.5700	270.5211	3310.1698	27473.3120	2457.1730	10756.1790	112166.5000	115.3%	115.5%	2655.9533	69598.0850
3	23:11:35	97.8%	454.2012	17556.1530	295.3956	3417.3202	28000.6350	2549.7628	11105.6640	111976.4400	117.2%	117.1%	2552.9804	70206.1010
x		97.8%	424.8915	17538.3790	270.4448	3349.4674	26690.0320	2450.1227	10796.5290	110860.0800	115.4%	115.4%	2667.8099	68948.3520
σ		0.5%	47.5704	169.7778	24.9890	59.0072	1832.4244	103.3458	291.0646	2100.3436	1.7%	1.7%	121.1936	1679.6688
%RSD		0.6	11.1959	0.9680	9.2400	1.7617	6.8656	4.2180	2.6959	1.8946	1.5	1.4	4.5428	2.4361

6100165-03@MH1H16 10/18/2016 23:15:12

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	23:15:12	86.4%	112.7035	88.9%	32433.2560	12361.7500	2509.6216	-31.2805	7488.1989	1179.7050	15.5851	23.5416	25.8945	-8.0028	19121.8510	5753.4466	5615.9723	8314.3729	3361.1860	9007.0049
2	23:15:26	86.2%	102.4199	91.0%	31936.9740	12006.8810	2419.9781	-36.6287	7372.4174	1129.6098	11.4951	12.9655	14.7530	14.0962	18737.1580	5941.8507	5759.0280	8705.4409	3423.8609	8976.7652
3	23:15:38	86.9%	105.5824	91.4%	32190.1090	12514.5910	2383.8404	-37.3044	7397.3703	1308.9679	15.6911	11.0454	-4.0454	11.0699	18438.7570	5790.9162	5300.6743	8231.1446	3536.9687	8608.2087
x		86.5%	106.9019	90.5%	32186.7800	12294.4070	2437.8134	-35.0712	7419.3289	1206.0942	14.2571	15.8508	12.2007	5.7211	18765.9220	5828.7378	5558.5582	8416.9862	3440.6718	8863.9929
σ		0.4%	5.2673	1.3%	248.1578	260.4679	64.7596	3.3002	60.9342	92.5452	2.3925	6.7292	15.1323	11.9812	342.4541	99.7341	234.5086	253.2516	89.0890	222.0311
%RSD		0.4	4.9272	1.5	0.7710	2.1186	2.6565	9.4099	0.8213	7.6731	16.7813	42.4533	124.0280	209.4222	1.8249	1.7111	4.2189	3.0088	2.5893	2.5049

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:15:12	88.1%	205.6696	11439.5550	52.3625	941.0261	12207.0940	4113.0354	4175.5950	14290.5960	101.6%	103.8%	644.2461	63162.0480
2	23:15:26	89.9%	91.2450	11559.5500	47.6644	791.8240	14939.8640	4336.2314	4060.0942	14612.6700	104.3%	105.8%	767.7893	61689.1500
3	23:15:38	87.6%	105.8360	11657.9200	77.5234	1099.3608	11870.6280	4426.5418	4007.0995	14454.0030	105.9%	108.2%	692.6252	62437.3540
x		88.5%	134.2502	11552.3410	59.1834	944.0703	13005.8620	4291.9362	4080.9296	14452.4230	103.9%	105.9%	701.5535	62429.5170
σ		1.2%	62.2798	109.3606	16.0557	153.7910	1683.3228	161.3788	86.1584	161.0425	2.2%	2.2%	62.2536	736.4799
%RSD		1.4	46.3909	0.9467	27.1286	16.2902	12.9428	3.7600	2.1112	1.1143	2.1	2.1	8.8737	1.1797

6100165-04@MH1H17 10/18/2016 23:19:15

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	23:19:15	84.7%	263.4697	88.7%	59639.3340	25765.9540	5069.7601	5.5747	15054.0810	2230.5017	52.2895	78.2190	31.5635	20.1887	37166.1050	6669.9494	6285.0708	8950.2996	4007.2093	10487.8580
2	23:19:28	84.7%	233.2505	90.1%	59952.3930	24745.5260	4984.8442	31.0131	15629.5830	2315.3223	27.4167	34.3302	49.7062	11.3389	38917.3630	5463.2205	6479.2960	8917.2799	4017.9714	10470.4230
3	23:19:41	85.6%	227.0836	91.0%	60768.8920	25250.4310	5011.2463	12.6908	14909.8600	2219.6800	16.1771	54.5322	26.9219	7.8470	39761.9690	5415.6629	6316.4914	9007.5092	4148.2872	10378.9310
x		85.0%	241.2679	89.9%	60120.2060	25253.9700	5021.9502	16.4262	15197.8410	2255.1680	31.9611	55.6938	36.0638	13.1249	38615.1460	5849.6109	6360.2861	8958.3629	4057.8227	10445.7370
σ		0.5%	19.4729	1.2%	583.1777	510.2232	43.4581	13.1241	380.7891	52.3754	18.4802	21.9675	12.0404	6.3618	1324.0576	710.8318	104.2561	45.6519	78.5292	58.5088
%RSD		0.6	8.0711	1.3	0.9700	2.0204	0.8654	79.8976	2.5055	2.3225	57.8207	39.4433	33.3863	48.4711	3.4289	12.1518	1.6392	0.5096	1.9353	0.5601

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:19:15	83.9%	193.4736	14942.6700	84.2361	848.1171	10663.6340	10278.0120	14104.3430	31820.9390	100.8%	102.3%	1545.7874	1299381.5000
2	23:19:28	86.7%	53.7360	15454.0560	37.4423	821.4180	7450.7293	10225.4020	14584.6470	31873.4000	105.4%	105.0%	1443.5967	1322272.8000
3	23:19:41	85.4%	120.8571	15426.4290	81.3577	777.7941	9323.9166	10709.6770	14394.5420	32667.9110	105.2%	107.3%	1601.9658	1318957.1000
x		85.3%	122.6889	15274.3850	67.6787	815.7764	9146.0933	10404.3640	14361.1780	32120.7500	103.8%	104.9%	1530.4500	1313537.1000
σ		1.4%	69.8868	287.6060	26.2250	35.4993	1613.8169	265.7144	241.8839	474.5806	2.6%	2.5%	80.2909	12370.7350
%RSD		1.7	56.9626	1.8829	38.7492	4.3516	17.6449	2.5539	1.6843	1.4775	2.5	2.4	5.2462	0.9418

QJ14030-MS1@MH1H17S 10/18/2016 23:23:18 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	23:23:18	82.0%	3711.9342	81.9%	52845.8310	111629.2300	52226.8610	505.5272	648154.1900	132907.6700	178.5793	518.7034	276.2439	0.9653	38529.9230	184532.7900	320943.6100	353931.0800	201240.6800
2	23:23:31	80.7%	3720.0214	84.5%	51551.6490	111158.9100	52040.0230	569.2213	644465.0400	132940.2900	132.0982	461.4637	196.6694	21.3647	35445.3230	184792.8700	322965.7100	355670.4800	201938.2900
3	23:23:45	80.9%	3850.8038	85.1%	52342.5620	114490.2000	52072.8440	514.8170	647721.0500	134407.9300	207.6001	524.4165	169.4695	34.0598	39805.9360	188700.2300	328906.8900	360952.7200	206994.2900
x		81.2%	79.271%	83.9%	52246.6810	91.270%	93.122%	529.8552	87.763%	84.734%	172.7592	580.596%	214.1276	18.7966	37927.0610	186008.6300	324272.0700	356851.4300	203391.0900
σ		0.7%	n/a	1.7%	652.3971	n/a	n/a	34.4071	n/a	n/a	38.0859	n/a	55.4868	16.6960	2241.9453	2334.6185	4139.2491	3656.7513	3139.9007
%RSD		0.8	2.0725	2.0	1.2487	1.6037	0.1914	6.4937	0.3118	0.6423	22.0457	6.9416	25.9130	88.8246	5.9112	1.2551	1.2765	1.0247	1.5438

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:23:18	80.6%	986.1627	60200.0380	924.1335	11605.1870	8249.7424	5435.9175	63357.0600	550784.4100	99.0%	101.4%	92564.3810	62693.5090
2	23:23:31	81.2%	1082.3809	60723.2060	938.7202	12018.1810	10471.7860	5161.6154	63700.9120	556174.0600	100.6%	102.1%	95291.5310	64462.8590
3	23:23:45	80.6%	1119.3668	62006.9180	962.7564	11807.7470	12017.6100	5546.6425	65312.4100	564828.7500	100.8%	104.6%	94830.0480	63844.3460
x		80.8%	1062.6368	79.608%	941.8700	86.018%	10246.3800	5381.3918	59.714%	90.773%	100.1%	102.7%	90.678%	63666.9050
σ		0.4%	68.7619	n/a	19.5031	n/a	1894.0204	198.2202	n/a	n/a	1.0%	1.7%	n/a	897.9219
%RSD		0.4	6.4709	1.5247	2.0707	1.7485	18.4848	3.6834	1.6280	1.2714	1.0	1.6	1.5491	1.4103

QJ14030-DUP1@MH1H17D 10/18/2016 23:27:23

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	23:27:23	79.5%	213.2275	79.0%	69287.7150	28129.0220	5131.7960	10.2132	14595.8290	2049.7701	18.0207	35.0456	54.8959	14.3313	39564.5310	4714.5096	5268.4667	7824.4068	3246.7884	7966.9855
2	23:27:36	80.1%	208.1425	80.8%	72881.6780	28090.1880	5123.2246	-31.3897	15063.0060	2183.2725	9.1472	28.3243	24.1775	1.0760	41076.2060	5313.0150	5162.8495	7739.4390	3164.7235	8350.9409
3	23:27:49	79.8%	223.8208	81.0%	72206.2230	28354.2850	5154.8351	1.4356	15080.2740	1961.2968	55.6756	45.6823	24.5321	5.5041	41443.2250	5191.9866	5084.1300	7769.3292	3100.0844	8176.2233
x		79.8%	215.0636	80.3%	71458.5390	28191.1650	5136.6186	-6.5803	14913.0360	2064.7798	27.6145	36.3508	34.5352	6.9705	40694.6540	5073.1704	5171.8154	7777.7250	3170.5321	8164.7166
σ		0.3%	7.9988	1.1%	1910.0830	142.5944	16.3477	21.9292	274.8452	111.7465	24.7033	8.7523	17.6338	6.7482	995.7706	316.4493	92.4948	43.1016	73.5243	192.2361
%RSD		0.3	3.7193	1.4	2.6730	0.5058	0.3183	333.2551	1.8430	5.4120	89.4579	24.0773	51.0604	96.8120	2.4469	6.2377	1.7884	0.5542	2.3190	2.3545

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:27:23	78.0%	103.0916	12270.1220	53.0789	580.0483	6186.1983	6507.3091	4500.0082	35764.3830	96.8%	98.9%	1625.9339	63252.9700
2	23:27:36	80.1%	112.2669	12737.5350	51.8554	599.5748	9630.2189	6927.7288	4452.5310	35575.1010	99.2%	101.4%	1629.3550	65484.4220
3	23:27:49	79.1%	110.1828	12525.9650	91.8310	616.2925	7475.0803	7089.9447	4428.1033	36405.1800	100.5%	102.0%	1658.5310	65835.2130
x		79.1%	108.5137	12511.2080	65.5884	598.6385	7763.8325	6841.6609	4460.2142	35914.8880	98.9%	100.7%	1637.9400	64857.5350
σ		1.0%	4.8100	234.0556	22.7349	18.1402	1740.0727	300.7022	36.5630	435.0247	1.9%	1.6%	17.9142	1400.6200
%RSD		1.3	4.4326	1.8708	34.6630	3.0303	22.4125	4.3952	0.8198	1.2113	1.9	1.6	1.0937	2.1595

SEQ-SRD1@MH1H17L@SX 10/18/2016 23:31:27

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	23:31:27	82.2%	61.0061	74.8%	13909.3540	5197.1378	819.3316	-104.8473	3489.2519	828.4369	0.6207	9.2774	30.9911	-3.6928	6914.9559	1250.5830	1323.0808	1892.9632	981.9122	2292.0969
2	23:31:40	82.5%	50.4925	76.7%	13513.2400	5120.0075	824.8651	-122.9565	3501.5639	683.8085	4.4992	15.6057	-4.5694	-3.8150	6837.7181	1258.7155	1415.7904	1967.2177	922.6095	2239.5442
3	23:31:53	83.7%	69.0659	75.6%	14085.0550	5183.4466	821.5518	-104.1566	3538.7104	632.5337	12.3028	11.6373	15.0000	-3.8410	10076.1720	1300.0471	1555.7481	2081.3867	875.3278	2329.8271
x		82.8%	60.1882	75.7%	13835.8830	5166.8640	821.9162	-110.6534	3509.8421	714.9264	5.8076	12.1735	13.8072	-3.7829	7942.9487	1269.7819	1431.5397	1980.5225	926.6165	2287.1561
σ		0.8%	9.3137	0.9%	292.9019	41.1522	2.7847	10.6603	25.7475	101.5911	5.9500	3.1980	17.8102	0.0792	1847.8293	26.5240	117.1305	94.9137	53.4051	45.3438
%RSD		0.9	15.4743	1.2	2.1170	0.7965	0.3388	9.6340	0.7336	14.2100	102.4517	26.2702	128.9918	2.0929	23.2638	2.0889	8.1821	4.7924	5.7635	1.9825

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:31:27	84.2%	0.7341	3408.4294	35.1044	225.8683	3346.3206	2326.9676	3193.3183	6651.2562	96.6%	97.8%	423.1724	298770.0500
2	23:31:40	85.1%	35.3831	3388.9252	15.2175	204.8878	-293.4887	2228.2335	3024.6018	6977.1515	99.1%	100.2%	486.7403	298549.0400
3	23:31:53	85.2%	-17.8888	3596.8923	34.2866	163.3886	5664.2014	2333.5197	3369.4095	6878.8591	100.3%	101.4%	464.8702	309069.9300
x		84.8%	6.0761	3464.7490	28.2029	198.0482	2905.6778	2296.2403	3195.7766	6835.7556	98.7%	99.8%	458.2609	302129.6700
σ		0.6%	27.0347	114.8543	11.2530	31.7964	3003.1887	58.9866	172.4170	167.1687	1.9%	1.8%	32.2952	6011.4553
%RSD		0.7	444.9325	3.3149	39.9004	16.0549	103.3559	2.5688	5.3952	2.4455	1.9	1.8	7.0473	1.9897

6100165-05@MH1H18 10/18/2016 23:35:30

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	23:35:30	81.3%	144.4524	77.5%	34394.8940	14220.7080	8596.5837	5.6225	204906.0100	5472.2528	73.8865	57.2195	28.1525	21.0080	54980.8920	5299.1046	6925.0676	8229.3736	4244.7925	11206.3440
2	23:35:43	81.4%	194.8062	79.5%	34589.2320	14051.3380	8697.1921	-16.5641	205587.6100	5448.4488	32.5092	47.8974	47.1673	0.3600	56994.9290	5398.3475	7100.2797	8802.7538	4588.4975	11955.5850
3	23:35:57	81.5%	193.9964	79.8%	34260.4680	13845.0200	8611.1830	44.0646	211382.4900	5300.4523	16.4180	44.7980	42.9435	4.1846	56494.7780	5568.8360	7569.7611	9121.4871	4707.3957	11503.1290
x		81.4%	177.7517	79.0%	34414.8650	14039.0220	8634.9863	11.0410	207292.0400	5407.0513	40.9379	49.9716	39.4211	8.5175	56156.8660	5422.0960	7198.3695	8717.8715	4513.5619	11555.0190
σ		0.1%	28.8409	1.3%	165.2895	188.1469	54.3641	30.6754	3558.7916	93.0815	29.6469	6.4653	9.9848	10.9848	1048.6772	136.4249	333.3521	452.0735	240.2331	377.3061
%RSD		0.1	16.2254	1.6	0.4803	1.3402	0.6296	277.8317	1.7168	1.7215	72.4193	12.9380	25.3285	128.9663	1.8674	2.5161	4.6309	5.1856	5.3225	3.2653

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:35:30	82.0%	362.1900	6817.1070	272.9837	3174.7641	166042.3500	1722.2986	7758.2070	67266.9010	98.7%	98.6%	7652.4142	66593.9730
2	23:35:43	83.7%	324.4909	6998.2050	255.6153	3002.7627	170523.8700	1596.8017	7935.1472	67754.1630	100.7%	102.4%	8056.5939	63590.9640
3	23:35:57	84.4%	311.8481	7406.5707	252.6621	3042.8941	175785.6400	1778.1428	7942.1797	68950.6910	102.7%	103.3%	7868.3925	65557.0970
x		83.4%	332.8430	7073.9609	260.4204	3073.4736	170783.9500	1699.0810	7878.5113	67990.5850	100.7%	101.4%	7859.1335	65247.3450
σ		1.2%	26.1896	301.9455	10.9799	89.9858	4876.8465	92.6733	104.2459	866.4341	2.0%	2.5%	202.2489	1525.2791
%RSD		1.4	7.8684	4.2684	4.2162	2.9278	2.8556	5.4661	1.3232	1.2743	2.0	2.5	2.5734	2.3377

6100165-06@MH1H19 10/18/2016 23:39:34

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98M
1	23:39:34	86.0%	562.5543	82.6%	46053.7010	19561.9300	6848.7309	25.6540	683327.2900	28936.8420	128.7621	109.3474	55.1404	21.1221	244038.9100	7921.5118	12273.2520	13605.4780	7535.8054	19667.40
2	23:39:47	88.0%	430.5305	85.3%	45176.6760	19329.0120	6883.8693	-6.9297	692945.5700	28206.4900	109.5609	136.3696	65.6753	20.8467	250544.8400	8216.2405	12562.8580	13650.5270	7480.2313	20513.88
3	23:40:00	88.2%	440.6435	87.1%	46539.3270	19999.2770	6983.6456	1.7353	691903.5400	28471.9980	104.0661	145.0307	33.6259	32.5745	253353.5400	8292.3746	12985.2780	13903.2850	7485.3031	19919.89
x		87.4%	477.9095	85.0%	45923.2350	19630.0730	6905.4153	6.8199	689392.1300	28538.4430	114.1297	130.2492	51.4805	24.8477	249312.4300	8143.3756	12607.1300	13719.7630	7500.4466	20033.73
σ		1.2%	73.4788	2.3%	690.6306	340.2891	69.9905	16.8764	5278.0829	369.6820	12.9664	18.6123	16.3351	6.6930	4778.0452	195.8743	358.0717	160.5225	30.7264	434.56
%RSD		1.4	15.3750	2.7	1.5039	1.7335	1.0136	247.4594	0.7656	1.2954	11.3611	14.2898	31.7307	26.9360	1.9165	2.4053	2.8402	1.1700	0.4097	2.16

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:39:34	90.8%	1723.7641	15768.0780	1097.8658	15238.6460	-4745.8837	1744.5440	9448.3821	340578.3200	108.3%	110.1%	12442.2450	28222.2510
2	23:39:47	91.5%	1593.2274	15664.0410	1096.1324	15319.4300	-3299.0352	1779.2573	9585.3368	349659.9600	111.2%	112.4%	13157.3280	30121.3110
3	23:40:00	90.0%	1459.4378	15960.5660	1124.7258	15654.9300	-87.1040	1818.8727	9477.0855	350017.7800	114.8%	116.1%	12856.3600	28202.5470
x		90.8%	1592.1431	15797.5620	1106.2413	15404.3350	-2710.6743	1780.8913	9503.6014	346752.0200	111.4%	112.9%	12818.6440	28848.7030
σ		0.8%	132.1665	150.4448	16.0315	220.7484	2384.4671	37.1912	72.2252	5349.5689	3.2%	3.0%	359.0303	1102.1552
%RSD		0.8	8.3012	0.9523	1.4492	1.4330	87.9658	2.0884	0.7600	1.5428	2.9	2.7	2.8008	3.8205

6100165-07@MH1H20 10/18/2016 23:43:37

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	23:43:37	88.6%	106.5473	90.7%	58352.8330	29085.5710	5999.0900	-27.3282	36366.9450	3544.7017	32.2351	87.9003	42.8060	16.4443	39012.6620	3155.2482	5009.6448	5841.2636	2982.9126	8009.2760
2	23:43:50	89.5%	113.5159	93.6%	58821.7470	29077.9550	5987.2587	-12.2322	36282.3410	3639.5162	77.5628	97.3473	34.9725	-1.5027	41476.0770	3290.3628	5296.7201	5621.1813	3122.9605	8186.8005
3	23:44:04	89.7%	161.0959	94.8%	58631.6080	28862.1880	5959.0151	-60.8396	37203.1240	3581.7315	59.3907	92.8661	73.1521	5.3373	41784.8970	3227.2116	4856.7371	5986.2077	3134.7963	8313.5691
x		89.3%	127.0530	93.0%	58602.0630	29008.5720	5981.7880	-33.4667	36617.4700	3588.6498	56.3962	92.7046	50.3102	6.7596	40757.8780	3224.2742	5054.3673	5816.2175	3080.2231	8169.8819
σ		0.5%	29.6872	2.1%	235.8493	126.8288	20.5900	24.8783	508.9525	47.7843	22.8118	4.7256	20.1657	9.0576	1519.2689	67.6052	223.3749	183.7975	84.4809	152.8504
%RSD		0.6	23.3660	2.3	0.4025	0.4372	0.3442	74.3375	1.3899	1.3315	40.4491	5.0975	40.0827	133.9958	3.7275	2.0968	4.4194	3.1601	2.7427	1.8709

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:43:37	93.7%	64.7122	6687.9912	27.3373	492.0270	-59.7147	1819.7127	3688.0618	110225.8100	103.9%	103.5%	2611.8938	37571.6730
2	23:43:50	94.8%	94.8327	6545.5456	39.7492	291.6335	333.0113	1942.3812	3720.7082	114010.5700	107.2%	108.7%	2556.7367	35148.9170
3	23:44:04	95.6%	94.0552	6603.7875	26.0477	396.8503	3290.5590	1876.1054	4146.4580	113015.7700	109.5%	110.2%	2664.5184	35762.3820
x		94.7%	84.5334	6612.4414	31.0447	393.5036	1187.9519	1879.3997	3851.7427	112417.3900	106.9%	107.5%	2611.0496	36160.9910
σ		1.0%	17.1700	71.6160	7.5658	100.2387	1831.4682	61.4006	255.7524	1962.0527	2.8%	3.6%	53.8958	1259.6043
%RSD		1.0	20.3115	1.0830	24.3707	25.4734	154.1702	3.2670	6.6399	1.7453	2.6	3.3	2.0641	3.4833

6100165-08@MH1H21 10/18/2016 23:47:40

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	23:47:40	92.2%	203.5132	102.3%	46073.9160	38168.7620	10720.0770	46.6606	86512.6780	9901.2218	59.9048	104.2543	35.3586	19.5630	77123.7840	7030.6309	9628.7227	11357.1010	6425.9311	15410.9700
2	23:47:54	91.7%	152.7458	105.5%	46975.8660	38164.0290	10682.7270	66.8489	87406.2190	9626.8254	91.6479	103.2279	45.6725	5.5356	79707.1290	6784.9661	9967.5335	11063.2860	6083.9358	15698.6870
3	23:48:07	94.2%	175.4301	108.7%	47573.5840	37706.5340	10407.3680	32.6279	87556.8390	9839.4090	65.7337	93.0873	48.6912	22.4175	79517.6960	6644.5358	9752.9985	10980.8320	6514.4772	15973.0240
x		92.7%	177.2297	105.5%	46874.4550	38013.1080	10603.3910	48.7125	87158.5790	9789.1521	72.4288	100.1898	43.2408	15.8387	78782.8700	6820.0442	9783.0849	11133.7400	6341.4480	15694.2270
σ		1.3%	25.4315	3.2%	754.9593	265.5121	170.7846	17.2025	564.4129	143.9363	16.8975	6.1723	6.9910	9.0362	1439.9288	195.4232	171.3974	197.7812	227.3643	281.0537
%RSD		1.4	14.3494	3.0	1.6106	0.6985	1.6107	35.3144	0.6476	1.4704	23.3298	6.1606	16.1676	57.0512	1.8277	2.8654	1.7520	1.7764	3.5854	1.7908

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:47:40	94.9%	155.3201	12803.6100	9.4493	240.9620	2398.5853	3087.1249	3320.0483	114716.5900	108.8%	108.3%	3446.9918	36771.6870
2	23:47:54	94.8%	98.4798	12863.3030	15.3472	215.9923	2337.6541	3162.5916	3524.5378	116083.7100	111.3%	112.3%	3125.8739	36269.1160
3	23:48:07	96.5%	156.1455	12851.1300	45.0255	196.0848	1200.6096	3227.9292	3529.2339	117729.0800	113.0%	115.0%	3517.0582	36454.9850
x		95.4%	136.6485	12839.3470	23.2740	217.6797	1978.9497	3159.2152	3457.9400	116176.4600	111.1%	111.9%	3363.3080	36498.5960
σ		1.0%	33.0576	31.5426	19.0668	22.4861	674.7504	70.4629	119.4408	1508.3813	2.1%	3.4%	208.5870	254.1078
%RSD		1.0	24.1917	0.2457	81.9231	10.3299	34.0964	2.2304	3.4541	1.2984	1.9	3.0	6.2018	0.6962

6100165-09@MH1H22 10/18/2016 23:51:44

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	23:51:44	91.1%	103.5817	93.0%	75632.9470	28019.0150	6574.6574	-4.9944	32849.6910	5346.6348	75.9149	91.7042	41.2826	1.6565	35989.7000	8014.8914	12933.3280	14640.7170	8258.4233	20919.6220
2	23:51:57	90.7%	111.4849	95.1%	75801.9840	28381.7980	6641.6074	0.4805	33045.4720	5422.3743	55.5848	105.0153	41.5078	1.7580	37634.0840	8163.7047	13471.7250	14868.4330	8152.4240	21558.5580
3	23:52:10	92.3%	83.1763	95.3%	77797.0370	28733.6890	6915.8479	-6.0517	34396.3180	5138.2184	52.4251	110.3008	48.9698	15.7948	37793.1480	8191.5548	12999.0090	15190.3820	8284.0817	21212.2060
x		91.4%	99.4143	94.5%	76410.6560	28378.1670	6710.7042	-3.5218	33430.4940	5302.4092	61.3082	102.3401	43.9200	6.4031	37138.9770	8123.3836	13134.6880	14899.8440	8231.6430	21230.1290
σ		0.9%	14.6072	1.3%	1203.6120	357.3511	180.7858	3.5062	842.1368	147.1498	12.7480	9.5826	4.3747	8.1336	998.4758	94.9833	293.7248	276.1753	69.7949	319.8447
%RSD		0.9	14.6932	1.4	1.5752	1.2592	2.6940	99.5554	2.5191	2.7752	20.7933	9.3635	9.9605	127.0262	2.6885	1.1693	2.2363	1.8535	0.8479	1.5066

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:51:44	96.7%	110.9116	38343.0190	50.2454	552.5325	19559.8840	8861.4283	7397.0988	99641.0140	105.5%	106.1%	2336.8365	105183.6300
2	23:51:57	96.2%	23.2845	38734.5360	52.4392	464.9606	21989.7040	9095.9758	7451.0410	101553.9000	107.8%	109.5%	2363.1171	105463.4700
3	23:52:10	95.6%	100.5909	39110.1730	48.1852	487.1974	18878.1380	9312.7291	7715.2427	101810.3100	111.8%	112.5%	2497.7715	106024.4700
x		96.2%	78.2623	38729.2430	50.2899	501.5635	20142.5750	9090.0444	7521.1275	101001.7400	108.4%	109.4%	2399.2417	105557.1900
σ		0.5%	47.8910	383.6045	2.1274	45.5192	1635.5754	225.7089	170.2586	1185.3766	3.2%	3.2%	86.3352	428.1848
%RSD		0.6	61.1929	0.9905	4.2302	9.0755	8.1200	2.4830	2.2637	1.1736	2.9	2.9	3.5984	0.4056

6100165-10@MH1H23 10/18/2016 23:55:49

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98M
1	23:55:49	91.0%	108.7402	97.2%	86726.2830	43440.7340	10040.2680	50.8061	40732.6430	5792.5046	92.5827	135.6448	71.8235	-1.8695	41037.8250	15527.8870	25320.1940	28316.5270	16240.5410	40548.00
2	23:56:02	91.9%	177.6232	98.8%	89627.1590	43995.5850	10357.7260	56.0768	41458.3090	6047.1215	72.1920	162.2849	68.6774	5.0268	43334.0920	16110.4730	25549.4610	29382.7350	16676.6640	42362.87
3	23:56:15	92.0%	165.2880	100.0%	90696.6680	43471.7920	10230.7210	56.5632	41863.3410	5702.9733	95.0087	138.6957	64.4165	1.3839	43230.2140	15791.9060	26446.1460	28810.7310	16805.2860	43436.31
x		91.6%	150.5505	98.7%	89016.7030	43636.0370	10209.5720	54.4820	41351.4310	5847.5331	86.5945	145.5418	68.3058	1.5137	42534.0430	15810.0890	25771.9340	28836.6640	16574.1640	42115.72
σ		0.6%	36.7303	1.4%	2054.3811	311.7645	159.7820	3.1927	572.8760	178.5514	12.5318	14.5800	3.7175	3.4500	1296.8037	291.7185	595.0317	533.5770	295.9962	1459.93
%RSD		0.6	24.3973	1.4	2.3079	0.7145	1.5650	5.8601	1.3854	3.0534	14.4718	10.0177	5.4424	227.9135	3.0489	1.8451	2.3088	1.8503	1.7859	3.46

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	23:55:49	97.3%	150.4291	24848.3070	88.2608	867.1561	38112.7490	15919.8010	13385.4380	124531.5800	106.2%	106.6%	3042.6323	208289.1000
2	23:56:02	97.1%	171.4315	24529.9350	80.4006	936.1358	38492.9020	16375.4310	13228.5440	126686.2800	108.0%	108.7%	3060.6774	209574.9800
3	23:56:15	98.3%	155.3539	24634.1090	84.9862	836.5593	37673.1730	16473.2790	12963.4960	128041.7400	111.2%	111.0%	3045.6819	209973.4300
x		97.6%	159.0715	24670.7840	84.5492	879.9504	38092.9420	16256.1710	13192.4930	126419.8600	108.5%	108.8%	3049.6639	209279.1700
σ		0.6%	10.9837	162.3240	3.9483	51.0062	410.2235	295.3843	213.2687	1770.1805	2.5%	2.2%	9.6591	880.2693
%RSD		0.7	6.9049	0.6580	4.6698	5.7965	1.0769	1.8171	1.6166	1.4002	2.4	2.0	0.3167	0.4206

SEQ-CCV@CCV07 10/18/2016 23:59:56 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96
1	00:00:09	88.5%	206279.7000	86.9%	579099.3800	453337.0200	615662.4600	4981.2497	±3662185.5000	780515.5500	5442.2284	18076.8890	8705.8208	104.2320	359.4024	1456003.5000	2632291.9000	±2819182.4
2	00:00:22	89.1%	208104.6900	88.9%	575670.9800	447866.3400	613574.4200	5838.5984	±3638064.4000	775431.9600	5813.4129	18493.0500	8290.0171	89.0766	-380.1195	1464515.4000	2660423.9000	±2814627.6
3	00:00:36	88.8%	202142.0200	89.6%	576047.3100	441437.4700	598165.4700	5114.3262	±3626452.9000	780859.1000	5395.9276	17829.4480	8319.7426	120.0488	849.8471	1471715.9000	±2596301.6000	±2816997.5
x		88.8%	92.571%	88.5%	576939.2200	93.717%	96.363%	5311.3914	±101.223%	100.641%	5550.5230	94.457%	8438.5268	104.4525	276.3767	1464078.3000	±2629672.5000	±2816936.0
σ		0.3%	n/a	1.4%	1880.1886	n/a	n/a	461.3976	±n/a	n/a	228.8433	n/a	231.9600	15.4873	619.1723	7865.2864	±32141.3430	±2278.0
%RSD		0.3	1.4866	1.6	0.3259	1.3309	1.5688	8.8869	±0.5005	0.3902	4.1229	1.8494	2.7488	14.8271	224.0321	0.5372	±1.2223	±0.0

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:00:09	94.6%	57882.6610	375671.0000	43350.6450	648088.5700	3732.8465	2207269.8000	2223821.5000	736080.5200	108.0%	109.4%	±5136375.2000	5530.2122
2	00:00:22	95.6%	57096.5750	372551.5400	43592.2480	649989.8600	4605.7359	2232516.7000	2264730.4000	739052.6100	111.0%	111.9%	±5147881.7000	5877.9276
3	00:00:36	98.3%	57579.1930	374074.5300	44274.2490	655998.5600	2796.7446	2246314.5000	2231270.4000	744435.1100	112.1%	115.2%	±5050814.9000	5389.6641
x		96.2%	57519.4770	100.251%	43739.0470	101.920%	3711.7757	2228700.3000	107.515%	102.310%	110.4%	112.1%	±100.006%	5599.2680
σ		1.9%	396.4307	n/a	478.9819	n/a	904.6797	19800.1350	n/a	n/a	2.1%	2.9%	±n/a	251.3500
%RSD		2.0	0.6892	0.4170	1.0951	0.6339	24.3732	0.8884	0.9728	0.5724	1.9	2.6	±1.0375	4.4890

SEQ-CCB@CCB07 10/19/2016 00:04:18 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:04:31	87.3%	45.1192	83.5%	120.7186	-67.5949	-64.9343	-37.5360	479.9933	197.6131	0.2165	-3.4109	17.5411	-1.3497	1144.1127	485.6331	790.4142	860.1786	491.0007	1357.7349
2	00:04:45	86.8%	56.9435	83.7%	72.7182	-42.5218	-41.0103	-55.2510	373.9873	160.4966	0.1951	-1.0973	3.5287	9.1680	1875.5877	436.9654	828.0918	886.6706	507.6681	1237.7876
3	00:04:58	88.0%	44.7345	84.1%	103.7061	-18.3023	-48.6347	-54.3107	333.0733	182.0228	0.1971	7.1595	17.3914	-4.9635	2896.3099	461.6536	795.2747	853.1643	438.4296	1137.2972
x		87.4%	48.9324	83.8%	99.0476	-42.8063	-51.5265	-49.0325	395.6846	180.0441	0.2029	0.8838	12.8204	0.9516	1972.0035	461.4173	804.5936	866.6712	479.0328	1244.2732
σ		0.6%	6.9405	0.3%	24.3369	24.6475	12.2213	9.9674	75.8251	18.6372	0.0118	5.5566	8.0472	7.3415	880.0686	24.3347	20.4947	17.6715	36.1375	110.3619
%RSD		0.7	14.1839	0.3	24.5709	57.5791	23.7186	20.3282	19.1630	10.3515	5.8121	628.7480	62.7690	771.5204	44.6281	5.2739	2.5472	2.0390	7.5438	8.8696

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:04:31	93.7%	-19.6118	47.2975	10.6398	77.8920	5122.8550	1172.5127	322.8919	88.0410	104.6%	106.2%	959.5830	6018.7848
2	00:04:45	94.3%	11.9681	43.5627	7.0718	84.6363	7743.7662	1071.2276	294.1741	90.7650	105.0%	107.4%	930.3401	6025.8431
3	00:04:58	94.3%	-52.8848	35.9237	10.4962	55.8082	5381.0449	988.4173	334.4475	108.0634	106.8%	109.5%	876.9770	4912.1144
x		94.1%	-20.1762	42.2613	9.4026	72.7788	6082.5554	1077.3858	317.1712	95.6231	105.5%	107.7%	922.3000	5652.2474
σ		0.3%	32.4301	5.7975	2.0198	15.0789	1444.4312	92.2021	20.7372	10.8593	1.2%	1.6%	41.8858	640.9837
%RSD		0.3	160.7347	13.7183	21.4813	20.7188	23.7471	8.5579	6.5382	11.3564	1.1	1.5	4.5415	11.3403

6100165-11@MH1H24 10/19/2016 00:08:38

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:08:38	88.8%	264.8720	91.8%	86942.0200	30047.0570	6225.1681	-33.7582	59443.4070	6244.8998	62.6829	130.7887	45.4271	19.1758	62093.5110	6549.2457	10525.7890	12209.7840	6600.7748	16990.1520
2	00:08:52	89.6%	252.4385	94.8%	87158.9120	29402.9510	6224.0906	2.8721	60592.7120	6588.7054	72.2037	143.9981	24.4606	25.6326	62555.3070	6434.6591	10405.6330	11653.0410	6750.6659	17269.9170
3	00:09:05	90.4%	210.2609	97.8%	87890.8450	29524.1150	6138.2122	-16.7586	59465.6560	5955.3299	64.4348	132.9333	24.0438	18.3144	62056.7190	6801.1073	10862.7030	11697.1820	6597.7438	17293.2940
x		89.6%	242.5238	94.8%	87330.5920	29658.0410	6195.8236	-15.8816	59833.9250	6262.9784	66.4405	135.9067	31.3105	21.0409	62235.1790	6595.0040	10598.0420	11853.3350	6649.7282	17184.4550
σ		0.8%	28.6237	3.0%	497.1649	342.3014	49.8959	18.3309	657.2226	317.0746	5.0674	7.0889	12.2271	3.9998	277.8488	187.4605	236.9466	309.4817	87.4278	168.6761
%RSD		0.9	11.8024	3.2	0.5693	1.1542	0.8053	115.4227	1.0984	5.0627	7.6270	5.2160	39.0511	19.0094	0.4464	2.8425	2.2358	2.6109	1.3148	0.9816

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:08:38	95.9%	69.5704	3499.2593	20.3156	282.8653	-3499.4530	948.9911	3436.1954	115844.0500	104.6%	105.6%	3667.2615	16830.0530
2	00:08:52	97.1%	10.2319	3470.3350	49.1857	263.7384	-8951.2690	940.0084	3575.6286	115501.7200	108.0%	109.3%	3732.9106	14814.5500
3	00:09:05	98.4%	60.5673	3602.6386	38.3182	269.0711	-5653.7701	949.9190	3761.5592	116326.0600	110.4%	111.0%	3831.7247	16712.3420
x		97.1%	46.7899	3524.0776	35.9398	271.8916	-6034.8307	946.3062	3591.1277	115890.6100	107.7%	108.7%	3743.9656	16118.9820
σ		1.2%	31.9786	69.5559	14.5812	9.8704	2745.8113	5.4737	163.2347	414.1383	2.9%	2.8%	82.7871	1131.2034
%RSD		1.3	68.3451	1.9737	40.5712	3.6303	45.4994	0.5784	4.5455	0.3574	2.7	2.5	2.2112	7.0178

6100165-12@MH1H25 10/19/2016 00:12:43

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:12:43	93.7%	115.1377	102.7%	80353.2310	30546.6530	5646.6186	-28.6508	49839.5580	3782.3102	69.7754	126.8451	49.9602	4.3677	37796.5060	6476.8533	10622.7470	11712.3350	6436.9924	17643.8080
2	00:12:57	94.3%	146.2172	105.6%	81940.0130	30620.8750	5749.2952	-28.9351	49089.4270	3665.6155	69.7864	129.0817	83.4724	17.6663	40751.8550	6605.2444	10866.2790	12228.6460	6577.2803	16962.9570
3	00:13:10	95.9%	100.1727	107.3%	81178.8970	30343.9560	5633.5760	12.6805	50311.9740	3495.1986	75.3616	140.3216	52.6810	7.3818	38578.2750	6927.9579	10785.8820	11874.6890	6569.8649	17215.4280
x		94.6%	120.5092	105.2%	81157.3810	30503.8280	5676.4966	-14.9685	49746.9860	3647.7081	71.6411	132.0828	62.0378	9.8053	39042.2120	6670.0185	10758.3030	11938.5570	6528.0459	17274.0650
σ		1.1%	23.4875	2.4%	793.6097	143.3403	63.3818	23.9452	616.5083	144.3910	3.2220	7.2221	18.6126	6.9727	1531.3230	232.4233	124.0862	264.0146	78.9418	344.1920
%RSD		1.2	19.4902	2.2	0.9779	0.4699	1.1166	159.9706	1.2393	3.9584	4.4974	5.4678	30.0021	71.1114	3.9222	3.4846	1.1534	2.2114	1.2093	1.9925

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:12:43	100.3%	46.0024	4427.9375	28.5132	150.3885	-5623.7072	1526.3571	3885.3914	165219.0200	107.4%	108.2%	3969.8830	23706.7600
2	00:12:57	100.3%	72.5270	4439.1026	27.8519	192.8853	-6015.1357	1534.8770	3801.5259	167027.4500	109.5%	110.1%	3911.8198	23689.0490
3	00:13:10	101.7%	13.6917	4605.3227	30.3482	158.5670	-3795.0525	1652.4066	3818.2402	168852.0000	112.0%	112.5%	4161.7818	24285.5650
x		100.7%	44.0737	4490.7876	28.9044	167.2803	-5144.6318	1571.2136	3835.0525	167032.8200	109.6%	110.3%	4014.4949	23893.7910
σ		0.8%	29.4651	99.3473	1.2934	22.5485	1185.0432	70.4441	44.3886	1816.4930	2.3%	2.2%	130.8164	339.4014
%RSD		0.8	66.8540	2.2122	4.4746	13.4795	23.0346	4.4834	1.1574	1.0875	2.1	2.0	3.2586	1.4205

6100165-13@MH1H26 10/19/2016 00:16:48

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:16:48	94.7%	247.6391	104.2%	69600.6420	32028.4330	6264.0333	-22.8111	71565.2950	4798.6648	42.6549	117.6049	59.2125	0.8539	43099.3990	8605.6624	14139.1050	16145.0360	9175.5473	23193.8550
2	00:17:01	94.0%	249.8096	105.8%	71283.7710	31294.2880	6186.0706	2.2073	71477.1910	4681.7179	38.9822	104.5056	29.4685	3.9603	45400.3210	9000.6177	14837.0370	16685.1250	9062.2495	23812.1810
3	00:17:14	96.9%	250.2153	108.2%	71546.3470	31648.1340	6196.3241	51.6116	72086.0240	4950.9937	39.2365	116.1139	42.6621	0.8027	43690.2540	9033.8615	15114.0010	16845.8930	9260.0987	23741.9650
x		95.2%	249.2214	106.1%	70810.2530	31656.9520	6215.4760	10.3359	71709.5030	4810.4588	40.2912	112.7414	43.7810	1.8723	44063.3250	8880.0472	14696.7140	16558.6840	9165.9652	23582.6670
σ		1.5%	1.3852	2.0%	1055.7489	367.1517	42.3632	37.8713	329.0387	135.0248	2.0510	7.1713	14.9036	1.8085	1194.9673	238.2049	502.3681	367.1382	99.2721	338.5463
%RSD		1.6	0.5558	1.9	1.4910	1.1598	0.6816	366.4048	0.4588	2.8069	5.0904	6.3609	34.0412	96.5911	2.7119	2.6825	3.4182	2.2172	1.0831	1.4356

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:16:48	101.5%	64.0283	4265.4262	53.6190	372.1165	-2880.0323	1679.0214	3860.6566	101003.8300	106.9%	107.8%	3241.6245	28812.9970
2	00:17:01	102.4%	96.1748	4230.1047	67.7593	341.0599	-745.7165	1891.3897	3879.2947	102760.6300	110.2%	110.7%	3164.5365	29994.6520
3	00:17:14	101.8%	73.6482	4413.4857	51.4142	361.7613	608.4131	1900.8557	3811.6832	103471.8400	111.9%	112.1%	3223.0379	30043.7870
x		101.9%	77.9504	4303.0056	57.5975	358.3126	-1005.7786	1823.7556	3850.5448	102412.1000	109.7%	110.2%	3209.7330	29617.1450
σ		0.5%	16.4995	97.2949	8.8692	15.8129	1758.7033	125.4329	34.9215	1270.3856	2.5%	2.2%	40.2294	696.8457
%RSD		0.5	21.1666	2.2611	15.3986	4.4132	174.8599	6.8777	0.9069	1.2405	2.3	2.0	1.2534	2.3528

6100165-14@MH1H27 10/19/2016 00:20:50

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:20:50	94.4%	188.5687	108.2%	92945.6140	46511.1200	9633.4537	25.4925	42365.2450	5120.4672	65.3810	152.0074	33.4017	30.2408	59108.7940	8933.7435	14438.6110	16237.1680	9094.9142	23839.8900
2	00:21:04	95.1%	202.1883	110.6%	95324.9800	46963.0650	9867.8116	-5.5792	43216.1790	5432.5969	52.5816	151.7587	62.8364	14.0325	60746.4320	9445.6120	14824.3970	16954.0940	9334.2631	24014.8170
3	00:21:17	96.4%	192.1181	111.2%	96160.3940	45573.6430	9510.9045	37.3497	43432.9120	5155.1742	54.2320	122.7451	61.3730	22.8082	62945.4680	9427.3138	14732.1600	17093.3710	9703.4291	23585.9840
x		95.3%	194.2917	110.0%	94810.3300	46349.2760	9670.7232	19.0877	43004.7790	5236.0794	57.3982	142.1704	52.5370	22.3605	60933.5650	9268.8898	14665.0560	16761.5440	9377.5355	23813.5640
σ		1.0%	7.0652	1.6%	1668.0382	708.7091	181.3489	22.1695	564.3546	171.0716	6.9624	16.8232	16.5878	8.1134	1925.1701	290.3894	201.4574	459.4316	306.5566	215.6251
%RSD		1.1	3.6364	1.4	1.7593	1.5291	1.8752	116.1458	1.3123	3.2672	12.1299	11.8332	31.5736	36.2846	3.1595	3.1329	1.3737	2.7410	3.2691	0.9055

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:20:50	101.9%	44.9260	6678.6739	52.7287	266.6269	-3666.5546	1390.6700	4596.0478	153170.0400	106.9%	106.7%	3687.6257	25313.8170
2	00:21:04	101.3%	87.6008	6492.2692	48.1726	231.0129	-2246.0589	1370.5494	4643.0250	155255.9400	110.8%	111.0%	3819.2209	23422.6130
3	00:21:17	104.2%	37.6909	6624.2873	35.7827	219.6896	-1663.6024	1444.1434	4644.3012	155976.4900	112.3%	113.5%	3850.2281	23049.6410
x		102.5%	56.7393	6598.4101	45.5614	239.1098	-2525.4053	1401.7876	4627.7914	154800.8200	110.0%	110.4%	3785.6916	23928.6900
σ		1.5%	26.9706	95.8587	8.7696	24.4938	1030.2816	38.0358	27.4981	1457.5281	2.8%	3.4%	86.3310	1213.9638
%RSD		1.5	47.5344	1.4528	19.2479	10.2438	40.7967	2.7134	0.5942	0.9416	2.5	3.1	2.2805	5.0733

6100165-15@MH1H28 10/19/2016 00:24:55

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:24:55	92.0%	558.2595	106.5%	103411.0300	23121.7060	4325.5060	-17.1026	41091.2290	4194.9885	78.9625	99.2135	58.4504	11.8613	87059.2550	12074.6170	20447.5000	23231.8840	12523.3570	32727.6770
2	00:25:08	93.3%	556.2672	106.8%	105960.0500	22761.4440	4091.9958	1.2117	42087.6160	4522.5467	67.1150	91.2452	40.2068	-2.1528	89755.6650	12202.5070	20448.1930	23358.4880	12972.1920	33273.4830
3	00:25:22	94.0%	567.1437	108.3%	106032.8000	23536.8810	4240.6191	-53.4280	42209.9230	4477.7045	75.2646	113.6493	44.5230	8.3503	90673.1520	12071.8950	20723.8900	23698.7460	12938.5370	33185.2760
x		93.1%	560.5568	107.2%	105134.6300	23140.0100	4219.3736	-23.1063	41796.2560	4398.4132	73.7807	101.3693	47.7268	6.0196	89162.6910	12116.3400	20539.8610	23429.7060	12811.3620	33062.1450
σ		1.0%	5.7907	1.0%	1493.1209	388.0429	118.1959	27.8102	613.6262	177.5920	6.0615	11.3566	9.5344	7.2919	1878.5038	74.6356	159.3742	241.4416	249.9866	292.9968
%RSD		1.1	1.0330	0.9	1.4202	1.6769	2.8013	120.3575	1.4681	4.0376	8.2156	11.2032	19.9771	121.1367	2.1068	0.6160	0.7759	1.0305	1.9513	0.8862

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:24:55	97.2%	98.5304	4431.6218	34.2293	274.3188	-4066.6349	907.4377	3911.3602	66868.1270	107.7%	108.9%	2348.8362	26241.8170
2	00:25:08	99.4%	162.6682	4289.0654	42.9426	319.0531	-5112.0947	1080.0466	4136.6078	67787.1760	110.2%	111.7%	2291.9481	26685.1530
3	00:25:22	97.5%	107.9500	4326.8263	47.9949	353.3284	-5068.1186	904.5748	3726.4489	68083.0110	113.5%	114.0%	2343.5984	27752.9100
x		98.0%	123.0495	4349.1712	41.7223	315.5668	-4748.9494	964.0197	3924.8056	67579.4380	110.5%	111.5%	2328.1276	26893.2930
σ		1.2%	34.6325	73.8583	6.9635	39.6200	591.3107	100.4925	205.4098	633.5235	3.0%	2.6%	31.4416	776.7509
%RSD		1.2	28.1452	1.6982	16.6901	12.5552	12.4514	10.4243	5.2336	0.9375	2.7	2.3	1.3505	2.8883

6100165-16@MH1H29 10/19/2016 00:28:57

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:28:57	94.9%	314.2961	106.4%	61948.6160	38406.3490	7112.2071	-22.4977	58138.2760	4995.4286	68.3407	122.5980	61.6750	15.1473	103552.4800	8947.7135	14373.4940	16487.6920	8631.9531	22963.0690
2	00:29:11	94.0%	260.2940	110.3%	61153.7470	37690.8570	7197.7230	17.8171	57724.4020	4826.4318	84.4907	130.2312	64.1094	-2.0603	101070.5900	9166.9667	13921.7800	16673.2550	8951.8943	23202.9510
3	00:29:24	95.3%	249.4573	111.0%	61561.3290	37043.9390	6938.7184	25.5177	57705.6060	5056.5111	65.9978	150.1644	46.8154	27.3503	103633.6100	8975.4219	14805.1290	17054.0910	9396.4210	23375.3960
x		94.7%	274.6824	109.2%	61554.5640	37713.7150	7082.8829	6.9457	57856.0950	4959.4572	72.9431	134.3312	57.5333	13.4791	102752.2300	9030.0340	14366.8010	16738.3460	8993.4228	23180.4720
σ		0.7%	34.7317	2.5%	397.4779	681.4923	131.9689	25.7878	244.5565	119.1830	10.0689	14.2332	9.3614	14.7761	1456.9055	119.3937	441.7125	288.7553	383.9222	207.0803
%RSD		0.7	12.6443	2.3	0.6457	1.8070	1.8632	371.2775	0.4227	2.4031	13.8038	10.5956	16.2713	109.6225	1.4179	1.3222	3.0745	1.7251	4.2689	0.8933

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:28:57	97.7%	131.3658	6809.6863	40.2403	439.0988	-5553.7389	1886.4767	2820.0085	117048.2400	108.8%	108.7%	2987.7792	18636.3730
2	00:29:11	98.7%	175.2686	6858.1572	39.1806	364.2048	-8165.4889	2040.5507	3015.4597	118563.4000	110.8%	109.1%	2984.8827	20399.2330
3	00:29:24	101.0%	122.8531	7047.6056	30.0093	362.2590	-3673.3187	1989.9027	3126.9093	120685.4300	111.1%	112.8%	3037.9713	18776.9680
x		99.1%	143.1625	6905.1497	36.4767	388.5209	-5797.5155	1972.3100	2987.4592	118765.6900	110.2%	110.2%	3003.5444	19270.8580
σ		1.7%	26.1286	125.7284	5.6259	43.8126	2255.9850	78.5291	155.3546	1827.0156	1.3%	2.3%	29.8497	979.7263
%RSD		1.7	19.6480	1.8208	15.4234	11.2768	38.9130	3.9816	5.2002	1.5383	1.2	2.1	0.9938	5.0840

6100165-17@MH1H30 10/19/2016 00:32:57

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:32:57	91.9%	697.9387	102.0%	66420.7920	25998.5170	4597.8951	32.4798	42657.1490	4088.1830	66.2454	115.8901	52.3694	15.7404	111779.4600	12568.9870	21458.4390	23616.7890	12957.3970	34822.5340
2	00:33:11	92.9%	635.3099	104.1%	67919.0110	26846.6100	4730.6786	-24.3198	42527.2150	4004.7796	94.9702	113.5350	49.1690	9.0047	114561.8300	12783.2900	21788.6780	24530.8950	13298.1740	34958.9390
3	00:33:24	92.8%	639.2277	104.0%	68544.0740	26607.3060	4736.5375	-22.5757	44119.7660	3764.6420	59.2622	104.2473	63.1315	33.1174	117382.7200	13069.8490	21996.5690	24221.7230	14008.6510	34897.3360
x		92.5%	657.4921	103.4%	67627.9590	26484.1450	4688.3704	-4.8052	43101.3770	3952.5349	73.4926	111.2241	54.8900	19.2875	114574.6700	12807.3750	21747.8950	24123.1350	13421.4070	34892.9360
σ		0.6%	35.0825	1.2%	1091.1534	437.2549	78.4086	32.3016	884.3408	167.9787	18.9250	6.1558	7.3145	12.4415	2801.6503	251.2982	271.3731	464.9590	536.3526	68.3089
%RSD		0.6	5.3358	1.2	1.6135	1.6510	1.6724	672.2180	2.0518	4.2499	25.7509	5.5346	13.3258	64.5057	2.4453	1.9621	1.2478	1.9274	3.9962	0.1958

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:32:57	95.8%	182.2233	4273.6329	60.1578	553.7605	-7387.8908	1227.1317	3804.3927	92011.0870	108.1%	108.7%	2673.1127	12202.0470
2	00:33:11	94.9%	148.5742	4589.4934	43.5695	578.1302	-7531.4965	1188.7382	3982.9845	93451.2950	109.7%	110.9%	2684.2625	12116.7630
3	00:33:24	95.8%	104.6631	4556.7301	61.3690	508.0246	-5592.9693	1160.3847	4062.6110	93184.4360	112.7%	112.9%	2601.1205	12397.1970
x		95.5%	145.1535	4473.2855	55.0321	546.6384	-6837.4522	1192.0848	3949.9961	92882.2730	110.2%	110.9%	2652.8319	12238.6690
σ		0.5%	38.8931	173.6785	9.9453	35.5913	1080.1430	33.4991	132.2322	766.1769	2.3%	2.1%	45.1291	143.7594
%RSD		0.5	26.7945	3.8826	18.0719	6.5109	15.7974	2.8101	3.3477	0.8249	2.1	1.9	1.7012	1.1746

6100165-18@MH1H31 10/19/2016 00:36:57

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:36:57	97.0%	266.2231	104.4%	60643.2800	28804.5920	5657.8652	-28.2591	48201.9190	5272.5327	90.5923	137.3933	48.8983	10.3395	65448.4680	14124.3560	23713.1370	26008.6700	15092.8630	38743.8560
2	00:37:10	97.7%	256.1259	108.3%	61072.1770	28068.9230	5696.3472	-2.3291	47761.5300	5227.7263	76.6906	167.6784	86.9054	16.4393	62040.7490	13842.6550	23737.8020	26821.0100	15061.1020	38308.4540
3	00:37:24	98.5%	247.4051	108.1%	62149.1230	27694.2300	5543.0076	-7.9651	48913.9720	5030.2989	62.8346	175.3959	41.4147	12.7876	64765.2730	14512.1350	24335.4570	26732.2740	15051.7620	38510.9730
x		97.7%	256.5847	106.9%	61288.1930	28189.2480	5632.4067	-12.8511	48292.4740	5176.8526	76.7058	160.1558	59.0728	13.1888	64084.8300	14159.7160	23928.7980	26520.6510	15068.5750	38521.0940
σ		0.7%	9.4174	2.2%	775.8143	564.8758	79.7770	13.6381	581.5334	128.8813	13.8789	20.0871	24.3924	3.0696	1802.8840	336.1377	352.3922	445.6030	21.5457	217.8772
%RSD		0.7	3.6703	2.0	1.2658	2.0039	1.4164	106.1238	1.2042	2.4896	18.0936	12.5422	41.2921	23.2745	2.8133	2.3739	1.4727	1.6802	0.1430	0.5656

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:36:57	102.9%	160.2958	14627.9410	53.3413	538.6835	2061.6700	3696.8637	5326.9640	127897.3000	107.8%	108.6%	3406.8743	96688.5580
2	00:37:10	104.1%	107.2196	14519.0150	48.4476	479.8429	286.0198	3985.6078	5203.8692	127464.0000	111.6%	110.7%	3392.4544	98674.3470
3	00:37:24	105.8%	116.9420	15325.1070	56.9873	417.7204	-110.2626	3726.6269	5174.4909	129258.7400	113.7%	114.1%	3421.5494	98570.1340
x		104.3%	128.1525	14824.0210	52.9254	478.7490	745.8091	3803.0328	5235.1081	128206.6800	111.0%	111.1%	3406.9594	97977.6800
σ		1.4%	28.2582	437.3575	4.2850	60.4890	1156.6665	158.8134	80.8944	936.5135	3.0%	2.8%	14.5477	1117.6272
%RSD		1.4	22.0505	2.9503	8.0963	12.6348	155.0888	4.1760	1.5452	0.7305	2.7	2.5	0.4270	1.1407

SEQ-IBL1@ZZZZZZ 10/19/2016 00:40:58

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:40:58	92.5%	254.5006	105.2%	59386.6450	25294.7520	5100.5221	13.3255	15310.5140	2206.2875	17.7774	68.0786	28.0219	2.0246	42733.4700	5696.6969	6518.8159	10088.9230	3946.0807	10299.3900
2	00:41:11	91.7%	222.9313	106.6%	60031.9960	25868.5690	5159.6259	-0.1691	15508.7750	2200.7088	31.9001	62.3057	28.1243	5.5710	43561.0740	5917.3831	6474.9380	9467.1689	4364.8516	10644.3580
3	00:41:24	92.5%	249.3598	107.3%	60965.6450	26217.9590	5244.9821	8.9158	14976.3410	2281.3947	18.1421	68.2426	25.0164	9.4889	45367.7580	6037.8043	6607.7755	9839.0078	4338.2486	11046.5600
x		92.3%	242.2639	106.4%	60128.0950	25793.7600	5168.3767	7.3574	15265.2100	2229.4637	22.6065	66.2090	27.0542	5.6948	43887.4340	5883.9614	6533.8431	9798.3664	4216.3936	10663.4360
σ		0.4%	16.9387	1.0%	793.8747	466.1277	72.6265	6.8809	269.0926	45.0600	8.0505	3.3813	1.7655	3.7337	1347.1273	172.9923	67.6817	312.8629	234.4754	373.9500
%RSD		0.5	6.9918	1.0	1.3203	1.8071	1.4052	93.5238	1.7628	2.0211	35.6116	5.1070	6.5258	65.5632	3.0695	2.9401	1.0359	3.1930	5.5610	3.5068

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:40:58	94.7%	123.0022	15784.7210	64.4286	848.2928	14862.1080	10354.5900	32433.2270	32945.7200	102.1%	102.4%	1453.0205	1230947.4000
2	00:41:11	94.6%	161.9804	15971.0100	78.9454	767.8396	15356.7880	10600.9180	32743.0060	33535.7870	104.7%	104.4%	1412.7511	1247534.6000
3	00:41:24	93.1%	175.8256	16286.7150	84.7487	832.2072	17375.3620	11037.5350	33761.5470	33346.9500	105.3%	105.7%	1569.7976	1266362.0000
x		94.1%	153.6027	16014.1490	76.0409	816.1132	15864.7530	10664.3480	32979.2600	33276.1520	104.0%	104.2%	1478.5230	1248281.4000
σ		0.9%	27.3901	253.7622	10.4668	42.5728	1331.4023	345.8631	694.9609	301.3371	1.7%	1.6%	81.5701	17719.0830
%RSD		1.0	17.8318	1.5846	13.7647	5.2165	8.3922	3.2432	2.1073	0.9056	1.7	1.6	5.5170	1.4195

SEQ-CCV@CCV08 10/19/2016 00:45:04 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	9[illegible]
1	00:45:17	91.5%	211363.9200	88.6%	578556.9400	437805.7500	592392.8800	4981.0329	±3661242.8000	777755.3200	5335.8562	17533.2830	8072.5471	95.4132	2057.7952	1465465.0000	2656761.2000	±2839433.[illegible]
2	00:45:30	91.4%	207003.5300	89.2%	579661.7900	449087.3400	609270.7300	5575.4311	±3658537.8000	774234.4800	5481.4753	18221.1780	8585.1934	105.5660	599.1043	1469263.6000	±2610548.7000	±2821844.[illegible]
3	00:45:43	91.2%	207861.9500	88.4%	587867.9800	441887.0100	598020.2800	5593.4170	±3625580.5000	787431.7300	5641.2950	17990.9550	8471.8234	96.6562	2734.7033	1482753.6000	±2626044.2000	±2846611.[illegible]
x		91.4%	94.028%	88.7%	582028.9000	92.750%	94.902%	5383.2937	±101.860%	100.753%	5486.2088	93.321%	8376.5213	99.2118	1797.2009	1472494.1000	±2631118.0000	±2835963.[illegible]
σ		0.2%	n/a	0.4%	5086.8725	n/a	n/a	348.4841	±n/a	n/a	152.7744	n/a	269.2832	5.5379	1091.3880	9085.7322	±23520.3930	±12743.[illegible]
%RSD		0.2	1.1066	0.4	0.8740	1.2897	1.4325	6.4734	±0.2499	0.8763	2.7847	1.9545	3.2147	5.5819	60.7271	0.6170	±0.8939	±0.[illegible]

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:45:17	96.1%	56381.4040	376435.0900	43473.7070	652176.8100	4516.1777	2217787.9000	2236167.2000	742562.7400	107.7%	110.5%	±5086172.5000	5056.8659
2	00:45:30	93.6%	57538.4410	377123.4100	43879.9880	656180.8700	4283.6096	2229129.9000	2233519.3000	743515.2700	110.8%	112.7%	±5079966.2000	5862.4451
3	00:45:43	95.0%	57666.0030	378273.4500	43134.0700	653785.5600	3743.7649	2260989.3000	2243072.7000	745699.8900	112.8%	113.9%	±5080557.7000	5543.0240
x		94.9%	57195.2830	101.103%	43495.9210	102.341%	4181.1840	2235969.0000	107.402%	102.873%	110.4%	112.4%	±99.429%	5487.4450
σ		1.3%	707.7195	n/a	373.4547	n/a	396.2621	22398.0090	n/a	n/a	2.6%	1.8%	±n/a	405.6553
%RSD		1.4	1.2374	0.2462	0.8586	0.3081	9.4773	1.0017	0.2204	0.2162	2.3	1.6	±0.0674	7.3924

SEQ-CCB@CCB08 10/19/2016 00:49:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	00:49:39	85.2%	28.1968	77.6%	70.3454	-61.6932	-57.0347	-52.7629	328.9426	260.2790	0.3582	-3.1274	10.6505	-4.4803	1920.5087	499.6874	809.7309	837.8627	412.0317	1121.6817
2	00:49:52	85.2%	40.4519	78.5%	73.1167	-30.3899	-53.5932	-48.4863	370.7948	162.7206	7.8988	-1.7815	10.8256	-0.5885	3419.8542	377.6926	713.0805	832.9071	478.2436	1275.0846
3	00:50:05	85.5%	44.3233	79.0%	47.0349	26.4391	-58.9924	-66.3820	314.5373	208.7612	0.3409	0.5182	21.8027	2.8282	1945.7029	381.1339	735.7796	808.7419	484.3812	1034.3241
x		85.3%	37.6573	78.4%	63.4990	-21.8813	-56.5401	-55.8771	338.0916	217.2536	2.8660	-1.4636	14.4263	-0.7469	2428.6886	419.5046	752.8637	826.5039	458.2188	1143.6968
σ		0.2%	8.4186	0.7%	14.3255	44.6780	2.7334	9.3454	29.2233	59.2375	4.3586	1.8435	6.3888	3.6569	858.4670	69.4617	50.5393	15.5806	40.1168	121.8807
%RSD		0.2	22.3558	0.9	22.5602	204.1833	4.8344	16.7250	8.6436	27.2665	152.0797	125.9579	44.2857	489.6307	35.3469	16.5580	6.7129	1.8851	8.7549	10.6567

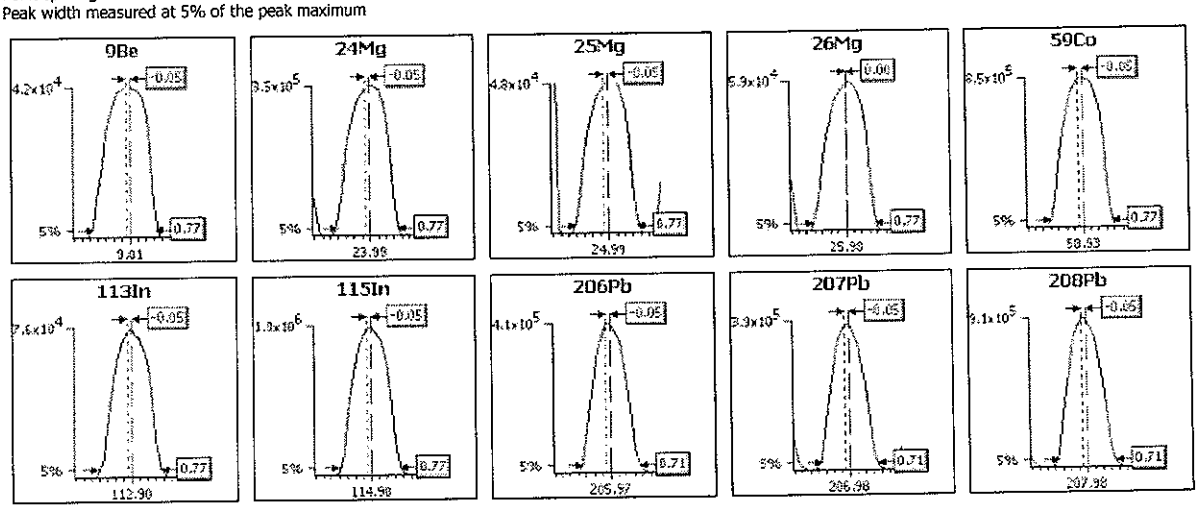
Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	00:49:39	90.2%	13.2864	46.9394	3.7327	74.9881	5901.5048	817.6249	245.6967	63.5178	101.7%	104.3%	890.5627	5657.3311
2	00:49:52	89.0%	-6.0968	61.5590	0.0000	59.9254	9600.8787	945.4851	266.6085	56.5189	101.4%	105.4%	767.6955	6925.6783
3	00:50:05	90.6%	-63.0487	9.1035	3.6730	44.4839	10938.0640	970.8429	223.4816	68.1448	103.2%	105.6%	699.6860	6456.2119
x		89.9%	-18.6197	39.2006	2.4686	59.7992	8813.4824	911.3176	245.2622	62.7272	102.1%	105.1%	785.9814	6346.4071
σ		0.8%	39.6784	27.0705	2.1381	15.2525	2608.9704	82.1249	21.5667	5.8532	1.0%	0.7%	96.7433	641.2635
%RSD		0.9	213.0991	69.0562	86.6110	25.5062	29.6020	9.0117	8.7933	9.3311	0.9	0.7	12.3086	10.1044

Performance Report

Sample details
Sample name : SEQ-TUN1@TUNE01
Acquired at : 10/19/2016 07:39:25
Report name : 200_8 + IS TEST_NO SCREEN [7/9/2015 09:58:10]

Mass Calibration verification

Acquisition parameters
Sweeps : 10
Dwell : 10.0 mSecs
Point spacing : 0.05 amu
Peak width measured at 5% of the peak maximum



Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.85	0.65	0.11	0.77	-0.05
24Mg	0.85	0.65	0.11	0.77	-0.05
25Mg	0.85	0.65	0.11	0.77	-0.05
26Mg	0.85	0.65	0.11	0.77	0.00
59Co	0.85	0.65	0.11	0.77	-0.05
113In	0.85	0.65	0.11	0.77	-0.05
115In	0.85	0.65	0.11	0.77	-0.05
206Pb	0.85	0.65	0.11	0.71	-0.05
207Pb	0.85	0.65	0.11	0.71	-0.05
208Pb	0.85	0.65	0.11	0.71	-0.05

Sample details
Sample name : SEQ-TUN1@TUNE01
Acquired at : 10/19/2016 07:39:25
Report name : 200_8 + IS TEST_NO SCREEN [7/9/2015 09:58:10]

Tune conditions

Major	
Extraction	-200
Lens 1	0.3
Focus	18.4
D1	-41.6
Pole Bias	1.5
Hexapole Bias	-3.5
Nebuliser	0.78
Sampling Depth	130

Minor	
Lens 2	-26.7
Lens 3	-189.0
Forward power	1400
Horizontal	95
Vertical	375
D2	-160
DA	-32.9
Cool	13.0
Auxiliary	0.90

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
CCT 7% h2/He	0.00
Dont touch this thing	0.00

Sensitivity and stability results

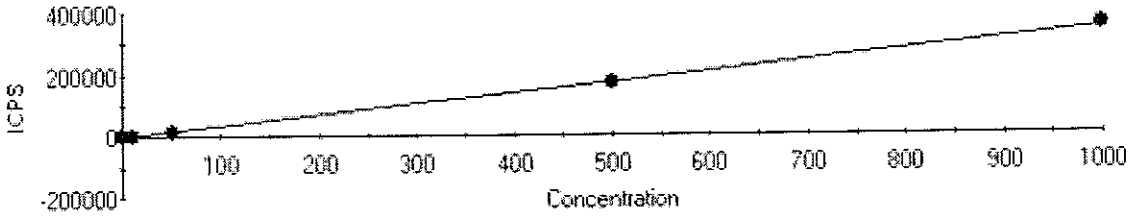
Acquisition parameters
Sweeps : 30

Run	Time	6Li	9Be	24Mg	25Mg	26Mg	45Sc	59Co	89Y	113In	115In	159Tb	206Pb	207Pb	208Pb	209Bi
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	3.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Countrate	>4000	>4000	>4000	>4000	>4000	>5000	>4000	>5000	>10000	>20000	>20000	>20000	>20000	>20000	>20000
1	07:40:04	105120.95	44689.574	363016.06	50375.856	59842.986	1232246.3	890695.95	114290.61	78840.393	1873535.7	167390.35	432009.89	383018.89	949117.27	114310.86
2	07:40:11	105056.88	45108.301	364722.36	49953.535	59272.600	1243996.8	891939.45	115769.14	78181.406	1879921.4	170395.41	435996.96	386161.05	953742.50	115772.52
3	07:40:19	105994.33	44813.516	362634.61	50439.541	59742.327	1254314.0	904181.42	116022.34	77969.598	1875251.4	169138.94	436248.61	388278.44	963698.18	116177.64
4	07:40:27	105987.59	45764.904	365756.00	49876.447	59812.788	1237317.4	904688.32	116336.31	79206.892	1896127.0	171179.94	442178.38	391958.07	962068.36	116039.22
5	07:40:34	105279.43	45222.199	364229.86	50932.277	60087.927	1248940.9	896621.48	116822.49	78487.358	1893818.5	172117.40	439922.80	391457.16	965779.29	118081.94
x		105487.83	45119.699	364071.78	50315.531	59751.725	1243363.1	897625.32	115848.18	78537.129	1883730.8	170044.41	437271.33	388174.72	958881.12	116076.43
σ		466.38	420.02	1271.30	425.21	297.80	8825.68	6599.65	955.27	497.91	10556.72	1842.13	3919.89	3732.84	7118.38	1345.67
%RSD		0.4421	0.9309	0.3492	0.8451	0.4984	0.7098	0.7352	0.8246	0.6340	0.5604	1.0833	0.8964	0.9616	0.7424	1.1593

Result : The performance report passed.

Fully Quant Calibration

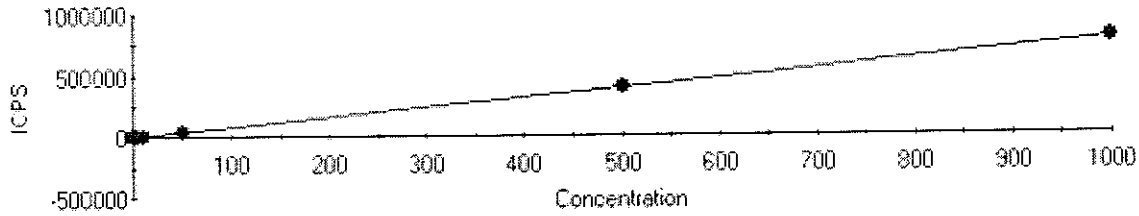
9Be FQ Block 1



Intercept CPS=-7.053925 Intercept Conc=-0.020405
Sensitivity=345.986282 Correlation Coeff=0.999922

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.091	0.091	24.52	0.00
SEQ-CAL4@S04	1.000	1.122	0.122	381.29	12.24
SEQ-CAL5@S05	10.000	9.834	0.166	3395.51	1.66
SEQ-CAL6@S06	50.000	50.527	0.527	17474.47	1.05
SEQ-CAL7@S07	500.000	501.371	1.371	173460.53	0.27
SEQ-CAL8@S08	1000.000	1030.055	30.055	356377.67	3.01

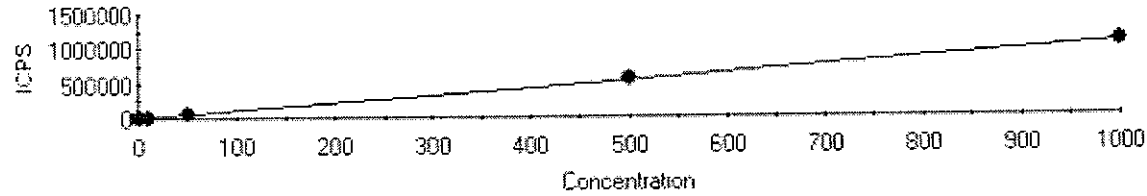
51V FQ Block 1



Intercept CPS=12.308140 Intercept Conc=0.015547
Sensitivity=791.666988 Correlation Coeff=0.999994

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.018	0.018	-2.26	0.00
SEQ-CAL4@S04	5.000	5.073	0.073	4028.20	1.45
SEQ-CAL5@S05	10.000	10.177	0.177	8069.49	1.77
SEQ-CAL6@S06	50.000	50.488	0.488	39981.75	0.98
SEQ-CAL7@S07	500.000	495.545	4.455	392319.21	0.89
SEQ-CAL8@S08	1000.000	998.084	1.916	790162.71	0.19

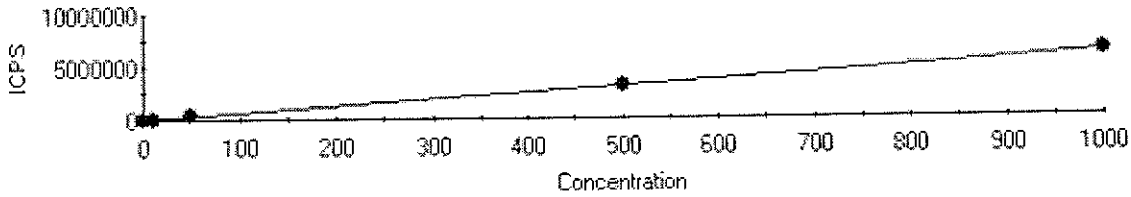
52Cr FQ Block 1



Intercept CPS=175.438568 Intercept Conc=0.162997
Sensitivity=1076.329942 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.004	0.004	171.31	0.00
SEQ-CAL4@S04	2.000	1.991	0.009	2318.49	0.45
SEQ-CAL5@S05	10.000	10.346	0.346	11311.64	3.46
SEQ-CAL6@S06	50.000	50.780	0.780	54831.40	1.56
SEQ-CAL7@S07	500.000	498.868	1.132	537121.54	0.23
SEQ-CAL8@S08	1000.000	1002.889	2.889	1079615.44	0.29

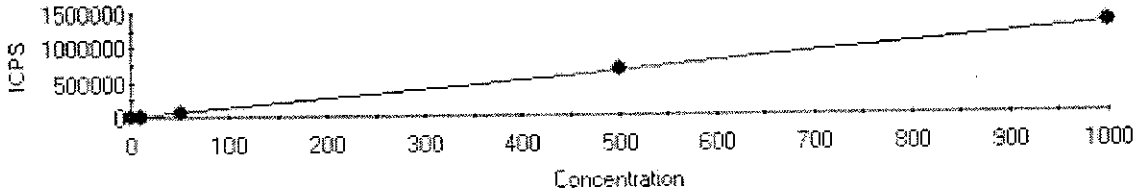
59Co FQ Block 1



Intercept CPS=16.246846 Intercept Conc=0.002618
Sensitivity=6205.718315 Correlation Coeff=0.999989

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	16.60	0.00
SEQ-CAL4@S04	1.000	0.977	0.023	6076.54	2.34
SEQ-CAL5@S05	10.000	10.047	0.047	62363.46	0.47
SEQ-CAL6@S06	50.000	49.570	0.430	307632.78	0.86
SEQ-CAL7@S07	500.000	502.710	2.710	3119692.52	0.54
SEQ-CAL8@S08	1000.000	995.753	4.247	6179378.76	0.42

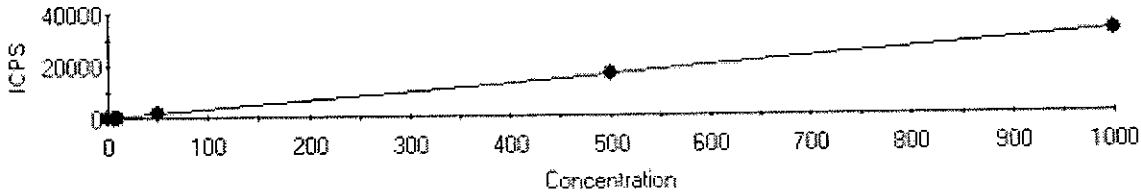
60Ni FQ Block 1



Intercept CPS=407.039201 Intercept Conc=0.311605
Sensitivity=1306.266297 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.003	0.003	410.40	0.00
SEQ-CAL4@S04	1.000	1.000	0.000	1712.73	0.04
SEQ-CAL5@S05	10.000	9.990	0.010	13457.13	0.10
SEQ-CAL6@S06	50.000	49.706	0.294	65336.82	0.59
SEQ-CAL7@S07	500.000	500.932	0.932	654757.93	0.19
SEQ-CAL8@S08	1000.000	1002.438	2.438	1309857.39	0.24

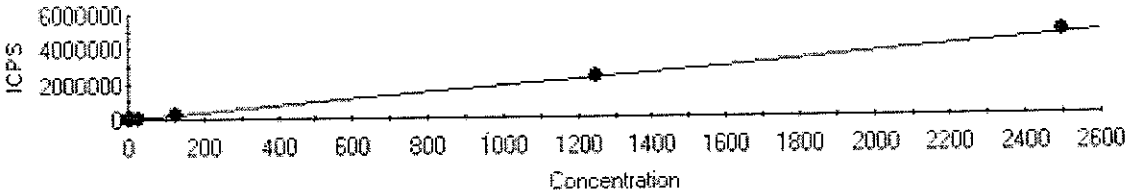
78Se FQ Block 1



Intercept CPS=8.668027 Intercept Conc=0.270729
Sensitivity=32.017418 Correlation Coeff=0.999986

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.028	0.028	7.77	0.00
SEQ-CAL4@S04	5.000	5.321	0.321	179.05	6.43
SEQ-CAL5@S05	10.000	9.633	0.367	317.10	3.67
SEQ-CAL6@S06	50.000	49.853	0.147	1604.82	0.29
SEQ-CAL7@S07	500.000	501.671	1.671	16070.88	0.33
SEQ-CAL8@S08	1000.000	992.113	7.887	31773.55	0.79

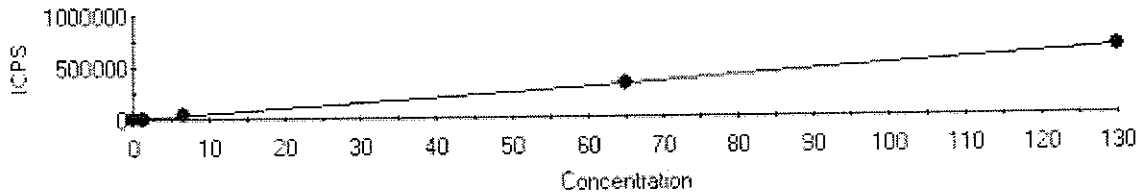
95Mo FQ Block 1



Intercept CPS=17.035420 Intercept Conc=0.009418
Sensitivity=1808.788186 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	17.81	0.00
SEQ-CAL2@S02	2.000	2.009	0.009	3650.74	0.45
SEQ-CAL3@S03	4.000	4.021	0.021	7290.12	0.52
SEQ-CAL4@S04	10.000	9.901	0.099	17925.03	0.99
SEQ-CAL5@S05	25.000	24.807	0.193	44887.43	0.77
SEQ-CAL6@S06	125.000	123.755	1.245	223863.77	1.00
SEQ-CAL7@S07	1250.000	1301.704	51.704	2354524.53	4.14
SEQ-CAL8@S08	2500.000	2603.251	103.251	4708747.18	4.13

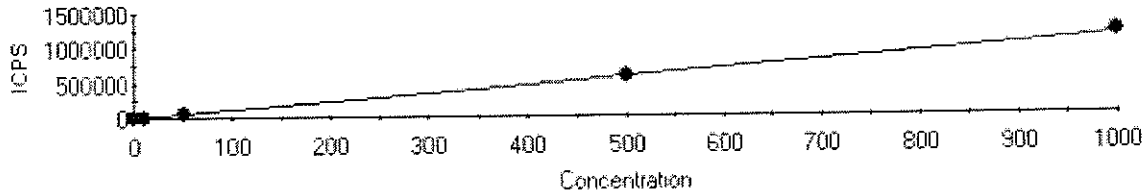
107Ag FQ Block 1



Intercept CPS=6.960083 Intercept Conc=0.001372
Sensitivity=5072.188741 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	7.71	0.00
SEQ-CAL4@S04	1.000	0.991	0.009	5035.36	0.86
SEQ-CAL5@S05	1.300	1.291	0.009	6555.78	0.68
SEQ-CAL6@S06	6.500	6.478	0.022	32866.29	0.33
SEQ-CAL7@S07	65.000	65.163	0.163	330527.60	0.25
SEQ-CAL8@S08	130.000	129.871	0.129	658736.90	0.10

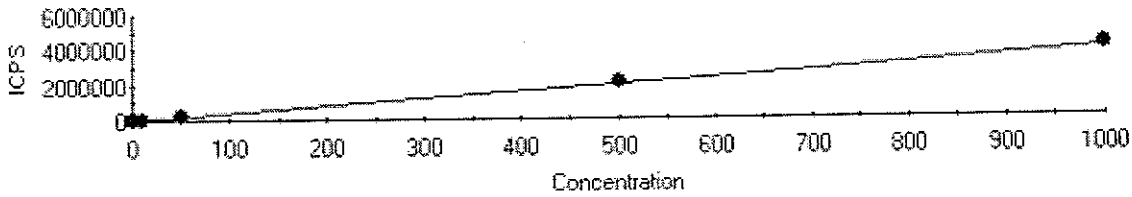
111Cd FQ Block 1



Intercept CPS=5.987215 Intercept Conc=0.005134
Sensitivity=1166.223565 Correlation Coeff=0.999987

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.001	0.001	6.68	0.00
SEQ-CAL4@S04	1.000	0.919	0.081	1077.76	8.10
SEQ-CAL5@S05	10.000	9.945	0.055	11603.93	0.55
SEQ-CAL6@S06	50.000	49.154	0.846	57330.30	1.69
SEQ-CAL7@S07	500.000	501.443	1.443	584800.25	0.29
SEQ-CAL8@S08	1000.000	1014.044	14.044	1182608.27	1.40

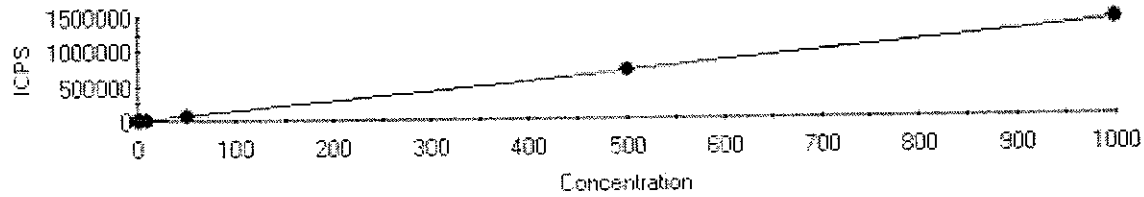
121Sb FQ Block 1



Intercept CPS=19.523347 Intercept Conc=0.004951
Sensitivity=3942.996329 Correlation Coeff=0.999969

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.001	0.001	23.27	0.00
SEQ-CAL4@S04	2.000	1.960	0.040	7745.93	2.02
SEQ-CAL5@S05	10.000	9.795	0.205	38640.15	2.05
SEQ-CAL6@S06	50.000	48.937	1.063	192976.40	2.13
SEQ-CAL7@S07	500.000	513.302	13.302	2023967.01	2.66
SEQ-CAL8@S08	1000.000	1010.603	10.603	3984823.98	1.06

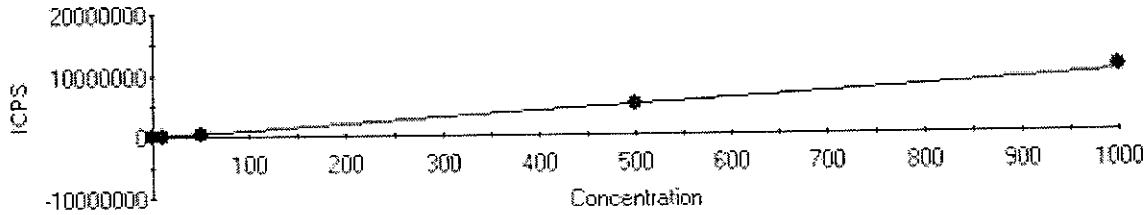
137Ba FQ Block 1



Intercept CPS=9.051704 Intercept Conc=0.006599
Sensitivity=1371.712922 Correlation Coeff=0.999991

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.032	0.032	53.54	0.00
SEQ-CAL3@S03	5.000	4.875	0.125	6696.36	2.50
SEQ-CAL5@S05	10.000	9.982	0.018	13700.87	0.18
SEQ-CAL6@S06	50.000	49.132	0.868	67403.46	1.74
SEQ-CAL7@S07	500.000	501.254	1.254	687585.55	0.25
SEQ-CAL8@S08	1000.000	1011.799	11.799	1387906.83	1.18

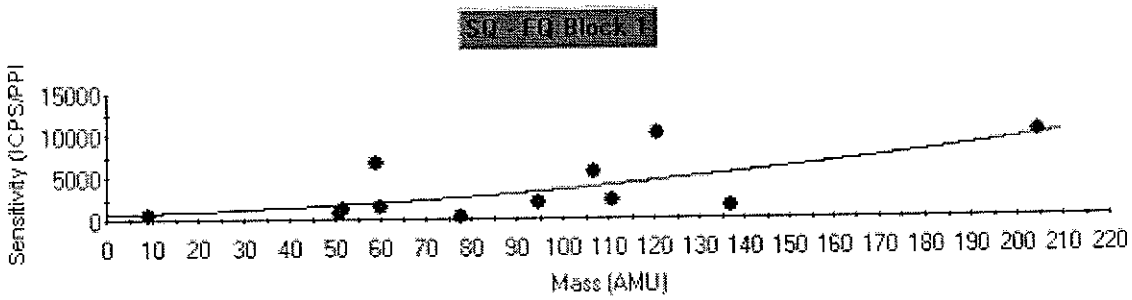
205Tl FQ Block 1



Intercept CPS=-49.166929 Intercept Conc=-0.004897
Sensitivity=10040.983697 Correlation Coeff=0.999954

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.010	0.010	54.30	0.00
SEQ-CAL4@S04	1.000	0.982	0.018	9808.87	1.82
SEQ-CAL5@S05	10.000	9.826	0.174	98616.51	1.74
SEQ-CAL6@S06	50.000	49.321	0.679	495179.94	1.36
SEQ-CAL7@S07	500.000	507.490	7.490	5095652.58	1.50
SEQ-CAL8@S08	1000.000	1036.197	36.197	10404387.46	3.62

Semi Quant Calibration



Coeff 0=632.498530 Coeff 1=14.746219 Coeff 2=0.143966

Symbol	Mass	RSF	Available	Excluded	Sensitivity Measured	Corrected	Calculated	%Error
9Be	9.01	0.7500	1	1	345.99	461.32	777.09	68.5
51V	50.94	0.9900	1	1	791.67	801.59	1757.36	119.2
52Cr	51.94	0.9800	1	1	1076.33	1311.24	1786.82	36.3
59Co	58.93	0.9300	1	1	6205.72	6672.82	2001.55	-70.0
60Ni	59.93	0.9100	1	1	1306.27	5487.22	2033.33	-62.9
78Se	77.92	0.1000	1	1	32.02	1356.10	2655.52	95.8
95Mo	94.91	0.9800	1	1	1808.79	12487.84	3328.72	-73.3
107Ag	106.91	0.9300	1	1	5072.19	10621.16	3854.29	-63.7
111Cd	110.90	0.5660	1	1	1166.22	16022.28	4038.66	-74.8
121Sb	120.90	0.3900	1	1	3943.00	17659.82	4519.83	-74.4
137Ba	136.91	0.9100	1	1	1371.71	13316.05	5349.72	-59.8
205Tl	204.97	1.0000	1	1	10040.98	14242.53	9703.58	-31.9

Dilution Corrected Concentrations

SEQ-CAL1@S01 10/19/2016 07:51:01

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:51:01	99.5%	0.0791	98.5%	-0.0082	-0.0540	0.0043	3.8840	-0.0004	0.0590	-0.0085	0.0765	0.0156	-0.0614	-0.0009	-0.0001	0.0026	0.0011	-0.0016	99.9%
2	07:51:19	99.9%	0.1273	99.2%	0.0162	0.0166	-0.0194	-3.1940	-0.0005	-0.0393	0.0043	-0.1663	-0.0448	0.3533	-0.0010	0.0035	-0.0037	-0.0010	-0.0015	99.7%
3	07:51:32	100.6%	0.0675	102.4%	-0.0080	-0.0178	0.0036	-0.6893	0.0011	-0.0119	0.0042	0.0058	0.0292	-0.2919	0.0019	-0.0022	0.0011	-0.0001	0.0032	100.4%
x		100.0%	0.0913	100.0%	-0.0000	-0.0184	-0.0038	-0.0000	0.0001	0.0026	0.0000	-0.0280	0.0000	0.0000	-0.0000	0.0004	0.0000	-0.0000	0.0000	100.0%
σ		0.6%	0.0317	2.1%	0.0141	0.0353	0.0135	3.5890	0.0009	0.0507	0.0073	0.1249	0.0394	0.3269	0.0017	0.0029	0.0033	0.0011	0.0028	0.4%
%RSD		0.6	34.7300	2.1	0.0000	191.9000	351.9000	0.0000	1535.0000	1968.0000	0.0000	446.1000	0.0000	0.0000	0.0000	674.7000	0.0000	0.0000	0.0000	0.4

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:51:01	-0.0091	-0.0014	-0.0005	0.0007	0.0013	-0.0024	0.0526	98.5%	98.3%	0.0089	0.0000
2	07:51:19	-0.0034	0.0006	0.0010	0.0034	-0.0013	0.0044	0.0225	100.4%	100.6%	0.0092	0.0000
3	07:51:32	0.0126	0.0012	-0.0005	-0.0023	-0.0000	0.0009	0.0222	101.1%	101.1%	0.0128	0.0000
x		0.0000	0.0001	0.0000	0.0006	-0.0000	0.0010	0.0324	100.0%	100.0%	0.0103	0.0000
σ		0.0112	0.0014	0.0009	0.0029	0.0013	0.0034	0.0175	1.3%	1.5%	0.0021	0.0000
%RSD		0.0000	912.8000	0.0000	485.8000	0.0000	353.9000	53.8400	1.3	1.5	20.8000	0.0000

SEQ-CAL2@S02 10/19/2016 07:55:22

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:55:35	100.5%	0.2179	97.6%	-0.0121	0.9668	0.4280	9.7360	0.2301	0.2266	0.0420	1.1750	0.1710	-1.4870	0.6348	2.0000	1.1840	0.7015	1.6650	100.8%
2	07:55:50	101.3%	0.2170	98.0%	-0.0123	1.0120	0.3942	13.9600	0.2164	0.2446	0.0804	1.0790	0.0993	-0.6723	0.6670	1.9600	1.1810	0.6752	1.7360	100.3%
3	07:56:04	101.1%	0.3004	99.8%	-0.0212	1.0540	0.4261	9.2260	0.2063	0.2607	0.0417	0.6860	-0.1247	3.6560	0.6491	2.0660	1.1750	0.7184	1.7610	101.6%
x		101.0%	0.2451	98.5%	-0.0152	1.0110	0.4161	10.9800	0.2176	0.2440	0.0547	0.9799	0.0485	0.4989	0.6503	2.0090	1.1800	0.6984	1.7210	100.9%
σ		0.4%	0.0479	1.2%	0.0052	0.0439	0.0190	2.6010	0.0120	0.0170	0.0222	0.2590	0.1542	2.7650	0.0161	0.0535	0.0044	0.0218	0.0496	0.6%
%RSD		0.4	19.5400	1.2	34.4200	4.3390	4.5700	23.7000	5.4940	6.9890	40.7000	26.4300	318.0000	554.2000	2.4810	2.6640	0.3736	3.1210	2.8840	0.6

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:55:35	0.0213	0.2188	0.0131	0.2020	1.4670	0.4121	2.1240	102.1%	101.4%	0.2134	0.0000
2	07:55:50	0.0055	0.2245	0.0130	0.1978	1.5620	0.4016	2.2170	103.0%	102.6%	0.2094	0.0000
3	07:56:04	-0.0028	0.2208	0.0099	0.1838	1.5040	0.4196	1.9820	104.0%	103.8%	0.2151	0.0000
x		0.0060	0.2214	0.0120	0.1945	1.5110	0.4111	2.1080	103.0%	102.6%	0.2126	0.0000
σ		0.0122	0.0029	0.0018	0.0095	0.0482	0.0090	0.1184	0.9%	1.2%	0.0029	0.0000
%RSD		153.1000	1.3110	15.3600	4.8920	3.1910	2.1960	5.6190	0.9	1.1	1.3860	0.0000

SEQ-CAL3@S03 10/19/2016 07:59:41

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:59:41	97.9%	0.6409	94.7%	-0.0043	2.4960	1.0540	19.1900	0.4945	0.7682	0.1092	2.9730	0.1151	1.3560	1.3810	4.0710	2.3640	1.3120	3.4290	97.3%
2	07:59:55	99.8%	0.4851	95.4%	0.0018	2.5560	0.9870	12.4000	0.4987	0.7802	0.0949	2.4420	0.2730	-1.1350	1.3630	3.9390	2.3370	1.3820	3.5530	98.5%
3	08:00:09	100.4%	0.6328	96.0%	-0.0114	2.6280	1.0900	19.6200	0.5310	0.7811	0.0573	2.6370	0.1226	-0.5990	1.3390	4.0530	2.3600	1.3240	3.6270	96.7%
x		99.4%	0.5862	95.4%	-0.0046	2.5600	1.0440	17.0700	0.5081	0.7765	0.0872	2.6840	0.1702	-0.1260	1.3610	4.0210	2.3540	1.3390	3.5360	97.5%
σ		1.3%	0.0877	0.6%	0.0066	0.0662	0.0524	4.0530	0.0200	0.0072	0.0268	0.2689	0.0891	1.3110	0.0210	0.0714	0.0144	0.0374	0.0999	0.9%
%RSD		1.3	14.9600	0.7	142.2000	2.5840	5.0190	23.7400	3.9350	0.9246	30.7300	10.0200	52.3400	1041.0000	1.5420	1.7760	0.6119	2.7900	2.8250	1.0

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	07:59:41	0.0122	0.4956	0.0182	0.5370	2.9750	0.9667	4.8520	98.9%	98.7%	0.5046	0.0000
2	07:59:55	0.0287	0.5135	0.0195	0.5148	2.9910	1.0320	4.9150	100.9%	100.5%	0.5046	0.0000
3	08:00:09	0.0141	0.4777	0.0254	0.4848	3.1120	0.9840	4.8590	101.8%	102.2%	0.5144	0.0000
x		0.0183	0.4956	0.0210	0.5122	3.0260	0.9942	4.8750	100.5%	100.5%	0.5079	0.0000
σ		0.0090	0.0179	0.0039	0.0262	0.0748	0.0339	0.0343	1.5%	1.8%	0.0057	0.0000
%RSD		49.2800	3.6100	18.3300	5.1150	2.4720	3.4080	0.7045	1.5	1.7	1.1190	0.0000

SEQ-CAL4@S04 10/19/2016 08:03:44

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:44	100.0%	1.0020	94.3%	-0.0019	4.9400	1.9760	32.5800	0.9597	1.0840	0.1454	5.5680	0.4907	-0.4003	3.1870	9.8730	5.8500	3.3100	8.4680	99.3%
2	08:03:58	99.2%	1.1420	95.3%	-0.0089	5.1250	2.0560	22.9000	0.9758	0.9859	0.1743	5.4610	0.3205	-0.4594	3.3070	9.8790	5.9710	3.3970	8.6300	97.5%
3	08:04:12	100.2%	1.2230	96.9%	-0.0266	5.1520	1.9410	28.9100	0.9942	0.9288	0.1838	4.9360	0.3118	-0.0109	3.2300	9.9490	6.1230	3.3290	8.6970	99.3%
x		99.8%	1.1220	95.5%	-0.0125	5.0730	1.9910	28.1300	0.9766	0.9996	0.1678	5.3210	0.3743	-0.2902	3.2410	9.9010	5.9820	3.3450	8.5980	98.7%
σ		0.5%	0.1120	1.4%	0.0127	0.1153	0.0585	4.8890	0.0172	0.0785	0.0200	0.3384	0.1009	0.2437	0.0608	0.0422	0.1368	0.0457	0.1178	1.1%
%RSD		0.5	9.9810	1.4	102.1000	2.2730	2.9400	17.3800	1.7650	7.8550	11.9100	6.3590	26.9500	83.9600	1.8740	0.4262	2.2870	1.3660	1.3700	1.1

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:03:44	0.0425	0.9776	0.0384	0.9297	7.3920	1.9620	9.8870	99.5%	99.7%	0.9789	0.0000
2	08:03:58	0.0745	0.9961	0.0379	0.8807	7.3850	1.9810	9.5860	100.8%	100.8%	0.9819	0.0000
3	08:04:12	0.0488	1.0000	0.0431	0.9466	7.4170	1.9350	9.6520	103.4%	102.8%	0.9846	0.0000
x		0.0553	0.9914	0.0398	0.9190	7.3980	1.9600	9.7080	101.2%	101.1%	0.9818	0.0000
σ		0.0170	0.0121	0.0029	0.0342	0.0168	0.0233	0.1584	2.0%	1.6%	0.0029	0.0000
%RSD		30.7100	1.2240	7.2200	3.7230	0.2276	1.1870	1.6320	2.0	1.5	0.2929	0.0000

SEQ-CAL5@S05 10/19/2016 08:07:46

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:07:46	100.2%	9.8310	94.8%	6.1080	10.2900	10.4900	58.9100	9.9410	9.7370	0.2822	10.4600	0.6727	-3.4110	7.7900	24.5200	14.6200	8.4740	21.2600	96.3%
2	08:08:00	100.1%	9.7980	95.7%	6.1670	10.2200	10.2900	52.7200	10.0900	10.1000	0.3842	9.0800	0.5029	-0.8428	7.9450	24.9100	14.8700	8.5900	21.5700	97.2%
3	08:08:13	101.8%	9.8740	95.9%	6.0410	10.0200	10.2600	76.3700	10.1100	10.1300	0.3328	9.3570	0.2264	3.4070	7.9730	25.0000	15.0200	8.5410	22.0000	97.0%
x		100.7%	9.8340	95.5%	6.1060	10.1800	10.3500	62.6600	10.0500	9.9900	0.3331	9.6330	0.4673	-0.2821	7.9020	24.8100	14.8400	8.5350	21.6100	96.9%
σ		1.0%	0.0383	0.6%	0.0628	0.1401	0.1256	12.2600	0.0931	0.2203	0.0510	0.7319	0.2252	3.4430	0.0986	0.2562	0.2004	0.0580	0.3714	0.5%
%RSD		1.0	0.3890	0.6	1.0280	1.3770	1.2130	19.5700	0.9271	2.2050	15.3200	7.5980	48.2000	1221.0000	1.2480	1.0330	1.3510	0.6791	1.7180	0.5

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:07:46	0.5045	1.2840	0.3311	9.6940	9.1700	9.6320	10.1700	98.0%	98.0%	9.9070	0.0000
2	08:08:00	0.4997	1.2760	0.3617	10.0200	9.4370	9.7690	9.6930	99.9%	100.7%	9.7620	0.0000
3	08:08:13	0.4845	1.3130	0.3267	10.1200	9.5660	9.9840	10.0800	101.2%	101.7%	9.8100	0.0000
x		0.4962	1.2910	0.3399	9.9450	9.3910	9.7950	9.9820	99.7%	100.2%	9.8260	0.0000
σ		0.0104	0.0196	0.0191	0.2241	0.2017	0.1773	0.2545	1.6%	1.9%	0.0741	0.0000
%RSD		2.1040	1.5200	5.6100	2.2530	2.1480	1.8100	2.5490	1.6	1.9	0.7535	0.0000

SEQ-CAL6@S06 10/19/2016 08:11:47

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:11:47	100.4%	50.7200	93.7%	30.3500	51.1600	51.2000	300.7000	49.1000	49.0700	2.0340	50.5600	3.1230	0.4161	39.0500	121.8000	72.3200	41.3600	105.6000	96.6%
2	08:12:01	100.6%	50.5500	94.9%	30.2700	50.9000	51.0100	361.0000	49.5000	49.7800	2.1480	49.5900	3.0400	-2.6270	39.4100	122.9000	73.3100	42.0100	107.3000	96.8%
3	08:12:15	100.3%	50.3000	94.3%	30.7000	49.4000	50.1200	330.5000	50.1100	50.2800	2.0610	49.4100	2.9640	-1.3270	40.2300	126.5000	74.2000	42.6600	109.3000	98.4%
x		100.4%	50.5300	94.3%	30.4400	50.4900	50.7800	330.7000	49.5700	49.7100	2.0810	49.8500	3.0420	-1.1790	39.5700	123.8000	73.2800	42.0100	107.4000	97.3%
σ		0.2%	0.2108	0.6%	0.2317	0.9489	0.5771	30.1300	0.5068	0.6073	0.0596	0.6149	0.0797	1.5270	0.6048	2.4890	0.9384	0.6529	1.8470	1.0%
%RSD		0.2	0.4172	0.7	0.7612	1.8800	1.1360	9.1110	1.0270	1.2220	2.8640	1.2330	2.6200	129.5000	1.5290	2.0110	1.2810	1.5540	1.7200	1.0

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:11:47	2.2960	6.3010	1.6410	48.5100	45.0800	48.4000	48.2300	99.3%	99.1%	49.4500	0.0000
2	08:12:01	2.2980	6.5440	1.7930	48.8800	45.8000	48.8600	48.9600	101.5%	101.1%	49.4500	0.0000
3	08:12:15	2.4500	6.5890	1.8110	50.0700	47.1100	49.5500	50.2000	103.0%	104.4%	49.0600	0.0000
x		2.3480	6.4780	1.7480	49.1500	45.9900	48.9400	49.1300	101.3%	101.6%	49.3200	0.0000
σ		0.0880	0.1550	0.0934	0.8137	1.0300	0.5775	0.9962	1.9%	2.7%	0.2241	0.0000
%RSD		3.7480	2.3930	5.3430	1.6550	2.2400	1.1800	2.0280	1.8	2.6	0.4544	0.0000

SEQ-CAL7@S07 10/19/2016 08:15:49

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:49	99.6%	500.9000	93.3%	300.3000	498.1000	499.2000	2476.0000	↑502.4000	499.9000	18.3200	496.9000	26.9800	1.1650	400.7000	1287.0000	↑773.3000	426.0000	↑1123.0000	97.2%
2	08:16:03	100.7%	499.7000	95.6%	301.1000	497.6000	500.0000	2777.0000	↑500.0000	497.0000	18.5600	504.0000	26.2800	-1.6320	406.3000	1293.0000	↑771.5000	430.3000	↑1122.0000	97.0%
3	08:16:16	100.3%	503.5000	94.7%	305.4000	490.9000	497.5000	2615.0000	↑505.7000	505.9000	19.1000	504.1000	26.9700	-0.3149	409.0000	1324.0000	↑781.4000	439.4000	↑1131.0000	98.2%
x		100.2%	501.4000	94.5%	302.3000	495.5000	498.9000	2623.0000	↑502.7000	500.9000	18.6600	501.7000	26.7500	-0.2606	405.3000	1302.0000	↑775.4000	431.9000	↑1126.0000	97.5%
σ		0.5%	1.9440	1.2%	2.7390	3.9990	1.2810	150.5000	↑2.9070	4.5680	0.3963	4.1110	0.4022	1.3990	4.2390	19.9900	↑5.2960	6.8690	↑4.8180	0.5%
%RSD		0.5	0.3877	1.2	0.9061	0.8070	0.2569	5.7370	↑0.5782	0.9118	2.1240	0.8194	1.5040	536.8000	1.0460	1.5360	↑0.6831	1.5900	↑0.4280	0.6

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:15:49	23.6500	64.9200	17.2200	499.8000	481.3000	507.8000	497.5000	101.5%	102.9%	↑508.8000	0.0000
2	08:16:03	23.4400	65.0600	17.5700	499.3000	484.6000	513.6000	503.1000	104.8%	105.7%	↑506.5000	0.0000
3	08:16:16	23.9000	65.5100	17.4800	505.2000	494.6000	518.6000	503.1000	107.3%	107.5%	↑507.2000	0.0000
x		23.6700	65.1600	17.4200	501.4000	486.8000	513.3000	501.3000	104.5%	105.3%	↑507.5000	0.0000
σ		0.2304	0.3103	0.1806	3.2690	6.9090	5.4030	3.2220	2.9%	2.3%	↑1.1580	0.0000
%RSD		0.9733	0.4762	1.0360	0.6519	1.4190	1.0530	0.6429	2.8	2.2	↑0.2292	0.0000

SEQ-CAL8@S08 10/19/2016 08:19:52

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:19:52	96.5%	↑1040.0000	87.6%	606.5000	↑1014.0000	↑1017.0000	4415.0000	↑994.2000	999.3000	37.8900	↑1004.0000	52.1300	1.4680	↑822.1000	TN 2577.0000	↑1530.0000	↑872.4000	↑2228.0000	92.1%
2	08:20:06	97.2%	↑1022.0000	89.5%	608.0000	977.9000	987.5000	4638.0000	↑987.6000	993.1000	37.4900	976.0000	52.1000	0.5005	↑833.7000	TN 2613.0000	↑1542.0000	↑877.8000	↑2251.0000	95.7%
3	08:20:21	97.4%	↑1028.0000	89.4%	618.6000	↑1002.0000	↑1004.0000	4845.0000	TN 1005.0000	↑1015.0000	35.9100	996.1000	54.7900	0.6004	↑835.0000	TN 2621.0000	↑1562.0000	↑884.9000	↑2261.0000	94.6%
x		97.1%	↑1030.0000	88.8%	611.0000	↑998.1000	↑1003.0000	4633.0000	TN 995.8000	↑1002.0000	37.1000	↑992.1000	53.0100	0.8563	↑830.3000	TN 2603.0000	↑1544.0000	↑878.4000	↑2247.0000	94.1%
σ		0.5%	↑9.2990	1.0%	6.5850	↑18.5400	↑14.8200	215.4000	TN 9.0120	↑11.1700	1.0490	↑14.5700	1.5460	0.5322	↑7.1010	TN 23.3700	↑16.0700	↑6.2610	↑17.0200	1.8%
%RSD		0.5	↑0.9027	1.2	1.0780	↑1.8580	↑1.4780	4.6500	TN 0.9051	↑1.1150	2.8280	↑1.4690	2.9170	62.1500	↑0.8553	TN 0.8976	↑1.0400	↑0.7127	↑0.7576	1.9

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:19:52	46.6400	128.8000	34.8200	↑1004.0000	↑950.9000	TN 1001.0000	TN 1011.0000	102.0%	101.5%	TN 1047.0000	0.0000
2	08:20:06	47.1900	130.0000	34.9200	↑1008.0000	↑953.5000	TN 1015.0000	TN 1008.0000	105.0%	106.7%	TN 1028.0000	0.0000
3	08:20:21	47.3800	↑130.9000	35.0800	↑1030.0000	↑964.5000	TN 1016.0000	TN 1017.0000	106.9%	107.5%	TN 1034.0000	0.0000
x		47.0700	↑129.9000	34.9400	↑1014.0000	↑956.3000	TN 1011.0000	TN 1012.0000	104.6%	105.2%	TN 1036.0000	0.0000
σ		0.3829	↑1.0320	0.1320	↑13.5400	↑7.1900	TN 8.5050	TN 4.7840	2.5%	3.2%	TN 9.4660	0.0000
%RSD		0.8134	↑0.7949	0.3778	↑1.3360	↑0.7519	TN 0.8416	TN 0.4729	2.3	3.1	TN 0.9135	0.0000

SEQ-ICV@ICV01 10/19/2016 08:23:58 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:24:12	96.5%	107.9000	85.1%	0.0564	100.6000	99.2800	609.4000	102.3000	102.5000	7.3330	206.6000	11.1500	0.2698	3.3700	10.7000	6.3870	3.5800	9.2770	93.6%
2	08:24:25	96.0%	107.7000	85.8%	0.0698	100.2000	99.6000	589.4000	102.3000	101.7000	7.9070	205.7000	11.3900	-0.8572	3.4280	10.7800	6.4560	3.7490	9.3870	94.7%
3	08:24:44	97.6%	106.0000	87.0%	0.0705	99.4900	98.9600	625.0000	102.9000	101.9000	7.9870	209.5000	11.3900	-2.1350	3.4790	10.7100	6.4670	3.6390	9.4410	95.4%
x		96.7%	108.288%	86.0%	0.0656	100.101%	101.307%	608.0000	103.547%	104.111%	7.7430	103.127%	11.3100	-0.9074	3.4260	10.7300	6.4370	3.6560	9.3680	94.6%
σ		0.8%	n/a	0.9%	0.0079	n/a	n/a	17.8600	n/a	n/a	0.3565	n/a	0.1376	1.2030	0.0545	0.0415	0.0433	0.0855	0.0839	0.9%
%RSD		0.9	0.9682	1.1	12.1100	0.5726	0.3217	2.9380	0.3635	0.3965	4.6040	0.9636	1.2170	132.6000	1.5900	0.3871	0.6728	2.3380	0.8953	0.9

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:24:12	4.7550	103.8000	3.4890	103.1000	0.1690	200.2000	101.7000	101.8%	103.0%	↑220.4000	0.0000
2	08:24:25	4.6990	103.0000	3.5490	102.2000	0.1594	202.0000	100.4000	104.9%	105.7%	↑218.0000	0.0000
3	08:24:44	4.9690	102.8000	3.5350	101.2000	0.1860	202.7000	101.2000	105.7%	107.2%	↑215.4000	0.0000
x		4.8080	104.248%	3.5240	103.200%	0.1715	101.841%	101.118%	104.1%	105.3%	↑106.325%	0.0000
σ		0.1427	n/a	0.0315	n/a	0.0135	n/a	n/a	2.1%	2.2%	↑n/a	0.0000
%RSD		2.9680	0.5370	0.8949	0.9352	7.8590	0.6290	0.6663	2.0	2.0	↑1.1540	0.0000

SEQ-ICB@ICB01 10/19/2016 08:28:28 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:28:28	96.8%	0.1321	86.3%	-0.0019	-0.0107	-0.0016	-0.1969	0.0139	0.0075	0.0177	-0.0920	0.2426	-3.6470	0.0254	0.0725	0.0471	0.0146	0.0552	97.1%
2	08:28:42	98.8%	0.0752	87.9%	-0.0122	0.0374	0.0766	6.9240	0.0148	-0.0525	0.0051	-0.0112	0.0230	-0.1445	0.0259	0.0534	0.0386	0.0142	0.0541	93.6%
3	08:28:56	98.1%	0.0635	89.5%	-0.0061	0.0341	0.0565	2.4640	0.0151	-0.0374	0.0318	0.2417	-0.0697	1.4010	0.0275	0.0678	0.0410	0.0232	0.0644	94.8%
x		97.9%	0.0902	87.9%	-0.0067	0.0203	0.0438	3.0640	0.0146	-0.0275	0.0182	0.0461	0.0653	-0.7969	0.0262	0.0646	0.0422	0.0173	0.0579	95.2%
σ		1.0%	0.0367	1.6%	0.0052	0.0269	0.0406	3.5980	0.0006	0.0312	0.0133	0.1741	0.1604	2.5870	0.0011	0.0100	0.0044	0.0051	0.0056	1.8%
%RSD		1.0	40.6600	1.8	76.9700	132.8000	92.6300	117.4000	4.2330	113.6000	73.2600	377.2000	245.6000	324.6000	4.2670	15.4300	10.4500	29.4500	9.7460	1.9

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:28:28	-0.0040	0.0225	0.0011	0.0069	0.0303	0.0878	0.0282	101.2%	101.3%	0.0357	0.0000
2	08:28:42	0.0115	0.0117	-0.0005	0.0127	0.0434	0.0897	0.0251	102.9%	102.5%	0.0415	0.0000
3	08:28:56	0.0042	0.0156	0.0026	0.0153	0.0449	0.0865	0.0391	104.4%	105.9%	0.0432	0.0000
x		0.0039	0.0166	0.0011	0.0117	0.0395	0.0880	0.0308	102.8%	103.2%	0.0401	0.0000
σ		0.0077	0.0054	0.0016	0.0043	0.0080	0.0016	0.0073	1.6%	2.4%	0.0039	0.0000
%RSD		196.8000	32.6500	145.6000	36.8100	20.2800	1.8230	23.6100	1.6	2.3	9.7680	0.0000

SEQ-IFA@ICSA01 10/19/2016 08:32:35 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:35	93.4%	0.3964	92.3%	518.0000	-0.4735	21.8700	85.6200	1.2790	5.7540	-0.0085	-0.1191
2	08:32:49	96.7%	0.3085	97.0%	518.5000	-0.5404	21.3800	95.9700	1.2620	5.6880	0.0187	-0.0481
3	08:33:05	95.3%	0.2976	100.8%	517.7000	-0.8127	21.7900	130.0000	1.2740	5.5780	-0.0085	-0.1223
x		95.2%	1.#IO%	96.7%	518.1000	-121.778%	103.237%	103.9000	127.172%	94.559%	0.0006	-32.174%
σ		1.7%	n/a	4.3%	0.3952	n/a	n/a	23.2200	n/a	n/a	0.0157	n/a
%RSD		1.7	16.2000	4.4	0.0763	29.5100	1.2220	22.3600	0.7063	1.5650	2669.0000	43.4600

Run	Time	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:35	-0.2016	4.7250	674.5000	T2183.0000	T1305.0000	725.3000	T1890.0000	91.6%
2	08:32:49	-0.1516	2.7840	678.7000	T2183.0000	T1297.0000	T737.4000	T1890.0000	93.5%
3	08:33:05	-0.3755	6.5410	T691.0000	T2161.0000	T1287.0000	T732.9000	T1866.0000	93.5%
x		-0.2429	4.6830	T681.4000	T2176.0000	T1296.0000	T731.9000	T1882.0000	92.9%
σ		0.1175	1.8790	T8.5380	T12.5100	T8.9380	T6.1290	T13.5100	1.1%
%RSD		48.4000	40.1200	T1.2530	T0.5748	T0.6895	T0.8374	T0.7177	1.2

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:35	-0.0001	0.0116	0.7599	0.4774	1.0610	1.1950	2.0360	99.5%	100.9%	0.0269	0.0000
2	08:32:49	0.0207	0.0097	0.6962	0.4963	0.1398	1.1230	2.0420	104.5%	105.0%	0.0217	0.0000
3	08:33:05	-0.0054	0.0137	0.6631	0.2507	0.1460	1.1000	1.9680	108.5%	109.7%	0.0227	0.0000
x		0.0050	1.#IO%	0.7064	58.303%	0.4490	75.959%	167.962%	104.2%	105.2%	1.#IO%	0.0000
σ		0.0138	n/a	0.0492	n/a	0.5303	n/a	n/a	4.5%	4.4%	n/a	0.0000
%RSD		273.2000	17.0500	6.9660	33.4800	118.1000	4.3410	2.0270	4.3	4.2	11.7100	0.0000

SEQ-IFB@ICSAB01 10/19/2016 08:36:38 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:36:38	89.4%	20.0500	102.2%	505.3000	21.7700	43.8900	255.3000	20.3300	23.9800	0.6232	20.3200
2	08:36:52	89.3%	19.6000	104.3%	512.5000	21.5200	43.4600	243.6000	20.6800	24.4900	0.8106	20.7000
3	08:37:06	89.4%	18.5900	105.8%	510.8000	21.3800	43.3300	222.5000	20.5800	23.9800	0.6088	19.4400
x		89.4%	102.175%	104.1%	509.5000	113.466%	108.899%	240.5000	102.663%	100.639%	0.6809	106.060%
σ		0.1%	n/a	1.8%	3.7540	n/a	n/a	16.6300	n/a	n/a	0.1126	n/a
%RSD		0.1	3.8500	1.8	0.7368	0.9156	0.6763	6.9160	0.8824	1.2080	16.5400	3.2090

Run	Time	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:36:38	0.7610	4.6330	T681.4000	T2139.0000	T1269.0000	711.8000	T1838.0000	90.7%
2	08:36:52	0.4660	9.6050	670.9000	T2128.0000	T1262.0000	T722.5000	T1849.0000	91.7%
3	08:37:06	0.9187	2.8700	678.4000	T2148.0000	T1277.0000	T722.6000	T1848.0000	92.8%
x		0.7152	5.7030	T676.9000	T2138.0000	T1269.0000	T719.0000	T1845.0000	91.7%
σ		0.2298	3.4920	T5.3910	T10.1700	T7.7110	T6.2310	T6.4540	1.1%
%RSD		32.1300	61.2400	T0.7964	T0.4755	T0.6075	T0.8667	T0.3498	1.2

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:36:38	0.8977	18.2700	1.3780	18.4200	0.1361	20.4300	22.0600	106.9%	106.5%	19.4200	0.0000
2	08:36:52	0.8513	18.4300	1.3080	19.2400	0.1380	20.8200	22.9700	109.4%	109.1%	19.6600	0.0000
3	08:37:06	0.8652	18.3700	1.3660	19.6200	0.1553	21.2300	23.0700	111.0%	111.8%	19.5700	0.0000
x		0.8714	101.974%	1.3510	95.479%	0.1431	94.680%	103.187%	109.1%	109.1%	93.102%	0.0000
σ		0.0238	n/a	0.0378	n/a	0.0106	n/a	n/a	2.1%	2.6%	n/a	0.0000
%RSD		2.7320	0.4470	2.8010	3.2210	7.4030	1.9180	2.4550	1.9	2.4	0.6165	0.0000

SEQ-CCV@CCV01 10/19/2016 08:40:44 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:40:58	97.5%	497.2000	111.9%	300.3000	505.2000	505.9000	2654.0000	T504.0000	498.6000	20.2500	516.4000
2	08:41:12	96.5%	498.6000	113.2%	300.9000	504.4000	507.7000	2594.0000	T501.9000	499.5000	19.3200	511.1000
3	08:41:25	96.9%	497.3000	114.1%	301.7000	498.3000	499.7000	2621.0000	T497.4000	496.4000	19.2000	509.5000
x		96.9%	99.536%	113.1%	301.0000	100.523%	100.888%	2623.0000	T100.213%	99.636%	19.5900	102.466%
σ		0.5%	n/a	1.1%	0.7208	n/a	n/a	30.0900	Tn/a	n/a	0.5731	n/a
%RSD		0.5	0.1539	1.0	0.2395	0.7514	0.8337	1.1470	T0.6706	0.3156	2.9260	0.7002

Run	Time	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:40:58	28.9200	-0.5808	405.8000	T1299.0000	T773.6000	428.0000	T1125.0000	106.9%
2	08:41:12	26.7600	2.2520	408.5000	T1308.0000	T778.3000	437.0000	T1124.0000	107.8%
3	08:41:25	26.5700	2.5980	408.2000	T1299.0000	T774.0000	433.5000	T1123.0000	109.8%
x		27.4200	1.4230	407.5000	T1302.0000	T775.3000	432.9000	T1124.0000	108.2%
σ		1.3050	1.7440	1.5100	T5.1860	T2.6340	4.5080	T0.8995	1.5%
%RSD		4.7610	122.6000	0.3706	T0.3983	T0.3398	1.0410	T0.0800	1.4

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:40:58	24.0700	65.8800	17.7900	511.1000	491.2000	532.5000	511.5000	118.8%	119.4%	T504.9000	0.0000
2	08:41:12	24.5200	66.1100	18.0100	514.7000	496.1000	530.7000	515.6000	121.0%	121.5%	T499.6000	0.0000
3	08:41:25	24.3900	66.0700	17.9100	513.2000	495.5000	528.2000	514.8000	121.9%	122.6%	T495.1000	0.0000
x		24.3300	101.574%	17.9000	102.599%	494.2000	106.092%	102.795%	120.6%	121.2%	T99.973%	0.0000
σ		0.2318	n/a	0.1097	n/a	2.6470	n/a	n/a	1.6%	1.6%	Tn/a	0.0000
%RSD		0.9529	0.1876	0.6128	0.3537	0.5355	0.4016	0.4175	1.3	1.3	T0.9818	0.0000

SEQ-CCB@CCB01 10/19/2016 08:45:01 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:45:01	94.9%	0.1316	103.9%	0.0031	-0.0325	0.0586	16.2500	0.0451	0.0224	-0.0085	0.0896
2	08:45:15	96.5%	0.1763	105.0%	-0.0073	-0.0039	0.0473	13.2800	0.0435	0.0352	0.0034	-0.0770
3	08:45:28	95.6%	0.0659	106.0%	0.0213	-0.0524	0.0549	17.5200	0.0366	0.0945	0.0036	-0.1720
x		95.7%	0.1246	105.0%	0.0057	-0.0296	0.0536	15.6800	0.0418	0.0507	-0.0005	-0.0532
σ		0.8%	0.0556	1.0%	0.0145	0.0244	0.0058	2.1770	0.0045	0.0385	0.0069	0.1324
%RSD		0.8	44.5900	1.0	252.9000	82.2900	10.7500	13.8800	10.8300	75.8800	1344.0000	249.2000

Run	Time	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:45:01	-0.0691	1.5130	0.0813	0.2693	0.1550	0.0772	0.2399	105.9%
2	08:45:15	-0.0174	1.1910	0.1144	0.2854	0.1515	0.0933	0.2723	107.5%
3	08:45:28	-0.0496	1.0020	0.0859	0.3239	0.1818	0.1045	0.2812	105.5%
x		-0.0454	1.2350	0.0939	0.2929	0.1628	0.0917	0.2645	106.3%
σ		0.0261	0.2586	0.0179	0.0281	0.0166	0.0138	0.0217	1.1%
%RSD		57.5200	20.9300	19.0900	9.5920	10.2000	15.0000	8.2220	1.0

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:45:01	-0.0048	0.0084	0.0009	0.0320	0.0683	0.0523	0.0739	109.9%	111.1%	0.0766	0.0000
2	08:45:15	-0.0055	0.0071	0.0023	0.0313	0.0545	0.0589	0.0810	112.4%	112.2%	0.0863	0.0000
3	08:45:28	0.0154	0.0052	0.0022	0.0519	0.0706	0.0693	0.0980	112.9%	114.3%	0.0830	0.0000
x		0.0017	0.0069	0.0018	0.0384	0.0645	0.0602	0.0843	111.7%	112.5%	0.0820	0.0000
σ		0.0119	0.0016	0.0008	0.0117	0.0087	0.0086	0.0124	1.6%	1.6%	0.0049	0.0000
%RSD		688.3000	23.4100	43.2200	30.4200	13.5300	14.2200	14.6800	1.5	1.4	6.0070	0.0000

~~[illegible]~~ SEQIBLI 10/19/2016 08:49:04

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:49:04	96.9%	0.4073	117.0%	37.8700	28.8800	7.6880	42.9900	6.3970	5.6990	1.2980	33.2500
2	08:49:18	98.2%	0.3454	118.6%	38.3800	28.7500	7.6570	19.3500	6.3590	5.8050	1.3430	30.6200
3	08:49:32	98.2%	0.4605	120.4%	39.0000	28.9600	7.8310	41.3300	6.4290	5.7280	1.2840	33.5000
x		97.8%	0.4044	118.7%	38.4100	28.8700	7.7250	34.5600	6.3950	5.7440	1.3080	32.4600
σ		0.7%	0.0576	1.7%	0.5620	0.1046	0.0925	13.1900	0.0349	0.0546	0.0307	1.5940
%RSD		0.7	14.2400	1.4	1.4630	0.3625	1.1970	38.1700	0.5454	0.9500	2.3450	4.9130

Run	Time	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:49:04	1.8000	2.0370	5.5370	16.8800	10.0200	5.5840	14.5000	106.2%
2	08:49:18	1.5770	3.2010	5.5800	16.9600	10.0300	5.5870	14.5000	107.4%
3	08:49:32	1.7210	2.0260	5.5280	17.0700	10.1200	5.8040	14.6600	106.4%
x		1.6990	2.4220	5.5480	16.9700	10.0500	5.6580	14.5600	106.7%
σ		0.1131	0.6750	0.0278	0.0917	0.0540	0.1263	0.0926	0.6%
%RSD		6.6530	27.8800	0.5013	0.5401	0.5374	2.2320	0.6361	0.6

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:49:04	0.0772	0.5245	0.0205	0.2983	0.5565	5.1310	226.4000	113.1%	113.2%	0.2810	0.0000
2	08:49:18	0.0628	0.5394	0.0265	0.3281	0.5574	5.1200	227.8000	116.3%	116.0%	0.2974	0.0000
3	08:49:32	0.0704	0.5410	0.0274	0.2679	0.5580	5.2540	230.1000	117.9%	118.7%	0.2882	0.0000
x		0.0701	0.5350	0.0248	0.2981	0.5573	5.1680	228.1000	115.7%	116.0%	0.2888	0.0000
σ		0.0072	0.0091	0.0037	0.0301	0.0007	0.0746	1.8800	2.4%	2.8%	0.0082	0.0000
%RSD		10.2600	1.7000	15.0800	10.1000	0.1298	1.4440	0.8241	2.1	2.4	2.8440	0.0000

[illegible] 10721

SEQ1B12

Q314028-PS1@MH1G60A 10/19/2016 08:53:55

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:53:55	100.8%	0.5187	118.0%	16.5500	28.1000	6.3570	39.0800	7.2880	4.9620	0.7819	13.7800	0.9723	-1.0150	7.2480	22.3100	13.5900	7.6700	19.4200	107.9%
2	08:54:09	99.3%	0.4614	120.2%	16.4200	28.6300	6.4480	29.9200	7.2920	4.9480	0.7457	14.7400	1.0030	-0.7268	7.4390	22.2200	13.4300	7.7530	19.5700	106.3%
3	08:54:23	100.8%	0.3089	120.2%	16.7600	28.4400	6.4350	47.9500	7.3450	5.0380	0.7120	13.9700	0.8388	1.5060	7.5700	22.6400	13.7200	7.7500	19.5800	106.0%
x		100.3%	0.4297	119.4%	16.5800	28.3900	6.4130	38.9800	7.3090	4.9830	0.7465	14.1600	0.9379	-0.0784	7.4190	22.3900	13.5800	7.7240	19.5300	106.8%
σ		0.9%	0.1084	1.3%	0.1726	0.2712	0.0489	9.0170	0.0317	0.0482	0.0350	0.5081	0.0871	1.3800	0.1622	0.2175	0.1501	0.0472	0.0908	1.0%
%RSD		0.9	25.2300	1.1	1.0410	0.9553	0.7621	23.1300	0.4335	0.9682	4.6840	3.5870	9.2890	1761.0000	2.1860	0.9714	1.1050	0.6106	0.4648	0.9

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:53:55	0.1572	4.8640	0.1270	3.1080	1.3930	13.0600	46.5200	114.5%	112.5%	0.2539	0.0000
2	08:54:09	0.1920	4.8190	0.1386	3.4680	1.3980	13.4200	47.1400	114.9%	115.3%	0.2704	0.0000
3	08:54:23	0.1924	4.7710	0.1099	3.4100	1.4090	13.4000	46.7200	118.1%	117.2%	0.2630	0.0000
x		0.1805	4.8180	0.1252	3.3280	1.4000	13.2900	46.7900	115.9%	115.0%	0.2624	0.0000
σ		0.0202	0.0464	0.0145	0.1935	0.0081	0.2021	0.3202	2.0%	2.4%	0.0082	0.0000
%RSD		11.1900	0.9635	11.5600	5.8140	0.5820	1.5200	0.6842	1.7	2.0	3.1340	0.0000

SEQ1B13

6100165-13RE1@MH1G89@2X 10/19/2016 08:57:55

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:57:55	99.2%	1.7540	109.0%	4.1030	4.3900	1.0780	-8.3600	14.0400	12.5800	0.3947	3.6410	-0.1031	4.1170	1.4800	4.3120	2.4620	1.3840	3.6420	107.3%
2	08:58:09	100.8%	1.6180	110.9%	3.9930	4.5530	1.0730	-21.4300	14.0400	12.6700	0.4181	3.4770	0.1140	0.4715	1.4160	4.3910	2.5740	1.4370	3.5820	107.4%
3	08:58:23	99.8%	1.5300	111.1%	4.2730	4.5540	1.0740	-9.5050	14.2600	12.7400	0.3332	2.9410	0.1393	1.5060	1.5150	4.2300	2.6450	1.4940	3.7850	108.1%
x		99.9%	1.6340	110.3%	4.1230	4.4990	1.0750	-13.1000	14.1100	12.6600	0.3820	3.3530	0.0501	2.0320	1.4700	4.3110	2.5600	1.4380	3.6700	107.6%
σ		0.8%	0.1126	1.2%	0.1412	0.0945	0.0027	7.2380	0.1280	0.0793	0.0439	0.3661	0.1333	1.8790	0.0503	0.0804	0.0920	0.0554	0.1042	0.4%
%RSD		0.8	6.8920	1.1	3.4260	2.1000	0.2487	55.2600	0.9071	0.6267	11.4900	10.9200	266.1000	92.4700	3.4180	1.8650	3.5950	3.8510	2.8410	0.4

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:57:55	0.6443	1.7240	0.3571	9.8830	0.1452	0.9545	92.8800	121.8%	120.6%	0.1640	0.0000
2	08:58:09	0.6329	1.7290	0.3408	9.8190	0.1451	0.9576	93.6900	124.7%	122.7%	0.1735	0.0000
3	08:58:23	0.6173	1.7530	0.3476	10.1800	0.1584	0.9232	94.4400	127.0%	125.2%	0.1613	0.0000
x		0.6315	1.7350	0.3485	9.9600	0.1496	0.9451	93.6700	124.5%	122.9%	0.1663	0.0000
σ		0.0136	0.0155	0.0082	0.1920	0.0076	0.0191	0.7799	2.6%	2.3%	0.0064	0.0000
%RSD		2.1490	0.8905	2.3450	1.9270	5.1110	2.0170	0.8326	2.1	1.9	3.8360	0.0000

SEQ1B14

6100163-[illegible]@MH1G01@2X 10/19/2016 09:01:55

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:01:55	98.2%	2.0900	109.4%	3.9690	6.8650	2.2620	-11.3900	19.6500	16.0100	0.3225	2.9840	0.0734	2.6270	0.8081	2.1130	1.2680	0.7324	1.7750	107.7%
2	09:02:09	99.1%	2.2780	111.4%	4.0850	6.9560	2.3790	-13.5000	19.6100	16.0800	0.4230	3.1600	0.1014	2.5920	0.8144	2.0990	1.1780	0.6847	1.7910	106.2%
3	09:02:23	99.3%	2.1440	112.9%	4.0990	6.8790	2.2780	-19.9300	19.6800	16.5000	0.2871	3.0490	0.0076	2.9900	0.8345	2.0900	1.3340	0.7044	1.8570	107.7%
x		98.9%	2.1710	111.2%	4.0510	6.9000	2.3060	-14.9400	19.6500	16.2000	0.3442	3.0640	0.0608	2.7360	0.8190	2.1010	1.2600	0.7072	1.8080	107.2%
σ		0.6%	0.0966	1.8%	0.0717	0.0492	0.0633	4.4500	0.0375	0.2693	0.0705	0.0890	0.0481	0.2202	0.0138	0.0117	0.0785	0.0240	0.0434	0.9%
%RSD		0.6	4.4480	1.6	1.7710	0.7130	2.7450	29.7800	0.1911	1.6630	20.4900	2.9060	79.1400	8.0470	1.6840	0.5554	6.2310	3.3890	2.4000	0.8

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:01:55	0.6267	3.8750	0.4079	11.1100	0.1929	1.1170	102.5000	121.4%	119.4%	0.2718	0.0000
2	09:02:09	0.6743	3.8200	0.3821	10.7800	0.1687	1.1850	103.6000	124.8%	121.9%	0.2789	0.0000
3	09:02:23	0.6516	3.9270	0.4162	10.7200	0.1788	1.1870	105.2000	125.6%	123.7%	0.2860	0.0000
x		0.6509	3.8740	0.4021	10.8700	0.1801	1.1630	103.8000	124.0%	121.7%	0.2789	0.0000
σ		0.0238	0.0534	0.0178	0.2098	0.0122	0.0399	1.3760	2.2%	2.1%	0.0071	0.0000
%RSD		3.6580	1.3780	4.4290	1.9300	6.7500	3.4290	1.3260	1.8	1.7	2.5530	0.0000

Q314030-PS1@MH1H17A 10/19/2016 09:05:56

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:05:56	99.9%	0.7137	113.9%	24.8800	18.6400	4.7380	35.7300	7.4430	3.2830	0.9989	14.3100	0.7414	4.6220	3.6560	10.5900	6.5300	3.6540	9.2450	106.1%
2	09:06:09	100.1%	0.7902	115.1%	25.5700	18.5600	4.7600	47.3500	7.6660	3.3320	0.9787	15.2000	0.6903	0.8678	3.6830	11.1900	6.5510	3.7540	9.5800	107.0%
3	09:06:23	100.1%	0.7245	116.3%	25.7700	18.6100	4.6770	49.2000	7.4730	3.3690	0.8649	13.4900	0.7604	2.3890	3.7510	11.3700	6.7180	3.7750	9.5970	106.4%
x		100.0%	0.7428	115.1%	25.4100	18.6000	4.7250	44.0900	7.5270	3.3280	0.9475	14.3300	0.7307	2.6260	3.6970	11.0500	6.6000	3.7280	9.4740	106.5%
σ		0.1%	0.0414	1.2%	0.4659	0.0409	0.0427	7.3040	0.1208	0.0431	0.0722	0.8511	0.0363	1.8880	0.0493	0.4061	0.1030	0.0649	0.1986	0.5%
%RSD		0.1	5.5690	1.0	1.8340	0.2199	0.9039	16.5600	1.6040	1.2940	7.6230	5.9360	4.9660	71.9000	1.3350	3.6750	1.5610	1.7400	2.0960	0.4

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:05:56	0.1376	2.2470	0.0771	2.1250	0.4040	8.8730	65.0500	119.2%	118.3%	0.3223	0.0000
2	09:06:09	0.1593	2.3040	0.0745	2.0780	0.3824	9.0020	65.9300	122.0%	120.6%	0.3432	0.0000
3	09:06:23	0.1905	2.2650	0.0832	2.2360	0.4022	9.0790	65.3500	124.7%	122.1%	0.3327	0.0000
x		0.1625	2.2720	0.0783	2.1460	0.3962	8.9850	65.4400	122.0%	120.3%	0.3327	0.0000
σ		0.0266	0.0292	0.0045	0.0814	0.0120	0.1042	0.4463	2.8%	1.9%	0.0104	0.0000
%RSD		16.3800	1.2840	5.7540	3.7940	3.0260	1.1600	0.6820	2.3	1.6	3.1400	0.0000

SEQ1B15

6100167-12RE1@MH1H61@2X 10/19/2016 09:09:57

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:09:57	99.4%	1.2450	114.9%	1.6370	11.9800	1.6820	-5.6630	15.0800	12.1000	0.2309	2.7960	0.0235	2.3940	0.2698	0.3304	0.2756	0.1570	0.3011	106.4%
2	09:10:11	100.7%	1.2730	116.1%	1.5910	12.2800	1.6610	-1.7550	15.3500	12.5100	0.2681	2.4510	-0.0673	3.3670	0.2457	0.3738	0.2782	0.1176	0.3264	105.8%
3	09:10:25	99.4%	1.3820	117.5%	1.6510	11.8800	1.5800	-1.7400	15.3300	12.4200	0.3657	1.8650	0.0983	1.6140	0.2132	0.4046	0.2666	0.1324	0.3231	108.9%
x		99.8%	1.3000	116.2%	1.6260	12.0500	1.6410	-3.0530	15.2500	12.3400	0.2882	2.3710	0.0181	2.4580	0.2429	0.3696	0.2735	0.1357	0.3169	107.0%
σ		0.8%	0.0725	1.3%	0.0314	0.2106	0.0538	2.2610	0.1518	0.2148	0.0696	0.4709	0.0829	0.8785	0.0284	0.0373	0.0061	0.0199	0.0138	1.6%
%RSD		0.8	5.5750	1.1	1.9300	1.7490	3.2760	74.0500	0.9956	1.7410	24.1500	19.8600	456.9000	35.7400	11.6900	10.0900	2.2300	14.6800	4.3450	1.5

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:09:57	0.2125	0.1683	0.0705	2.2420	0.1675	0.2217	51.4100	118.8%	117.1%	0.1195	0.0000
2	09:10:11	0.2007	0.1778	0.0833	2.3380	0.1671	0.2632	53.3800	121.3%	119.0%	0.1056	0.0000
3	09:10:25	0.2493	0.1682	0.0915	2.3650	0.1626	0.2207	52.9300	121.7%	121.6%	0.1157	0.0000
x		0.2208	0.1714	0.0818	2.3150	0.1657	0.2352	52.5700	120.6%	119.2%	0.1136	0.0000
σ		0.0253	0.0055	0.0106	0.0646	0.0027	0.0242	1.0330	1.6%	2.3%	0.0072	0.0000
%RSD		11.4700	3.2080	12.9900	2.7890	1.6430	10.3000	1.9660	1.3	1.9	6.3260	0.0000

QM 10/21

SEQ-CCV@CCV02 10/19/2016 09:14:02 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:14:16	99.5%	506.1000	106.5%	300.2000	507.4000	507.6000	2482.0000	±507.7000	504.1000	19.4400	508.3000	28.0000	-0.1917	402.9000	±1301.0000	±770.6000	430.7000	±1121.0000	101.6%
2	09:14:29	99.4%	499.3000	108.0%	297.1000	501.1000	502.9000	2725.0000	±497.7000	496.4000	19.5100	511.4000	27.6600	1.4300	401.9000	±1291.0000	±765.6000	433.4000	±1121.0000	102.8%
3	09:14:43	99.2%	510.1000	105.9%	304.0000	505.2000	505.8000	2588.0000	±505.0000	501.5000	19.3600	510.5000	27.4800	-3.6790	408.8000	±1311.0000	±775.5000	435.3000	±1134.0000	102.2%
x		99.4%	101.039%	106.8%	300.4000	100.906%	101.066%	2598.0000	±100.694%	100.132%	19.4400	102.067%	27.7100	-0.8138	404.5000	±1301.0000	±770.6000	433.1000	±1125.0000	102.2%
σ		0.2%	n/a	1.1%	3.5030	n/a	n/a	122.2000	±n/a	n/a	0.0754	n/a	0.2621	2.6110	3.7390	±9.6210	±4.9050	2.2930	±7.7270	0.6%
%RSD		0.2	1.0810	1.0	1.1660	0.6344	0.4745	4.7020	±1.0210	0.7868	0.3879	0.3148	0.9458	320.8000	0.9242	±0.7394	±0.6365	0.5294	±0.6867	0.6

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:14:16	24.0000	65.4600	17.4000	506.6000	488.6000	522.6000	514.8000	115.0%	115.7%	±501.3000	0.0000
2	09:14:29	23.9800	65.8600	17.7400	510.7000	±479.9000	528.4000	513.7000	116.4%	117.3%	±498.6000	0.0000
3	09:14:43	24.5000	67.1000	18.1800	513.5000	497.4000	539.2000	517.1000	117.7%	119.9%	±494.9000	0.0000
x		24.1600	101.751%	17.7700	102.054%	±488.6000	106.013%	103.045%	116.4%	117.7%	±99.653%	0.0000
σ		0.2928	n/a	0.3927	n/a	±8.7750	n/a	n/a	1.3%	2.1%	±n/a	0.0000
%RSD		1.2120	1.2910	2.2100	0.6835	±1.7960	1.5890	0.3380	1.2	1.8	±0.6440	0.0000

SEQ-CCB@CCB02 10/19/2016 09:18:19 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:18:19	96.2%	0.1327	94.3%	0.0175	-0.0510	0.0338	11.3800	0.0395	0.0272	0.0043	-0.1660	-0.0575	0.5673	0.0964	0.3501	0.1665	0.1026	0.2623	99.5%
2	09:18:33	96.7%	0.1210	95.8%	0.0229	-0.0578	0.0220	12.3400	0.0456	-0.0173	-0.0085	-0.1664	-0.0790	1.1270	0.0825	0.2878	0.1739	0.1208	0.2397	99.8%
3	09:18:46	97.1%	0.1386	97.8%	0.0276	-0.0164	0.0461	11.2000	0.0343	-0.0414	0.0041	-0.0652	0.1250	-1.9050	0.0807	0.3161	0.1437	0.1095	0.2674	101.3%
x		96.7%	0.1308	96.0%	0.0227	-0.0417	0.0340	11.6400	0.0398	-0.0105	-0.0000	-0.1326	-0.0038	-0.0703	0.0866	0.3180	0.1614	0.1109	0.2565	100.2%
σ		0.4%	0.0090	1.7%	0.0050	0.0222	0.0120	0.6155	0.0056	0.0348	0.0073	0.0583	0.1121	1.6140	0.0086	0.0312	0.0158	0.0092	0.0147	1.0%
%RSD		0.4	6.8560	1.8	22.1200	53.2200	35.4100	5.2880	14.2000	331.2000	24360.0000	43.9800	2925.0000	2294.0000	9.9430	9.8050	9.7680	8.2640	5.7430	1.0

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:18:19	0.0151	0.0058	-0.0005	0.0572	0.0754	0.0608	0.0782	105.5%	106.1%	0.0768	0.0000
2	09:18:33	0.0050	0.0057	0.0025	0.0479	0.0724	0.0599	0.0700	107.1%	109.1%	0.0776	0.0000
3	09:18:46	0.0025	0.0056	-0.0005	0.0523	0.0730	0.0498	0.0685	109.2%	108.5%	0.0703	0.0000
x		0.0075	0.0057	0.0005	0.0525	0.0736	0.0568	0.0722	107.3%	107.9%	0.0749	0.0000
σ		0.0066	0.0001	0.0017	0.0047	0.0016	0.0061	0.0052	1.8%	1.6%	0.0040	0.0000
%RSD		87.9900	2.1710	353.1000	8.8660	2.1250	10.8100	7.2350	1.7	1.5	5.3150	0.0000

Mass Uncorrected ICPS

SEQ-CAL1@S01 10/19/2016 07:51:01

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	07:51:01	95997.5250	20.0000	123165.3900	73.3336	198.0022	180.0018	96.6672	13.3333	476.6792	0.0000	11.1111	10.0000	136.6677	20.0000	16.6667	43.3334	26.6667	20.0000	40091.5420
2	07:51:19	96388.2940	36.6667	124047.2600	113.3340	214.6692	154.0013	80.6670	13.3333	353.3402	3.3333	3.3333	0.0000	143.3345	20.0000	23.3334	23.3334	20.0000	20.0000	39977.7090
3	07:51:32	97105.8700	16.6667	128028.5500	76.6670	202.6689	180.0018	88.6671	23.3334	400.0088	3.3333	8.8889	10.0000	133.3343	30.0001	13.3333	40.0001	23.3334	36.6667	40272.3390
x		96497.2300	24.4445	125080.4000	87.7782	205.1134	171.3350	88.6671	16.6667	410.0094	2.2222	7.7778	6.6667	137.7788	23.3334	17.7778	35.5556	23.3334	25.5556	40113.8630
σ		562.1453	10.7152	2590.9707	22.1947	8.5982	15.0114	8.0001	5.7735	62.2747	1.9245	4.0062	5.7735	5.0918	5.7735	5.0918	10.7152	3.3333	9.6225	148.5776
%RSD		0.5826	43.8348	2.0714	25.2849	4.1919	8.7614	9.0226	34.6411	15.1886	86.6025	51.5079	86.6025	3.6957	24.7436	28.6411	30.1365	14.2857	37.6533	0.3704

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	07:51:01	76.6670	0.0000	0.0000	6.6667	76.6670	10.0000	80.0004	161084.6200	158733.8100	40.0001	103222.7100
2	07:51:19	90.0004	10.0000	3.3333	10.0000	66.6669	36.6667	40.0001	164067.2500	162451.9600	43.3334	104213.9300
3	07:51:32	126.6676	13.3333	0.0000	3.3333	73.3336	23.3334	40.0001	165244.9600	163317.2600	80.0004	105353.6200
x		97.7783	7.7778	1.1111	6.6667	72.2225	23.3334	53.3335	163465.6100	161501.0100	54.4446	104263.4200
σ		25.8918	6.9389	1.9245	3.3333	5.0918	13.3334	23.0942	2144.4331	2435.2092	22.1946	1066.3133
%RSD		26.4801	89.2143	173.2051	50.0000	7.0501	57.1429	43.3014	1.3119	1.5079	40.7654	1.0227

SEQ-CAL2@S02 10/19/2016 07:55:22

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	07:55:36	96977.8480	66.6669	122043.7400	66.6669	1046.7269	641.3560	160.6681	1416.7771	690.0262	13.3333	46.6668	30.0001	113.3340	2056.8993	3617.3862	3927.5149	2360.3064	5645.0855	40446.4420
2	07:55:50	97789.8100	66.6669	122618.0600	66.6669	1100.0666	601.3532	163.3348	1340.0988	716.6949	23.3334	43.3334	23.3334	126.6676	2173.5932	3567.3665	3944.1888	2286.9543	5921.9282	40225.4650
3	07:56:04	97537.1170	96.6672	124821.0700	53.3335	1122.0692	644.0228	160.6681	1300.0930	750.0309	13.3333	31.1112	33.3334	203.3356	2146.9201	3814.1333	3980.8714	2467.0014	6092.0405	40741.0870
x		97434.9250	76.6670	123160.9600	62.2224	1089.6209	628.9107	161.5570	1352.3229	718.9174	16.6667	40.3705	28.8889	147.7791	2125.8042	3666.2953	3950.8584	2371.4207	5886.3514	40470.9980
σ		415.5152	17.3207	1466.0977	7.6981	38.7421	23.9027	1.5396	59.2948	30.0640	5.7735	8.1902	5.0918	48.5731	61.1455	130.4513	27.2964	90.5366	225.5914	258.6865
%RSD		0.4265	22.5921	1.1904	12.3718	3.5556	3.8006	0.9530	4.3847	4.1819	34.6411	20.2875	17.6253	32.8687	2.8763	3.5581	0.6909	3.8178	3.8324	0.6392

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	07:55:36	143.3345	1116.7353	30.0001	243.3366	6255.4848	1653.4837	2957.1475	166915.0600	163802.5400	2123.5813	106341.6900
2	07:55:50	110.0007	1153.4065	30.0001	240.0032	6705.8057	1623.4783	3110.5321	168320.6200	165737.1400	2106.9108	109252.5700
3	07:56:04	93.3338	1150.0727	23.3334	226.6695	6542.3533	1716.8288	2813.7687	170004.8700	167594.0500	2190.2638	109043.4100
x		115.5563	1140.0715	27.7778	236.6697	6501.2146	1664.5969	2960.4828	168413.5200	165711.2400	2140.2520	108212.5500
σ		25.4591	20.2784	3.8490	8.8194	227.9616	47.6572	148.4098	1546.9948	1895.8861	44.1063	1623.5899
%RSD		22.0318	1.7787	13.8564	3.7265	3.5064	2.8630	5.0130	0.9186	1.1441	2.0608	1.5004

SEQ-CAL3@S03 10/19/2016 07:59:41

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103R
1	07:59:41	94495.2420	203.3356	118470.2700	76.6670	2239.6092	1275.4228	246.6700	2937.1411	1343.4326	30.0001	101.1117	60.0002	156.6680	4314.3568	7122.7893	7573.1531	4260.9984	11246.9530	39050.35
2	07:59:55	96320.9190	153.3346	119301.0300	86.6671	2276.2849	1219.4151	229.3362	2987.1574	1370.1032	26.6667	85.5560	63.3336	116.6674	4311.0219	6979.3448	7583.1614	4544.4689	11800.9880	39519.04
3	08:00:09	96866.6720	203.3356	120037.2900	66.6669	2327.6313	1304.0935	250.0034	3200.5633	1380.1047	16.6667	90.0004	30.0001	123.3342	4267.6681	7232.8762	7713.2708	4387.7253	12138.0980	38782.54
x		95894.2770	186.6686	119269.5300	76.6670	2281.1751	1266.3105	242.0032	3041.6206	1364.5469	24.4445	92.2227	51.1113	132.2232	4297.6823	7111.6701	7623.1951	4397.7309	11728.6800	39117.31
σ		1241.9490	28.6681	783.9858	10.0001	44.2143	43.0684	11.0958	139.9017	18.9570	6.9389	8.0124	18.3587	21.4307	26.0465	127.1309	78.1682	141.9999	449.9514	372.785
%RSD		1.2951	15.4649	0.6573	13.0435	1.9382	3.4011	4.5850	4.5996	1.3893	28.3864	8.6881	35.9190	16.2079	0.6061	1.7876	1.0254	3.2289	3.8363	0.953

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	07:59:41	120.0008	2443.6617	40.0001	616.6876	12228.2190	3734.1001	6535.6818	161674.9600	159374.8800	4951.3480	103843.0500
2	07:59:55	156.6680	2567.0290	43.3334	600.0198	12481.8960	4047.5675	6735.8278	164936.1000	162275.5200	5041.3975	105744.7800
3	08:00:09	126.6676	2406.9853	56.6668	570.0179	13086.0780	3890.8324	6715.8130	166426.2200	165034.5300	5228.1696	108223.7000
x		134.4454	2472.5587	46.6668	595.5751	12598.7310	3890.8333	6662.4409	164345.7600	162228.3100	5073.6384	105937.1800
σ		19.5318	83.8438	8.8192	23.6502	440.7024	156.7337	110.2318	2430.0184	2830.1188	141.1990	2196.6537
%RSD		14.5277	3.3910	18.8983	3.9710	3.4980	4.0283	1.6545	1.4786	1.7445	2.7830	2.0735

SEQ-CAL4@S04 10/19/2016 08:03:44

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo
1	08:03:44	96502.8330	320.0056	117889.4600	80.0004	4277.0059	2285.6206	388.0083	5665.0979	1730.1646	40.0001	185.5574	136.6677	130.0009	9922.0783	17246.3430	18689.1910	10716.3120	27735.5780
2	08:03:58	95738.1450	370.0075	119209.8500	70.0003	4291.0125	2327.6313	373.3410	5825.1990	1626.8122	46.6668	178.8906	86.6671	126.6676	10415.9640	17460.0840	19300.4660	11126.8050	28601.5890
3	08:04:12	96651.0620	403.3423	121243.1400	43.3334	4425.7437	2249.6116	377.3412	6042.0072	1583.4712	50.0001	165.5571	93.3338	136.6677	10385.9290	17951.0390	20205.7630	11133.4800	29430.8960
x		96297.3460	364.4518	119447.4800	64.4447	4331.2540	2287.6212	379.5635	5844.1014	1646.8160	45.5557	176.6684	105.5562	131.1121	10241.3240	17552.4890	19398.4740	10992.1990	28589.3540
σ		489.9214	41.9452	1689.4203	18.9543	82.1296	39.0483	7.5820	189.1643	75.3648	5.0918	10.1837	27.1488	5.0918	276.8822	361.3211	763.0217	238.9482	847.7251
%RSD		0.5088	11.5091	1.4144	29.4117	1.8962	1.7069	1.9976	3.2368	4.5764	11.1770	5.7643	25.7197	3.8836	2.7036	2.0585	3.9334	2.1738	2.9652

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:03:44	183.3352	4817.9430	83.3337	1066.7292	30333.8570	7576.4892	13359.8090	162645.3800	161043.9100	9751.8943	106780.1100
2	08:03:58	253.3369	4968.0238	83.3337	1023.3909	30671.6540	7743.2963	13112.7830	164698.5200	162801.4700	9888.7087	106921.7700
3	08:04:12	203.3356	5098.0957	96.6672	1123.4027	31504.4950	7736.6240	13523.3840	169003.1100	166015.4800	10112.2880	108324.9000
x		213.3359	4961.3542	87.7782	1071.1743	30836.6690	7685.4698	13331.9920	165449.0000	163286.9500	9917.6303	107342.2600
σ		36.0564	140.1954	7.6981	50.1539	602.5120	94.4389	206.7090	3244.6296	2521.0913	181.9291	853.9314
%RSD		16.9012	2.8257	8.7699	4.6821	1.9539	1.2288	1.5505	1.9611	1.5440	1.8344	0.7955

SEQ-CAL5@S05 10/19/2016 08:07:46

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo
1	08:07:46	96661.1680	3217.2358	118558.0700	9501.6295	8368.5167	11048.0430	1429.4457	58722.3800	12495.2480	73.3336	331.1171	133.3343	76.6670	24145.3560	42663.2070	46501.9640	27300.9320	69346.822
2	08:08:00	96607.2670	3237.2429	119692.8000	9685.1564	8363.8457	10937.2420	1407.4423	60215.4330	13086.0780	100.0006	291.1158	130.0009	120.0008	24960.8870	43935.9140	47946.1030	28056.5610	71332.094
3	08:08:13	98254.7830	3270.5882	119990.0100	9514.9768	8308.4616	10879.8400	1442.1144	60611.3840	13179.5470	86.6671	298.8938	123.3342	190.0020	25218.2630	44401.5010	48757.0660	28093.3410	73277.475
x		97174.4060	3241.6890	119413.6300	9567.2542	8346.9413	10955.0410	1426.3341	59849.7320	12920.2910	86.6671	307.0422	128.8898	128.8899	24774.8350	43666.8740	47735.0440	27816.9450	71318.797
σ		936.0219	26.9526	755.6872	102.3241	33.4061	85.5023	17.5442	996.1861	371.0529	13.3335	21.2091	5.0918	57.1880	560.1285	899.8352	1142.2700	447.2582	1965.360
%RSD		0.9632	0.8314	0.6328	1.0695	0.4002	0.7805	1.2300	1.6645	2.8719	15.3847	6.9075	3.9505	44.3696	2.2609	2.0607	2.3929	1.6079	2.755

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:07:46	1143.4052	6292.1768	706.6941	10946.5870	37339.8610	36824.4310	13596.8270	160219.5300	158320.0200	97469.7330	103897.0000
2	08:08:00	1150.0727	6345.5472	783.3671	11480.5780	39026.9240	37942.3480	13179.5470	163303.6900	162706.4600	98699.5620	105478.3800
3	08:08:13	1126.7365	6582.3822	713.3613	11700.8590	39910.7490	39134.0500	13850.5430	165390.9200	164287.8500	100151.9800	106705.9200
x		1140.0715	6406.7020	734.4742	11376.0080	38759.1780	37966.9430	13542.3060	162971.3800	161771.4400	98773.7600	105360.4300
σ		12.0200	154.4659	42.4735	387.8566	1306.1902	1155.0058	338.8045	2601.6575	3091.8339	1342.6641	1408.1710
%RSD		1.0543	2.4110	5.7828	3.4094	3.3700	3.0421	2.5018	1.5964	1.9112	1.3593	1.3365

SEQ-CAL6@S06 10/19/2016 08:11:47

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo
1	08:11:47	96849.8270	16434.8420	117183.7600	46347.8460	40931.2720	53419.8260	6685.7909	287477.9800	60883.1920	516.6813	1572.3582	860.0407	140.0011	120817.5300	211641.9000	229702.4400	133087.0900
2	08:12:01	97092.3940	16598.4730	118747.1800	46857.1140	41133.5150	53333.3200	6783.1964	293960.4200	62645.1010	546.6831	1545.6869	790.0343	90.0004	123995.5700	217320.2000	236821.6500	137512.2200
3	08:12:15	96762.2350	16398.1090	117896.2100	47202.2250	40483.9420	53271.6270	6733.1592	296204.8700	62987.4550	533.3490	1565.6904	803.3688	113.3340	126804.9100	224132.6400	240208.8000	139976.0700
x		96901.4850	16477.1410	117942.3900	46802.3950	40849.5760	53341.5910	6734.0488	292547.7500	62171.9160	532.2378	1561.2452	817.8146	114.4452	123873.0000	217698.2400	235577.6300	136858.4600
σ		171.0341	106.6689	782.7344	429.8098	332.4031	74.4450	48.7088	4531.7035	1129.1188	15.0317	13.8802	37.1717	25.0188	2995.6044	6253.9465	5362.5189	3490.7086
%RSD		0.1765	0.6474	0.6637	0.9184	0.8137	0.1396	0.7233	1.5490	1.8161	2.8242	0.8690	4.5452	21.8610	2.4183	2.8728	2.2763	2.5506

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:11:47	4877.9750	30905.7780	3504.0085	54898.5960	184030.7000	185867.5100	64974.7010	162394.2800	160117.7600	492231.4500	104571.3300
2	08:12:01	4968.0238	32671.9380	3897.5020	56323.9420	190478.1500	191182.7100	67294.8210	165961.1700	163327.4400	502089.2200	107029.6900
3	08:12:15	5311.5512	33039.9310	3954.1931	57987.6870	197202.6000	195257.9700	69709.5810	168439.4600	168656.7700	514406.6800	108820.7700
x		5052.5167	32205.8830	3785.2345	56403.4090	190570.4900	190769.4000	67326.3670	165598.3000	164033.9900	502909.1200	106807.2600
σ		228.8042	1140.8584	245.1928	1546.0776	6586.4360	4708.8521	2367.5978	3038.8823	4313.1262	11110.3290	2133.4332
%RSD		4.5285	3.5424	6.4776	2.7411	3.4562	2.4683	3.5166	1.8351	2.6294	2.2092	1.9975

SEQ-CAL7@S07 10/19/2016 08:15:49

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo
1	08:15:49	96145.7460	161674.9600	116700.9400	456266.2100	396819.6400	522648.0500	64036.0760	r 2938133.9000	616102.8000	4667.8648	15480.9480	7389.6688	153.3346	1247498.1000	2252166.3000	r 2472944.4000
2	08:16:03	97200.2040	165316.2400	119598.2300	468782.8600	397113.3900	522293.1700	64515.4470	r 2998494.2000	628317.7900	4717.8906	15663.4820	7136.1331	106.6673	1300211.5000	2325998.2000	r 2535773.5000
3	08:16:16	96745.3910	164983.6200	118460.1400	471241.8900	395779.0500	525837.6600	64690.0150	r 3015502.6000	636045.0300	4911.3263	15854.9250	7433.0375	130.0009	1313631.0000	2391723.6000	r 2579899.6000
x		96697.1130	163991.6100	118253.1000	465430.3200	396570.6900	523592.9600	64413.8460	r 2984043.6000	626821.8700	4765.6939	15666.4520	7319.6131	130.0009	1287113.5000	2323296.1000	r 2529539.2000
σ		528.8840	2013.1545	1459.6991	8031.0289	701.1391	1952.0479	338.6017	r 40658.2460	10054.9230	128.5778	187.0062	160.3712	23.3337	34957.9290	69817.8640	r 53749.4570
%RSD		0.5469	1.2276	1.2344	1.7255	0.1768	0.3728	0.5257	r 1.3625	1.6041	2.6980	1.1937	2.1910	17.9488	2.7160	3.0051	r 2.1249

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:15:49	49829.5240	321368.2800	37132.3470	571535.0100	1988033.0000	1974648.4000	681318.5800	165971.3500	166144.4700	r 5255265.2000	110760.6500
2	08:16:03	50791.4920	331260.6900	38963.3190	587300.4200	2060266.7000	2055888.2000	709892.2300	171254.6600	170650.1200	r 5373704.6000	113028.3100
3	08:16:16	52169.2610	336114.0500	39073.7920	599549.1400	2125602.8000	2100542.7000	721887.1400	175378.8500	173564.5200	r 5473390.7000	117720.6300
x		50930.0930	329581.0100	38389.8190	586128.1900	2057967.5000	2043693.1000	704365.9800	170868.2900	170119.7000	r 5367453.5000	113836.5300
σ		1176.0103	7515.0159	1090.4031	14043.8060	68813.7270	63826.9860	20941.2210	4715.6343	3738.3543	r 109197.0000	3549.6818
%RSD		2.3091	2.2802	2.8403	2.3960	3.3438	3.1231	2.9589	2.7598	2.1975	r 2.0344	3.1182

SEQ-CAL8@S08 10/19/2016 08:19:52

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95M
1	08:19:52	93158.2150	u 315425.4800	109630.4100	866368.3500	u 762050.8500	u 1008528.9000	122445.7600	r 5502161.5000	1165953.8000	9141.2603	u 29624.8580	13503.3550	150.0012	r 2470060.2000	TM 4353041.20
2	08:20:06	93821.6520	u 316325.9700	111911.2800	886640.0900	765065.6300	1017086.8000	124097.2700	r 5584304.1000	1183982.8000	9394.8520	29903.5460	14004.1110	140.0011	r 2565625.1000	TM 4521276.30
3	08:20:21	93990.0450	u 317996.0800	111820.1700	901595.9000	u 775338.2800	u 1022117.6000	124934.6200	TM 5691282.7000	u 1211320.7000	8894.3489	30168.8650	14558.3140	140.0011	r 2585829.1000	TM 4563906.40
x		93656.6370	u 316582.5100	111120.6200	884868.1100	u 767484.9200	u 1015911.1000	123825.8800	TM 5592582.8000	u 1187085.8000	9143.4871	u 29899.0900	14021.9270	143.3345	r 2540504.8000	TM 4479408.00
σ		439.7813	u 1304.3610	1291.3652	17680.4960	u 6966.2536	u 6870.2305	1266.4262	TM 94832.0160	u 22842.0450	250.2590	u 272.0308	527.7054	5.7736	r 61837.5540	TM 111493.29
%RSD		0.4696	u 0.4120	1.1621	1.9981	u 0.9077	u 0.6763	1.0227	TM 1.6957	u 1.9242	2.7370	u 0.9098	3.7634	4.0281	r 2.4341	TM 2.48

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:19:52	95384.4560	619951.7000	73042.2600	u 1119205.9000	r 3844385.5000	TM 3816430.5000	TM 1370671.9000	166728.3500	163989.2000	TM 10671910.0000	113767.4400
2	08:20:06	98942.1780	641420.3600	75102.2770	u 1152514.4000	r 3955946.5000	TM 3971549.1000	TM 1404519.9000	171686.0200	172243.0800	TM 11012492.0000	117990.7600
3	08:20:21	100138.5000	u 651135.8900	76093.8040	u 1187178.8000	r 4041616.0000	TM 4019931.3000	TM 1436516.1000	174675.5000	173574.7100	TM 11153300.0000	118696.5300
x		98155.0460	u 637502.6500	74746.1140	u 1152966.4000	r 3947316.0000	TM 3935970.3000	TM 1403902.6000	171029.9600	169935.6600	TM 10945900.0000	116818.2400
σ		2472.8375	u 15956.9670	1556.6370	u 33988.6810	r 98898.0870	TM 106313.3800	TM 32926.4730	4013.9894	5192.6535	TM 247507.2400	2665.5354
%RSD		2.5193	u 2.5030	2.0826	u 2.9479	r 2.5055	TM 2.7011	TM 2.3454	2.3470	3.0557	TM 2.2612	2.2818

SEQ-ICV@ICV01 10/19/2016 08:23:58 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo
1	08:24:12	93104.3340	31788.8150	106493.4500	153.3346	77911.7720	100218.7100	12528.6270	551481.4900	116812.3600	1800.1782	6203.2268	2940.4755	133.3343	9962.1221	17774.0250	19414.0410	11040.0330
2	08:24:25	92622.7860	31969.4470	107370.3400	173.3350	78380.4420	101719.2400	12678.1680	557322.0200	117149.9900	1963.5454	6246.5898	3020.5017	116.6674	10302.5010	18201.5360	19958.5520	11757.5980
3	08:24:44	94178.6480	31889.1660	108763.4200	176.6684	78584.8620	101762.3900	12752.2710	567787.4300	118889.0200	1996.8860	6406.7012	3020.5017	96.6672	10569.4740	18285.0370	20209.1040	11537.3160
x		93301.9230	31882.4760	107542.4000	167.7793	78292.3590	101233.4500	12653.0220	558863.6500	117617.1200	1920.2032	6285.5059	2993.8263	115.5563	10278.0320	18086.8660	19860.5660	11444.9830
σ		796.5288	90.5015	1144.7255	12.6200	345.0817	879.0500	113.9227	8261.5610	1114.3555	105.2729	107.1742	46.2032	18.3588	304.4144	274.1263	406.4878	367.5857
%RSD		0.8537	0.2839	1.0644	7.5218	0.4408	0.8683	0.9004	1.4783	0.9474	5.4824	1.7051	1.5433	15.8873	2.9618	1.5156	2.0467	3.2118

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:24:12	9655.1245	492157.6100	7209.5243	113112.6800	743.3637	754556.7900	136899.7500	166429.6200	166270.0700	r 2278784.1000	112144.1200
2	08:24:25	9725.1991	497732.5100	7476.4064	114317.6100	720.0285	777830.9800	138537.6100	171495.8100	170653.5200	r 2313351.8000	113713.4400
3	08:24:44	10385.9290	501610.5100	7523.1116	114388.4900	836.7052	788257.5500	140930.6400	172820.5500	173146.6700	r 2318870.0000	115218.8800
x		9922.0843	497166.8900	7403.0141	113939.5900	766.6991	773548.4400	138789.3400	170248.6600	170023.4200	r 2303668.6000	113692.1500
σ		403.2267	4751.7672	169.1865	717.0064	61.7395	17253.7090	2027.2033	3373.0619	3481.3306	r 21726.5330	1537.4899
%RSD		4.0639	0.9558	2.2854	0.6293	8.0526	2.2305	1.4606	1.9813	2.0476	r 0.9431	1.3523

SEQ-ICB@ICB01 10/19/2016 08:28:28 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	08:28:28	93407.4190	33.3334	107920.1300	73.3336	204.0023	168.6682	86.0004	90.0004	366.6741	6.6667	5.5556	13.3333	73.3336	96.6672	136.6677	176.6684	66.6669	196.6688	38946.5810
2	08:28:42	95276.6680	16.6667	109971.1500	60.0002	268.6706	241.3365	104.0006	96.6672	303.3384	3.3333	7.7778	10.0000	126.6676	100.0006	106.6673	153.3346	66.6669	196.6688	37547.3800
3	08:28:56	94613.1250	13.3333	111951.7700	70.0003	246.6700	224.0028	95.3338	100.0006	326.6725	10.0000	15.5556	10.0000	153.3346	106.6673	133.3343	163.3348	96.6672	233.3363	38036.0710
x		94432.4040	21.1111	109947.6800	67.7780	239.7810	211.3358	95.1116	95.5561	332.2283	6.6667	9.6296	11.1111	117.7786	101.1117	125.5564	164.4459	76.6670	208.8913	38176.6770
σ		947.6378	10.7152	2015.9270	6.9389	32.8800	37.9540	9.0022	5.0918	32.0313	3.3333	5.2509	1.9245	40.7345	5.0918	16.4432	11.7065	17.3207	21.1700	710.1188
%RSD		1.0035	50.7561	1.8335	10.2377	13.7125	17.9591	9.4648	5.3286	9.6413	50.0000	54.5287	17.3205	34.5857	5.0358	13.0962	7.1187	22.5921	10.1345	1.8601

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:28:28	83.3337	113.3340	3.3333	13.3333	190.0020	350.0067	46.6668	165350.1900	163632.8600	313.3387	108422.7200
2	08:28:42	116.6674	63.3336	0.0000	20.0000	246.6700	363.3406	43.3334	168154.2500	165482.5600	376.6745	111091.3100
3	08:28:56	103.3339	83.3337	6.6667	23.3334	256.6703	356.6737	63.3336	170629.7400	170962.5800	406.6758	113629.0600
x		101.1117	86.6671	3.3333	18.8889	231.1141	356.6737	51.1113	168044.7300	166692.6700	365.5630	111047.7000
σ		16.7776	25.1664	3.3333	5.0918	35.9535	6.6669	10.7152	2641.4826	3811.7506	47.6503	2603.4439
%RSD		16.5931	29.0380	100.0000	26.9564	15.5566	1.8692	20.9645	1.5719	2.2867	13.0348	2.3444

SEQ-IFA@ICSA01 10/19/2016 08:32:35 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	
1	08:32:35	90111.0640	120.0008	115387.6700	777965.1000	285.3378	21715.2380	2681.7288	7403.0130	7379.6607	0.0000	4.4444	26.6667	200.0022	2069157.6000	±3762266.7000	±4110144.4000	2315270.5000	±61
2	08:32:49	93282.8160	96.6672	121300.5600	818557.7300	294.6714	21685.8340	2700.4010	7676.5731	7673.2370	6.6667	6.6667	10.0000	173.3350	2188144.1000	±3954284.1000	±4295089.5000	±2473947.9000	±64
3	08:33:05	91939.2330	96.6672	126054.5900	849334.6600	266.6706	22102.1690	2805.7662	8056.9020	7826.7010	0.0000	4.4444	10.0000	233.3363	±2313842.9000	±4066440.8000	±4425565.1000	±2553807.5000	±65
x		91777.7050	104.4450	120914.2700	815285.8300	282.2266	21834.4140	2729.2987	7712.1627	7626.5329	2.2222	5.1852	15.5556	202.2245	±2190381.5000	±3927663.9000	±4276933.0000	±2447675.3000	±63
σ		1592.0337	13.4717	5343.9400	35797.1040	14.2573	232.3482	66.8777	326.3941	227.1502	3.8490	1.2630	9.6225	30.0623	±122357.9800	±153824.4300	±158492.2600	±121419.3600	±2
%RSD		1.7347	12.8983	4.4196	4.3907	5.0517	1.0641	2.4504	4.2581	2.9784	173.2051	24.7436	61.8590	14.8658	±5.5861	±3.9164	±3.7057	±4.9606	

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:32:35	93.3338	63.3336	1613.4765	2046.8971	4381.0554	4587.8240	2747.0817	162672.5200	163015.2500	223.3361	104099.2900
2	08:32:49	143.3345	56.6668	1553.4661	2173.5932	670.0247	4531.1289	2893.7938	170901.4400	169526.0500	176.6684	108854.5000
3	08:33:05	90.0004	80.0004	1536.7966	1940.2070	723.3621	4611.1692	2897.1282	177400.8500	177166.3400	196.6688	110608.8200
x		108.6896	66.6669	1567.9130	2053.5657	1924.8141	4576.7074	2846.0012	170324.9400	169902.5500	198.8911	107854.2000
σ		29.8767	12.0186	40.3298	116.8359	2127.3346	41.1618	85.6831	7381.0683	7083.0563	23.4131	3368.0759
%RSD		27.4376	18.0278	2.5722	5.6894	110.5216	0.8994	3.0106	4.3335	4.1689	11.7718	3.1228

SEQ-IFB@ICSAB01 10/19/2016 08:36:38 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	9
1	08:36:38	86112.5900	7079.4221	127785.1600	840011.9400	17090.7170	42999.4520	5386.2618	129614.1200	32611.7220	150.0012	597.7974	270.0040	196.6688	±2285335.1000	±4030484.3000	±4369253.7000	2482389
2	08:36:52	85981.3570	7062.7425	130398.5500	869394.4700	17043.9620	43047.0100	5377.5900	134602.4900	33983.3990	196.6688	615.5764	273.3374	276.6709	2299130.2000	±4096350.7000	±4438236.2000	±2574795
3	08:37:06	86146.2400	6799.2083	132370.0700	879687.5400	17037.2830	43444.2260	5392.9325	135959.1200	33792.6910	150.0012	585.5744	290.0046	173.3350	2359546.5000	±4197324.1000	±4559724.7000	±2613732
x		86080.0620	6980.4576	130184.5900	863031.3200	17057.3210	43163.5630	5385.5948	133391.9100	33462.6040	165.5571	599.6494	277.7820	215.5582	±2314670.6000	±4108053.0000	±4455738.2000	±2556972
σ		87.1216	157.1879	2299.9289	20588.9640	29.1139	244.2219	7.6929	3341.2431	743.0291	26.9435	15.0865	10.7155	54.1958	±39471.0440	±84033.2360	±96434.1000	±67461
%RSD		0.1012	2.2518	1.7667	2.3857	0.1707	0.5658	0.1428	2.5048	2.2205	16.2745	2.5159	3.8575	25.1421	±1.7053	±2.0456	±2.1643	±2

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:36:38	2126.9154	96974.4790	3187.2253	24138.6710	676.6919	84820.5280	32063.1090	174692.4900	171995.1100	207658.2600	108982.6900
2	08:36:52	2066.9016	99986.8480	3090.5252	25692.9220	700.0270	88374.1380	34147.3450	178801.2200	176241.9700	215412.2500	111364.6300
3	08:37:06	2130.2496	101200.1600	3277.2573	26575.4540	790.0343	91457.7460	34813.1970	181442.7900	180480.5900	219498.2600	112461.3400
x		2108.0222	99387.1630	3185.0026	25469.0160	722.2510	88217.4710	33674.5510	178312.1700	176239.2200	214189.5900	110936.2200
σ		35.6505	2175.7340	93.3859	1233.7253	59.8503	3321.3814	1434.7113	3401.6217	4242.7369	6013.9503	1778.4555
%RSD		1.6912	2.1892	2.9320	4.8440	8.2866	3.7650	4.2605	1.9077	2.4074	2.8078	1.6031

SEQ-CCV@CCV01 10/19/2016 08:40:44 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo
1	08:40:58	93791.3420	192428.5900	139928.6800	546783.4000	443136.0200	582126.3600	71602.2050	±3523781.5000	734694.6600	5668.4333	17678.2830	8670.7997	136.6677	1499760.2000	±2697626.9000	±2935377.9000
2	08:41:12	92828.1980	195176.2400	141533.2300	554305.7300	445978.0700	589377.9500	72357.4840	±3551999.9000	745034.0900	5458.3048	17652.6780	8143.6459	190.0020	1531366.9000	±2755222.0000	±2995737.6000
3	08:41:25	93242.4050	196381.7900	142769.0000	560608.4700	449072.9800	590760.8600	72663.9130	±3550840.3000	746898.1200	5521.6764	17922.0930	8243.7361	200.0022	1543329.4000	±2759772.1000	±3004360.4000
x		93287.3150	194662.2000	141410.3000	553899.2000	446062.3600	587421.7200	72207.8670	±3542207.2000	742208.9600	5549.4715	17751.0180	8352.7272	175.5573	1524818.8000	±2737540.3000	±2978492.0000
σ		483.1398	2026.1101	1424.1444	6921.4979	2969.3739	4637.7547	546.4381	±15967.6630	6573.9756	107.7865	148.7075	279.9680	34.0485	22510.5780	±34640.6620	±37585.9490
%RSD		0.5179	1.0408	1.0071	1.2496	0.6657	0.7895	0.7568	±0.4508	0.8857	1.9423	0.8377	3.3518	19.3945	1.4763	±1.2654	±1.2619

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:40:58	60040.9510	386084.5700	45396.3970	691165.1400	2396107.8000	2443826.4000	823782.8900	194205.7800	192874.5600	±6054741.4000	123844.5200
2	08:41:12	62077.8970	393245.2400	46646.0320	706625.1700	2457536.6000	2474026.6000	844230.4900	197723.7400	196225.1300	±6094404.4000	128802.7100
3	08:41:25	62255.7740	396317.7800	46780.0520	710543.6200	2475287.2000	2483289.1000	849900.7400	199345.2500	197948.5600	±6093410.7000	129387.5900
x		61458.2070	391882.5300	46274.1600	702777.9700	2442977.2000	2467047.4000	839304.7100	197091.5900	195682.7500	±6080852.2000	127344.9400
σ		1230.5980	5250.9398	763.1132	10246.0740	41549.1160	20636.3330	13738.0140	2627.4009	2580.1164	±22618.0580	3045.5246
%RSD		2.0023	1.3399	1.6491	1.4579	1.7008	0.8365	1.6368	1.3331	1.3185	±0.3720	2.3916

SEQ-CCB@CCB01 10/19/2016 08:45:01 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	08:45:01	91393.7740	40.0001	130009.7100	96.6672	299.3383	252.6702	133.3343	310.0053	456.6781	0.0000	12.2222	13.3333	173.3350	303.3384	536.6825	583.3520	300.0050	893.3772	42495.7590
2	08:45:15	92882.0780	56.6668	131379.1800	80.0004	310.6720	243.3366	128.0009	303.3384	480.0127	3.3333	6.6667	23.3334	170.0016	423.3432	576.6850	580.0185	363.3406	1026.7246	43125.3800
3	08:45:28	92033.5130	16.6667	132535.7900	130.0009	288.6712	247.3367	134.6677	260.0037	566.6843	3.3333	3.3333	10.0000	163.3348	326.6725	656.6904	693.3598	406.6758	1066.7292	42301.5230
x		92103.1220	37.7779	131308.2300	102.2228	299.5605	247.7812	132.0010	291.1158	501.1250	2.2222	7.4074	15.5556	168.8905	351.1180	590.0193	618.9101	356.6738	995.6104	42640.8870
σ		746.5896	20.0925	1264.5367	25.4591	11.0020	4.6826	3.5277	27.1493	57.9624	1.9245	4.4905	6.9389	5.0918	63.6276	61.1050	64.4968	53.6470	90.7679	430.6761
%RSD		0.8106	53.1858	0.9630	24.9054	3.6727	1.8898	2.6725	9.3259	11.5665	86.6025	60.6218	44.6072	3.0149	18.1214	10.3564	10.4210	15.0409	9.1168	1.0100

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:45:01	93.3338	53.3335	3.3333	46.6668	386.6749	243.3366	120.0008	179637.4700	179426.7000	800.0352	114840.8100
2	08:45:15	93.3338	46.6668	6.6667	46.6668	330.0060	276.6709	133.3343	183758.6200	181146.9800	916.7129	115910.9300
3	08:45:28	143.3345	36.6667	6.6667	73.3336	406.6758	323.3391	160.0014	184619.1200	184585.1100	896.7109	119162.5700
x		110.0007	45.5557	5.5556	55.5557	374.4522	281.1155	137.7788	182671.7300	181719.5900	871.1530	116638.1000
σ		28.8679	8.3887	1.9245	15.3961	39.7694	40.1860	20.3673	2662.7445	2626.4458	62.3965	2250.7729
%RSD		26.2434	18.4143	34.6410	27.7129	10.6207	14.2952	14.7826	1.4577	1.4453	7.1625	1.9297

SEQ-IBL1

Q317004-PS2@MH1105A 10/19/2016 08:49:04

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo
1	08:49:04	93838.4910	156.6680	146392.6100	72128.3400	24775.0470	8977.7642	1180.0766	46287.5400	9147.9337	363.3406	1140.0715	580.0185	183.3352	20593.2980	35224.7780	38176.6590	21548.8420	56612.3920
2	08:49:18	95027.4130	133.3343	148296.4300	74050.3670	24797.1070	9039.8256	1142.7385	46692.9390	9448.2406	380.0079	1062.2843	540.0160	206.6690	21157.9260	36084.8080	38983.4050	21986.5550	57729.3840
3	08:49:32	95088.0420	183.3352	150586.9600	76406.4100	24857.9390	9150.6030	1195.7454	47922.6470	9471.5982	360.0071	1150.0727	556.6837	183.3352	21268.1830	36837.8190	39894.0090	23176.1710	59228.9840
x		94651.3150	157.7792	148425.3300	74195.0390	24810.0310	9056.0643	1173.1868	46967.7090	9355.9242	367.7852	1117.4762	558.9061	191.1131	21006.4690	36049.1350	39018.0240	22237.1900	57856.9200
σ		704.5785	25.0189	2100.1422	2142.7010	42.9309	87.5562	27.6548	851.4792	180.5033	10.7156	48.0584	20.0936	13.4718	362.0382	807.1119	859.1965	842.1182	1312.9498
%RSD		0.7444	15.8569	1.4149	2.8879	0.1730	0.9668	2.3572	1.8129	1.9293	2.9135	4.3006	3.5952	7.0491	1.7235	2.2389	2.2021	3.7870	2.2693

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:49:04	303.3384	3063.8495	53.3335	420.0097	2757.0847	23162.8040	353564.2700	184867.4300	182782.5700	3137.2079	132992.3900
2	08:49:18	273.3374	3217.2358	70.0003	470.0122	2823.7718	23647.3830	364705.0100	190049.3100	187391.6600	3407.3051	134893.4200
3	08:49:32	296.6715	3273.9227	73.3336	393.3418	2867.1187	24613.2750	373581.4300	192646.4600	191734.1400	3377.2939	137332.8700
x		291.1158	3185.0027	65.5558	427.7879	2815.9917	23807.8200	363950.2400	189187.7300	187302.7900	3307.2690	135072.8900
σ		15.7532	108.6827	10.7152	38.9225	55.4281	738.4250	10029.8990	3960.4412	4476.4506	148.0397	2175.8025
%RSD		5.4113	3.4123	16.3452	9.0985	1.9683	3.1016	2.7558	2.0934	2.3900	4.4762	1.6108

OM10121

SEQ1BL2

~~QJ14028-PS1@MH1088A~~ 10/19/2016 08:53:55

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo
1	08:53:55	98234.5660	203.3356	147534.1800	31818.9200	24471.5600	7573.1531	1014.7233	53175.0640	8093.6012	223.3361	485.5685	283.3378	130.0009	27214.0060	47007.8890	52279.8940	29882.3650	76561.0360
2	08:54:09	96795.9240	183.3352	150285.3600	32163.4630	24513.0040	7566.4809	994.0543	54093.7940	8207.0362	210.0024	511.1255	293.3381	133.3343	28267.2120	47376.4620	52269.8370	30557.9390	78043.5620
3	08:54:23	98207.6110	120.0008	150356.5200	32859.2780	24381.9860	7528.4493	1024.0577	54694.0360	8380.5277	200.0022	483.3462	283.3378	173.3350	29116.5530	48857.6030	54113.9130	30939.2250	79116.1070
x		97746.0340	168.8905	149392.0200	32280.5540	24455.5170	7556.0278	1010.9451	53987.6310	8227.0551	211.1136	493.3467	286.6712	145.5567	28199.2570	47747.3180	52887.8810	30459.8430	77906.9010
σ		822.9293	43.5047	1609.3328	529.9705	66.9663	24.1155	15.3543	765.0305	144.5070	11.7066	15.4369	5.7737	24.1143	953.0924	979.0361	1061.7863	535.2152	1283.0058
%RSD		0.8419	25.7591	1.0773	1.6418	0.2738	0.3192	1.5188	1.4170	1.7565	5.5451	3.1290	2.0140	16.5670	3.3798	2.0505	2.0076	1.7571	1.6468

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:53:55	506.6808	28641.7150	326.6725	4227.6495	6852.5817	59577.9200	73499.2550	187207.9300	181718.2100	2813.7687	250877.9000
2	08:54:09	600.0198	28671.8090	360.0071	4761.2465	6935.9783	61749.0020	74967.8400	187881.6200	186234.9100	3073.8529	255291.5900
3	08:54:23	610.0205	28818.9400	290.0046	4757.9114	7116.1174	62776.0000	75955.9920	193054.9900	189259.7600	3037.1739	262420.3200
x		572.2404	28710.8220	325.5614	4582.2691	6968.2258	61367.6400	74807.6960	189381.5100	185737.6300	2974.9319	256196.6100
σ		56.9960	94.8350	35.0145	307.1142	134.6948	1632.7909	1236.1732	3199.1099	3795.2897	140.7711	5824.1863
%RSD		9.9602	0.3303	10.7551	6.7022	1.9330	2.6607	1.6525	1.6892	2.0434	4.7319	2.2733

SEQ1BL3

~~6100165-15RE1@MH1C00@2X~~ 10/19/2016 08:57:55

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	
1	08:57:55	95963.8390	653.3568	136287.3200	7376.3247	3917.5106	1433.4463	221.3360	96165.9580	18602.3460	113.3340	134.4454	50.0001	223.3361	5468.3108	8931.0515	9341.4637	5324.8924	14164.3590	430
2	08:58:09	97523.6400	613.3540	138757.6000	7312.9402	3982.8723	1428.7789	195.3354	97958.2750	19080.0020	120.0008	128.8898	50.0001	156.6680	5338.2335	9278.0655	9962.1221	5641.7501	14214.4370	430
3	08:58:23	96634.2180	580.0185	138913.2800	7830.0372	4076.9140	1438.1137	220.0027	99804.8650	19243.6790	96.6672	111.1118	76.6670	176.6684	5755.1545	9011.1305	10319.1870	5915.2572	15145.9400	433
x		96707.2320	615.5765	137986.0700	7506.4340	3992.4323	1433.4463	212.2247	97976.3660	18975.3420	110.0007	124.8157	58.8891	185.5575	5520.5663	9073.4158	9874.2575	5627.2999	14508.2460	431
σ		782.4596	36.7196	1473.2184	282.0349	80.1306	4.6674	14.6417	1819.5208	333.2298	12.0186	12.1887	15.3961	34.2114	213.3161	181.6983	494.7482	295.4475	552.8268	1
%RSD		0.6091	5.9651	1.0677	3.7572	2.0071	0.3256	6.8992	1.8571	1.7561	10.9260	9.7653	26.1443	18.4371	3.8640	2.0025	5.0105	5.2503	3.8104	

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:57:55	1716.8288	10115.6250	913.3792	13386.5150	796.7016	4434.4146	151776.5000	199164.6900	194794.8500	1926.8709	261099.7700
2	08:58:09	1723.4967	10355.8950	890.0436	13580.1360	813.3697	4544.4689	156505.6700	203826.3200	198180.1900	2076.9039	271013.6700
3	08:58:23	1700.1590	10602.8460	916.7129	14224.4530	890.0436	4434.4146	160063.4900	207549.1400	202248.3200	1966.8794	275165.6400
x		1713.4948	10358.1220	906.7119	13730.3680	833.3716	4471.0994	156115.2200	203513.3800	198407.7900	1990.2181	269093.0200
σ		12.0208	243.6183	14.5311	438.7052	49.7819	63.5399	4157.2700	4200.9774	3731.9438	77.6917	7226.9487
%RSD		0.7015	2.3520	1.6026	3.1951	5.9736	1.4211	2.6629	2.0642	1.6809	3.9037	2.6857

SEQ1BL4

~~6100165-15RE1@MH1C01@2X~~ 10/19/2016 09:01:55

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	1
1	09:01:55	95253.0890	783.3671	136825.3100	7166.1567	6021.9939	2811.1012	372.6743	135021.9800	23623.9890	93.3338	112.2229	76.6670	196.6688	3000.4951	4391.0602	4834.6185	2833.7749	6925.9706	43195
2	09:02:09	96078.3730	870.0416	139332.9700	7509.7672	6003.9820	2905.7977	378.6746	137363.3300	24188.8040	120.0008	116.6674	83.3337	193.3354	3090.5252	4457.7593	4594.4941	2710.4040	7142.8050	42602
3	09:02:23	96347.8690	830.0379	141272.5600	7639.8755	5983.9688	2829.1068	358.0070	139691.7400	25141.3840	83.3337	114.4452	63.3336	203.3356	3200.5633	4487.7741	5254.8516	2817.1031	7483.0785	43195
x		95893.1100	827.8155	139143.6100	7438.5998	6003.3149	2848.6686	369.7853	137359.0200	24318.0590	98.8894	114.4452	74.4448	197.7799	3097.1945	4445.5312	4894.6547	2787.0940	7183.9514	42998
σ		570.4184	43.3800	2229.6636	244.7468	19.0213	50.2877	10.6323	2334.8855	766.9106	18.9544	2.2223	10.1836	5.0919	100.2007	49.5029	334.2473	66.9366	280.8239	342
%RSD		0.5948	5.2403	1.6024	3.2902	0.3168	1.7653	2.8753	1.6998	3.1537	19.1672	1.9418	13.6794	2.5745	3.2352	1.1135	6.8288	2.4017	3.9090	0

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:01:55	1673.4873	22731.7180	1043.3932	15045.7740	1030.0584	5181.4762	167128.9400	198514.0200	192891.5800	3200.5633	241030.1200
2	09:02:09	1833.5182	22932.2210	1000.0550	14942.2700	933.3813	5628.4085	173381.0700	204044.4700	196875.6300	3353.9519	247209.4300
3	09:02:23	1793.5102	23807.8010	1100.0666	15005.7080	993.3876	5691.7812	177421.2400	205326.1800	199720.0100	3490.6700	249867.3000
x		1766.8386	23157.2460	1047.8383	14997.9170	985.6091	5500.5553	172643.7500	202628.2200	196495.7400	3348.3951	246035.6200
σ		83.2827	572.2463	50.1537	52.1898	48.8057	278.1414	5185.6156	3620.1764	3430.0294	145.1332	4534.0208
%RSD		4.7137	2.4711	4.7864	0.3480	4.9518	5.0566	3.0037	1.7866	1.7456	4.3344	1.8428

QJ14030-PS1@MH1H17A 10/19/2016 09:05:56

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98M
1	09:05:56	96775.7110	273.3374	142521.8300	46230.5850	16100.9120	5599.0570	780.7002	52933.6610	5381.5924	280.0043	495.5691	310.0053	230.0029	13703.6540	22283.9450	25117.9860	14241.1460	36459.632
2	09:06:09	96974.4790	306.6718	144028.6300	48016.4730	16235.1510	5671.1017	812.7030	55173.5870	5521.6764	276.6709	530.0154	230.0029	163.3348	14024.1420	23921.4320	25602.6680	14868.8160	38394.239
3	09:06:23	96998.0620	283.3378	145481.4900	48891.1160	16195.7470	5543.0227	800.7019	54409.0000	5641.7501	243.3366	468.9010	276.6709	190.0020	14501.5570	24663.4100	26659.0310	15182.6680	39063.749
x		96916.0840	287.7823	144010.6500	47712.7250	16177.2700	5604.3938	798.0350	54172.0830	5515.0063	266.6706	498.1618	272.2264	194.4466	14076.4510	23622.9290	25793.2280	14764.2100	37972.540
σ		122.1371	17.1059	1479.9138	1356.0251	69.0003	64.2060	16.1672	1138.6019	130.2070	20.2765	30.6396	40.1859	33.5555	401.5152	1217.4941	787.9977	479.3983	1352.304
%RSD		0.1260	5.9440	1.0276	2.8421	0.4265	1.1456	2.0259	2.1018	2.3610	7.6036	6.1505	14.7620	17.2570	2.8524	5.1539	3.0551	3.2470	3.561

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:05:56	460.0116	13313.0740	200.0022	2913.8002	2073.5698	41099.3610	105454.7800	194900.4100	191056.7700	3770.7819	156481.9400
2	09:06:09	523.3484	13887.2660	196.6688	2900.4626	2003.5541	42485.7120	109087.2600	199430.4200	194794.8500	4097.5899	163419.0700
3	09:06:23	613.3540	13880.5890	223.3361	3173.8873	2140.2519	43624.4190	110284.9200	203914.9400	197151.5100	4017.5542	165149.9300
x		532.2380	13693.6430	206.6690	2996.0500	2072.4586	42403.1640	108275.6500	199415.2600	194334.3800	3961.9753	161683.6400
σ		77.0567	329.5990	14.5300	154.1559	68.3557	1264.5517	2515.2728	4507.2820	3073.3536	170.3456	4587.1870
%RSD		14.4779	2.4069	7.0306	5.1453	3.2983	2.9822	2.3230	2.2602	1.5815	4.2995	2.8371

SEQ1BL5

~~6100167-12RE1@MH1H61@2X~~ 10/19/2016 09:09:57

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	09:09:57	96226.5950	486.6797	143710.3200	3160.5493	10288.4850	2111.5785	303.3384	107953.8600	18705.8920	66.6669	104.4450	56.6668	190.0020	1040.0595	716.6949	1103.4003	640.0225	1220.0819	42663.207
2	09:10:11	97520.2710	503.3473	145227.4800	3107.1976	10512.7420	2077.5707	306.6718	111175.6700	19547.6600	76.6670	92.2227	46.6668	206.6690	963.3844	820.0370	1130.0702	493.3467	1340.0988	42455.572
3	09:10:25	96186.1700	553.3502	146910.8700	3257.2501	10464.0190	2042.2294	304.6718	112252.1100	19624.4920	106.6673	74.4447	66.6669	180.0018	846.7061	893.3772	1093.3991	556.6837	1336.7649	43671.310
x		96644.3450	514.4590	145282.8900	3174.9990	10421.7490	2077.1262	304.8940	110460.5500	19292.6810	83.3337	90.3708	56.6668	192.2243	950.0500	810.0364	1108.9565	563.3510	1298.9819	42930.030
σ		758.8430	34.6964	1600.9950	76.0627	117.9526	34.6767	1.6778	2236.5826	509.6246	20.8169	15.0856	10.0001	13.4718	97.3639	88.7647	18.9565	73.5649	68.3497	650.308
%RSD		0.7852	6.7443	1.1020	2.3957	1.1318	1.6695	0.5503	2.0248	2.6415	24.9801	16.6930	17.6471	7.0084	10.2483	10.9581	1.7094	13.0584	5.2618	1.514

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:09:57	650.0232	1006.7224	183.3352	3070.5185	910.0456	1050.0606	83262.8940	194270.4800	189055.5800	1346.7664	120239.9500
2	09:10:11	630.0218	1080.0642	220.0027	3253.9156	923.3802	1263.4211	88057.7570	198258.5400	192234.5500	1203.4130	124026.9800
3	09:10:25	760.0318	1030.0584	243.3366	3313.9372	906.7119	1070.0630	87771.6770	198973.9100	196412.4400	1353.4341	125284.0400
x		680.0256	1038.9483	215.5581	3212.7904	913.3792	1127.8482	86364.1090	197167.6400	192567.5200	1301.2045	123183.6600
σ		70.0054	37.4703	30.2466	126.8134	8.8201	117.8347	2669.5376	2534.3856	3689.7149	84.7555	2625.6671
%RSD		10.2945	3.6066	14.0318	3.9471	0.9657	10.4477	3.1142	1.2854	1.9161	6.5136	2.1315

QM10/21

SEQ-CCV@CCV02 10/19/2016 09:14:02 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo
1	09:14:16	95872.8870	186415.2200	133158.1200	520301.7000	422039.5500	555282.0200	67965.1130	↑3384622.3000	708370.1000	5174.8057	16541.7030	7986.8402	136.6677	1427338.4000	↑2590525.9000	↑2803404.4000
2	09:14:29	95802.1470	186530.8900	135055.8100	522195.8100	423099.1400	556361.8000	68596.4950	↑3364850.1000	707229.5600	5251.5164	16833.3480	8006.8578	166.6682	1442564.5000	↑2604864.0000	↑2822289.6000
3	09:14:43	95573.0880	186908.5300	132464.7700	524478.4100	423548.0000	556764.0000	68362.0730	↑3360056.9000	703402.3900	5184.8114	16718.6930	7830.0372	76.6670	1457316.4000	↑2626118.3000	↑2840223.4000
x		95749.3740	186618.2100	133559.5600	522325.3100	422895.5600	556135.9400	68307.8940	↑3369843.1000	706334.0100	5203.7112	16697.9140	7941.2451	126.6676	1442406.4000	↑2607169.4000	↑2821972.5000
σ		156.7117	257.9870	1341.3579	2091.3650	774.5551	766.3714	319.1590	↑13021.6320	2602.1209	41.7017	146.9289	96.8275	45.8264	14989.6260	↑17907.8860	↑18411.5410
%RSD		0.1637	0.1382	1.0043	0.4004	0.1832	0.1378	0.4672	↑0.3864	0.3684	0.8014	0.8799	1.2193	36.1784	1.0392	↑0.6869	↑0.6524

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:14:16	57487.8610	368375.3100	42633.0660	658312.8000	2292783.4000	2308270.3000	799905.3300	188044.9400	186891.5200	↑5824459.1000	119787.3600
2	09:14:29	58175.5480	375477.1800	44036.3990	672281.5800	↑2280686.5000	2363768.0000	808086.9300	190277.3400	189477.5600	↑5874143.6000	123422.1700
3	09:14:43	59212.2090	381194.5600	44987.7060	674328.4900	2363010.4000	2412769.2000	817403.8500	192421.7800	193712.0800	↑5960129.5000	126375.6600
x		58291.8720	375015.6800	43885.7240	668307.6200	↑2312160.1000	2361602.5000	808465.3700	190248.0200	190027.0600	↑5886244.1000	123195.0700
σ		868.0395	6422.0750	1184.5292	8716.0672	↑44451.0550	52283.0970	8755.3940	2188.5660	3443.3245	↑68639.8360	3300.0165
%RSD		1.4891	1.7125	2.6991	1.3042	↑1.9225	2.2139	1.0830	1.1504	1.8120	↑1.1661	2.6787

SEQ-CCB@CCB02 10/19/2016 09:18:19 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	09:18:19	92727.1750	36.6667	117994.1400	110.0007	240.0032	210.6691	113.3340	250.0034	423.3432	3.3333	3.3333	0.0000	146.6678	330.0060	643.3561	580.0185	363.3406	906.7119	39894.0090
2	09:18:33	93171.6850	33.3334	119790.7400	120.0008	240.6699	198.6688	114.0007	290.0046	373.3410	0.0000	3.3333	3.3333	156.6680	290.0046	540.0160	613.3540	430.0102	843.3724	40021.2330
3	09:18:46	93521.9210	40.0001	122334.2800	130.0009	271.3374	228.0029	116.6674	226.6695	350.0067	3.3333	6.6667	10.0000	106.6673	290.0046	603.3533	523.3484	400.0088	956.7170	40647.3350
x		93140.2600	36.6667	120039.7200	120.0008	250.6701	212.4469	114.6674	255.5592	382.2303	2.2222	4.4444	4.4444	136.6677	303.3384	595.5752	572.2403	397.7865	902.2671	40187.5260
σ		398.3037	3.3333	2180.7548	10.0001	17.9015	14.7476	1.7639	32.0310	37.4676	1.9245	1.9245	5.0918	26.4579	23.0948	52.1073	45.5042	33.3903	56.8029	403.2555
%RSD		0.4276	9.0909	1.8167	8.3334	7.1414	6.9418	1.5382	12.5337	9.8024	86.6025	43.3013	114.5644	19.3593	7.6135	8.7491	7.9519	8.3940	6.2956	1.0034

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:18:19	130.0009	36.6667	0.0000	73.3336	393.3418	263.3372	120.0008	172518.2200	171424.4900	766.6990	112825.8100
2	09:18:33	110.0007	36.6667	6.6667	63.3336	386.6749	263.3372	110.0007	175144.3900	176275.9500	796.7016	114263.6000
3	09:18:46	106.6673	36.6667	0.0000	70.0003	396.6753	226.6695	110.0007	178464.7000	175307.4900	713.3613	117058.8300
x		115.5563	36.6667	2.2222	68.8892	392.2307	251.1146	113.3340	175375.7700	174335.9800	758.9206	114716.0800
σ		12.6200	0.0000	3.8490	5.0918	5.0920	21.1701	5.7736	2979.9865	2567.4997	42.2111	2152.4781
%RSD		10.9210	0.0000	173.2051	7.3913	1.2982	8.4304	5.0943	1.6992	1.4727	5.5620	1.8764

Analyte ICPS

SEQ-CAL1@S01 10/19/2016 07:51:01

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	07:51:01	99.5%	27.3709	98.5%	-13.4089	-42.7531	4.6634	7.0579	-2.7074	77.0037	-2.2216	2.4493	4.3774	-1.0482	-2.9740	-0.1152	8.4280	3.7201	-5.5498	99.9%
2	07:51:19	99.9%	44.0320	99.2%	26.3735	13.1240	-20.9128	-5.8052	-2.8219	-51.3099	1.1231	-5.3233	-12.5654	6.0306	-3.2147	6.3697	-12.1616	-3.2945	-5.2130	99.7%
3	07:51:32	100.6%	23.3428	102.4%	-12.9646	-14.0622	3.8549	-1.2527	6.5841	-15.6009	1.0986	0.1859	8.1880	-4.9824	6.1886	-3.9375	3.7336	-0.4256	10.7628	100.4%
x		100.0%	31.5819	100.0%	-0.0000	-14.5637	-4.1315	-0.0000	0.3516	3.3643	0.0000	-0.8961	0.0000	0.0000	0.0000	0.7723	0.0000	-0.0000	0.0000	100.0%
σ		0.6%	10.9686	2.1%	22.8412	27.9419	14.5386	6.5224	5.3978	66.2258	1.9240	3.9977	11.0475	5.5808	5.3609	5.2106	10.7907	3.5266	9.3224	0.4%
%RSD		0.6	34.7307	2.1	0.0000	191.8593	351.8988	0.0000	1535.3760	1968.4776	0.0000	446.1391	0.0000	0.0000	0.0000	674.6645	0.0000	0.0000	0.0000	0.4

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	07:51:01	-19.6995	-6.9601	-1.1130	0.7734	5.5707	-9.3730	72.1430	98.5%	98.3%	89.8643	752.8404
2	07:51:19	-7.3540	3.0581	2.2260	4.0174	-5.5401	17.1558	30.8945	100.4%	100.6%	92.2467	-665.4678
3	07:51:32	27.0535	6.1550	-1.1130	-2.7123	-0.0306	3.4632	30.4228	101.1%	101.1%	128.2776	-87.3727
x		0.0000	0.7510	0.0000	0.6928	-0.0000	3.7487	44.4868	100.0%	100.0%	103.4629	0.0000
σ		24.2285	6.8552	1.9278	3.3655	5.5555	13.2667	23.9522	1.3%	1.5%	21.5232	713.1795
%RSD		0.0000	912.8118	0.0000	485.7663	0.0000	353.9016	53.8411	1.3	1.5	20.8028	0.0000

SEQ-CAL2@S02 10/19/2016 07:55:22

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	07:55:36	100.5%	75.3856	97.6%	-19.6067	765.3493	460.6437	17.6930	1427.9176	296.0504	11.0021	37.6150	47.9800	-25.3899	2044.6091	3618.2272	3909.7903	2346.7302	5640.3622	100.8%
2	07:55:50	101.3%	75.0656	98.0%	-19.9304	801.1896	424.2463	25.3777	1342.7725	319.4674	21.0470	34.5452	27.8596	-11.4759	2148.3429	3545.5608	3901.6576	2258.5789	5880.5339	100.3%
3	07:56:04	101.1%	103.9279	99.8%	-34.4735	834.8057	458.6693	16.7657	1280.1235	340.5777	10.9064	21.9642	-35.0001	62.4132	2090.7618	3737.3256	3881.5061	2403.2316	5964.2292	101.6%
x		101.0%	84.7931	98.5%	-24.6702	800.4482	447.8531	19.9455	1350.2712	318.6985	14.3185	31.3748	13.6132	8.5158	2094.5713	3633.7045	3897.6514	2336.1802	5828.3751	100.9%
σ		0.4%	16.5721	1.2%	8.4915	34.7342	20.4679	4.7273	74.1819	22.2736	5.8272	8.2931	43.2856	47.1921	51.9717	96.8148	14.5615	72.9011	168.1156	0.6%
%RSD		0.4	19.5441	1.2	34.4199	4.3393	4.5702	23.7009	5.4939	6.9889	40.6973	26.4324	317.9686	554.1712	2.4813	2.6644	0.3736	3.1205	2.8844	0.6

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	07:55:36	45.8850	1109.9339	28.8793	235.5499	6156.6078	1624.9367	2913.0296	102.1%	101.4%	2142.9106	578.1662
2	07:55:50	11.8066	1138.9576	28.6794	230.6301	6558.3322	1583.6493	3041.1892	103.0%	102.6%	2102.2266	2190.7953
3	07:56:04	-6.0215	1120.1761	21.7467	214.3459	6314.0100	1654.5088	2718.5450	104.0%	103.8%	2159.8017	809.6833
x		17.2234	1123.0225	26.4351	226.8419	6342.9834	1621.0316	2890.9213	103.0%	102.6%	2134.9796	1192.8816
σ		26.3738	14.7197	4.0615	11.0980	202.4234	35.5908	162.4543	0.9%	1.2%	29.5956	871.9369
%RSD		153.1281	1.3107	15.3641	4.8924	3.1913	2.1956	5.6195	0.9	1.1	1.3862	73.0950

SEQ-CAL3@S03 10/19/2016 07:59:41

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	07:59:41	97.9%	221.7408	94.7%	-6.9942	1976.2840	1134.7193	34.8758	3068.7664	1003.5030	28.5954	95.1973	32.2990	23.1427	4449.0317	7363.7274	7808.9028	4388.6244	11615.7780	97.3%
2	07:59:55	99.8%	167.8226	95.4%	2.9010	2023.2653	1062.3305	22.5298	3094.7378	1019.1707	24.8464	78.1757	76.6126	-19.3686	4390.5052	7125.1573	7720.7184	4622.5736	12032.6500	98.5%
3	08:00:09	100.4%	218.9382	96.0%	-18.4804	2080.8599	1173.4215	35.6606	3295.4551	1020.2662	15.0172	84.4219	34.3941	-10.2241	4314.2008	7330.3556	7795.7810	4429.2331	12285.8850	96.7%
x		99.4%	202.8339	95.4%	-7.5246	2026.8031	1123.4904	31.0220	3152.9864	1014.3133	22.8197	85.9316	47.7685	-2.1500	4384.5792	7273.0801	7775.1341	4480.1437	11978.1050	97.5%
σ		1.3%	30.3530	0.6%	10.7006	52.3777	56.3903	7.3650	124.0630	9.3780	7.0124	8.6107	25.0017	22.3762	67.6105	129.1870	47.5799	125.0079	338.3671	0.9%
%RSD		1.3	14.9645	0.7	142.2084	2.5843	5.0192	23.7412	3.9348	0.9246	30.7294	10.0204	52.3391	1040.7688	1.5420	1.7762	0.6119	2.7903	2.8249	1.0

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	07:59:41	26.3015	2513.6906	40.1316	626.2265	12488.4150	3811.6926	6655.5358	98.9%	98.7%	5066.5681	959.0122
2	07:59:55	61.9283	2604.4490	42.9478	600.3629	12556.2990	4069.4790	6741.4356	100.9%	100.5%	5066.5028	970.7340
3	08:00:09	30.4141	2422.9656	56.0642	565.3515	13062.9740	3879.7868	6664.9550	101.8%	102.2%	5165.3974	1637.1987
x		39.5480	2513.7017	46.3812	597.3137	12702.5630	3920.3195	6687.3088	100.5%	100.5%	5099.4895	1188.9817
σ		19.4907	90.7417	8.5031	30.5518	313.9653	133.5875	47.1112	1.5%	1.8%	57.0780	388.2116
%RSD		49.2837	3.6099	18.3331	5.1149	2.4717	3.4076	0.7045	1.5	1.7	1.1193	32.6508

SEQ-CAL4@S04 10/19/2016 08:03:44

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	08:03:44	100.0%	346.5850	94.3%	-3.0762	3911.2002	2127.0290	59.2130	5955.7755	1416.0144	38.0733	178.2571	137.7158	-6.8329	10265.8510	17858.8270	19326.6390	11073.5900	28681.8210	99.3%
2	08:03:58	99.2%	395.2887	95.3%	-14.5005	4057.6802	2212.5132	41.6140	6055.5426	1287.8301	45.6545	174.8586	89.9427	-7.8419	10652.1280	17869.2430	19726.4140	11363.9660	29231.7310	97.5%
3	08:04:12	100.2%	423.1677	96.9%	-43.2234	4078.7998	2089.6120	52.5419	6169.5542	1213.2235	48.1217	158.0252	87.5016	-0.1864	10404.3580	17995.9280	20228.4840	11135.9370	29457.2140	99.3%
x		99.8%	388.3471	95.5%	-20.2667	4015.8934	2143.0514	51.1230	6060.2908	1305.6893	43.9498	170.3803	105.0534	-4.9537	10440.7790	17907.9990	19760.5120	11191.1640	29123.5890	98.7%
σ		0.5%	38.7604	1.4%	20.6854	91.2798	62.9977	8.8849	106.9684	102.5683	5.2366	10.8339	28.3129	4.1593	195.6972	76.3265	451.3888	152.8630	398.8477	1.1%
%RSD		0.5	9.9809	1.4	102.0661	2.2730	2.9396	17.3795	1.7651	7.8555	11.9149	6.3587	26.9509	83.9641	1.8744	0.4262	2.2868	1.3659	1.3695	1.1

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:03:44	91.5091	4958.4374	84.7302	1084.1972	31026.0710	7736.7291	13562.6880	99.5%	99.7%	9828.7408	2813.8453
2	08:03:58	160.6052	5052.6313	83.7152	1027.1284	30996.6870	7812.4883	13149.4250	100.8%	100.8%	9858.8848	1798.3245
3	08:04:12	105.2446	5074.1169	95.1768	1103.9837	31131.0960	7630.0078	13239.6810	103.4%	102.8%	9886.4707	1109.8602
x		119.1196	5028.3952	87.8741	1071.7698	31051.2850	7726.4084	13317.2650	101.2%	101.1%	9858.0321	1907.3433
σ		36.5781	61.5303	6.3447	39.9063	70.6630	91.6770	217.2808	2.0%	1.6%	28.8744	857.2077
%RSD		30.7070	1.2237	7.2202	3.7234	0.2276	1.1865	1.6316	2.0	1.5	0.2929	44.9425

SEQ-CAL5@S05 10/19/2016 08:07:46

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	08:07:46	100.2%	3401.2880	94.8%	9930.9702	8144.9192	11291.4480	107.0554	61687.9580	12718.8920	73.8922	335.0022	188.7879	-58.2185	25090.4200	44344.1370	48302.9690	28347.4720	72018.0230	96.3%
2	08:08:00	100.1%	3390.0174	95.7%	10026.1240	8094.1172	11072.2050	95.8016	62586.5560	13192.8180	100.6170	290.7097	141.1328	-14.3866	25589.7740	45049.8160	49126.1870	28733.7080	73060.2420	97.2%
3	08:08:13	101.8%	3416.3977	95.9%	9822.1882	7932.5014	11044.9520	138.7773	62767.1220	13238.5490	87.1582	299.5815	63.5452	58.1572	25679.9370	45217.2190	49612.8210	28570.2020	74522.1710	97.0%
x		100.7%	3402.5677	95.5%	9926.4273	8057.1793	11136.2020	113.8781	62347.2120	13050.0860	87.2224	308.4311	131.1553	-4.8156	25453.3770	44870.3910	49013.9920	28550.4610	73200.1450	96.9%
σ		1.0%	13.2367	0.6%	102.0436	110.9218	135.1364	22.2854	578.0249	287.7324	13.3625	23.4349	63.2147	58.7751	317.5461	463.3712	662.0943	193.8732	1257.9224	0.5%
%RSD		1.0	0.3890	0.6	1.0280	1.3767	1.2135	19.5695	0.9271	2.2048	15.3200	7.5981	48.1984	1220.5134	1.2476	1.0327	1.3508	0.6791	1.7185	0.5

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:07:46	1087.5459	6512.5975	730.9035	11305.1550	38491.6430	37978.3030	13954.6270	98.0%	98.0%	99477.2780	1715.1595
2	08:08:00	1077.2583	6472.4900	798.4820	11681.1850	39612.3070	38518.1460	13295.7530	99.9%	100.7%	98017.4940	427.5742
3	08:08:13	1044.4565	6661.3742	721.2249	11807.4840	40151.2730	39365.4310	13825.0620	101.2%	101.7%	98502.2590	626.4985
x		1069.7536	6548.8206	750.2035	11597.9420	39418.4080	38620.6270	13691.8140	99.7%	100.2%	98665.6770	923.0774
σ		22.5037	99.5158	42.0896	261.3061	846.6348	699.2197	349.0628	1.6%	1.9%	743.4861	693.1365
%RSD		2.1036	1.5196	5.6104	2.2530	2.1478	1.8105	2.5494	1.6	1.9	0.7535	75.0898

SEQ-CAL6@S06 10/19/2016 08:11:47

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98M
1	08:11:47	100.4%	17549.3940	93.7%	49336.2890	40502.6710	55111.5710	546.5267	304704.1900	64095.4020	532.5193	1618.6488	876.4858	7.1025	125785.0400	220254.3900	238910.3200	138348.1500	357590.89(
2	08:12:01	100.6%	17490.7890	94.9%	49214.9520	40295.3760	54907.8620	656.0417	307172.7600	65019.6480	562.3993	1587.7362	853.2433	-44.8385	126949.6000	222388.9400	242186.2100	140541.8100	363285.35(
3	08:12:15	100.3%	17404.4130	94.3%	49919.5860	39110.2860	53948.4400	600.5453	310972.6400	65674.2910	539.6600	1582.0706	831.7578	-22.6448	129587.5000	226896.8900	245106.8500	142716.3000	370085.24(
x		100.4%	17481.5320	94.3%	49490.2760	39969.4440	54655.9580	601.0379	307616.5300	64929.7800	544.8595	1596.1519	853.8290	-20.1269	127440.7100	223846.7400	242067.7900	140535.4200	363653.83(
σ		0.2%	72.9325	0.6%	376.7115	751.2374	621.1360	54.7592	3157.6963	793.2714	15.6039	19.6878	22.3697	26.0619	1948.2265	4501.8963	3099.9592	2184.0850	6255.32
%RSD		0.2	0.4172	0.7	0.7612	1.8795	1.1364	9.1108	1.0265	1.2217	2.8628	1.2335	2.6199	129.4876	1.5287	2.0112	1.2806	1.5541	1.72(

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:11:47	4950.6964	31960.9990	3621.4535	56574.7930	189202.9300	190846.9100	66158.0870	99.3%	99.1%	496532.9800	1205.3621
2	08:12:01	4953.9452	33194.1820	3957.1808	57006.8920	192233.5200	192652.9300	67163.5750	101.5%	101.1%	496523.7100	1563.4654
3	08:12:15	5280.9112	33422.8220	3996.5985	58391.2570	197734.3900	195370.8000	68861.5610	103.0%	104.4%	492630.6400	-65.6245
x		5061.8509	32859.3340	3858.4109	57324.3140	193056.9400	192956.8800	67394.4070	101.3%	101.6%	495229.1100	901.0676
σ		189.7187	786.3357	206.1554	948.9217	4324.9261	2277.2105	1366.4390	1.9%	2.7%	2250.3418	856.1132
%RSD		3.7480	2.3930	5.3430	1.6554	2.2402	1.1802	2.0275	1.8	2.6	0.4544	95.0110

SEQ-CAL7@S07 10/19/2016 08:15:49

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	
1	08:15:49	99.6%	173290.7400	93.3%	488279.3900	394325.7600	537259.3800	4500.3397	τ 3117967.5000	652939.7700	4797.7065	15910.2670	7572.5990	19.8808	1290542.5000	2328181.4000	τ 2554509.2000	142
2	08:16:03	100.7%	172901.1000	95.6%	489470.3800	393936.9700	538141.7400	5046.7354	τ 3102552.6000	649216.3300	4860.4143	16135.3710	7375.7100	-27.8522	1308850.7000	2339611.1000	τ 2548565.8000	143
3	08:16:16	100.3%	174210.9400	94.7%	496518.3700	388657.9800	535437.1800	4752.8787	τ 3138508.7000	660896.5700	5000.4028	16140.9890	7569.8241	-5.3745	1317247.0000	2395730.1000	τ 2581402.1000	146
x		100.2%	173467.5900	94.5%	491422.7200	392306.9000	536946.1000	4766.6512	τ 3119676.3000	654350.8900	4886.1745	16062.2090	7506.0444	-4.4486	1305546.7000	2354507.5000	τ 2561492.4000	144
σ		0.5%	672.5896	1.2%	4452.9676	3166.0325	1379.2272	273.4581	τ 18038.8690	5966.6109	103.7745	131.6156	112.8814	23.8799	13655.3810	36154.3090	τ 17496.5630	2
%RSD		0.5	0.3877	1.2	0.9061	0.8070	0.2569	5.7369	τ 0.5782	0.9118	2.1238	0.8194	1.5039	536.7943	1.0460	1.5355	τ 0.6831	

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:15:49	50995.8880	329267.6800	38016.4590	582925.4700	2020187.0000	2002114.0000	682472.5000	101.5%	102.9%	τ 5108438.5000	3395.7243
2	08:16:03	50543.4990	330007.0900	38784.3560	582276.7500	2034271.7000	2025051.0000	690131.7400	104.8%	105.7%	τ 5085652.0000	2699.1389
3	08:16:16	51535.4790	332287.1600	38586.1580	589180.5700	2075957.4000	2044677.5000	690125.2300	107.3%	107.5%	τ 5093014.7000	5269.1670
x		51024.9550	330520.6400	38462.3240	584794.2600	2043472.0000	2023947.5000	687576.4900	104.5%	105.3%	τ 5095701.7000	3788.0101
σ		496.6285	1573.8821	398.6444	3812.4724	29001.2000	21303.1940	4420.1864	2.9%	2.3%	τ 11628.5100	1329.1641
%RSD		0.9733	0.4762	1.0365	0.6519	1.4192	1.0526	0.6429	2.8	2.2	τ 0.2282	35.0887

SEQ-CAL8@S08 10/19/2016 08:19:52

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo
1	08:19:52	96.5%	μ 359884.8200	87.6%	986060.9100	μ 803052.7600	μ 1094760.6000	8022.7480	τ 6169932.5000	1305417.0000	9922.2297	μ 32154.3440	14629.0600	25.0608	τ 2648068.6000	TM 4660633.2000
2	08:20:06	97.2%	μ 353556.5700	89.5%	988443.3200	774177.6900	1062928.7000	8427.6895	τ 6128748.5000	1297294.9000	9817.6934	31247.8410	14622.6890	8.5433	τ 2685295.1000	TM 4725610.5000
3	08:20:21	97.4%	μ 355712.8100	89.4%	1005680.6000	μ 793220.7600	μ 1080630.6000	8805.5446	TM 6239406.5000	μ 1325639.1000	9402.8279	31892.4490	15377.5330	10.2477	τ 2689710.2000	TM 4739946.8000
x		97.1%	μ 356384.7300	88.8%	993394.9500	μ 790150.4000	μ 1079440.0000	8418.6607	TM 6179362.5000	μ 1309450.4000	9714.2503	μ 31764.8780	14876.4270	14.6173	τ 2674358.0000	TM 4708730.1000
σ		0.5%	μ 3217.1846	1.0%	10706.1730	μ 14680.3470	μ 15949.3220	391.4764	TM 55928.4490	μ 14596.2000	274.7179	μ 466.5215	433.9822	9.0844	τ 22874.0440	TM 42265.4970
%RSD		0.5	μ 0.9027	1.2	1.0777	μ 1.8579	μ 1.4776	4.6501	TM 0.9051	μ 1.1147	2.8280	μ 1.4687	2.9172	62.1485	τ 0.8553	TM 0.8976

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:19:52	100548.3400	653268.7200	76864.4960	μ 1171226.5000	τ 3991373.1000	TM 3946251.9000	TM 1386380.3000	102.0%	101.5%	TM 10510036.0000	7771.9111
2	08:20:06	101734.1400	659214.0600	77076.3040	μ 1175943.7000	τ 4002412.3000	TM 4000915.7000	TM 1382226.5000	105.0%	106.7%	TM 10325739.0000	6362.8324
3	08:20:21	102135.8700	μ 663707.0400	77440.5890	μ 1200636.6000	τ 4048284.1000	TM 4007245.8000	TM 1395086.5000	106.9%	107.5%	TM 10377535.0000	6170.7527
x		101472.7900	μ 658729.9400	77127.1300	μ 1182602.3000	τ 4014023.2000	TM 3984804.5000	TM 1387897.8000	104.6%	105.2%	TM 10404437.0000	6768.4987
σ		825.4037	μ 5235.9726	291.3900	μ 15795.3030	τ 30179.9130	TM 33537.1440	TM 6562.9133	2.5%	3.2%	TM 95047.8040	874.2717
%RSD		0.8134	μ 0.7949	0.3778	μ 1.3356	τ 0.7519	TM 0.8416	TM 0.4729	2.3	3.1	TM 0.9135	12.9168

SEQ-ICV@ICV01 10/19/2016 08:23:58 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	9
1	08:24:12	96.5%	37344.1710	85.1%	91.7242	79665.5920	106855.3800	1107.4461	634791.3000	133858.2300	1920.3190	6616.2069	3129.1780	4.6054	10855.5710	19362.5320	21099.4070	11976.6360	31421.
2	08:24:25	96.0%	37249.6650	85.8%	113.4325	79309.1650	107204.3500	1071.1203	634849.0300	132825.3300	2070.5926	6585.5369	3196.2731	-14.6322	11042.6040	19499.2980	21327.6290	12539.8260	31794.
3	08:24:44	97.6%	36680.3240	87.0%	114.6903	78764.5850	106516.8200	1135.8749	638825.4900	133147.4000	2091.4034	6708.4055	3195.8873	-36.4418	11206.1770	19376.9530	21362.9920	12172.3060	31979.
x		96.7%	108.288%	86.0%	106.6157	100.101%	101.307%	1104.8137	103.547%	104.111%	2027.4383	103.127%	3173.7795	-15.4895	11034.7840	19412.9280	21263.3430	12229.5890	31731.
σ		0.8%	n/a	0.9%	12.9117	n/a	n/a	32.4574	n/a	n/a	93.3498	n/a	38.6265	20.5370	175.4340	75.1459	143.0689	285.9318	284.
%RSD		0.9	0.9682	1.1	12.1105	0.5726	0.3217	2.9378	0.3635	0.3965	4.6043	0.9636	1.2171	132.5862	1.5898	0.3871	0.6728	2.3380	0.

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:24:12	10250.3410	526632.1900	7701.3577	120259.9400	709.3866	789560.5300	139544.5700	101.8%	103.0%	τ 2213471.8000	4658.1867
2	08:24:25	10131.2150	522572.3300	7834.6237	119160.5500	668.9965	796390.6500	137714.8300	104.9%	105.7%	τ 2189331.1000	3345.3966
3	08:24:44	10713.4490	521234.0100	7802.9388	118031.3900	780.7029	799302.7300	138856.5900	105.7%	107.2%	τ 2162954.5000	3200.0353
x		10365.0020	104.248%	7779.6401	103.200%	719.6953	101.841%	101.118%	104.1%	105.3%	τ 106.325%	3734.5395
σ		307.5865	n/a	69.6209	n/a	56.5622	n/a	n/a	2.1%	2.2%	τ n/a	803.1971
%RSD		2.9675	0.5370	0.8949	0.9352	7.8592	0.6290	0.6663	2.0	2.0	τ 1.1545	21.5073

SEQ-ICB@ICB01 10/19/2016 08:28:28 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	08:28:28	96.8%	45.6936	86.3%	-3.0955	-8.5017	-1.7151	-0.3579	86.1954	9.7770	4.6448	-2.9460	68.0928	-62.2605	81.6931	131.1682	155.7522	48.7427	187.1182	97.1%
2	08:28:42	98.8%	26.0165	87.9%	-19.8031	29.5931	82.3941	12.5834	91.7546	-68.5734	1.3395	-0.3586	6.4451	-2.4663	83.3713	96.5693	127.5206	47.4574	183.3353	93.6%
3	08:28:56	98.1%	21.9569	89.5%	-9.8582	27.0198	60.8008	4.4777	93.5399	-48.8537	8.3246	7.7373	-19.5496	23.9188	88.6103	122.6390	135.3090	77.6415	218.1845	94.8%
x		97.9%	31.2223	87.9%	-10.9189	16.0371	47.1599	5.5678	90.4967	-35.8834	4.7697	1.4776	18.3295	-13.6027	84.5582	116.7922	139.5273	57.9472	196.2127	95.2%
σ		1.0%	12.6958	1.6%	8.4042	21.2901	43.6823	6.5391	3.8305	40.7538	3.4942	5.5733	45.0136	44.1558	3.6081	18.0252	14.5809	17.0679	19.1220	1.8%
%RSD		1.0	40.6626	1.8	76.9685	132.7552	92.6259	117.4465	4.2327	113.5729	73.2591	377.1926	245.5806	324.6110	4.2670	15.4336	10.4502	29.4542	9.7455	1.9

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:28:28	-8.5312	113.9052	2.4368	8.0944	127.2504	346.4094	38.6210	101.2%	101.3%	358.4234	2740.8091
2	08:28:42	24.8653	59.3895	-1.1130	14.8047	182.2291	353.7377	34.4584	102.9%	102.5%	416.7785	4149.0801
3	08:28:56	9.1306	78.9377	5.7495	17.8789	188.3695	341.1416	53.5731	104.4%	105.9%	433.3361	3071.1461
x		8.4883	84.0775	2.3578	13.5927	165.9497	347.0962	42.2175	102.6%	103.2%	402.8460	3320.3451
σ		16.7075	27.6189	3.4319	5.0036	33.6549	6.3261	10.0521	1.6%	2.4%	39.3518	736.4658
%RSD		196.8314	32.8493	145.5581	36.8110	20.2802	1.8226	23.8102	1.6	2.3	9.7684	22.1804

SEQ-IFA@ICSA01 10/19/2016 08:32:35 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo
1	08:32:35	93.4%	137.1410	92.3%	842202.5000	-374.8490	23542.0780	155.6016	7937.2418	7516.2451	-2.2216	-3.8138	-56.5685	80.6516	2172710.0000	τ3947960.8000	τ4310139.1000	2426314.4000	τ6401395.70
2	08:32:49	96.7%	106.7393	97.0%	842959.1900	-427.8468	23009.2260	174.3976	7829.6777	7430.4559	4.9058	-1.5406	-42.5369	47.5231	2186212.4000	τ3948223.3000	τ4285676.1000	τ2466898.4000	τ6400810.70
3	08:33:05	95.3%	102.9800	100.8%	841681.3500	-643.4154	23452.2280	236.2666	7908.8472	7286.7636	-2.2216	-3.9168	-105.3815	111.6492	τ2225636.1000	τ3908915.5000	τ4251361.6000	τ2451688.6000	τ6321856.40
x		95.2%	1.#IO%	96.7%	842281.0100	-121.778%	103.237%	188.7553	127.172%	94.559%	0.1542	-32.174%	-68.1623	79.9413	τ2194852.8000	τ3935033.2000	τ4282392.2000	τ2448300.5000	τ6374687.60
σ		1.7%	n/a	4.3%	642.5311	n/a	n/a	42.2057	n/a	n/a	4.1150	n/a	32.9875	32.0690	τ27500.6650	τ22619.0160	τ29526.0040	τ20503.0370	τ45754.09
%RSD		1.7	16.2015	4.4	0.0763	29.5097	1.2225	22.3600	0.7063	1.5646	2668.9959	43.4625	48.3955	40.1156	τ1.2530	τ0.5748	τ0.6895	τ0.8374	τ0.71

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:32:35	-0.2996	58.9716	1677.4337	556.7314	4455.0536	4711.8809	2793.4562	99.5%	100.9%	270.4285	-1137.0312
2	08:32:49	44.5543	49.1743	1536.7374	578.7783	586.6463	4427.4322	2800.6194	104.5%	105.0%	217.4722	-567.8135
3	08:33:05	-11.6285	69.3445	1463.7332	292.3746	612.7468	4338.4751	2700.1785	108.5%	109.7%	228.4460	-3440.7412
x		10.8754	1.#IO%	1559.3014	58.303%	1884.8156	75.959%	167.962%	104.2%	105.2%	1.#IO%	-1715.1953
σ		29.7118	n/a	108.6224	n/a	2225.9297	n/a	n/a	4.5%	4.4%	n/a	1521.2277
%RSD		273.2013	17.0485	6.9661	33.4843	118.0980	4.3415	2.0268	4.3	4.2	11.7054	88.6912

SEQ-IFB@ICSAB01 10/19/2016 08:36:38 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	
1	08:36:38	89.4%	6936.6354	102.2%	821541.1700	17235.1740	47242.5250	464.0159	126173.5800	31330.7970	163.1933	650.5575	213.5893	79.0859	τ2194684.3000	τ3869107.4000	τ4192643.8000	2381104.3000	[illegible]
2	08:36:52	89.3%	6781.7568	104.3%	833198.2100	17040.4030	46772.3200	442.7745	128358.7000	31990.6850	212.2685	662.6894	130.7801	163.9497	2160970.2000	τ3848596.6000	τ4168035.8000	τ2417020.4000	[illegible]
3	08:37:06	89.4%	6431.8332	105.8%	830510.3600	16926.1080	46638.9610	404.3819	127726.3600	31330.4040	159.4159	622.3321	257.8366	48.9894	2185035.3000	τ3885292.4000	τ4218974.7000	τ2417392.9000	[illegible]
x		89.4%	102.175%	104.1%	828416.5800	113.466%	108.899%	437.0575	102.663%	100.639%	178.2926	106.060%	200.7353	97.3417	τ2180229.9000	τ3867665.5000	τ4193218.1000	τ2405172.5000	[illegible]
σ		0.1%	n/a	1.8%	6104.0645	n/a	n/a	30.2253	n/a	n/a	29.4846	n/a	64.4962	59.6148	τ17363.1500	τ18390.3870	τ25474.2670	τ20844.5210	
%RSD		0.1	3.8502	1.8	0.7368	0.9156	0.6763	6.9156	0.8824	1.2079	16.5372	3.2094	32.1300	61.2428	τ0.7964	τ0.4755	τ0.6075	τ0.8667	

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:36:38	1935.3816	92644.7220	3042.8312	21482.2380	571.4600	80570.5630	30260.7030	106.9%	106.5%	195037.3700	-1936.1276
2	08:36:52	1835.3909	93458.9530	2886.6347	22441.6150	579.0809	82102.2990	31506.5580	109.4%	109.1%	197444.2400	-2219.3090
3	08:37:06	1865.3102	93201.0140	3016.0605	22885.8780	652.0338	83720.6200	31651.1540	111.0%	111.8%	196464.7100	-3634.5936
x		1878.6942	101.974%	2981.8421	95.479%	600.8582	94.680%	103.187%	109.1%	109.1%	93.102%	-2596.6767
σ		51.3214	n/a	83.5315	n/a	44.4829	n/a	n/a	2.1%	2.6%	n/a	909.9459
%RSD		2.7318	0.4470	2.8013	3.2214	7.4032	1.9179	2.4550	1.9	2.4	0.6165	35.0427

SEQ-CCV@CCV01 10/19/2016 08:40:44 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	
1	08:40:58	97.5%	172016.4300	111.9%	488199.6100	399950.2300	544514.9200	4822.8119	τ3127440.0000	651319.5400	5301.6801	16532.7410	8116.2484	-9.9133	1307024.9000	τ2349740.8000	τ2555471.0000	[illegible]
2	08:41:12	96.5%	172494.6200	113.2%	489255.2100	399285.4500	546474.4900	4713.6436	τ3114392.8000	652469.9700	5060.3734	16364.2470	7508.9353	38.4354	1315870.5000	τ2366147.1000	τ2571183.3000	[illegible]
3	08:41:25	96.9%	172057.8000	114.1%	490539.5500	394471.1900	537840.7200	4762.5553	τ3086614.1000	648480.2500	5026.4648	16313.2930	7457.5916	44.3535	1314956.4000	τ2350061.0000	τ2556842.9000	[illegible]
x		96.9%	99.536%	113.1%	489331.4600	100.523%	100.888%	4766.3369	τ100.213%	99.636%	5129.5061	102.466%	7694.2584	24.2919	1312617.3000	τ2355316.3000	τ2561165.7000	[illegible]
σ		0.5%	n/a	1.1%	1171.8284	n/a	n/a	54.6823	τn/a	n/a	150.0678	n/a	366.3546	29.7700	4864.6317	τ9381.1012	τ8702.5418	[illegible]
%RSD		0.5	0.1539	1.0	0.2395	0.7514	0.8337	1.1473	τ0.6706	0.3156	2.9256	0.7002	4.7614	122.5511	0.3706	τ0.3983	τ0.3398	

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:40:58	51898.2920	334167.9100	39270.8830	596032.4400	2061802.2000	2099555.7000	701691.2400	118.8%	119.4%	τ5069908.5000	-569.7460
2	08:41:12	52872.5760	335346.4500	39754.5620	600240.3700	2082145.3000	2092450.7000	707255.8400	121.0%	121.5%	τ5015984.2000	1740.3520
3	08:41:25	52578.8940	335134.0800	39534.8150	598525.0700	2079714.6000	2082818.2000	706138.7600	121.9%	122.6%	τ4971502.5000	1294.5748
x		52449.9210	101.574%	39520.0870	102.599%	2074554.1000	106.092%	102.795%	120.6%	121.2%	τ99.973%	821.7269
σ		499.7828	n/a	242.1753	n/a	11110.0660	n/a	n/a	1.6%	1.6%	τn/a	1225.4905
%RSD		0.9529	0.1876	0.6128	0.3537	0.5355	0.4016	0.4175	1.3	1.3	τ0.9818	149.1360

SEQ-CCB@CCB01 10/19/2016 08:45:01 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	08:45:01	94.9%	45.5434	103.9%	5.0364	-25.7465	63.0694	29.5383	280.0359	29.2153	-2.2216	2.8691	-19.3804	25.8275	261.7779	487.0556	512.0954	258.1598	812.6299	105.9%
2	08:45:15	96.5%	61.0100	105.0%	-11.8002	-3.0948	50.9054	24.1268	270.2383	46.0416	0.8789	-2.4669	-4.8828	20.3381	368.4195	516.2250	500.4607	312.2302	922.4537	107.5%
3	08:45:28	95.6%	22.7891	106.0%	34.6801	-41.4468	59.1069	31.8325	227.2830	123.4503	0.9393	-5.5071	-13.9264	17.0958	276.8442	585.9466	600.7332	349.6466	952.5779	105.5%
x		95.7%	43.1141	105.0%	9.3054	-23.4294	57.6939	28.4992	259.1857	66.2357	-0.1345	-1.7016	-12.7299	21.0871	302.3472	529.7424	537.7631	306.6789	895.8872	106.3%
σ		0.8%	19.2259	1.0%	23.5324	19.2807	6.2039	3.9566	28.0595	50.2584	1.8078	4.2402	7.3225	4.4138	57.7140	50.8124	54.8431	45.9953	73.6593	1.1%
%RSD		0.8	44.5930	1.0	252.8889	82.2928	10.7531	13.8830	10.8260	75.8781	1344.4380	249.1888	57.5222	20.9312	19.0887	9.5919	10.1984	14.9979	8.2219	1.0

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:45:01	-10.3311	42.8417	1.9981	37.3039	286.8731	206.1409	101.3553	109.9%	111.1%	769.2743	-901.7517
2	08:45:15	-11.7848	35.8854	5.0041	36.5446	228.7412	232.3668	111.1693	112.4%	112.2%	866.4594	-929.3313
3	08:45:28	33.2769	26.4824	4.9640	60.5087	296.3742	273.0651	134.4215	112.9%	114.3%	833.7357	-9.1801
x		3.7203	35.0699	3.9887	44.7857	270.6629	237.1909	115.6487	111.7%	112.5%	823.1565	-613.4210
σ		25.6070	8.2101	1.7241	13.6218	36.6147	33.7219	16.9822	1.6%	1.6%	49.4487	523.4697
%RSD		688.2983	23.4106	43.2238	30.4155	13.5278	14.2172	14.6843	1.5	1.4	6.0072	85.3361

SRQ1BL1

~~QJ[illegible]~~05A 10/19/2016 08:49:04

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	08:49:04	96.9%	140.9198	117.0%	61575.6320	22866.1930	8275.1454	78.1183	39700.8180	7444.7427	339.7834	1064.4577	505.2220	34.7776	17835.3840	30539.3850	33091.5070	18680.8970	49128.2170	106.2%
2	08:49:18	98.2%	119.5206	118.6%	62390.3440	22763.5840	8241.6188	35.1726	39461.7220	7582.6440	351.6069	980.4338	442.6116	54.6392	17973.6820	30682.0380	33135.1860	18688.1030	49113.2380	107.4%
3	08:49:32	98.2%	159.3416	120.4%	63399.5190	22927.5600	8428.3693	75.0997	39893.8020	7482.4073	336.2732	1072.6820	482.8674	34.5880	17805.8650	30869.9490	33420.1760	19416.1980	49663.7210	106.4%
x		97.8%	139.9273	118.7%	62455.1650	22852.4460	8315.0445	62.7969	39685.4470	7503.2647	342.5545	1039.1912	476.9003	41.3349	17871.6430	30697.1240	33215.6230	18926.3990	49301.7250	106.7%
σ		0.7%	19.9291	1.7%	913.6695	82.8477	99.5635	23.9709	216.4497	71.2774	8.0337	51.0513	31.7288	11.5223	89.5919	165.7978	178.4894	422.4614	313.5868	0.6%
%RSD		0.7	14.2425	1.4	1.4629	0.3625	1.1974	38.1721	0.5454	0.9500	2.3452	4.9126	6.6531	27.8753	0.5013	0.5401	0.5374	2.2319	0.6361	0.6

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:49:04	166.4834	2660.4617	45.3337	347.8361	2336.0364	20231.1720	310585.2300	113.1%	113.2%	2821.1066	13238.6010
2	08:49:18	135.4545	2735.7492	58.5728	382.6622	2339.5754	20188.4580	312505.8800	116.3%	116.0%	2985.7076	11986.7540
3	08:49:32	151.7329	2744.2665	60.5241	312.4114	2342.0781	20718.3190	315691.0100	117.9%	118.7%	2893.9205	11408.5230
x		151.2236	2713.4925	54.8102	347.6366	2339.2300	20379.3160	312927.3700	115.7%	116.0%	2900.2449	12211.2930
σ		15.5208	46.1230	8.2647	35.1258	3.0356	294.3608	2578.8528	2.4%	2.8%	82.4825	935.4728
%RSD		10.2634	1.6998	15.0788	10.1042	0.1298	1.4444	0.8241	2.1	2.4	2.8440	7.6607

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SEQ1BL2

QJ14028-PS1@MH1G80A 10/19/2016 08:53:55

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	08:53:55	100.8%	179.4491	118.0%	26901.8380	22245.3760	6842.7066	71.0212	45230.3170	6481.5901	204.7470	441.3150	272.8896	-17.3184	23345.1160	40358.6510	44879.9500	25656.3170	65784.6710	107.9%
2	08:54:09	99.3%	159.6472	120.2%	26701.5380	22669.0490	6940.0236	54.3684	45254.1870	6464.0439	195.2631	471.9906	281.3548	-12.4054	23961.0180	40196.8880	44349.2500	25935.0000	66297.0250	106.3%
3	08:54:23	100.8%	106.8876	120.2%	27255.6090	22517.9480	6926.0029	87.1397	45582.1960	6580.9001	186.4366	447.2631	235.4143	25.7115	24383.8990	40944.6020	45339.9450	25923.7940	66335.1830	106.0%
x		100.3%	148.6613	119.4%	26952.9950	22477.4580	6902.9111	70.8431	45355.5670	6508.8447	195.4822	453.5229	263.2196	-1.3374	23896.6780	40500.0470	44856.3820	25838.3700	66138.9600	106.8%
σ		0.9%	37.5075	1.3%	280.5556	214.7195	52.6077	16.3864	196.6292	63.0155	9.1572	16.2676	24.4492	23.5535	522.3714	393.4004	495.7676	157.7624	307.4158	1.0%
%RSD		0.9	25.2301	1.1	1.0409	0.9553	0.7621	23.1305	0.4335	0.9682	4.6844	3.5869	9.2865	1761.1279	2.1860	0.9714	1.1052	0.6106	0.4648	0.9

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:53:55	338.9095	24670.3540	280.4163	3624.0479	5848.6302	51497.8270	63808.2000	114.5%	112.5%	2549.8877	118696.9400
2	08:54:09	413.9684	24444.2320	306.0187	4044.5105	5868.0129	52926.3940	64669.0020	114.9%	115.3%	2714.7807	117116.9000
3	08:54:23	414.7814	24199.5620	242.5147	3976.4835	5915.1428	52823.8120	64087.2760	118.1%	117.2%	2640.8782	119661.7500
x		389.2198	24438.0490	276.3166	3881.6806	5877.2620	52416.0110	64188.1590	115.9%	115.0%	2635.1822	118491.8600
σ		43.5719	235.4565	31.9499	225.6942	34.2073	796.8232	439.1791	2.0%	2.4%	82.5940	1284.7582
%RSD		11.1947	0.9635	11.5628	5.8143	0.5820	1.5202	0.6842	1.7	2.0	3.1343	1.0843

SEQ1BL3

6100104-[illegible]@2X 10/19/2016 08:57:55

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	08:57:55	99.2%	606.6911	109.0%	6669.9727	3475.4986	1159.9820	-15.1925	87104.9970	16429.8870	103.3621	116.5834	-28.9404	70.2713	4767.7911	7800.3053	8133.0602	4628.4470	12335.5770	107.3%
2	08:58:09	100.8%	559.9562	110.9%	6492.1209	3604.7575	1154.5993	-38.9427	87099.1700	16544.4020	109.4861	111.3144	32.0014	8.0489	4561.0326	7942.5733	8502.2032	4806.8238	12131.9940	107.4%
3	08:58:23	99.8%	529.3206	111.1%	6947.7380	3605.2973	1155.5305	-17.2733	88477.8510	16636.7560	87.2435	94.1655	39.1000	25.7139	4880.2355	7651.7044	8736.1579	4998.9851	12819.3640	108.1%
x		99.9%	565.3227	110.3%	6703.2772	3561.8512	1156.7039	-23.8028	87560.6730	16537.0150	100.0306	107.3544	14.0536	34.6780	4736.3531	7798.1943	8457.1404	4811.4186	12428.9780	107.6%
σ		0.8%	38.9634	1.2%	229.6272	74.7840	2.8768	13.1527	794.3054	103.6324	11.4894	11.7218	37.4027	32.0652	161.9070	145.4460	304.0636	185.3117	353.0750	0.4%
%RSD		0.8	6.8922	1.1	3.4256	2.0996	0.2487	55.2570	0.9071	0.6267	11.4859	10.9188	266.1424	92.4653	3.4184	1.8651	3.5953	3.8515	2.8407	0.4

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:57:55	1389.1209	8743.8237	788.2519	11525.6780	609.4926	3763.6948	127409.7600	121.8%	120.6%	1646.7019	112203.9100
2	08:58:09	1364.4946	8768.7904	752.3475	11451.4750	609.2005	3775.9733	128515.8000	124.7%	122.7%	1741.6776	116585.1200
3	08:58:23	1330.8281	8890.3220	767.2308	11870.9620	664.9240	3640.0707	129548.9600	127.0%	125.2%	1619.7758	115458.2000
x		1361.4812	8800.9787	769.2767	11616.0380	627.8724	3726.5796	128491.5100	124.5%	122.9%	1669.3851	114749.0800
σ		29.2630	78.3741	18.0394	223.8663	32.0880	75.1700	1069.8058	2.6%	2.3%	64.0383	2275.0605
%RSD		2.1494	0.8905	2.3450	1.9272	5.1106	2.0171	0.8326	2.1	1.9	3.8360	1.9826

SEQ1BL4

6100105-[illegible]@2X 10/19/2016 09:01:55

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	09:01:55	98.2%	723.1838	109.4%	6452.3178	5434.7444	2435.1013	-20.6962	121922.8900	20909.1480	84.4532	95.5482	20.5934	44.8452	2602.8904	3822.7180	4188.2106	2450.1211	6013.0730	107.7%
2	09:02:09	99.1%	788.1038	111.4%	6641.6248	5507.1268	2560.5888	-24.5391	121679.1800	21002.2800	110.7682	101.1831	28.4467	44.2478	2623.0641	3796.2529	3890.7981	2290.6030	6066.7085	106.2%
3	09:02:23	99.3%	741.9618	112.9%	6664.9849	5446.0143	2451.8222	-36.2235	122144.9900	21559.5860	75.1665	97.6119	2.1439	51.0364	2687.8962	3781.0059	4407.5469	2356.3695	6290.1302	107.7%
x		98.9%	751.0831	111.2%	6586.3092	5462.6285	2482.5041	-27.1530	121915.6800	21157.0050	90.1293	98.1144	17.0613	46.7098	2637.9502	3799.9922	4162.1852	2365.6979	6123.3039	107.2%
σ		0.6%	33.4073	1.8%	116.6263	38.9465	68.1382	8.0869	232.9901	351.7421	18.4671	2.8509	13.5024	3.7588	44.4150	21.1060	259.3556	80.1671	146.9437	0.9%
%RSD		0.6	4.4479	1.6	1.7707	0.7130	2.7447	29.7829	0.1911	1.6625	20.4895	2.9057	79.1407	8.0472	1.6837	0.5554	6.2312	3.3887	2.3997	0.8

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:01:55	1351.1844	19653.4430	900.4754	12957.4830	809.6112	4404.0914	140544.4200	121.4%	119.4%	2728.8807	97536.2850
2	09:02:09	1453.8066	19376.4920	843.3357	12571.7770	707.9839	4671.0589	142129.4100	124.8%	121.9%	2800.4807	98521.4840
3	09:02:23	1404.8706	19917.8550	918.6743	12503.7960	750.5555	4681.4887	144303.0100	125.6%	123.7%	2871.8523	97782.6230
x		1403.2672	19649.2630	887.4951	12677.6850	756.0502	4585.5463	142325.6200	124.0%	121.7%	2800.4045	97946.7970
σ		51.3294	270.7058	39.3108	244.6839	51.0360	157.2311	1886.9619	2.2%	2.1%	71.4856	512.7077
%RSD		3.6578	1.3777	4.4294	1.9300	6.7503	3.4288	1.3258	1.8	1.7	2.5527	0.5235

QJ14030-PS1@MH1H17A 10/19/2016 09:05:56

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	09:05:56	99.9%	246.9471	113.9%	40455.1820	14754.0920	5099.3979	64.9280	46188.5330	4288.6154	261.5687	458.2045	208.0842	78.8923	11774.6220	19160.2820	21572.1250	12222.6880	31313.6250	106.1%
2	09:06:09	100.1%	273.3864	115.1%	41572.6050	14690.7420	5123.0953	86.0451	47570.7800	4353.0278	256.2731	486.5276	193.7211	14.8124	11862.3990	20246.4920	21641.1620	12559.0850	32448.1600	107.0%
3	09:06:23	100.1%	250.6648	116.3%	41899.8370	14734.0530	5034.3155	89.4165	46377.4300	4400.7168	226.4846	432.0408	213.4103	40.7863	12083.0590	20560.1230	22192.9850	12628.3370	32506.5500	106.4%
x		100.0%	256.9994	115.1%	41309.2080	14726.2960	5085.6029	80.1299	46712.2470	4347.4533	248.1088	458.9243	205.0719	44.8303	11906.6930	19988.9660	21802.0910	12470.0370	32089.4450	106.5%
σ		0.1%	14.3128	1.2%	757.4900	32.3799	45.9695	13.2727	749.4856	56.2582	18.9134	27.2506	10.1844	32.2308	158.9178	734.5938	340.2799	216.9905	672.5139	0.5%
%RSD		0.1	5.5692	1.0	1.8337	0.2199	0.9039	16.5640	1.6045	1.2941	7.6230	5.9379	4.9662	71.8951	1.3347	3.6750	1.5608	1.7401	2.0957	0.4

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:05:56	296.6247	11395.5400	170.1184	2478.0463	1695.9473	34985.0280	89230.7480	119.2%	118.3%	3236.6231	28005.4230
2	09:06:09	343.3282	11685.3750	164.3874	2423.0387	1605.1968	35496.4010	90434.6540	122.0%	120.6%	3446.4072	31218.5440
3	09:06:23	410.7614	11488.8530	183.7386	2607.9753	1688.2768	35798.1700	89639.0890	124.7%	122.1%	3340.2351	31016.8550
x		350.2381	11523.2560	172.7481	2503.0201	1663.1403	35426.5330	89768.1640	122.0%	120.3%	3341.0885	30080.2740
σ		57.3812	147.9489	9.9400	94.9640	50.3269	411.0489	612.2443	2.8%	1.9%	104.8946	1799.7011
%RSD		16.3835	1.2839	5.7540	3.7940	3.0260	1.1603	0.6820	2.3	1.6	3.1395	5.9830

SEQ1BL5

6100107-[illegible]@2X 10/19/2016 09:09:57

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	09:09:57	99.4%	430.6488	114.9%	2661.4265	9484.8769	1809.9624	-10.2909	93562.3490	15803.2130	60.4616	89.5359	6.5860	40.8564	869.0441	597.6731	910.5410	525.2695	1019.7708	106.4%
2	09:10:11	100.7%	440.5790	116.1%	2586.3593	9722.7715	1787.5402	-3.1899	95238.1440	16334.9380	70.2167	78.4680	-18.8909	57.4778	791.2635	676.0412	919.1809	393.2949	1105.5681	105.8%
3	09:10:25	99.4%	478.1841	117.5%	2683.7322	9401.4161	1700.4316	-3.1613	95147.0730	16224.7690	95.7566	59.7125	27.5849	27.5469	686.7638	731.9104	880.7796	443.0413	1094.3317	108.9%
x		99.8%	449.8039	116.2%	2643.8393	9536.3548	1765.9781	-5.5474	94649.1890	16120.9730	75.4783	75.9054	5.0933	41.9604	782.3571	668.5416	903.5005	453.8686	1073.2235	107.0%
σ		0.8%	25.0744	1.3%	51.0133	166.7478	57.8614	4.1081	942.3318	280.6471	18.2263	15.0759	23.2738	14.9960	91.4660	67.4321	20.1455	66.6502	46.6311	1.6%
%RSD		0.8	5.5745	1.1	1.9295	1.7485	3.2765	74.0546	0.9956	1.7409	24.1477	19.8615	456.9450	35.7384	11.6911	10.0865	2.2297	14.6849	4.3450	1.5

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:09:57	458.1804	853.4355	155.5279	2614.8676	702.9774	874.1765	70516.9330	118.8%	117.1%	1199.6442	-1554.1976
2	09:10:11	432.7153	901.7012	183.9049	2727.0649	701.3135	1037.6863	73221.2540	121.3%	119.0%	1060.1840	-71.2057
3	09:10:25	537.4386	853.3286	202.0542	2757.9880	682.4063	870.2484	72605.9660	121.7%	121.6%	1162.0342	-1253.9825
x		476.1114	869.4884	180.4957	2699.9735	695.5657	927.3704	72114.7170	120.6%	119.2%	1140.6208	-959.7953
σ		54.6158	27.8971	23.4497	75.3082	11.4267	95.5566	1417.5091	1.6%	2.3%	72.1539	784.0445
%RSD		11.4712	3.2085	12.9919	2.7892	1.6428	10.3040	1.9656	1.3	1.9	6.3258	81.6887

[illegible]

SEQ-CCV@CCV02 10/19/2016 09:14:02 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo
1	09:14:16	99.5%	175113.8400	106.5%	488044.1500	401657.0300	546378.1400	4509.6068	r3150392.6000	658509.6400	5091.2417	16273.0170	7857.8474	-3.2726	1297837.9000	r2353921.3000	r2545617.0000
2	09:14:29	99.4%	172760.5200	108.0%	482954.9000	396668.9500	541257.6700	4952.5352	r3088807.0000	648391.3300	5108.3824	16372.9960	7761.4408	24.4040	1294499.2000	r2335989.9000	r2529295.9000
3	09:14:43	99.2%	176496.2000	105.9%	494325.7400	399938.3800	544391.7700	4703.8127	r3133937.3000	655078.5400	5069.0083	16343.7750	7713.4010	-62.8045	1316826.3000	r2370790.2000	r2561701.2000
x		99.4%	101.039%	106.8%	488441.6000	100.906%	101.086%	4721.9849	r100.694%	100.132%	5089.5441	102.007%	7777.5631	-13.8910	1303054.4000	r2353567.1000	r2545538.0000
σ		0.2%	n/a	1.1%	5695.8325	n/a	n/a	222.0227	r n/a	n/a	19.7418	n/a	73.5604	44.5634	12043.0130	r17402.8360	r16202.7820
%RSD		0.2	1.0806	1.0	1.1661	0.6344	0.4745	4.7019	r1.0206	0.7868	0.3879	0.3148	0.9458	320.8070	0.9242	r0.7394	r0.6365

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:14:16	51751.0570	332006.2400	38397.4670	590774.2900	2050882.3000	2060525.4000	706175.8100	115.0%	115.7%	r5033215.2000	-755.9304
2	09:14:29	51696.7040	334063.0800	39153.1030	595629.6300	r2014336.0000	2083591.6000	704688.4900	116.4%	117.3%	r5006869.6000	929.4098
3	09:14:43	52816.1470	340322.3700	40126.3780	598854.4800	2087997.3000	2125992.8000	709364.2400	117.7%	119.9%	r4969109.0000	1092.1589
x		52087.9690	101.751%	39225.6490	102.054%	r2051071.9000	106.013%	103.045%	116.4%	117.7%	r99.653%	421.8794
σ		631.2056	n/a	866.7356	n/a	r36831.0200	n/a	n/a	1.3%	2.1%	r n/a	1023.2540
%RSD		1.2118	1.2912	2.2096	0.6835	r1.7957	1.5888	0.3380	1.2	1.8	r0.6440	242.5466

SEQ-CCB@CCB02 10/19/2016 09:18:19 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	09:18:19	96.2%	45.9287	94.3%	28.5190	-40.3996	36.3915	20.6779	245.3423	35.5052	1.1301	-5.3163	-16.1458	9.6841	310.6157	633.2643	550.1416	343.1920	888.5418	99.5%
2	09:18:33	96.7%	41.8652	95.8%	37.1965	-45.7610	23.6901	22.4320	282.6463	-22.6180	-2.2216	-5.3270	-22.1682	19.2386	265.7428	520.6232	574.5158	403.9439	811.9601	99.8%
3	09:18:46	97.1%	47.9579	97.8%	44.8068	-12.9735	49.5719	20.3527	212.5691	-54.0447	1.0680	-2.0889	35.0875	-32.5247	259.9874	571.7331	474.6443	366.2393	905.6383	101.3%
x		96.7%	45.2506	96.0%	36.8408	-33.0447	36.5512	21.1542	246.8525	-13.7191	-0.0079	-4.2441	-1.0755	-1.2006	278.7819	575.2069	533.1006	371.1250	868.7134	100.2%
σ		0.4%	3.1024	1.7%	8.1498	17.5877	12.9416	1.1185	35.0630	45.4333	1.9174	1.8665	31.4625	27.5448	27.7186	56.4008	52.0709	30.6692	49.8877	1.0%
%RSD		0.4	6.8561	1.8	22.1216	53.2239	35.4069	5.2875	14.2040	331.1676	24359.9140	43.9783	2925.3655	2294.1710	9.9427	9.8053	9.7675	8.2639	5.7427	1.0

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:18:19	32.4637	29.6676	-1.1130	66.7224	316.3977	239.8903	107.2635	105.5%	106.1%	771.4830	2025.1661
2	09:18:33	10.8155	29.1183	5.4402	55.8719	304.0810	236.0002	95.9717	107.1%	109.1%	779.0913	417.0101
3	09:18:46	5.4644	28.4088	-1.1130	61.0417	306.3049	196.1557	93.9692	109.2%	108.5%	706.3469	3570.4199
x		16.2478	29.0649	1.0714	61.2120	308.9279	224.0154	99.0681	107.3%	107.9%	752.3071	2004.1987
σ		14.2959	0.6311	3.7835	5.4273	6.5639	24.2055	7.1677	1.8%	1.6%	39.9840	1576.8094
%RSD		87.9865	2.1713	353.1373	8.8663	2.1247	10.8053	7.2351	1.7	1.5	5.3149	78.6753

SEQ-CCV@CCV02 10/19/2016 09:14:02 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo
1	09:14:16	99.5%	175113.8400	106.5%	488044.1500	401657.0300	546378.1400	4509.6068	±3150392.6000	658509.6400	5091.2417	16273.0170	7857.8474	-3.2726	1297837.9000	±2353921.3000	±2545617.0000
2	09:14:29	99.4%	172760.5200	108.0%	482954.9000	396668.9500	541257.6700	4952.5352	±3088807.0000	648391.3300	5108.3824	16372.9960	7761.4408	24.4040	1294499.2000	±2335989.9000	±2529295.9000
3	09:14:43	99.2%	176496.2000	105.9%	494325.7400	399938.3800	544391.7700	4703.8127	±3133937.3000	655078.5400	5069.0083	16343.7750	7713.4010	-62.8045	1316826.3000	±2370790.2000	±2561701.2000
x		99.4%	101.039%	106.6%	488441.6000	100.906%	101.086%	4721.9849	±100.694%	100.132%	5089.5441	102.007%	7777.5631	-13.8910	1303054.4000	±2353567.1000	±2545538.0000
σ		0.2%	n/a	1.1%	5695.8325	n/a	n/a	222.0227	±n/a	n/a	19.7418	n/a	73.5604	44.5634	12043.0130	±17402.6360	±16202.7820
%RSD		0.2	1.0606	1.0	1.1661	0.6344	0.4745	4.7019	±1.0206	0.7866	0.3879	0.3148	0.9458	320.8070	0.9242	±0.7394	±0.6365

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:14:16	51751.0570	332006.2400	38397.4670	590774.2900	2050882.3000	2060525.4000	706175.8100	115.0%	115.7%	±5033215.2000	-755.9304
2	09:14:29	51696.7040	334063.0800	39153.1030	595629.6300	±2014336.0000	2083591.6000	704688.4900	116.4%	117.3%	±5006869.6000	929.4098
3	09:14:43	52816.1470	340322.3700	40126.3780	598854.4800	2087997.3000	2125992.8000	709364.2400	117.7%	119.9%	±4969109.0000	1092.1589
x		52087.9690	101.751%	39225.6490	102.054%	±2051071.9000	106.013%	103.045%	116.4%	117.7%	±99.653%	421.8794
σ		631.2056	n/a	866.7356	n/a	±36831.0200	n/a	n/a	1.3%	2.1%	±n/a	1023.2540
%RSD		1.2118	1.2912	2.2096	0.6835	±1.7957	1.5888	0.3380	1.2	1.8	±0.6440	242.5466

SEQ-CCB@CCB02 10/19/2016 09:18:19 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	94Mo	95Mo	96Mo	97Mo	98Mo	103Rh
1	09:18:19	96.2%	45.9287	94.3%	28.5190	-40.3996	36.3915	20.6779	245.3423	35.5052	1.1301	-5.3163	-16.1458	9.6841	310.6157	633.2643	550.1416	343.1920	888.5418	99.5%
2	09:18:33	96.7%	41.8652	95.8%	37.1965	-45.7610	23.6901	22.4320	282.6463	-22.6180	-2.2216	-5.3270	-22.1682	19.2386	265.7428	520.6232	574.5158	403.9439	811.9601	99.8%
3	09:18:46	97.1%	47.9579	97.8%	44.8068	-12.9735	49.5719	20.3527	212.5691	-54.0447	1.0680	-2.0889	35.0875	-32.5247	259.9874	571.7331	474.6443	366.2393	905.6383	101.3%
x		96.7%	45.2506	96.0%	36.8408	-33.0447	36.5512	21.1542	246.8525	-13.7191	-0.0079	-4.2441	-1.0755	-1.2006	278.7819	575.2069	533.1006	371.1250	858.7134	100.2%
σ		0.4%	3.1024	1.7%	8.1498	17.5877	12.9416	1.1185	35.0630	45.4333	1.9174	1.8665	31.4625	27.5448	27.7186	56.4008	52.0709	30.6692	49.8877	1.0%
%RSD		0.4	6.8561	1.8	22.1216	53.2239	35.4069	5.2875	14.2040	331.1676	24359.9140	43.9783	2925.3655	2294.1710	9.9427	9.8053	9.7675	8.2639	5.7427	1.0

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:18:19	32.4637	29.6676	-1.1130	66.7224	316.3977	239.8903	107.2635	105.5%	106.1%	771.4830	2025.1661
2	09:18:33	10.8155	29.1183	5.4402	55.8719	304.0810	236.0002	95.9717	107.1%	109.1%	779.0913	417.0101
3	09:18:46	5.4644	28.4088	-1.1130	61.0417	306.3049	196.1557	93.9692	109.2%	108.5%	706.3469	3570.4199
x		16.2478	29.0649	1.0714	61.2120	308.9279	224.0154	99.0681	107.3%	107.9%	752.3071	2004.1987
σ		14.2959	0.6311	3.7835	5.4273	6.5639	24.2055	7.1677	1.8%	1.6%	39.9840	1576.8094
%RSD		87.9865	2.1713	353.1373	8.8663	2.1247	10.8053	7.2351	1.7	1.5	5.3149	78.6753

BONNER ANALYTICAL TESTING COMPANY
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PREPARATION BENCH SHEET

QJ14030

Bonner Analytical Testing Co.

Matrix: Soil

Analysis: ISM023 - ICPMS (2658.0)

Prepared: 10/17/2016 11:50 using METALS - 200.8

Case: 46282

SDG: MH1H14

Work Order: 6100165

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100165-01	MH1H14	1	500				
6100165-02	MH1H15	1	500				
6100165-03	MH1H16	1	500				
6100165-04	MH1H17	1	500				
6100165-05	MH1H18	1	500				
6100165-06	MH1H19	1	500				
6100165-07	MH1H20	1	500				
6100165-08	MH1H21	1	500				
6100165-09	MH1H22	1	500				
6100165-10	MH1H23	1	500				
6100165-11	MH1H24	1	500				
6100165-12	MH1H25	1	500				
6100165-13	MH1H26	1	500				
6100165-14	MH1H27	1	500				
6100165-15	MH1H28	1	500				
6100165-16	MH1H29	1	500				
6100165-17	MH1H30	1	500				
6100165-18	MH1H31	1	500				
QJ14030-PS1	MH1H17A	1	500	B6J0152	500000		
QJ14030-MS1	MH1H17S	1	500	B6B0062	1000	B6H0062	1000
QJ14030-BS1	LCS01	1	500	B6A0009	1000	B6H0062	40
QJ14030-DUP1	MH1H17D	1	500				
QJ14030-BLK1	PBS01	1	500				

Table 1: Quality Controls (QC), Reagents (R) and Standards (Std)

LIMS ID	Description	Vendor	LotNum	Expiration
B3E0023	R - Distilled Water	In-House	NA	04/25/20
B6A0009	QC - BAT-11	Inorganic Ventures	J2-MEB613056	02/01/17
B6B0062	QC - CLP-MS-SPK-REV1	Inorganic Ventures	K2-MEB619110	09/10/17
B6D0003	R - Hydrochloric Acid - 1:4	In House	NA	09/28/18
B6H0062	Std - Molybdenum - 100ppm	Inorganic Ventures	H2-MO02073	02/10/17
B6H0063	R - Nitric Acid - 1:1	In House	NA	08/15/17
B6J0152	PS-MH1H17	In House	NA	02/10/17

Table 2: Metals Apparatus

Balance ID		Mettler IV	
Dig. Block ID		1	
Start Temp	Stop Temp	95.0	94.0
Start Time	Stop Time	1150	1220

Comments:

MSB2 ~~LEM~~ — 10/17/2016

Perpared By — Date

10/27/16

Preparation Reviewed By — Date 10/27/2016

PREPARATION BENCH SHEET

QJ14030

Bonner Analytical Testing Co.

Matrix: Soil
Analysis: ISM023 - ICPMS (2658.0)
Prepared: 10/17/2016 11:50 using METALS - 200.8

Case: 46282
SDG: MH1H14
Work Order: 6100165

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100165-01	MH1H14	1	500				
6100165-02	MH1H15	1	500				
6100165-03	MH1H16	1	500				
6100165-04	MH1H17	1	500				
6100165-05	MH1H18	1	500				
6100165-06	MH1H19	1	500				
6100165-07	MH1H20	1	500				
6100165-08	MH1H21	1	500				
6100165-09	MH1H22	1	500				
6100165-10	MH1H23	1	500				
6100165-11	MH1H24	1	500				
6100165-12	MH1H25	1	500				
6100165-13	MH1H26	1	500				
6100165-14	MH1H27	1	500				
6100165-15	MH1H28	1	500				
6100165-16	MH1H29	1	500				
6100165-17	MH1H30	1	500				
6100165-18	MH1H31	1	500				
QJ14030-PS1	MH1H17A	1	500	B6J0152	500000		
QJ14030-MS1	MH1H17S	1	500	B6B0062	1000	B6H0062	1000
QJ14030-BS1	LCS01	1	500	B6A0009	1000	B6H0062	40
QJ14030-DUP1	MH1H17D	1	500				
QJ14030-BLK1	PBS01	1	500				

Table 1: Quality Controls (QC), Reagents (R) and Standards (Std)

LIMS ID	Description	Vendor	LotNum	Expiration
B3E0023	R - Distilled Water	In-House	NA	04/25/20
B6A0009	QC - BAT-11	Inorganic Ventures	J2-MEB613056	02/01/17
B6B0062	QC - CLP-MS-SPK-REV1	Inorganic Ventures	K2-MEB619110	09/10/17
B6D0003	R - Hydrochloric Acid - 1:4	In House	NA	09/28/18
B6H0062	Std - Molybdenum - 100ppm	Inorganic Ventures	H2-MO02073	02/10/17
B6H0063	R - Nitric Acid - 1:1	In House	NA	08/15/17
B6J0152	PS-MH1H17	In House	NA	02/10/17

Table 2: Metals Apparatus

Balance ID		Mettler IV	
Dig. Block ID		1	
Start Temp	Stop Temp	95.0	94.0
Start Time	Stop Time	1150	1220

Comments:

MSB2 ~~LEM~~ 10/17/2016
Perpared By Date

Preparation Reviewed By 10/27/2016 Date

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICPMS01 **Case:** 46282 **FileID:** M101816B **Std. Prep Date:** 10/18/16
Analyst: LEM **SDG:** MH1H14 **Calibration ID:** B643023 **Std. Log Page No.:** 5

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
BJ62106-CAL1	S01	10/18/16 17:47	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CAL2	S02	10/18/16 17:51	B6A0044	B6G0072	1	MO
BJ62106-CAL3	S03	10/18/16 17:56	B6A0043	B6G0072	1	BA MO
BJ62106-CAL4	S04	10/18/16 18:00	B6A0042	B6G0072	1	AG BE CD CO CR MO NI SB SE TL V
BJ62106-CAL5	S05	10/18/16 18:04	B6A0041	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CAL6	S06	10/18/16 18:08	B6A0040	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CAL7	S07	10/18/16 18:11	B6A0039	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CAL8	S08	10/18/16 18:15	B6A0038	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-ICV1	ICV01	10/18/16 18:20	B6J0139	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-ICB1	ICB01	10/18/16 18:23	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-IFA1	ICSA01	10/18/16 18:27	B6A0093	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-IFB1	ICSAB01	10/18/16 18:31	B6A0095	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCV1	CCV01	10/18/16 18:35	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCB1	CCB01	10/18/16 18:39	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCV2	CCV02	10/18/16 19:10	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCB2	CCB02	10/18/16 19:14	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCV3	CCV03	10/18/16 19:45	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCB3	CCB03	10/18/16 19:49	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCV4	CCV04	10/18/16 20:06	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCB4	CCB04	10/18/16 20:10	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCV5	CCV05	10/18/16 21:08	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCB5	CCB05	10/18/16 21:12	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCV6	CCV06	10/18/16 22:50	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCB6	CCB06	10/18/16 22:54	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
QJ14030-BLK1	PBS01	10/18/16 22:58		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
QJ14030-BS1	LCS01	10/18/16 23:03		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-01	MH1H14	10/18/16 23:07		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-02	MH1H15	10/18/16 23:11		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-03	MH1H16	10/18/16 23:15		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-04	MH1H17	10/18/16 23:19		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
QJ14030-MS1	MH1H17S	10/18/16 23:23		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
QJ14030-DUP1	MH1H17D	10/18/16 23:27		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-SRD1	MH1H17L	10/18/16 23:31		B6G0072	5	AG BA BE CD CO CR MO NI SB SE TL V

Document Control IS: LIM-F-08; Revision 1.1; Effective 07/18/16 by MSB2

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICPMS01 **Case:** 46282 **FileID:** M101816B **Std. Prep Date:** 10/18/16

Analyst: LEM **SDG:** MH1H14 **Calibration ID:** B643023 **Std. Log Page No.:** 5

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
6100165-05	MH1H18	10/18/16 23:35		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-06	MH1H19	10/18/16 23:39		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-07	MH1H20	10/18/16 23:43		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-08	MH1H21	10/18/16 23:47		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-09	MH1H22	10/18/16 23:51		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-10	MH1H23	10/18/16 23:55		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCV7	CCV07	10/18/16 23:59	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCB7	CCB07	10/19/16 0:04	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-11	MH1H24	10/19/16 0:08		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-12	MH1H25	10/19/16 0:12		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-13	MH1H26	10/19/16 0:16		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-14	MH1H27	10/19/16 0:20		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-15	MH1H28	10/19/16 0:24		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-16	MH1H29	10/19/16 0:28		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-17	MH1H30	10/19/16 0:32		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100165-18	MH1H31	10/19/16 0:36		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-IBL1	ZZZZZZ	10/19/16 0:40		B6G0072	1	non-report
BJ62106-CCV8	CCV08	10/19/16 0:45	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62106-CCB8	CCB08	10/19/16 0:49	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V

File Name: M101816B SDG No.: MH1H14 Standards Prep Date: 10/18/16

Instrument: ICPMS01 Case No.: 46202 Standards Log Page No.: 5

Analyst: LEM

Lab ID	EPA Sample #	Date&Time	Elements circled for S0-S# were used throughout this run unless otherwised noted. ~~Al, As, Sb, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn~~
~~QJ14030-BS1~~	~~LCS01~~	~~10/18/16 23:03~~	
6100165-04	~~MH1H17~~	10/18/16 23:19	
~~QJ14030-MS1~~	~~MH1H17S~~	~~10/18/16 23:23~~	
BJ62107-TUN1	TUNE01	10/19/16 7:39	
BJ62107-CAL1	S01	10/19/16 7:51	
BJ62107-CAL4	S04	10/19/16 8:03	
BJ62107-CAL5	S05	10/19/16 8:07	
BJ62107-CAL6	S06	10/19/16 8:11	
BJ62107-CAL7	S07	10/19/16 8:15	
BJ62107-CAL8	S08	10/19/16 8:19	
BJ62107-ICV1	ICV01	10/19/16 8:23	
BJ62107-ICB1	ICB01	10/19/16 8:28	
BJ62107-IFA1	ICSA01	10/19/16 8:32	
BJ62107-IFB1	ICSAB01	10/19/16 8:36	
BJ62107-CCV1	CCV01	10/19/16 8:40	
BJ62107-CCB1	CCB01	10/19/16 8:45	
BJ62107-IBL1	ZZZZZZ	10/19/16 8:49	
BJ62107-IBL2	ZZZZZZ	10/19/16 8:53	
BJ62107-IBL3	ZZZZZZ	10/19/16 8:57	
BJ62107-IBL4	ZZZZZZ	10/19/16 9:01	
QJ14030-PS1	MH1H17A	10/19/16 9:05	
BJ62107-IBL5	ZZZZZZ	10/19/16 9:09	
BJ62107-CCV2	CCV02	10/19/16 9:14	
BJ62107-CCB2	CCB02	10/19/16 9:18	

QM10/21

Bonner Analytical Testing Company
Instrument: ICPMS01
Serial No: X0494

ISM02.3 Calibration & QC Preparation Log

Standards & QC for ICPMS01 MA 2658.0 Prepared On: 10/18/2016

Description	EPA ID	Amount Spiked	Volume Made	Manufacturer	Lot Number	Date Lot Expires	LIMS ID
Initial Calibration High - CAL8	S08	NA	100 mL	In House	NA	2 Weeks	B6A0038
BONNER-16		2.5 mL	Composite	Inorganic Ventures	K2-MEB624149	Apr-17	B6F0009
BAISM-MIX1		2.0 mL			J2-MEB613059	Feb-17	B6A0011
BONNER-1		0.25 mL			J2-MEB613058	Feb-17	B6A0010
Initial Calibration Mid - CAL7	S07	NA	50 mL	In House	NA	2 Weeks	B6A0039
CAL8		25 mL		Inorganic Ventures			B6A0038
Initial Calibration Mid - CAL6	S06	NA	50 mL	In House	NA	2 Weeks	B6A0040
CAL8		2.5 mL		Inorganic Ventures			B6A0038
Initial Calibration Mid - CAL5	S05	NA	50 mL	In House	NA	2 Weeks	B6A0041
CAL8		0.5 mL		Inorganic Ventures			B6A0038
Initial Calibration Low - CAL4	S04	NA	50 mL	In House	NA	2 Weeks	B6A0042
BAT- 11		0.05 mL		Inorganic Ventures	J2-MEB613056	Feb-17	B6A0009
Molybdenum - 1 PPM		0.5 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0092
Initial Calibration Low - CAL3	S03	NA	50 mL	In House	NA	2 Weeks	B6A0043
BAT- 11		0.025 mL		Inorganic Ventures	J2-MEB613056	Feb-17	B6A0009
Molybdenum - 1 PPM		0.2 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0092
Initial Calibration Low - CAL2	S02	NA	50 mL	In House	NA	2 Weeks	B6A0044
BAT- 11		0.01 mL		Inorganic Ventures	J2-MEB613056	Feb-17	B6A0009
Molybdenum - 1 PPM		0.1 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0092
Initial Calibration Low - CAL1	S01	NA	50 mL	In-House	NA	1 Year	B6I0135
Initial Calibration Blank	ICB						
Continuing Calibration Blank	CCB						
Initial Calibration Verification	ICV		50 mL	NA	NA	2 Weeks	B6A0064
ICV-1 (0307)		1.0 mL	Composite	EPA	ICV-1 (0307)	2 Weeks	B6J0139
Molybdenum - 10 PPM		0.05 mL		In House	From Mo-1000 mg/L Lot No. K2-MO02086	Oct-17	B6J0148
Interelement Check Standard A	ICSA	5.0 mL	50 mL	EPA	NA	2 Weeks	B4J0066
Interelement Check Standard AB	ICSAB		50 mL	EPA	ICSA-0803	2 Weeks	B4J0067
ICS PART A		5.0 mL	Composite	EPA	ICSB-0803	2 Weeks	B4J0066
ICS PART B		5.0 mL					B4J0067
Continuing Calibration Verificatic	CCV		50 mL	NA	NA	2 Weeks	B6A0045
Initial Calibration High - CAL8		25 mL	Composite	In-House	From S08		B6A0038
BONNER-1		0.2375 mL		Inorganic Ventures	J2-MEB613058	Feb-17	B6A0010
BAT-15		1.0 mL		Inorganic Ventures	K2-MEB650369	Jul-17	B6G0108
ISM TUNE	TUNE		50 mL	In-House	NA	2 Weeks	B6G0089
ISM Stock TUNE		0.5 mL				Jul-16	B6G0088
CLP-MS-SPK-REV1	Matrix Spike	1.0 mL	500 mL	Inorganic Ventures	K2-MEB619110	Sep-17	B6B0062
Molybdenum - 100 PPM		1.0 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0062
BAT-11	LCS	1.0 mL	500 mL	Inorganic Ventures	J2-MEB613056	Feb-17	B6A0009
Molybdenum - 100 PPM		0.04 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0062

* Dilutions of calibration standards, CCV, & ISM TUNE are made with the same acid water as the S0, ICB & CCB.
* Dilutions of ICV, ICSA, and ICSAB are made with 1% HNO3.
**Date Lot Expires reflects the date that the standard being used will expire.

Lauren Meadows Digitally signed by Lauren Meadows Reason: I am the author of this document Date: 2016.10.21 10:27:54-05'00'

Prepared By: _____ Analyst/Date

Maxwell S. Bonner Digitally signed by Maxwell S. Bonner Reason: I have reviewed this document Date: 2016.10.21 10:29:35-05'00'

Reviewed By: _____ Name/Date

Bonner Analytical Testing Company

TUNE PREPARATION LOG

200.8 Tune Standard

LIMS ID: B6G0073

Preparation Date: 7/18/2016 Prepared By: LEM

Reagents	Concentration (mg/L)	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	46.95 mL	BATCO	NA	NA	NA
Nitric Acid	Neat	0.5 mL	Fisher Scientific	1115060	12/1/2015	7/3/2017
Hydrochloric Acid	Neat	0.25 mL	Fisher Scientific	4115100	12/1/2015	11/16/2018
Beryllium	1000	0.5 mL	High Purity Standards	1525435	1/4/2016	6/29/2017
Cobalt	1000	0.5 mL	High Purity Standards	1519648	1/4/2016	6/29/2017
Indium (IS_Sc_In)	667	0.75 mL	BATCO	See Below	See Below	See Below
Lead	1000	0.5 mL	High Purity Standards	1528221	1/4/2016	6/29/2017
Magnesium	10000	0.05 mL	High Purity Standards	1510445	1/4/2016	6/29/2017

IS_Sc_In
LIMS ID: B6C0054

Reagents	Concentration (mg/L)	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	95 mL	BATCO	NA	NA	NA
Nitric Acid	Neat	5 mL	Fisher Scientific	1115060	12/1/2015	7/3/2017
Scandium(III) Ox	Neat	100 mg	Aldrich Chemistry	751863-10	1/27/2016	1/27/2019
Indium(III) Chlori	Neat	66.7 mg	Aldrich Chemistry	MKBS6036V	8/4/2015	8/4/2018

Balance ID: N/A

Instrument: ICPMS01

Final Volume: 50 mL

Concentration: 10 mg/L

Expiration Date: 12 Months After Preparation Date

Comments: Daily 200.8TS - 0.5 mL to 50 mL

Reviewed By: Maxwell S. Bonner Digitally signed by Maxwell S. Bonner Reason: I have reviewed this document Date: 2016.10.17 15:55:21-05'00'

Supervisor/Date

Bonner Analytical Testing Company

REAGENTS PREPARATION LOG

Acidified Water

LIMS ID: B6I0135

Preparation Date: 09/27/2016

Prepared By: LEM

Reagents	Concentration (mg/L)	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	19700	BATCO	NA	NA	NA
Nitric Acid	Neat	200 mL	Fisher Scientific	1116020	08/2016	02/2017
Hydrochloric Acid	Neat	100 mL	Fisher Scientific	4116040	09/2016	05/2019

Balance ID: N/A

Instrument: ICPMS01

Final Volume: 20 Liters

Concentration: 1% HNO_3 / 0.5% HCl

Used For: Preparation of Standards and Controls

Expiration Date: 12 Months After Preparation Date

Comments:

Reviewed By: Maxwell S. Bonner Digitally signed by Maxwell S. Bonner Reason: I have reviewed this document Date: 2016.10.17 15:56:08-05'00'

Supervisor/Date

Bonner Analytical Testing Company

REAGENTS PREPARATION LOG

ICP-MS Internal Standard

LIMS ID: B6G0072

Preparation Date: 7/18/2016 Prepared By: LEM

Reagents	Concentration (mg/L)	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	19780 mL	BATCO	NA	NA	NA
Nitric Acid	Neat	200 mL	Fisher Scientific	1115060	12/1/2015	7/3/2017
6020ISS	10	20 mL	Inorganic Ventures	J2-MEB562038	1/14/2016	3/29/2017
^{6}Lithium	1000	1.2 mL	Inorganic Ventures	J2-LI03018	4/8/2016	4/8/2017
IS_Sc_In	1000/667	0.3 mL	BATCO	See Below	See Below	See Below

IS_Sc_In

LIMS ID: B6C0054

Reagents	Concentration (mg/L)	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	95 mL	BATCO	NA	NA	NA
Nitric Acid	Neat	5 mL	Fisher Scientific	1115060	12/1/2015	7/3/2017
Scandium(III) Oxide	Neat	100 mg	Aldrich Chemistry	751863-10	1/27/2016	1/27/2019
Indium(III) Chloride	Neat	66.7 mg	Aldrich Chemistry	MKBS6036V	8/4/2015	8/4/2018

Balance ID: Mettler IV

Instrument: ICPMS01

Final Volume: 20 Liters

Concentration: B, Ho, Rh, Tb, Y @ 10 ug/L; ^{6}Li @ 70 ug/L; Sc @ 25 ug/L; In @ 20 ug/L

Expiration Date: 12 Months After Preparation Date

Comments: 5% HNO_3 should be warm when adding Sc & In.

Reviewed By: Maxwell S. Bonner Digitally signed by Maxwell S. Bonner Reason: I have reviewed this document Date: 2016.10.17 15:55:55-05'00'

Supervisor/Date

REAGENTS PREPARATION LOG

1% HNO_3

LIMS ID: B6G0132

Preparation Date: 07/29/2016

Prepared By: LEM

Reagents	Concentration (mg/L)	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	19800	BATCO	NA	NA	NA
Nitric Acid	Neat	200 mL	Fisher Scientific	1115060	12/1/2015	7/3/2017

Balance ID: N/A

Instrument: ICPMS01

Final Volume: 20 Liters

Concentration: 1% HNO_3

Used For: Preparation of Tunes, ICV, ICSA, ICSAB, Dilutions

Expiration Date: 12 Months After Preparation Date

Comments:

Reviewed By: Maxwell S. Bonner Digitally signed by Maxwell S. Bonner Reason: I have reviewed this document Date: 2016.10.17 15:56:33-05'00'

Supervisor/Date

Bonner Analytical Testing Company

ICP-MS ISM02.3 CLP Standard Concentration Page

Element	S02	S03	S04	S05	S06	S07	S08	S09	S10	ICV	LCS (ug/L)	LCS (mg/kg)	ICSA	ICSAB	CCV	MS (ug/L)	MS (mg/kg)	TUNE
Al	4	10	20	260	1300	13000	26000		125000	504	40		(100000)	(100000)	62500			
Ag	0.2	0.5	1	1.3	6.5	65	130			100	2	1	(0)	18	65	50	5	
As	0.2	0.5	1	10	50	500	1000			200	2	1	(0.1)	19	500	40	4	
B	0.5	1	2	12.5	62.5	625	1250			100					625			
Ba	2	5		10	50	500	1000	5000		99	20	10	(1.2)	22	2500	2000	200	
Be	0.2	0.5	1	10	50	500	1000			99	2	1	(0)	19	500	50	5	100
Ca	100	250	500	250	1250	12500	25000		125000	2005	1000		(100000)	(100000)	62500			
Cd	0.2	0.5	1	10	50	500	1000			99	2	1	(0.7)	20	500	50	5	
Co	0.2	0.5	1	10	50	500	1000			100	2	1	(1)	20	500	500	50	100
Cr	0.4	1	2	10	50	500	1000			98	4	2	21	40	500	200	20	
Cu	0.4	1	2	10	50	500	1000			98	4	2	8	25	500	250	25	
Fe	40	100	200	250	1250	12500	25000		125000	1016	400		(100000)	(100000)	62500			
Mg	100	250	500	250	1250	12500	25000		125000	1215	1000		(100000)	(100000)	62500			100
Mn	0.2	0.5	1	10	50	500	1000	5000		100	2	1	7	27	500	500	50	
Mo	0.5	1	2	25	125	1250	2500			100			2000	2000	1250			
Na	100	250	500	250	1250	12500	25000		125000	2019	1000		(100000)	(100000)	62500			
Ni	0.2	0.5	1	10	50	500	1000			101	2	1	6	24	500	500	50	
Pb	0.2	0.5	1	10	50	500	1000			200	2	1	4	25	500	20	2	100
K	100	250	500	250	1250	12500	25000		125000	2004	1000		(100000)	(100000)	62500			
Sb	0.4	1	2	10	50	500	1000			199	4	2	(1.5)	22	500	100	10	
Se	1	2.5	5	10	50	500	1000			206	10	5	(0.3)	19	500	100	10	
Sn	0.5	1	2	12.5	62.5	625	1250			100					625			
Sr	0.5	1	2	6.25	31.25	312.5	625			100					312.5			
Tl	0.2	0.5	1	10	50	500	1000			206	2	1	(0)	21	500	50	5	
U	0.2	0.5	1	2	10	100	200			50	2	NA	(0)	(0)	100	100	NA	
V	1	2.5	5	10	50	500	1000			100	10	5	(0.5)	19	500	500	50	
Zn	0.4	1	2	10	50	500	1000	5000		205	4	2	11	29	2500	500	50	

Units are in ug/L unless otherwise noted.

( ) Indicated analyte values that are less than the CRQL and the value is to be used as a set point for the ±CRQL acceptance criteria calculatio

In is also in the TUNE at 100 ug/L.

EPA SAMPLE NO.

MH1H14

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-01

% Solids: 58.9 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.10	J	10/18/2016	1154

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H15

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-02

% Solids: 75.1 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.042	J	10/18/2016	1156

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H16

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-03

% Solids: 51.8 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.21		10/18/2016	1159

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H17

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-04

% Solids: 68.9 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.12	J	10/18/2016	1201

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H18

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-05

% Solids: 69.7 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.037	J	10/18/2016	1209

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H19

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-06

% Solids: 58.8 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.095	J	10/18/2016	1212

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H20

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-07

% Solids: 80.7 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.038	J	10/18/2016	1214

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H21

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-08

% Solids: 84.1 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.032	J	10/18/2016	1222

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H22

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-09

% Solids: 78.6 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.061	J	10/18/2016	1224

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H23

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-10

% Solids: 89.9 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.056	J	10/18/2016	1227

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H24

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-11

% Solids: 74.6 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.016	J	10/18/2016	1229

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H25

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-12

% Solids: 84.9 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.012	J	10/18/2016	1232

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H26

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-13

% Solids: 78.6 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.013	J	10/18/2016	1234

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H27

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-14

% Solids: 89.8 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.012	J	10/18/2016	1237

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H28

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-15

% Solids: 63.8 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.0089	J	10/18/2016	1240

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H29

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-16

% Solids: 84.6 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.024	J	10/18/2016	1242

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H30

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-17

% Solids: 71.6 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.011	J	10/18/2016	1245

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H31

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Lab Sample ID: 6100165-18

% Solids: 86.5 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.027	J	10/18/2016	1247

NOTE: Hardness (total) is reported in mg/L

Comments:

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ62628H101816A Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury	4.0000	3.9	98		3.0000	3.1	104		3.1	104	

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ62628H101816A Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV03				ID: CCV04		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury					3.0000	3.1	103		3.1	103	

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ62628H101816A Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID:CCV05				ID:CCV06		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury					3.0000	3.1	105		3.2	105	

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ62628H101816A Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV07				ID:		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury					3.0000	3.2	105				

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: CVAA Preparation Batch: QJ14042

Run Batch: BJ62628H101816A Preparation Method: 7471B

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID: CCB03	Q	ID: PBS01	Q
Mercury	0.20	U	0.20	U	0.20	U	0.20	U	0.10	U

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: CVAA Preparation Batch: QJ14042

Run Batch: BJ62628H101816A Preparation Method: 7471B

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
	ID:	Q	ID: CCB04	Q	ID: CCB05	Q	ID: CCB06	Q	ID:	Q
Mercury			0.20	U	0.20	U	0.20	U		

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: CVAA Preparation Batch: QJ14042

Run Batch: BJ62628H101816A Preparation Method: 7471B

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID:	Q	ID: CCB07	Q	ID:	Q	ID:	Q	ID:	Q
Mercury			0.20	U						

NOTE: Hardness (total) is reported in mg/L

EPA SAMPLE NO.

MH1H17S

FORM 5A-IN
MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Matrix: Soil Analytical Method: CVAA

% Solids: 68.9

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Q	Sample Result (SR)	Q	Spike Added (SA)	%R	Q
Mercury	75-125	0.95		0.12	J	0.726	114	

EPA SAMPLE NO.

FORM 6-IN
DUPLICATES

MH1H17D

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.:46282 MA No.: SDG No.: MH1H14

Matrix: Soil Analytical Method: CVAA

% Solids: 68.9

Concentration Units (µg/L, mg/L, or mg/kg dry weight): mg/Kg

Analyte	Control Limit	Sample (S)	Q	Duplicate (D)	Q	RPD	Q
Mercury	0.15	0.12	J	0.16		25	

NOTE: Hardness (total) is reported in mg/L

FORM 9-IN
METHOD DETECTION LIMIT

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H14

Analytical Method: CVAA Instrument ID: CETAC01

Preparation Method: 7471B

Concentration Units (µg/L, µg, or mg/kg): mg/Kg

Analyte	Wavelength/Mass	MDL	Date Analyzed
Mercury	257.00 nm	0.0032	01/14/2016

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: CETAC01
Analytical Method: CVAA
Start Date: 10/18/2016
End Date: 10/18/2016
Run Batch: BJ62628H101816A

EPA Sample NO.	D/F	Time	Analytes																									
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN		
S01	1.0	0909															X											
S02	1.0	0911															X											
S03	1.0	0914															X											
S04	1.0	0917															X											
S05	1.0	0919															X											
S06	1.0	0922															X											
S07	1.0	0924															X											
ICV01	1.0	0927															X											
ICB01	1.0	0929															X											
CCV01	1.0	0932															X											
CCB01	1.0	0934															X											
CCV02	1.0	1005															X											
CCB02	1.0	1007															X											
CCV03	1.0	1035															X											
CCB03	1.0	1037															X											
CCV04	1.0	1105															X											
CCB04	1.0	1108															X											
CCV05	1.0	1138															X											
CCB05	1.0	1141															X											
PBS01	1.0	1151															X											
MH1H14	1.0	1154															X											
MH1H15	1.0	1156															X											
MH1H16	1.0	1159															X											
MH1H17	1.0	1201															X											
MH1H17S	1.0	1204															X											
MH1H17D	1.0	1206															X											
MH1H18	1.0	1209															X											
MH1H19	1.0	1212															X											
MH1H20	1.0	1214															X											
CCV06	1.0	1217															X											

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.:

SDG No.: MH1H14

Instrument ID: CETAC01

Analytical Method: CVAA

Start Date: 10/18/2016

End Date: 10/18/2016

Run Batch: BJ62628H101816A

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
CCB06	1.0	1219															X										
MH1H21	1.0	1222															X										
MH1H22	1.0	1224															X										
MH1H23	1.0	1227															X										
MH1H24	1.0	1229															X										
MH1H25	1.0	1232															X										
MH1H26	1.0	1234															X										
MH1H27	1.0	1237															X										
MH1H28	1.0	1240															X										
MH1H29	1.0	1242															X										
MH1H30	1.0	1245															X										
MH1H31	1.0	1247															X										
CCV07	1.0	1250															X										
CCB07	1.0	1252															X										

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: CETAC01
Start Date: 10/18/2016
Analytical method: CVAA
Run Batch: BJ62628H101816A

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	0.0	-0.012		0.10	0.085	15	0.20	0.19	7

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.:

SDG No.: MH1H14

Instrument ID: CETAC01

Start Date: 10/18/2016

Analytical method: CVAA

Run Batch: BJ62628H101816A

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	0.50	0.50	0	1.0	0.99	1	3.0	3.1	-3

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: CETAC01
Start Date: 10/18/2016
Analytical method: CVAA
Run Batch: BJ62628H101816A
Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	6.0	6.0	1						

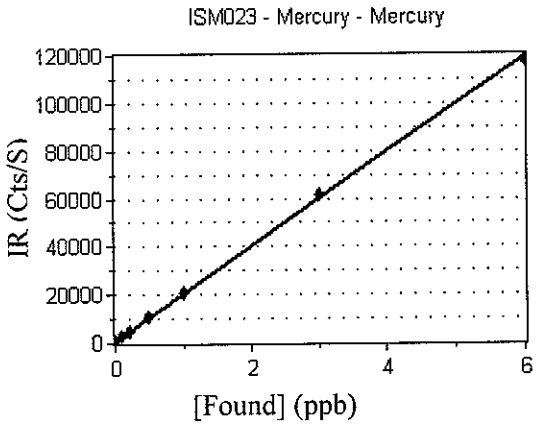
FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H14
Instrument ID: CETAC01
Start Date: 10/18/2016
Analytical method: CVAA
Run Batch: BJ62628H101816A

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Mercury	0.9996229	19695.21	0.0460771	Lin. Reg	None

Bonner Analytical Testing Company

Instrument ID: CETAC01 Calibration ID: B644061 Calibration Date: 10/18/2016 **368**



Calibration Plot: Mercury
Calibration Type: Linear Regression
Corr. Coeff.: 0.9996229
Fit: [Y] = 19695.21 * [X] + 907.4979
[y-intercept] = -0.05

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62628-CAL1	B6G0104	0	-0.01	665.8	0
BJ62628-CAL2	B6G0103	0.1	0.09	2586	15
BJ62628-CAL3	B6G0102	0.2	0.19	4579	7
BJ62628-CAL4	B6G0101	0.5	0.50	10710	0
BJ62628-CAL5	B6G0100	1	0.99	20500	1
BJ62628-CAL6	B6G0099	3	3.09	61820	-3
BJ62628-CAL7	B6G0098	6	5.96	118200	1

Bonner Analytical Testing Company

Report Generated By Teledyne Leeman QuickTrace
Analyst: caultman
Worksheet file: X:\2016\Worksheets\Hg 10-16 Worksheets\H101816A.wszf
Creation Date: 8/3/2016 10:18:10 AM
Comment:

Results

Sample Name		Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
SEQ-CAL1@S01		STD	10/18/16 09:09:25 am	0.0000	666	0.00	-12.37		N/A
Replicates	665.8								
SEQ-CAL2@S02		STD	10/18/16 09:11:57 am	0.1000	2586	0.00	-14.84		N/A
Replicates	2586.4								
SEQ-CAL3@S03		STD	10/18/16 09:14:28 am	0.2000	4579	0.00	-13.64		N/A
Replicates	4579.4								
SEQ-CAL4@S04		STD	10/18/16 09:17:00 am	0.5000	10714	0.00	-2.12		N/A
Replicates	10714.2								
SEQ-CAL5@S05		STD	10/18/16 09:19:33 am	1.0000	20498	0.00	-5.29		N/A
Replicates	20498.4								
SEQ-CAL6@S06		STD	10/18/16 09:22:05 am	3.0000	61821	0.00	93.02		N/A
Replicates	61821.1								
SEQ-CAL7@S07		STD	10/18/16 09:24:38 am	6.0000	118188	0.00	-44.75		N/A
Replicates	118188.0								
SEQ-ICV@ICV01		ICV	10/18/16 09:27:11 am	3.9250	78210	0.00			98.13
Replicates	78209.8								
SEQ-ICB@ICB01		ICB	10/18/16 09:29:42 am	-0.0267	384	0.00			N/A
Replicates	384.0								
SEQ-CCV@CCV01		CCV	10/18/16 09:32:15 am	3.1190	62331	0.00			103.96
Replicates	62331.0								
SEQ-CCB@CCB01		CCB	10/18/16 09:34:46 am	-0.0197	521	0.00			N/A
Replicates	521.0								
~~QJ14052-BLK1@PBS01~~		~~UNK~~	~~10/18/16 09:37:18 am~~	~~-0.0102~~	~~708~~	~~0.00~~			N/A
Replicates	707.7								
6100156-01@MH1G23		UNK	10/18/16 09:39:49 am	0.0182	1268	0.00			N/A
Replicates	1268.0								
6100156-02@MH1G24		UNK	10/18/16 09:42:20 am	0.1098	3071	0.00			N/A
Replicates	3070.7								
6100156-03@MH1G25		UNK	10/18/16 09:44:52 am	0.0554	2001	0.00			N/A
Replicates	2001.2								
~~6100156-04@MH1G26~~		~~UNK~~	~~10/18/16 09:47:23 am~~	~~0.2004~~	~~4855~~	~~0.00~~			N/A
Replicates	4855.2								

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual Flags	% Recovery
6100156-05@MH1G27	UNK	10/18/16 09:49:55 am	0.0324	1548	0.00		N/A
Replicates 1548.3							
6100156-06@MH1G28	UNK	10/18/16 09:52:28 am	0.0552	1996	0.00		N/A
Replicates 1995.8							
QJ14052-MS1@MH1G28S	UNK	10/18/16 09:55:00 am	2.6540	53177	0.00		N/A
Replicates 53176.9							
QJ14052-DUP1@MH1G28D	UNK	10/18/16 09:57:31 am	0.0494	1883	0.00		N/A
Replicates 1883.0							
6100156-07@MH1G29	UNK	10/18/16 10:00:02 am	0.0190	1283	0.00		N/A
Replicates 1282.8							
6100156-08@MH1G30	UNK	10/18/16 10:02:33 am	0.1419	3703	0.00		N/A
Replicates 3703.3							
SEQ-CCV@CCV1 102	UNK	10/18/16 10:05:06 am	3.1050	62048	0.00		N/A
Replicates 62047.9							
SEQ-CCB@CCB1 102	UNK	10/18/16 10:07:37 am	-0.0185	545	0.00		N/A
Replicates 545.5							
6100156-09@MH1G31	UNK	10/18/16 10:10:08 am	0.0398	1694	0.00		N/A
Replicates 1694.2							
6100156-10@MH1G32	UNK	10/18/16 10:12:40 am	0.1706	4269	0.00		N/A
Replicates 4269.1							
6100156-11@MH1G33	UNK	10/18/16 10:15:13 am	0.0148	1202	0.00		N/A
Replicates 1201.7							
6100156-12@MH1G34	UNK	10/18/16 10:17:45 am	0.0898	2679	0.00		N/A
Replicates 2678.7							
6100156-13@MH1G35	UNK	10/18/16 10:20:16 am	0.0231	1364	0.00		N/A
Replicates 1364.0							
6100156-14@MH1G36	UNK	10/18/16 10:22:47 am	0.1241	3354	0.00		N/A
Replicates 3354.1							
6100156-15@MH1G37	UNK	10/18/16 10:25:18 am	0.0071	1049	0.00		N/A
Replicates 1049.0							
6100156-16@MH1G38	UNK	10/18/16 10:27:50 am	0.2029	4905	0.00		N/A
Replicates 4904.8							
6100156-17@MH1G39	UNK	10/18/16 10:30:22 am	0.0264	1429	0.00		N/A
Replicates 1429.0							
6100156-18@MH1G40	UNK	10/18/16 10:32:54 am	0.0701	2290	0.00		N/A
Replicates 2290.2							
SEQ-CCV@CCV3 103	CCV	10/18/16 10:35:26 am	3.0760	61489	0.00		102.54
Replicates 61488.5							
SEQ-CCB@CCB3 103	CCB	10/18/16 10:37:57 am	-0.0187	540	0.00		N/A
Replicates 540.3							

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
QJ14047-BLK1@PBS01	UNK	10/18/16 10:40:29 am	-0.0097	719	0.00			N/A
Replicates 718.8								
6100170-01@MH1J05	UNK	10/18/16 10:43:00 am	0.1636	4131	0.00			N/A
Replicates 4130.6								
QJ14047-MS1@MH1J05S	UNK	10/18/16 10:45:32 am	2.7100	54282	0.00			N/A
Replicates 54281.6								
QJ14047-DUP1@MH1J05D	UNK	10/18/16 10:48:03 am	0.1537	3935	0.00			N/A
Replicates 3935.4								
6100170-02@MH1J06	UNK	10/18/16 10:50:35 am	0.1859	4570	0.00			N/A
Replicates 4569.6								
6100170-03@MH1J07	UNK	10/18/16 10:53:08 am	0.0544	1981	0.00			N/A
Replicates 1981.2								
6100170-04@MH1J08	UNK	10/18/16 10:55:40 am	0.1419	3703	0.00			N/A
Replicates 3703.5								
6100170-05@MH1J09	UNK	10/18/16 10:58:12 am	0.2740	6306	0.00			N/A
Replicates 6305.8								
6100170-06@MH1J10	UNK	10/18/16 11:00:43 am	0.0849	2581	0.00			N/A
Replicates 2581.0								
6100170-07@MH1J11	UNK	10/18/16 11:03:15 am	0.1831	4515	0.00			N/A
Replicates 4514.8								
SEQ-CCV@CCV104	CCV	10/18/16 11:05:47 am	3.1040	62028	0.00			103.45
Replicates 62027.7								
SEQ-CCB@CCB104	CCB	10/18/16 11:08:19 am	-0.0163	588	0.00			N/A
Replicates 587.9								
6100170-08@MH1J12	UNK	10/18/16 11:10:50 am	0.0386	1670	0.00			N/A
Replicates 1669.8								
6100170-09@MH1J13	UNK	10/18/16 11:13:22 am	0.2148	5140	0.00			N/A
Replicates 5140.3								
6100170-10@MH1J14	UNK	10/18/16 11:15:54 am	0.0979	2838	0.00			N/A
Replicates 2838.2								
6100170-11@MH1J15	UNK	10/18/16 11:18:27 am	0.3010	6837	0.00			N/A
Replicates 6836.8								
6100170-12@MH1J16	UNK	10/18/16 11:20:59 am	0.0683	2254	0.00			N/A
Replicates 2254.2								
6100170-13@MH1J17	UNK	10/18/16 11:23:31 am	0.2110	5065	0.00			N/A
Replicates 5064.5								
6100170-14@MH1J18	UNK	10/18/16 11:26:08 am	0.3369	7545	0.00			N/A
Replicates 7544.8								
6100170-15@MH1J19	UNK	10/18/16 11:28:35 am	0.5252	11251	0.00			N/A
Replicates 11251.5								

JM 10/26

JM 10/26

JM 10/27/2016

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
~~6100170-16@MH1J20~~	~~UNK~~	~~10/18/16 11:31:07 am~~	~~0.3516~~	~~7834~~	0.00			N/A
Replicates 7833.6								
6100170-17@MH1J21	~~UNK~~	~~10/18/16 11:33:39 am~~	0.5473	11687	0.00			N/A
Replicates 11687.4								
6100170-18@MH1J22	UNK	~~10/18/16 11:36:11 am~~	~~1.9430~~	~~39172~~	0.00			N/A
Replicates 39171.7								
SEQ-CCV@CCV5 105	CCV	10/18/16 11:38:44 am	3.1410	62764	0.00			104.70
Replicates 62764.2								
SEQ-CCB@CCB5 105	CCB	10/18/16 11:41:39 am	-0.0259	399	0.00			N/A
Replicates 399.0								
QJ14042-BLK1@PBS01	UNK	10/18/16 11:51:44 am	-0.0049	813	0.00			N/A
Replicates 813.0								
6100165-01@MH1H14	UNK	10/18/16 11:54:17 am	0.3085	6984	0.00			N/A
Replicates 6984.0								
6100165-02@MH1H15	UNK	10/18/16 11:56:49 am	0.1570	4002	0.00			N/A
Replicates 4001.5								
6100165-03@MH1H16	UNK	10/18/16 11:59:21 am	0.5474	11690	0.00			N/A
Replicates 11689.7								
6100165-04@MH1H17	UNK	10/18/16 12:01:54 pm	0.4269	9316	0.00			N/A
Replicates 9315.6								
QJ14042-MS1@MH1H17S	UNK	10/18/16 12:04:26 pm	3.2610	65122	0.00			N/A
Replicates 65122.2								
QJ14042-DUP1@MH1H17D	UNK	10/18/16 12:06:58 pm	0.5477	11695	0.00			N/A
Replicates 11694.6								
6100165-05@MH1H18	UNK	10/18/16 12:09:31 pm	0.1293	3455	0.00			N/A
Replicates 3455.1								
6100165-06@MH1H19	UNK	10/18/16 12:12:03 pm	0.2792	6409	0.00			N/A
Replicates 6408.6								
6100165-07@MH1H20	UNK	10/18/16 12:14:36 pm	0.1545	3951	0.00			N/A
Replicates 3951.5								
SEQ-CCV@CCV6 106	CCV	10/18/16 12:17:08 pm	3.1560	63061	0.00			105.20
Replicates 63061.4								
SEQ-CCB@CCB6 106	CCB	10/18/16 12:19:39 pm	-0.0158	597	0.00			N/A
Replicates 597.2								
6100165-08@MH1H21	UNK	10/18/16 12:22:12 pm	0.1344	3557	0.00			N/A
Replicates 3556.9								
6100165-09@MH1H22	UNK	10/18/16 12:24:45 pm	0.2405	5645	0.00			N/A
Replicates 5644.9								
6100165-10@MH1H23	UNK	10/18/16 12:27:17 pm	0.2495	5823	0.00			N/A
Replicates 5822.7								

Sample Name		Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
6100165-11@MH1H24		UNK	10/18/16 12:29:50 pm	0.0582	2055	0.00			N/A
Replicates	2055.0								
6100165-12@MH1H25		UNK	10/18/16 12:32:22 pm	0.0524	1942	0.00			N/A
Replicates	1942.3								
6100165-13@MH1H26		UNK	10/18/16 12:34:55 pm	0.0493	1879	0.00			N/A
Replicates	1879.4								
6100165-14@MH1H27		UNK	10/18/16 12:37:28 pm	0.0536	1964	0.00			N/A
Replicates	1964.2								
6100165-15@MH1H28		UNK	10/18/16 12:40:01 pm	0.0283	1466	0.00			N/A
Replicates	1465.6								
6100165-16@MH1H29		UNK	10/18/16 12:42:34 pm	0.1002	2883	0.00			N/A
Replicates	2882.6								
6100165-17@MH1H30		UNK	10/18/16 12:45:06 pm	0.0408	1712	0.00			N/A
Replicates	1712.1								
6100165-18@MH1H31		UNK	10/18/16 12:47:39 pm	0.1153	3179	0.00			N/A
Replicates	3179.3								
SEQ-CCV@CCV~~1~~07		CCV	10/18/16 12:50:12 pm	3.1540	63028	0.00			105.14
Replicates	63028.0								
SEQ-CCB@CCB~~1~~07		CCB	10/18/16 12:52:43 pm	-0.0157	600	0.00			N/A
Replicates	599.5								

JLL 10/27/2016

Notes

INSTRUMENT ID: CETAC01

PREPARATION BENCH SHEET

QJ14042

Bonner Analytical Testing Co.

Matrix: Soil
Analysis: ISM023 - Mercury
Prepared: 10/17/2016 14:00 using METALS - 7471B

Case: 46282
SDG: MH1H14
Work Order: 6100165

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100165-01	MH1H14	0.5	100				
6100165-02	MH1H15	0.5	100				
6100165-03	MH1H16	0.5	100				
6100165-04	MH1H17	0.5	100				
6100165-05	MH1H18	0.5	100				
6100165-06	MH1H19	0.5	100				
6100165-07	MH1H20	0.5	100				
6100165-08	MH1H21	0.5	100				
6100165-09	MH1H22	0.5	100				
6100165-10	MH1H23	0.5	100				
6100165-11	MH1H24	0.5	100				
6100165-12	MH1H25	0.5	100				
6100165-13	MH1H26	0.5	100				
6100165-14	MH1H27	0.5	100				
6100165-15	MH1H28	0.5	100				
6100165-16	MH1H29	0.5	100				
6100165-17	MH1H30	0.5	100				
6100165-18	MH1H31	0.5	100				
QJ14042-MS1	MH1H17S	0.5	100	B6G0097	2500		
QJ14042-DUP1	MH1H17D	0.5	100				
QJ14042-BLK1	PBS01	0.5	100				

Table 1: Quality Controls (QC), Reagents (R) and Standards (Std)

LIMS ID	Description	Vendor	LotNum
B3E0023	R - Distilled Water	In-House	NA
B6G0097	HG - Working Standard 100 PPB	In House	J2-HG02138
B6J0126	R - Sodium Chloride Hydroxylan	In-House	NA
B6J0127	R - Stannous Chloride	In House	010SC505
B6J0128	R - Potassium Permanganate	In House	NA
B6J0177	R - Aqua Regia	na	na

Table 2: Hg Digestion Apparatus

Balance ID		Mettler II					
Dig. Block ID		2					
Start Temp	Stop Temp	95.0	94.0				
Start Time	Stop Time	1400	1430				

Table 3: Hg Calibration Curve Procedure

EPA ID	Std. Discription	WATER		SOIL	
		Spike V. (uL)	F.V. (mL)	Spike V. (uL)	F.V. (mL)
S01/ICB/CCB	Cal Blank/ICB/CCB	0	50	0	100
S02	Cal Std 0.1 ppb	50	50	100	100
S03	Cal Std 0.2 ppb	100	50	200	100
S04	Cal Std 0.5 ppb	250	50	500	100
S05	Cal Std 1 ppb	500	50	1000	100
S06/CCV	Cal Std/CCV 3 ppb	1500	50	3000	100
S07	Cal Std 6 ppb	3000	50	6000	100
ICV	ICV 4.0 ppb	500	50	1000	100

These are the spike values used for Water and Soil calibration curves. These standards are associated to this batch only and were digested under the same conditions as the samples. See Matrix type to determine which spike volume (Spike V.) and final volume (F.V.) were used.

Comments:

PREPARATION BENCH SHEET

QJ14042

Bonner Analytical Testing Co.

Matrix: Soil
Analysis: QC
Prepared: 10/17/2016 14:00 using METALS - 7471B

Case:
SDG: MH1H14
Work Order: 6100165

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)

LEM 10/17/2016

Perpared By Date

Preparation Reviewed By 10/27/2016 Date

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: CETAC01 **Case:** 46282 **FileID:** H101816A **Std. Prep Date:** 10/17/16

Analyst: MSB2 **SDG:** MH1H14 **Calibration ID:** B644061 **Std. Log Page No.:** 38

Lab Number	EPA ID	Analyzed Date/Time	STD ID	DF	Elements list are used per QC/sample
BJ62628-CAL1	S01	10/18/16 9:09	B6G0104	1	HG
BJ62628-CAL2	S02	10/18/16 9:11	B6G0103	1	HG
BJ62628-CAL3	S03	10/18/16 9:14	B6G0102	1	HG
BJ62628-CAL4	S04	10/18/16 9:17	B6G0101	1	HG
BJ62628-CAL5	S05	10/18/16 9:19	B6G0100	1	HG
BJ62628-CAL6	S06	10/18/16 9:22	B6G0099	1	HG
BJ62628-CAL7	S07	10/18/16 9:24	B6G0098	1	HG
BJ62628-ICV1	ICV01	10/18/16 9:27	B6G0105	1	HG
BJ62628-ICB1	ICB01	10/18/16 9:29	B6G0104	1	HG
BJ62628-CCV1	CCV01	10/18/16 9:32	B6G0099	1	HG
BJ62628-CCB1	CCB01	10/18/16 9:34	B6G0104	1	HG
BJ62628-CCV2	CCV02	10/18/16 10:05	B6G0099	1	HG
BJ62628-CCB2	CCB02	10/18/16 10:07	B6G0104	1	HG
BJ62628-CCV3	CCV03	10/18/16 10:35	B6G0099	1	HG
BJ62628-CCB3	CCB03	10/18/16 10:37	B6G0104	1	HG
BJ62628-CCV4	CCV04	10/18/16 11:05	B6G0099	1	HG
BJ62628-CCB4	CCB04	10/18/16 11:08	B6G0104	1	HG
BJ62628-CCV5	CCV05	10/18/16 11:38	B6G0099	1	HG
BJ62628-CCB5	CCB05	10/18/16 11:41	B6G0104	1	HG
QJ14042-BLK1	PBS01	10/18/16 11:51		1	HG
6100165-01	MH1H14	10/18/16 11:54		1	HG
6100165-02	MH1H15	10/18/16 11:56		1	HG
6100165-03	MH1H16	10/18/16 11:59		1	HG
6100165-04	MH1H17	10/18/16 12:01		1	HG
QJ14042-MS1	MH1H17S	10/18/16 12:04		1	HG
QJ14042-DUP1	MH1H17D	10/18/16 12:06		1	HG
6100165-05	MH1H18	10/18/16 12:09		1	HG
6100165-06	MH1H19	10/18/16 12:12		1	HG
6100165-07	MH1H20	10/18/16 12:14		1	HG
BJ62628-CCV6	CCV06	10/18/16 12:17	B6G0099	1	HG
BJ62628-CCB6	CCB06	10/18/16 12:19	B6G0104	1	HG
6100165-08	MH1H21	10/18/16 12:22		1	HG
6100165-09	MH1H22	10/18/16 12:24		1	HG

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: CETAC01 **Case:** 46282 **FileID:** H101816A **Std. Prep Date:** 10/17/16

Analyst: MSB2 **SDG:** MH1H14 **Calibration ID:** B644061 **Std. Log Page No.:** 38

Lab Number	EPA ID	Analyzed Date/Time	STD ID	DF	Elements list are used per QC/sample
6100165-10	MH1H23	10/18/16 12:27		1	HG
6100165-11	MH1H24	10/18/16 12:29		1	HG
6100165-12	MH1H25	10/18/16 12:32		1	HG
6100165-13	MH1H26	10/18/16 12:34		1	HG
6100165-14	MH1H27	10/18/16 12:37		1	HG
6100165-15	MH1H28	10/18/16 12:40		1	HG
6100165-16	MH1H29	10/18/16 12:42		1	HG
6100165-17	MH1H30	10/18/16 12:45		1	HG
6100165-18	MH1H31	10/18/16 12:47		1	HG
BJ62628-CCV7	CCV07	10/18/16 12:50	B6G0099	1	HG
BJ62628-CCB7	CCB07	10/18/16 12:52	B6G0104	1	HG

Bonner Analytical Testing Company

ISM02.3 Hg Standard and Quality Control Log

Analyst: LEM Date: 10/17/16

Description	EPA ID	Amount Spiked	Volume Made	Vendor	Lot Number	Date Lot Expires	Final Conc.	LIMS ID
Mercury Working Standard	S-WS		50 mL	In House	NA	1 Day	100 ug/L	B6G0097
MSHG-10 PPM		0.5 mL		Inorganic Ventures	J2-HG02138	Jul-17		B6G0096
Initial Calibration High	S07		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	6.0 ug/L	B6G0098
Mercury Working Standard	S-WS	6.0 mL (Soil) 3.0 mL (Water)			From S-WS			B6G0097
Initial Calibration Mid/ Continuing Calibration Verification	S06/ CCV		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	3.0 ug/L	B6G0099
Mercury Working Standard	S-WS	3.0 mL (Soil) 1.5 mL (Water)			From S-WS			B6G0097
Initial Calibration Mid	S05		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	1.0 ug/L	B6G0100
Mercury Working Standard	S-WS	1.5 mL (Soil) 0.5 mL (Water)			From S-WS			B6G0097
Initial Calibration Low	S04		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	0.5 ug/L	B6G0101
Mercury Working Standard	S-WS	0.5 mL (Soil) 0.25 mL (Water)			From S-WS			B6G0097
Initial Calibration Low	S03		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	0.2 ug/L	B6G0102
Mercury Working Standard	S-WS	0.2 mL (Soil) 0.1 mL (Water)			From S-WS			B6G0097
Initial Calibration Low	S02		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	0.1 ug/L	B6G0103
Mercury Working Standard	S-WS	0.1 mL (Soil) 0.05 mL (Water)			From S-WS			B6G0097
Initial Calibration Blank	S01		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	NA	B6G0104
Initial Calibration Blank	ICB							
Continuing Calibration Blank	CCB							
Initial Calibration Verification	ICV		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	4.0 ug/L	B6G0105
ICV5 (0508)				USEPA (0508)	0508	NA		B6G0106
Matrix Spike	MS		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	1.0 ug/L	NA
Mercury Working Standard	S-WS	1.0 mL (Soil) 0.5 mL (Water)			From S-WS			B6G0097

Note: All standards and quality control are brought to final volume with the same water used for S01, ICB & CCB.

Bonner Analytical Testing Company

REAGENTS PREPARATION LOG

Potassium Permanganate Solution

Lims ID: BbJ0120

Preparation Date: 10/11/2016

Prepared By: LEM

Reagents	Concentration (mg/L)	Amount	Vendor	Lot Number	Received Date	Expiration Date
Distilled H_2O	Neat	1000 mL	BATCO	NA	NA	NA
Potassium Permanganate	Neat	50 g	FISHER	U96004	05/03/16	NA

Balance ID: MIV

Instrument: Cetac M-7600

Final Volume: 1 Liter

Concentration: 5%

Used For: Mercury Digestion

Expiration Date: 6 Months From Expiration Date

Reviewed By: [signature] 10/11/16

Supervisor/Date

Reagents Preparation Log

Stannous Chloride

LIMS ID: B6J0127

Preparation Date: 10/11/2016

Prepared By: LEM

Reagents	Concentration (mg/L)	Amount	Vendor	Lot Number	Date Received	Expiration Date
Distilled Water	Neat	900 mL	BATCO	NA	NA	NA
Stannous Chloride	Neat	100 g	BDH	01056505	06/09/16	11/2018
Hydrochloric Acid	Neat	100 mL	Fisher Scientific	4115100	02/10/16	11/16/2010

Balance ID: MIV

Instrument: CETAC01

Final Volume: 1 Liter

Concentration 10%

Used For: Mercury Analysis

Expiration Date: Six Months After Preparation Date

Reviewed By: 10/11/16

Supervisor/Date

REAGENTS PREPARATION LOG

Sodium Chloride Hydroxylamine Sulfate Solution

LIMS ID: B6J0126

Preparation Date: 10/11/2016

Prepared By: LEM

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled H2O	Neat	1000 mL	BATCO	NA	NA	NA
Hydroxylamine Sulfate	Neat	120g	ALFA AESAR	Z16A019	04/26/16	04/26/19
Sodium Chloride	Neat	120g	FISHER	140290	09/22/16	09/22/19

Balance ID: MIV

Instrument: Cetac M-7600

Final Volume: 1 Liter

Concentration: 24%

Used For: Mercury Digestion

Expiration Date: 6 months after preparation date

Comments: 120 g Hydroxylamine Sulfate and 120 g NaCl to 1 L of Distilled Water

Reviewed By: [signature] 10/11/16

Supervisor/Date

Analytical Standard Record

B6J0177

Description:	R - Aqua Regia	Expires:	04/24/2017
Standard Type:	Reagent	Prepared:	10/18/2016
Solvent:	na	Prepared By:	Nathan Price
Final Volume (mls):	100	Department:	METALS
Vials:	1	Last Edit:	10/26/2016 13:44 by LEM
Comments:	25 mL Nitric Acid (1115060) 75 mL Hydrochloric Acid (4115050)		

Analyte	Parent	CAS Number	Concentration	Units
				ug/mL

Reviewed By

Date

Mercury Weekly Digestion Block Temperature Verification

Date	08/08/16	08/08/16	08/16/16	08/16/16	08/30/16	08/30/16	9/7/16	9/7/16
Initials	LEM	LEM	LEM	LEM	LEM	LEM	MSB2	MSB2
	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer
Hg Digester 01	114.9	96.0	115.0	95.5	115.0	95.5	115.0	95.5
Hg Digester 02	115.0	95.0	115.0	96.0	NOT IN USE	NOT IN USE	115.0	96.0
Hg Digester 03	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE
Reviewed/Date:	[illegible]	8/11/16	[illegible]	8/18/16	[illegible]	8/30/16	[illegible]	9/20/16

Date	9/13/16	9/13/16	10/16/16	10/16/16				
Initials	MSB2	MSB2	LEM					
	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer
Hg Digester 01	115.0	96.0	95.0	95.3				
Hg Digester 02	115.0	95.4	96.0	96.2				
Hg Digester 03	NOT IN USE	NOT IN USE	NIU	NIU				
Reviewed/Date:	9/20/16	[illegible]	[illegible]	10/24/16				

If temperature does not agree with the certified thermometer than either recalibrate the digestion block or use the thermometer to regulate the digestion block and record the thermometer temperature on digestion logs.

A copy of this page must accompany each SDG digested during the week.

**Certification cannot exceed 1 year

Thermometer Serial No./ID: BAT-33

**Date of certification: 07/07/16

Percent Solids/Moisture

Analyst: CMB

Reviewer: [signature]

Batch ID: QJ18022
SDG: MH1H14
Case: 46282

Volume

INST

Oven
Wet Lab

Date In	Time In	Date Out	Date Out
10/17/16	18:45	10/18/16	13:05
Temp In (°C)	104	Temp Out (°C)	105

A	B	C	D	E	F	G	H
SampID	Client ID	Pan #	PAN Weight (g)	Pan + Sample (g)	Pan + Dry Sample (g)	Value % Solids	Value % Moisture
QJ18022-DUP1	MH1H17D	1	1.03	8.31	6.14	70.2	29.8
6100165-01	MH1H14	2	1.02	10.37	6.53	58.9	41.1
6100165-02	MH1H15	3	1.03	9.63	7.49	75.1	24.9
6100165-03	MH1H16	4	1.03	9.35	5.34	51.8	48.2
6100165-04	MH1H17	5	1.01	8.28	6.02	68.9	31.1
6100165-05	MH1H18	6	0.99	9.48	6.91	69.7	30.3
6100165-06	MH1H19	7	0.97	7.96	5.08	58.8	41.2
6100165-07	MH1H20	8	0.99	9.90	8.18	80.7	19.3
6100165-08	MH1H21	9	0.99	8.77	7.53	84.1	15.9
6100165-09	MH1H22	10	0.98	7.89	6.41	78.6	21.4
6100165-10	MH1H23	11	0.98	8.11	7.39	89.9	10.1
6100165-11	MH1H24	12	0.97	6.96	5.44	74.6	25.4
6100165-12	MH1H25	13	0.98	8.40	7.28	84.9	15.1
6100165-13	MH1H26	14	1.02	7.46	6.08	78.6	21.4
6100165-14	MH1H27	15	0.96	6.84	6.24	89.8	10.2
6100165-15	MH1H28	16	0.96	6.81	4.69	63.8	36.2
6100165-16	MH1H29	17	0.97	7.53	6.52	84.6	15.4
6100165-17	MH1H30	18	1.03	8.87	6.64	71.6	28.4
6100165-18	MH1H31	19	1.03	7.33	6.48	86.5	13.5

CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

ORIGIN ID:WHHA (303) 312-7726
SCOTT WALKER
TECHLAW
16194 WEST 45TH DRIVE

GOLDEN, CO 80403
UNITED STATES US

SHIP DATE: 12OCT16
ACTWGT: 50.00 LB
CAD: 102215893/INET3790
DIMS: 20x11x14 IN

BILL SENDER

TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2854 REF: 0307240202B1AA8M500A119
INV:
PO: DEPT:

544J3/FB42/14E9

FedEx Express

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THU - 13 OCT 10:30A
PRIORITY OVERNIGHT

4 of 10
MPS# 0263 7774 5569 7132
Mstr# 7774 5569 7187 0201

39402
MS-US MSY

XH HBGA

COPY
ORIGINAL IN CSF: MIHIF8
Signature: D. Ack

CUSTODY SEAL
DATE 10/12/16
SIGNATURE
QEC Quality Environmental Containers
800-255-3950 • 304-255-3900

CUSTODY SEAL
DATE 10/12/16
SIGNATURE
QEC Quality Environmental Containers
800-255-3950 • 304-255-3900

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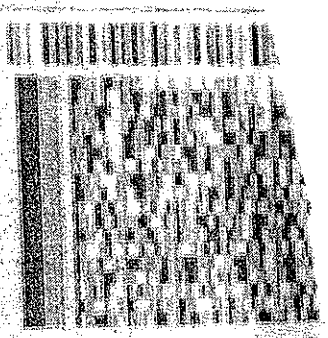

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Signature: P. Hd

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Quality Environmental Containers
800-255-3950 • 304-255-3800
DATE 10/12/16
SIGNATURE

CUSTODY SEAL QEC
800-255-3950
DATE 10/12/16
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CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

ORIGIN ID:WHHA (303) 312-7726
SCOTT WALKER
TECHLAW
16194 WEST 45TH DRIVE

GOLDEN, CO 80403
UNITED STATES US

SHIP DATE: 12OCT16
ACTWGT: 50.0 LB
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BILL SENDER

TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2854 REF: 0307240202B1AA8M500A119
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CUSTODY SEAL
DATE 10/13/16
SIGNATURE
Quality Environmental Containers
800-255-3955 · 304-255-3800

CUSTODY SEAL
DATE 10/13/16
SIGNATURE
Quality Environmental Containers
800-255-3955 · 304-255-3800

COPY
ORIGINAL IN CSF: MHIF86
Signature: P. Adk

ORIGIN ID:WHHA (303) 312-7726
SCOTT WALKER
TECHLAW
16194 WEST 45TH DRIVE

GOLDEN, CO 80403
UNITED STATES US

SHIP DATE: 12OCT16
ACTWGT: 25.00 LB
CAD: 102215893/INET3790
DIMS: 15x11x14 IN

BILL SENDER

TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2854 REF: 0307240202B1AA8M500A119
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DATE 10/12/16
SIGNATURE

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DATE 10/12/16
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Signature: P. Ack

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SCOTT WALKER
TECHLAW
16194 WEST 45TH DRIVE

GOLDEN, CO 80403
UNITED STATES US

SHIP DATE: 12OCT16
ACTWGT: 25.00 LB
CAD: 102215893/INET3790
DIMS: 15x11x14 IN

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TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2854
REF: 03072402028 1AA8M500A119
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DATE 10/12/16
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GOLDEN, CO 80403
UNITED STATES US

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TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

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(601) 264-2854 REF: 030724020281A4
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CUSTODY SEAL QEC
Quality Environmental Containers
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DATE 10/12/16
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ORIGINAL IN CSF MH1F86
Signature: P. Ash

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ORIGIN ID:WHHA (303) 312-7726
SCOTT WALKER
TECHLAW
16194 WEST 45TH DRIVE

GOLDEN, CO 80403
UNITED STATES US

SHIP DATE: 12OCT16
ACTWGT: 50.00 LB
CAD: 102215893/INET3790
DIMS: 20x11x14 IN

BILL SENDER

TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2654 REF: 0307240202B1AA8M500A119
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DATE 10/12/16
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QEC Quality Environmental Containers
800-255-3950 • 304-255-3900

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Signature: P. Ach

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SCOTT WALKER
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16194 WEST 45TH DRIVE

GOLDEN, CO 80403
UNITED STATES US

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BILL SENDER

TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
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CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/12/16
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Signature: P. Ach

CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/12/16
SIGNATURE

SHIP DATE: 13OCT16
BILL SENDER

TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2654

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PRIORITY OVERNIGHT

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CUSTODY SEAL
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DATE 10/13
Quality Environmental Containers
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CUSTODY SEAL
SIGNATURE
DATE 10/13
Quality Environmental Containers
800-255-3900 · 504-255-3900

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ORIGINAL IN CSR MH1F88
Signature: D. Aik

10-13-16
0855
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Bonner Analytical Testing Company

SAMPLE RECEIPT FORM

285

Client: CLP

Date: 10-13-16

Sample Type: Grab Composite

SDG#: MHIH14

Case#: 46282

Matrix: SW (stormwater) GW (groundwater) WW (wastewater) DW (drinkingwater) SL (sludge)

SO (soil) AS (asbestos) PE (petroleum) other

1) Does this project fall under NPDES, RCRA, CLP, Litigation or other EPA guidelines?	NA	YES	NO
2) Did Cooler come with airbill/sticker? Circle carrier: UPS, FedEx, other:	NA	YES	NO
If YES, enter airbill number here: See below			
3) Are custody seals intact? Custody Seal#: N/A Custody Seal#: N/A	NA	YES	NO
4) Are all bottles sealed in separate plastic bags?	NA	YES	NO
5) Are samples requiring no headspace, headspace free?	NA	YES	NO
6) Packing Material: Bubblewrap, peanuts, vermiculite, ice, other:		YES	NO
7) Are chains of custody filled out properly? (ink, signed, dates, QC listed, etc.)		YES	NO
8) Are all bottle labels complete and agree with COC? (ID, time, date, preservation)		YES	NO
9) Were all bottles received intact?		YES	NO
10) Were correct containers used for the tests indicated? Who's: BATCO/Client		YES	NO
11) Was a sufficient aliquot of sample sent for tests indicated?		YES	NO
12) Are samples within holding times for requested analysis?		YES	NO
13) Sample Preservation?			
A) If samples were collected within 6 hours of receipt, has chilling begun?	NA	YES	NO
B) If samples were received beyond 6 hours of collection:			
1) Is there a temperature blank?	NA	YES	NO
2) Temperature 0°C All Coolers			
C) Were correct preservatives added to sample/s?	NA	YES	NO

14) Describe "NO" items for the above if # 1) response is NA or YES

No temp blanks 7774 5569 7187 / 7774 5569 6905 / 7774 5569 7132
7774 5569 7235 / 7774 5569 7740 / 7774 5569 7739 / 7774 5569 7522
7774 5569 7420 / 7774 5569 6548 / 7774 5569 7338

15) Is there a Corrective Action and/or Client Contact form attached? YES NO

Signature: P. Aik

COPY

ORIGINAL IN CSF: MHIF86

Signature: P. Aik

Rev No: 1.4

Date: 07/15/05

WORK ORDER

6100165

Bonner Analytical Testing Co.

Client: Environmental Protection Agency, Region 8
Case: 46282 SDG: MH1H14

Report To:
Environmental Protection Agency, Region 8
Don Goodrich
1595 Wynkoop Street
Denver, CO 80202-1129
Phone: (303)-312-6687
Fax: (303) 312-7517

Date Due: 11/03/2016 16:00 (15 day TAT)

Cooler ID: Cooler-132	**Temp Received: 0.0°C**	**Airbill No.: 777455697132**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-187	**Temp Received: 0.0°C**	**Airbill No.: 777455697187**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-235	**Temp Received: 0.0°C**	**Airbill No.: 777455697235**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-338	**Temp Received: 0.0°C**	**Airbill No.: 777455697338**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-420	**Temp Received: 0.0°C**	**Airbill No.: 777455697420**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-522	**Temp Received: 0.0°C**	**Airbill No.: 777455697522**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-548	**Temp Received: 0.0°C**	**Airbill No.: 777455696548**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-739	**Temp Received: 0.0°C**	**Airbill No.: 777455697739**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-905	**Temp Received: 0.0°C**	**Airbill No.: 777455696905**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**

LAB ID	EPA ID	Matrix	Sampled Date/Time	Received Date/Time	Cooler ID	QC Source
6100165-01	**MH1H14**	**[Soil]**	**09/30/2016 16:20**	**10/13/2016 08:55**	**Cooler-338**	

Analysis: ISM023 - ICPAES (1-4)
Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight

6100165-02	**MH1H15**	**[Soil]**	**09/30/2016 16:20**	**10/13/2016 08:55**	**Cooler-235**

Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight
Analysis: ISM023 - ICPAES (1-4)

6100165-03	**MH1H16**	**[Soil]**	**09/30/2016 14:00**	**10/13/2016 08:55**	**Cooler-338**

Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - ICPAES (1-4)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight

WORK ORDER

6100165

Bonner Analytical Testing Co.

Client: Environmental Protection Agency, Region 8
Case: 46282 SDG: MH1H14

LAB ID	EPA ID	Matrix	Sampled Date/Time	Received Date/Time	Cooler ID	QC Source
6100165-04	MH1H17	[Soil]	09/30/2016 14:00	10/13/2016 08:55	Cooler-420	QC
Analysis: ISM023 - ICPAES (1-4) Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: Solids, Dry Weight						
6100165-05	MH1H18	[Soil]	09/27/2016 11:10	10/13/2016 08:55	Cooler-905	
Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: ISM023 - ICPAES (1-4) Analysis: Solids, Dry Weight						
6100165-06	MH1H19	[Soil]	09/27/2016 11:10	10/13/2016 08:55	Cooler-522	
Analysis: ISM023 - ICPAES (1-4) Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: Solids, Dry Weight						
6100165-07	MH1H20	[Soil]	09/29/2016 16:05	10/13/2016 08:55	Cooler-187	
Analysis: ISM023 - Mercury Analysis: ISM023 - ICPAES (1-4) Analysis: Solids, Dry Weight Analysis: ISM023 - ICPMS (2658.0)						
6100165-08	MH1H21	[Soil]	09/29/2016 16:05	10/13/2016 08:55	Cooler-187	
Analysis: Solids, Dry Weight Analysis: ISM023 - Mercury Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - ICPAES (1-4)						
6100165-09	MH1H22	[Soil]	09/29/2016 15:00	10/13/2016 08:55	Cooler-739	
Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - ICPAES (1-4) Analysis: ISM023 - Mercury Analysis: Solids, Dry Weight						
6100165-10	MH1H23	[Soil]	09/29/2016 15:00	10/13/2016 08:55	Cooler-905	
Analysis: Solids, Dry Weight Analysis: ISM023 - ICPAES (1-4) Analysis: ISM023 - Mercury Analysis: ISM023 - ICPMS (2658.0)						
6100165-11	MH1H24	[Soil]	09/29/2016 11:50	10/13/2016 08:55	Cooler-132	
Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: Solids, Dry Weight Analysis: ISM023 - ICPAES (1-4)						

WORK ORDER

6100165

Bonner Analytical Testing Co.

Client: Environmental Protection Agency, Region 8
Case: 46282 SDG: MH1H14

LAB ID	EPA ID	Matrix	Sampled Date/Time	Received Date/Time	Cooler ID	QC Source
6100165-12	MH1H25	[Soil]	09/29/2016 11:50	10/13/2016 08:55	Cooler-905	
Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: Solids, Dry Weight Analysis: ISM023 - ICPAES (1-4)						
6100165-13	MH1H26	[Soil]	09/29/2016 09:35	10/13/2016 08:55	Cooler-548	
Analysis: Solids, Dry Weight Analysis: ISM023 - Mercury Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - ICPAES (1-4)						
6100165-14	MH1H27	[Soil]	09/29/2016 09:35	10/13/2016 08:55	Cooler-905	
Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: ISM023 - ICPAES (1-4) Analysis: Solids, Dry Weight						
6100165-15	MH1H28	[Soil]	09/29/2016 10:30	10/13/2016 08:55	Cooler-548	
Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - ICPAES (1-4) Analysis: Solids, Dry Weight Analysis: ISM023 - Mercury						
6100165-16	MH1H29	[Soil]	09/29/2016 10:30	10/13/2016 08:55	Cooler-905	
Analysis: ISM023 - ICPAES (1-4) Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: Solids, Dry Weight						
6100165-17	MH1H30	[Soil]	09/29/2016 11:10	10/13/2016 08:55	Cooler-905	
Analysis: ISM023 - Mercury Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - ICPAES (1-4) Analysis: Solids, Dry Weight						
6100165-18	MH1H31	[Soil]	09/29/2016 11:10	10/13/2016 08:55	Cooler-338	
Analysis: ISM023 - ICPMS (2658.0) Analysis: Solids, Dry Weight Analysis: ISM023 - ICPAES (1-4) Analysis: ISM023 - Mercury						

Reviewed By

10-14-16
Date

Bonner Analytical Testing Co.
In-House Chain of Custody
for Samples

SDG Number: MH1H14 **Case No.:** 46282

Work Order No.: 6100165

1) MH1H14	7) MH1H20	13) MH1H26	19)
2) MH1H15	8) MH1H21	14) MH1H27	20)
3) MH1H16	9) MH1H22	15) MH1H28	21)
4) MH1H17	10) MH1H23	16) MH1H29	22)
5) MH1H18	11) MH1H24	17) MH1H30	23)
6) MH1H19	12) MH1H25	18) MH1H31	24)

Sample to be used for QC: MH1H17

Name: P. Ack	Signature:	P. Ack	Date &Time:	10-13-16	1516	Purpose:	S
Name: Nathan Price	Signature:	Nathan Price	Date &Time:	10-17-16	0900	Purpose:	W
Name: Brandon Johnson	Signature:	Brandon Johnson	Date &Time:	10-17-16	9:00	Purpose:	W
Name: Brandon Johnson	Signature:	Brandon Johnson	Date &Time:	10-17-16	1030	Purpose:	S
Name:	Signature:		Date &Time:			Purpose:	
Name:	Signature:		Date &Time:			Purpose:	
Name:	Signature:		Date &Time:			Purpose:	
Name:	Signature:		Date &Time:			Purpose:	
Name:	Signature:		Date &Time:			Purpose:	
Name:	Signature:		Date &Time:			Purpose:	
Name:	Signature:		Date &Time:			Purpose:	
Name:	Signature:		Date &Time:			Purpose:	
Name:	Signature:		Date &Time:			Purpose:	
Name:	Signature:		Date &Time:			Purpose:	
Name:	Signature:		Date &Time:			Purpose:	

Purpose: S - Storage; A - Analyze; DP - Disposal; D - Digest; W - Weigh; P-Pour; T-TCLP;

Bonner Analytical Testing Co.
Digestate Chain of Custody
for Samples

SDG Number: MH1H14 **Case No.:** 46282

Work Order No.: 6100165 **Fraction:** AES

1) MH1H14	7) MH1H20	13) MH1H26	19)
2) MH1H15	8) MH1H21	14) MH1H27	20)
3) MH1H16	9) MH1H22	15) MH1H28	21)
4) MH1H17	10) MH1H23	16) MH1H29	22)
5) MH1H18	11) MH1H24	17) MH1H30	23)
6) MH1H19	12) MH1H25	18) MH1H31	24)

Sample to be used for QC: MH1H17

Name: [illegible]	Signature: [illegible]	Date &Time: 10/18/16 1:13	Purpose: [illegible] 10/17
Name: Nathan Price	Signature:	Date &Time: 10/17/16	Purpose: W
Name: Nathan Price	Signature:	Date &Time: 10/17/16	Purpose: S
Name: [illegible]	Signature: [illegible]	Date &Time: 10/17/16 1130	Purpose: D
Name: [illegible]	Signature: [illegible]	Date &Time: 10/17/16 1930	Purpose: S/A
Name: [illegible]	Signature: [illegible]	Date &Time: 10/18/16 ~~2145~~ 1200	Purpose: S
Name:	Signature:	Date &Time:	Purpose:
Name:	Signature:	Date &Time:	Purpose:
Name:	Signature:	Date &Time:	Purpose:
Name:	Signature:	Date &Time:	Purpose:
Name:	Signature:	Date &Time:	Purpose:
Name:	Signature:	Date &Time:	Purpose:
Name:	Signature:	Date &Time:	Purpose:
Name:	Signature:	Date &Time:	Purpose:
Name:	Signature:	Date &Time:	Purpose:

Purpose: S - Storage; A - Analyze; DP - Disposal; D - Digest; W - Weigh; P-Pour; T-TCLP;

Bonner Analytical Testing Co.
Digestate Chain of Custody
for Samples

SDG Number: MH1H14 **Case No.:** 46282

Work Order No.: 6100165 **Fraction:** _____

1) MH1H14	7) MH1H20	13) MH1H26	19)
2) MH1H15	8) MH1H21	14) MH1H27	20)
3) MH1H16	9) MH1H22	15) MH1H28	21)
4) MH1H17	10) MH1H23	16) MH1H29	22)
5) MH1H18	11) MH1H24	17) MH1H30	23)
6) MH1H19	12) MH1H25	18) MH1H31	24)

Sample to be used for QC: MH1H17

Name: Nathan Price	Signature: Nathan Price	Date &Time: 10/17/16	0900	Purpose: W
Name: Nathan Price	Signature: Nathan Price	Date &Time: 10/17/16	1030	Purpose: S
Name: [illegible]	Signature: [illegible]	Date &Time: 10/17/16	1150	Purpose: D
Name: M. B	Signature: [illegible]	Date &Time: 10/17/16	1310	Purpose: S
Name: L MEADOWS	Signature: [illegible]	Date &Time: 10/18/16	1200	Purpose: A
Name: L MEADOWS	Signature: [illegible]	Date &Time: 10/19/16	1200	Purpose: A
Name: L MEADOWS	Signature: [illegible]	Date &Time: 10/20/16	1200	Purpose: S
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:

Purpose: S - Storage; A - Analyze; DP - Disposal; D - Digest; W - Weigh; P-Pour; T-TCLP;

Bonner Analytical Testing Co.
Digestate Chain of Custody
for Samples

SDG Number: MH1H14 **Case No.:** 46282

Work Order No.: 6100165 **Fraction:** _____

1) MH1H14	7) MH1H20	13) MH1H26	19)
2) MH1H15	8) MH1H21	14) MH1H27	20)
3) MH1H16	9) MH1H22	15) MH1H28	21)
4) MH1H17	10) MH1H23	16) MH1H29	22)
5) MH1H18	11) MH1H24	17) MH1H30	23)
6) MH1H19	12) MH1H25	18) MH1H31	24)

Sample to be used for QC: MH1H17

Name:	Brandon Johnson	Signature:	Brandon Johnson	Date &Time:	10/17/16 840	Purpose:	W
Name:	Brandon Johnson	Signature:	Brandon Johnson	Date &Time:	10/17/16 1030	Purpose:	S
Name:	L MEATHS	Signature:		Date &Time:	10/17/16 1400	Purpose:	D
Name:	L MEATHS	Signature:		Date &Time:	10/17/16 1450	Purpose:	S
Name:	MAX BUNNER	Signature:		Date &Time:		Purpose:	A
Name:	MAX BUNNER	Signature:		Date &Time:		Purpose:	S
Name:		Signature:		Date &Time:		Purpose:	
Name:		Signature:		Date &Time:		Purpose:	
Name:		Signature:		Date &Time:		Purpose:	
Name:		Signature:		Date &Time:		Purpose:	
Name:		Signature:		Date &Time:		Purpose:	
Name:		Signature:		Date &Time:		Purpose:	
Name:		Signature:		Date &Time:		Purpose:	
Name:		Signature:		Date &Time:		Purpose:	
Name:		Signature:		Date &Time:		Purpose:	

Purpose: S - Storage; A - Analyze; DP - Disposal; D - Digest; W - Weigh; P-Pour; T-TCLP;

Tricia Aiken

From: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Sent: Monday, October 17, 2016 8:44 AM
To: 'Chris Bonner'; 'Max Bonner'; Tricia Aiken
Cc: "Goodrich, Donald"
Subject: Region 08 | Case 46282 | Lab BON | Issue Multiple | FINAL

Good morning,

Discrepancies with tags, jars, and/or COC
Issue 1: There is no relinquished time on any of the 24 pages of the COC.
Resolution 1: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Issue 2: The COC lists the Case as 46382 in the instruction box; however, these samples are for Case 46282.
Resolution 2: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Insufficient/inappropriate designation of laboratory QC
Issue 3: The COC states "QC to be determined by lab." The laboratory has provided the list below of SDGs and the sample selected for QC.

SDG	QC
MH1F86	MH1F87
MH1G05	MH1G06
MH1G23	MH1G28
MH1G77	MH1G80
MH1G59	MH1G59
MH1H14	MH1H17
MH1G95	MH1G96
MH1H50	MH1H52
MH1H32	MH1H35
MH1H68	MH1H71
MH1H86	MH1H86
MH1J05	MH1J05
MH1J23	MH1J23
MH1J41	MH1J51
MH1J59	MH1J59
MH1J77	MH1J77
MH1J95	MH1J95
MH1K14	MH1K16
MH1K32	MH1K35
MH1K50	MH1K51
MH1K68	MH1K71
MH1K86	MH1K97
MH1L05	MH1L08

Resolution 3: Per Region 8, the samples selected for QC are acceptable to the Region. The laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Missing temperature blank
Issue 4: There were no temperature blanks in any of the coolers. A thermometer was inserted directly into the cooler, allowed to stabilize, and the temperature was then recorded. All coolers were received at 0°C.
Resolution 4: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Non-standard matrix
Issue 5: The laboratory is asking if they should decant or homogenize the sediment samples.
Resolution 5: Per Region 8, the laboratory shall decant the sediment samples. The laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Laboratory problems
Issue 6: Three of the 10 airbills were not removable. The laboratory took pictures of those labels and removed what parts of the label were possible.
Resolution 6: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Issue 7: The laboratory received 419 samples of the 500 that were scheduled and the shipping end date is tomorrow, 10/14/16. Please advise if this Case is complete.
Resolution 7: Per Region 8, shipping for this Case is complete. . The laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Please let me know if you have any questions. To waive any defect(s) associated with this issue, please contact your Regional CLP COR.

Thanks,

ALEXANDRA VANAMAN
Environmental Coordinator - Regions 1, 2, 7, and 8
CSRA, LLC
6361 Walker Lane, Alexandria, VA 22310
t: +1.703.461.2134 |Alexandra.Vanaman@csra.com
www.csra.com

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From: Goodrich, Donald [mailto:Goodrich.Donald@epa.gov]
Sent: Monday, October 17, 2016 9:06 AM
To: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Cc: Walker, Scott <Walker.Scott@epa.gov>
Subject: RE: Region 08 | Case 46282 | Lab BON | Issue Multiple

Ali, resolve the issues as following:

Issue 1: The laboratory shall make note of the issue and continue with sample analysis.
Issue 2: The laboratory shall make note of the issue and continue with sample analysis.
Issue 3: The samples selected for QC are acceptable to the Region.
Issue 4: The laboratory shall make note of the issue and continue with sample analysis.
Issue 5: The laboratory shall decant the sediment samples.
Issue 6: The laboratory shall make note of the issue and continue with sample analysis.
Issue 7: The case is complete.

Thanks,
Don

Don Goodrich
US EPA Region 8
office: 303-312-6687
cell: 303-905-4024

From: Vanaman, Alexandra [mailto:Alexandra.Vanaman@csra.com]
Sent: Friday, October 14, 2016 8:50 AM
To: Goodrich, Donald <Goodrich.Donald@epa.gov>
Cc: Walker, Scott <Walker.Scott@epa.gov>
Subject: Region 08 | Case 46282 | Lab BON | Issue Multiple

Good morning,

BON is reporting the following issues regarding Case 46282. Please advise.

Discrepancies with tags, jars, and/or COC
Issue 1: There is no relinquished time on any of the 24 pages of the COC.

Issue 2: The COC lists the Case as 46382 in the instruction box; however, these samples are for Case 46282.

Insufficient/inappropriate designation of laboratory QC
Issue 3: The COC states "QC to be determined by lab." The laboratory has provided the list below of SDGs and the sample selected for QC.

SDG	QC
MH1F86	MH1F87
MH1G05	MH1G06
MH1G23	MH1G28
MH1G77	MH1G80
MH1G59	MH1G59
MH1H14	MH1H17
MH1G95	MH1G96
MH1H50	MH1H52
MH1H32	MH1H35
MH1H68	MH1H71
MH1H86	MH1H86

MH1J05	MH1J05
MH1J23	MH1J23
MH1J41	MH1J51
MH1J59	MH1J59
MH1J77	MH1J77
MH1J95	MH1J95
MH1K14	MH1K16
MH1K32	MH1K35
MH1K50	MH1K51
MH1K68	MH1K71
MH1K86	MH1K97
MH1L05	MH1L08

Missing temperature blank
Issue 4: There were no temperature blanks in any of the coolers. A thermometer was inserted directly into the cooler, allowed to stabilize, and the temperature was then recorded. All coolers were received at 0°C.

Non-standard matrix
Issue 5: The laboratory is asking if they should decant or homogenize the sediment samples.

Laboratory problems
Issue 6: Three of the 10 airbills were not removable. The laboratory took pictures of those labels and removed what parts of the label were possible.

Issue 7: The laboratory received 419 samples of the 500 that were scheduled and the shipping end date is tomorrow, 10/14/16. Please advise if this Case is complete.

Thanks,

ALEXANDRA VANAMAN
Environmental Coordinator - Regions 1, 2, 7, and 8
CSRA LLC
6361 Walker Lane, Alexandria, VA 22310
t: +1.703.461.2134 |Alexandra.Vanaman@csra.com
www.csra.com

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From: Tricia Aiken [mailto:taiken@batco.com]
Sent: Thursday, October 13, 2016 4:44 PM
To: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Cc: Max Bonner <maxbonner@batco.com>; Chris Bonner <cmbonner@batco.com>
Subject: Region 8 | Case 46282 | Sample Receipt

Alexandra;

On October 13, 2016 we received 419 soils in 10 coolers via FedEx air bills listed below

- 7774 5569 7187
- 7774 5569 6905
- 7774 5569 7132
- 7774 5569 7235
- 7774 5569 7740
- 7774 5569 7739
- 7774 5569 7522
- 7774 5569 7420
- 7774 5569 6548
- 7774 5569 7338

Custody seals were present and intact, Samples were in good condition except for the following discrepancies.

1. There is no relinquished time on any of the 24 pages of the TR/COC. Please advise.
2. There were no temp blanks in any of the cooler's a thermometer was inserted directly into the cooler, allowed to stabilize and the temp was then recorded; therefore the temp for all coolers was 0°C.
3. Please advise if the lab should decant or homogenize the sediment samples.
4. The TR/COC states "QC to be determined by lab" below is a list of SDG's and the sample selected for QC.

SDG	QC
MH1F86	MH1F87
MH1G05	MH1G06
MH1G23	MH1G28
MH1G77	MH1G80
MH1G59	MH1G59
MH1H14	MH1H17
MH1G95	MH1G96
MH1H50	MH1H52
MH1H32	MH1H35
MH1H68	MH1H71
MH1H86	MH1H86
MH1J05	MH1J05
MH1J23	MH1J23
MH1J41	MH1J51
MH1J59	MH1J59
MH1J77	MH1J77
MH1J95	MH1J95
MH1K14	MH1K16
MH1K32	MH1K35
MH1K50	MH1K51
MH1K68	MH1K71
MH1K86	MH1K97
MH1L05	MH1L08

5. 3 of the 10 air bills were not removable, the lab took pictures of those labels and removed what parts of the label were possible.
6. The TR/COC states Case# 46382 in the instruction box; however this is Case 46282.
7. The lab received 419 samples of the 500 that were scheduled, the shipping end date is tomorrow 10/14/16 please advise if this case is complete.

Thanks and have a blessed day;
Patricia Aiken
Bonner Analytical Testing
(601)264-2854

Tricia Aiken

From: Danganan, Eloise B <Eloise.Danganan@csra.com>
Sent: Monday, October 17, 2016 10:53 AM
To: Max Bonner; cmbonner@batco.com; ' (taiken@batco.com)'
Cc: goodrich.donald@epa.gov; Vanaman, Alexandra
Subject: REGION 8 | CASE 46282 | LAB BON | SOW ISM02.3 | CONTRACT EPW14029 | ISSUE DASS SUPPORT | FINAL

Good morning Max,

Regarding the lab's issue involving Case 46282, please see the Region's response below. In addition, as soon as the lab determines which samples will require an analysis change, please provide the information to SMO as soon as possible so that scheduling information may be updated accordingly.

ISSUE: The lab requests to move the following analytes from ICP-MS to ICP-AES due to elevated concentrations, As, Pb, Cu, Mn, & Zn. Bonner will keep the original MA prices for 1-4 and 11+.

REGION: what concentration levels are the labs finding for the metals in question? Is the lab seeing the elevated levels in all samples?

LAB: "All analytes are above the aes crql. If we identify a sample that's below CRQL we will analyze by icpms. In terms of concentrations all analytes we choosen to protect the icpms. For example, a large portion on the samples are over 10ppm for pb, zn &mn. They're actually high enough that we are having to do dilutions on the icp aes"

REGION: the Region approves reporting the metals in question from the ICP-AES as described below.

Thank you,

ELOISE DANGANAN
DASS Environmental Coordinator - Team Leader
CSRA Inc.
6361 Walker Lane, Alexandria, VA 22310
Office: 703-461-2019 | Eloise.Danganan@csra.com
www.csra.com

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LEAVE ALERT: Friday, October 14th

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From: Goodrich, Donald [mailto:Goodrich.Donald@epa.gov]
Sent: Monday, October 17, 2016 11:26 AM
To: Danganan, Eloise B <Eloise.Danganan@csra.com>
Subject: RE: REGION 8 | CASE 46282 | LAB BON | SOW ISM02.3 | CONTRACT EPW14029 | ISSUE DASS SUPPORT

Hi Eloise, the Region approves reporting the metals in question from the ICP-AES as described below.

Thanks,
Don

Don Goodrich
US EPA Region 8
office: 303-312-6687
cell: 303-905-4024

From: Danganan, Eloise B [mailto:Eloise.Danganan@csra.com]
Sent: Monday, October 17, 2016 9:16 AM
To: Goodrich, Donald <Goodrich.Donald@epa.gov>
Subject: REGION 8 | CASE 46282 | LAB BON | SOW ISM02.3 | CONTRACT EPW14029 | ISSUE DASS SUPPORT

Hi Don,

Regarding the issue involving Case 46282, the lab has provided the following additional information.

LAB: "All analytes are above the aes crql. If we identify a sample that's below CRQL we will analyze by icpms. In terms of concentrations all analytes we choosen to protect the icpms. For example, a large portion on the samples are over 10ppm for pb, zn &mn. They're actually high enough that we are having to do dilutions on the icp aes"

Thank you,

ELOISE DANGANAN
DASS Environmental Coordinator - Team Leader
CSRA Inc.
6361 Walker Lane, Alexandria, VA 22310
Office: 703-461-2019 | Eloise.Danganan@csra.com
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From: maxbonner@batco.com [mailto:maxbonner@batco.com]
Sent: Monday, October 17, 2016 11:14 AM
To: Danganan, Eloise B <Eloise.Danganan@csra.com>; ' (taiken@batco.com)' <taiken@batco.com>; 'Chris Bonner' <cmbonner@batco.com>
Cc: Brett Moody (moody.brett@epa.gov) <moody.brett@epa.gov>
Subject: Re: REGION 8 | CASE 46282 | LAB BON | SOW ISM02.3 | CONTRACT EPW14029 | ISSUE DASS SUPPORT

All analytes are above the aes crql. If we identify a sample that's below CRQL we will analyze by icpms. In terms of concentrations all analytes we choosen to protect the icpms. For example, a large portion on the

samples are over 10ppm for pb, zn &mn. They're actually high enough that we are having to do dilutions on the icp aes

Please give me a ring at the lab if you have any concerns.

Thanks,
Max

Maxwell S. Bonner, Ph.D., President
Bonner Analytical Testing Co.
2703 Oak Grove Rd.
Hattiesburg, MS 39402
(O) 601.264.2854
(C) 601.467.9172

sent from my droid

On Mon, Oct 17, 2016 at 10:07 AM -0500, "Danganan, Eloise B" <Eloise.Danganan@csra.com> wrote:

Hi Tricia,

Please see the Region's inquiry below requesting additional information in response to the lab's reported issue involving Case 46282.

REGION: what concentration levels are the labs finding for the metals in question? Is the lab seeing the elevated levels in all samples?

Please provide as much detailed information as possible.

Thank you,

ELOISE DANGANAN
DASS Environmental Coordinator - Team Leader
CSRA Inc.
6361 Walker Lane, Alexandria, VA 22310
Office: 703-461-2019 | Eloise.Danganan@csra.com
www.csra.com

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LEAVE ALERT: Friday, October 14th

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From: Goodrich, Donald [mailto:Goodrich.Donald@epa.gov]
Sent: Monday, October 17, 2016 11:04 AM

To: Danganan, Eloise B <Eloise.Danganan@csra.com>
Subject: RE: REGION 8 | CASE 46282 | LAB BON | SOW ISM02.3 | CONTRACT EPW14029 | ISSUE DASS SUPPORT

Eloise, what concentration levels are the labs finding for the metals in question? Is the lab seeing the elevated levels in all samples?
Thanks,
Don

Don Goodrich
US EPA Region 8
office: 303-312-6687
cell: 303-905-4024

From: Danganan, Eloise B [mailto:Eloise.Danganan@csra.com]
Sent: Monday, October 17, 2016 8:46 AM
To: Goodrich, Donald <Goodrich.Donald@epa.gov>
Subject: REGION 8 | CASE 46282 | LAB BON | SOW ISM02.3 | CONTRACT EPW14029 | ISSUE DASS SUPPORT

Good morning Don,

BON is reporting the following issue for Case 46282. Please advise.

LAB: The lab requests to move the following analytes from ICP-MS to ICP-AES due to elevated concentrations, As, Pb, Cu, Mn, & Zn. Bonner will keep the original MA prices for 1-4 and 11+.

Thank you,

ELOISE DANGANAN
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From: Jarosz, Margaret T
Sent: Monday, October 17, 2016 10:10 AM
To: DASSsupport <DASSsupport@csra.com>
Cc: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Subject: FW: Region 8 | Case 46282 | Sample Receipt

From: Vanaman, Alexandra
Sent: Monday, October 17, 2016 9:49 AM
To: Baciocco, Kerrie <Kerrie.Baciocco@csra.com>; Jarosz, Margaret T <Margaret.Jarosz@csra.com>
Subject: FW: Region 8 | Case 46282 | Sample Receipt

From: Tricia Aiken [mailto:taiken@batco.com]
Sent: Monday, October 17, 2016 9:35 AM
To: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Cc: Chris Bonner <cmbonner@batco.com>; Max Bonner <maxbonner@batco.com>; moody.brett@epa.gov
Subject: FW: Region 8 | Case 46282 | Sample Receipt

Alexandra;

The lab requests to move the following analytes from ICP-MS to ICP-AES due to elevated concentrations, As, Pb, Cu, Mn, & Zn. Bonner will keep the original MA prices for 1-4 and 11+.

By chance are there any resolutions from Thursday's email?

Thanks and have a blessed day;
Patricia Aiken
Bonner Analytical Testing
(601)264-2854

From: Tricia Aiken [mailto:taiken@batco.com]
Sent: Thursday, October 13, 2016 3:44 PM
To: Alexandra Vanaman (alexandra.vanaman@csra.com)
Cc: Max Bonner; Chris Bonner (cmbonner@batco.com)
Subject: Region 8 | Case 46282 | Sample Receipt

Alexandra;

On October 13, 2016 we received 419 soils in 10 coolers via FedEx air bills listed below

- 7774 5569 7187
- 7774 5569 6905
- 7774 5569 7132
- 7774 5569 7235
- 7774 5569 7740
- 7774 5569 7739
- 7774 5569 7522
- 7774 5569 7420
- 7774 5569 6548
- 7774 5569 7338

Custody seals were present and intact, Samples were in good condition except for the following discrepancies.

1. There is no relinquished time on any of the 24 pages of the TR/COC. Please advise.
2. There were no temp blanks in any of the cooler's a thermometer was inserted directly into the cooler, allowed to stabilize and the temp was then recorded; therefore the temp for all coolers was 0°C.
3. Please advise if the lab should decant or homogenize the sediment samples.
4. The TR/COC states "QC to be determined by lab" below is a list of SDG's and the sample selected for QC.

SDG	QC
MH1F86	MH1F87

MH1G05	MH1G06
MH1G23	MH1G28
MH1G77	MH1G80
MH1G59	MH1G59
MH1H14	MH1H17
MH1G95	MH1G96
MH1H50	MH1H52
MH1H32	MH1H35
MH1H68	MH1H71
MH1H86	MH1H86
MH1J05	MH1J05
MH1J23	MH1J23
MH1J41	MH1J51
MH1J59	MH1J59
MH1J77	MH1J77
MH1J95	MH1J95
MH1K14	MH1K16
MH1K32	MH1K35
MH1K50	MH1K51
MH1K68	MH1K71
MH1K86	MH1K97
MH1L05	MH1L08

5. 3 of the 10 air bills were not removable, the lab took pictures of those labels and removed what parts of the label were possible.
6. The TR/COC states Case# 46382 in the instruction box; however this is Case 46282.
7. The lab received 419 samples of the 500 that were scheduled, the shipping end date is tomorrow 10/14/16 please advise if this case is complete.

Thanks and have a blessed day;
Patricia Aiken
Bonner Analytical Testing
(601)264-2854

Tricia Aiken

From: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Sent: Tuesday, October 18, 2016 3:25 PM
To: 'Chris Bonner'; 'Max Bonner'; Tricia Aiken
Cc: "Goodrich, Donald"
Subject: Region 08 | Case 46282 | Lab BON | Issue Discrepancies with tags, jars, and/or COC | FINAL

Good afternoon Tricia,

Issue: The COC received with the samples for Case 46282 does not list a station location.
Resolution: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Please let me know if you have any questions. To waive any defect(s) associated with this issue, please contact your Regional CLP COR.

Thanks,

ALEXANDRA VANAMAN
Environmental Coordinator - Regions 1, 2, 7, and 8
CSRA, LLC
6361 Walker Lane, Alexandria, VA 22310
t: +1.703.461.2134 | Alexandra.Vanaman@csra.com
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From: Goodrich, Donald [mailto:Goodrich.Donald@epa.gov]
Sent: Tuesday, October 18, 2016 4:20 PM
To: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Cc: Walker, Scott <Walker.Scott@epa.gov>
Subject: RE: Region 08 | Case 46282 | Lab BON | Issue Discrepancies with tags, jars, and/or COC

Hi Ali, have the laboratory note the issue and continue with samples analysis.

Thanks,
Don

Don Goodrich
US EPA Region 8
office: 303-312-6687

cell: 303-905-4024

From: Vanaman, Alexandra [mailto:Alexandra.Vanaman@csra.com]
Sent: Tuesday, October 18, 2016 2:18 PM
To: Goodrich, Donald <Goodrich.Donald@epa.gov>
Cc: Walker, Scott <Walker.Scott@epa.gov>
Subject: Region 08 | Case 46282 | Lab BON | Issue Discrepancies with tags, jars, and/or COC

Good afternoon,

The following issue was noted during the SDG coversheet review process. Please advise.

Issue: The COC received with the samples for Case 46282 does not list a station location.

Thanks,

ALEXANDRA VANAMAN
Environmental Coordinator - Regions 1, 2, 7, and 8
CSRA, LLC
6361 Walker Lane, Alexandria, VA 22310
t: +1.703.461.2134 | Alexandra.Vanaman@csra.com
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Bonner Analytical Testing Company

415

Corrective Action

8859

Topic: MHIH14 46202 Date: 10/24/16

Nature of Problem: MS FAILED FOR Sb, SE

Action Requested:

1 New Sample Requested: YES NO

2 Retest or Reanalysis Necessary: YES NO

3 Other Action: POSTSPK

Submitter

Signature: Date: 10/24/16

Corrective Action Taken: 1. POSTSPK FOR Sb, 2x INDIGENOUS, SEC 2x CRQL

Was the problem resolved: YES NO

Responder

Signature: Date: 10/25/16