SDG COVER PAGE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: _____ SDG No.: MH1G77

SOW No.: ISM02.3

EPA Sample No.	Lab Sample ID	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MH1G77	6100163-01	X			
MH1G78	6100163-02	X			
MH1G79	6100163-03	X			
MH1G80	6100163-04	X			
MH1G80D	QJ14023-DUP1	X			
MH1G80S	QJ14023-MS1	X			
MH1G81	6100163-05	X			
MH1G82	6100163-06	X			
MH1G83	6100163-07	X			
MH1G84	6100163-08	X			
MH1G85	6100163-09	X			
MH1G86	6100163-10	X			
MH1G87	6100163-11	X			
MH1G88	6100163-12	X			
MH1G89	6100163-13	X			
MH1G90	6100163-14	X			
MH1G91	6100163-15	X			
MH1G92	6100163-16	X			
MH1G93	6100163-17	X			
MH1G94	6100163-18	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: 10/27/15 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.: MH1G77

SOW No.: ISM02.3

EPA Sample No.	Lab Sample ID	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MH1G77	6100163-01		X		
MH1G78	6100163-02		X		
MH1G79	6100163-03		X		
MH1G80	6100163-04		X		
MH1G80D	QJ14028-DUP1		X		
MH1G80S	QJ14028-MS1		X		
MH1G81	6100163-05		X		
MH1G82	6100163-06		X		
MH1G83	6100163-07		X		
MH1G84	6100163-08		X		
MH1G85	6100163-09		X		
MH1G86	6100163-10		X		
MH1G87	6100163-11		X		
MH1G88	6100163-12		X		
MH1G89	6100163-13		X		
MH1G90	6100163-14		X		
MH1G91	6100163-15		X		
MH1G92	6100163-16		X		
MH1G93	6100163-17		X		
MH1G94	6100163-18		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: Maxwell S. Bonner For Chris Bonr

Date: 10/27/14 Title: CEO/QAO

SDG COVER PAGE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1G77

SOW No.: ISM02.3

EPA Sample No.	Lab Sample ID	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MH1G77	6100163-01			X	
MH1G78	6100163-02			X	
MH1G79	6100163-03			X	
MH1G80	6100163-04			X	
MH1G80D	QJ14039-DUP1			X	
MH1G80S	QJ14039-MS1			X	
MH1G81	6100163-05			X	
MH1G82	6100163-06			X	
MH1G83	6100163-07			X	
MH1G84	6100163-08			X	
MH1G85	6100163-09			X	
MH1G86	6100163-10			X	
MH1G87	6100163-11			X	
MH1G88	6100163-12			X	
MH1G89	6100163-13			X	
MH1G90	6100163-14			X	
MH1G91	6100163-15			X	
MH1G92	6100163-16			X	
MH1G93	6100163-17			X	
MH1G94	6100163-18			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: Maxwell S. Bonner For Chris Bonr

Date: 10/27/16 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
MH1G77

Cooler #:
Lab_Address2:
Hattiesburg, MS 39402

Lab #	Sample #	Tag	Matrix	Sample Type	Analyses	Container	Collected	Sample Time	Sampler
	MH1G77	1383	Sediment	Field Duplicate	TRM_Hg_Soil	4oz glass jar	9/30/2016	10:45	SG
	MH1G78	1384	Soil	Field Duplicate	TRM_Hg_Soil	4oz glass jar	9/30/2016	10:45	SG
	MH1G79	1385	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	11:40	BCS
	MH1G80	1386	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	11:40	BCS
	MH1G81	1387	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	12:10	BCS
	MH1G82	1388	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	12:10	BCS
	MH1G83	1389	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	10:50	BCS
	MH1G84	1390	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	10:50	BCS
	MH1G85	1391	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	12:35	BCS
	MH1G86	1392	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	12:35	BCS
	MH1G87	1393	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/27/2016	07:30	BF
	MH1G88	1394	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/27/2016	07:30	BF
	MH1G89	1395	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	14:00	BCS
	MH1G90	1396	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	14:00	BCS
	MH1G91	1397	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	14:35	BCS
	MH1G92	1398	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	14:35	BCS
	MH1G93	1399	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/27/2016	17:05	BCS
	MH1G94	1400	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/27/2016	17:05	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
	Lodman ESAT 10/12/16		P. Aich Bonner	0855 10-13-16	good

4

SAMPLE DELIVERY GROUP (SDG)
Definition Sheet

SDG ID: MH1G77

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

Analysis Required: ICPAES ~~(1-4)~~ 5-10 ICPMS 11+, ~~ICPMS~~ (2658.0), Mercury

EPA Sample Nmbers in SDG (Listed in Numerical Order)

1) MH1G77	7) MH1G83	13) MH1G89	19) ZZZZZZ
2) MH1G78	8) MH1G84	14) MH1G90	20) ZZZZZZ
3) MH1G79	9) MH1G85	15) MH1G91	21) ZZZZZZ
4) MH1G80	10) MH1G86	16) MH1G92	22) ZZZZZZ
5) MH1G81	11) MH1G87	17) MH1G93	23) ZZZZZZ
6) MH1G82	12) MH1G88	18) MH1G94	24) ZZZZZZ

MH1G77
First Sample in SDG

MH1G94
Last Sample in SDG

10/13/2016
First Sample Receipt Date

10/13/2016
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).

D. Ack
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) T. Aiken		
Case Number 46282	SDG No. MH1G77	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 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	MH1G80	ZZZZZZ	ZZZZZZ	6100163-04	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	MH1G87	ZZZZZZ	ZZZZZZ	6100163-11	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 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. MH1G77	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	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	MH1G89	ZZZZZZ	ZZZZZZ	6100163-13	Good\OnIce
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

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) T. Aiken		
Case Number 46282	SDG No. MH1G77	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 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	MH1G81	ZZZZZZ	ZZZZZZ	6100163-05	Good\OnIce
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	MH1G85	ZZZZZZ	ZZZZZZ	6100163-09	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	MH1G94	ZZZZZZ	ZZZZZZ	6100163-18	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-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. MH1G77	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	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	MH1G79	ZZZZZZ	ZZZZZZ	6100163-03	Good\OnIce
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	MH1G82	ZZZZZZ	ZZZZZZ	6100163-06	Good\OnIce
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	MH1G84	ZZZZZZ	ZZZZZZ	6100163-08	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) T. Aiken		
Case Number 46282	SDG No. MH1G77	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.	777455697740 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	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	MH1G93	ZZZZZZ	ZZZZZZ	6100163-17	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 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. MH1G77	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	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	MH1G92	ZZZZZZ	ZZZZZZ	6100163-16	Good\OnIce
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)		
Case Number 46282	SDG No. MH1G77	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	MH1G78	ZZZZZZ	ZZZZZZ	6100163-02	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	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. MH1G77	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	MH1G77	ZZZZZZ	ZZZZZZ	6100163-01	Good\OnIce
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	MH1G83	ZZZZZZ	ZZZZZZ	6100163-07	Good\OnIce
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	MH1G88	ZZZZZZ	ZZZZZZ	6100163-12	Good\OnIce
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	MH1G91	ZZZZZZ	ZZZZZZ	6100163-15	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 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) Trasha Aiken		Log-in Date 10/13/2016
Received By (Signature) P. Aiken		
Case Number 46282	SDG No. MH1G77	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	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	MH1G86	ZZZZZZ	ZZZZZZ	6100163-10	Good\OnIce
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	MH1G90	ZZZZZZ	ZZZZZZ	6100163-14	Good\OnIce
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-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. MH1G77

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)	46	55	✓	
9. ICP Interference Check Sample (Form 4-IN)	56	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	69	✓	
19. Initial Calibration (Form 15-IN)	70	75	✓	

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

	PAGE NOs.		CHECK	
	FROM	TO	LAB	REGION
20. Initial Calibration Summary (Form 16-IN)	76	77	✓	
21. ICP-AES Raw Data	78	176	✓	
22. ICP-AES Preparation Log Books, Preparation records, Analysis records, and PE Instructions	177	189	✓	
ICP-MS				
23. Inorganic Analysis Data Sheet (Form 1-IN)	190	207	✓	
24. Initial and Continuing Calibration Verification (Form 2-IN)	208	211	✓	
25. Blanks (Form 3-IN)	212	214	✓	
26. ICP Interference Check Sample (Form 4-IN)	215	216	✓	
27. Matrix Spike Sample Recovery (Form 5A-IN)	217	217	✓	
28. Post-Digestion/Distillation Spike Sample Recovery (Form 5B-IN)	218	218	✓	
29. Duplicates (Form 6-IN)	219	219	✓	
30. Laboratory Control Sample (Form 7-IN)	220	220	✓	
31. ICP-AES and ICP-MS Serial Dilutions (Form 8-IN)	220	221	✓	
32. Method Detection Limit (Form 9-IN)	222	222	✓	
33. ICP-MS Internal Standard Association (Form 11-IN)	223	224	✓	
34. Analysis Log (Form 12-IN)	225	230	✓	
35. ICP-MS Tune (Form 13-IN)	231	232	✓	
36. ICP-MS Internal Standards Relative Intensity Summary (Form 14-IN)	233	238	✓	
37. Initial Calibration (Form 15-IN)	239	244	✓	
38. Initial Calibration Summary (Form 16-IN)	245	246	✓	
39. ICP-MS Raw Data	247	305	✓	
40. ICP-MS Preparation Log Books, Preparation records, Analysis records, and PE Instructions	306	316	✓	
Mercury	N/A	N/A	✓	
41. Inorganic Analysis Data Sheet (Form 1-IN)	317	334	✓	
42. Initial and Continuing Calibration Verification (Form 2-IN)	335	336	✓	
43. Blanks (Form 3-IN)	337	337	✓	
44. Matrix Spike Sample Recovery (Form 5A-IN)	338	338	✓	
45. Duplicates (Form 6-IN)	339	339	✓	
46. Method Detection Limit (Form 9-IN)	340	340	✓	
47. Analysis Log (Form 12-IN)	341	342	✓	
48. Initial Calibration (Form 15-IN)	343	345	✓	

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

49. Initial Calibration Summary (Form 16-IN)	346	346	✓	
50. Mercury Raw Data	347	349	✓	
51. Mercury Preparation Log Books, Preparation records, Analysis records, and PE Instructions	350	357	✓	
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	358	358	✓	
65. EPA Shipping/Receiving Documents	N/A	N/A	✓	
Airbill (No. of Shipments 8)	359	367	✓	
Sample Tags	N/A	N/A	✓	
Sample Log-In Sheet (Lab)	368	371	✓	
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	372	375	✓	
	N/A	N/A	✓	
68. Other Records (describe or list)	N/A	N/A	✓	
Communication Logs	376	388	✓	
e-mails	389	389	✓	
Corrective Actions				

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

69. Comments:

Completed by:
(CLP Lab) Patricia Aiken (Signature) | Patricia Aiken / Sample Custodian (Print Name & Title) | 10-27-16 (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: MH1G77
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
MH1H68	MH1H71

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

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+.

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

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

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, As, Ca, Cu, Fe, Pb, Mg, Mn, Zn by ICP-AES; Sb, Ba, Be, Cd, Cr, Co, Mo, Ni, Se, Ag, 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. MH1G78 was over the linear range for Pb, 79 and 81 were over the range for Pb; 83 was over the range for Fe, Mn and Zn; 84 and 85 were over the range for Zn and Mn; 87, 88, 89, 91 and 94 were over the range for Mn—the samples were reanalyzed at appropriate dilutions. The matrix spike failed for As, Cu and Zn; a post spike was analyzed at twice the indigenous level for As, Cu and Zn.

ICP-MS
The analytical run began 10/18/2016 @ 1736 hrs. MH1G89 and 91 failed for the Tb and Ho internal standards; the samples were reanalyzed at 2X dilutions and passed—associated analytes were reported from the dilutions. The matrix spike failed for Sb; a post spike was analyzed 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 6100163-01 EPA Sample # MH1G77

Date & Time 10/18/2016@0316

ICP-AES: 27444 µg/L * (0.100 L) / (1.00 g) * 100 % / 71.9 % * 1000 g / 1 kg * 1 mg / 1000 µg = 3820 mg/Kg
(Analyte Al)

Date & Time 10/18/2016@2123

ICP-MS: 9,089 µg/L * (0.500 L) / (1.00 g) * 100 % / 71.9 % * 1000 g / 1 kg * 1 mg / 1000 µg = 6.3 mg/Kg
(Analyte V)

Date & Time 10/18/2016@1949

Hg: 1,382 µg/L * (0.100 L) / (0.50 g) * 100 % / 71.9 % * 1000 g / 1 kg * 1 mg / 1000 µg = 0.38 mg/Kg

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.

MH1G77

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-01

% Solids: 71.9 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	3820		10/18/2016	0316
7440-38-2	Arsenic	50.5	*	10/18/2016	0316
7440-70-2	Calcium	557	J	10/18/2016	0316
7440-50-8	Copper	50.6	*	10/18/2016	0316
7439-89-6	Iron	32300		10/18/2016	0316
7439-92-1	Lead	1570	*	10/18/2016	0316
7439-95-4	Magnesium	1480		10/18/2016	0316
7439-96-5	Manganese	193		10/18/2016	0316
7440-66-6	Zinc	282	*	10/18/2016	0316

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

Comments:

EPA SAMPLE NO.

MH1G78

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-02
% Solids: 86.9
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	6110		10/18/2016	0320
7440-38-2	Arsenic	84.7	*	10/18/2016	0320
7440-70-2	Calcium	1240		10/18/2016	0320
7440-50-8	Copper	93.4	*	10/18/2016	0320
7439-89-6	Iron	46200		10/18/2016	0320
7439-92-1	Lead	10500	D*	10/18/2016	1405
7439-95-4	Magnesium	2780		10/18/2016	0320
7439-96-5	Manganese	379		10/18/2016	0320
7440-66-6	Zinc	207	*	10/18/2016	0320

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

Comments:

EPA SAMPLE NO.

MH1G79

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-03

% 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	4310		10/18/2016	0324
7440-38-2	Arsenic	458	*	10/18/2016	0324
7440-70-2	Calcium	143	J	10/18/2016	0324
7440-50-8	Copper	168	*	10/18/2016	0324
7439-89-6	Iron	198000	D	10/18/2016	1409
7439-92-1	Lead	612	*	10/18/2016	0324
7439-95-4	Magnesium	1280		10/18/2016	0324
7439-96-5	Manganese	2750		10/18/2016	0324
7440-66-6	Zinc	333	*	10/18/2016	0324

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

Comments:

EPA SAMPLE NO.

MH1G80

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-04
% Solids: 76.6
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	0328
7440-38-2	Arsenic	41.4	*	10/18/2016	0328
7440-70-2	Calcium	1010		10/18/2016	0328
7440-50-8	Copper	191	*	10/18/2016	0328
7439-89-6	Iron	32700		10/18/2016	0328
7439-92-1	Lead	1150	*	10/18/2016	0328
7439-95-4	Magnesium	4650		10/18/2016	0328
7439-96-5	Manganese	1560		10/18/2016	0328
7440-66-6	Zinc	280	*	10/18/2016	0328

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

Comments:

EPA SAMPLE NO.

MH1G81

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-05

% Solids: 67.5 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	4210		10/18/2016	0345
7440-38-2	Arsenic	455	*	10/18/2016	0345
7440-70-2	Calcium	312	J	10/18/2016	0345
7440-50-8	Copper	202	*	10/18/2016	0345
7439-89-6	Iron	59600	D	10/18/2016	1456
7439-92-1	Lead	959	*	10/18/2016	0345
7439-95-4	Magnesium	1600		10/18/2016	0345
7439-96-5	Manganese	10700		10/18/2016	0345
7440-66-6	Zinc	348	*	10/18/2016	0345

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

Comments:

EPA SAMPLE NO.

MH1G82

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-06
% Solids: 62.9
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	11400		10/18/2016	0350
7440-38-2	Arsenic	36.6	*	10/18/2016	0350
7440-70-2	Calcium	1720		10/18/2016	0350
7440-50-8	Copper	192	*	10/18/2016	0350
7439-89-6	Iron	26000		10/18/2016	0350
7439-92-1	Lead	1080	*	10/18/2016	0350
7439-95-4	Magnesium	3050		10/18/2016	0350
7439-96-5	Manganese	2460		10/18/2016	0350
7440-66-6	Zinc	737	*	10/18/2016	0350

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

Comments:

EPA SAMPLE NO.

MH1G83

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-07
% Solids: 74.4
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	18700		10/18/2016	0354
7440-38-2	Arsenic	386	*	10/18/2016	0354
7440-70-2	Calcium	290	J	10/18/2016	0354
7440-50-8	Copper	1230	*	10/18/2016	0354
7439-89-6	Iron	79600	D	10/18/2016	1418
7439-92-1	Lead	2070	*	10/18/2016	0354
7439-95-4	Magnesium	5350		10/18/2016	0354
7439-96-5	Manganese	42300	D	10/18/2016	1418
7440-66-6	Zinc	3770	D*	10/18/2016	1418

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

Comments:

EPA SAMPLE NO.

MH1G84

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-08
% Solids: 65.9
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	25300		10/18/2016	0358
7440-38-2	Arsenic	36.3	*	10/18/2016	0358
7440-70-2	Calcium	996		10/18/2016	0358
7440-50-8	Copper	995	*	10/18/2016	0358
7439-89-6	Iron	33600		10/18/2016	0358
7439-92-1	Lead	1650	*	10/18/2016	0358
7439-95-4	Magnesium	6730		10/18/2016	0358
7439-96-5	Manganese	35900	D	10/18/2016	1422
7440-66-6	Zinc	5560	D*	10/18/2016	1422

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

Comments:

EPA SAMPLE NO.

MH1G85

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BCN Case No.: 46282
MA No.:
SDG No.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-09
% Solids: 70.9
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	13400		10/18/2016	0402
7440-38-2	Arsenic	27.1	*	10/18/2016	0402
7440-70-2	Calcium	1560		10/18/2016	0402
7440-50-8	Copper	1200	*	10/18/2016	0402
7439-89-6	Iron	32000		10/18/2016	0402
7439-92-1	Lead	1400	*	10/18/2016	0402
7439-95-4	Magnesium	5160		10/18/2016	0402
7439-96-5	Manganese	5770	D	10/18/2016	1426
7440-66-6	Zinc	2550	D*	10/18/2016	1426

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

Comments:

EPA SAMPLE NO.

MH1G86

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BCN Case No.: 46282
MA No.:
SDG No.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-10
% Solids: 77.3
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	12300		10/18/2016	0407
7440-38-2	Arsenic	23.0	*	10/18/2016	0407
7440-70-2	Calcium	1260		10/18/2016	0407
7440-50-8	Copper	59.5	*	10/18/2016	0407
7439-89-6	Iron	27200		10/18/2016	0407
7439-92-1	Lead	462	*	10/18/2016	0407
7439-95-4	Magnesium	5070		10/18/2016	0407
7439-96-5	Manganese	1670		10/18/2016	0407
7440-66-6	Zinc	173	*	10/18/2016	0407

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

Comments:

EPA SAMPLE NO.

MH1G87

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-11

% Solids: 80.0 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	13000		10/18/2016	0411
7440-38-2	Arsenic	39.6	*	10/18/2016	0411
7440-70-2	Calcium	1390		10/18/2016	0411
7440-50-8	Copper	710	*	10/18/2016	0411
7439-89-6	Iron	34800		10/18/2016	0411
7439-92-1	Lead	1240	*	10/18/2016	0411
7439-95-4	Magnesium	5940		10/18/2016	0411
7439-96-5	Manganese	5150	D	10/18/2016	1431
7440-66-6	Zinc	1150	*	10/18/2016	0411

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

Comments:

EPA SAMPLE NO.

MH1G88

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-12
% Solids: 68.3
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	16800		10/18/2016	0415
7440-38-2	Arsenic	41.3	*	10/18/2016	0415
7440-70-2	Calcium	615	J	10/18/2016	0415
7440-50-8	Copper	549	*	10/18/2016	0415
7439-89-6	Iron	34000		10/18/2016	0415
7439-92-1	Lead	896	*	10/18/2016	0415
7439-95-4	Magnesium	4750		10/18/2016	0415
7439-96-5	Manganese	6960	D	10/18/2016	1435
7440-66-6	Zinc	629	*	10/18/2016	0415

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

Comments:

EPA SAMPLE NO.

MH1G89

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-13
% Solids: 59.3
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	11200		10/18/2016	0419
7440-38-2	Arsenic	75.5	*	10/18/2016	0419
7440-70-2	Calcium	2230		10/18/2016	0419
7440-50-8	Copper	214	*	10/18/2016	0419
7439-89-6	Iron	26700		10/18/2016	0419
7439-92-1	Lead	2300	*	10/18/2016	0419
7439-95-4	Magnesium	2850		10/18/2016	0419
7439-96-5	Manganese	8490	D	10/18/2016	1439
7440-66-6	Zinc	1430	*	10/18/2016	0419

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

Comments:

EPA SAMPLE NO.

MH1G90

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-14
% Solids: 71.9
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	14400		10/18/2016	0424
7440-38-2	Arsenic	32.2	*	10/18/2016	0424
7440-70-2	Calcium	3780		10/18/2016	0424
7440-50-8	Copper	74.1	*	10/18/2016	0424
7439-89-6	Iron	23000		10/18/2016	0424
7439-92-1	Lead	711	*	10/18/2016	0424
7439-95-4	Magnesium	3680		10/18/2016	0424
7439-96-5	Manganese	2720		10/18/2016	0424
7440-66-6	Zinc	811	*	10/18/2016	0424

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

Comments:

EPA SAMPLE NO.

MH1G91

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-15

% Solids: 78.1 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	0436
7440-38-2	Arsenic	37.5	*	10/18/2016	0436
7440-70-2	Calcium	1280		10/18/2016	0436
7440-50-8	Copper	178	*	10/18/2016	0436
7439-89-6	Iron	20200		10/18/2016	0436
7439-92-1	Lead	1230	*	10/18/2016	0436
7439-95-4	Magnesium	3410		10/18/2016	0436
7439-96-5	Manganese	8290	D	10/18/2016	1443
7440-66-6	Zinc	1790	*	10/18/2016	0436

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

Comments:

EPA SAMPLE NO.

MH1G92

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-16
% Solids: 76.8
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	13700		10/18/2016	0441
7440-38-2	Arsenic	37.3	*	10/18/2016	0441
7440-70-2	Calcium	2310		10/18/2016	0441
7440-50-8	Copper	32.8	*	10/18/2016	0441
7439-89-6	Iron	24400		10/18/2016	0441
7439-92-1	Lead	467	*	10/18/2016	0441
7439-95-4	Magnesium	3710		10/18/2016	0441
7439-96-5	Manganese	1700		10/18/2016	0441
7440-66-6	Zinc	294	*	10/18/2016	0441

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

Comments:

EPA SAMPLE NO.

MH1G93

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-17
% Solids: 83.9
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	8520		10/18/2016	0445
7440-38-2	Arsenic	39.5	*	10/18/2016	0445
7440-70-2	Calcium	1550		10/18/2016	0445
7440-50-8	Copper	64.1	*	10/18/2016	0445
7439-89-6	Iron	22300		10/18/2016	0445
7439-92-1	Lead	245	*	10/18/2016	0445
7439-95-4	Magnesium	4010		10/18/2016	0445
7439-96-5	Manganese	1530		10/18/2016	0445
7440-66-6	Zinc	233	*	10/18/2016	0445

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

Comments:

EPA SAMPLE NO.

MH1G94

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-18
% Solids: 84.7
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	7670		10/18/2016	0449
7440-38-2	Arsenic	22.4	*	10/18/2016	0449
7440-70-2	Calcium	1110		10/18/2016	0449
7440-50-8	Copper	86.3	*	10/18/2016	0449
7439-89-6	Iron	19900		10/18/2016	0449
7439-92-1	Lead	287	*	10/18/2016	0449
7439-95-4	Magnesium	4340		10/18/2016	0449
7439-96-5	Manganese	3600	D	10/18/2016	1447
7440-66-6	Zinc	349	*	10/18/2016	0449

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.: MH1G77

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

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

Run Batch: BJ62525MH1G77 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.: MH1G77

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

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

Run Batch: BJ62525MH1G77 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
Aluminum					140000	133000	95	0	133000	95	0
Arsenic					2000.0	1970	98	0	1960	98	0
Calcium					200000	192000	96	1	193000	97	0
Copper					5000.0	4940	99	0	4950	99	0
Iron					125000	122000	98	1	121000	97	0
Lead					5750.0	5260	92	0	5240	91	0
Magnesium					200000	187000	94	1	187000	93	0
Manganese					9000.0	8360	93	0	8340	93	0
Zinc					8000.0	7730	97	0	7680	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.: MH1G77

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

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

Run Batch: BJ62525MH1G77 Analytical method: ICP-AES

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
Aluminum					140000	131000	93	0	131000	94	1
Arsenic					2000.0	1930	96	0	1940	97	0
Calcium					200000	190000	95	1	191000	96	0
Copper					5000.0	4850	97	0	4860	97	0
Iron					125000	119000	95	1	120000	96	1
Lead					5750.0	5160	90	0	5170	90	0
Magnesium					200000	183000	92	1	185000	92	1
Manganese					9000.0	8190	91	0	8220	91	0
Zinc					8000.0	7570	95	0	7590	95	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.: MH1G77

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

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

Run Batch: BJ62525MH1G77 Analytical method: ICP-AES

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
Aluminum					140000	131000	94	0			
Arsenic					2000.0	1940	97	0			
Calcium					200000	192000	96	0			
Copper					5000.0	4880	98	0			
Iron					125000	120000	96	0			
Lead					5750.0	5180	90	0			
Magnesium					200000	186000	93	0			
Manganese					9000.0	8270	92	0			
Zinc					8000.0	7610	95	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.: MH1G77

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

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

Run Batch: BJ62526101816 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
Copper	492.0C	477	97	0	5000.0	5130	103	0	5150	103	0
Iron	5082.C	5160	102	0	125000	124000	100	1	124000	100	1
Lead	1002.C	1000	100	0	5750.0	5610	98	0	5640	98	0
Manganese	499.0C	522	105	0	9000.0	9020	100	0	9030	100	0
Zinc	1025.C	1060	103	0	8000.0	8070	101	0	8140	102	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.: MH1G77

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

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

Run Batch: BJ62526101816 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
Copper					5000.0	5140	103	0	5120	102	0
Iron					125000	124000	99	0	123000	98	1
Lead					5750.0	5640	98	0	5620	98	0
Manganese					9000.0	9010	100	0	8930	99	0
Zinc					8000.0	8150	102	0	8110	101	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.: MH1G77

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

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

Run Batch: BJ62526101816 CLP A Analytical method: ICP-AES

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
Arsenic					2000.0	2110	106	0	2110	106	0
Copper					5000.0	5120	102	0	5110	102	0
Iron					125000	122000	98	0	121000	97	1
Lead					5750.0	5590	97	0	5580	97	0
Manganese					9000.0	8860	99	0	8760	97	0
Zinc					8000.0	8050	101	0	8020	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.: MH1G77

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

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

Run Batch: BJ62526101816 CLP A Analytical method: ICP-AES

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
Arsenic					2000.0	2120	106	0			
Copper					5000.0	5120	102	0			
Iron					125000	121000	96	0			
Lead					5750.0	5590	97	0			
Manganese					9000.0	8720	97	0			
Zinc					8000.0	8010	100	0			

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1G77

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: QJ14023

Run Batch: BJ62525MH1G77 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	-7.0	J
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	-2.6	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	-5.3	J
Manganese	-1.6	J	-0.80	J	-1.1	J	-0.85	J	0.24	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.: MH1G77

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: QJ14023

Run Batch: BJ62525MH1G77 Preparation Method: 3050B

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
Aluminum			200	U	200	U	200	U		
Arsenic			10	U	10	U	10	U		
Calcium			5000	U	5000	U	5000	U		
Copper			25.0	U	25.0	U	25.0	U		
Iron			100	U	-15.0	J	100	U		
Lead			10	U	10	U	10	U		
Magnesium			-35.9	J	-36.6	J	-32.6	J		
Manganese			-0.77	J	-0.73	J	15.0	U		
Zinc			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.: MH1G77

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: QJ14023

Run Batch: BJ62525MH1G77 Preparation Method: 3050B

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
	ID:	Q	ID: CCB07	Q	ID:	Q	ID:	Q	ID:	Q
Aluminum			-15.5	J						
Arsenic			10	U						
Calcium			5000	U						
Copper			25.0	U						
Iron			100	U						
Lead			10	U						
Magnesium			-33.4	J						
Manganese			15.0	U						
Zinc			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.: MH1G77

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: BJ62526101816 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		
Copper	25.0	U	25.0	U	-1.9	J	-1.9	J		
Iron	100	U	100	U	100	U	12.8	J		
Lead	10	U	10	U	10	U	10	U		
Manganese	15.0	U	0.61	J	15.0	U	0.64	J		
Zinc	60.0	U	60.0	U	-3.7	J	-4.1	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.: MH1G77

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: BJ62526101816_CLP_A Preparation Method:

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
Arsenic			10	U	10	U	10	U		
Copper			-1.8	J	-1.6	J	-1.7	J		
Iron			15.6	J	16.0	J	18.5	J		
Lead			10	U	10	U	10	U		
Manganese			0.77	J	1.1	J	0.94	J		
Zinc			-4.1	J	-3.8	J	-4.2	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.: MH1G77

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: BJ62526101816 CLP A Preparation Method:

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
	ID:	Q	ID: CCB07	Q	ID:	Q	ID:	Q	ID:	Q
Arsenic			10	U						
Copper			25.0	U						
Iron			16.1	J						
Lead			10	U						
Manganese			1.2	J						
Zinc			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.: MH1G77

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

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

Run Batch: BJ62525MH1G77

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.: MH1G77
Analytical Method: ICP-AES
ICSA Source: USEPA, Lot:ICSA-1211
Instrument ID: ICAPP02
ICSB Source: USEPA, Lot:ICSA-1211 & ICSB-071C
Run Batch: BJ62526101816 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
Copper	2	511	-13	-650	494	97
Iron	100700	99320	97800	97	97900	99
Lead	0	49	8.9		56.6	116
Magnesium	255400	248000	254000	99	254000	102
Manganese	7	507	12.7	181	521	103
Zinc	0	952	-3.0		1040	109

EPA SAMPLE NO.

MH1G80S

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.: MH1G77

Matrix: Soil Analytical Method: ICP-AES

% Solids: 76.6

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	66.5		41.4		10.4	240	*
Copper	75-125	274		191		65.2	127	*
Lead		1530		1150		5.22	7221	
Manganese		1900		1560		130	259	
Zinc	75-125	469		280		130	145	*

EPA SAMPLE NO.

MH1G80A

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.: MH1G77

Matrix: Soil Analytical Method: ICP-AES

% Solids: 76.6

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	136		41.4		82.8	114	
Copper	75-125	597		191		382.0	106	
Zinc	75-125	897		280		560.0	110	

EPA SAMPLE NO.

FORM 6-IN
DUPLICATES

MH1G80D

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.:46282 MA No.: SDG No.: MH1G77

Matrix: Soil Analytical Method: ICP-AES

% Solids: 76.6

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		10400		11400		9	
Arsenic		41.4		46.3		11	
Calcium	652	1010		1230		20	
Copper		191		209		9	
Iron		32700		38000		15	
Lead		1150		1340		15	
Magnesium		4650		5540		18	
Manganese		1560		1660		6	
Zinc		280		337		18	

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.: MH1G77

Matrix: Soil

Preparation Method: 3050B

Analytical method: ICP-AES

Preparation Batch: QJ14023

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

Analyte	True	Found	%R
Aluminum	40.000	31.3	78
Arsenic	2.0000	1.5	75
Calcium	1000.0	893	89
Copper	5.0000	4.1	82
Iron	20.000	14.4	72
Lead	2.0000	1.7	85
Magnesium	1000.0	852	85
Manganese	3.0000	2.5	83
Zinc	12.000	10.4	87

EPA SAMPLE NO.

MH1G80L

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.: MH1G77

Matrix: Soil Analytical method: ICP-AES

% Solids: 76.6

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	10400		9830		5	
Arsenic	41.4		35.7		14	*
Calcium	1010		928	J	8	
Copper	191		178		7	
Iron	32700		31100		5	
Lead	1150		1030		11	*
Magnesium	4650		4430		5	
Manganese	1560		1570		1	
Zinc	280		260		7	

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.: MH1G77

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.: MH1G77

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.: MH1G77
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.: MH1G77

Instrument ID: ICAPP02

Analytical Method: ICP-AES

Start Date: 10/17/2016

End Date: 10/18/2016

Run Batch: BJ62525MH1G77

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		
CCV02	1.0	0039	X		X				X			X	X	X	X	X									X		
CCB02	1.0	0043	X		X				X			X	X	X	X	X									X		
CCV03	1.0	0105	X		X				X			X	X	X	X	X									X		
CCB03	1.0	0109	X		X				X			X	X	X	X	X									X		
CCV04	1.0	0225	X		X				X			X	X	X	X	X									X		
CCB04	1.0	0229	X		X				X			X	X	X	X	X									X		
CCV05	1.0	0258	X		X				X			X	X	X	X	X									X		
CCB05	1.0	0303	X		X				X			X	X	X	X	X									X		
PBS01	1.0	0307	X		X				X			X	X	X	X	X									X		
LCS01	1.0	0311	X		X				X			X	X	X	X	X									X		
MH1G77	1.0	0316	X		X				X			X	X	X	X	X									X		
MH1G78	1.0	0320	X		X				X			X	X		X	X									X		
MH1G79	1.0	0324	X		X				X			X		X	X	X									X		
MH1G80	1.0	0328	X		X				X			X	X	X	X	X									X		
MH1G80S	1.0	0333			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.: MH1G77

Instrument ID: ICAPP02

Analytical Method: ICP-AES

Start Date: 10/17/2016

End Date: 10/18/2016

Run Batch: BJ62525MH1G77

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	
MH1G80D	1.0	C337	X		X				X			X	X	X	X	X									X		
MH1G80L	5.0	C341	X		X				X			X	X	X	X	X									X		
MH1G81	1.0	C345	X		X				X			X		X	X	X									X		
MH1G82	1.0	C350	X		X				X			X	X	X	X	X									X		
MH1G83	1.0	C354	X		X				X			X		X	X												
MH1G84	1.0	C358	X		X				X			X	X	X	X												
MH1G85	1.0	C402	X		X				X			X	X	X	X												
MH1G86	1.0	C407	X		X				X			X	X	X	X	X									X		
MH1G87	1.0	C411	X		X				X			X	X	X	X										X		
MH1G88	1.0	C415	X		X				X			X	X	X	X										X		
MH1G89	1.0	C419	X		X				X			X	X	X	X										X		
MH1G90	1.0	C424	X		X				X			X	X	X	X	X									X		
CCV06	1.0	C428	X		X				X			X	X	X	X	X									X		
CCB06	1.0	C432	X		X				X			X	X	X	X	X									X		
MH1G91	1.0	C436	X		X				X			X	X	X	X										X		
MH1G92	1.0	C441	X		X				X			X	X	X	X	X									X		
MH1G93	1.0	C445	X		X				X			X	X	X	X	X									X		
MH1G94	1.0	C449	X		X				X			X	X	X	X										X		
CCV07	1.0	C453	X		X				X			X	X	X	X	X									X		
CCB07	1.0	C458	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.: MH1G77

Instrument ID: ICAPP02

Analytical Method: ICP-AES

Start Date: 10/18/2016

End Date: 10/18/2016

Run Batch: BJ62526101816_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	X		X									X		
S02	1.0	1043			X							X	X	X		X									X		
S03	1.0	1047			X							X	X	X		X									X		
S04	1.0	1051			X							X	X	X		X									X		
S05	1.0	1055			X							X	X	X		X									X		
S06	1.0	1059			X							X	X	X		X									X		
S07	1.0	1104											X	X		X											
S08	1.0	1108											X	X													
S09	1.0	1112											X			X											
ICV01	1.0	1117			X							X	X	X		X									X		
ICB01	1.0	1121			X							X	X	X		X									X		
ICSA01	1.0	1125	X		X				X			X	X	X	X	X									X		
ICSAB01	1.0	1130	X		X				X			X	X	X	X	X									X		
CCV01	1.0	1134			X							X	X	X		X									X		
CCB01	1.0	1138			X							X	X	X		X									X		
CCV02	1.0	1147			X							X	X	X		X									X		
CCB02	1.0	1151			X							X	X	X		X									X		
CCV03	1.0	1200			X							X	X	X		X									X		
CCB03	1.0	1204			X							X	X	X		X									X		
CCV04	1.0	1217			X							X	X	X		X									X		
CCB04	1.0	1221			X							X	X	X		X									X		
CCV05	1.0	1325			X							X	X	X		X									X		
CCB05	1.0	1329			X							X	X	X		X									X		
CCV06	1.0	1356			X							X	X	X		X									X		
CCB06	1.0	1400			X							X	X	X		X									X		
MH1G78	5.0	1405												X													
MH1G79	5.0	1409											X														
ZZZZZZ	1.0	1414																									
MH1G83	20.0	1418											X			X									X		
MH1G84	20.0	1422														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.: MH1G77
Instrument ID: ICAPP02
Analytical Method: ICP-AES
Start Date: 10/18/2016
End Date: 10/18/2016
Run Batch: BJ62526101816_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	
MH1G85	3.0	1426														X									X		
MH1G87	3.0	1431														X											
MH1G88	4.0	1435														X											
MH1G89	4.0	1439														X											
MH1G91	5.0	1443														X											
MH1G94	3.0	1447														X											
MH1G80A	1.0	1452			X							X													X		
MH1G81	3.0	1456											X														
CCV07	1.0	1500			X							X	X	X		X									X		
CCB07	1.0	1504			X							X	X	X		X									X		

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.:

SDG No.: MH1G77

Instrument ID: ICAPP02

Start Date: 10/17/2016

Analytical method: ICP-AES

Run Batch: BJ62525MH1G77

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.: MH1G77

Instrument ID: ICAPP02

Start Date: 10/17/2016

Analytical method: ICP-AES

Run Batch: BJ62525MH1G77

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.: MH1G77
Instrument ID: ICAPP02
Start Date: 10/17/2016
Analytical method: ICP-AES
Run Batch: BJ62525MH1G77
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.: MH1G77

Instrument ID: ICAPP02

Start Date: 10/18/2016

Analytical method: ICP-AES

Run Batch: BJ62526101816 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
Copper	0.0	4.2		25.0	26.6	-6	200	195	3
Iron	0.0	-42		100	69.8	30	800	837	-5
Lead	0.0	-0.40		10.0	10.9	-9	80.0	79.7	0
Manganese	0.0	-3.8		15.0	12.9	14	120	125	-4
Zinc	0.0	-2.8		40.0	37.1	7	320	330	-3

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.:

SDG No.: MH1G77

Instrument ID: ICAPP02

Start Date: 10/18/2016

Analytical method: ICP-AES

Run Batch: BJ62526101816 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
Copper	1000	959	4	5000	4990	0	10000	10100	-1
Iron	4000	4320	-8	20000	21600	-8	40000	43000	-8
Lead	400	393	2	2000	1940	3	4000	3820	4
Manganese	600	630	-5	3000	3110	-4	6000	6170	-3
Zinc	1600	1660	-4	8000	8120	-2	16000	15800	1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.:

SDG No.: MH1G77

Instrument ID: ICAPP02

Start Date: 10/18/2016

Analytical method: ICP-AES

Run Batch: BJ62526101816 CLP A

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Arsenic									
Copper									
Iron	280000	292000	-4	350000	372000	-6	450000	410000	9
Lead	10000	9890	1	25000	25400	-1			
Manganese	16000	15900	1				22500	22300	1
Zinc									

FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1G77
Instrument ID: ICAPP02
Start Date: 10/17/2016
Analytical method: ICP-AES
Run Batch: BJ62525MH1G77

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

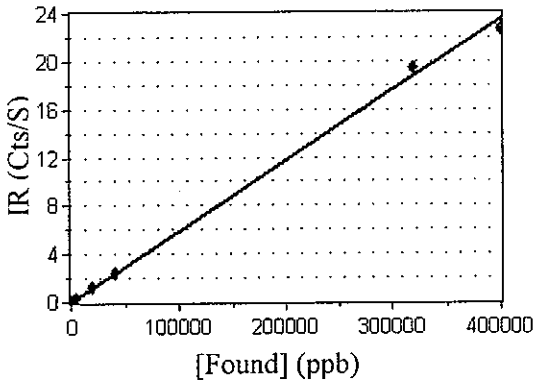
Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1G77
Instrument ID: ICAPP02
Start Date: 10/18/2016
Analytical method: ICP-AES
Run Batch: BJ62526101816 CLP A

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Arsenic	0.9999266	0.0001787987	-1.5588078	WLR	Inverse Conc
Copper	0.9999398	0.0003948081	2.5574653	WLR	Inverse Conc
Iron	0.9910681	0.00002900505	38.8149305	WLR	Inverse Conc
Lead	0.9996852	0.0005479404	1.8984327	WLR	Inverse Conc
Manganese	0.9998155	0.0005503931	3.7011129	WLR	Inverse Conc
Zinc	0.9997374	0.002105617	8.5738147	WLR	Inverse Conc

Bonner Analytical Testing Company

Instrument ID: ICAPP02 Calibration ID: B644039 Calibration Date: 10/17/2016

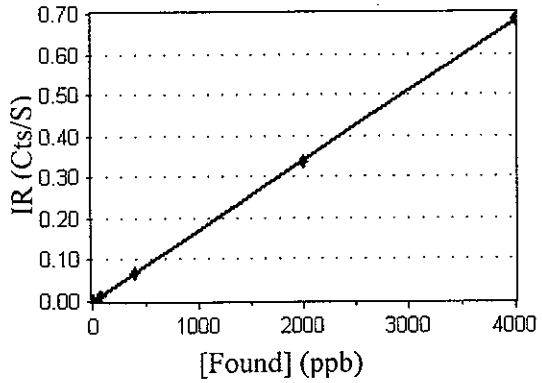
ISM023 - ICPAES (1-4) - Aluminum



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

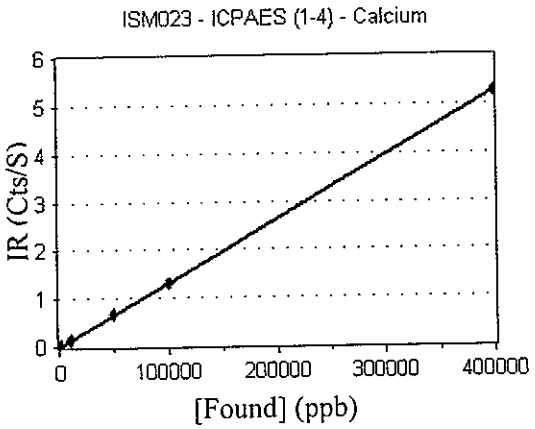
Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62525-CAL1	B6I0028	0	22.81	-0.00049	0
BJ62525-CAL2	B6G0026	100	96.89	0.00385	3
BJ62525-CAL3	B6G0027	800	805.28	0.04535	-1
BJ62525-CAL4	B6G0028	4000	4,040.80	0.2349	-1
BJ62525-CAL5	B6G0029	20000	20,005.91	1.1702	0
BJ62525-CAL6	B6G0030	40000	40,272.54	2.3575	-1
BJ62525-CAL7	B6G0031	320000	332,767.07	19.493	-4
BJ62525-CAL8	B6G0032	400000	386,911.55	22.665	3

ISM023 - ICPAES (1-4) - Arsenic



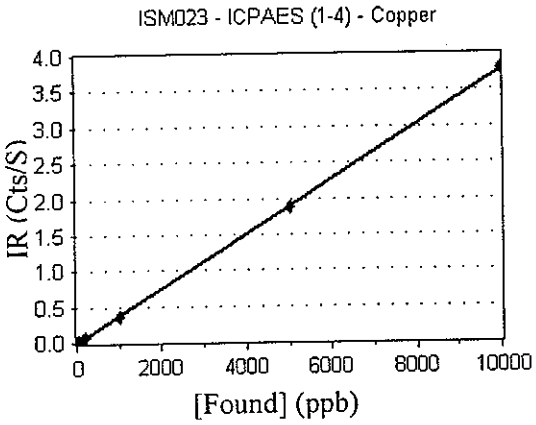
Calibration Plot: Arsenic
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999115
Fit: [Y] = 1.700185E-04 * [X] + -3.020308E-04
[y-intercept] = 1.78

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62525-CAL1	B6I0028	0	0.89	-0.00015	0
BJ62525-CAL2	B6G0026	10	10.78	0.00153	-8
BJ62525-CAL3	B6G0027	80	76.71	0.01274	4
BJ62525-CAL4	B6G0028	400	384.73	0.06511	4
BJ62525-CAL5	B6G0029	2000	1,989.21	0.3379	1
BJ62525-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 (%)
BJ62525-CAL1	B6I0028	0	22.99	0.00058	0
BJ62525-CAL2	B6G0026	250	235.86	0.00338	6
BJ62525-CAL3	B6G0027	2000	2,039.16	0.0271	-2
BJ62525-CAL4	B6G0028	10000	10,283.24	0.13554	-3
BJ62525-CAL5	B6G0029	50000	50,633.93	0.6663	-1
BJ62525-CAL6	B6G0030	100000	99,776.07	1.3127	0
BJ62525-CAL7	B6G0031	400000	399,281.61	5.2523	0

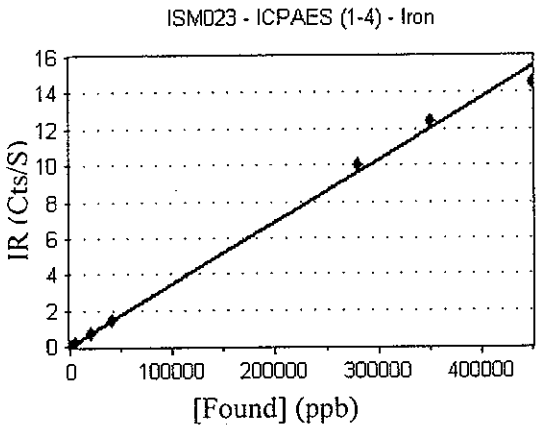


Calibration Plot: Copper
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999187
Fit: [Y] = 3.781499E-04 * [X] + 1.037591E-03
[y-intercept] = -2.74

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62525-CAL1	B6I0028	0	2.97	0.00216	0
BJ62525-CAL2	B6G0026	25	26.87	0.0112	-7
BJ62525-CAL3	B6G0027	200	192.87	0.07397	4
BJ62525-CAL4	B6G0028	1000	957.99	0.3633	4
BJ62525-CAL5	B6G0029	5000	4,979.94	1.8842	0
BJ62525-CAL6	B6G0030	10000	10,067.34	3.808	-1

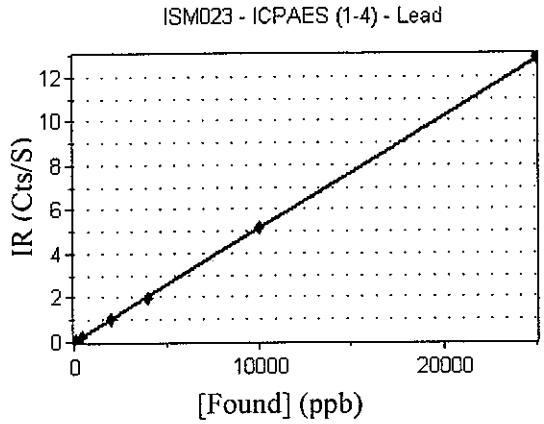
Bonner Analytical Testing Company

Instrument ID: ICAPP02 Calibration ID: B644039 Calibration Date: 10/17/2016 **80**



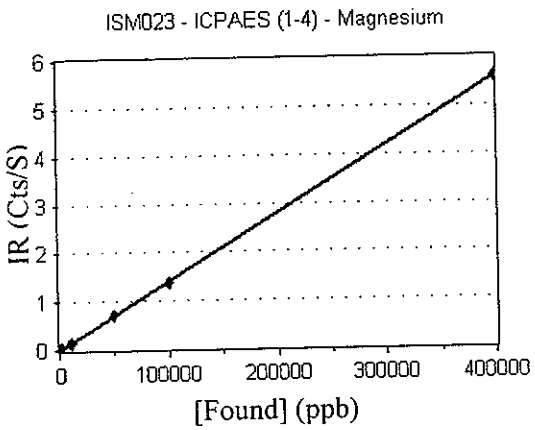
Calibration Plot: Iron
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9961363
Fit: [Y] = 3.438119E-05 * [X] + 1.044373E-03
[y-intercept] = -30.38

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62525-CAL1	B6I0028	0	-1.58	0.00099	0
BJ62525-CAL2	B6G0026	100	77.82	0.00372	22
BJ62525-CAL3	B6G0027	800	833.76	0.02971	-4
BJ62525-CAL4	B6G0028	4000	4,264.70	0.14767	-7
BJ62525-CAL5	B6G0029	20000	21,175.41	0.72908	-6
BJ62525-CAL6	B6G0030	40000	41,509.78	1.4282	-4
BJ62525-CAL7	B6G0031	280000	292,047.94	10.042	-4
BJ62525-CAL8	B6G0032	350000	361,359.09	12.425	-3
BJ62525-CAL9	B6J0169	450000	423,631.52	14.566	6



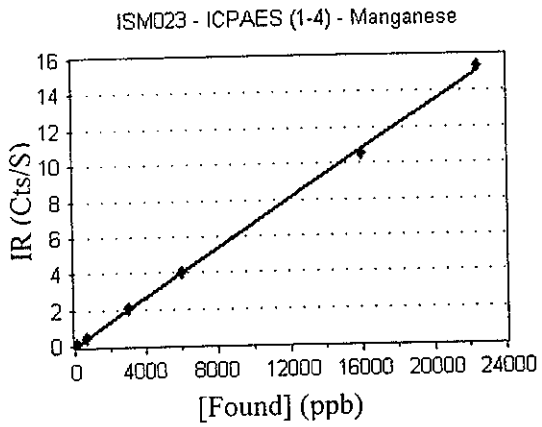
Calibration Plot: Lead
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9998796
Fit: [Y] = 5.119475E-04 * [X] + 8.868096E-04
[y-intercept] = -1.73

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62525-CAL1	B6I0028	0	0.46	0.00112	0
BJ62525-CAL2	B6G0026	10	11.00	0.00652	-10
BJ62525-CAL3	B6G0027	80	78.24	0.04094	2
BJ62525-CAL4	B6G0028	400	391.65	0.20139	2
BJ62525-CAL5	B6G0029	2000	1,942.53	0.99536	3
BJ62525-CAL6	B6G0030	4000	3,834.99	1.9642	4
BJ62525-CAL7	B6G0031	10000	10,054.96	5.1485	-1
BJ62525-CAL8	B6G0032	25000	25,176.63	12.89	-1



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 (%)
BJ62525-CAL1	B6I0028	0	45.53	0.00079	0
BJ62525-CAL2	B6G0026	250	248.32	0.00362	1
BJ62525-CAL3	B6G0027	2000	2,029.70	0.02848	-1
BJ62525-CAL4	B6G0028	10000	10,068.84	0.14067	-1
BJ62525-CAL5	B6G0029	50000	49,777.28	0.69482	0
BJ62525-CAL6	B6G0030	100000	98,552.42	1.3755	1
BJ62525-CAL7	B6G0031	400000	401,573.39	5.6043	0

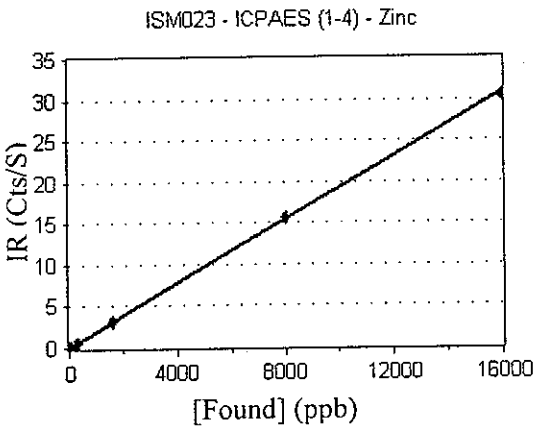


Calibration Plot: Manganese
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9995613
Fit: [Y] = 6.722826E-04 * [X] + 1.220977E-03
[y-intercept] = -1.82

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62525-CAL1	B6I0028	0	-0.06	0.00118	0
BJ62525-CAL2	B6G0026	15	14.62	0.01105	3
BJ62525-CAL3	B6G0027	120	121.97	0.08322	-2
BJ62525-CAL4	B6G0028	600	612.26	0.41283	-2
BJ62525-CAL5	B6G0029	3000	3,010.76	2.0253	0
BJ62525-CAL6	B6G0030	6000	5,931.25	3.9887	1
BJ62525-CAL7	B6G0031	16000	15,688.01	10.548	2
BJ62525-CAL9	B6J0169	22500	22,856.13	15.367	-2

Bonner Analytical Testing Company

Instrument ID: ICAPP02 Calibration ID: B644039 Calibration Date: 10/17/2016 **82**



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 (%)
BJ62525-CAL1	B6I0028	0	-4.75	0.00148	0
BJ62525-CAL2	B6G0026	40	38.51	0.0848	4
BJ62525-CAL3	B6G0027	320	324.10	0.63488	-1
BJ62525-CAL4	B6G0028	1600	1,631.49	3.1531	-2
BJ62525-CAL5	B6G0029	8000	8,109.67	15.631	-1
BJ62525-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.

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:

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.

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:

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.

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:

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.

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:

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.

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	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.

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	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: 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.

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	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 Co. ICAPP02

Sample Name: SEQ-CCV@CCV04 Acquired: 10/18/2016 02:25:11 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	**492.69**	**133000.**	**1963.2**	**15402.**	**388.50**	**193140.**	**926.54**	**2329.9**	**5756.0**	**4951.7**
Stddev	.77	456.	3.7	176.	.61	456.	2.62	4.0	11.3	8.8
%RSD	.15708	.34268	.18728	1.1457	.15804	.23588	.28317	.17331	.19675	.17790
#1	492.48	132520.	1960.0	15248.	388.27	192780.	926.08	2326.5	5762.2	4954.9
#2	493.54	133420.	1962.4	15362.	388.03	192990.	924.18	2328.9	5763.0	4958.6
#3	492.04	133060.	1967.2	15595.	389.19	193650.	929.36	2334.4	5743.0	4941.8

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**121360.**	**129900.**	**186730.**	**8341.0**	**936.12**	**121050.**	**3847.7**	**5235.8**	**3707.1**	**3192.9**
Stddev	472.	112.	287.	26.4	1.60	155.	6.6	5.2	10.8	8.0
%RSD	.38871	.08636	.15346	.31670	.17138	.12819	.17182	.09992	.29142	.25132
#1	120820.	129820.	186400.	8310.7	935.14	120990.	3840.2	5230.3	3699.1	3183.6
#2	121690.	130030.	186880.	8359.4	935.25	120940.	3852.6	5236.2	3702.9	3197.4
#3	121560.	129840.	186910.	8352.9	937.97	121230.	3850.4	5240.8	3719.4	3197.6

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV04 Acquired: 10/18/2016 02:25:11 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	**1867.1**	**3838.6**	**3959.5**	**7681.7**
Stddev	10.2	15.8	9.3	13.1
%RSD	.54513	.41261	.23552	.17096
#1	1855.4	3842.4	3963.0	7667.6
#2	1874.1	3821.2	3966.6	7683.8
#3	1871.8	3852.1	3948.9	7693.6

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	**3380.0**	**2008.6**	**26241.**	**119510.**	**3615.9**	**52889.**	**10964.**
Stddev	13.5	4.4	86.	96.	10.9	66.	44.
%RSD	.39857	.22120	.32949	.08040	.30086	.12443	.39711
#1	3378.8	2011.3	26145.	119610.	3620.8	52964.	10916.
#2	3394.0	2011.0	26312.	119490.	3623.4	52839.	11000.
#3	3367.1	2003.5	26267.	119420.	3603.4	52865.	10976.

Sample Name: SEQ-CCB@CCB04 Acquired: 10/18/2016 02:29:24 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	-.49136	-9.6644	.72049	1.9718	.15835	-29.251	.11664	.31472	-.27457	.11222	-8.6414
Stddev	.15239	5.9901	.21779	.3679	.03005	3.441	.05428	.11154	.02802	.07415	4.3041
%RSD	31.014	61.981	30.228	18.657	18.977	11.762	46.539	35.441	10.206	66.070	49.808
#1	-.52456	-16.318	.64169	1.6286	.18985	-26.880	.17459	.24336	-.24262	.19506	-6.5846
#2	-.62442	-7.9753	.96672	1.9267	.15520	-33.197	.10837	.44326	-.29498	.08955	-13.588
#3	-.32511	-4.7003	.55307	2.3601	.13000	-27.677	.06697	.25755	-.28611	.05206	-5.7516

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	29.567	-35.914	-.76561	.22302	6.6032	.39266	.99954	1.7806	-1.6454	-1.0900	.77818
Stddev	9.728	10.645	.30150	.08947	3.7018	.35130	.51545	.2255	.9884	.6116	1.0258
%RSD	32.902	29.641	39.381	40.116	56.060	89.466	51.569	12.663	60.070	56.115	131.83
#1	40.755	-48.204	-1.0368	.32624	2.5433	.76577	1.1558	2.0224	-2.0602	-1.4978	-.20170
#2	23.109	-29.949	-.81912	.17490	7.4751	.34396	.42403	1.7432	-.51719	-.38670	.69172
#3	24.836	-29.588	-.44094	.16790	9.7912	.06825	1.4188	1.5761	-2.3588	-1.3854	1.8445

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB04 Acquired: 10/18/2016 02:29:24 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	.89266	.84039
Stddev	.21221	.06634
%RSD	23.773	7.8940
#1	.82204	.86314
#2	.72476	.89235
#3	1.1312	.76566

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	4388.4	2457.0	26771.	129510.	4079.6	58480.	11526.
Stddev	9.1	2.0	87.	513.	5.3	225.	76.
%RSD	.20833	.07940	.32625	.39576	.13002	.38481	.66252
#1	4384.9	2458.4	26772.	130060.	4082.6	58726.	11549.
#2	4398.8	2457.9	26857.	129040.	4082.7	58286.	11588.
#3	4381.6	2454.8	26683.	129450.	4073.5	58427.	11441.

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV05 Acquired: 10/18/2016 02:58:58 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	**484.03**	**130690.**	**1927.4**	**15004.**	**381.68**	**189570.**	**911.34**	**2287.7**	**5654.0**	**4854.2**
Stddev	.84	182.	2.8	177.	.99	1278.	2.02	5.3	6.9	4.9
%RSD	.17279	.13906	.14764	1.1801	.25880	.67391	.22167	.23017	.12195	.10077
#1	483.95	130880.	1925.4	14894.	381.43	191030.	909.68	2283.7	5652.0	4849.9
#2	483.23	130650.	1926.1	14909.	382.77	189020.	910.75	2285.8	5648.4	4853.1
#3	484.90	130520.	1930.6	15208.	380.84	188660.	913.59	2293.7	5661.7	4859.5

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**118930.**	**127820.**	**183350.**	**8186.1**	**918.29**	**118940.**	**3785.5**	**F 5159.3**	**3634.9**	**F 3144.7**
Stddev	1200.	497.	1410.	27.7	1.72	1176.	8.7	10.4	7.1	6.4
%RSD	1.0094	.38875	.76914	.33879	.18752	.98849	.22863	.20147	.19466	.20348
#1	120290.	128390.	184910.	8217.7	916.61	120280.	3778.9	5155.5	3631.7	3138.9
#2	118480.	127470.	182960.	8174.4	918.20	118500.	3782.4	5151.3	3630.0	3143.7
#3	118020.	127600.	182170.	8166.0	920.05	118050.	3795.3	5171.0	3643.0	3151.6

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV05 Acquired: 10/18/2016 02:58:58 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	**1839.5**	**3770.4**	**3891.2**	**7574.5**
Stddev	3.2	5.7	4.7	16.2
%RSD	.17189	.15102	.12194	.21330
#1	1836.2	3767.2	3887.4	7565.4
#2	1839.6	3767.0	3889.7	7564.9
#3	1842.6	3777.0	3896.5	7593.1

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	**3434.0**	**2037.8**	**26627.**	**121060.**	**3669.4**	**53532.**	**11135.**
Stddev	7.0	5.0	247.	280.	9.1	132.	151.
%RSD	.20383	.24623	.92800	.23156	.24863	.24652	1.3521
#1	3437.4	2041.2	26342.	120770.	3678.7	53407.	10961.
#2	3438.6	2040.1	26776.	121330.	3668.9	53670.	11214.
#3	3425.9	2032.0	26763.	121090.	3660.5	53518.	11230.

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB05 Acquired: 10/18/2016 03:03:12 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	-.52347	-10.370	1.3479	1.5995	.11713	-30.174	.15964	.38437	-.43541	.06045	-15.048
Stddev	.18082	3.573	.8799	.1941	.02112	7.260	.02873	.16151	.23031	.09672	1.004
%RSD	34.542	34.451	65.279	12.133	18.035	24.063	17.999	42.019	52.896	160.01	6.6742
#1	-.53113	-6.6570	1.6453	1.4381	.13745	-29.275	.17844	.19902	-.58463	.14419	-14.597
#2	-.70033	-13.783	.35782	1.5456	.11867	-37.842	.17390	.49490	-.55144	.08256	-16.198
#3	-.33894	-10.670	2.0404	1.8148	.09528	-23.404	.12656	.45920	-.17016	-.04541	-14.348

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	30.765	-36.593	-.73435	.25581	7.4865	.70128	.24464	2.5132	-.94777	-.92949	.73811
Stddev	25.679	10.949	.24363	.18613	5.3712	.33616	.98419	.7724	.60376	.16293	.62358
%RSD	83.470	29.922	33.176	72.760	71.745	47.935	402.31	30.734	63.703	17.528	84.483
#1	37.360	-36.973	-1.0103	.25554	12.859	1.0875	1.1837	3.3981	-1.6294	-.80035	1.2310
#2	2.4308	-25.459	-.64352	.06982	2.1164	.54206	-.77917	2.1675	-.73372	-.87559	.03707
#3	52.503	-47.348	-.54919	.44207	7.4844	.47431	.32935	1.9740	-.48020	-1.1125	.94631

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB05 Acquired: 10/18/2016 03:03:12 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	.65719	.78730
Stddev	.13382	.10630
%RSD	20.362	13.502
#1	.50357	.90438
#2	.71963	.76070
#3	.74838	.69683

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	4339.2	2427.5	26487.	127900.	4040.6	57698.	11443.
Stddev	14.1	4.6	182.	618.	11.4	250.	101.
%RSD	.32544	.18924	.68714	.48310	.28305	.43327	.88363
#1	4346.3	2431.1	26277.	128490.	4047.4	57911.	11327.
#2	4348.4	2429.0	26608.	127940.	4047.1	57761.	11512.
#3	4322.9	2422.3	26575.	127260.	4027.4	57423.	11491.

Sample Name: QJ14023-BLK1 Acquired: 10/18/2016 03:07:35 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: PBS01 SDG: MH1G77 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	-.60412	-31.179	-.45523	-.40570	.06677	-69.820	.01993	-.07720	-1.1812	-.37611	-26.363
Stddev	.32247	2.894	1.8437	.00837	.00180	8.525	.03396	.11023	.0450	.08795	1.507
%RSD	53.379	9.2830	405.01	2.0637	2.6953	12.210	170.38	142.79	3.8094	23.383	5.7155
#1	-.28765	-31.018	-.14650	-.39620	.06748	-77.718	-.00746	-.17345	-1.1504	-.31908	-27.936
#2	-.59243	-34.150	-2.4339	-.40888	.06811	-70.961	.00932	.04306	-1.2329	-.47740	-26.220
#3	-.93227	-28.368	1.2147	-.41201	.06473	-60.783	.05792	-.10120	-1.1604	-.33185	-24.933

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	-52.941	-53.167	2.4417	.06474	-27.572	-.01563	.19209	-.28628	-.89493	-1.7039	.26475
Stddev	16.586	4.285	.1080	.04886	3.938	.06752	.54106	.31609	.72076	.4513	.61360
%RSD	31.329	8.0602	4.4224	75.462	14.281	432.03	281.68	110.41	80.539	26.484	231.76
#1	-59.559	-57.246	2.5610	.05802	-25.763	-.08733	.72003	.02123	-.10247	-1.1833	-.35724
#2	-65.195	-53.555	2.3506	.11661	-24.864	-.00628	-.36121	-.26978	-1.0709	-1.9461	.86960
#3	-34.067	-48.701	2.4136	.01960	-32.089	.04673	.21744	-.61030	-1.5114	-1.9824	.28190

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14023-BLK1 Acquired: 10/18/2016 03:07:35 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: PBS01 SDG: MH1G77 Case: 46282
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	.19069	.69949
Stddev	.09434	.05759
%RSD	49.474	8.2330
#1	.08180	.72725
#2	.24237	.63328
#3	.24790	.73794

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	4429.8	2463.8	27032.	131020.	4116.9	59218.	11661.
Stddev	8.2	5.8	50.	357.	9.7	108.	19.
%RSD	.18499	.23485	.18595	.27246	.23468	.18226	.16626
#1	4437.7	2469.8	27079.	131320.	4128.0	59304.	11662.
#2	4430.4	2458.3	26979.	131110.	4110.5	59252.	11679.
#3	4421.4	2463.2	27036.	130630.	4112.2	59097.	11641.

Sample Name: QJ14023-BS1 Acquired: 10/18/2016 03:11:56 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: LCS01 SDG: MH1G77 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	**16.406**	**313.33**	**15.063**	**353.19**	**8.6536**	**8931.3**	**8.6279**	**88.554**	**17.540**	**41.197**	**144.39**
Stddev	.374	6.72	1.537	1.15	.0125	62.8	.0494	.036	.153	.400	3.19
%RSD	2.2768	2.1442	10.206	.32659	.14474	.70323	.57228	.04108	.87013	.97033	2.2064
#1	16.467	320.51	14.338	351.87	8.6423	8861.9	8.6821	88.594	17.662	40.965	141.99
#2	16.006	307.19	14.022	353.68	8.6671	8947.4	8.5855	88.523	17.369	41.659	143.19
#3	16.746	312.28	16.828	354.01	8.6515	8984.4	8.6162	88.546	17.589	40.968	148.01

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	**8286.2**	**8519.3**	**24.580**	**-.03517**	**8735.3**	**71.622**	**17.299**	**101.10**	**53.063**	**-1.6318**	**41.660**
Stddev	27.4	87.3	.388	.14779	57.5	.465	.663	2.37	.403	.1122	.072
%RSD	.33076	1.0242	1.5766	420.25	.65808	.64968	3.8340	2.3403	.76036	6.8734	.17268
#1	8262.0	8418.6	24.133	-.20353	8669.6	72.036	16.662	102.99	53.267	-1.5928	41.667
#2	8280.7	8567.0	24.796	.02488	8760.0	71.118	17.986	98.446	53.323	-1.7583	41.584
#3	8316.0	8572.2	24.812	.07315	8776.3	71.712	17.250	101.87	52.598	-1.5444	41.728

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14023-BS1 Acquired: 10/18/2016 03:11:56 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: LCS01 SDG: MH1G77 Case: 46282
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**90.569**	**104.26**
Stddev	.491	.57
%RSD	.54205	.54507
#1	91.123	104.91
#2	90.186	103.87
#3	90.399	104.00

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	**4105.5**	**2278.1**	**26657.**	**128950.**	**3949.4**	**57528.**	**11375.**
Stddev	16.7	12.6	74.	685.	14.3	332.	43.
%RSD	.40632	.55291	.27930	.53146	.36224	.57766	.38208
#1	4089.6	2263.8	26696.	128340.	3934.2	57220.	11414.
#2	4104.1	2283.0	26705.	128830.	3951.4	57484.	11382.
#3	4122.9	2287.6	26572.	129690.	3962.6	57881.	11328.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-01 Acquired: 10/18/2016 03:16:13 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G77 SDG: MH1G77 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	**96.428**	**27444.**	**362.69**	**495.29**	**1.1859**	**4002.8**	**11.393**	**8.1340**	**14.328**	**363.69**
#1	96.835	27525.	364.37	495.45	1.1653	3989.4	11.355	7.9975	14.345	364.60
#2	96.389	27421.	362.57	496.16	1.2127	4019.5	11.454	8.3380	14.355	363.74
#3	96.059	27386.	361.12	494.25	1.1797	3999.3	11.369	8.0665	14.283	362.73

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**232440.**	**12167.**	**10616.**	**1383.7**	**33.742**	**423.83**	**-2.3773**	**F 11316.**	**28.089**	**10.671**
#1	231650.	12208.	10568.	1379.6	33.865	422.87	-2.3043	11306.	29.714	11.078
#2	233360.	12163.	10684.	1387.8	33.351	422.45	-2.3944	11308.	27.147	10.218
#3	232320.	12131.	10596.	1383.5	34.011	426.18	-2.4333	11335.	27.406	10.716

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**133.29**	**-6.9418**	**93.032**	**2027.4**
#1	137.61	-7.0219	92.838	2026.7
#2	134.09	-7.0630	92.929	2025.2
#3	128.17	-6.7404	93.328	2030.3

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-01 Acquired: 10/18/2016 03:16:13 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G77 SDG: MH1G77 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	**4038.9**	**2241.2**	**27011.**	**129350.**	**4034.3**	**57971.**	**11611.**
#1	4045.5	2242.1	27148.	128940.	4038.3	57781.	11647.
#2	4039.7	2241.5	26987.	129980.	4034.4	58286.	11598.
#3	4031.6	2239.9	26897.	129140.	4030.1	57847.	11587.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-02 Acquired: 10/18/2016 03:20:26 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G78 SDG: MH1G77 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**348.88**	**53119.**	**736.67**	**963.67**	**1.6967**	**10787.**	**13.316**	**22.450**	**28.188**
#1	348.43	52848.	731.99	960.61	1.7043	10761.	13.251	22.109	27.919
#2	348.42	53255.	736.98	966.15	1.7209	10777.	13.356	22.631	28.465
#3	349.79	53253.	741.05	964.24	1.6648	10822.	13.340	22.609	28.181

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**812.18**	**F 401690.**	**22928.**	**24200.**	**3297.0**	**35.168**	**1009.3**	**3.1989**	**F 65784.**
#1	812.10	400130.	22825.	24132.	3284.7	35.226	1016.0	3.1558	65622.
#2	813.05	402420.	22977.	24210.	3304.6	35.261	1008.6	2.3594	65784.
#3	811.40	402540.	22980.	24258.	3301.6	35.016	1003.4	4.0815	65946.

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**74.139**	**20.047**	**215.58**	**-10.052**	**190.07**	**1796.5**
#1	74.035	18.215	211.65	-10.065	189.26	1790.8
#2	75.049	21.077	217.70	-9.5332	190.61	1798.9
#3	73.333	20.848	217.40	-10.557	190.32	1799.7

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-02 Acquired: 10/18/2016 03:20:26 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G78 SDG: MH1G77 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	**3898.6**	**2156.4**	**26867.**	**127400.**	**3978.3**	**57440.**	**11553.**
#1	3898.8	2161.3	26825.	127030.	3987.3	57238.	11533.
#2	3895.7	2150.6	26996.	127770.	3962.8	57591.	11598.
#3	3901.3	2157.2	26779.	127410.	3984.7	57492.	11529.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-03 Acquired: 10/18/2016 03:24:38 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G79 SDG: MH1G77 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	26.173	25381.	2696.2	307.41	.64843	841.35	30.821	23.216	38.062
#1	26.052	25331.	2698.6	307.49	.62526	821.82	31.002	23.250	37.699
#2	26.168	25427.	2698.5	307.87	.66176	862.33	30.728	23.350	38.185
#3	26.299	25386.	2691.5	306.88	.65825	839.89	30.732	23.049	38.303

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	987.31	F 955620.	10445.	7537.0	F 16207.	26.364	389.76	-20.647	3605.3
#1	990.53	950080.	10429.	7530.0	16200.	26.216	389.82	-20.079	3606.8
#2	986.87	944970.	10434.	7532.6	16216.	26.715	388.61	-20.925	3608.3
#3	984.54	971800.	10470.	7548.6	16204.	26.160	390.84	-20.937	3600.9

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	61.327	14.136	711.53	-26.687	110.17	1958.7
#1	60.576	12.193	711.05	-26.676	110.38	1962.7
#2	61.103	11.867	713.98	-26.509	109.28	1958.7
#3	62.303	18.349	709.57	-26.878	110.84	1954.8

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-03 Acquired: 10/18/2016 03:24:38 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G79 SDG: MH1G77 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	3849.5	2052.1	26402.	124580.	3858.2	55404.	11350.
#1	3847.0	2052.1	26386.	124900.	3852.9	55497.	11333.
#2	3844.5	2050.7	26522.	124410.	3858.4	55376.	11397.
#3	3856.9	2053.4	26298.	124430.	3863.3	55339.	11320.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-04 Acquired: 10/18/2016 03:28:57 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G80 SDG: MH1G77 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	**24.920**	**79633.**	**317.66**	**351.59**	**3.1549**	**7713.4**	**13.518**	**54.831**	**59.076**	**1462.8**
#1	25.073	79290.	319.01	350.43	3.1701	7677.5	13.548	54.454	59.134	1463.2
#2	25.136	79752.	316.40	352.18	3.1552	7696.5	13.443	54.708	58.861	1457.7
#3	24.549	79856.	317.56	352.18	3.1394	7766.1	13.563	55.332	59.232	1467.4

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**250710.**	**11387.**	**35622.**	**11971.**	**43.268**	**273.59**	**27.211**	**8838.5**	**26.004**	**14.125**
#1	249430.	11344.	35393.	11919.	43.351	274.71	27.394	8851.0	26.657	15.002
#2	250930.	11395.	35672.	11984.	42.887	272.31	26.766	8815.7	25.557	14.278
#3	251770.	11420.	35802.	12010.	43.567	273.75	27.474	8848.8	25.798	13.096

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**908.47**	**-2.0224**	**186.60**	**2147.3**
#1	908.41	-1.7788	187.10	2148.1
#2	907.29	-3.7882	186.17	2140.8
#3	909.71	-.50030	186.55	2153.1

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-04 Acquired: 10/18/2016 03:28:57 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G80 SDG: MH1G77 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	**3929.5**	**2188.1**	**27067.**	**128560.**	**4070.4**	**58375.**	**11818.**
#1	3929.5	2189.4	27138.	128300.	4068.2	58252.	11849.
#2	3934.5	2190.2	27039.	128420.	4082.1	58374.	11814.
#3	3924.5	2184.6	27023.	128960.	4061.0	58500.	11790.

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14023-MS1 Acquired: 10/18/2016 03:33:07 Type: RQC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G80S SDG: MH1G77 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**110.15**	**89882.**	F **509.85**	**3817.8**	**92.310**	**9984.2**	**98.908**	**898.85**	**430.18**
Stddev	.30	570.	3.44	18.5	.104	42.1	.371	1.86	1.05
%RSD	.26931	.63432	.67551	.48371	.11225	.42180	.37505	.20693	.24516
#1	110.37	89331.	508.95	3799.0	92.427	9938.9	98.938	898.13	429.38
#2	110.27	89845.	506.95	3818.5	92.274	10022.	98.522	897.47	431.38
#3	109.81	90470.	513.66	3835.9	92.229	9991.7	99.262	900.97	429.78
Check ?	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value			80.000						
Range			25.000%						
	85.232	None		3466.2	89.155	None	85.390	844.02	371.10
Recovery	85.232%		192.19	86.656%	89.155%		85.390%	84.402%	92.776%
% Recovery			240.24%						

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14023-MS1 Acquired: 10/18/2016 03:33:07 Type: RQC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G80S SDG: MH1G77 Case: 46282
Comment:

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **2097.5**	F **344780.**	**10255.**	**45475.**	F **14601.**	**44.908**	F **258.52**	**940.53**	F **11741.**
Stddev	1.6	2776.	30.	373.	93.	.462	5.22	3.28	31.
%RSD	.07633	.80520	.29246	.82104	.63911	1.0297	2.0209	.34823	.26493
#1	2098.7	342050.	10230.	45109.	14508.	44.992	263.10	939.17	11743.
#2	2095.7	344690.	10246.	45461.	14602.	44.409	252.83	938.15	11708.
#3	2098.2	347600.	10288.	45856.	14694.	45.322	259.64	944.26	11770.
Check ?	Chk Fail	Chk Fail	None	None	Chk Fail	None	Chk Fail	Chk Pass	Chk Fail
Value	500.00	100.00			1000.0		4000.0		40.000
Range	25.000%	25.000%			25.000%		-25.000%		25.000%
			None	None		None		913.32	
Recovery	634.73	94069.			2630.1		-15.067	91.332%	2902.1
% Recovery	126.95%	94069.%			263.01%		-.3767%		7255.1%

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14023-MS1 Acquired: 10/18/2016 03:33:07 Type: RQC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G80S SDG: MH1G77 Case: 46282
Comment:

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 86.664	F 166.03	F 1203.2	81.233	1146.5	F 3596.9
Stddev	1.093	2.34	4.1	.673	3.5	16.2
%RSD	1.2611	1.4076	.34359	.82870	.30353	.44931
#1	87.857	168.63	1198.7	81.995	1144.8	3595.8
#2	85.711	164.10	1204.0	80.983	1150.5	3581.3
#3	86.425	165.36	1206.8	80.721	1144.2	3613.5
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value	200.00	100.00	100.00			1000.0
Range	-25.000%	25.000%	25.000%			25.000%
Recovery	60.660	151.91	294.71	83.255	959.93	1449.5
% Recovery	30.330%	151.91%	294.71%	83.255%	95.993%	144.95%

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14023-MS1 Acquired: 10/18/2016 03:33:07 Type: RQC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G80S SDG: MH1G77 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	3881.9	2154.3	27027.	127950.	4041.9	58215.	11874.
Stddev	6.2	3.7	57.	700.	12.1	347.	48.
%RSD	.16097	.17026	.21155	.54746	.29933	.59575	.40822
#1	3887.7	2154.1	27089.	128090.	4042.7	58299.	11912.
#2	3882.7	2158.1	27016.	127190.	4053.6	57834.	11891.
#3	3875.3	2150.8	26976.	128580.	4029.4	58512.	11819.

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14023-DUP1 Acquired: 10/18/2016 03:37:15 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G80D SDG: MH1G77 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	**29.135**	**87173.**	**354.51**	**348.16**	**3.3137**	**9446.9**	**15.426**	**57.989**	**69.875**	**1604.0**
#1	29.137	86800.	353.42	347.17	3.2909	9383.0	15.427	57.846	70.176	1606.6
#2	29.101	87422.	354.75	349.38	3.3203	9525.1	15.382	58.263	69.681	1604.8
#3	29.168	87297.	355.37	347.94	3.3298	9432.5	15.469	57.860	69.767	1600.6

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**291240.**	**10706.**	**42484.**	**12720.**	**47.741**	**270.54**	**30.348**	**F 10248.**	**27.926**	**14.723**
#1	289040.	10684.	42262.	12655.	47.797	275.13	29.821	10240.	25.681	16.245
#2	293040.	10731.	42670.	12773.	47.900	267.33	30.720	10226.	29.363	13.320
#3	291650.	10705.	42521.	12733.	47.525	269.18	30.503	10278.	28.734	14.605

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1107.1**	**-3.7610**	**218.25**	**2581.6**
#1	1103.4	-3.2533	218.86	2580.2
#2	1107.9	-4.0279	218.80	2574.5
#3	1110.0	-4.0017	217.09	2590.0

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14023-DUP1 Acquired: 10/18/2016 03:37:15 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G80D SDG: MH1G77 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	**3922.7**	**2191.0**	**27189.**	**128710.**	**4091.8**	**58744.**	**11951.**
#1	3915.3	2185.9	27293.	128980.	4088.9	58808.	12005.
#2	3932.5	2201.4	27133.	128460.	4101.3	58673.	11891.
#3	3920.4	2185.5	27140.	128690.	4085.2	58751.	11956.

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-SRD1 Acquired: 10/18/2016 03:41:24 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G80L SDG: MH1G77 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	**4.3041**	**15076.**	**54.768**	**66.647**	**.69320**	**1421.8**	**2.7352**	**10.878**	**10.266**	**273.11**	**47665.**
#1	4.1952	15039.	56.329	66.550	.68402	1415.9	2.7661	11.018	10.296	273.06	47564.
#2	4.5386	15097.	54.864	66.919	.72821	1437.6	2.7157	10.774	10.456	272.41	47786.
#3	4.1785	15093.	53.111	66.474	.66735	1412.0	2.7237	10.841	10.048	273.88	47645.

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	**2118.1**	**6797.6**	**2412.8**	**7.8906**	**17.639**	**4.8022**	**1577.3**	**3.8417**	**-.09545**	**164.65**	**.26060**
#1	2115.4	6805.7	2411.5	7.9870	13.837	4.6654	1580.5	3.6259	-1.4799	164.86	1.0806
#2	2123.6	6820.1	2415.5	7.7831	19.826	4.4962	1578.9	4.5937	1.5453	165.09	.38169
#3	2115.4	6767.0	2411.3	7.9016	19.255	5.2449	1572.7	3.3055	-.35168	163.99	-.68047

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**35.507**	**398.17**
#1	35.506	399.30
#2	35.507	398.67
#3	35.509	396.53

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-SRD1 Acquired: 10/18/2016 03:41:24 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G80L SDG: MH1G77 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	**4326.5**	**2469.3**	**27612.**	**133390.**	**4183.7**	**59608.**	**11841.**
#1	4334.5	2472.1	27554.	133440.	4183.7	59626.	11820.
#2	4322.4	2465.0	27618.	133300.	4185.0	59562.	11837.
#3	4322.6	2470.9	27665.	133420.	4182.5	59634.	11867.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-05 Acquired: 10/18/2016 03:45:40 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G81 SDG: MH1G77 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	25.587	28452.	3074.3	337.88	.75979	2107.9	30.017	78.730	59.541
#1	25.672	28327.	3083.7	337.43	.75842	2085.1	29.976	78.792	59.852
#2	25.899	28528.	3064.7	337.91	.76334	2106.2	29.876	78.935	58.957
#3	25.191	28502.	3074.5	338.30	.75761	2132.4	30.200	78.462	59.815

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1366.9	F 755910.	10660.	10810.	F 72179.	46.837	465.76	-13.410	6479.6
#1	1366.9	752830.	10638.	10765.	73272.	47.008	462.62	-13.918	6487.3
#2	1367.4	755930.	10695.	10838.	71852.	46.527	463.09	-12.894	6459.9
#3	1366.3	758970.	10648.	10828.	71413.	46.977	471.57	-13.419	6491.5

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	60.002	55.785	988.92	14.551	135.72	2350.8
#1	61.222	55.404	987.12	13.639	136.03	2352.1
#2	59.009	55.930	989.59	15.333	135.67	2345.8
#3	59.774	56.022	990.05	14.680	135.47	2354.5

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-05 Acquired: 10/18/2016 03:45:40 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G81 SDG: MH1G77 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	3871.7	2072.3	26540.	125920.	3878.4	55711.	11367.
#1	3865.5	2067.8	26364.	125510.	3878.0	55569.	11292.
#2	3884.1	2072.4	26633.	126050.	3880.3	55775.	11395.
#3	3865.6	2076.7	26621.	126190.	3876.9	55788.	11415.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-06 Acquired: 10/18/2016 03:50:07 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G82 SDG: MH1G77 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	**31.214**	**71364.**	**229.96**	**738.07**	**3.2357**	**10827.**	**28.175**	**40.169**	**63.991**	**1209.5**
#1	31.220	71080.	230.87	735.72	3.2253	10804.	28.308	40.011	64.070	1213.2
#2	31.520	71461.	228.77	738.81	3.2321	10816.	28.237	40.257	64.304	1208.1
#3	30.901	71550.	230.24	739.67	3.2498	10861.	27.980	40.238	63.599	1207.1

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**163250.**	**15799.**	**19149.**	**15482.**	**35.270**	**385.40**	**35.127**	**6777.3**	**18.550**	**13.485**
#1	162730.	15800.	19125.	15447.	35.667	385.94	35.179	6770.1	19.226	13.153
#2	163380.	15830.	19078.	15487.	35.055	383.05	35.486	6776.2	19.744	13.156
#3	163640.	15767.	19243.	15511.	35.087	387.21	34.716	6785.7	16.680	14.145

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1185.7**	**2.5920**	**149.24**	**4630.9**
#1	1179.0	3.3498	149.52	4628.7
#2	1186.0	2.6346	149.63	4631.2
#3	1192.2	1.7916	148.55	4632.7

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-06 Acquired: 10/18/2016 03:50:07 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G82 SDG: MH1G77 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	**3970.5**	**2222.4**	**27104.**	**130230.**	**4095.6**	**59159.**	**11802.**
#1	3965.7	2226.6	27147.	130330.	4094.6	59149.	11806.
#2	3972.9	2223.1	27162.	130370.	4097.2	59290.	11832.
#3	3972.9	2217.4	27003.	129990.	4094.9	59037.	11767.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-07 Acquired: 10/18/2016 03:54:18 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G83 SDG: MH1G77 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	29.471	139060.	2871.1	800.69	13.587	2155.4	381.62	358.36	111.74
#1	29.634	138790.	2869.4	800.82	13.600	2138.2	381.49	357.28	111.81
#2	29.364	139620.	2871.0	803.98	13.581	2161.9	381.84	358.91	111.58
#3	29.414	138760.	2872.9	797.27	13.580	2166.2	381.53	358.90	111.83

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9174.6	F 531600.	7703.1	39773.	F 237480.	17.743	113.11	146.04	F 15367.
#1	9180.0	531460.	7723.4	39771.	239280.	18.101	106.90	146.40	15348.
#2	9166.7	537130.	7709.8	40096.	238050.	17.324	119.79	145.32	15347.
#3	9177.2	526210.	7676.1	39453.	235120.	17.804	112.63	146.40	15405.

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	32.236	169.00	664.98	156.29	197.21	F 25626.
#1	33.283	169.28	661.99	157.60	197.15	25615.
#2	31.748	172.27	666.43	155.93	197.30	25588.
#3	31.678	165.45	666.51	155.35	197.17	25674.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-07 Acquired: 10/18/2016 03:54:18 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G83 SDG: MH1G77 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	3696.7	2018.3	26122.	124280.	4121.4	58790.	11922.
#1	3694.0	2018.2	25946.	124080.	4122.5	58720.	11805.
#2	3705.4	2022.4	26039.	124100.	4122.7	58736.	11840.
#3	3690.8	2014.2	26380.	124660.	4119.1	58914.	12121.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-08 Acquired: 10/18/2016 03:58:35 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G84 SDG: MH1G77 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**17.045**	**166800.**	**239.26**	**875.42**	**12.818**	**6561.6**	**320.96**	**253.47**	**116.97**
#1	17.028	165950.	240.36	873.29	12.780	6529.7	320.61	253.47	117.39
#2	17.286	167060.	238.23	877.34	12.841	6593.3	320.43	252.97	116.66
#3	16.820	167400.	239.20	875.62	12.833	6561.7	321.86	253.96	116.85

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6554.1**	**221300.**	**9243.0**	**44323.**	**F 173130.**	**8.1479**	**324.52**	**149.42**	**F 10901.**
#1	6570.0	219410.	9205.1	43906.	169910.	8.1092	320.13	149.56	10893.
#2	6549.4	222490.	9273.2	44547.	174330.	8.3726	329.06	148.69	10903.
#3	6543.0	222000.	9250.8	44515.	175150.	7.9619	324.37	150.01	10908.

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**13.518**	**117.50**	**949.38**	**121.99**	**215.39**	**F 32109.**
#1	14.702	115.36	949.86	122.30	215.99	32060.
#2	12.715	116.15	943.85	121.67	214.63	32115.
#3	13.137	120.98	954.42	122.01	215.56	32153.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-08 Acquired: 10/18/2016 03:58:35 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G84 SDG: MH1G77 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	**3700.3**	**2075.5**	**26489.**	**125270.**	**4363.8**	**62044.**	**12648.**
#1	3703.3	2076.3	26568.	125230.	4363.9	61969.	12703.
#2	3708.6	2075.2	26503.	124960.	4370.7	61877.	12622.
#3	3689.1	2075.1	26397.	125620.	4356.9	62285.	12617.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-09 Acquired: 10/18/2016 04:02:54 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G85 SDG: MH1G77 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	9.8540	95203.	192.19	472.23	12.874	11075.	75.101	91.272	49.425	8547.2
#1	9.8712	94848.	191.66	470.76	12.905	11020.	75.132	91.112	49.252	8557.7
#2	9.6795	95404.	191.28	472.93	12.844	11083.	75.089	91.659	49.529	8543.8
#3	10.011	95356.	193.61	472.99	12.871	11121.	75.082	91.047	49.496	8540.0

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	226940.	5068.8	36627.	F 34114.	8.3415	118.81	72.130	9944.5	14.716	22.919
#1	226080.	5047.1	36519.	34015.	8.2382	120.54	72.331	9963.5	13.923	23.041
#2	227720.	5082.9	36676.	34174.	8.3449	116.76	72.349	9924.9	15.204	23.038
#3	227010.	5076.3	36687.	34155.	8.4415	119.14	71.709	9945.0	15.021	22.678

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	775.81	12.666	159.95	F 16488.
#1	772.79	12.442	159.97	16536.
#2	777.81	12.671	160.45	16454.
#3	776.82	12.886	159.42	16475.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-09 Acquired: 10/18/2016 04:02:54 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G85 SDG: MH1G77 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	3857.1	2153.4	26415.	127240.	4485.5	64588.	12955.
#1	3859.9	2148.8	26436.	127110.	4484.3	64601.	12963.
#2	3862.0	2159.2	26317.	127100.	4490.0	64499.	12915.
#3	3849.4	2152.2	26492.	127510.	4482.3	64663.	12987.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-10 Acquired: 10/18/2016 04:07:07 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G86 SDG: MH1G77 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	3.7629	94693.	177.91	518.60	5.1319	9738.4	8.7526	85.160	81.141	459.57
#1	3.6938	94219.	175.06	516.05	5.1274	9714.0	8.7378	84.819	81.154	459.81
#2	3.8008	94975.	180.02	519.14	5.1384	9684.3	8.7193	85.008	80.993	459.28
#3	3.7939	94885.	178.66	520.60	5.1299	9816.8	8.8007	85.652	81.277	459.62

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	210590.	10847.	39173.	12884.	15.733	427.47	47.122	3572.7	11.133	11.262
#1	208610.	10826.	38910.	12808.	15.877	432.81	47.328	3572.6	11.017	11.327
#2	210780.	10840.	39211.	12900.	15.578	427.77	46.725	3570.0	11.335	11.110
#3	212390.	10876.	39399.	12942.	15.743	421.82	47.312	3575.6	11.047	11.349

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	1494.7	-1.1612	212.53	1336.1
#1	1492.5	-1.7520	213.00	1332.7
#2	1499.9	-1.5707	212.32	1334.9
#3	1491.6	-.16097	212.28	1340.7

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-10 Acquired: 10/18/2016 04:07:07 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G86 SDG: MH1G77 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	3895.4	2200.3	26898.	128820.	4189.8	59925.	12034.
#1	3890.4	2200.6	26884.	128440.	4188.9	59743.	12053.
#2	3905.7	2205.3	26812.	128890.	4205.7	59977.	12018.
#3	3890.2	2194.9	26997.	129130.	4174.7	60055.	12032.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-11 Acquired: 10/18/2016 04:11:20 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G87 SDG: MH1G77 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	**11.908**	**103980.**	**317.14**	**491.28**	**9.0003**	**11113.**	**49.973**	**108.00**	**56.583**	**5682.9**
#1	11.879	103500.	317.64	490.00	9.0016	11035.	49.841	107.72	56.300	5685.7
#2	11.720	104120.	318.26	492.23	8.9916	11149.	49.823	107.74	56.553	5684.9
#3	12.124	104320.	315.51	491.61	9.0076	11157.	50.256	108.52	56.896	5678.0

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**278430.**	**8275.3**	**47558.**	**F 34504.**	**22.958**	**142.52**	**69.960**	**9910.4**	**20.964**	**26.099**
#1	277450.	8253.4	47256.	34366.	22.844	143.42	70.067	9897.9	21.350	25.172
#2	278770.	8293.8	47677.	34567.	23.066	142.43	69.145	9889.4	20.942	25.360
#3	279080.	8278.7	47741.	34579.	22.964	141.71	70.666	9943.8	20.600	27.764

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**897.49**	**11.851**	**210.21**	**9179.5**
#1	894.96	12.135	209.56	9166.5
#2	898.58	11.637	211.39	9157.6
#3	898.94	11.782	209.68	9214.5

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-11 Acquired: 10/18/2016 04:11:20 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G87 SDG: MH1G77 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	**3805.1**	**2118.4**	**26302.**	**125370.**	**4219.9**	**60545.**	**12201.**
#1	3807.2	2120.6	26280.	125680.	4225.6	60723.	12197.
#2	3810.1	2119.8	26313.	125010.	4221.1	60358.	12207.
#3	3797.9	2114.7	26312.	125420.	4212.9	60553.	12200.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-12 Acquired: 10/18/2016 04:15:31 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G88 SDG: MH1G77 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	**9.3843**	**114820.**	**281.61**	**584.30**	**7.6186**	**4199.4**	**37.370**	**113.59**	**79.229**	**3746.9**
#1	8.9633	114080.	280.03	581.76	7.5994	4163.4	37.454	113.73	78.444	3756.7
#2	9.8839	115320.	284.10	586.58	7.6520	4219.8	37.261	113.82	79.162	3740.2
#3	9.3056	115050.	280.71	584.57	7.6046	4215.0	37.397	113.22	80.081	3743.7

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**232310.**	**12998.**	**32403.**	**F 39165.**	**14.370**	**304.05**	**47.734**	**6114.4**	**14.395**	**28.056**
#1	231080.	12963.	32204.	38987.	14.182	302.93	48.217	6131.0	15.991	25.371
#2	233080.	13029.	32539.	39313.	14.549	305.63	47.855	6106.2	12.722	29.812
#3	232770.	13001.	32467.	39196.	14.380	303.59	47.129	6106.0	14.474	28.983

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1107.2**	**16.117**	**204.64**	**4294.7**
#1	1103.2	16.335	205.11	4300.6
#2	1108.7	17.383	203.87	4294.0
#3	1109.7	14.632	204.95	4289.7

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-12 Acquired: 10/18/2016 04:15:31 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G88 SDG: MH1G77 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	**3864.2**	**2161.1**	**26821.**	**128070.**	**4196.3**	**60295.**	**12196.**
#1	3861.8	2158.0	26808.	128210.	4191.9	60380.	12196.
#2	3868.5	2164.1	26846.	128320.	4203.2	60456.	12187.
#3	3862.4	2161.2	26809.	127670.	4193.9	60049.	12206.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-13 Acquired: 10/18/2016 04:19:43 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G89 SDG: MH1G77 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	8.2767	66330.	447.84	1855.9	17.931	13214.	71.654	144.92	26.056	1269.6
#1	8.7237	66209.	445.72	1859.6	17.958	13322.	71.647	145.32	25.947	1273.7
#2	8.0396	66396.	449.91	1857.3	17.964	13202.	71.709	145.05	26.236	1271.1
#3	8.0668	66384.	447.89	1851.0	17.869	13117.	71.607	144.40	25.985	1263.8

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	158430.	8846.8	16896.	F 42789.	55.118	96.920	108.59	F 13622.	14.127	30.919
#1	159260.	8871.4	16905.	42996.	55.508	92.098	108.25	13637.	13.985	30.401
#2	158390.	8812.7	16889.	42377.	55.056	100.23	109.04	13611.	14.959	31.840
#3	157650.	8856.5	16894.	42996.	54.790	98.432	108.47	13618.	13.436	30.517

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	341.47	23.575	59.678	8473.7
#1	339.24	24.057	59.849	8491.3
#2	343.60	23.667	59.880	8469.4
#3	341.58	23.000	59.306	8460.3

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-13 Acquired: 10/18/2016 04:19:43 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G89 SDG: MH1G77 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	3894.8	2158.0	26258.	126590.	4606.4	66188.	13251.
#1	3893.0	2155.7	26085.	126010.	4607.2	65834.	13105.
#2	3902.8	2161.4	26290.	126690.	4610.5	66232.	13280.
#3	3888.7	2157.0	26401.	127070.	4601.4	66500.	13368.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-14 Acquired: 10/18/2016 04:24:04 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G90 SDG: MH1G77 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	9.0078	103700.	231.67	1953.0	10.348	27178.	49.046	75.062	59.802	532.85
#1	8.8436	103150.	233.08	1948.3	10.396	27220.	49.157	75.642	59.776	533.53
#2	8.9994	103950.	231.35	1957.1	10.302	27296.	48.958	74.820	60.120	532.03
#3	9.1803	104010.	230.60	1953.5	10.346	27019.	49.022	74.724	59.512	533.00

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	165220.	16127.	26452.	F 19599.	15.549	284.72	54.202	5116.8	12.102	16.254
#1	165200.	16073.	26490.	19562.	15.564	286.31	54.685	5145.5	12.770	15.846
#2	165800.	16171.	26480.	19662.	15.462	282.77	53.694	5110.1	11.320	16.297
#3	164660.	16138.	26387.	19574.	15.623	285.07	54.228	5094.9	12.217	16.619

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	1126.2	5.6723	151.17	5832.5
#1	1118.7	4.4837	151.46	5867.3
#2	1128.6	6.5075	150.75	5825.8
#3	1131.4	6.0255	151.30	5804.4

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-14 Acquired: 10/18/2016 04:24:04 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G90 SDG: MH1G77 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	3867.5	2165.8	26891.	128210.	4218.9	60937.	12348.
#1	3863.9	2160.8	26882.	127820.	4213.3	60827.	12301.
#2	3867.3	2164.1	26847.	128300.	4219.9	61021.	12315.
#3	3871.4	2172.4	26942.	128510.	4223.5	60963.	12427.

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV06 Acquired: 10/18/2016 04:28:18 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	**485.20**	**130860.**	**1938.0**	**15226.**	**383.93**	**190990.**	**914.69**	**2294.0**	**5688.5**	**4864.3**
Stddev	.66	702.	5.3	316.	.25	509.	.82	2.0	9.7	2.4
%RSD	.13635	.53640	.27217	2.0767	.06492	.26637	.08927	.08589	.17051	.04911
#1	485.34	130080.	1943.9	14866.	383.85	190400.	914.47	2293.1	5692.7	4866.3
#2	484.48	131440.	1933.7	15356.	384.21	191320.	914.00	2292.5	5695.4	4864.8
#3	485.78	131050.	1936.5	15457.	383.73	191240.	915.59	2296.2	5677.4	4861.6

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**119510.**	**128250.**	**184550.**	**8219.6**	**922.87**	**119750.**	**3792.0**	**F 5174.3**	**3647.7**	**3153.3**
Stddev	773.	252.	952.	37.5	.56	196.	4.5	7.8	7.9	7.0
%RSD	.64685	.19671	.51562	.45626	.06054	.16380	.11918	.15015	.21728	.22185
#1	118620.	128100.	183450.	8176.8	923.39	119620.	3791.9	5172.4	3646.7	3151.7
#2	120050.	128540.	185080.	8246.8	922.28	119980.	3787.5	5167.7	3640.3	3147.2
#3	119860.	128110.	185110.	8235.1	922.92	119670.	3796.5	5182.8	3656.1	3160.9

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV06 Acquired: 10/18/2016 04:28:18 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	**1840.9**	**3791.4**	**3906.1**	**7593.3**
Stddev	8.7	4.4	5.3	13.6
%RSD	.47116	.11677	.13450	.17880
#1	1830.9	3796.3	3908.0	7590.4
#2	1845.4	3789.9	3910.2	7581.4
#3	1846.4	3787.9	3900.2	7608.1

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	**3445.6**	**2045.7**	**26480.**	**121190.**	**3684.2**	**53573.**	**11068.**
Stddev	10.3	9.4	116.	71.	14.6	39.	45.
%RSD	.29880	.45810	.43968	.05836	.39606	.07294	.40812
#1	3456.0	2054.2	26615.	121210.	3696.2	53554.	11119.
#2	3445.3	2047.3	26413.	121110.	3688.5	53546.	11032.
#3	3435.4	2035.6	26414.	121240.	3668.0	53617.	11054.

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB06 Acquired: 10/18/2016 04:32:31 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	-.60800	-3.1592	-.03931	1.9767	.16696	-29.011	.14473	.37512	-.37103	.14816	-5.9546
Stddev	.30422	3.5330	.76594	.1791	.00580	11.326	.02843	.31964	.27370	.12856	1.4168
%RSD	50.037	111.83	1948.5	9.0607	3.4762	39.040	19.641	85.209	73.769	86.770	23.793
#1	-.76744	-7.2083	-.81255	1.7914	.17365	-20.694	.13997	.24878	-.05561	.22906	-5.1024
#2	-.25720	-.70384	-.02448	2.1489	.16332	-41.910	.17523	.73862	-.54590	-.00008	-7.5901
#3	-.79937	-1.5655	.71911	1.9899	.16391	-24.428	.11898	.13796	-.51159	.21550	-5.1714

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	5.3532	-32.594	-.54024	.13502	-1.9476	.74641	.92180	1.9161	-.33840	-1.5435	.82589
Stddev	16.294	4.648	.10131	.05594	.9142	.36864	1.2259	.6804	1.0988	.3291	.21033
%RSD	304.37	14.261	18.754	41.434	46.941	49.388	132.99	35.510	324.71	21.322	25.467
#1	-13.007	-36.043	-.64795	.08336	-.89320	.33907	1.4959	2.3610	.58596	-1.6285	1.0686
#2	10.975	-27.308	-.52593	.12726	-2.5193	1.0571	1.7553	2.2545	-1.5533	-1.8218	.71292
#3	18.092	-34.432	-.44685	.19443	-2.4302	.84309	-.48579	1.1329	-.04789	-1.1803	.69617

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB06 Acquired: 10/18/2016 04:32:31 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	.70273	1.0144
Stddev	.25703	.0844
%RSD	36.577	8.3227
#1	.91264	1.0984
#2	.41606	1.0151
#3	.77948	.92960

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	4395.8	2461.5	26551.	130150.	4088.3	58665.	11457.
Stddev	14.7	11.1	47.	349.	13.9	199.	38.
%RSD	.33477	.45295	.17546	.26791	.33897	.33872	.33529
#1	4409.0	2468.5	26574.	129750.	4099.2	58457.	11431.
#2	4398.5	2467.2	26497.	130380.	4093.0	58853.	11439.
#3	4379.9	2448.6	26582.	130330.	4072.7	58685.	11501.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-15 Acquired: 10/18/2016 04:36:56 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G91 SDG: MH1G77 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	**16.669**	**88653.**	**292.74**	**1917.1**	**18.797**	**9957.0**	**92.472**	**165.55**	**41.650**	**1393.1**
#1	16.836	88427.	291.75	1913.7	18.818	9924.4	92.313	165.74	41.823	1398.2
#2	16.402	88867.	293.63	1923.5	18.775	9981.2	92.655	165.53	41.446	1390.6
#3	16.768	88664.	292.86	1914.1	18.799	9965.4	92.448	165.39	41.682	1390.5

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**157910.**	**8132.1**	**26596.**	**F 45526.**	**11.695**	**133.71**	**149.13**	**9625.3**	**11.508**	**30.911**
#1	157600.	8120.1	26535.	45474.	11.715	134.38	149.10	9615.1	11.564	30.444
#2	158830.	8138.7	26728.	46257.	11.738	131.50	149.28	9635.2	12.451	32.363
#3	157300.	8137.4	26527.	44847.	11.633	135.25	149.00	9625.7	10.507	29.925

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**445.92**	**26.051**	**85.857**	**13987.**
#1	445.74	26.824	85.741	13987.
#2	445.25	25.656	86.172	14006.
#3	446.77	25.674	85.657	13968.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-15 Acquired: 10/18/2016 04:36:56 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G91 SDG: MH1G77 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	**3860.4**	**2164.6**	**26660.**	**127200.**	**4681.3**	**67514.**	**13526.**
#1	3863.3	2161.9	26600.	127030.	4680.9	67384.	13454.
#2	3859.8	2165.5	26701.	127050.	4679.3	67428.	13533.
#3	3858.0	2166.5	26680.	127510.	4683.8	67731.	13591.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-16 Acquired: 10/18/2016 04:41:16 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G92 SDG: MH1G77 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	**4.5737**	**105330.**	**286.71**	**839.82**	**6.8064**	**17762.**	**14.657**	**71.496**	**59.216**	**251.93**
#1	4.1946	104760.	288.67	836.49	6.8242	17671.	14.623	71.508	59.069	252.93
#2	4.8653	105290.	285.18	839.71	6.8054	17823.	14.635	71.509	58.951	251.34
#3	4.6611	105940.	286.28	843.28	6.7897	17793.	14.713	71.471	59.627	251.53

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**187130.**	**16575.**	**28471.**	**13079.**	**34.279**	**353.15**	**40.074**	**3587.8**	**11.064**	**12.170**
#1	186400.	16504.	28337.	13022.	34.307	351.11	40.277	3594.2	10.570	11.781
#2	187040.	16616.	28501.	13081.	34.111	358.94	40.278	3587.1	11.417	9.8283
#3	187940.	16603.	28573.	13135.	34.419	349.40	39.665	3582.3	11.206	14.901

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**1388.7**	**2.0405**	**156.33**	**2254.1**
#1	1381.4	2.7068	156.49	2256.7
#2	1393.0	1.3038	156.06	2250.5
#3	1391.6	2.1109	156.45	2255.0

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-16 Acquired: 10/18/2016 04:41:16 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G92 SDG: MH1G77 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	**3867.9**	**2168.3**	**26672.**	**127590.**	**4137.3**	**59254.**	**11952.**
#1	3867.1	2165.7	26700.	127360.	4140.6	59156.	11952.
#2	3874.9	2171.6	26745.	127730.	4146.9	59300.	12007.
#3	3861.7	2167.6	26570.	127680.	4124.5	59305.	11898.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-17 Acquired: 10/18/2016 04:45:28 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G93 SDG: MH1G77 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	8.9421	71490.	331.22	982.05	5.9931	12999.	10.921	53.639	33.871	538.25
#1	8.4062	71098.	333.97	977.63	5.9502	12957.	10.924	54.000	34.152	541.20
#2	9.0928	71683.	328.91	986.27	5.9986	13058.	10.994	53.445	33.670	537.14
#3	9.3274	71689.	330.78	982.23	6.0305	12983.	10.846	53.473	33.791	536.41

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	187320.	14228.	33624.	12871.	16.230	347.24	23.847	2054.4	16.876	12.639
#1	186230.	14210.	33425.	12809.	16.367	343.38	24.071	2064.9	17.655	11.554
#2	188100.	14261.	33746.	12915.	16.149	352.00	23.860	2052.0	15.119	12.212
#3	187630.	14212.	33700.	12889.	16.176	346.34	23.610	2046.2	17.855	14.150

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	738.20	.57052	144.20	1951.6
#1	735.13	.89513	145.47	1958.9
#2	738.50	-.54173	143.45	1952.2
#3	740.96	1.3582	143.67	1943.7

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-17 Acquired: 10/18/2016 04:45:28 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G93 SDG: MH1G77 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	3908.9	2174.4	26457.	127360.	4170.1	59753.	11985.
#1	3904.4	2172.3	26329.	127110.	4170.7	59486.	11944.
#2	3910.1	2174.5	26603.	127690.	4168.7	60017.	12017.
#3	3912.2	2176.3	26439.	127280.	4170.7	59755.	11995.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-18 Acquired: 10/18/2016 04:49:43 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G94 SDG: MH1G77 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	6.2036	64908.	189.57	1292.0	4.7720	9379.0	39.542	63.241	38.055	730.73
#1	6.0826	64599.	189.23	1286.7	4.7853	9376.3	39.607	63.514	37.858	728.44
#2	6.0720	64981.	191.61	1294.9	4.7366	9409.2	39.548	63.014	37.853	731.78
#3	6.4562	65145.	187.88	1294.5	4.7941	9351.4	39.472	63.195	38.454	731.97

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	168090.	8397.0	36757.	F 25978.	21.654	205.39	31.370	2432.5	17.075	18.613
#1	168140.	8385.0	36759.	25935.	21.713	208.49	31.332	2428.9	16.014	19.539
#2	168530.	8414.2	36816.	26011.	21.665	210.54	30.864	2431.8	18.473	17.828
#3	167600.	8391.7	36696.	25987.	21.585	197.15	31.913	2436.7	16.739	18.473

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	702.55	10.175	127.25	2954.2
#1	696.22	10.528	126.95	2954.7
#2	702.21	9.9685	127.28	2957.6
#3	709.22	10.030	127.52	2950.4

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-18 Acquired: 10/18/2016 04:49:43 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: MH1G94 SDG: MH1G77 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	3960.0	2234.0	26890.	129450.	4165.8	59883.	12028.
#1	3960.6	2237.0	26681.	129150.	4168.4	59844.	11919.
#2	3961.9	2234.3	27014.	129700.	4159.5	59951.	12061.
#3	3957.3	2230.7	26974.	129490.	4169.5	59856.	12104.

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV07 Acquired: 10/18/2016 04:53:57 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	**487.64**	**131240.**	**1942.3**	**15224.**	**383.45**	**192030.**	**915.71**	**2297.5**	**5697.5**	**4883.4**
Stddev	.66	319.	6.9	166.	1.37	876.	1.69	1.3	12.0	4.0
%RSD	.13633	.24342	.35584	1.0889	.35802	.45633	.18418	.05866	.21097	.08159
#1	486.94	130950.	1945.1	15121.	385.00	192670.	917.66	2298.9	5711.4	4878.9
#2	488.26	131190.	1934.4	15135.	382.96	192380.	914.83	2296.2	5690.2	4886.4
#3	487.72	131580.	1947.3	15415.	382.39	191030.	914.65	2297.5	5691.0	4884.8

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**120330.**	**128600.**	**185600.**	**8265.2**	**924.79**	**120660.**	**3797.3**	**5184.4**	**3660.8**	**3160.9**
Stddev	241.	147.	540.	11.0	1.47	599.	6.1	10.2	10.0	13.3
%RSD	.20070	.11462	.29118	.13334	.15890	.49646	.16092	.19727	.27438	.41960
#1	120410.	128760.	186030.	8268.0	926.48	121000.	3798.1	5189.1	3672.2	3176.1
#2	120510.	128490.	185770.	8274.5	923.80	121020.	3790.8	5172.7	3656.5	3154.5
#3	120050.	128540.	184990.	8253.0	924.10	119970.	3802.9	5191.4	3653.6	3151.9

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV07 Acquired: 10/18/2016 04:53:57 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	**1844.8**	**3790.2**	**3916.4**	**7610.7**
Stddev	4.2	1.5	6.4	12.6
%RSD	.22736	.03875	.16277	.16573
#1	1842.8	3791.5	3923.1	7617.9
#2	1841.9	3790.5	3915.7	7596.1
#3	1849.6	3788.6	3910.4	7618.0

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	**3422.8**	**2032.1**	**26294.**	**120530.**	**3654.0**	**53269.**	**10971.**
Stddev	3.3	4.6	300.	424.	2.4	213.	124.
%RSD	.09524	.22792	1.1396	.35210	.06496	.40007	1.1345
#1	3425.6	2036.9	25950.	120070.	3656.7	53032.	10827.
#2	3423.6	2031.8	26493.	120600.	3653.1	53332.	11041.
#3	3419.2	2027.7	26441.	120910.	3652.2	53444.	11045.

Sample Name: SEQ-CCB@CCB07 Acquired: 10/18/2016 04:58:11 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	-.45203	-15.454	.65401	1.8788	.12654	-42.834	.12651	.22980	-.12782	.05610	-10.860
Stddev	.09606	3.139	.30911	.2335	.02414	3.841	.02924	.18654	.16348	.04067	3.258
%RSD	21.251	20.314	47.264	12.428	19.076	8.9665	23.109	81.176	127.89	72.489	29.999
#1	-.54534	-15.708	.98997	1.6243	.13711	-46.548	.09858	.21209	-.28725	.05475	-7.8702
#2	-.35343	-18.459	.59044	1.9288	.09892	-43.075	.15690	.05275	.03942	.09742	-10.377
#3	-.45733	-12.196	.38162	2.0831	.14358	-38.878	.12406	.42457	-.13564	.01613	-14.332

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	42.515	-33.431	-.55062	.35762	4.1306	.45073	.66011	2.9101	-1.0220	-1.2032	.74914
Stddev	14.904	3.792	.28692	.06502	2.4008	.12150	1.0162	1.2602	.3152	.1532	.18185
%RSD	35.057	11.343	52.108	18.181	58.123	26.956	153.94	43.306	30.842	12.735	24.274
#1	28.980	-33.419	-.52931	.39452	6.2775	.56055	1.3769	3.6011	-1.3375	-1.1153	.89365
#2	58.488	-37.229	-.84760	.28255	1.5382	.32021	1.1063	1.4555	-1.0213	-1.1142	.80883
#3	40.078	-29.645	-.27496	.39579	4.5760	.47144	-.50286	3.6736	-.70712	-1.3801	.54496

Bonner Analytical Testing Co. ICAPP02

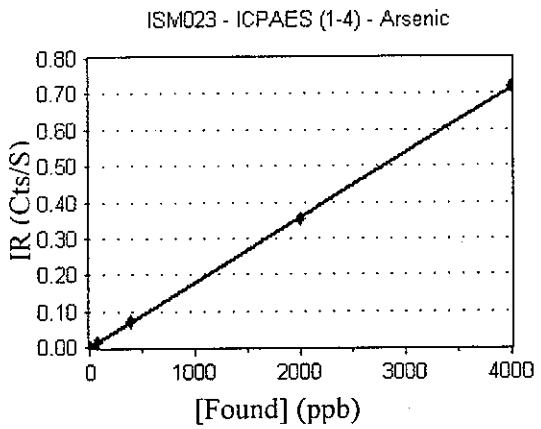
Sample Name: SEQ-CCB@CCB07 Acquired: 10/18/2016 04:58:11 Type: QC
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: LEM EPA ID: SDG: Case:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	1.0800	1.0241
Stddev	.0219	.1072
%RSD	2.0258	10.464
#1	1.0912	1.1201
#2	1.0939	1.0437
#3	1.0547	.90847

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	4375.6	2449.1	26501.	129360.	4068.1	58445.	11426.
Stddev	2.8	5.1	145.	108.	3.1	79.	66.
%RSD	.06392	.20963	.54844	.08363	.07658	.13530	.58128
#1	4372.9	2446.6	26338.	129380.	4071.5	58445.	11352.
#2	4378.5	2455.0	26618.	129250.	4067.2	58365.	11481.
#3	4375.5	2445.6	26547.	129470.	4065.4	58523.	11446.

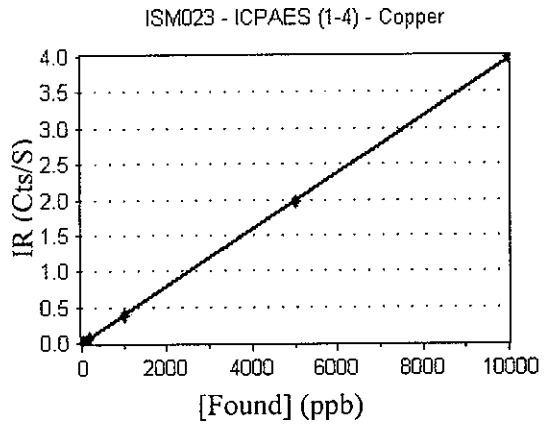
Bonner Analytical Testing Company

Instrument ID: ICAPP02 Calibration ID: B644040 Calibration Date: 10/18/2016 **134**



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 (%)
BJ62526-CAL1	B6I0028	0	0.27	-0.00023	0
BJ62526-CAL2	B6G0026	10	10.56	0.00161	-6
BJ62526-CAL3	B6G0027	80	77.51	0.01358	3
BJ62526-CAL4	B6G0028	400	390.15	0.06948	2
BJ62526-CAL5	B6G0029	2000	1,985.86	0.35479	1
BJ62526-CAL6	B6G0030	4000	4,025.92	0.71955	-1

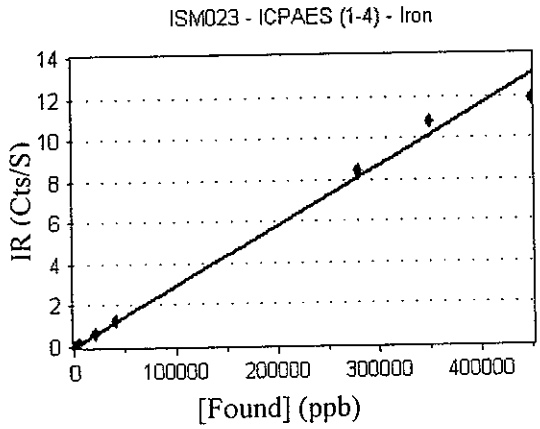


Calibration Plot: Copper
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999398
Fit: [Y] = 3.948081E-04 * [X] + 1.009708E-03
[y-intercept] = -2.56

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62526-CAL1	B6I0028	0	4.21	0.00267	0
BJ62526-CAL2	B6G0026	25	26.57	0.0115	-6
BJ62526-CAL3	B6G0027	200	194.98	0.07799	3
BJ62526-CAL4	B6G0028	1000	958.97	0.37962	4
BJ62526-CAL5	B6G0029	5000	4,988.47	1.9705	0
BJ62526-CAL6	B6G0030	10000	10,056.00	3.9712	-1

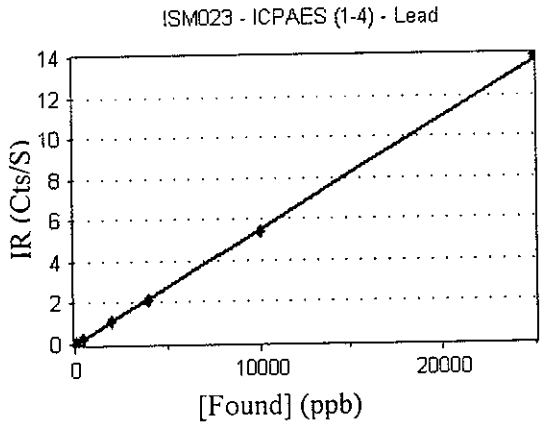
Bonner Analytical Testing Company

Instrument ID: ICAPP02 Calibration ID: B644040 Calibration Date: 10/18/2016



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 (%)
BJ62526-CAL1	B6I0028	0	-42.26	-0.0001	0
BJ62526-CAL2	B6G0026	100	69.79	0.00315	30
BJ62526-CAL3	B6G0027	800	837.24	0.02541	-5
BJ62526-CAL4	B6G0028	4000	4,318.36	0.12638	-8
BJ62526-CAL5	B6G0029	20000	21,607.42	0.62785	-8
BJ62526-CAL6	B6G0030	40000	43,029.55	1.2492	-8
BJ62526-CAL7	B6G0031	280000	292,493.00	8.4849	-4
BJ62526-CAL8	B6G0032	350000	372,137.75	10.795	-6
BJ62526-CAL9	B6J0169	450000	410,406.95	11.905	9



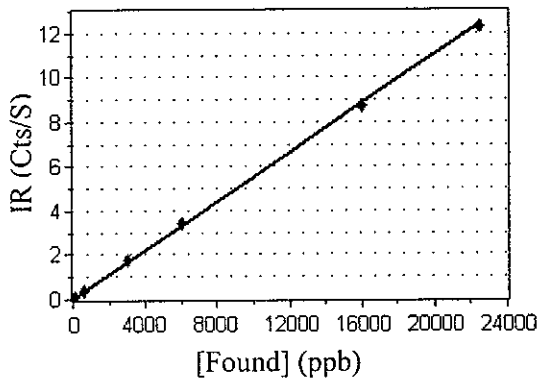
Calibration Plot: Lead
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9996852
Fit: [Y] = 5.479404E-04 * [X] + 1.040228E-03
[y-intercept] = -1.90

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62526-CAL1	B6I0028	0	-0.40	0.00082	0
BJ62526-CAL2	B6G0026	10	10.95	0.00704	-9
BJ62526-CAL3	B6G0027	80	79.66	0.04469	0
BJ62526-CAL4	B6G0028	400	392.67	0.2162	2
BJ62526-CAL5	B6G0029	2000	1,936.63	1.0622	3
BJ62526-CAL6	B6G0030	4000	3,822.97	2.0958	4
BJ62526-CAL7	B6G0031	10000	9,894.07	5.4224	1
BJ62526-CAL8	B6G0032	25000	25,353.05	13.893	-1

Bonner Analytical Testing Company

Instrument ID: ICAPP02 Calibration ID: B644040 Calibration Date: 10/18/2016

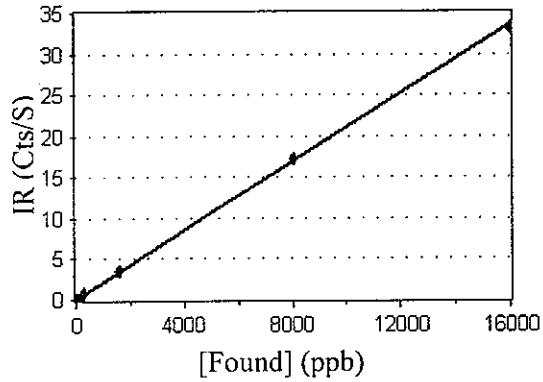
ISM023 - ICPAES (1-4) - Manganese



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 (%)
BJ62526-CAL1	B6I0028	0	-3.76	-0.00003	0
BJ62526-CAL2	B6G0026	15	12.89	0.00913	14
BJ62526-CAL3	B6G0027	120	125.12	0.0709	-4
BJ62526-CAL4	B6G0028	600	629.74	0.34864	-5
BJ62526-CAL5	B6G0029	3000	3,108.80	1.7131	-4
BJ62526-CAL6	B6G0030	6000	6,169.70	3.3978	-3
BJ62526-CAL7	B6G0031	16000	15,886.58	8.7459	1
BJ62526-CAL9	B6J0169	22500	22,302.17	12.277	1

ISM023 - ICPAES (1-4) - Zinc



Calibration Plot: Zinc
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9997374
Fit: [Y] = 2.105617E-03 * [X] + 1.805317E-02
[y-intercept] = -8.57

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62526-CAL1	B6I0028	0	-2.79	0.01218	0
BJ62526-CAL2	B6G0026	40	37.15	0.09627	7
BJ62526-CAL3	B6G0027	320	330.10	0.71312	-3
BJ62526-CAL4	B6G0028	1600	1,657.78	3.5087	-4
BJ62526-CAL5	B6G0029	8000	8,123.48	17.123	-2
BJ62526-CAL6	B6G0030	16000	15,811.49	33.311	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

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:

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

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:

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

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:

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

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:

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

Bonner Analytical Testing Co. ICAPP02

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

Bonner Analytical Testing Co. ICAPP02

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

Bonner Analytical Testing Co. ICAPP02

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

Bonner Analytical Testing Co. ICAPP02

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

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	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

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	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

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	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: 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

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	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 Co. ICAPP02

Sample Name: SEQ-CCV@CCV06 Acquired: 10/18/2016 13:56:01 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	**510.33**	**141880.**	**2113.7**	**16079.**	**394.82**	**195690.**	**956.28**	**2413.0**	**5633.8**	**5113.2**
Stddev	.24	276.	3.5	139.	.56	907.	2.45	6.0	29.5	12.8
%RSD	.04614	.19418	.16653	.86731	.14193	.46327	.25574	.24680	.52282	.24999
#1	510.53	141570.	2110.3	15933.	395.44	194930.	955.85	2414.9	5640.1	5114.1
#2	510.39	142010.	2113.4	16211.	394.34	195450.	954.07	2406.4	5659.6	5125.5
#3	510.07	142070.	2117.4	16091.	394.67	196690.	958.91	2417.9	5601.7	5099.9

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**121000.**	**136050.**	**192140.**	**8759.9**	**989.42**	**122560.**	**4060.0**	**5579.6**	**4044.6**	**3460.5**
Stddev	842.	281.	988.	33.2	3.46	871.	7.1	7.3	12.3	9.8
%RSD	.69621	.20618	.51412	.37926	.35018	.71088	.17577	.13024	.30325	.28308
#1	120160.	135750.	191170.	8725.2	988.89	121930.	4059.4	5571.3	4040.0	3453.7
#2	120980.	136090.	192110.	8763.0	986.25	122200.	4053.1	5583.0	4035.2	3456.1
#3	121840.	136310.	193140.	8791.4	993.12	123550.	4067.4	5584.6	4058.5	3471.7

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV06 Acquired: 10/18/2016 13:56:01 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	**1943.0**	**3930.5**	**3901.9**	**8023.3**
Stddev	6.4	6.2	17.9	8.7
%RSD	.32726	.15760	.45920	.10901
#1	1946.2	3930.7	3903.7	8014.1
#2	1947.2	3924.1	3918.8	8024.4
#3	1935.7	3936.5	3883.1	8031.5

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	**3134.5**	**1894.8**	**23159.**	**113860.**	**3377.6**	**50736.**	**9525.5**
Stddev	3.8	1.5	12.	428.	7.5	261.	36.8
%RSD	.12096	.08002	.05064	.37577	.22320	.51483	.38685
#1	3130.4	1893.6	23146.	113640.	3375.7	50625.	9559.9
#2	3135.5	1896.5	23162.	113590.	3385.9	50549.	9529.8
#3	3137.8	1894.3	23169.	114360.	3371.2	51035.	9486.6

Sample Name: SEQ-CCB@CCB06 Acquired: 10/18/2016 14:00:14 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	Fe2598
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.10478	13.762	1.0742	1.4048	.02789	1.5738	.09345	.05147	.64107	-1.6866	18.522
Stddev	.15531	7.086	.7913	.1195	.02643	23.500	.02257	.09915	.23316	.1537	6.653
%RSD	148.23	51.490	73.664	8.5087	94.753	1493.2	24.150	192.63	36.371	9.1147	35.919
#1	.18058	20.797	1.6855	1.5400	.05789	23.057	.11094	-.03742	.90946	-1.5327	26.074
#2	.20763	13.864	1.3568	1.3130	.01775	5.1878	.10144	.15841	.48854	-1.8401	13.527
#3	-.07388	6.6257	.18043	1.3615	.00804	-23.524	.06798	.03344	.52520	-1.6870	15.965

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	151.32	17.078	.93534	.34578	-71.296	-5.7435	1.5184	1.4616	-.74605	-1.8076	.67641
Stddev	22.15	4.817	.33586	.09407	6.372	.3074	.6702	1.4244	.61352	.6388	1.1061
%RSD	14.635	28.203	35.908	27.205	8.9373	5.3522	44.140	97.458	82.236	35.337	163.52
#1	151.29	16.860	1.3107	.32816	-64.280	-5.3992	1.1872	1.4627	-.53231	-1.5887	-.53369
#2	173.48	12.374	.66313	.26176	-72.886	-5.8412	2.2897	.03662	-1.4379	-2.5271	.92775
#3	129.19	22.000	.83222	.44741	-76.723	-5.9903	1.0782	2.8855	-.26799	-1.3071	1.6352

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB06 Acquired: 10/18/2016 14:00:14 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	.04120	-4.2268
Stddev	.06417	.0642
%RSD	155.74	1.5198
#1	.02759	-4.1928
#2	-.01507	-4.3009
#3	.11109	-4.1868

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	3855.2	2201.3	23058.	122990.	3745.8	56119.	9869.4
Stddev	.8	2.6	74.	202.	7.0	90.	33.1
%RSD	.02015	.11913	.32142	.16444	.18781	.15984	.33549
#1	3854.5	2202.4	23056.	122940.	3737.9	56147.	9845.6
#2	3856.0	2203.1	23134.	123220.	3751.1	56191.	9907.2
#3	3854.9	2198.3	22986.	122820.	3748.6	56018.	9855.4

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-02RE1 Acquired: 10/18/2016 14:05:37 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G78 SDG: MH1G77 Case: 46282
Comment: @5X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	98.244	21706.	203.60	320.71	.51044	2932.6	3.7129	6.6058	8.7210	220.19
#1	98.114	21714.	202.76	320.77	.49451	2923.5	3.6767	6.5166	8.7844	219.49
#2	97.919	21846.	203.51	322.17	.52315	2963.8	3.7000	6.5089	8.6534	220.51
#3	98.698	21560.	204.53	319.19	.51365	2910.6	3.7620	6.7920	8.7251	220.58

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	107550.	9021.4	6974.3	946.43	9.7572	224.04	-6.4183	F 18282.	24.646	1.3850
#1	107420.	9048.7	6956.2	943.79	9.8763	220.96	-6.0947	18258.	24.227	.73458
#2	107950.	9078.2	7004.7	951.01	9.7253	220.59	-6.2657	18287.	25.315	.16007
#3	107270.	8937.2	6962.2	944.51	9.6701	230.57	-6.8945	18302.	24.397	3.2604

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	208.17	-2.5385	60.819	494.26
#1	213.00	-2.0481	60.638	493.35
#2	209.40	-2.0820	61.089	494.46
#3	202.10	-3.4854	60.731	494.97

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-02RE1 Acquired: 10/18/2016 14:05:37 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G78 SDG: MH1G77 Case: 46282
Comment: @5X

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	3739.2	2162.4	23692.	124330.	3758.8	55840.	10018.
#1	3738.5	2161.0	23807.	124050.	3752.5	55740.	10060.
#2	3735.2	2160.9	23534.	124200.	3755.2	55789.	9935.7
#3	3743.9	2165.4	23734.	124720.	3768.6	55991.	10059.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-03RE1 Acquired: 10/18/2016 14:09:50 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G79 SDG: MH1G77 Case: 46282
Comment: @5X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.9283	6419.0	645.50	75.242	.11917	193.59	7.6626	5.7454	8.9527	231.10
#1	6.5807	6414.2	645.67	75.710	.12195	207.84	7.6240	5.9668	8.9209	232.41
#2	7.1173	6415.8	644.62	75.331	.13022	180.20	7.6797	5.5585	9.1447	230.50
#3	7.0867	6427.1	646.20	74.684	.10534	192.73	7.6841	5.7109	8.7926	230.38

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	232590.	2556.2	1859.6	3989.2	6.3103	-8.8260	-14.968	888.53	14.234	-1.0439
#1	233240.	2582.9	1849.8	3991.1	6.2770	-6.8497	-14.841	889.85	14.480	-2.4213
#2	232160.	2533.3	1868.5	3988.4	6.4805	-9.2009	-15.002	885.05	13.067	.75755
#3	232360.	2552.4	1860.6	3988.1	6.1735	-10.427	-15.061	890.69	15.153	-1.4681

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	175.85	-6.4997	25.013	472.94
#1	174.77	-7.1621	25.237	473.14
#2	176.52	-6.2588	24.872	472.26
#3	176.25	-6.0780	24.930	473.41

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-03RE1 Acquired: 10/18/2016 14:09:50 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G79 SDG: MH1G77 Case: 46282
Comment: @5X

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	3731.5	2137.0	23516.	124270.	3721.0	55615.	9896.9
#1	3728.6	2134.9	23519.	124350.	3725.6	55555.	9865.0
#2	3728.2	2138.5	23560.	124230.	3713.9	55682.	9923.8
#3	3737.6	2137.6	23469.	124210.	3723.7	55607.	9901.8

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-IBL5 Acquired: 10/18/2016 14:14:03 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: ZZZZZZ SDG: Case:
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	10.044	10207.	1060.2	118.26	.20134	737.59	10.553	27.747	20.525	455.25
#1	9.9218	10166.	1062.8	118.06	.17844	748.91	10.599	27.804	20.805	456.17
#2	9.7191	10237.	1058.1	118.10	.20248	757.02	10.496	27.615	20.437	454.41
#3	10.491	10219.	1059.7	118.62	.22311	706.83	10.565	27.821	20.333	455.16

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	260500.	3727.8	3800.6	F 26181.	16.196	52.667	-14.333	2269.2	21.733	15.385
#1	259460.	3691.5	3797.4	26104.	16.269	53.373	-13.989	2272.4	21.496	15.938
#2	260560.	3724.2	3813.6	26211.	16.232	49.311	-14.274	2269.8	19.059	15.552
#3	261470.	3767.8	3790.7	26227.	16.086	55.319	-14.737	2265.4	24.644	14.665

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	342.62	5.0125	43.877	807.03
#1	341.72	5.1458	44.301	807.57
#2	342.65	5.8451	43.700	807.23
#3	343.48	4.0465	43.630	806.28

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-IBL5 Acquired: 10/18/2016 14:14:03 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: ZZZZZZ SDG: Case:
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	3700.7	2109.2	23508.	124470.	3714.1	55598.	9890.0
#1	3697.9	2112.3	23498.	123890.	3713.6	55308.	9890.4
#2	3696.3	2107.3	23522.	124640.	3719.4	55717.	9901.8
#3	3707.9	2108.1	23505.	124890.	3709.5	55769.	9877.9

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-07RE1 Acquired: 10/18/2016 14:18:16 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G83 SDG: MH1G77 Case: 46282
Comment: @20X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.8289	7862.1	146.84	44.708	.70333	112.26	23.257	21.189	6.6357
#1	1.6686	7820.8	146.91	44.435	.71291	108.24	23.300	21.229	6.3659
#2	1.7664	7892.5	147.03	44.846	.71635	105.39	23.161	21.137	6.6108
#3	2.0517	7873.1	146.58	44.842	.68074	123.16	23.309	21.202	6.9305

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	472.70	29605.	377.58	2285.7	15716.	.95172	F -111.57	1.2773	813.69
#1	472.73	29403.	369.73	2281.2	15636.	.96049	-110.08	1.0832	814.34
#2	472.54	29711.	370.78	2288.9	15756.	1.0075	-116.53	1.5655	813.08
#3	472.84	29701.	392.23	2287.0	15755.	.88717	-108.09	1.1833	813.64

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0972	8.4469	31.956	7.8320	9.8240	1402.0
#1	3.1515	8.7394	30.966	7.3271	9.8621	1404.8
#2	1.1572	7.8700	32.763	8.1186	9.9452	1403.6
#3	-1.0172	8.7314	32.140	8.0502	9.6648	1397.5

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-07RE1 Acquired: 10/18/2016 14:18:16 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G83 SDG: MH1G77 Case: 46282
Comment: @20X

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	3807.6	2213.2	23631.	125410.	3784.8	56674.	9962.5
#1	3807.6	2211.3	23602.	125670.	3786.4	56816.	9971.9
#2	3814.7	2217.0	23604.	125220.	3797.8	56573.	9932.3
#3	3800.5	2211.3	23687.	125350.	3770.1	56632.	9983.3

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-08RE1 Acquired: 10/18/2016 14:22:32 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G84 SDG: MH1G77 Case: 46282
Comment: @20X

Elem	Ag3280	Al3961	As1890	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3895**	**10239.**	**13.560**	**52.909**	**.68470**	**389.49**	**20.685**	**15.950**	**6.9160**
#1	1.2074	10145.	11.625	52.665	.67108	396.90	20.678	15.707	6.9746
#2	1.6288	10279.	15.234	52.973	.67431	377.12	20.692	16.149	6.9618
#3	1.3323	10294.	13.821	53.090	.70870	394.46	20.686	15.993	6.8115

Elem	Cu3247	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**363.01**	**13062.**	**525.69**	**2712.6**	**11820.**	**.24840**	**F -102.29**	**1.9365**	**597.37**
#1	361.84	13027.	536.84	2700.0	11761.	.19445	-104.96	2.1051	597.70
#2	363.71	13088.	524.34	2718.4	11845.	.23743	-103.89	1.9370	598.89
#3	363.47	13069.	515.89	2719.3	11854.	.31332	-98.022	1.7675	595.51

Elem	Sb2068	Se1960	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.7702**	**5.2348**	**48.111**	**6.5588**	**11.651**	**1831.0**
#1	-.54028	4.1532	48.110	5.8356	11.752	1834.9
#2	-2.7549	6.9708	47.816	7.5747	11.622	1830.2
#3	-2.0153	4.5804	48.406	6.2663	11.579	1827.7

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-08RE1 Acquired: 10/18/2016 14:22:32 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G84 SDG: MH1G77 Case: 46282
Comment: @20X

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	**3802.6**	**2209.5**	**23652.**	**125120.**	**3793.5**	**56726.**	**10045.**
#1	3803.2	2214.2	23576.	125310.	3804.3	56932.	10004.
#2	3809.2	2206.3	23703.	124860.	3787.3	56574.	10069.
#3	3795.2	2208.1	23676.	125180.	3789.0	56672.	10062.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-09RE1 Acquired: 10/18/2016 14:26:49 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G85 SDG: MH1G77 Case: 46282
Comment: @3X

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	4.5236	37775.	68.850	186.87	4.5036	4252.1	29.807	35.788	18.574	3229.6	85815.
#1	4.8033	37641.	69.223	186.33	4.4828	4229.9	29.793	35.777	18.486	3240.3	84978.
#2	4.3798	37828.	68.466	187.04	4.5307	4240.5	29.839	35.890	18.869	3223.7	86075.
#3	4.3877	37857.	68.862	187.24	4.4974	4285.8	29.789	35.696	18.367	3224.9	86391.

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	1984.0	14361.	13638.	3.1189	-53.950	19.351	3583.8	4.3946	7.2890	275.90	4.3468
#1	1966.9	14240.	13539.	3.1587	-55.252	19.426	3590.0	3.4280	6.2560	276.22	5.3245
#2	1991.6	14366.	13672.	3.1482	-58.040	19.029	3575.2	4.8368	7.3305	274.09	3.0449
#3	1993.6	14478.	13703.	3.0500	-48.558	19.598	3586.1	4.9190	8.2805	277.40	4.6710

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	57.765	6033.4
#1	58.385	6052.8
#2	57.748	6019.6
#3	57.162	6027.7

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-09RE1 Acquired: 10/18/2016 14:26:49 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G85 SDG: MH1G77 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	3688.0	2133.8	23608.	124080.	3915.1	58631.	10424.
#1	3689.5	2134.2	23646.	123830.	3925.6	58474.	10473.
#2	3692.0	2133.8	23667.	124130.	3902.4	58705.	10448.
#3	3682.5	2133.5	23510.	124280.	3917.3	58713.	10350.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-11RE1 Acquired: 10/18/2016 14:31:01 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G87 SDG: MH1G77 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	5.2509	41693.	117.77	197.02	3.2611.	4240.1	19.757	42.464	21.810	2144.9
#1	5.0609	41528.	120.02	196.72	3.2832	4230.7	19.743	42.175	21.812	2144.4
#2	5.2806	41783.	115.81	197.51	3.2341	4242.4	19.703	42.310	21.497	2143.4
#3	5.4112	41768.	117.47	196.84	3.2661	4247.3	19.823	42.908	22.122	2146.9

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	104490.	3347.1	18445.	13735.	8.9169	-41.282	18.985	3688.4	6.5714	6.3987
#1	104310.	3347.9	18391.	13708.	8.8077	-44.545	18.971	3696.4	7.6393	6.4668
#2	104860.	3363.8	18444.	13774.	9.0254	-41.674	19.275	3685.5	6.2299	5.2047
#3	104320.	3329.7	18499.	13724.	8.9175	-37.627	18.709	3683.3	5.8451	7.5245

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	347.01	4.1916	77.525	3426.5
#1	343.10	4.2028	77.353	3430.6
#2	351.23	4.6056	77.321	3427.7
#3	346.68	3.7663	77.901	3421.2

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-11RE1 Acquired: 10/18/2016 14:31:01 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G87 SDG: MH1G77 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	3675.9	2126.6	23503.	124230.	3852.2	57545.	10223.
#1	3680.3	2127.7	23426.	124040.	3859.2	57480.	10178.
#2	3671.2	2125.7	23655.	124250.	3852.0	57568.	10275.
#3	3676.1	2126.4	23427.	124410.	3845.3	57588.	10217.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-12RE1 Acquired: 10/18/2016 14:35:13 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G88 SDG: MH1G77 Case: 46282
Comment: @4X

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	3.5443	34941.	78.519	178.06	2.0555	1206.7	11.281	33.830	22.737	1047.1	66387.
#1	3.4083	34752.	80.181	177.34	2.0783	1198.0	11.401	33.878	22.572	1047.8	65917.
#2	3.6216	35051.	78.233	178.52	2.0490	1204.7	11.219	33.982	22.944	1047.8	66801.
#3	3.6028	35020.	77.143	178.31	2.0391	1217.3	11.222	33.631	22.694	1045.8	66444.

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	4005.9	9642.4	11872.	4.2398	-6.3871	6.4238	1763.3	3.9000	6.0055	333.16	3.6653
#1	4018.2	9554.9	11800.	4.2586	-9.3401	6.5912	1767.6	4.8766	6.0451	333.16	3.6008
#2	4006.8	9715.3	11918.	4.1507	2.3407	6.4292	1762.9	4.1760	6.5767	333.55	3.2662
#3	3992.7	9657.1	11898.	4.3100	-12.162	6.2510	1759.5	2.6473	5.3947	332.77	4.1288

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	57.157	1221.1
#1	57.418	1223.8
#2	57.338	1223.2
#3	56.716	1216.5

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-12RE1 Acquired: 10/18/2016 14:35:13 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G88 SDG: MH1G77 Case: 46282
Comment: @4X

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	3711.6	2153.1	23670.	124440.	3816.8	56800.	10116.
#1	3714.1	2155.0	23718.	124150.	3827.5	56686.	10136.
#2	3705.1	2148.4	23599.	124470.	3807.5	56766.	10094.
#3	3715.4	2155.8	23693.	124700.	3815.4	56947.	10120.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-13RE1 Acquired: 10/18/2016 14:39:27 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G89 SDG: MH1G77 Case: 46282
Comment: @4X

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	**2.8649**	**19248.**	**114.04**	**528.75**	**4.3894**	**3616.0**	**20.885**	**41.551**	**7.4746**	**346.30**	**43025.**
#1	2.7619	19179.	115.12	527.63	4.3752	3604.3	20.903	41.541	7.5667	347.87	43000.
#2	2.8254	19291.	114.09	529.95	4.4153	3641.2	20.884	41.615	7.7709	345.05	43279.
#3	3.0073	19274.	112.91	528.68	4.3776	3602.4	20.868	41.496	7.0861	345.99	42797.

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	**2599.7**	**4799.2**	**12587.**	**15.723**	**-65.365**	**21.384**	**3476.6**	**3.6118**	**6.2399**	**91.473**	**5.1606**
#1	2639.3	4797.6	12567.	15.642	-66.163	21.229	3474.8	3.3940	5.6974	92.888	5.3482
#2	2584.7	4819.0	12639.	15.641	-65.796	21.156	3477.6	3.7152	7.3648	89.636	4.3373
#3	2575.2	4780.9	12556.	15.885	-64.134	21.768	3477.3	3.7262	5.6574	91.896	5.7962

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**15.456**	**2165.7**
#1	15.735	2164.8
#2	15.143	2164.5
#3	15.491	2167.8

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-13RE1 Acquired: 10/18/2016 14:39:27 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G89 SDG: MH1G77 Case: 46282
Comment: @4X

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	**3749.5**	**2167.5**	**23598.**	**124990.**	**3925.0**	**58775.**	**10404.**
#1	3742.8	2164.7	23379.	124930.	3916.1	58732.	10291.
#2	3751.7	2171.3	23713.	124440.	3934.0	58546.	10432.
#3	3754.0	2166.6	23700.	125620.	3925.0	59049.	10487.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-15RE1 Acquired: 10/18/2016 14:43:40 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G91 SDG: MH1G77 Case: 46282
Comment: @5X

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	4.9482	25152.	69.868	529.81	4.4135	2639.5	25.843	45.525	11.150	366.69	41426.
#1	4.8948	25039.	70.513	528.48	4.3918	2627.6	25.921	45.635	11.245	368.64	41426.
#2	4.7031	25228.	68.758	530.82	4.4574	2655.3	25.801	45.555	11.034	365.04	41434.
#3	5.2468	25189.	70.332	530.13	4.3912	2635.7	25.807	45.384	11.171	366.40	41417.

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	2471.4	7320.5	12949.	3.2417	-49.178	29.626	2339.6	1.3331	7.5628	128.86	5.0485
#1	2466.0	7310.7	12934.	3.4124	-45.578	29.750	2333.2	3.0869	6.1949	135.80	5.1252
#2	2471.3	7337.4	12972.	3.2797	-55.436	29.728	2337.0	-.54079	8.5936	127.81	4.7334
#3	2477.0	7313.4	12941.	3.0330	-46.520	29.399	2348.5	1.4531	7.8999	122.95	5.2868

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	22.716	3424.5
#1	22.676	3418.0
#2	22.697	3421.3
#3	22.776	3434.1

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-15RE1 Acquired: 10/18/2016 14:43:40 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G91 SDG: MH1G77 Case: 46282
Comment: @5X

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	3745.7	2179.1	23628.	125030.	3949.4	58701.	10399.
#1	3748.5	2184.4	23541.	125080.	3955.9	58771.	10349.
#2	3745.6	2181.2	23647.	124590.	3948.3	58486.	10397.
#3	3742.9	2171.7	23697.	125410.	3944.1	58846.	10452.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-18RE1 Acquired: 10/18/2016 14:47:53 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G94 SDG: MH1G77 Case: 46282
Comment: @3X

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	**3.2048**	**25904.**	**73.402**	**507.58**	**1.6987**	**3540.4**	**15.409**	**24.338**	**14.412**	**273.71**	**62525.**
#1	3.4831	25762.	71.675	505.59	1.7042	3553.4	15.349	24.394	14.229	273.50	62252.
#2	3.1847	25929.	74.970	507.54	1.6973	3540.5	15.452	24.355	14.406	273.64	62428.
#3	2.9467	26021.	73.563	509.61	1.6945	3527.2	15.427	24.266	14.601	273.99	62894.

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	**3458.4**	**14116.**	**10158.**	**8.1531**	**-14.059**	**5.5689**	**932.51**	**6.1035**	**5.7065**	**274.11**	**3.8057**
#1	3457.4	14072.	10117.	8.2693	-16.775	5.5061	935.80	7.2893	5.2241	277.83	3.0929
#2	3482.6	14108.	10155.	8.0238	-5.6067	5.3321	933.48	5.0267	6.4497	273.54	3.6738
#3	3435.3	14168.	10200.	8.1664	-19.796	5.8684	928.26	5.9944	5.4455	270.95	4.6504

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**46.856**	**1115.3**
#1	46.961	1121.6
#2	47.118	1114.0
#3	46.489	1110.2

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-18RE1 Acquired: 10/18/2016 14:47:53 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G94 SDG: MH1G77 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	**3736.4**	**2171.3**	**23723.**	**125120.**	**3819.7**	**57022.**	**10108.**
#1	3736.5	2166.6	23612.	125290.	3819.5	57051.	10061.
#2	3731.0	2171.5	23643.	124900.	3814.0	56975.	10104.
#3	3741.7	2175.7	23915.	125160.	3825.5	57040.	10161.

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14023-PS1 Acquired: 10/18/2016 14:52:07 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G80A SDG: MH1G77 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	30.880	91657.	1040.1	363.05	3.1770	9397.1	15.867	59.308	68.463	4577.7
#1	31.210	91229.	1040.2	361.80	3.2128	9351.0	15.908	59.503	68.496	4578.8
#2	30.376	91716.	1038.2	363.01	3.1649	9370.5	15.794	59.239	68.486	4577.4
#3	31.054	92025.	1041.8	364.33	3.1532	9469.9	15.899	59.183	68.407	4576.9

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	285070.	10989.	42916.	13089.	50.492	192.63	25.042	F 10801.	29.762	8.2599
#1	285540.	10952.	42845.	13061.	50.436	184.67	25.936	10780.	29.720	7.0527
#2	283630.	11000.	42758.	13075.	50.487	197.87	24.306	10798.	28.958	8.4044
#3	286060.	11014.	43145.	13131.	50.553	195.36	24.883	10824.	30.609	9.3226

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	1133.1	-3.9632	211.15	6878.1
#1	1123.2	-4.1370	211.31	6865.7
#2	1136.4	-4.3799	211.31	6862.4
#3	1139.7	-3.3729	210.82	6906.2

Bonner Analytical Testing Co. ICAPP02

Sample Name: QJ14023-PS1 Acquired: 10/18/2016 14:52:07 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G80A SDG: MH1G77 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	3537.6	2024.8	23886.	122890.	3771.6	56520.	10338.
#1	3533.0	2019.7	23868.	123070.	3761.4	56605.	10283.
#2	3551.2	2029.1	23918.	122650.	3782.3	56406.	10393.
#3	3528.7	2025.7	23872.	122940.	3771.1	56549.	10338.

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-05RE1 Acquired: 10/18/2016 14:56:16 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G81 SDG: MH1G77 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	**5.0053**	**5303.6**	**531.31**	**60.492**	**.10924**	**359.97**	**5.3858**	**14.083**	**10.263**	**229.00**
#1	5.2706	5298.6	533.28	60.406	.12359	352.38	5.3685	14.028	10.128	228.75
#2	4.7362	5298.0	527.42	60.599	.09376	363.24	5.4166	14.406	10.471	228.88
#3	5.0092	5314.1	533.23	60.470	.11037	364.30	5.3723	13.815	10.190	229.38

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**134160.**	**1884.4**	**1965.3**	**13413.**	**8.0861**	**-29.930**	**-10.932**	**1150.6**	**10.354**	**7.7891**
#1	133860.	1875.7	1963.4	13395.	8.0624	-32.310	-10.930	1147.4	10.087	7.5713
#2	134290.	1907.1	1977.3	13415.	8.1891	-21.001	-10.811	1150.5	10.774	8.4492
#3	134310.	1870.5	1955.3	13430.	8.0069	-36.480	-11.057	1153.9	10.200	7.3468

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	**175.86**	**2.1224**	**22.185**	**406.64**
#1	177.77	1.5772	22.315	406.90
#2	175.31	2.3125	22.325	405.66
#3	174.48	2.4774	21.914	407.37

Bonner Analytical Testing Co. ICAPP02

Sample Name: 6100163-05RE1 Acquired: 10/18/2016 14:56:16 Type: Unk
Method: ISM023_New_TotalMetals(v20) Mode: CONC Corr. Factor: 1.000000
User: MSB2 EPA ID: MH1G81 SDG: MH1G77 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	**3767.6**	**2175.6**	**23678.**	**125490.**	**3759.7**	**56166.**	**9901.9**
#1	3772.8	2177.0	23645.	125180.	3764.6	56055.	9876.9
#2	3769.6	2176.6	23702.	125510.	3755.5	56154.	9930.6
#3	3760.2	2173.1	23688.	125780.	3758.9	56290.	9898.3

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV07 Acquired: 10/18/2016 15:00:34 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	**510.36**	**142210.**	**2119.7**	**16177.**	**392.30**	**195040.**	**951.41**	**2404.8**	**5609.1**	**5116.1**
Stddev	.17	245.	2.2	6.	.36	379.	2.89	10.1	15.9	4.4
%RSD	.03285	.17222	.10340	.03810	.09289	.19424	.30356	.42056	.28335	.08527
#1	510.23	141960.	2117.3	16177.	392.25	194880.	950.63	2404.3	5625.2	5117.1
#2	510.30	142230.	2121.6	16170.	392.69	195480.	948.98	2394.9	5608.6	5111.3
#3	510.55	142450.	2120.0	16183.	391.97	194770.	954.60	2415.1	5593.4	5119.9

Elem	Fe2598	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**120520.**	**136130.**	**191080.**	**8718.3**	**989.14**	**123320.**	**4061.9**	**5592.0**	**4052.2**	**3461.8**
Stddev	544.	89.	422.	18.2	2.80	381.	7.9	10.5	12.1	7.9
%RSD	.45135	.06513	.22106	.20923	.28284	.30884	.19458	.18824	.29951	.22685
#1	119890.	136230.	190590.	8699.6	988.28	123060.	4052.8	5580.2	4043.2	3458.5
#2	120850.	136110.	191330.	8719.2	986.87	123750.	4065.6	5600.3	4047.3	3456.1
#3	120810.	136050.	191320.	8736.0	992.27	123130.	4067.2	5595.5	4066.0	3470.8

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCV@CCV07 Acquired: 10/18/2016 15:00:34 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	**1935.5**	**3928.0**	**3892.5**	**8011.5**
Stddev	3.3	6.1	4.5	14.7
%RSD	.16890	.15500	.11556	.18397
#1	1931.8	3921.8	3897.1	7997.8
#2	1936.7	3928.1	3892.3	8027.1
#3	1938.0	3934.0	3888.2	8009.7

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	**3131.2**	**1891.1**	**23281.**	**114370.**	**3382.7**	**50979.**	**9566.0**
Stddev	3.4	3.9	60.	458.	9.1	253.	21.4
%RSD	.10984	.20731	.25706	.40083	.26755	.49534	.22352
#1	3135.0	1895.5	23328.	113960.	3387.5	50718.	9583.1
#2	3130.2	1889.8	23213.	114270.	3388.4	50998.	9542.0
#3	3128.3	1888.1	23301.	114860.	3372.3	51222.	9573.0

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB07 Acquired: 10/18/2016 15:04:47 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	.37821	13.005	.92920	1.2009	.01116	16.072	.08989	.28033	.39326	-.71724	16.089
Stddev	.09773	5.305	1.5245	.3580	.00879	11.847	.02712	.09774	.16227	.12862	5.379
%RSD	25.840	40.792	164.06	29.811	78.739	73.709	30.169	34.866	41.264	17.933	33.435
#1	.43288	7.1456	1.2622	1.5945	.00116	25.098	.12055	.17410	.36741	-.64780	20.297
#2	.26538	14.387	-.73427	1.1136	.01763	2.6574	.08002	.36646	.24546	-.63826	17.943
#3	.43636	17.482	2.2596	.89461	.01469	20.461	.06908	.30042	.56690	-.86566	10.028

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	120.83	19.525	1.2322	.26317	-8.9680	-2.3843	.89454	1.9272	-.72998	-1.0296	-.30417
Stddev	20.58	9.746	.4955	.02672	10.511	.2847	.91717	1.1394	.59698	.7909	.75913
%RSD	17.031	49.914	40.215	10.155	117.21	11.942	102.53	59.119	81.779	76.816	249.57
#1	141.83	30.737	1.8029	.27683	2.6435	-2.2269	1.7185	1.9547	-.09929	-.32587	.44666
#2	119.96	14.756	.91067	.28031	-11.714	-2.2131	1.0588	3.0526	-.80439	-.87738	-1.0713
#3	100.70	13.083	.98313	.23238	-17.834	-2.7130	-.09364	.77437	-1.2863	-1.8855	-.28784

Bonner Analytical Testing Co. ICAPP02

Sample Name: SEQ-CCB@CCB07 Acquired: 10/18/2016 15:04:47 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	-.33929	-1.6443
Stddev	.13374	.1078
%RSD	39.417	6.5526
#1	-.47732	-1.5800
#2	-.21031	-1.5842
#3	-.33023	-1.7687

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	3863.9	2207.4	23314.	123490.	3772.2	56372.	9922.0
Stddev	3.5	2.3	71.	232.	4.4	171.	22.8
%RSD	.08986	.10643	.30316	.18828	.11720	.30253	.22984
#1	3862.0	2209.5	23303.	123720.	3773.2	56569.	9900.2
#2	3867.9	2207.9	23250.	123250.	3767.4	56282.	9920.2
#3	3861.8	2204.8	23390.	123490.	3776.1	56266.	9945.7

PREPARATION BENCH SHEET

QJ14023

Bonner Analytical Testing Co.

Matrix: Soil
Analysis: ISM023 - ICPAES (1-4)
Prepared: 10/17/2016 16:00 using METALS - 3050B

Case: 46282
SDG: MH1G77
Work Order: 6100163

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100163-01	MH1G77	1	100				
6100163-02	MH1G78	1	100				
6100163-02RE1	MH1G78	1	100				
6100163-03	MH1G79	1	100				
6100163-03RE1	MH1G79	1	100				
6100163-04	MH1G80	1	100				
6100163-05	MH1G81	1	100				
6100163-05RE1	MH1G81	1	100				
6100163-06	MH1G82	1	100				
6100163-07	MH1G83	1	100				
6100163-07RE1	MH1G83	1	100				
6100163-08	MH1G84	1	100				
6100163-08RE1	MH1G84	1	100				
6100163-09	MH1G85	1	100				
6100163-09RE1	MH1G85	1	100				
6100163-10	MH1G86	1	100				
6100163-11	MH1G87	1	100				
6100163-11RE1	MH1G87	1	100				
6100163-12	MH1G88	1	100				
6100163-12RE1	MH1G88	1	100				
6100163-13	MH1G89	1	100				
6100163-13RE1	MH1G89	1	100				
6100163-14	MH1G90	1	100				
6100163-15	MH1G91	1	100				
6100163-15RE1	MH1G91	1	100				
6100163-16	MH1G92	1	100				
6100163-17	MH1G93	1	100				
6100163-18	MH1G94	1	100				
6100163-18RE1	MH1G94	1	100				
QJ14023-PS1	MH1G80A	0.1	10	B6J0171	10000		
QJ14023-MS1	MH1G80S	1	100	B6B0060	200	B6B0061	200
QJ14023-BS1	LCS01	1	100	B6I0067	500		
QJ14023-DUP1	MH1G80D	1	100				
QJ14023-BLK1	PBS01	1	100				

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
B6J0171	PS-MH1G80 AES	In House	NA	02/19/17

Table 2: Metals Apparatus

Balance ID		Mettler IV	
Dig. Block ID		4	
Start Temp	Stop Temp	95.2	92.5
Start Time	Stop Time	1600	1100

Comments:

PREPARATION BENCH SHEET

QJ14023

Bonner Analytical Testing Co.

Matrix: Soil

Analysis: QC

Prepared: 10/17/2016 16:00 using METALS - 3050B

Case:

SDG: MH1G77

Work Order: 6100163

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 — 10/26/2016 Date

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICAPP02 **Case:** 46282 **FileID:** MH1G77 **Std. Prep Date:** 10/17/16

Analyst: MSB2 **SDG:** MH1G77 **Calibration ID:** B644039 **Std. Log Page No.:** ~~30~~ 31 10/26/16

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
BJ62525-CAL1	S01	10/17/16 22:13	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CAL2	S02	10/17/16 22:18	B6G0026	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CAL3	S03	10/17/16 22:22	B6G0027	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CAL4	S04	10/17/16 22:26	B6G0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CAL5	S05	10/17/16 22:30	B6G0029	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CAL6	S06	10/17/16 22:35	B6G0030	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CAL7	S07	10/17/16 22:39	B6G0031	B6I0029	1	Al Ca Fe Mg Mn Pb
BJ62525-CAL8	S08	10/17/16 22:43	B6G0032	B6I0029	1	Al Fe Pb
BJ62525-CAL9	S09	10/17/16 22:48	B6J0169	B6I0029	1	Fe Mn
BJ62525-ICV1	ICV01	10/17/16 22:52	B6G0039	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-ICB1	ICB01	10/17/16 22:56	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-IFA1	ICSA01	10/17/16 23:01	B6H0021	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-IFB1	ICSAB01	10/17/16 23:05	B6H0022	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCV1	CCV01	10/17/16 23:09	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCB1	CCB01	10/17/16 23:13	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCV2	CCV02	10/18/16 0:39	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCB2	CCB02	10/18/16 0:43	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCV3	CCV03	10/18/16 1:05	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCB3	CCB03	10/18/16 1:09	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCV4	CCV04	10/18/16 2:25	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCB4	CCB04	10/18/16 2:29	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCV5	CCV05	10/18/16 2:58	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCB5	CCB05	10/18/16 3:03	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
QJ14023-BLK1	PBS01	10/18/16 3:07		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
QJ14023-BS1	LCS01	10/18/16 3:11		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100163-01	MH1G77	10/18/16 3:16		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100163-02	MH1G78	10/18/16 3:20		B6I0029	1	Al As Ca Cu Fe Mg Mn Zn
6100163-03	MH1G79	10/18/16 3:24		B6I0029	1	Al As Ca Cu Mg Mn Pb Zn
6100163-04	MH1G80	10/18/16 3:28		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
QJ14023-MS1	MH1G80S	10/18/16 3:33		B6I0029	1	As Cu Mn Pb Zn
QJ14023-DUP1	MH1G80D	10/18/16 3:37		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-SRD1	MH1G80L	10/18/16 3:41		B6I0029	5	Al As Ca Cu Fe Mg Mn Pb Zn
6100163-05	MH1G81	10/18/16 3:45		B6I0029	1	Al As Ca Cu Mg Mn Pb Zn

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICAPP02 **Case:** 46282 **FileID:** MH1G77 **Std. Prep Date:** 10/17/16

Analyst: MSB2 **SDG:** MH1G77 **Calibration ID:** B644039 **Std. Log Page No.:** ~~32~~ 31 10/26/18

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
6100163-06	MH1G82	10/18/16 3:50		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100163-07	MH1G83	10/18/16 3:54		B6I0029	1	Al As Ca Cu Mg Pb
6100163-08	MH1G84	10/18/16 3:58		B6I0029	1	Al As Ca Cu Fe Mg Pb
6100163-09	MH1G85	10/18/16 4:02		B6I0029	1	Al As Ca Cu Fe Mg Pb
6100163-10	MH1G86	10/18/16 4:07		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100163-11	MH1G87	10/18/16 4:11		B6I0029	1	Al As Ca Cu Fe Mg Pb Zn
6100163-12	MH1G88	10/18/16 4:15		B6I0029	1	Al As Ca Cu Fe Mg Pb Zn
6100163-13	MH1G89	10/18/16 4:19		B6I0029	1	Al As Ca Cu Fe Mg Pb Zn
6100163-14	MH1G90	10/18/16 4:24		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCV6	CCV06	10/18/16 4:28	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCB6	CCB06	10/18/16 4:32	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100163-15	MH1G91	10/18/16 4:36		B6I0029	1	Al As Ca Cu Fe Mg Pb Zn
6100163-16	MH1G92	10/18/16 4:41		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100163-17	MH1G93	10/18/16 4:45		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100163-18	MH1G94	10/18/16 4:49		B6I0029	1	Al As Ca Cu Fe Mg Pb Zn
BJ62525-CCV7	CCV07	10/18/16 4:53	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62525-CCB7	CCB07	10/18/16 4:58	B6I0028	B6I0029	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:** MH1G77 **Calibration ID:** B644040 **Std. Log Page No.:** ~~32~~ 32 10/26/16

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
BJ62526-CAL1	S01	10/18/16 10:38	B6I0028	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CAL2	S02	10/18/16 10:43	B6G0026	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CAL3	S03	10/18/16 10:47	B6G0027	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CAL4	S04	10/18/16 10:51	B6G0028	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CAL5	S05	10/18/16 10:55	B6G0029	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CAL6	S06	10/18/16 10:59	B6G0030	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CAL7	S07	10/18/16 11:04	B6G0031	B6I0029	1	Fe Mn Pb
BJ62526-CAL8	S08	10/18/16 11:08	B6G0032	B6I0029	1	Fe Pb
BJ62526-CAL9	S09	10/18/16 11:12	B6J0169	B6I0029	1	Fe Mn
BJ62526-ICV1	ICV01	10/18/16 11:17	B6G0039	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-ICB1	ICB01	10/18/16 11:21	B6I0028	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-IFA1	ICSA01	10/18/16 11:25	B6H0021	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62526-IFB1	ICSAB01	10/18/16 11:30	B6H0022	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ62526-CCV1	CCV01	10/18/16 11:34	B6G0037	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CCB1	CCB01	10/18/16 11:38	B6I0028	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CCV2	CCV02	10/18/16 11:47	B6G0037	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CCB2	CCB02	10/18/16 11:51	B6I0028	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CCV3	CCV03	10/18/16 12:00	B6G0037	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CCB3	CCB03	10/18/16 12:04	B6I0028	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CCV4	CCV04	10/18/16 12:17	B6G0037	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CCB4	CCB04	10/18/16 12:21	B6I0028	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CCV5	CCV05	10/18/16 13:25	B6G0037	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CCB5	CCB05	10/18/16 13:29	B6I0028	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CCV6	CCV06	10/18/16 13:56	B6G0037	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CCB6	CCB06	10/18/16 14:00	B6I0028	B6I0029	1	As Cu Fe Mn Pb Zn
6100163-02RE1	MH1G78	10/18/16 14:05		B6I0029	5	Pb
6100163-03RE1	MH1G79	10/18/16 14:09		B6I0029	5	Fe
BJ62526-IBL5	ZZZZZZ	10/18/16 14:14		B6I0029	1	non-report
6100163-07RE1	MH1G83	10/18/16 14:18		B6I0029	20	Zn Fe Mn
6100163-08RE1	MH1G84	10/18/16 14:22		B6I0029	20	Zn Mn
6100163-09RE1	MH1G85	10/18/16 14:26		B6I0029	3	Zn Mn
6100163-11RE1	MH1G87	10/18/16 14:31		B6I0029	3	Mn
6100163-12RE1	MH1G88	10/18/16 14:35		B6I0029	4	Mn

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:** MH1G77 **Calibration ID:** B644040 **Std. Log Page No.:** ~~31~~ 32 10/26/16

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
6100163-13RE1	MH1G89	10/18/16 14:39		B6I0029	4	Mn
6100163-15RE1	MH1G91	10/18/16 14:43		B6I0029	5	Mn
6100163-18RE1	MH1G94	10/18/16 14:47		B6I0029	3	Mn
QJ14023-PS1	MH1G80A	10/18/16 14:52		B6I0029	1	As Cu Zn
6100163-05RE1	MH1G81	10/18/16 14:56		B6I0029	3	Fe
BJ62526-CCV7	CCV07	10/18/16 15:00	B6G0037	B6I0029	1	As Cu Fe Mn Pb Zn
BJ62526-CCB7	CCB07	10/18/16 15:04	B6I0028	B6I0029	1	As Cu Fe Mn Pb Zn

Analytical Standard Record

B6J0171

Description:	PS-MH1G80 AES	Expires:	02/19/2017
Standard Type:	Analyte Spike	Prepared:	10/25/2016
Solvent:	NA	Prepared By:	Lauren Meadows
Final Volume (mls):	10	Department:	METALS
Vials:	1	Last Edit:	10/25/2016 16:27 by LEM

Analyte	Parent	CAS Number	Concentration	Units
Copper	B6A0019	7440-50-8	3	ug/mL
Zinc	B6A0032	7440-66-6	4.2	ug/mL
Arsenic	B6A0046	7440-38-2	0.64	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mls)
B6A0019	Std - Copper - 1000ppm	01/05/2016	High-Purity Standards	1530818	06/29/2017	01/05/2016 11:55 by LEM	0.03
B6A0032	Std - Zinc - 1000ppm	01/05/2016	High-Purity Standards	1516201	06/29/2017	01/06/2016 09:34 by LEM	0.042
B6A0046	Std - Arsenic - 10ppm	01/06/2016	High-Purity Standards	1521106	06/29/2017	01/26/2016 11:33 by MSB2	0.64

Reviewed By

10/26/2016
Date

Bonner Analytical Testing Company
ISM02.3 STANDARD & QC LOG

Standards for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/17/16

QC for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/17/16

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 10/18/2016

Bonner Analytical Testing Company

ISM02.3 STANDARD & QC LOG

Standards for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/18/16

QC for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/18/16

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] 10/18/2016 Supervisor/Date

Document Number: MH-L-047
Revision Number: 2.7

LOG BOOK#: 32

Date Effective: 09/01/2016
MSB2

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: 9/8/16

Supervisor/Date

REAGENTS PREPARATION LOG

ICAPP Reference Standard

LIMS ID: BGI0029

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~~	~~0.309~~ 0.614 ~~10.0 mL~~	ALDRICH	MKBS4658V	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

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 INUSE	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]	10/10/16	[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.

MH1G77

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-01

% Solids: 71.9 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	2.7	*	10/18/2016	2123
7440-39-3	Barium	34.5		10/18/2016	2123
7440-41-7	Beryllium	0.11	J	10/18/2016	2123
7440-43-9	Cadmium	0.48	J	10/18/2016	2123
7440-47-3	Chromium	0.99	J	10/18/2016	2123
7440-48-4	Cobalt	0.94		10/18/2016	2123
7439-98-7	Molybdenum	3.5		10/18/2016	2123
7440-02-0	Nickel	0.80	*	10/18/2016	2123
7782-49-2	Selenium	1.1	J	10/18/2016	2123
7440-22-4	Silver	12.8	*	10/18/2016	2123
7440-28-0	Thallium	0.20	J	10/18/2016	2123
7440-62-2	Vanadium	6.3		10/18/2016	2123

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

Comments:

EPA SAMPLE NO.

MH1G78

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-02
% Solids: 86.9
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	4.8	*	10/18/2016	2126
7440-39-3	Barium	58.2		10/18/2016	2126
7440-41-7	Beryllium	0.092	J	10/18/2016	2126
7440-43-9	Cadmium	0.30	J	10/18/2016	2126
7440-47-3	Chromium	1.7		10/18/2016	2126
7440-48-4	Cobalt	1.7		10/18/2016	2126
7439-98-7	Molybdenum	3.6		10/18/2016	2126
7440-02-0	Nickel	1.4	*	10/18/2016	2126
7782-49-2	Selenium	1.1	J	10/18/2016	2126
7440-22-4	Silver	24.6	*	10/18/2016	2126
7440-28-0	Thallium	0.39	J	10/18/2016	2126
7440-62-2	Vanadium	11.8		10/18/2016	2126

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

Comments:

EPA SAMPLE NO.

MH1G79

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-03

% 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	3.5	*	10/18/2016	2129
7440-39-3	Barium	41.6		10/18/2016	2129
7440-41-7	Beryllium	0.070	J	10/18/2016	2129
7440-43-9	Cadmium	0.99		10/18/2016	2129
7440-47-3	Chromium	4.6		10/18/2016	2129
7440-48-4	Cobalt	2.0		10/18/2016	2129
7439-98-7	Molybdenum	5.6		10/18/2016	2129
7440-02-0	Nickel	1.1	*	10/18/2016	2129
7782-49-2	Selenium	1.6	J	10/18/2016	2129
7440-22-4	Silver	6.2	*	10/18/2016	2129
7440-28-0	Thallium	0.14	J	10/18/2016	2129
7440-62-2	Vanadium	12.2		10/18/2016	2129

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

Comments:

EPA SAMPLE NO.

MH1G80

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-04
% Solids: 76.6
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	3.3	*	10/18/2016	2133
7440-39-3	Barium	30.7		10/18/2016	2133
7440-41-7	Beryllium	0.28	J	10/18/2016	2133
7440-43-9	Cadmium	0.91		10/18/2016	2133
7440-47-3	Chromium	4.0		10/18/2016	2133
7440-48-4	Cobalt	4.9		10/18/2016	2133
7439-98-7	Molybdenum	4.8		10/18/2016	2133
7440-02-0	Nickel	3.3	*	10/18/2016	2133
7782-49-2	Selenium	1.0	J	10/18/2016	2133
7440-22-4	Silver	3.1	*	10/18/2016	2133
7440-28-0	Thallium	0.17	J	10/18/2016	2133
7440-62-2	Vanadium	17.4		10/18/2016	2133

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

Comments:

EPA SAMPLE NO.

MH1G81

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-05

% Solids: 67.5 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	4.3	*	10/18/2016	2149
7440-39-3	Barium	49.3		10/18/2016	2149
7440-41-7	Beryllium	0.072	J	10/18/2016	2149
7440-43-9	Cadmium	1.3		10/18/2016	2149
7440-47-3	Chromium	5.0		10/18/2016	2149
7440-48-4	Cobalt	15.4		10/18/2016	2149
7439-98-7	Molybdenum	8.8		10/18/2016	2149
7440-02-0	Nickel	0.99	*	10/18/2016	2149
7782-49-2	Selenium	2.2	J	10/18/2016	2149
7440-22-4	Silver	6.9	*	10/18/2016	2149
7440-28-0	Thallium	0.37	J	10/18/2016	2149
7440-62-2	Vanadium	15.7		10/18/2016	2149

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

Comments:

EPA SAMPLE NO.

MH1G82

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-06

% Solids: 62.9 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	1.6	*	10/18/2016	2153
7440-39-3	Barium	99.5		10/18/2016	2153
7440-41-7	Beryllium	0.26	J	10/18/2016	2153
7440-43-9	Cadmium	3.9		10/18/2016	2153
7440-47-3	Chromium	4.1		10/18/2016	2153
7440-48-4	Cobalt	5.3		10/18/2016	2153
7439-98-7	Molybdenum	1.8	J	10/18/2016	2153
7440-02-0	Nickel	4.1	*	10/18/2016	2153
7782-49-2	Selenium	1.1	J	10/18/2016	2153
7440-22-4	Silver	2.9	*	10/18/2016	2153
7440-28-0	Thallium	0.20	J	10/18/2016	2153
7440-62-2	Vanadium	12.6		10/18/2016	2153

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

Comments:

EPA SAMPLE NO.

MH1G83

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-07

% Solids: 74.4 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	1.3	*	10/18/2016	2157
7440-39-3	Barium	87.8		10/18/2016	2157
7440-41-7	Beryllium	1.1		10/18/2016	2157
7440-43-9	Cadmium	49.8		10/18/2016	2157
7440-47-3	Chromium	4.5		10/18/2016	2157
7440-48-4	Cobalt	46.4		10/18/2016	2157
7439-98-7	Molybdenum	3.9		10/18/2016	2157
7440-02-0	Nickel	16.3	*	10/18/2016	2157
7782-49-2	Selenium	1.9	J	10/18/2016	2157
7440-22-4	Silver	3.9	*	10/18/2016	2157
7440-28-0	Thallium	1.1		10/18/2016	2157
7440-62-2	Vanadium	14.5		10/18/2016	2157

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

Comments:

EPA SAMPLE NO.

MH1G84

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-08

% Solids: 65.9 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	1.3	J*	10/18/2016	2201
7440-39-3	Barium	136		10/18/2016	2201
7440-41-7	Beryllium	1.7		10/18/2016	2201
7440-43-9	Cadmium	54.5		10/18/2016	2201
7440-47-3	Chromium	6.6		10/18/2016	2201
7440-48-4	Cobalt	39.5		10/18/2016	2201
7439-98-7	Molybdenum	3.2		10/18/2016	2201
7440-02-0	Nickel	19.0	*	10/18/2016	2201
7782-49-2	Selenium	3.3	J	10/18/2016	2201
7440-22-4	Silver	3.4	*	10/18/2016	2201
7440-28-0	Thallium	1.0		10/18/2016	2201
7440-62-2	Vanadium	19.8		10/18/2016	2201

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

Comments:

EPA SAMPLE NO.

MH1G85

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-09

% Solids: 70.9 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	2205
7440-39-3	Barium	80.2		10/18/2016	2205
7440-41-7	Beryllium	1.5		10/18/2016	2205
7440-43-9	Cadmium	10.9		10/18/2016	2205
7440-47-3	Chromium	5.8		10/18/2016	2205
7440-48-4	Cobalt	14.7		10/18/2016	2205
7439-98-7	Molybdenum	2.6	J	10/18/2016	2205
7440-02-0	Nickel	10.4	*	10/18/2016	2205
7782-49-2	Selenium	2.9	J	10/18/2016	2205
7440-22-4	Silver	2.2	*	10/18/2016	2205
7440-28-0	Thallium	0.26	J	10/18/2016	2205
7440-62-2	Vanadium	19.3		10/18/2016	2205

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

Comments:

EPA SAMPLE NO.

MH1G86

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-10

% Solids: 77.3 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	0.37	J*	10/18/2016	2209
7440-39-3	Barium	57.7		10/18/2016	2209
7440-41-7	Beryllium	0.50	J	10/18/2016	2209
7440-43-9	Cadmium	0.59	J	10/18/2016	2209
7440-47-3	Chromium	5.8		10/18/2016	2209
7440-48-4	Cobalt	10.2		10/18/2016	2209
7439-98-7	Molybdenum	4.5		10/18/2016	2209
7440-02-0	Nickel	4.9	*	10/18/2016	2209
7782-49-2	Selenium	1.0	J	10/18/2016	2209
7440-22-4	Silver	1.2	*	10/18/2016	2209
7440-28-0	Thallium	0.20	J	10/18/2016	2209
7440-62-2	Vanadium	16.9		10/18/2016	2209

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

Comments:

EPA SAMPLE NO.

MH1G87

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-11

% Solids: 80.0 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	0.69	J*	10/18/2016	2213
7440-39-3	Barium	33.7		10/18/2016	2213
7440-41-7	Beryllium	0.79		10/18/2016	2213
7440-43-9	Cadmium	5.0		10/18/2016	2213
7440-47-3	Chromium	3.7		10/18/2016	2213
7440-48-4	Cobalt	10.5		10/18/2016	2213
7439-98-7	Molybdenum	1.3	J	10/18/2016	2213
7440-02-0	Nickel	6.8	*	10/18/2016	2213
7782-49-2	Selenium	1.4	J	10/18/2016	2213
7440-22-4	Silver	1.4	*	10/18/2016	2213
7440-28-0	Thallium	0.13	J	10/18/2016	2213
7440-62-2	Vanadium	13.9		10/18/2016	2213

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

Comments:

EPA SAMPLE NO.

MH1G88

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-12

% Solids: 68.3 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	0.96	J*	10/18/2016	2217
7440-39-3	Barium	62.8		10/18/2016	2217
7440-41-7	Beryllium	0.83		10/18/2016	2217
7440-43-9	Cadmium	6.5		10/18/2016	2217
7440-47-3	Chromium	5.5		10/18/2016	2217
7440-48-4	Cobalt	19.5		10/18/2016	2217
7439-98-7	Molybdenum	2.5	J	10/18/2016	2217
7440-02-0	Nickel	7.2	*	10/18/2016	2217
7782-49-2	Selenium	1.8	J	10/18/2016	2217
7440-22-4	Silver	1.8	*	10/18/2016	2217
7440-28-0	Thallium	0.36	J	10/18/2016	2217
7440-62-2	Vanadium	18.1		10/18/2016	2217

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

Comments:

EPA SAMPLE NO.

MH1G89

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-13

% Solids: 59.3 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	1.6	JD*	10/19/2016	0857
7440-39-3	Barium	158	D	10/19/2016	0857
7440-41-7	Beryllium	2.4		10/18/2016	2221
7440-43-9	Cadmium	16.8	D	10/19/2016	0857
7440-47-3	Chromium	1.8		10/18/2016	2221
7440-48-4	Cobalt	23.8	D	10/19/2016	0857
7439-98-7	Molybdenum	7.3	D	10/19/2016	0857
7440-02-0	Nickel	21.4	D*	10/19/2016	0857
7782-49-2	Selenium	5.3		10/18/2016	2221
7440-22-4	Silver	2.9	D*	10/19/2016	0857
7440-28-0	Thallium	0.28	JD	10/19/2016	0857
7440-62-2	Vanadium	7.0		10/18/2016	2221

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

Comments:

EPA SAMPLE NO.

MH1G90

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-14

% Solids: 71.9 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	1.4	*	10/18/2016	2225
7440-39-3	Barium	229		10/18/2016	2225
7440-41-7	Beryllium	1.2		10/18/2016	2225
7440-43-9	Cadmium	8.4		10/18/2016	2225
7440-47-3	Chromium	3.7		10/18/2016	2225
7440-48-4	Cobalt	16.6		10/18/2016	2225
7439-98-7	Molybdenum	17.3		10/18/2016	2225
7440-02-0	Nickel	7.1	*	10/18/2016	2225
7782-49-2	Selenium	1.9	J	10/18/2016	2225
7440-22-4	Silver	2.8	*	10/18/2016	2225
7440-28-0	Thallium	0.42	J	10/18/2016	2225
7440-62-2	Vanadium	12.0		10/18/2016	2225

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

Comments:

EPA SAMPLE NO.

MH1G91

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-15

% Solids: 78.1 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	1.5	JD*	10/19/2016	0901
7440-39-3	Barium	133	D	10/19/2016	0901
7440-41-7	Beryllium	2.4		10/18/2016	2230
7440-43-9	Cadmium	13.9	D	10/19/2016	0901
7440-47-3	Chromium	3.0		10/18/2016	2230
7440-48-4	Cobalt	25.2	D	10/19/2016	0901
7439-98-7	Molybdenum	2.7	JD	10/19/2016	0901
7440-02-0	Nickel	20.7	D*	10/19/2016	0901
7782-49-2	Selenium	4.0		10/18/2016	2230
7440-22-4	Silver	5.0	D*	10/19/2016	0901
7440-28-0	Thallium	0.36	JD	10/19/2016	0901
7440-62-2	Vanadium	8.7		10/18/2016	2230

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

Comments:

EPA SAMPLE NO.

MH1G92

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-16
% Solids: 76.8
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	0.69	J*	10/18/2016	2234
7440-39-3	Barium	73.6		10/18/2016	2234
7440-41-7	Beryllium	0.55	J	10/18/2016	2234
7440-43-9	Cadmium	1.3		10/18/2016	2234
7440-47-3	Chromium	2.8		10/18/2016	2234
7440-48-4	Cobalt	8.7		10/18/2016	2234
7439-98-7	Molybdenum	5.7		10/18/2016	2234
7440-02-0	Nickel	3.6	*	10/18/2016	2234
7782-49-2	Selenium	1.0	J	10/18/2016	2234
7440-22-4	Silver	0.89	*	10/18/2016	2234
7440-28-0	Thallium	0.23	J	10/18/2016	2234
7440-62-2	Vanadium	10		10/18/2016	2234

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

Comments:

EPA SAMPLE NO.

MH1G93

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-17

% Solids: 83.9 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	0.79	J*	10/18/2016	2238
7440-39-3	Barium	48.3		10/18/2016	2238
7440-41-7	Beryllium	0.41	J	10/18/2016	2238
7440-43-9	Cadmium	0.78		10/18/2016	2238
7440-47-3	Chromium	2.7		10/18/2016	2238
7440-48-4	Cobalt	5.3		10/18/2016	2238
7439-98-7	Molybdenum	1.6	J	10/18/2016	2238
7440-02-0	Nickel	2.9	*	10/18/2016	2238
7782-49-2	Selenium	1.2	J	10/18/2016	2238
7440-22-4	Silver	1.6	*	10/18/2016	2238
7440-28-0	Thallium	0.15	J	10/18/2016	2238
7440-62-2	Vanadium	10.8		10/18/2016	2238

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

Comments:

EPA SAMPLE NO.

MH1G94

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-18
% Solids: 84.7
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	1.6	*	10/18/2016	2242
7440-39-3	Barium	74.4		10/18/2016	2242
7440-41-7	Beryllium	0.54	J	10/18/2016	2242
7440-43-9	Cadmium	3.4		10/18/2016	2242
7440-47-3	Chromium	3.9		10/18/2016	2242
7440-48-4	Cobalt	8.0		10/18/2016	2242
7439-98-7	Molybdenum	2.9		10/18/2016	2242
7440-02-0	Nickel	4.5	*	10/18/2016	2242
7782-49-2	Selenium	1.2	J	10/18/2016	2242
7440-22-4	Silver	1.7	*	10/18/2016	2242
7440-28-0	Thallium	0.20	J	10/18/2016	2242
7440-62-2	Vanadium	12.7		10/18/2016	2242

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.: MH1G77

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ62104101816B 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.: MH1G77

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ62104101816B 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.: MH1G77

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ62104101816B 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.: MH1G77

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ62108M101916A 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	202	101	1	500.00	530	106	0	530	106	2
Barium	99.000	101	102	1	500.00	514	103	0	515	103	0
Cadmium	99.000	102	103	1	500.00	513	103	0	510	102	1
Cobalt	100.00	103	103	0	500.00	501	100	1	503	101	1
Molybdenum	10.000	10.7	107	0	1250.0	1300	104	0	1300	104	1
Nickel	101.00	102	101	0	500.00	498	100	0	501	100	1
Silver	100.00	103	103	1	65.000	66.0	102	0	66.1	102	1
Thallium	206.00	218	106	1	500.00	500	100	1	498	100	1

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1G77

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: QJ14028

Run Batch: BJ62104101816B 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	0.046	J
Nickel	1.0	U	0.28	J	0.19	J	1.0	U	0.16	J
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	-0.079	J
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.: MH1G77

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: QJ14028

Run Batch: BJ62104101816B Preparation Method: 200.8

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
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.: MH1G77

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: BJ62108M101916A 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				
Barium	10	U	0.084	J	0.072	J				
Cadmium	1.0	U	1.0	U	0.053	J				
Cobalt	0.015	J	0.042	J	0.040	J				
Molybdenum	4.0	U	0.29	J	0.32	J				
Nickel	1.0	U	1.0	U	1.0	U				
Silver	0.017	J	0.0069	J	1.0	U				
Thallium	1.0	U	0.082	J	0.075	J				

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.: MH1G77

Analytical Method: ICP-MS ICSA Source: USEPA, Lot:ICSA-0803

Instrument ID: ICPMS01 ICSB Source: USEPA, Lot:ICSA-0803 & ICSB-0803

Run Batch: BJ62104101816B

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.: MH1G77

Analytical Method: ICP-MS ICSA Source: USEPA, Lot:ICSA-0803

Instrument ID: ICPMS01 ICSB Source: USEPA, Lot:ICSA-0803 & ICSB-0803

Run Batch: BJ62108M101916A

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Antimony	1.5	22	1.1	73	20.8	95
Barium	1.2	22	2.0	167	22.7	103
Cadmium	0.7	20	0.41	59	19.1	96
Cobalt	1	20	1.3	130	20.5	103
Molybdenum	2000	2000	2180	109	2140	107
Nickel	6	24	5.7	95	24.2	101
Silver	0	18	0.012		18.4	102
Thallium	0	21	0.024		19.6	93

EPA SAMPLE NO.

MH1G80S

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.: MH1G77

Matrix: Soil Analytical Method: ICP-MS

% Solids: 76.6

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	10.0		3.3		13.0	54	*
Barium	75-125	330		30.7		261	114	
Beryllium	75-125	5.8		0.28	J	6.52	85	
Cadmium	75-125	7.7		0.91		6.52	104	
Chromium	75-125	27.0		4.0		26.1	86	
Cobalt	75-125	64.0		4.9		65.2	90	
Molybdenum	75-125	110		4.8		130	78	
Nickel	75-125	56.0		3.3		65.2	81	
Selenium	75-125	12.0		1.0	J	13.0	84	
Silver	75-125	11.0		3.1		6.52	122	
Thallium	75-125	6.1		0.17	J	6.52	91	
Vanadium	75-125	72.0		17.4		65.2	83	

EPA SAMPLE NO.

MH1G80A

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.: MH1G77

Matrix: Soil Analytical Method: ICP-MS

% Solids: 76.6

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	8.7		3.3		6.6	90	

EPA SAMPLE NO.

FORM 6-IN
DUPLICATES

MH1G80D

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.:46282 MA No.: 2658.0 SDG No.: MH1G77

Matrix: Soil Analytical Method: ICP-MS

% Solids: 76.6

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	1.3	3.3		4.2		25	
Barium	6.5	30.7		35.8		15	
Beryllium		0.28	J	0.31	J		
Cadmium	0.65	0.91		0.84		8	
Chromium	1.3	4.0		5.0		22	
Cobalt		4.9		4.8		3	
Molybdenum	2.6	4.8		5.6		16	
Nickel		3.3		3.4		4	
Selenium		1.0	J	1.3	J		
Silver	0.65	3.1		4.1		26	*
Thallium		0.17	J	0.21	J		
Vanadium		17.4		18.7		7	

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.: MH1G77

Matrix: Soil Preparation Method: 200.8

Analytical method: ICP-MS Preparation Batch: QJ14028

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	10.1	101
Beryllium	1.0000	1.1	110
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	5.0	100
Silver	1.0000	1.0	100
Thallium	1.0000	1.0	100
Vanadium	5.0000	4.9	98

EPA SAMPLE NO.

MH1G80L

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.: MH1G77

Matrix: Soil Analytical method: ICP-MS

% Solids: 76.6

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	3.3		3.6	J	9	
Barium	30.7		33.9		10	
Beryllium	0.28	J	0.29	J	4	
Cadmium	0.91		0.95	J	4	
Chromium	4.0		3.6	J	8	
Cobalt	4.9		5.4		10	
Molybdenum	4.8		5.1	J	6	
Nickel	3.3		3.7		14	*
Selenium	1.0	J	0.96	J	8	
Silver	3.1		3.4		10	
Thallium	0.17	J	3.3	U	35	
Vanadium	17.4		18.0		3	

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.: MH1G77

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.:MH1G77
Instrument ID: ICPMS01
Date: 10/18/2016
Run Batch: BJ62104101816B

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.:MH1G77
Instrument ID: ICPMS01
Date: 10/19/2016
Run Batch: BJ62108M101916A

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Antimony	Sc	Tb
Barium	Sc	Tb
Cadmium	Sc	Tb
Cobalt	Sc	Tb
Molybdenum	Sc	Tb
Nickel	Sc	Tb
Silver	Sc	Tb
Thallium	Ho	

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.: MH1G77

Instrument ID: ICPMS01

Analytical Method: ICP-MS

Start Date: 10/18/2016

End Date: 10/18/2016

Run Batch: BJ62104101816B

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			
PBS01	1.0	2115		X		X	X	X		X	X							X		X	X		X	X			
LCS01	1.0	2119		X		X	X	X		X	X							X		X	X		X	X			
MH1G77	1.0	2123		X		X	X	X		X	X							X		X	X		X	X			
MH1G78	1.0	2126		X		X	X	X		X	X							X		X	X		X	X			
MH1G79	1.0	2129		X		X	X	X		X	X							X		X	X		X	X			
MH1G80	1.0	2133		X		X	X	X		X	X							X		X	X		X	X			
MH1G80S	1.0	2137		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.: MH1G77
Instrument ID: ICPMS01
Analytical Method: ICP-MS
Start Date: 10/18/2016
End Date: 10/18/2016
Run Batch: BJ62104101816B

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	
MH1G80D	1.0	2141		X		X	X	X		X	X							X		X	X		X	X			
MH1G80L	5.0	2145		X		X	X	X		X	X							X		X	X		X	X			
MH1G81	1.0	2149		X		X	X	X		X	X							X		X	X		X	X			
MH1G82	1.0	2153		X		X	X	X		X	X							X		X	X		X	X			
MH1G83	1.0	2157		X		X	X	X		X	X							X		X	X		X	X			
MH1G84	1.0	2201		X		X	X	X		X	X							X		X	X		X	X			
MH1G85	1.0	2205		X		X	X	X		X	X							X		X	X		X	X			
MH1G86	1.0	2209		X		X	X	X		X	X							X		X	X		X	X			
MH1G87	1.0	2213		X		X	X	X		X	X							X		X	X		X	X			
MH1G88	1.0	2217		X		X	X	X		X	X							X		X	X		X	X			
MH1G89	1.0	2221					X			X										X				X			
MH1G90	1.0	2225		X		X	X	X		X	X							X		X	X		X	X			
MH1G91	1.0	2230					X			X										X				X			
MH1G92	1.0	2234		X		X	X	X		X	X							X		X	X		X	X			
MH1G93	1.0	2238		X		X	X	X		X	X							X		X	X		X	X			
MH1G94	1.0	2242		X		X	X	X		X	X							X		X	X		X	X			
ZZZZZZ	1.0	2246																									
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			

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.: MH1G77

Instrument ID: ICPMS01

Analytical Method: ICP-MS

Start Date: 10/18/2016

End Date: 10/18/2016

Run Batch: BJ62104101816B

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																			
PBS01	1.0	2115					X																			
LCS01	1.0	2119					X																			
MH1G77	1.0	2123					X																			
MH1G78	1.0	2126					X																			
MH1G79	1.0	2129					X																			
MH1G80	1.0	2133					X																			
MH1G80S	1.0	2137					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.: MH1G77
Instrument ID: ICPMS01
Analytical Method: ICP-MS
Start Date: 10/18/2016
End Date: 10/18/2016
Run Batch: BJ62104101816B

EPA Sample NO.	D/F	Time	Analytes																							
			B	Au	Li	Bi	Mo	Os	Pd	P	Pt	Si	S	Sn	Sr	Ti	U	Zr								
MH1G80D	1.0	2141					X																			
MH1G80L	5.0	2145					X																			
MH1G81	1.0	2149					X																			
MH1G82	1.0	2153					X																			
MH1G83	1.0	2157					X																			
MH1G84	1.0	2201					X																			
MH1G85	1.0	2205					X																			
MH1G86	1.0	2209					X																			
MH1G87	1.0	2213					X																			
MH1G88	1.0	2217					X																			
MH1G89	1.0	2221																								
MH1G90	1.0	2225					X																			
MH1G91	1.0	2230																								
MH1G92	1.0	2234					X																			
MH1G93	1.0	2238					X																			
MH1G94	1.0	2242					X																			
ZZZZZZ	1.0	2246																								
CCV06	1.0	2250					X																			
CCB06	1.0	2254					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.: MH1G77

Instrument ID: ICPMS01

Analytical Method: ICP-MS

Start Date: 10/19/2016

End Date: 10/19/2016

Run Batch: BJ62108M101916A

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		X			X							X			X		X				
S02	1.0	0755																									
S03	1.0	0759				X																					
S04	1.0	0803		X		X		X			X							X			X		X				
S05	1.0	0807		X		X		X			X							X			X		X				
S06	1.0	0811		X		X		X			X							X			X		X				
S07	1.0	0815		X		X		X			X							X			X		X				
S08	1.0	0819		X		X		X			X							X			X		X				
ICV01	1.0	0823		X		X		X			X							X			X		X				
ICB01	1.0	0828		X		X		X			X							X			X		X				
ICSA01	1.0	0832		X		X		X			X							X			X		X				
ICSAB01	1.0	0836		X		X		X			X							X			X		X				
CCV01	1.0	0840		X		X		X			X							X			X		X				
CCB01	1.0	0845		X		X		X			X							X			X		X				
ZZZZZZ	1.0	0849																									
MH1G80A	1.0	0853		X																							
MH1G89	2.0	0857		X		X		X			X							X			X		X				
MH1G91	2.0	0901		X		X		X			X							X			X		X				
ZZZZZZ	1.0	0905																									
ZZZZZZ	1.0	0909																									
CCV02	1.0	0914		X		X		X			X							X			X		X				
CCB02	1.0	0918		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.: MH1G77
Instrument ID: ICPMS01
Analytical Method: ICP-MS
Start Date: 10/19/2016
End Date: 10/19/2016
Run Batch: BJ62108M101916A

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	0739																								
S01	1.0	0751					X																			
S02	1.0	0755					X																			
S03	1.0	0759					X																			
S04	1.0	0803					X																			
S05	1.0	0807					X																			
S06	1.0	0811					X																			
S07	1.0	0815					X																			
S08	1.0	0819					X																			
ICV01	1.0	0823					X																			
ICB01	1.0	0828					X																			
ICSA01	1.0	0832					X																			
ICSAB01	1.0	0836					X																			
CCV01	1.0	0840					X																			
CCB01	1.0	0845					X																			
ZZZZZZ	1.0	0849																								
MH1G80A	1.0	0853																								
MH1G89	2.0	0857					X																			
MH1G91	2.0	0901					X																			
ZZZZZZ	1.0	0905																								
ZZZZZZ	1.0	0909																								
CCV02	1.0	0914					X																			
CCB02	1.0	0918					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.: MH1G77

ICP-MS Instrument ID: ICPMS01

Date: 10/18/16

Run Batch: BJ62104101816B

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.: MH1G77

ICP-MS Instrument ID: ICPMS01 Date: 10/19/16

Run Batch: BJ62108M101916A

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.: MH1G77

ICP-MS Instrument ID: ICPMS01 Start Date: 10/18/2016

Run Batch: BJ62104101816B End Date: 10/18/2016

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			
PBS01	21:15	87		78				91			
LCS01	21:19	88		80				94			
MH1G77	21:23	91		87				95			
MH1G78	21:26	94		93				97			
MH1G79	21:29	87		86				86			
MH1G80	21:33	92		91				94			
MH1G80S	21:37	94		92				94			
MH1G80D	21:41	95		94				96			

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.: MH1G77

ICP-MS Instrument ID: ICPMS01 Start Date: 10/18/2016

Run Batch: BJ62104101816B End Date: 10/18/2016

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
MH1G80L	21:45	95		89				98			
MH1G81	21:49	88		89				89			
MH1G82	21:53	86		82				93			
MH1G83	21:57	96		95				95			
MH1G84	22:01	95		95				97			
MH1G85	22:05	100		105				104			
MH1G86	22:09	102		110				106			
MH1G87	22:13	102		109				105			
MH1G88	22:17	100		105				104			
MH1G89	22:21	100		103				106			
MH1G90	22:25	99		104				105			
MH1G91	22:30	102		107				106			
MH1G92	22:34	98		102				104			
MH1G93	22:38	99		108				108			
MH1G94	22:42	102		112				109			
ZZZZZZ	22:46										
CCV06	22:50	94		93				96			
CCB06	22:54	91		84				95			

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.: MH1G77

ICP-MS Instrument ID: ICPMS01 Start Date: 10/18/2016

Run Batch: BJ62104101816B End Date: 10/18/2016

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							
PBS01	21:15	98		100							
LCS01	21:19	100		102							
MH1G77	21:23	104		105							
MH1G78	21:26	108		108							
MH1G79	21:29	103		105							
MH1G80	21:33	107		108							
MH1G80S	21:37	109		110							
MH1G80D	21:41	110		110							

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.: MH1G77

ICP-MS Instrument ID: ICPMS01 Start Date: 10/18/2016

Run Batch: BJ62104101816B End Date: 10/18/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Tb-159	Q	Element Ho-165	Q	Element Bi-209	Q	Element	Q	Element	Q
MH1G80L	21:45	106		108							
MH1G81	21:49	101		103							
MH1G82	21:53	104		106							
MH1G83	21:57	114		114							
MH1G84	22:01	122		120							
MH1G85	22:05	124		124							
MH1G86	22:09	119		119							
MH1G87	22:13	120		120							
MH1G88	22:17	119		118							
MH1G89	22:21	136	R	132	R						
MH1G90	22:25	120		120							
MH1G91	22:30	138	R	134	R						
MH1G92	22:34	117		118							
MH1G93	22:38	119		118							
MH1G94	22:42	121		120							
ZZZZZZ	22:46										
CCV06	22:50	116		118							
CCB06	22:54	108		110							

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.: MH1G77

ICP-MS Instrument ID: ICPMS01 Start Date: 10/19/2016

Run Batch: BJ62108M101916A 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			
S02	7:55	101		98				101			
S03	7:59	99		95				98			
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										
MH1G80A	8:53	101		119				107			
MH1G89	8:57	100		110				108			
MH1G91	9:01	99		111				107			
ZZZZZZ	9:05										
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.: MH1G77

ICP-MS Instrument ID: ICPMS01 Start Date: 10/19/2016

Run Batch: BJ62108M101916A 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							
S02	7:55	103		103							
S03	7:59	101		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										
MH1G80A	8:53	116		115							
MH1G89	8:57	124		123							
MH1G91	9:01	124		122							
ZZZZZZ	9:05										
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.: MH1G77

Instrument ID: ICPMS01

Start Date: 10/18/2016

Analytical method: ICP-MS

Run Batch: BJ62104101816B

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.: MH1G77
Instrument ID: ICPMS01
Start Date: 10/18/2016
Analytical method: ICP-MS
Run Batch: BJ62104101816B
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.: MH1G77

Instrument ID: ICPMS01

Start Date: 10/18/2016

Analytical method: ICP-MS

Run Batch: BJ62104101816B

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.: MH1G77
Instrument ID: ICPMS01
Start Date: 10/19/2016
Analytical method: ICP-MS
Run Batch: BJ62108M101916A

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	0.0	0.0010							
Barium	0.0	0.032					5.0	4.9	2
Cadmium	0.0	0.00060							
Cobalt	0.0	0.00010							
Nickel	0.0	0.0026							
Silver	0.0	0.00010							
Thallium	0.0	0.010							
Molybdenum	0.0	0.00040		2.0	2.0	0	4.0	4.0	-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.: MH1G77

Instrument ID: ICPMS01

Start Date: 10/19/2016

Analytical method: ICP-MS

Run Batch: BJ62108M101916A

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	2.0	2.0	2	10.0	9.8	2	50.0	48.9	2
Barium	10.0	9.7	3	10.0	10	0	50.0	49.1	2
Cadmium	1.0	0.92	8	10.0	9.9	1	50.0	49.2	2
Cobalt	1.0	0.98	2	10.0	10.0	0	50.0	49.6	1
Nickel	1.0	1.0	0	10.0	10	0	50.0	49.7	1
Silver	1.0	0.99	1	1.3	1.3	1	6.5	6.5	0
Thallium	1.0	0.98	2	10.0	9.8	2	50.0	49.3	1
Molybdenum	10.0	9.9	1	25.0	24.8	1	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.: MH1G77
Instrument ID: ICPMS01
Start Date: 10/19/2016
Analytical method: ICP-MS
Run Batch: BJ62108M101916A
Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	500	513	-3	1000	1010	-1			
Barium	500	501	0	1000	1010	-1			
Cadmium	500	501	0	1000	1010	-1			
Cobalt	500	503	-1	1000	996	0			
Nickel	500	501	0	1000	1000	0			
Silver	65.0	65.2	0	130	130	0			
Thallium	500	508	-2	1000	1040	-4			
Molybdenum	1250	1300	-4	2500	2600	-4			

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.: MH1G77
Instrument ID: ICPMS01
Start Date: 10/18/2016
Analytical method: ICP-MS
Run Batch: BJ62104101816B

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.: MH1G77
Instrument ID: ICPMS01
Start Date: 10/19/2016
Analytical method: ICP-MS
Run Batch: BJ62108M101916A

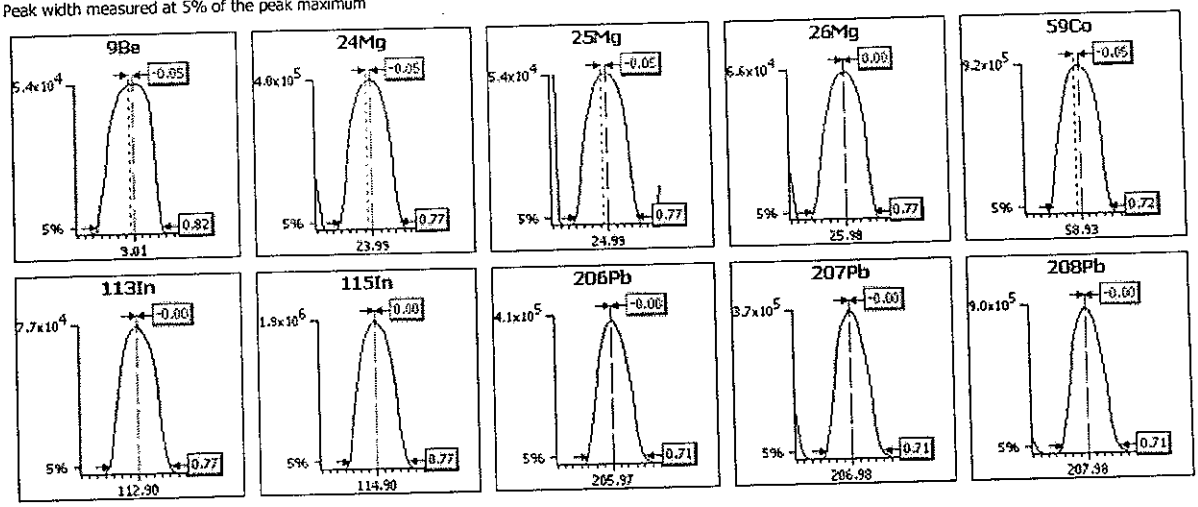
Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Antimony	0.999969	3942.996329	0.004951	WLR	Standard Devi
Barium	0.999991	1371.712922	0.006599	WLR	Standard Devi
Cadmium	0.999987	1166.223565	0.005134	WLR	Standard Devi
Cobalt	0.999989	6205.718315	0.002618	WLR	Standard Devi
Nickel	1.000000	1306.266297	0.311605	WLR	Standard Devi
Silver	0.999999	5072.188741	0.001372	WLR	Standard Devi
Thallium	0.999954	10040.983697	-0.004897	WLR	Standard Devi
Molybdenum	0.999997	1808.788186	0.009418	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

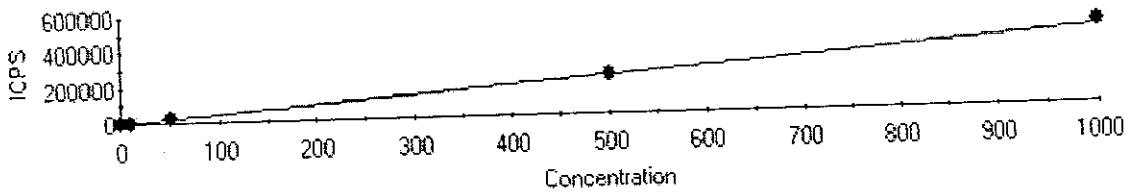
Acquisition parameters
Sweeps : 30

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

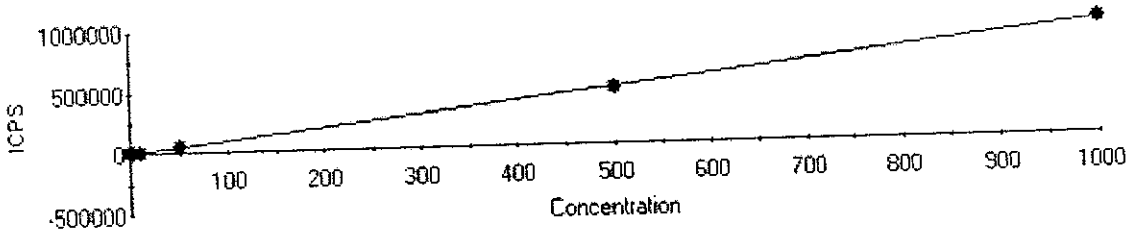
98e FQ Block 1



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

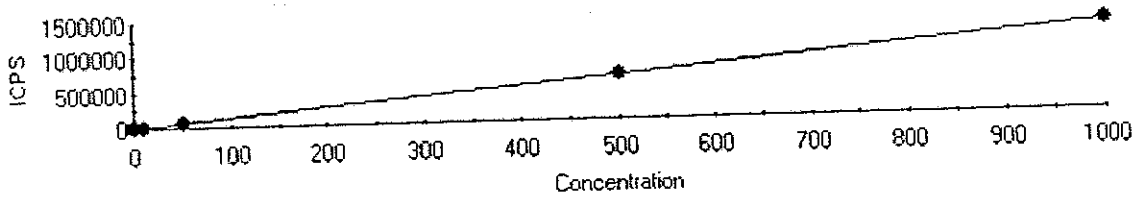
51V FQ Block 1



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

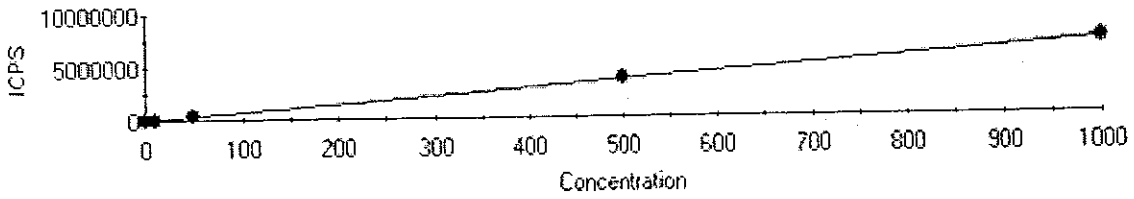
52Cr FQ Block 1



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

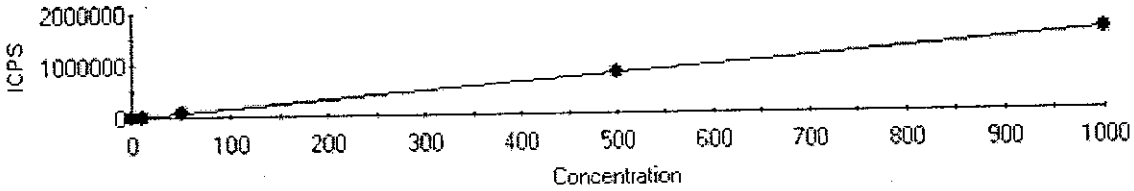
59Co FQ Block 1



Intercept CPS=33.783817 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

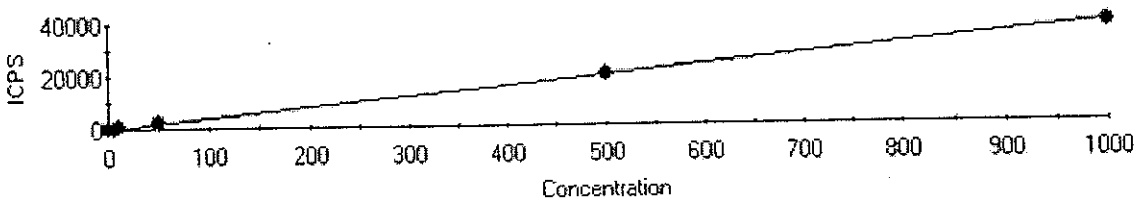
60Ni FQ Block 1



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

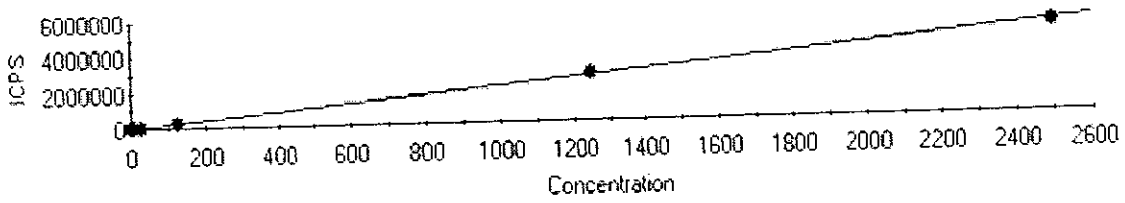
78Se FQ Block 1



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

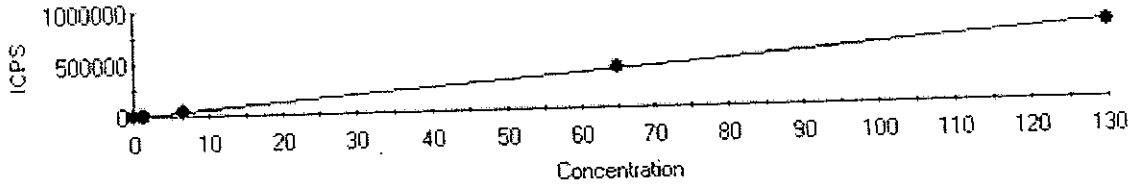
95Mo FQ Block 1



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

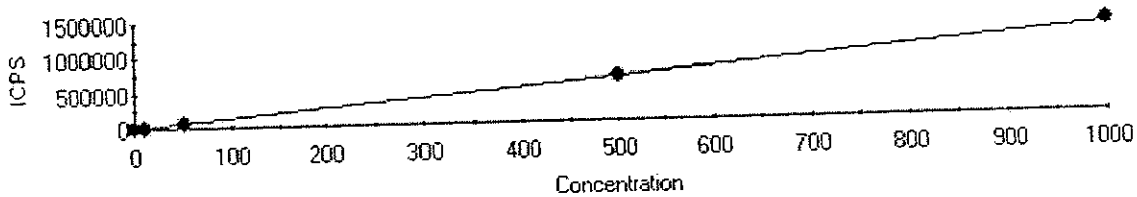
107Ag FQ Block 1



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

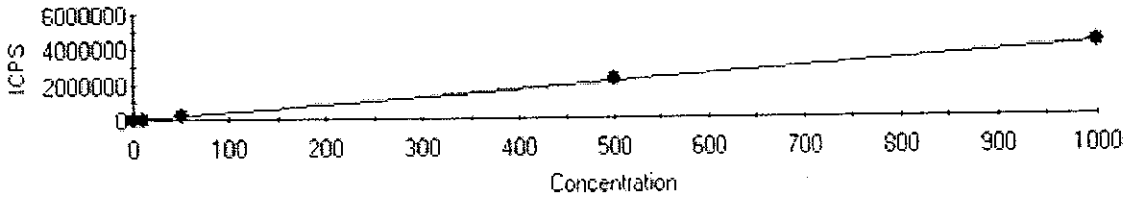
111Cd FQ Block 1



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

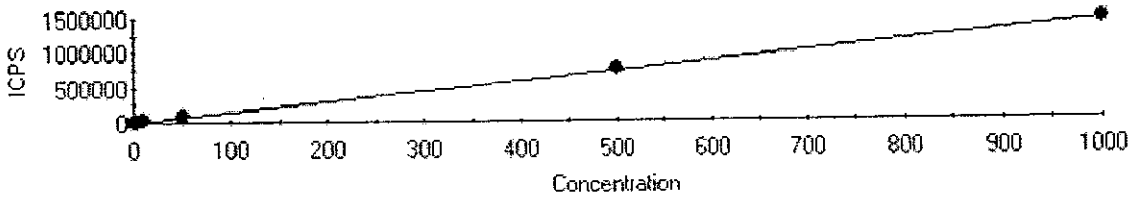
121Sb FQ Block 1



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

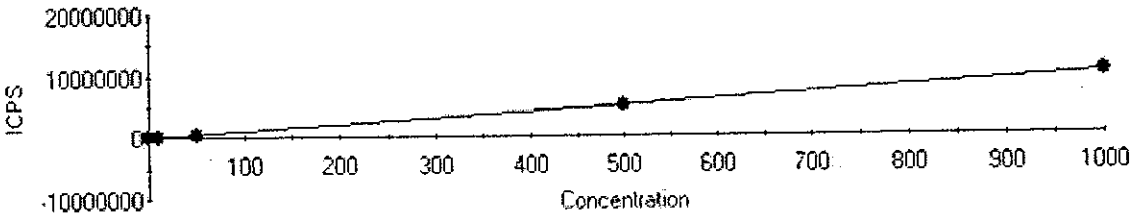
137Ba FQ Block 1



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

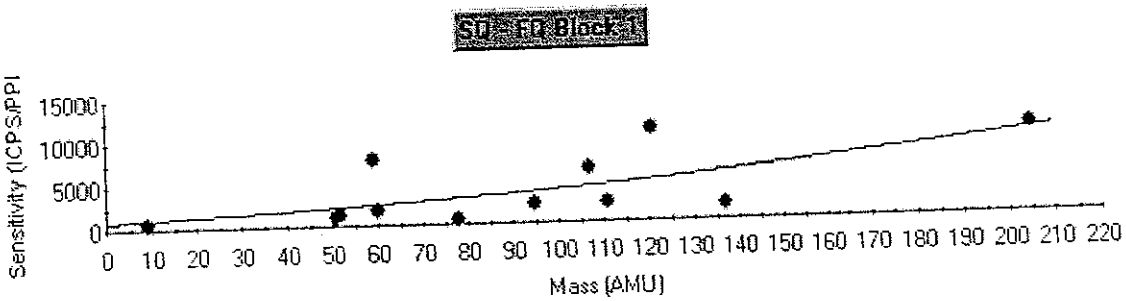
205Tl FQ Block 1



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%	48.7000	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	±494.0000	499.0000	18.7500	501.3000	27.4000	3.8360	0.0000	410.5000	1281.0000	±762.4000	437.5000	±1110.0000
2	18:12:13	99.9%	494.2000	99.7%	299.3000	485.4000	493.4000	2598.0000	±494.1000	501.5000	19.4000	485.4000	27.7200	6.7690	0.0000	412.3000	±1257.0000	±767.2000	443.1000	±1118.0000
3	18:12:26	100.4%	502.4000	98.7%	304.9000	495.7000	500.7000	2526.0000	±500.8000	506.4000	19.0900	496.6000	27.4600	7.2640	0.0000	419.7000	±1266.0000	±772.9000	445.1000	±1125.0000
x		100.2%	497.1000	98.8%	300.7000	491.2000	497.2000	2573.0000	±496.3000	502.3000	19.0800	494.5000	27.5300	5.9560	0.0000	414.2000	±1268.0000	±767.5000	441.9000	±1118.0000
σ		0.3%	4.6100	0.9%	3.6450	5.2620	3.6600	40.9200	±3.8720	3.7690	0.3259	8.1750	0.1733	1.8530	0.0000	4.8810	±12.0100	±5.2610	3.9210	±7.3220
%RSD		0.3	0.9273	0.9	1.2120	1.0710	0.7360	1.5900	±0.7602	0.7504	1.7080	1.6530	0.6296	31.1100	0.0000	1.1780	±0.9468	±0.6855	0.8873	±0.6551

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	$15.2000	$04.2000	106.2%	107.4%	±482.7000	0.0000
2	18:12:13	98.0%	24.0600	65.9700	17.5700	507.0000	0.0000	±469.4000	520.3000	514.6000	107.6%	110.8%	±475.6000	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%	±482.6000	0.0000
x		96.9%	24.1000	65.4600	17.5400	504.5000	0.0000	±485.5000	522.6000	512.2000	107.6%	109.6%	±480.3000	0.0000
σ		0.9%	0.1767	0.5045	0.2412	3.3980	0.0000	±15.6800	8.8030	7.1660	1.5%	1.9%	±4.0650	0.0000
%RSD		0.9	0.7333	0.7706	1.3760	0.6736	0.0000	±3.2290	1.6840	1.3990	1.4	1.7	±0.8464	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%	≈1029.0000	85.9%	595.9000	984.8000	≈1002.0000	4084.0000	±974.5000	981.3000	38.5900	963.5000	54.7500	12.7700	0.0000	±798.4000	±2441.0000	±1501.0000	±852.6000	±2176.0000
2	18:16:22	92.5%	≈1051.0000	85.8%	610.0000	982.0000	≈1007.0000	4143.0000	±998.4000	≈1018.0000	38.9700	975.3000	54.7800	13.4800	0.0000	±816.3000	≈2510.0000	±1534.0000	±865.7000	±2213.0000
3	18:16:35	91.6%	≈1046.0000	86.5%	608.1000	≈1000.0000	≈1021.0000	4533.0000	±993.3000	≈1009.0000	38.7200	993.9000	54.9300	10.9700	0.0000	±815.0000	≈2501.0000	±1533.0000	±875.4000	±2241.0000
x		92.2%	≈1042.0000	86.1%	604.7000	≈989.0000	≈1010.0000	4253.0000	±988.7000	≈1003.0000	38.7600	977.6000	54.8200	12.4100	0.0000	±809.9000	≈2484.0000	±1523.0000	±864.5000	±2210.0000
σ		0.5%	≈11.3600	0.3%	7.6450	≈9.7440	≈9.7560	244.0000	±12.6100	≈18.9300	0.1952	15.3500	0.0968	1.2950	0.0000	±9.9840	≈37.5400	±18.6200	±11.4100	±32.6700
%RSD		0.6	≈1.0900	0.4	1.2640	≈0.9852	≈0.9661	5.7360	±1.2750	≈1.8880	0.5035	1.5700	0.1766	10.4300	0.0000	±1.2330	≈1.5110	±1.2230	±1.3200	±1.4790

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	±917.3000	±987.1000	±982.2000	102.3%	103.8%	≈1001.0000	0.0000
2	18:16:22	89.4%	47.0800	130.0000	35.2700	≈1018.0000	0.0000	±935.9000	±994.9000	±991.6000	103.4%	105.4%	≈1000.0000	0.0000
3	18:16:35	87.9%	48.0300	129.2000	35.0700	≈1015.0000	0.0000	±942.3000	≈1007.0000	±994.8000	104.8%	106.7%	≈1001.0000	0.0000
x		88.8%	47.3400	128.9000	34.8200	≈1009.0000	0.0000	±931.8000	≈996.5000	±989.5000	103.5%	105.3%	≈1001.0000	0.0000
σ		0.8%	0.6045	1.3510	0.6180	≈12.4900	0.0000	±12.9900	≈10.3000	±6.5190	1.3%	1.4%	≈0.5096	0.0000
%RSD		0.8	1.2770	1.0480	1.7750	≈1.2380	0.0000	±1.3940	≈1.0340	±0.6588	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%	±210.3000	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%	±210.2000	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%	±212.0000	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%	±102.860%	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%	±n/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	±0.4748	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	0.0627	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.±10%	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.±10%	0.7682	68.087%	0.0000	0.1407	77.769%	171.816%	102.4%	103.1%	1.±10%	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	±463.9000	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	±490.3000	491.8000	20.1800	494.9000	27.8500	6.7920	0.0000	395.6000	±1209.0000	±739.9000	424.5000	±1081.0000
2	19:45:32	96.3%	492.3000	99.6%	291.2000	479.5000	486.0000	2260.0000	±495.9000	498.8000	19.3300	483.9000	26.7600	6.7150	0.0000	404.6000	±1225.0000	±744.3000	431.8000	±1081.0000
3	19:45:45	95.8%	493.2000	99.6%	297.2000	476.9000	487.8000	2255.0000	±501.0000	509.2000	19.3800	483.1000	27.1600	6.7380	0.0000	409.0000	±1231.0000	±751.5000	435.5000	±1094.0000
x		96.1%	98.228%	99.6%	291.7000	96.382%	98.236%	2374.0000	±99.146%	99.989%	19.6300	97.459%	27.2600	6.7490	0.0000	403.0000	±1222.0000	±745.2000	430.6000	±1085.0000
σ		0.3%	n/a	0.0%	5.3410	n/a	n/a	202.5000	±n/a	n/a	0.4819	n/a	0.5536	0.0394	0.0000	6.8370	±11.5700	±5.8600	5.6040	±7.5680
%RSD		0.3	0.5845	0.0	1.8310	1.3580	1.5180	8.5300	±1.0760	1.7560	2.4550	1.3570	2.0310	0.5844	0.0000	1.6960	±0.9473	±0.7863	1.3020	±0.6975

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%	±488.5000	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%	±488.4000	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%	±479.8000	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%	±97.109%	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%	±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	±1.0330	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	0.0790	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	±510.7000	512.5000	19.8100	479.7000	27.0200	7.9340	0.0000	412.4000	±1273.0000	±777.1000	443.5000	±1130.0000
2	20:07:02	95.7%	499.7000	97.2%	303.3000	481.2000	491.6000	2586.0000	±509.2000	513.5000	18.6700	484.0000	27.1200	6.7580	0.0000	415.2000	±1262.0000	±764.9000	442.9000	±1125.0000
3	20:07:15	96.1%	511.2000	96.3%	302.8000	485.0000	496.1000	2437.0000	±511.0000	512.6000	19.9200	497.3000	26.4700	4.6960	0.0000	417.4000	±1259.0000	±763.3000	444.4000	±1120.0000
x		96.1%	100.786%	97.2%	302.2000	96.530%	98.708%	2450.0000	±102.059%	102.571%	19.4700	97.397%	26.8700	6.4630	0.0000	415.0000	±1265.0000	±768.4000	443.6000	±1125.0000
σ		0.4%	n/a	1.0%	1.5770	n/a	n/a	130.1000	±n/a	n/a	0.6901	n/a	0.3476	1.6390	0.0000	2.5400	±7.5490	±7.5500	0.7743	±5.1710
%RSD		0.5	1.2530	1.0	0.5219	0.4264	0.4667	5.3090	±0.1892	0.1029	3.5450	1.8910	1.2930	25.3600	0.0000	0.6121	±0.5969	±0.9826	0.1746	±0.4596

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	±473.5000	539.8000	524.0000	112.2%	113.6%	±497.6000	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%	±499.5000	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%	±495.3000	0.0000
x		97.3%	24.6100	101.872%	18.1700	104.233%	0.0000	±489.9000	108.550%	104.900%	114.0%	115.0%	±99.491%	0.0000
σ		0.7%	0.2306	n/a	0.2065	n/a	0.0000	±14.2400	n/a	n/a	1.7%	1.3%	±n/a	0.0000
%RSD		0.7	0.9369	0.5079	1.1370	0.7173	0.0000	±2.9070	0.5367	0.0970	1.5	1.2	±0.4278	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

QJ14028-BLK1@P8S01@MH1G77@46282 10/18/2016 21:15:58 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	21:15:58	85.4%	0.0949	76.2%	-0.0029	-0.0804	-0.1475	-43.3500	0.0113	0.3142	0.0013	-0.1772	0.0565	-0.6136	0.0000	0.0239	0.0813	0.0401	0.0367	0.0612
2	21:16:11	87.5%	0.0340	78.3%	0.0139	-0.0498	-0.1493	-45.6900	0.0109	0.3120	-0.0112	-0.0533	-0.0007	0.1340	0.0000	0.0416	0.1038	0.0486	0.0307	0.0578
3	21:16:25	86.5%	0.0520	79.4%	0.0046	-0.0714	-0.1606	-43.0400	0.0078	0.3068	0.0130	-0.2426	0.0104	-0.0570	0.0000	0.0369	0.0878	0.0501	0.0324	0.0795
x		86.5%	0.0603	77.9%	0.0052	-0.0672	-0.1525	-44.0300	0.0100	0.3110	0.0010	-0.1577	0.0221	-0.1789	0.0000	0.0341	0.0910	0.0463	0.0332	0.0662
σ		1.0%	0.0313	1.6%	0.0084	0.0157	0.0071	1.4520	0.0019	0.0038	0.0121	0.0962	0.0304	0.3884	0.0000	0.0092	0.0116	0.0054	0.0031	0.0116
%RSD		1.2	51.9600	2.1	160.9000	23.4000	4.6650	3.2980	18.8700	1.2190	1159.0000	60.9700	137.5000	217.2000	0.0000	26.8300	12.7200	11.6100	9.3050	17.5900

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	21:15:58	89.6%	-0.0152	0.0005	0.0000	0.0071	0.0000	0.0271	0.0074	-0.0270	97.4%	98.5%	0.0219	0.0000
2	21:16:11	91.8%	-0.0257	0.0004	0.0016	0.0186	0.0000	0.0219	0.0195	-0.0300	98.7%	99.6%	0.0266	0.0000
3	21:16:25	92.1%	-0.0150	-0.0023	0.0031	0.0154	0.0000	0.0334	0.0140	-0.0180	99.3%	101.5%	0.0242	0.0000
x		91.2%	-0.0186	-0.0005	0.0015	0.0137	0.0000	0.0275	0.0136	-0.0250	98.4%	99.9%	0.0243	0.0000
σ		1.3%	0.0061	0.0015	0.0015	0.0059	0.0000	0.0058	0.0060	0.0062	1.0%	1.5%	0.0023	0.0000
%RSD		1.5	32.9600	329.6000	99.6700	43.0600	0.0000	21.0200	44.2600	24.9100	1.0	1.5	9.6840	0.0000

QJ14028-BS1@LCS01 10/18/2016 21:19:57 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	21:19:57	87.3%	2.1720	78.0%	0.0163	9.7670	3.8450	1.6630	2.1130	2.0760	0.3229	9.9690	0.5481	-0.2526	0.0000	2.6150	7.7950	4.7800	2.6750	7.2370
2	21:20:10	89.0%	2.1560	81.3%	-0.0047	9.5900	3.7940	12.9600	2.0940	2.1390	0.3460	10.4400	0.4580	0.1145	0.0000	2.6820	8.0610	4.7970	2.7060	6.9340
3	21:20:23	88.5%	2.1480	81.2%	0.0038	9.7460	3.8750	3.5300	2.0550	2.0480	0.4336	9.5330	0.4619	0.4611	0.0000	2.5520	8.0150	4.8180	2.7930	7.3610
x		88.3%	107.944%	80.2%	0.0051	97.012%	95.949%	6.0530	104.363%	104.387%	0.3675	99.811%	0.4894	0.1077	0.0000	2.6160	7.9570	4.7980	2.7240	7.1780
σ		0.9%	n/a	1.9%	0.0105	n/a	n/a	6.0580	n/a	n/a	0.0584	n/a	0.0510	0.3569	0.0000	0.0648	0.1424	0.0190	0.0609	0.2198
%RSD		1.0	0.5581	2.4	205.7000	0.9949	1.0660	100.1000	1.4240	2.2340	15.9000	4.5530	10.4100	331.5000	0.0000	2.4790	1.7890	0.3957	2.2370	3.0630

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	21:19:57	93.5%	0.0810	2.0450	0.0880	1.9830	0.0000	0.0175	4.1160	19.9600	97.3%	100.2%	1.9460	0.0000
2	21:20:10	93.7%	0.0899	2.0040	0.0727	1.9130	0.0000	0.0086	4.0890	20.2200	100.3%	101.5%	2.0250	0.0000
3	21:20:23	95.3%	0.1156	2.0160	0.0823	2.0750	0.0000	0.0118	4.1770	20.3000	103.1%	104.0%	2.0470	0.0000
x		94.2%	0.0955	101.082%	0.0810	99.512%	0.0000	0.0127	103.184%	100.791%	100.2%	101.9%	100.309%	0.0000
σ		1.0%	0.0180	n/a	0.0077	n/a	0.0000	0.0045	n/a	n/a	2.9%	1.9%	n/a	0.0000
%RSD		1.0	18.8600	1.0370	9.5060	4.0990	0.0000	35.6700	1.0840	0.8885	2.9	1.9	2.6340	0.0000

6100163-01@MH1G77 10/18/2016 21:23:31

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	21:23:31	88.9%	0.1441	84.7%	1.3370	8.9380	1.3900	-24.0900	1.3560	1.1700	0.2220	1.6010	0.1745	-0.2651	0.0000	1.7190	4.9350	3.0760	1.7920	4.4460
2	21:23:44	91.7%	0.1465	87.7%	1.2800	9.0280	1.4100	-7.1670	1.3370	1.1180	0.1644	1.5480	0.1103	0.6425	0.0000	1.7420	5.1300	3.1060	1.7320	4.4780
3	21:23:57	91.5%	0.1871	88.6%	1.3230	9.3000	1.4680	-33.3800	1.3650	1.1500	0.1416	1.5540	0.0665	0.6474	0.0000	2.4100	5.0800	3.0870	1.8180	4.4480
x		90.7%	0.1592	87.0%	1.3130	9.0890	1.4230	-21.5500	1.3530	1.1460	0.1760	1.5680	0.1171	0.3416	0.0000	1.9570	5.0480	3.0900	1.7810	4.4570
σ		1.6%	0.0242	2.1%	0.0298	0.1883	0.0405	13.2900	0.0147	0.0259	0.0415	0.0291	0.0543	0.5254	0.0000	0.3927	0.1014	0.0153	0.0441	0.0182
%RSD		1.7	15.1900	2.4	2.2690	2.0720	2.8470	61.6900	1.0870	2.2600	23.5600	1.8540	46.4000	153.8000	0.0000	20.0600	2.0090	0.4960	2.4770	0.4093

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	21:23:31	95.7%	0.0437	18.2100	0.0266	0.6945	0.0000	1.0590	3.8820	49.3500	101.2%	102.9%	0.2921	0.0000
2	21:23:44	95.3%	0.0495	18.5200	0.0388	0.6609	0.0000	1.0970	3.9360	50.2900	103.6%	105.4%	0.2842	0.0000
3	21:23:57	95.0%	0.0302	18.3500	0.0282	0.7285	0.0000	1.0690	3.9000	49.1800	106.3%	107.6%	0.2649	0.0000
x		95.3%	0.0411	18.3600	0.0312	0.6946	0.0000	1.0750	3.9060	49.6100	103.7%	105.3%	0.2804	0.0000
σ		0.4%	0.0099	0.1557	0.0066	0.0338	0.0000	0.0199	0.0271	0.5970	2.5%	2.3%	0.0140	0.0000
%RSD		0.4	24.0300	0.8480	21.1800	4.8680	0.0000	1.8490	0.6932	1.2030	2.4	2.2	4.9770	0.0000

6100163-02@MH1G78 10/18/2016 21:26:34

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	21:26:34	92.9%	0.2296	91.4%	1.7190	20.4400	2.9050	-11.9300	2.9150	2.3920	0.1379	2.1940	0.0649	0.4351	0.0000	2.0990	5.9840	3.8030	2.1120	5.3570
2	21:26:47	93.7%	0.1767	93.0%	1.8100	20.7200	2.9940	8.1990	3.0180	2.4670	0.1168	1.5370	0.0979	-0.0862	0.0000	2.1040	6.1520	3.7490	2.1330	5.3830
3	21:27:00	94.7%	0.0716	93.1%	1.8050	20.3400	2.9140	-5.5700	2.9450	2.4680	0.0912	2.1740	0.0642	0.2491	0.0000	2.1590	6.4030	3.8230	2.1200	5.4060
x		93.8%	0.1593	92.5%	1.7780	20.5000	2.9380	-3.1000	2.9600	2.4420	0.1153	1.9690	0.0757	0.1994	0.0000	2.1210	6.1800	3.7920	2.1210	5.3820
σ		0.9%	0.0804	0.9%	0.0510	0.1967	0.0488	10.2900	0.0532	0.0438	0.0234	0.3737	0.0192	0.2642	0.0000	0.0332	0.2107	0.0387	0.0106	0.0248
%RSD		1.0	50.4700	1.0	2.8670	0.9592	1.6610	331.9000	1.7980	1.7940	20.2900	18.9900	25.4200	132.5000	0.0000	1.5640	3.4100	1.0200	0.5003	0.4613

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	21:26:34	97.3%	0.0604	42.4600	0.0237	0.5851	0.0000	1.1250	8.2480	99.7900	105.8%	105.4%	0.6408	0.0000
2	21:26:47	95.9%	0.0502	42.9200	0.0316	0.4676	0.0000	1.1960	8.3620	102.0000	107.1%	109.2%	0.6810	0.0000
3	21:27:00	98.1%	0.0416	43.0900	0.0243	0.5133	0.0000	1.2020	8.3650	101.6000	110.2%	110.0%	0.6866	0.0000
x		97.1%	0.0507	42.8200	0.0265	0.5220	0.0000	1.1740	8.3250	101.1000	107.7%	108.2%	0.6695	0.0000
σ		1.1%	0.0094	0.3277	0.0044	0.0592	0.0000	0.0431	0.0666	1.1640	2.3%	2.5%	0.0250	0.0000
%RSD		1.2	18.5200	0.7653	16.5200	11.3400	0.0000	3.6710	0.7999	1.1510	2.1	2.3	3.7360	0.0000

6100163-03@MH1G79 10/18/2016 21:29:35

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
3	21:29:35	87.2%	0.0988	85.3%	18.0200	14.4700	5.5020	9.5270	2.3640	1.3270	0.1596	1.8040	0.1576	-0.8061	0.0000	2.5160	6.5200	4.1150	2.2360	5.6870
2	21:29:49	86.0%	0.0707	86.7%	17.8400	14.4800	5.4440	-8.2650	2.4330	1.3260	0.0799	2.1900	0.1333	0.4015	0.0000	2.5860	6.6760	4.2220	2.1950	5.6250
3	21:30:02	87.2%	0.0793	86.7%	18.1700	14.1400	5.3580	-2.0550	2.4020	1.3280	0.0908	1.7430	0.1063	-0.0176	0.0000	2.5520	6.5070	4.2950	2.2270	5.7370
x		86.8%	0.0830	86.2%	18.0100	14.3600	5.4350	-0.2644	2.4000	1.3270	0.1101	1.9120	0.1324	-0.1407	0.0000	2.5510	6.5680	4.2110	2.2190	5.6830
σ		0.7%	0.0144	0.8%	0.1637	0.1939	0.0722	9.0300	0.0344	0.0010	0.0432	0.2425	0.0257	0.6132	0.0000	0.0346	0.0945	0.0906	0.0217	0.0561
%RSD		0.8	17.3400	0.9	0.9091	1.3500	1.3290	3415.0000	1.4350	0.0734	39.2300	12.6800	19.3900	435.7000	0.0000	1.3550	1.4390	2.1510	0.9771	0.9879

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	21:29:35	84.9%	0.0387	7.3680	0.0338	1.1600	0.0000	1.3770	4.2300	49.4600	101.4%	103.1%	0.1682	0.0000
2	21:29:49	85.7%	0.0567	7.3670	0.0552	1.1390	0.0000	1.3900	4.0060	49.1100	102.5%	105.6%	0.1645	0.0000
3	21:30:02	87.5%	0.0629	7.2990	0.0488	1.1970	0.0000	1.3740	4.1010	48.5700	104.6%	106.9%	0.1537	0.0000
x		86.1%	0.0527	7.3450	0.0459	1.1650	0.0000	1.3800	4.1120	49.0500	102.9%	105.2%	0.1621	0.0000
σ		1.3%	0.0126	0.0398	0.0110	0.0293	0.0000	0.0084	0.1125	0.4503	1.6%	1.9%	0.0075	0.0000
%RSD		1.5	23.8200	0.5417	23.8400	2.5120	0.0000	0.6108	2.7350	0.9180	1.6	1.8	4.6160	0.0000

6100163-04@MH1G80 10/18/2016 21:33:22

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	21:33:22	90.1%	0.4102	89.7%	16.8400	26.6500	6.0360	-6.4160	7.3240	5.0730	0.2018	1.7820	0.0220	0.2917	0.0000	2.4780	7.1150	4.5500	2.5120	6.3330
2	21:33:35	91.0%	0.4962	90.8%	16.5400	26.6900	6.0760	-8.9720	7.5910	5.1380	0.2017	1.4130	-0.0098	1.5710	0.0000	2.4890	7.3600	4.4280	2.5750	6.5240
3	21:33:49	92.2%	0.3990	92.1%	17.0000	26.8900	6.2030	-4.1790	7.6620	4.8520	0.2030	1.6090	0.0784	0.6661	0.0000	2.5510	7.5690	4.5760	2.5800	6.4770
x		91.1%	0.4351	90.9%	16.7900	26.7400	6.1050	-6.5220	7.5260	5.0210	0.2022	1.6010	0.0302	0.8431	0.0000	2.5060	7.3480	4.5180	2.5560	6.4450
σ		1.1%	0.0532	1.2%	0.2345	0.1266	0.0870	2.3980	0.1778	0.1499	0.0007	0.1846	0.0447	0.6579	0.0000	0.0391	0.2275	0.0790	0.0384	0.0994
%RSD		1.2	12.2200	1.3	1.3960	0.4732	1.4250	36.7700	2.3620	2.9850	0.3680	11.5300	147.9000	78.0400	0.0000	1.5600	3.0950	1.7470	1.5010	1.5420

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	21:33:22	94.3%	0.0942	4.8280	0.0523	1.3740	0.0000	1.3560	4.9050	46.2300	104.4%	105.6%	0.2551	0.0000
2	21:33:35	94.4%	0.0911	4.7430	0.0637	1.4910	0.0000	1.4270	5.1370	47.0200	107.4%	107.7%	0.2633	0.0000
3	21:33:49	93.8%	0.1013	4.8750	0.0573	1.3330	0.0000	1.4580	5.1670	47.7100	109.4%	110.6%	0.2736	0.0000
x		94.1%	0.0955	4.8150	0.0578	1.3990	0.0000	1.4130	5.0700	46.9800	107.1%	108.0%	0.2640	0.0000
σ		0.3%	0.0052	0.0668	0.0057	0.0822	0.0000	0.0524	0.1434	0.7387	2.5%	2.5%	0.0093	0.0000
%RSD		0.3	5.4540	1.3870	9.9120	5.8720	0.0000	3.7060	2.8290	1.5720	2.4	2.3	3.5200	0.0000

Q314028-MS1@MH1G80S 10/18/2016 21:37:24 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	21:37:24	93.7%	8.5120	90.2%	13.7200	108.7000	40.3300	227.2000	97.1700	86.4700	0.8730	18.6200	1.1400	0.1055	0.0000	53.1900	162.1000	97.8600	55.9400	144.8000
2	21:37:37	92.5%	9.1940	92.1%	13.7800	109.0000	40.5300	253.4000	97.9300	86.3800	0.9362	18.8900	0.9789	0.4758	0.0000	53.9300	165.6000	100.4000	57.0100	147.5000
3	21:37:50	93.3%	8.7560	93.2%	14.1000	111.6000	41.1800	212.0000	98.6100	86.4000	0.8025	17.8800	0.9105	0.6742	0.0000	54.4500	164.5000	100.8000	57.4400	147.9000
x		93.2%	83.854%	91.8%	13.8700	83.057%	86.442%	230.9000	90.377%	81.400%	0.8705	843.230%	1.0100	0.4185	0.0000	53.8600	164.1000	99.6900	56.8000	146.8000
σ		0.6%	n/a	1.5%	0.2042	n/a	n/a	20.9500	n/a	n/a	0.0669	n/a	0.1179	0.2887	0.0000	0.6314	1.7720	1.5990	0.7733	1.7100
%RSD		0.7	3.9160	1.7	1.4720	1.4450	1.0880	9.0750	0.7383	0.0543	7.6830	2.8330	11.6800	68.9800	0.0000	1.1720	1.0800	1.6040	1.3610	1.1650

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	21:37:24	94.6%	0.5838	17.0200	0.4410	11.6700	0.0000	1.4460	15.6600	501.1000	105.3%	107.1%	9.1650	0.0000
2	21:37:37	94.2%	0.6308	16.9300	0.4336	11.8400	0.0000	1.5050	15.8200	505.0000	109.4%	110.0%	9.3880	0.0000
3	21:37:50	93.2%	0.5736	17.1400	0.4980	12.1200	0.0000	1.4270	15.7100	504.0000	110.9%	112.4%	9.2850	0.0000
x		94.0%	0.5960	122.156%	0.4575	104.750%	0.0000	1.4600	53.306%	114.098%	108.5%	109.8%	90.155%	0.0000
σ		0.7%	0.0305	n/a	0.0352	n/a	0.0000	0.0407	n/a	n/a	2.9%	2.7%	n/a	0.0000
%RSD		0.8	5.1160	0.6304	7.6990	1.9370	0.0000	2.7860	0.5015	0.4002	2.7	2.4	1.2040	0.0000

Q314028-DUP1@MH1G80D 10/18/2016 21:41:26

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	21:41:26	93.3%	0.4480	92.1%	16.1100	28.5000	7.6860	23.5900	7.2710	5.2670	0.1862	2.1950	0.1308	0.2710	0.0000	3.0550	8.5090	5.3900	2.9760	7.9100
2	21:41:40	95.1%	0.4359	94.4%	15.8900	28.4300	7.5060	22.6300	7.2470	5.2740	0.2065	1.6870	0.0225	0.9654	0.0000	3.0240	8.7060	5.3840	3.0180	7.6780
3	21:41:53	94.8%	0.5369	94.8%	16.2000	28.8900	7.7030	0.5448	7.3780	5.2140	0.2912	2.2590	0.1642	0.6325	0.0000	3.0540	8.6870	5.4210	3.1140	7.8800
x		94.4%	0.4736	93.8%	16.0600	28.6100	7.6310	15.5900	7.2980	5.2520	0.2279	2.0470	0.1058	0.6230	0.0000	3.0440	8.6340	5.3990	3.0360	7.8230
σ		1.0%	0.0551	1.5%	0.1601	0.2487	0.1091	13.0400	0.0700	0.0327	0.0557	0.3136	0.0741	0.3473	0.0000	0.0176	0.1089	0.0201	0.0707	0.1262
%RSD		1.0	11.6400	1.6	0.9968	0.8693	1.4300	83.6300	0.9589	0.6228	24.4300	15.3200	70.0300	55.7500	0.0000	0.5786	1.2610	0.3715	2.3270	1.6130

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	21:41:26	96.1%	0.0848	6.2400	0.0483	1.3320	0.0000	1.9420	6.5370	54.4200	106.8%	106.4%	0.3177	0.0000
2	21:41:40	97.4%	0.0866	6.1840	0.0377	1.2180	0.0000	1.9070	6.3500	55.0000	109.7%	109.7%	0.3208	0.0000
3	21:41:53	96.0%	0.1144	6.3260	0.0464	1.3250	0.0000	1.9150	6.6100	55.1900	112.4%	113.0%	0.3115	0.0000
x		96.5%	0.0953	6.2500	0.0441	1.2920	0.0000	1.9220	6.4990	54.8700	109.7%	109.7%	0.3167	0.0000
σ		0.8%	0.0166	0.0715	0.0057	0.0636	0.0000	0.0184	0.1338	0.4014	2.8%	3.3%	0.0047	0.0000
%RSD		0.8	17.4100	1.1430	12.8700	4.9220	0.0000	0.9591	2.0590	0.7316	2.6	3.0	1.4930	0.0000

SEQ-SRD1@MH1G80L@5X 10/18/2016 21:45:28

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	21:45:28	94.3%	0.0868	87.6%	3.7050	5.4870	1.1140	-50.6000	1.6580	1.1480	0.0345	0.3782	0.0538	0.2545	0.0000	0.5844	1.5550	0.9836	0.5227	1.4250
2	21:45:42	94.7%	0.1086	90.0%	3.8270	5.3610	1.1020	-55.3000	1.6270	1.2350	0.0113	0.1637	0.0205	-0.4581	0.0000	0.5675	1.5050	0.9868	0.5846	1.4200
3	21:45:55	95.6%	0.0753	90.0%	3.7170	5.7270	1.1370	-68.6900	1.6910	1.0550	0.0570	0.3447	0.0847	-0.4548	0.0000	0.5848	1.6110	1.0240	0.5537	1.4720
x		94.9%	0.0902	89.2%	3.7490	5.5250	1.1180	-58.2000	1.6590	1.1460	0.0343	0.2955	0.0530	-0.2195	0.0000	0.5789	1.5570	0.9982	0.5537	1.4390
σ		0.6%	0.0169	1.4%	0.0670	0.1859	0.0181	9.3870	0.0323	0.0899	0.0228	0.1154	0.0321	0.4105	0.0000	0.0099	0.0529	0.0225	0.0310	0.0291
%RSD		0.7	18.7300	1.6	1.7860	3.3640	1.6200	16.1300	1.9460	7.8410	66.5900	39.0500	60.5200	187.0000	0.0000	1.7020	3.4000	2.2900	5.5920	2.0250

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	21:45:28	97.6%	0.0054	1.0480	0.0101	0.2732	0.0000	0.3158	1.0890	10.3200	103.6%	105.3%	0.0736	0.0000
2	21:45:42	99.2%	0.0339	1.0170	0.0140	0.2981	0.0000	0.3227	1.0800	10.4100	106.0%	107.7%	0.0669	0.0000
3	21:45:55	98.2%	0.0200	1.1080	0.0124	0.3042	0.0000	0.3764	1.1350	10.4200	108.9%	110.6%	0.0740	0.0000
x		98.3%	0.0198	1.0580	0.0122	0.2918	0.0000	0.3383	1.1020	10.3900	106.2%	107.9%	0.0715	0.0000
σ		0.8%	0.0143	0.0460	0.0020	0.0164	0.0000	0.0332	0.0293	0.0542	2.6%	2.7%	0.0040	0.0000
%RSD		0.8	72.0600	4.3460	16.3600	5.6190	0.0000	9.8110	2.6620	0.5220	2.5	2.5	5.6000	0.0000

6100163-05@MH1G81 10/18/2016 21:49:31

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	21:49:31	87.5%	0.1218	87.2%	22.1600	21.1500	6.6170	47.3300	20.6500	1.2770	0.1779	3.2570	0.0597	1.5330	0.0000	4.6980	11.7000	7.6300	4.0580	10.4000
2	21:49:44	89.2%	0.0688	88.3%	22.8700	21.3600	6.7450	-11.1600	20.9200	1.4460	0.1384	2.7010	0.2562	-0.2276	0.0000	4.8540	12.1300	7.7020	4.1350	10.5200
3	21:49:57	88.0%	0.0995	90.5%	22.4000	21.3000	6.7650	17.2200	20.8500	1.2960	0.1259	2.9250	0.2448	0.1572	0.0000	4.9610	11.8700	7.8990	4.0900	10.5100
x		88.2%	0.0967	88.7%	22.4800	21.2700	6.7090	17.7900	20.8100	1.3400	0.1474	2.9610	0.1869	0.4875	0.0000	4.8380	11.9000	7.7440	4.0940	10.4800
σ		0.9%	0.0266	1.7%	0.3595	0.1065	0.0800	29.2500	0.1403	0.0925	0.0271	0.2794	0.1103	0.9256	0.0000	0.1326	0.2208	0.1392	0.0386	0.0703
%RSD		1.0	27.5000	1.9	1.5990	0.5006	1.1930	164.4000	0.6742	6.9020	18.4100	9.4350	59.0000	189.9000	0.0000	2.7410	1.8550	1.7970	0.9420	0.6709

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	21:49:31	88.5%	0.1264	9.2170	0.0811	1.8010	0.0000	2.6430	5.8170	66.6300	98.9%	101.0%	0.4958	0.0000
2	21:49:44	89.5%	0.1080	9.4040	0.0853	1.7580	0.0000	2.6580	5.8550	66.5400	101.4%	104.0%	0.4797	0.0000
3	21:49:57	89.6%	0.0999	9.3980	0.0551	1.8090	0.0000	2.6500	5.8350	66.5000	103.6%	104.9%	0.5174	0.0000
x		89.2%	0.1114	9.3390	0.0739	1.7890	0.0000	2.6500	5.8360	66.5600	101.3%	103.3%	0.4976	0.0000
σ		0.6%	0.0136	0.1064	0.0164	0.0276	0.0000	0.0073	0.0190	0.0670	2.3%	2.0%	0.0189	0.0000
%RSD		0.6	12.1800	1.1390	22.1400	1.5430	0.0000	0.2764	0.3248	0.1006	2.3	2.0	3.7990	0.0000

6100163-06@MH1G82 10/18/2016 21:53:34

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	21:53:34	83.9%	0.2985	79.2%	23.1400	16.1100	5.2820	-9.1090	6.7550	5.1160	0.1101	1.3620	0.0788	-0.0558	0.0000	0.9838	2.2050	1.4180	0.7835	1.8780
2	21:53:47	85.8%	0.3772	82.3%	23.0300	15.6500	5.0840	-0.8051	6.7310	5.4760	0.0944	1.1860	0.0336	0.8266	0.0000	0.9571	2.1360	1.4380	0.7720	2.0710
3	21:54:00	87.4%	0.2954	84.5%	22.7600	15.7000	5.1820	27.3700	6.6930	5.0500	0.0606	1.6810	0.0680	1.0440	0.0000	1.0020	2.2900	1.4520	0.7174	1.9930
x		85.7%	0.3237	82.0%	22.9800	15.8200	5.1830	5.8170	6.7260	5.2140	0.0884	1.4100	0.0601	0.6049	0.0000	0.9808	2.2100	1.4360	0.7576	1.9810
σ		1.8%	0.0464	2.7%	0.1939	0.2545	0.0993	19.1200	0.0316	0.2295	0.0253	0.2507	0.0236	0.5825	0.0000	0.0224	0.0773	0.0170	0.0353	0.0973
%RSD		2.1	14.3300	3.2	0.8440	1.6090	1.9160	328.6000	0.4698	4.4010	28.6300	17.7800	39.3000	96.2900	0.0000	2.2830	3.4970	1.1870	4.6590	4.9150

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	21:53:34	92.0%	0.2632	3.5660	0.1717	4.8500	0.0000	0.8820	1.9360	124.9000	100.5%	102.0%	0.2393	0.0000
2	21:53:47	95.1%	0.2416	3.6030	0.1813	4.6620	0.0000	0.9200	1.9670	125.3000	104.7%	106.7%	0.2521	0.0000
3	21:54:00	93.3%	0.2465	3.6070	0.1691	5.0650	0.0000	0.8748	1.9700	125.2000	107.8%	109.7%	0.2456	0.0000
x		93.5%	0.2504	3.5920	0.1740	4.8590	0.0000	0.8923	1.9580	125.1000	104.4%	106.1%	0.2457	0.0000
σ		1.6%	0.0113	0.0224	0.0064	0.2017	0.0000	0.0243	0.0187	0.1979	3.7%	3.9%	0.0064	0.0000
%RSD		1.7	4.5190	0.6227	3.6790	4.1520	0.0000	2.7190	0.9530	0.1582	3.5	3.6	2.6170	0.0000

6100163-07@MH1G83 10/18/2016 21:57:37

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	21:57:37	92.4%	1.5840	92.9%	21.0500	21.2800	6.7470	31.4000	68.7100	24.0200	0.4593	2.3800	0.1560	1.5590	0.0000	1.9560	5.5900	3.4600	1.8760	4.9050
2	21:57:50	92.3%	1.5380	95.1%	21.4600	21.5600	6.7690	9.6240	69.0200	24.5600	0.4991	3.0190	0.0811	3.0480	0.0000	2.0360	5.8980	3.6000	1.8630	4.9330
3	21:58:03	93.1%	1.8500	96.9%	21.6800	21.6900	6.6700	-19.7700	69.4900	24.0900	0.5371	2.9940	0.2085	0.6371	0.0000	2.1050	5.7860	3.4680	1.8330	5.0260
x		92.6%	1.6570	94.9%	21.3900	21.5100	6.7290	7.0850	69.0700	24.2200	0.4985	2.7980	0.1486	1.7480	0.0000	2.0320	5.7580	3.5090	1.8570	4.9550
σ		0.4%	0.1683	2.0%	0.3172	0.2065	0.0518	25.6800	0.3904	0.2899	0.0389	0.3620	0.0640	1.2170	0.0000	0.0749	0.1559	0.0786	0.0216	0.0632
%RSD		0.5	10.1500	2.1	1.4830	0.9600	0.7704	362.4000	0.5652	1.1970	7.8040	12.9400	43.1100	69.6000	0.0000	3.6830	2.7080	2.2400	1.1640	1.2750

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	21:57:37	94.9%	3.6250	5.7680	2.5310	73.1700	0.0000	0.3202	1.9860	129.6000	111.6%	111.5%	1.6890	0.0000
2	21:57:50	94.0%	3.5850	5.8120	2.5250	73.7600	0.0000	0.3051	1.9760	131.0000	115.4%	115.1%	1.6620	0.0000
3	21:58:03	95.6%	3.6180	5.8500	2.6550	75.2400	0.0000	0.3403	2.0380	131.3000	116.2%	115.4%	1.7180	0.0000
x		94.8%	3.6090	5.8100	2.5700	74.0600	0.0000	0.3219	2.0000	130.7000	114.4%	114.0%	1.6890	0.0000
σ		0.8%	0.0215	0.0410	0.0737	1.0670	0.0000	0.0176	0.0329	0.9353	2.5%	2.2%	0.0280	0.0000
%RSD		0.9	0.5959	0.7056	2.8680	1.4410	0.0000	5.4830	1.6440	0.7159	2.1	1.9	1.6580	0.0000

6100163-08@MH1G84 10/18/2016 22:01:40

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	22:01:40	91.5%	2.2810	93.4%	26.5600	25.8100	8.5600	37.3300	51.5100	24.3800	0.6292	4.6200	0.1543	3.4380	0.0000	2.0120	4.2230	2.7210	1.4040	3.5120
2	22:01:53	92.7%	2.1250	95.0%	26.9800	26.4000	8.7140	42.0000	52.2800	25.3300	0.6347	4.6920	0.2507	1.5130	0.0000	2.0780	4.2200	2.6310	1.4330	3.6300
3	22:02:06	94.3%	2.1290	97.6%	27.0900	26.1600	8.6560	22.2900	52.5100	25.3400	0.6752	3.9100	0.0994	2.3790	0.0000	2.0260	4.3400	2.7300	1.4690	3.6500
x		92.9%	2.1790	95.3%	26.8700	26.1200	8.6430	33.8700	52.1000	25.0200	0.6464	4.4070	0.1681	2.4430	0.0000	2.0390	4.2610	2.6940	1.4350	3.5970
σ		1.4%	0.0890	2.1%	0.2794	0.2976	0.0776	10.3000	0.5235	0.5537	0.0252	0.4321	0.0766	0.9644	0.0000	0.0350	0.0683	0.0548	0.0324	0.0745
%RSD		1.5	4.0840	2.2	1.0400	1.1390	0.8983	30.4200	1.0050	2.2130	3.8920	9.8050	45.5600	39.4700	0.0000	1.7190	1.6020	2.0350	2.2580	2.0720

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	22:01:40	97.6%	3.5470	4.4730	2.4610	71.4900	0.0000	0.3370	1.6540	177.5000	118.0%	116.2%	1.3670	0.0000
2	22:01:53	96.7%	3.6470	4.3910	2.4700	71.4700	0.0000	0.3331	1.7320	179.0000	122.5%	121.4%	1.3380	0.0000
3	22:02:06	97.5%	3.5980	4.5310	2.5740	72.4400	0.0000	0.3123	1.7140	182.4000	124.7%	123.0%	1.3920	0.0000
x		97.3%	3.5970	4.4650	2.5020	71.8000	0.0000	0.3274	1.7000	179.6000	121.7%	120.2%	1.3660	0.0000
σ		0.5%	0.0501	0.0702	0.0626	0.5564	0.0000	0.0133	0.0408	2.5270	3.4%	3.5%	0.0269	0.0000
%RSD		0.5	1.3930	1.5720	2.5020	0.7749	0.0000	4.0580	2.3990	1.4070	2.8	2.9	1.9710	0.0000

6100163-09@MH1G85 10/18/2016 22:05:43

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	22:05:43	97.6%	1.9240	102.8%	11.5500	27.2500	8.2140	7.6490	20.6400	14.5300	0.4483	4.0220	0.1527	1.3420	0.0000	1.3550	3.7020	2.3400	1.1820	3.0880
2	22:05:56	98.7%	2.2330	105.7%	11.2900	27.5300	8.3970	8.8440	20.8700	14.7200	0.5594	4.3050	0.2947	0.8587	0.0000	1.3950	3.7240	2.4050	1.2450	3.2530
3	22:06:09	99.3%	2.2380	107.4%	11.9400	27.3900	8.1770	21.2100	20.9200	14.8600	0.3755	4.1830	0.2355	2.5160	0.0000	1.3220	3.7040	2.2780	1.2790	3.2500
x		98.5%	2.1320	105.3%	11.5900	27.3900	8.2620	12.5700	20.8100	14.7100	0.4610	4.1700	0.2276	1.5720	0.0000	1.3570	3.7100	2.3410	1.2350	3.1970
σ		0.8%	0.1795	2.4%	0.3315	0.1409	0.1180	7.5070	0.1462	0.1650	0.0926	0.1421	0.0713	0.8522	0.0000	0.0364	0.0122	0.0632	0.0490	0.0945
%RSD		0.9	8.4220	2.2	2.8590	0.5145	1.4280	59.7400	0.7028	1.1220	20.0900	3.4070	31.3400	54.2000	0.0000	2.6850	0.3278	2.6990	3.9630	2.9560

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	22:05:43	104.4%	0.8844	3.0520	0.5391	15.5300	0.0000	0.2167	2.3770	113.1000	121.4%	120.5%	0.3577	0.0000
2	22:05:56	103.6%	0.8496	3.0930	0.5275	15.3900	0.0000	0.2209	2.4180	113.3000	123.9%	124.4%	0.3614	0.0000
3	22:06:09	103.9%	0.8897	3.0550	0.5891	15.5900	0.0000	0.2258	2.4090	114.9000	126.1%	126.1%	0.3690	0.0000
x		104.0%	0.8746	3.0670	0.5519	15.5000	0.0000	0.2211	2.4010	113.8000	123.8%	123.7%	0.3627	0.0000
σ		0.4%	0.0218	0.0229	0.0328	0.1064	0.0000	0.0046	0.0216	0.9533	2.4%	2.8%	0.0058	0.0000
%RSD		0.4	2.4890	0.7471	5.9340	0.6864	0.0000	2.0620	0.8999	0.8379	1.9	2.3	1.5860	0.0000

6100163-10@MH1G86 10/18/2016 22:09:46

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	22:09:46	100.2%	0.7720	107.2%	22.1500	26.1100	8.9030	22.5600	15.7800	7.6700	0.1683	1.4780	0.0510	0.6631	0.0000	2.5180	6.8270	4.1830	2.3930	6.0090
2	22:09:59	100.4%	0.7645	111.1%	21.9400	26.5300	9.0990	19.8600	15.7400	7.3280	0.2552	1.4950	0.1120	1.1710	0.0000	2.5000	6.9440	4.2050	2.4590	5.9790
3	22:10:12	101.9%	0.7958	111.4%	22.4700	25.8400	8.8060	24.9500	16.0000	7.5910	0.2895	1.8510	0.1666	0.1560	0.0000	2.4940	6.9180	4.3640	2.3580	6.2380
x		100.8%	0.7774	109.9%	22.1900	26.1600	8.9360	22.4600	15.8400	7.5300	0.2377	1.6080	0.1099	0.6634	0.0000	2.5040	6.8960	4.2500	2.4040	6.0750
σ		0.9%	0.0164	2.3%	0.2647	0.3475	0.1491	2.5430	0.1406	0.1794	0.0625	0.2105	0.0578	0.5075	0.0000	0.0126	0.0617	0.0990	0.0512	0.1420
%RSD		0.9	2.1030	2.1	1.1930	1.3280	1.6690	11.3200	0.8872	2.3830	26.3000	13.0900	52.6300	76.5000	0.0000	0.5030	0.8952	2.3290	2.1300	2.3370

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	22:09:46	105.7%	0.1110	1.8060	0.0321	0.8876	0.0000	0.3684	0.5555	89.6000	115.0%	115.8%	0.3118	0.0000
2	22:09:59	104.7%	0.1071	1.8190	0.0333	0.8789	0.0000	0.3766	0.5516	88.2800	119.7%	119.2%	0.3107	0.0000
3	22:10:12	107.6%	0.1174	1.8010	0.0377	0.9537	0.0000	0.3717	0.6199	89.7100	121.8%	122.4%	0.3275	0.0000
x		106.0%	0.1118	1.8090	0.0344	0.9067	0.0000	0.3722	0.5757	89.2000	118.8%	119.1%	0.3166	0.0000
σ		1.5%	0.0052	0.0096	0.0029	0.0409	0.0000	0.0041	0.0384	0.7937	3.5%	3.3%	0.0094	0.0000
%RSD		1.4	4.6530	0.5289	8.4980	4.5140	0.0000	1.1060	6.6630	0.8899	2.9	2.8	2.9630	0.0000

6100163-11@MH1G87 10/18/2016 22:13:49

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	22:13:49	100.5%	1.3330	107.7%	8.6570	22.5400	6.0680	-3.5270	16.5600	10.6900	0.2976	1.9080	0.1318	1.0050	0.0000	0.8658	2.1290	1.3910	0.7541	1.8650
2	22:14:02	99.8%	1.2780	107.7%	8.5850	22.3200	6.0200	8.4780	16.9100	10.7500	0.3393	2.7840	0.1217	1.1650	0.0000	0.9172	2.0970	1.4190	0.7708	1.9340
3	22:14:15	102.6%	1.1990	110.2%	8.7450	21.9800	5.8730	16.1000	16.6900	10.9800	0.3356	2.0980	0.1610	1.9570	0.0000	0.9532	2.1510	1.4380	0.7810	1.9820
x		101.0%	1.2700	108.5%	8.6620	22.2800	5.9870	7.0160	16.7200	10.8100	0.3242	2.2630	0.1381	1.3760	0.0000	0.9121	2.1250	1.4160	0.7686	1.9270
σ		1.5%	0.0670	1.5%	0.0798	0.2861	0.1017	9.8930	0.1775	0.1500	0.0231	0.4608	0.0204	0.5097	0.0000	0.0440	0.0272	0.0234	0.0136	0.0585
%RSD		1.5	5.2740	1.4	0.9208	1.2840	1.6990	141.0000	1.0620	1.3880	7.1210	20.3600	14.7800	37.0500	0.0000	4.8190	1.2790	1.6530	1.7670	3.0350

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	22:13:49	104.8%	0.4995	2.1950	0.2671	8.0790	0.0000	0.1376	1.0800	53.9100	117.3%	118.2%	0.2071	0.0000
2	22:14:02	105.1%	0.4807	2.2550	0.3155	8.0270	0.0000	0.1791	1.1150	53.3100	121.1%	120.4%	0.2052	0.0000
3	22:14:15	106.2%	0.4377	2.2530	0.2800	8.0170	0.0000	0.1788	1.1110	54.4700	123.0%	121.5%	0.2176	0.0000
x		105.3%	0.4727	2.2340	0.2875	8.0410	0.0000	0.1652	1.1020	53.9000	120.5%	120.0%	0.2100	0.0000
σ		0.7%	0.0317	0.0343	0.0250	0.0334	0.0000	0.0239	0.0195	0.5820	2.9%	1.7%	0.0067	0.0000
%RSD		0.7	6.6990	1.5350	8.7100	0.4157	0.0000	14.4500	1.7710	1.0800	2.4	1.4	3.1850	0.0000

6100163-12@MH1G88 10/18/2016 22:17:52

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	22:17:52	98.8%	1.2910	103.2%	21.0100	24.6100	7.5160	22.0300	26.6900	10.0900	0.3331	2.4600	0.2032	0.5249	0.0000	1.5140	3.3450	2.2140	1.2410	2.9990
2	22:18:04	98.8%	1.0120	104.2%	20.9100	24.7900	7.4990	-3.2320	26.8000	9.6440	0.3630	2.3330	0.0324	1.5090	0.0000	1.4740	3.6690	2.1780	1.1430	2.9740
3	22:18:17	98.7%	1.0980	106.9%	21.0300	24.6600	7.5850	11.4100	26.3600	9.8210	0.2154	2.5810	0.1831	0.1951	0.0000	1.4860	3.3970	2.1490	1.1720	3.0420
x		98.8%	1.1330	104.8%	20.9800	24.6900	7.5330	10.0700	26.6200	9.8510	0.3038	2.4580	0.1396	0.7429	0.0000	1.4920	3.4700	2.1800	1.1850	3.0050
σ		0.1%	0.1431	1.9%	0.0610	0.0908	0.0459	12.6800	0.2318	0.2238	0.0780	0.1241	0.0933	0.6833	0.0000	0.0209	0.1738	0.0329	0.0503	0.0347
%RSD		0.1	12.6300	1.8	0.2908	0.3677	0.6086	126.0000	0.8710	2.2720	25.6800	5.0470	66.8600	91.9900	0.0000	1.3990	5.0080	1.5100	4.2460	1.1540

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	22:17:52	103.7%	0.4899	2.3680	0.3424	8.6270	0.0000	0.4786	1.2990	84.5200	115.6%	115.6%	0.4723	0.0000
2	22:18:04	104.4%	0.4926	2.4660	0.3238	8.7660	0.0000	0.5060	1.3180	85.7500	118.7%	117.5%	0.5005	0.0000
3	22:18:17	103.4%	0.4638	2.3760	0.3204	9.0990	0.0000	0.4967	1.3160	86.9500	121.8%	121.6%	0.5028	0.0000
x		103.8%	0.4821	2.4040	0.3288	8.8310	0.0000	0.4938	1.3110	85.7400	118.7%	118.2%	0.4919	0.0000
σ		0.5%	0.0159	0.0547	0.0118	0.2426	0.0000	0.0139	0.0103	1.2140	3.1%	3.0%	0.0170	0.0000
%RSD		0.5	3.2990	2.2740	3.5990	2.7470	0.0000	2.8200	0.7831	1.4160	2.6	2.6	3.4550	0.0000

6100163-13@MH1G89 10/18/2016 22:21:54

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	22:21:54	99.5%	3.0340	100.6%	8.1960	8.3480	2.1080	-10.0500	28.2700	24.6400	0.6963	6.0520	0.3896	1.8070	0.0000	2.8310	8.3510	5.0950	2.8410	7.1870
2	22:22:07	98.9%	2.5740	102.5%	8.2080	8.3060	2.1460	-29.0200	28.5600	24.9400	0.6932	5.9700	0.0560	4.8840	0.0000	2.9290	8.4230	5.1120	2.8170	7.3040
3	22:22:20	98.4%	2.9090	105.1%	8.0780	8.3810	2.1770	-13.5600	28.7400	24.4800	0.8955	6.9450	0.1242	3.9220	0.0000	2.8880	8.5090	5.1090	2.7710	7.3810
x		98.9%	2.8390	102.8%	8.1610	8.3450	2.1440	-17.5500	28.5200	24.6900	0.7616	6.3230	0.1899	3.5380	0.0000	2.8830	8.4280	5.1050	2.8100	7.2910
σ		0.5%	0.2378	2.3%	0.0718	0.0379	0.0346	10.0900	0.2382	0.2310	0.1159	0.5405	0.1763	1.5740	0.0000	0.0495	0.0788	0.0094	0.0354	0.0977
%RSD		0.5	8.3760	2.2	0.8804	0.4541	1.6130	57.5300	0.8350	0.9357	15.2200	8.5480	92.8100	44.5100	0.0000	1.7180	0.9352	0.1837	1.2610	1.3400

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	22:21:54	105.7%	1.1630	3.2180	0.7040	19.0700	0.0000	0.2417	1.8340	175.6000	132.7%	129.8%	0.2857	0.0000
2	22:22:07	106.1%	1.1610	3.3580	0.6414	19.2900	0.0000	0.2495	1.8310	178.8000	135.4%	131.8%	0.2893	0.0000
3	22:22:20	105.8%	1.1590	3.3840	0.6785	19.1500	0.0000	0.2723	1.8490	177.1000	138.5%	135.1%	0.3133	0.0000
x		105.9%	1.1610	3.3200	0.6746	19.1700	0.0000	0.2545	1.8380	177.2000	135.5%	132.2%	0.2961	0.0000
σ		0.2%	0.0022	0.0894	0.0314	0.1111	0.0000	0.0159	0.0094	1.6100	2.9%	2.7%	0.0150	0.0000
%RSD		0.2	0.1873	2.6920	4.6610	0.5795	0.0000	6.2570	0.5120	0.9087	2.1	2.0	5.0630	0.0000

6100163-14@MH1G90 10/18/2016 22:25:58

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	22:25:58	97.1%	1.8270	102.5%	22.7100	17.1600	5.2760	2.4480	23.7100	10.4800	0.3177	2.7530	0.2198	0.0143	0.0000	8.3300	24.9100	14.8300	8.6490	21.3400
2	22:26:11	98.8%	1.8100	104.3%	23.0800	17.0700	5.3140	12.4900	23.9100	10.0400	0.3818	3.1150	0.1524	1.8220	0.0000	8.6150	24.5300	14.8300	8.7250	21.8500
3	22:26:24	97.7%	1.7540	105.4%	23.2200	17.4400	5.3250	11.3000	24.0600	10.2600	0.2349	2.4460	0.1028	1.5110	0.0000	8.5470	25.2300	15.2000	8.6320	22.1000
x		97.9%	1.7970	104.1%	23.0100	17.2200	5.3050	8.7490	23.8900	10.2600	0.3115	2.7710	0.1584	1.1160	0.0000	8.4970	24.8900	14.9500	8.6680	21.7600
σ		0.9%	0.0381	1.5%	0.2625	0.1909	0.0257	5.4890	0.1752	0.2220	0.0736	0.3348	0.0587	0.9665	0.0000	0.1484	0.3509	0.2125	0.0495	0.3864
%RSD		0.9	2.1220	1.4	1.1410	1.1080	0.4847	62.7400	0.7334	2.1630	23.6400	12.0800	37.0900	86.6300	0.0000	1.7470	1.4100	1.4210	0.5705	1.7750

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	22:25:58	105.2%	0.6549	3.9080	0.4464	11.9900	0.0000	0.7082	1.9340	324.3000	117.0%	117.0%	0.5871	0.0000
2	22:26:11	105.0%	0.6655	4.0330	0.4013	12.0400	0.0000	0.7162	1.9660	330.2000	119.4%	119.7%	0.6065	0.0000
3	22:26:24	104.3%	0.6382	3.9550	0.4453	12.1900	0.0000	0.7587	1.9830	332.6000	122.7%	122.1%	0.6105	0.0000
x		104.8%	0.6529	3.9650	0.4310	12.0700	0.0000	0.7277	1.9610	329.0000	119.7%	119.6%	0.6014	0.0000
σ		0.5%	0.0138	0.0632	0.0257	0.1061	0.0000	0.0272	0.0248	4.2810	2.9%	2.6%	0.0125	0.0000
%RSD		0.5	2.1100	1.5930	5.9720	0.8792	0.0000	3.7320	1.2650	1.3010	2.4	2.2	2.0810	0.0000

6100163-15@MH1G91 10/18/2016 22:30:00

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	22:30:00	100.3%	3.7850	105.4%	8.3970	13.4400	4.6940	-20.0500	41.2500	33.6700	0.7506	7.0340	0.3070	1.9380	0.0000	1.6030	4.1260	2.6740	1.4440	3.6260
2	22:30:14	100.5%	3.7220	107.2%	8.3730	13.8400	4.8180	-23.6600	41.5800	34.1600	0.7111	5.5940	0.2728	2.3150	0.0000	1.6500	4.2140	2.6090	1.4400	3.6650
3	22:30:27	102.0%	3.7920	109.1%	8.4020	13.3400	4.7250	3.4000	41.0900	33.7600	0.6771	6.0010	0.2870	1.7740	0.0000	1.6760	4.2650	2.7150	1.4770	3.6900
x		101.0%	3.7660	107.2%	8.3910	13.5400	4.7460	-13.4300	41.3100	33.8600	0.7129	6.2100	0.2889	2.0090	0.0000	1.6430	4.2010	2.6660	1.4540	3.6600
σ		0.9%	0.0382	1.9%	0.0153	0.2636	0.0647	14.6900	0.2533	0.2611	0.0368	0.7424	0.0172	0.2773	0.0000	0.0371	0.0703	0.0536	0.0203	0.0324
%RSD		0.9	1.0150	1.7	0.1824	1.9470	1.3620	109.3000	0.6133	0.7710	5.1620	11.9500	5.9490	13.8000	0.0000	2.2590	1.6740	2.0100	1.3960	0.8856

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	22:30:00	106.9%	1.2850	7.5920	0.7179	21.8200	0.0000	0.2805	2.3570	205.1000	133.8%	130.9%	0.5116	0.0000
2	22:30:14	105.0%	1.3000	7.6750	0.7574	21.9700	0.0000	0.3576	2.4630	206.9000	138.0%	134.0%	0.5352	0.0000
3	22:30:27	107.0%	1.3660	7.7610	0.7711	22.2900	0.0000	0.3096	2.4230	205.5000	140.7%	138.0%	0.5305	0.0000
x		106.3%	1.3170	7.6760	0.7488	22.0300	0.0000	0.3159	2.4140	205.8000	137.5%	134.3%	0.5258	0.0000
σ		1.1%	0.0436	0.0844	0.0276	0.2406	0.0000	0.0389	0.0536	0.9231	3.5%	3.5%	0.0125	0.0000
%RSD		1.0	3.3110	1.1000	3.6890	1.0920	0.0000	12.3200	2.2200	0.4485	2.5	2.6	2.3770	0.0000

6100163-16@MH1G92 10/18/2016 22:34:02

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	22:34:02	95.9%	0.8970	100.1%	23.7500	15.1800	4.2660	12.1900	13.2800	5.5540	0.2352	1.4480	0.0514	0.5191	0.0000	3.2840	8.6900	5.2750	2.9610	7.5920
2	22:34:16	98.4%	0.8364	101.9%	24.0500	15.2300	4.2810	1.8300	13.4500	5.4660	0.1607	1.7320	0.1117	0.1907	0.0000	3.2470	9.0000	5.4530	3.0330	7.7250
3	22:34:29	97.9%	0.8051	103.9%	24.4000	15.4900	4.2250	-21.7800	13.3900	5.4710	0.1909	1.4090	0.0811	0.5099	0.0000	3.2610	8.6270	5.3470	2.9910	7.7770
x		97.4%	0.8462	101.9%	24.0600	15.3000	4.2570	-2.5860	13.3800	5.4970	0.1956	1.5300	0.0814	0.4066	0.0000	3.2640	8.7720	5.3580	2.9950	7.6980
σ		1.3%	0.0467	1.9%	0.3244	0.1689	0.0289	17.4100	0.0844	0.0495	0.0375	0.1763	0.0301	0.1870	0.0000	0.0186	0.1996	0.0893	0.0360	0.0952
%RSD		1.4	5.5170	1.9	1.3480	1.1040	0.6798	673.4000	0.6314	0.8995	19.1500	11.5200	37.0300	46.0000	0.0000	0.5682	2.2750	1.6670	1.2030	1.2360

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	22:34:02	104.2%	0.1255	1.3600	0.0666	1.8750	0.0000	0.2830	1.0660	112.2000	114.1%	115.6%	0.3358	0.0000
2	22:34:16	103.9%	0.1429	1.3850	0.1013	2.0440	0.0000	0.3118	1.0530	113.0000	117.6%	117.1%	0.3599	0.0000
3	22:34:29	104.9%	0.1144	1.3770	0.0652	2.1700	0.0000	0.3459	1.0470	113.9000	119.1%	120.5%	0.3622	0.0000
x		104.3%	0.1276	1.3740	0.0777	2.0300	0.0000	0.3136	1.0550	113.0000	116.9%	117.8%	0.3526	0.0000
σ		0.5%	0.0144	0.0131	0.0204	0.1479	0.0000	0.0315	0.0099	0.8181	2.6%	2.5%	0.0146	0.0000
%RSD		0.5	11.2600	0.9551	26.3000	7.2870	0.0000	10.0400	0.9395	0.7237	2.2	2.1	4.1440	0.0000

6100163-17@MH1G93 10/18/2016 22:38:05

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	22:38:05	96.5%	0.7369	106.3%	5.1520	18.1700	4.5880	17.4200	8.7420	4.8730	0.2096	2.1530	0.1693	0.6573	0.0000	0.9790	2.5680	1.6450	0.9221	2.4210
2	22:38:18	97.9%	0.6770	107.8%	5.3830	18.0100	4.5350	2.3200	8.9120	4.7500	0.1844	1.9690	0.0788	0.4674	0.0000	0.9996	2.6880	1.6060	0.8873	2.4000
3	22:38:32	98.6%	0.6309	109.7%	5.4170	18.2300	4.5680	-0.3539	8.8600	4.7780	0.2352	1.6700	0.0697	1.0990	0.0000	0.9721	2.6480	1.6220	0.9631	2.4540
x		97.7%	0.6816	107.9%	5.3170	18.1400	4.5640	6.4630	8.8380	4.8010	0.2098	1.9310	0.1059	0.7413	0.0000	0.9836	2.6340	1.6240	0.9242	2.4250
σ		1.1%	0.0531	1.7%	0.1444	0.1186	0.0271	9.5850	0.0870	0.0645	0.0254	0.2438	0.0551	0.3242	0.0000	0.0143	0.0612	0.0194	0.0379	0.0272
%RSD		1.1	7.7930	1.6	2.7150	0.6538	0.5944	148.3000	0.9848	1.3440	12.1200	12.6300	52.0000	43.7400	0.0000	1.4510	2.3230	1.1950	4.1050	1.1220

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	22:38:05	106.1%	0.1195	2.5670	0.0407	1.2660	0.0000	0.1738	1.3160	80.0700	116.4%	114.4%	0.2535	0.0000
2	22:38:18	108.4%	0.0928	2.6760	0.0617	1.2700	0.0000	0.1674	1.3190	81.7100	118.8%	117.7%	0.2528	0.0000
3	22:38:32	108.7%	0.0960	2.6300	0.0428	1.4080	0.0000	0.1686	1.3310	81.4800	121.3%	121.4%	0.2576	0.0000
x		107.7%	0.1028	2.6240	0.0484	1.3150	0.0000	0.1699	1.3220	81.0900	118.8%	117.8%	0.2546	0.0000
σ		1.4%	0.0146	0.0545	0.0116	0.0807	0.0000	0.0034	0.0082	0.8900	2.5%	3.5%	0.0026	0.0000
%RSD		1.3	14.1900	2.0760	23.9900	6.1390	0.0000	1.9970	0.6173	1.0980	2.1	3.0	1.0170	0.0000

6100163-18@MH1G94 10/18/2016 22:42:08

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	22:42:08	99.7%	1.0540	109.8%	11.7700	21.5200	6.5260	9.1850	13.6700	7.5720	0.4169	2.2900	0.1352	0.1397	0.0000	1.8190	4.7760	3.1880	1.7730	4.4330
2	22:42:21	100.9%	0.8396	113.5%	12.0500	21.7900	6.6620	8.5120	13.5700	7.5440	0.3510	1.9540	0.1169	-0.4860	0.0000	1.8000	5.0850	3.0810	1.7450	4.4020
3	22:42:34	101.1%	0.8568	113.9%	12.0500	21.4400	6.6630	9.2640	13.6000	7.5820	0.3681	1.8790	0.1178	1.0960	0.0000	1.7920	4.9410	3.1770	1.7150	4.6040
x		100.6%	0.9169	112.4%	11.9600	21.5800	6.6170	8.9870	13.6100	7.5660	0.3787	2.0410	0.1233	0.2499	0.0000	1.8040	4.9340	3.1490	1.7440	4.4790
σ		0.7%	0.1192	2.3%	0.1604	0.1868	0.0788	0.4135	0.0554	0.0196	0.0342	0.2190	0.0103	0.7968	0.0000	0.0141	0.1546	0.0589	0.0288	0.1089
%RSD		0.7	13.0000	2.0	1.3420	0.8657	1.1910	4.6010	0.4071	0.2590	9.0330	10.7300	8.3680	318.8000	0.0000	0.7834	3.1330	1.8700	1.6500	2.4320

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	22:42:08	109.5%	0.3579	2.8420	0.2312	5.5970	0.0000	0.2678	2.6930	124.7000	118.2%	116.9%	0.3395	0.0000
2	22:42:21	107.8%	0.3230	2.7600	0.2053	5.7970	0.0000	0.2678	2.7450	126.5000	120.5%	119.8%	0.3454	0.0000
3	22:42:34	108.8%	0.3497	2.8500	0.2472	5.7110	0.0000	0.2585	2.7450	126.7000	124.8%	122.8%	0.3233	0.0000
x		108.7%	0.3435	2.8170	0.2279	5.7020	0.0000	0.2647	2.7280	126.0000	121.2%	119.8%	0.3361	0.0000
σ		0.8%	0.0182	0.0501	0.0211	0.1001	0.0000	0.0054	0.0297	1.1090	3.4%	3.0%	0.0114	0.0000
%RSD		0.8	5.3090	1.7780	9.2790	1.7560	0.0000	2.0250	1.0880	0.8806	2.8	2.5	3.3970	0.0000

SEQ-IBL1@ZZZZZZ 10/18/2016 22:46:12

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	22:46:12	99.2%	0.3576	109.5%	16.5700	26.9800	6.0770	6.2420	7.4470	5.1080	0.1461	1.9830	0.1295	0.6534	0.0000	2.6120	7.3570	4.5400	2.5560	6.5700
2	22:46:25	98.9%	0.3191	110.8%	17.1900	26.6800	6.0310	19.5200	7.5470	5.2700	0.1566	1.8750	0.1589	0.4912	0.0000	2.6500	7.4190	4.5930	2.6590	6.6020
3	22:46:38	100.6%	0.4694	112.0%	17.0900	26.4800	6.0980	-0.8100	7.6480	5.0590	0.2376	1.6080	0.0886	0.1559	0.0000	2.6220	7.5310	4.6760	2.6260	6.6720
x		99.6%	0.3820	110.8%	16.9500	26.7100	6.0690	8.3180	7.5470	5.1460	0.1801	1.8220	0.1257	0.4335	0.0000	2.6280	7.4360	4.6030	2.6140	6.6150
σ		0.9%	0.0780	1.3%	0.3327	0.2521	0.0339	10.3200	0.1008	0.1107	0.0501	0.1930	0.0353	0.2537	0.0000	0.0197	0.0880	0.0688	0.0528	0.0522
%RSD		0.9	20.4300	1.1	1.9630	0.9437	0.5591	124.1000	1.3360	2.1520	27.8100	10.5900	28.0800	58.5300	0.0000	0.7495	1.1840	1.4930	2.0220	0.7887

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	22:46:12	106.4%	0.0992	4.9210	0.0628	1.4700	0.0000	1.4360	9.1520	47.4600	113.4%	114.1%	0.2434	0.0000
2	22:46:25	106.4%	0.0722	4.9310	0.0566	1.3220	0.0000	1.4410	9.2430	48.1000	117.1%	116.4%	0.2551	0.0000
3	22:46:38	107.6%	0.1079	4.8760	0.0760	1.5180	0.0000	1.4970	9.1850	47.7200	119.2%	118.4%	0.2654	0.0000
x		106.8%	0.0931	4.9090	0.0652	1.4360	0.0000	1.4580	9.1940	47.7600	116.6%	116.3%	0.2546	0.0000
σ		0.7%	0.0186	0.0296	0.0099	0.1021	0.0000	0.0340	0.0461	0.3235	2.9%	2.2%	0.0110	0.0000
%RSD		0.7	19.9800	0.6031	15.1600	7.1070	0.0000	2.3320	0.5015	0.6773	2.5	1.9	4.3300	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

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	162380.7100	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	6624.51
%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	2.32

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	÷3516920.7000	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	÷3577415.8000	782243.1900	5681.7750	18266.1100	8774.2323	143.3345	117669.9800	1525494.8000	÷2675442.2
3	18:12:26	120169.0200	220252.8500	146951.5200	584388.1100	471723.2500	609451.4900	74851.5550	÷3599893.9000	784524.4300	5491.6582	18357.4050	8547.3496	150.0012	119449.6300	1553001.0000	÷2696110.1
x		119860.5400	218093.0600	147067.8800	576797.2200	471323.7600	609686.5700	75017.1360	÷3564743.3000	777414.3400	5530.5714	18412.7030	8608.5191	126.6676	118159.6500	1524713.4000	÷2685336.4
σ		325.3794	2587.9853	1279.3679	9072.7634	362.4527	1569.2787	259.9160	÷42913.8900	10402.1520	135.9888	180.7031	145.1411	34.8015	1127.9029	28686.3700	÷10361.9
%RSD		0.2715	1.1866	0.8699	1.5730	0.0769	0.2574	0.3465	÷1.2038	1.3380	2.4589	0.9814	1.6860	27.4746	0.9546	1.8814	÷0.3

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	÷5298607.0000	114169.1000
2	18:12:13	43450.2550	59363.1890	393259.1500	44237.3710	675834.3800	245993.7800	÷2238415.5000	2272421.0000	788663.9600	183058.0300	184217.7700	÷5386834.0000	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	÷5451402.7000	118129.2100
x		43002.5840	59225.6620	388695.9800	43985.0770	670042.1500	243944.4200	÷2307769.5000	2276296.1000	784035.4000	183162.5400	182160.6200	÷5378947.9000	116104.6300
σ		399.2707	948.6008	6305.9466	1015.2229	10811.7500	3020.4553	÷83199.4360	60312.1270	19907.2130	2480.8717	3142.8731	÷75702.4770	1981.5587
%RSD		0.9285	1.6017	1.6223	2.3081	1.6136	1.2382	÷3.6052	2.6496	2.5391	1.3545	1.7253	÷1.4260	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	÷392608.5900	127839.2500	994736.1300	860631.2500	÷1126737.3000	136404.3900	÷6143279.5000	1333234.2000	10259.1190	32918.3800	15716.9080	233.3363	104591.5600	÷2646683.600
2	18:16:22	110649.3100	÷400676.0500	127764.8800	1017798.2000	862597.8400	÷1138556.9000	137901.3800	÷6298055.5000	÷1383573.2000	10409.2890	33478.1970	15810.4030	246.6700	105056.8800	÷2716387.400
3	18:16:35	109681.0100	÷401522.1800	128674.2400	1021999.3000	÷865948.3600	÷1134705.7000	138067.2100	÷6314290.7000	÷1381994.6000	10172.3550	33560.7220	15553.2930	200.0022	105353.6200	÷2737965.300
x		110392.9000	÷398268.9400	128092.7900	1011511.2000	÷863059.1500	÷1133333.3000	137457.6600	÷6251875.2000	÷1366267.3000	10280.2540	33319.1000	15693.5350	226.6695	105000.6800	÷2700345.400
σ		624.4950	÷4920.2317	504.9210	14678.7300	÷2688.4042	÷6028.1393	915.9215	÷94396.3350	÷28618.3880	119.8730	349.4778	130.1386	24.0376	384.1238	÷47708.434
%RSD		0.5657	÷1.2354	0.3942	1.4512	÷0.3115	÷0.5319	0.6663	÷1.5099	÷2.0946	1.1661	1.0489	0.8292	10.6047	0.3658	÷1.766

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	÷4000985.0000	÷3954293.2000	÷1401166.0000	174009.5800	172657.4900	÷10623219.0000	115688.1200
2	18:16:22	39646.2620	105545.8300	705581.9600	80948.8020	÷1239968.1000	246339.6300	÷4107913.0000	÷4012134.4000	÷1426372.0000	175915.7400	175259.9200	÷10777939.0000	119290.9000
3	18:16:35	39000.1430	108776.9100	708665.1500	81312.0210	÷1249816.5000	247760.8100	÷4180524.0000	÷4107360.0000	÷1447977.2000	178257.3600	177468.8200	÷10924899.0000	119675.9100
x		39369.5120	106325.0000	700684.9100	80048.7910	÷1231765.7000	245883.2400	÷4096474.0000	÷4024595.8000	÷1425171.7000	176060.8900	175128.7500	÷10775352.0000	118218.3100
σ		332.8680	2169.9166	11258.1120	1882.2043	÷23263.0020	2142.5417	÷90314.4570	÷77290.5230	÷23428.6500	2127.6096	2408.3459	÷150856.6100	2199.6495
%RSD		0.8455	2.0408	1.6067	2.3513	÷1.8886	0.8714	÷2.2047	÷1.9205	÷1.6439	1.2085	1.3752	÷1.4000	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	÷2079115.9000	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	÷2163473.8000	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	÷2200324.9000	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	÷2147638.2000	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	÷62136.7850	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	÷2.8933	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	17.3205	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	±4487632.2000
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	46948.0880	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	1503.4578	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	95
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	±2696088.80
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	187858.0100	±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@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	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	940.0160	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	±80776.7840	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	43395.6670	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

QJ14028-BLK1@PBS01@MH1G77@46282 10/18/2016 21:15:58 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	21:15:58	102272.0600	43.3334	113402.9300	43.3334	128.6676	118.6674	64.6669	90.0004	1003.3887	3.3333	3.3333	16.6667	3.3333	95829.0950	90.0004	150.0012	143.3345	120.0008	203.3356
2	21:16:11	104679.2300	23.3334	116518.6200	70.0003	144.6678	119.3341	61.3335	90.0004	1026.7246	0.0000	7.7778	13.3333	16.6667	98962.3960	146.6678	193.3354	173.3350	103.3339	196.6688
3	21:16:25	103573.3300	30.0001	118112.3300	56.6668	142.0011	106.6673	65.3336	73.3336	1033.3921	6.6667	1.1111	13.3333	13.3333	100957.4900	133.3343	166.6682	180.0018	110.0007	270.0040
x		103508.2100	32.2223	116011.2900	56.6668	138.4455	114.8896	63.7780	84.4448	1021.1685	3.3333	4.0741	14.4445	11.1111	98582.9930	123.3342	170.0016	165.5571	111.1118	223.3361
σ		1204.9043	10.1835	2395.3386	13.3334	8.5723	7.1285	2.1430	9.6226	15.7545	3.3333	3.3945	1.9245	6.9389	2585.1617	29.6277	21.8585	19.5319	8.3858	40.5528
%RSD		1.1641	31.6040	2.0647	23.5295	6.1918	6.2047	3.3602	11.3951	1.5428	100.0000	83.3196	13.3235	62.4500	2.6223	24.0223	12.8578	11.7977	7.5499	18.1577

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:15:58	39763.4390	93.3338	16.6667	0.0000	16.6667	183911.6600	250.0034	60.0002	40.0001	165662.4600	163826.3000	200.0022	108614.9900
2	21:16:11	40707.6040	73.3336	16.6667	3.3333	30.0001	189140.6600	233.3363	106.6673	36.6667	167909.8000	165597.9700	250.0034	113450.1800
3	21:16:25	40871.6710	96.6672	3.3333	6.6667	26.6667	190590.4700	283.3378	86.6671	53.3335	168925.0100	168833.3300	230.0029	115002.8400
x		40447.5710	87.7782	12.2222	3.3333	24.4445	187880.9300	255.5592	84.4449	43.3334	167499.0900	166085.8700	226.6695	112356.0000
σ		598.1281	12.6199	7.6980	3.3333	6.9389	3513.0884	25.4595	23.4128	8.8192	1669.6028	2538.9237	25.1667	3331.5244
%RSD		1.4788	14.3770	62.9837	100.0000	28.3864	1.8698	9.9623	27.7255	20.3520	0.9968	1.5287	11.1028	2.9652

QJ14028-BS1@LCS01 10/18/2016 21:19:57 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
1	21:19:57	104530.8700	763.3654	116039.2200	73.3336	9201.3208	4843.9568	696.0266	12174.8140	3207.2323	93.3338	367.7852	170.0016	10.0000	98325.5420	8030.2117	13763.7450	15059.1290	8534.0037
2	21:20:10	106520.4300	790.0343	120966.1500	43.3334	9130.5829	4793.9303	713.3613	12568.6820	3420.6434	100.0006	385.5637	150.0012	16.6667	100974.3400	8547.3496	14775.3310	15685.8560	8957.7444
3	21:20:23	105984.2200	786.7007	120881.7100	56.6668	9370.1598	4973.3600	717.3616	12355.0570	3310.6027	126.6676	358.8960	160.0014	23.3334	102255.2000	8213.7089	14835.4280	15913.9170	9341.4637
x		105678.5000	780.0335	119295.6900	57.7780	9234.0212	4870.4157	708.9165	12366.1840	3312.8261	106.6673	370.7483	160.0014	16.6667	100518.3600	8263.7567	14458.1680	15553.3010	8944.4039
σ		1029.4094	14.5309	2820.5059	15.0309	123.0905	92.5949	11.3407	197.1700	106.7229	17.6386	13.5786	10.0002	6.6667	2004.1203	262.1764	602.1384	442.7677	403.8952
%RSD		0.9741	1.8629	2.3643	26.0150	1.3330	1.9012	1.5997	1.5944	3.2215	16.5360	3.6625	6.2501	40.0000	1.9938	3.1726	4.1647	2.8468	4.5156

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:19:57	41484.4370	293.3381	10275.8040	186.6686	2246.9443	186830.2800	213.3358	15446.4450	26879.6800	165591.1800	166531.4600	19908.4420	109532.5700
2	21:20:10	41571.5000	323.3391	10442.6610	160.0014	2246.9443	191802.2200	183.3352	15887.2030	28140.1520	170718.0400	168782.4000	20994.2140	112859.5600
3	21:20:23	42281.4300	383.3414	10636.2180	183.3352	2470.3356	196926.7200	200.0022	16491.6120	28845.6920	175365.2600	172861.3100	21732.6130	114695.6600
x		41779.1220	333.3395	10451.5610	176.6684	2321.4081	191853.0700	198.8911	15941.7530	27955.1740	170558.1600	169391.7200	20878.4230	112362.6000
σ		437.1836	45.8275	180.3719	14.5299	128.9750	5048.4127	15.0312	524.7144	995.9735	4888.9992	3208.6173	917.5812	2617.1748
%RSD		1.0464	13.7480	1.7258	8.2244	5.5559	2.6314	7.5575	3.2914	3.5628	2.8665	1.8942	4.3949	2.3292

6100163-01@MH1G77 10/18/2016 21:23:31

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	21:23:31	106577.7600	66.6669	126064.7300	2253.6126	8497.3027	1986.8838	320.6723	8460.6018	2253.6126	66.6669	68.8892	60.0002	10.0000	124445.9800	5648.4209	9311.4329	10355.8950	6105.3828
2	21:23:44	109900.3000	70.0003	130604.8100	2236.9418	8648.7788	2002.2205	356.6737	8630.7617	2260.2810	50.0001	66.6669	56.6668	26.6667	128670.8600	5898.5797	9978.8070	10779.7210	6082.0338
3	21:23:57	109697.8800	86.6671	131876.3000	2333.6328	8705.4996	2065.5680	310.0053	8917.7051	2330.2986	43.3334	66.6669	43.3334	26.6667	131477.2500	8287.1088	10042.2100	10886.5140	6488.9817
x		108725.3100	74.4448	129515.2800	2274.7291	8617.1937	2018.2241	329.1171	8669.6895	2281.3974	53.3335	67.4077	53.3335	21.1111	128198.0300	6611.3698	9777.4834	10674.0430	6225.4661
σ		1862.5880	10.7153	3055.1463	51.6886	107.6322	41.7120	24.4534	231.0246	42.4807	12.0186	1.2830	8.8192	9.6225	3539.4008	1456.6128	404.8546	280.6510	228.5096
%RSD		1.7131	14.3936	2.3589	2.2723	1.2490	2.0668	7.4300	2.6647	1.8620	22.5348	1.9034	16.5360	45.5803	2.7609	22.0319	4.1407	2.6293	3.6706

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:23:31	42442.1760	230.0029	97169.8820	60.0002	843.3724	219750.9200	4714.5555	15409.7160	69709.5810	172273.6500	171091.6400	3050.5117	285620.8000
2	21:23:44	42271.3830	250.0034	101756.3200	90.0004	826.7043	226302.0700	5018.0512	16057.5020	72891.0540	176279.3500	175293.9000	3040.5084	296397.6700
3	21:23:57	42127.3840	210.0024	102646.2400	66.6669	926.7139	229794.7300	4988.0347	16231.1430	72894.4140	180895.3800	178845.4100	2890.4594	304333.5100
x		42280.3140	230.0029	100524.1500	72.2225	865.5969	225282.5700	4906.8805	15899.4540	71831.6830	176482.7900	175076.9800	2993.8265	295450.6600
σ		157.5862	20.0005	2938.7604	15.7529	53.5810	5098.9231	167.2331	432.9207	1837.7951	4314.4632	3881.4350	89.6581	9392.2322
%RSD		0.3727	8.6958	2.9234	21.8115	6.1901	2.2633	3.4081	2.7229	2.5585	2.4447	2.2170	2.9948	3.1790

6100163-02@MH1G78 10/18/2016 21:26:34

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	97M
1	21:26:34	111492.8500	106.6673	136087.6900	3110.5321	19406.6920	3884.1629	564.0175	19534.2980	4184.2961	43.3334	92.2227	40.0001	23.3334	141455.3700	7346.3004	12031.2890	13633.5490	7659.89
2	21:26:47	112569.3300	86.6671	138419.1600	3327.2754	19503.5660	3934.1844	609.3537	20563.2300	4364.3807	36.6667	66.6669	40.0001	13.3333	142975.5400	7476.4064	12555.3310	13643.5640	7853.39
3	21:27:00	113679.6900	43.3334	138588.3800	3323.9409	19518.9320	3927.5149	583.3520	20148.9710	4384.3903	30.0001	92.2227	36.6667	20.0000	147117.5100	7763.3134	13229.6190	14090.9120	7906.77
x		112580.6200	78.8893	137698.4100	3253.9161	19476.3970	3915.2874	585.5744	20082.1660	4311.0224	36.6667	83.7041	38.8890	18.8889	143849.4700	7528.6734	12605.4130	13789.3410	7806.68
σ		1093.4604	32.3754	1397.4881	124.1855	60.8529	27.1601	22.7497	517.7088	110.2033	6.6667	14.7546	1.9245	5.0918	2930.4914	213.3632	600.7327	261.2157	129.89
%RSD		0.9713	41.0390	1.0149	3.8165	0.3124	0.6937	3.8850	2.5780	2.5563	18.1819	17.6271	4.9487	26.9564	2.0372	2.8340	4.7657	1.8943	1.66

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:26:34	43165.5700	283.3378	240633.1400	56.6668	756.6982	230939.8700	5291.5396	34585.6640	148272.7200	180028.4200	175185.1700	6879.2685	511435.9000
2	21:26:47	42525.8990	263.3372	246808.7600	76.6670	616.6876	237885.5600	5698.4521	35556.0640	153535.6700	182258.8700	181493.7900	7576.4892	527358.0400
3	21:27:00	43520.5900	246.6700	251617.9400	60.0002	686.6926	239941.8900	5828.5345	36242.0980	156512.4600	187599.2100	182877.7800	7696.5900	539111.6100
x		43070.6870	264.4483	246353.2800	64.4447	686.6928	236255.7700	5606.1754	35461.2750	152773.6100	183295.5000	179852.2500	7384.1159	525968.5200
σ		504.0879	18.3591	5506.5473	10.7152	70.0053	4717.1229	280.1377	832.2752	4172.3943	3890.3918	4100.6218	441.3153	13890.0760
%RSD		1.1704	6.9424	2.2352	16.6270	10.1946	1.9966	4.9969	2.3470	2.7311	2.1225	2.2800	5.9765	2.6409

6100163-03@MH1G79 10/18/2016 21:29:35

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	97M
1	21:29:35	104551.1000	50.0001	126960.3900	29925.8410	12214.2000	6178.7657	849.3730	14828.7510	2480.3383	43.3334	67.7780	40.0001	0.0000	110298.4100	8300.4543	12361.7320	13917.3120	7653.22
2	21:29:49	103044.0400	40.0001	129008.9300	30099.7470	12242.2370	6173.4287	817.3701	15496.5300	2517.0151	23.3334	81.1115	53.3335	20.0000	113311.8000	8647.4442	12835.7220	14474.8480	7616.52
3	21:30:02	104530.8700	43.3334	129106.9800	30681.6880	12246.9100	6208.1190	835.3717	15342.9360	2527.0178	26.6667	67.7780	40.0001	13.3333	115060.2200	8607.4062	12615.4140	14855.4610	7796.67
x		104042.0000	44.4446	128358.7700	30235.7590	12234.4490	6186.7712	834.0383	15222.7390	2508.1237	31.1112	72.2225	44.4446	11.1111	112890.1500	8518.4349	12604.2890	14415.8730	7688.80
σ		864.3212	5.0918	1212.0187	395.8540	17.6915	18.6794	16.0431	349.7396	24.5771	10.7152	7.6981	7.6980	10.1835	2408.7454	189.8352	237.1905	471.8470	95.20
%RSD		0.8307	11.4565	0.9442	1.3092	0.1446	0.3019	1.9235	2.2975	0.9799	34.4417	10.6588	17.3206	91.6515	2.1337	2.2285	1.8818	3.2731	1.23

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:29:35	37677.9180	220.0027	39512.3480	76.6670	1406.7755	272582.8800	6112.0540	16852.2720	70092.5080	172620.1300	171387.1300	1750.1685	187861.2000
2	21:29:49	38029.3770	263.3372	40034.6250	126.6676	1400.1078	275660.2900	6245.4779	16164.3580	70418.3450	174464.8400	175633.7000	1753.5024	187813.5600
3	21:30:02	38826.0670	280.0043	40081.4980	113.3340	1486.7882	280268.0100	6252.1492	16762.1060	70760.9910	178029.6300	177662.5500	1656.8176	190154.8200
x		38177.7870	254.4480	39876.1570	105.5562	1431.2238	276170.3900	6203.2270	16592.9120	70423.9480	175038.2000	174894.4600	1720.1628	188609.8600
σ		588.2864	30.9728	315.9384	25.8918	48.2355	3867.8722	79.0286	373.8668	334.2763	2749.9516	3202.3591	54.8839	1338.1852
%RSD		1.5409	12.1725	0.7923	24.5289	3.3702	1.4005	1.2740	2.2532	0.4747	1.5711	1.8310	3.1906	0.7095

6100163-04@MH1G80 10/18/2016 21:33:22

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	21:33:22	109026.5400	176.6684	133570.7700	29414.1750	24434.7940	7497.0901	983.3865	48157.2150	7903.4340	60.0002	74.4447	23.3334	20.0000	164864.8200	8527.3308	14067.5430	16040.8060	8961.08
2	21:33:35	110119.6000	213.3358	135099.7900	29233.5940	24472.2280	7547.7987	984.0533	50570.2640	8103.6102	60.0002	61.1113	36.6667	43.3334	172266.8500	8720.8476	14822.0730	15903.8990	9361.48
3	21:33:49	111567.0900	176.6684	137031.7100	30481.0150	24521.0260	7651.2184	1004.7222	51793.7900	7806.6838	60.0002	67.7780	46.6668	26.6667	175460.4000	9077.8635	15483.1740	16695.3160	9528.32
x		110237.7400	188.8909	135234.0900	29709.5950	24476.0160	7565.3691	990.7206	50173.7560	7937.9093	60.0002	67.7780	35.5556	30.0001	170864.0200	8775.3473	14790.9300	16213.3410	9283.62
σ		1274.3866	21.1700	1734.3746	674.1429	43.2405	78.5520	12.1303	1850.4283	151.4355	0.0000	6.6667	11.7063	12.0185	5435.3017	279.2834	708.3293	422.9791	291.52
%RSD		1.1560	11.2075	1.2825	2.2691	0.1767	1.0383	1.2244	3.6880	1.9078	0.0000	9.8361	32.9240	40.0618	3.1811	3.1826	4.7889	2.6088	3.14

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:33:22	41832.6940	356.6737	26943.2010	123.3342	1730.1646	266335.0700	6248.8136	20269.2380	67751.5280	177648.9600	175535.1500	2730.4100	249230.1700
2	21:33:35	41852.7860	356.6737	27010.0650	153.3346	1916.8687	279731.8700	6715.8130	21705.8820	70643.4150	182836.9800	179124.1500	2877.1219	257732.3600
3	21:33:49	41591.5920	386.6749	28210.3690	140.0011	1743.5005	283949.6500	6969.3371	22197.0660	72917.9350	186149.8700	183915.0600	3070.5185	264622.8000
x		41759.0240	366.6741	27387.8780	138.8900	1796.8446	276672.1900	6644.6546	21390.7290	70437.6260	182211.9300	179524.7900	2892.6834	257195.1100
σ		145.3483	17.3212	713.0821	15.0311	104.1576	9197.2604	365.4944	1001.8092	2589.3442	4284.7834	4204.2965	170.5874	7710.3707
%RSD		0.3481	4.7239	2.6036	10.8223	5.7967	3.3242	5.5006	4.6834	3.6761	2.3515	2.3419	5.8972	2.9979

QJ14028-HS1@MH1G80S 10/18/2016 21:37:24 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	96M
1	21:37:24	113294.9300	3420.6434	134186.4100	24091.8810	100149.2900	48561.3560	6140.7399	641716.9000	123726.2600	250.0034	686.6926	356.6737	16.6667	172378.9500	183768.8200	322404.0000	346794.17
2	21:37:37	111867.4100	3774.1166	137116.3100	24730.2580	100137.1600	48582.8030	6193.4423	661999.9800	126524.3800	266.6706	693.3598	313.3387	23.3334	178689.0500	191546.9200	338624.6900	365846.19
3	21:37:50	112775.1900	3637.3942	138733.9100	25602.6680	101152.9800	48842.8580	6133.4017	674629.6500	128082.6400	226.6695	650.0232	293.3381	26.6667	182252.0700	195877.7500	340641.3000	372172.02
x		112645.8400	3610.7181	136678.8700	24808.2690	100479.8100	48662.3390	6155.8613	659448.8400	126111.0900	247.7812	676.6919	321.1168	22.2222	177773.3600	190397.8300	333890.0000	361604.12
σ		722.4944	178.2401	2305.0922	758.4089	583.0132	156.7013	32.7523	16604.0200	2207.3999	20.0929	23.3351	32.3763	5.0918	4999.8512	6135.7058	9998.1414	13210.03
%RSD		0.6414	4.9364	1.6865	3.0571	0.5802	0.3220	0.5321	2.5179	1.7504	8.1091	3.4484	10.0824	22.9129	2.8125	3.2226	2.9944	3.65

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:37:24	41983.3870	1493.4560	95610.1410	1046.7269	14805.3790	302218.0000	6705.8057	65132.4900	739494.7300	179253.3300	178036.4300	100300.2700	274901.1500
2	21:37:37	41795.8590	1650.1498	97927.9510	1060.0618	15479.8350	315466.8800	7192.8444	67879.1410	770943.0500	186092.0300	182864.1800	105528.9700	285586.4100
3	21:37:50	41363.8900	1533.4627	100462.0400	1233.4170	16057.5020	321354.4700	6919.2989	68315.7260	780053.1500	188756.1200	186949.3600	106702.5500	291568.5400
x		41714.3780	1559.0228	98000.0460	1113.4019	15447.5720	313013.1100	6939.3163	67109.1190	763496.9800	184700.4900	182616.6600	104177.2600	284018.7000
σ		317.6844	81.4139	2426.7546	104.1498	626.6845	9801.3703	244.1356	1725.6731	21279.7830	4901.8423	4461.6167	3408.4606	8443.5663
%RSD		0.7616	5.2221	2.4763	9.3542	4.0568	3.1313	3.5182	2.5714	2.7871	2.6539	2.4432	3.2718	2.9729

QJ14028-DUP1@MH1G80D 10/18/2016 21:41:26

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	21:41:26	112781.9400	196.6688	137014.8000	28862.4110	26792.7570	9645.7812	1292.7586	49025.1690	8387.2005	56.6668	91.1116	56.6668	20.0000	178505.4900	10766.3720	17239.6640	19470.8290	10879.
2	21:41:40	115053.4700	196.6688	140537.9700	29203.4980	27071.5810	9553.0167	1282.7572	50124.4720	8614.0792	63.3336	73.3336	36.6667	33.3334	180426.1900	10936.5750	18101.3370	19958.5520	11323.
3	21:41:53	114597.7700	240.0032	141126.9900	29909.1200	26957.9110	9649.7855	1245.4186	51357.9950	8580.7143	86.6671	93.3338	73.3336	26.6667	186340.3800	11180.2040	18285.0370	20349.4170	11831.
x		114144.4000	211.1136	139559.9200	29325.0100	26940.7500	9616.1944	1273.6448	50169.2120	8527.3314	68.8892	85.9263	55.5557	26.6667	181757.3500	10961.0500	17875.3460	19926.2660	11344.
σ		1201.7186	25.0191	2223.7290	533.8291	140.2020	54.7502	24.9508	1167.0566	122.4981	15.7528	10.9621	18.3587	6.6667	4083.5460	207.9990	558.1263	440.1828	475.
%RSD		1.0528	11.8510	1.5934	1.8204	0.5204	0.5694	1.9590	2.3262	1.4365	22.8669	12.7575	33.0455	25.0000	2.2467	1.8976	3.1223	2.2091	4.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:41:26	42636.4150	343.3398	35676.5340	116.6674	1720.1627	299889.4200	9101.2202	27655.3340	81641.6220	181796.4200	176931.8400	3433.9818	325173.3900
2	21:41:40	43205.7610	356.6737	36285.6050	93.3338	1616.8104	309031.4100	9174.6272	27578.4350	84709.5000	186680.5800	182374.4900	3574.0358	337607.9000
3	21:41:53	42562.7380	430.0102	37657.8350	116.6674	1783.5083	311989.9300	9368.1578	29196.8100	86725.0370	191325.6700	187844.1900	3574.0358	345347.2900
x		42801.6380	376.6746	36539.9910	108.8896	1706.8271	306970.2500	9214.6684	28143.5260	84358.7200	186600.8900	182383.5100	3527.3511	336042.8600
σ		351.9139	46.6687	1014.8510	13.4717	84.1452	6308.0745	137.8999	912.9803	2559.7972	4765.1265	5456.1785	80.8602	10177.6000
%RSD		0.8222	12.3897	2.7774	12.3719	4.9299	2.0549	1.4965	3.2440	3.0344	2.5536	2.9916	2.2924	3.0287

SEQ-SRD1@MH1G80L@5X 10/18/2016 21:45:28

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	21:45:28	113136.3000	46.6668	130327.5400	6358.8898	5284.8690	1685.4896	232.6696	10679.6030	2296.9568	13.3333	24.4445	33.3334	20.0000	120253.4600	1990.2178	3027.1706	3423.9780	1836.8522
2	21:45:42	113622.3100	56.6668	133980.0600	6749.1711	5220.1650	1697.4918	224.6694	10766.3720	2483.6726	6.6667	16.6667	10.0000	6.6667	124452.7400	1983.5497	3007.1640	3524.0162	2106.9108
3	21:45:55	114634.9000	43.3334	133892.1200	6555.6962	5428.9539	1725.4971	199.3355	11216.9160	2233.6077	20.0000	23.3334	30.0001	6.6667	127717.5600	2063.5675	3250.5810	3694.0837	2016.8904
x		113797.8400	48.8890	132733.2400	6554.5857	5311.3293	1702.8261	218.8915	10887.6300	2338.0790	13.3333	21.4815	24.4445	11.1111	124141.2500	2012.4450	3094.9719	3547.3593	1986.8845
σ		764.5635	6.9389	2083.8607	195.1430	106.8799	20.5303	17.4020	288.4512	130.0053	6.6667	4.2066	12.6198	7.6980	3741.7864	44.3987	135.1323	136.5575	137.5070
%RSD		0.6719	14.1932	1.5700	2.9772	2.0123	1.2057	7.9501	2.6493	5.5603	50.0000	19.5825	51.6265	69.2821	3.0141	2.2062	4.3662	3.8496	6.9207

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:45:28	43299.5380	150.0012	5768.4962	23.3334	346.6733	217439.6700	1553.4661	4467.7642	15025.7410	176340.5200	175069.6400	770.0326	143436.0400
2	21:45:42	43989.5060	220.0027	5741.8127	33.3334	386.6749	225372.7400	1623.4783	4541.1339	15516.5640	180354.7900	179042.5700	713.3613	147063.3100
3	21:45:55	43570.8300	190.0020	6332.2046	30.0001	400.0088	228608.7100	1896.8645	4847.9590	15853.8120	185224.5900	183942.2700	813.3697	150932.6200
x		43619.9580	186.6686	5947.5045	28.8889	377.7857	223807.0400	1691.2696	4618.9524	15465.3720	180639.9700	179351.4900	765.5879	147143.9900
σ		347.5973	35.1196	333.4271	5.0918	27.7567	5746.7770	181.4590	201.6898	416.4024	4448.8942	4444.3771	50.1521	3748.9412
%RSD		0.7969	18.8139	5.6062	17.6253	7.3472	2.5677	10.7292	4.3666	2.6925	2.4629	2.4780	6.5508	2.5478

6100163-05@MH1G81 10/18/2016 21:49:31

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	21:49:31	104878.1700	60.0002	129810.2200	37590.8920	18597.0020	7687.9160	1099.3998	131538.1200	2453.6644	50.0001	120.0008	53.3335	40.0001	112380.3500	15533.2590	22240.5050	25856.7190	1391
2	21:49:44	106867.8000	40.0001	131484.0200	39294.7410	18637.0840	7915.4445	1015.3900	135164.0600	2723.7413	40.0001	102.2228	80.0004	10.0000	117237.7800	16334.6620	23486.9680	26572.1110	1443
3	21:49:57	105400.8300	53.3335	134751.3400	39445.3910	18769.3560	7944.8034	1073.3967	137985.9900	2577.0319	36.6667	110.0007	83.3337	16.6667	117933.3600	17089.3810	23507.0190	27889.3810	1461
x		105715.6000	51.1113	132015.1900	38777.0080	18667.8140	7849.3880	1062.7288	134896.0600	2584.8125	42.2223	110.7414	72.2225	22.2223	115850.5000	16319.1010	23078.1640	26772.7370	1432
σ		1031.4919	10.1836	2513.0217	1029.9648	90.1925	140.6072	43.0089	3232.2754	135.2065	6.9389	8.9121	16.4431	15.7528	3025.2946	778.1775	725.5031	1031.0756	36
%RSD		0.9757	19.9243	1.9036	2.6561	0.4831	1.7913	4.0470	2.3961	5.2308	16.4342	8.0477	22.7672	70.8873	2.6114	4.7685	3.1437	3.8512	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:49:31	39267.9590	413.3427	49330.1450	183.3352	2173.5932	299551.9000	11517.2910	22982.3470	92986.4700	168303.6500	167930.1700	5098.0957	236031.5000
2	21:49:44	39693.1330	380.0079	51301.0080	196.6688	2163.5908	308597.0200	11817.6760	23613.9630	94966.7840	172582.7600	172932.6500	5078.0846	241396.3100
3	21:49:57	39726.6120	370.0075	52454.2280	130.0009	2276.9518	319290.2800	12051.3160	24065.1430	97018.2760	176282.7500	174393.4900	5525.0117	248452.6400
x		39562.5680	387.7861	51028.4600	170.0016	2204.7119	309146.4000	11795.4280	23553.8180	94990.5100	172389.7200	171752.1000	5233.7307	241960.1500
σ		255.6873	22.6905	1579.7736	35.2773	62.7612	9880.6521	267.7067	543.8981	2016.0074	3993.0507	3389.5298	252.4552	6229.7405
%RSD		0.6463	5.8513	3.0959	20.7512	2.8467	3.1961	2.2696	2.3092	2.1223	2.3163	1.9735	4.8236	2.5747

6100163-06@MH1G82 10/18/2016 21:53:34

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
1	21:53:34	100795.7100	116.6674	117926.6100	35706.6520	14562.3210	6436.9447	854.0401	39565.9130	7099.4377	33.3334	57.7780	33.3334	13.3333	147747.6000	3100.5286	3987.5410	4584.4890	2560.3609
2	21:53:47	103044.0400	150.0012	122520.0900	36934.8780	14685.8530	6416.2635	872.7085	40972.1220	7850.0545	30.0001	53.3335	36.6667	30.0001	156034.3400	3137.2079	4017.5542	4834.6185	2623.7115
3	21:54:00	105026.5300	123.3342	125824.7700	37483.7850	14613.0690	6407.5907	925.3804	41846.0890	7489.7507	20.0000	70.0003	50.0001	33.3334	160487.5300	3373.9593	4427.7447	5018.0512	2507.0123
x		102955.4200	130.0009	122090.4900	36708.4380	14620.4140	6420.2663	884.0430	40794.7080	7479.7476	27.7778	60.3706	40.0001	25.5556	154756.4900	3203.8986	4144.2800	4812.3863	2563.6949
σ		2116.8033	17.6386	3966.5681	909.9483	62.0926	15.0809	36.9961	1150.3943	375.4084	6.9389	8.6306	8.8192	10.7152	6465.3787	148.4144	245.9459	217.6345	58.4213
%RSD		2.0560	13.5681	3.2489	2.4789	0.4247	0.2349	4.1849	2.8200	5.0190	24.9800	14.2960	22.0480	41.9290	4.1778	4.6323	5.9346	4.5224	2.2785

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:53:34	40808.0530	686.6926	18348.4980	373.3410	5608.3961	216050.4600	3830.8070	7476.4064	172725.4300	171091.6400	169627.9200	2473.6698	185554.5500
2	21:53:47	42191.0110	666.6911	19283.7640	410.0093	5608.3961	224453.7500	4150.9475	7903.4340	180337.7900	178206.3800	177387.2500	2727.0756	193201.3900
3	21:54:00	41370.5870	696.6934	19848.3110	393.3418	6265.4917	231873.1800	4067.5764	8140.3096	185472.9100	183496.7400	182357.4900	2730.4100	197389.9400
x		41456.5500	683.3590	19160.1910	392.2307	5827.4280	224125.8000	4016.4436	7840.0500	179512.0400	177598.2500	176457.5600	2643.7185	192048.6200
σ		695.4751	15.2764	757.5039	18.3594	379.3743	7916.4546	166.0825	336.4595	6413.7284	6224.8690	6415.5066	147.2759	6001.3143
%RSD		1.6776	2.2355	3.9535	4.6808	6.5102	3.5321	4.1351	4.2915	3.5729	3.5050	3.6357	5.5708	3.1249

6100163-07@MH1G83 10/18/2016 21:57:37

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	
1	21:57:37	114354.7400	666.6911	138229.6500	38056.1550	19949.8660	8393.8734	1163.4078	468856.5100	36064.7280	133.3343	96.6672	86.6671	43.3334	261113.4900	7056.0706	11587.3800	12795.6650	70
2	21:57:50	114219.7300	663.3575	141512.9200	39713.2200	19892.4070	8345.1619	1112.0680	482633.4800	37761.5970	143.3345	118.8897	90.0004	70.0003	274657.2700	7546.4642	12565.3450	13683.6240	71
3	21:58:03	115171.6200	810.0361	144218.2700	40881.7160	20167.6790	8370.5185	1057.3948	494580.6100	37714.7370	156.6680	120.0008	86.6671	26.6667	277491.4200	7916.7790	12501.9240	13369.8240	71
x		114582.0300	713.3616	141320.2800	39550.3640	20003.3170	8369.8512	1110.9569	482023.5300	37180.3540	144.4456	111.8525	87.7782	46.6668	271087.3900	7506.4379	12218.2160	13283.0380	71
σ		515.0458	83.7392	2998.9564	1419.8029	145.2118	24.3626	53.0152	12872.8910	966.4444	11.7065	13.1626	1.9245	21.8582	8753.1225	431.7480	547.2396	450.2960	
%RSD		0.4495	11.7387	2.1221	3.5899	0.7259	0.2911	4.7720	2.6706	2.5993	8.1044	11.7679	2.1925	46.8390	3.2289	5.7517	4.4789	3.3900	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:57:37	42080.5010	8917.7051	33849.5680	6275.4986	96196.2760	299458.9100	1683.4892	8690.8189	201352.0900	189841.7100	185330.0400	19223.6370	137969.0700
2	21:57:50	41705.4450	9074.5268	35094.2750	6442.2819	99798.1250	305291.5100	1660.1516	8907.6953	210093.2600	195313.6700	191346.0900	19524.2770	142650.4900
3	21:58:03	42428.7810	9278.0655	35780.2740	6862.5893	103087.8600	312790.0600	1853.5223	9288.0757	212552.7800	197655.6200	191938.3900	20245.8520	142762.2200
x		42071.5750	9090.0991	34908.0390	6526.7899	99694.0880	305846.8300	1732.3877	8962.1966	207999.3800	194603.6700	189538.1700	19664.5890	141127.2600
σ		361.7504	180.6842	978.7335	302.5311	3446.9708	6682.9030	105.5526	302.3354	5886.6057	4178.2028	3656.3657	525.3539	2735.6475
%RSD		0.8598	1.9877	2.8037	4.6352	3.4575	2.1850	6.0929	3.3735	2.8301	2.1470	1.9291	2.6716	1.9384

6100163-08@MH1G84 10/18/2016 22:01:40

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	
1	22:01:40	112454.5900	960.0507	139048.6600	48314.7140	24771.7040	10870.4950	1464.1179	355376.2500	37001.8160	186.6686	183.3352	123.3342	80.0004	414348.9500	7439.7096	8981.1008	10329.1980	539
2	22:01:53	113956.4500	910.0456	141323.3400	49896.5570	25136.7040	10965.9430	1482.7876	367334.4300	39137.3980	186.6686	184.4463	116.6674	43.3334	432453.5900	7873.4080	9194.6474	10235.7590	564
3	22:02:06	115870.4200	936.7149	145224.0900	51471.9700	24992.9750	10983.9650	1445.4482	376814.7900	40191.9840	200.0022	156.6680	86.6671	60.0002	443521.4900	7860.0631	9681.8195	10873.1650	592
x		114093.8200	935.6037	141865.3600	49894.4140	24967.1280	10940.1340	1464.1179	367175.1500	38777.0660	191.1131	174.8165	108.8896	61.1113	430108.0100	7724.3936	9285.8559	10479.3740	565
σ		1712.0523	25.0211	3123.1932	1578.6295	183.8676	60.9787	18.6697	11720.0820	1625.3222	7.6982	15.7269	19.5318	18.3587	14727.0360	246.6338	359.1531	344.2183	26
%RSD		1.5006	2.6743	2.2015	3.1639	0.7364	0.5574	1.2751	3.1920	4.1915	4.0281	8.9962	17.9372	30.0414	3.4240	3.1929	3.8677	3.2847	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:01:40	43282.7920	8994.4473	27066.9010	6295.5124	97072.1800	244901.5500	1826.8502	7516.4394	288365.4300	200783.0400	193252.4600	16221.1260	161308.5400
2	22:01:53	42914.3850	9491.6191	27287.5590	6488.9817	99734.0940	252834.3300	1860.1903	8103.6102	300399.1800	208500.5500	201873.4600	16578.4360	168089.7400
3	22:02:06	43262.6970	9581.7135	28798.8770	6915.9630	103371.0500	263943.4800	1793.5102	8190.3545	312355.5000	212211.6200	204463.7300	17466.7640	170687.4800
x		43153.2920	9355.9266	27717.7790	6566.8191	100059.1100	253893.1200	1826.8502	7936.8013	300373.3700	207165.0700	199863.2200	16755.4420	166695.2500
σ		207.1427	316.2748	942.7365	317.4645	3161.9882	9565.0173	33.3400	366.6187	11995.0520	5830.1537	5869.7515	641.4062	4842.4765
%RSD		0.4800	3.3805	3.4012	4.8344	3.1601	3.7673	1.8250	4.6192	3.9934	2.8143	2.9369	3.8280	2.9050

6100163-09@MH1G85 10/18/2016 22:05:43

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	22:05:43	118541.1900	893.3772	152983.1400	23136.0700	27744.2710	11175.5320	1448.1153	155637.6300	24426.1040	143.3345	172.2239	90.0004	43.3334	511383.0500	5381.5924	8440.5832	9521.6505	4864.
2	22:05:56	119821.1400	1063.3955	157322.9300	23243.0080	27826.5220	11333.0600	1467.4518	161671.5700	25418.8200	176.6684	182.2241	126.6676	33.3334	533992.3300	5678.4396	8704.1649	10028.8620	5251.
3	22:06:09	120574.3300	1083.3979	159907.4400	25000.9970	27837.2220	11070.0690	1465.4514	164732.4600	26070.6620	120.0008	177.7795	140.0011	66.6669	546348.3800	5474.9815	8804.2613	9665.1351	5484.
x		119645.5500	1013.3902	156737.8400	23793.3580	27802.6720	11192.8870	1460.3395	160680.5500	25305.1960	146.6679	177.4091	118.8897	47.7779	530574.5900	5511.6712	8649.6698	9738.5492	5200.
σ		1027.8818	104.4144	3499.0365	1047.2118	50.8583	132.3514	10.6336	4627.6947	828.1459	28.4805	5.0104	25.8918	17.1054	17731.4460	151.7866	187.8636	261.4539	313.
%RSD		0.8591	10.3035	2.2324	4.4013	0.1829	1.1825	0.7282	2.8801	3.2726	19.4183	2.8242	21.7780	35.8020	3.3419	2.7539	2.1719	2.6847	6.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:05:43	46317.6930	2510.3466	19664.5790	1466.7850	22400.8980	256669.5900	1306.7606	11380.4520	192037.1000	206604.6600	200394.6100	4381.0554	150359.9100
2	22:05:56	45975.9650	2477.0041	20416.2330	1470.1189	22731.7180	266019.3500	1360.1017	11847.7150	196630.4100	210833.4300	206894.4700	4571.1490	153037.3700
3	22:06:09	46083.1730	2630.3805	20513.1170	1670.1534	23436.8380	267731.8800	1410.1094	12007.9250	202827.6900	214620.5200	209598.7000	4727.8958	157556.9300
x		46125.6100	2539.2437	20197.9760	1535.6858	22856.4850	263473.6100	1358.9906	11745.3640	197165.0700	210686.2000	205629.2600	4560.0334	153651.4100
σ		174.7720	80.6682	464.4690	116.4643	529.1201	5954.3408	51.6833	326.0175	5415.1230	4009.9586	4730.6855	173.6872	3637.5890
%RSD		0.3789	3.1769	2.2996	7.5839	2.3150	2.2599	3.8031	2.7757	2.7465	1.9033	2.3006	3.8089	2.3674

6100163-10@MH1G86 10/18/2016 22:09:46

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	22:09:46	121229.6300	383.3414	159602.1500	46163.5790	27036.1430	12234.2270	1604.8083	122847.8000	13703.6540	56.6668	71.1114	43.3334	30.0001	272555.4100	10018.8510	15600.0400	17032.6080	985
2	22:09:59	121591.0700	393.3418	165306.0600	47359.7080	27191.2710	12380.4240	1613.4765	126980.6700	13606.8420	83.3337	71.1114	73.3336	40.0001	278161.4300	10322.5240	16468.2360	17770.6850	1050
3	22:10:12	123334.3200	410.0093	165801.6300	48649.8270	27265.4930	12322.3460	1624.1451	129685.1200	14130.9740	96.6672	87.7782	73.3336	20.0000	289617.6400	10389.2660	16555.0600	18612.3670	1017
x		122051.6700	395.5642	163569.9500	47391.0380	27164.3020	12312.3320	1614.1433	126504.5300	13813.8230	78.8892	76.6670	63.3336	30.0001	280111.5000	10243.5470	16207.7790	17805.2200	1017
σ		1125.4105	13.4721	3445.1359	1243.4200	117.0293	73.6114	9.6856	3443.4381	278.8935	20.3672	9.6226	17.3206	10.0000	8696.6663	197.4332	528.1045	790.4456	32
%RSD		0.9221	3.4058	2.1062	2.6237	0.4308	0.5979	0.6000	2.7220	2.0189	25.8174	12.5511	27.3482	33.3334	3.1047	1.9274	3.2583	4.4394	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:09:46	46887.2690	453.3446	11560.6790	86.6671	1283.4239	233097.2300	2060.2334	2640.3834	147076.8600	195721.1000	192578.3800	3667.4063	134687.0600
2	22:09:59	46455.0580	460.0116	12091.3690	93.3338	1320.0958	237943.7200	2183.5955	2723.7413	150664.9000	203676.3500	198214.2500	3760.7777	140216.3900
3	22:10:12	47731.6460	493.3467	12094.7070	106.6673	1446.7818	244466.7400	2183.5955	3093.8597	155325.6900	207252.4900	203485.4800	4070.9113	142504.9000
x		47024.6570	468.9010	11915.5850	95.5561	1350.1005	238502.5600	2142.4748	2819.3281	151022.4800	202216.6500	198092.7000	3833.0318	139136.1200
σ		649.2886	21.4315	307.3619	10.1836	85.7126	5705.3222	71.2232	241.3769	4136.0275	5902.6502	5454.5665	211.2334	4019.3147
%RSD		1.3807	4.5706	2.5795	10.6572	6.3486	2.3921	3.3243	8.5615	2.7387	2.9190	2.7535	5.5109	2.8888

6100163-11@MH1G87 10/18/2016 22:13:49

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	97M
1	22:13:49	121611.3400	653.3568	160348.4400	18168.1360	23060.5450	8373.1876	1104.0670	129674.9800	18886.2640	96.6672	87.7782	76.6670	36.6667	329436.1500	3497.3393	4924.6669	5745.1481	3143.87
2	22:14:02	120891.8400	626.6883	160233.1000	18014.4980	22982.3470	8331.1490	1126.7365	132826.6600	19046.5980	110.0007	123.3342	76.6670	40.0001	338818.3800	3750.7736	4914.6614	5935.2702	3257.25
3	22:14:15	124212.8300	603.3533	164084.2200	18786.0570	22922.1950	8221.0489	1133.4040	134179.6400	19875.0360	110.0007	96.6672	106.6673	56.6668	349539.7100	3977.5366	5144.7887	6138.7386	3367.29
x		122238.6700	627.7995	161555.2600	18322.8970	22988.3620	8308.4618	1121.4025	132227.0900	19269.2990	105.5562	102.5932	86.6671	44.4446	339264.7500	3741.8832	4994.7057	5939.7190	3256.13
σ		1747.1105	25.0202	2190.9080	408.3982	69.3705	78.5658	15.3786	2311.4097	530.6731	7.6981	18.5039	17.3207	10.7152	10059.2070	240.2221	130.0720	196.8329	111.71
%RSD		1.4293	3.9854	1.3561	2.2289	0.3018	0.9456	1.3714	1.7481	2.7540	7.2929	18.0362	19.9853	24.1092	2.9650	6.4198	2.6042	3.3138	3.43

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:13:49	46481.8610	1496.7899	14221.1150	730.0293	11687.5080	251782.4000	893.3772	5164.8001	89993.2390	199539.4400	196480.5500	2477.0041	140686.9100
2	22:14:02	46602.4760	1470.1189	14852.1220	876.7089	11817.6760	262420.3200	1130.0702	5444.9635	91272.5660	206089.8300	200207.2200	2500.3438	144993.7900
3	22:14:15	47091.6540	1380.1047	15132.5840	793.3679	12031.2890	265034.5400	1150.0727	5525.0117	94879.2100	209291.7500	202002.9600	2677.0608	147869.5600
x		46725.3310	1449.0045	14735.2740	800.0354	11845.4910	259745.7500	1057.8401	5378.2584	92048.3380	204973.6800	199563.5800	2551.4695	144516.7600
σ		322.9268	61.1410	466.8345	73.5668	173.5703	7019.2449	142.7797	189.1436	2533.6821	4971.0408	2816.9031	109.3895	3615.0090
%RSD		0.6911	4.2195	3.1681	9.1954	1.4653	2.7024	13.4973	3.5168	2.7526	2.4252	1.4115	4.2873	2.5014

6100163-12@MH1G88 10/18/2016 22:17:52

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	97
1	22:17:52	119520.5500	606.6869	153569.5700	42147.4770	25045.7870	10185.7030	1366.1026	200875.0400	17172.8710	106.6673	108.8895	90.0004	26.6667	291348.3100	5911.9217	7496.4229	8850.9733	5014.7
2	22:18:04	119463.1400	483.3462	155061.2400	42381.8960	25208.2350	10226.4150	1315.4285	204006.9700	16645.2250	116.6674	104.4450	53.3335	46.6668	299916.9800	5848.5474	8357.1729	8850.9733	4697.8
3	22:18:17	119446.2500	536.6825	159096.7400	43724.9000	24948.8540	10245.7700	1348.7667	205851.1800	17376.5910	70.0003	113.3340	76.6670	20.0000	306366.7900	6052.0138	7940.1327	8961.0810	4941.3
x		119476.6500	542.2385	155909.1800	42751.4240	25067.6250	10219.2960	1343.4326	203577.7300	17064.8960	97.7783	108.8895	73.3336	31.1112	299210.6900	5937.4943	7931.2428	8887.6759	4884.6
σ		38.9488	61.8578	2859.4858	851.1638	131.0621	30.6600	25.7547	2515.6873	377.4498	24.5706	4.4445	18.5594	13.8778	7534.1075	104.1159	430.4439	63.5708	165.8
%RSD		0.0326	11.4079	1.8341	1.9910	0.5228	0.3000	1.9171	1.2357	2.2118	25.1289	4.0817	25.3081	44.6072	2.5180	1.7535	5.4272	0.7153	3.3

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:17:52	46006.1170	1430.1125	14918.8980	910.0456	12148.1110	259175.8800	2593.7033	6058.6849	138229.6500	196780.2700	192268.5900	5558.3654	152200.1600
2	22:18:04	46294.2410	1463.4511	15823.7600	876.7089	12578.6960	264955.6200	2787.0938	6272.1630	143496.9900	202064.3000	195309.0500	5985.3030	156434.4600
3	22:18:17	45868.7590	1423.4448	15640.1090	890.0436	13396.5300	273657.8000	2810.4344	6425.6034	149289.1500	207337.7300	202118.8300	6222.1286	160694.4700
x		46056.3720	1439.0028	15460.9220	892.2660	12707.7790	265929.7700	2730.4105	6252.1504	143671.9300	202060.7700	196565.4900	5921.9323	156443.0300
σ		217.1472	21.4337	478.3037	16.7791	634.1405	7289.9396	118.9657	184.2761	5531.8264	5278.7343	5043.8851	336.3886	4247.1638
%RSD		0.4715	1.4895	3.0936	1.8805	4.9902	2.7413	4.3571	2.9474	3.8503	2.6124	2.5660	5.6804	2.7148

6100163-13@MH1G89 10/18/2016 22:21:54

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	22:21:54	120098.0900	1370.1032	149722.8600	16107.5910	8885.0064	3153.2134	495.3468	210888.0100	40446.4420	223.3361	256.6703	180.0018	53.3335	758824.3300	11443.8650	19427.4030	21154.5850	119
2	22:22:07	119483.4000	1186.7441	152569.6100	16438.1820	8750.8764	3217.2358	460.0116	217149.5200	41705.4450	223.3361	254.4480	130.0009	116.6674	779948.0100	12074.6800	19978.5960	21645.7390	120
3	22:22:20	118892.4000	1373.4371	156502.2800	16595.1330	8908.3626	3250.5810	498.6803	224081.4000	42000.1300	286.6712	293.3381	133.3343	96.6672	805861.8200	12194.8400	20676.8210	22160.3100	121
x		119491.3000	1310.0948	152931.5800	16380.3020	8848.0818	3207.0101	484.6796	217372.9800	41384.0060	244.4478	268.1521	147.7790	88.8894	781544.7200	11904.4620	20027.6060	21653.5450	120
σ		602.8854	106.8378	3404.1754	248.8714	84.9885	49.4827	21.4280	6599.5314	825.2145	36.5665	21.8400	27.9555	32.3754	23559.3640	403.3878	626.1493	502.9079	1
%RSD		0.5045	8.1550	2.2259	1.5193	0.9605	1.5430	4.4211	3.0360	1.9940	14.9588	8.1446	18.9171	36.4221	3.0145	3.3885	3.1264	2.3225	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:21:54	46873.8660	3353.9519	21415.1940	1980.2156	28531.3690	234913.0800	1500.1238	9207.9943	317547.4700	225782.7200	215814.9700	3764.1124	431873.6400
2	22:22:07	47078.2520	3413.9743	22791.8680	1840.1862	29434.2400	238344.0000	1573.4695	9378.1681	329947.5400	230474.9600	219197.8100	3870.8239	440031.2000
3	22:22:20	46947.5790	3490.6700	23520.3870	1993.5519	29922.4970	245541.8100	1740.1665	9691.8302	334361.1500	235614.2100	224590.4000	4297.6823	445875.9000
x		46966.5660	3419.5321	22575.8160	1937.9846	29296.0350	239599.6300	1604.5866	9425.9975	327285.3900	230623.9700	219867.7200	3977.5395	439260.2400
σ		103.5071	68.5283	1069.0970	84.9580	705.7868	5424.4730	123.0095	245.4384	8717.2413	4917.4378	4425.9033	282.3391	7032.8959
%RSD		0.2204	2.0040	4.7356	4.3838	2.4092	2.2640	7.6661	2.6038	2.6635	2.1322	2.0130	7.0983	1.6011

6100163-14@MH1G90 10/18/2016 22:25:58

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
1	22:25:58	117112.8500	846.7061	152589.9500	45289.1970	17779.3690	7349.6364	1001.3885	177642.1600	17737.2870	103.3339	122.2230	86.6671	16.6667	335795.9500	32441.1140	55804.0850	59215.5640
2	22:26:11	119230.1100	853.3734	155207.0300	46820.2580	17735.2830	7392.3377	1028.7249	182303.0800	17319.8160	123.3342	136.6677	100.0006	53.3335	347216.5100	34167.4210	55958.3620	60295.9640
3	22:26:24	117967.1300	836.7052	156936.3400	47631.1200	17962.3950	7351.6380	1020.0572	185779.0600	17914.3000	76.6670	108.8895	76.6670	46.6668	356530.1300	34495.3220	58578.1210	62906.9000
x		118103.3600	845.5949	154911.1000	46580.1920	17825.6820	7364.5374	1016.7235	181908.1000	17657.1340	101.1117	122.5934	87.7782	38.8890	346514.2000	33701.2850	56780.1890	60806.1430
σ		1065.1824	8.3895	2188.2547	1189.2748	120.4311	24.0966	13.9698	4082.8054	305.2393	23.4128	13.8928	11.7064	19.5316	10384.9200	1103.5871	1558.9641	1897.8151
%RSD		0.9019	0.9921	1.4126	2.5532	0.6756	0.3272	1.3740	2.2444	1.7287	23.1554	11.3324	13.3363	50.2240	2.9970	3.2746	2.7456	3.1211

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:25:58	46649.3830	1863.5243	24673.4370	1190.0779	16949.1190	236281.1900	3770.7819	9044.4969	534176.0000	199065.8900	194498.6100	6996.0242	332743.3900
2	22:26:11	46595.7760	1926.8709	25943.6330	1090.0653	17346.5340	243713.5900	3884.1629	9368.1578	554797.7600	203154.8700	199018.2000	7396.3409	341741.4600
3	22:26:24	46254.0370	1890.1965	25940.2900	1233.4170	17917.6400	245901.3300	4190.9658	9655.1245	572120.1500	208766.5500	203076.4800	7596.5059	352490.4200
x		46499.7320	1893.5306	25519.1200	1171.1867	17404.4310	241965.3700	3948.6369	9355.9264	553697.9700	203662.4400	198864.4300	7329.6237	342325.0900
σ		214.4595	31.8046	732.3846	73.5193	486.8495	5042.7144	217.3852	305.4975	18995.9670	4870.2035	4291.0019	305.7498	9886.4444
%RSD		0.4612	1.6796	2.8699	6.2773	2.7973	2.0841	5.5053	3.2653	3.4307	2.3913	2.1578	4.1714	2.8880

6100163-15@MH1G91 10/18/2016 22:30:00

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	22:30:00	121634.9900	1786.8423	156895.6400	17283.0800	14122.2940	6685.1238	876.7089	321268.1600	57370.4560	243.3366	300.0050	156.6680	56.6668	784814.6100	6705.8057	9918.7414	11477.2400
2	22:30:14	121993.0700	1786.8423	159496.9900	17523.5390	14246.4880	6733.1592	872.0418	329705.6700	59245.7600	226.6695	236.6697	150.0012	63.3336	803906.2000	7056.0706	10355.8950	11447.2030
3	22:30:27	123770.1800	1853.5223	162438.3900	17907.6200	14186.3940	6732.4920	936.0482	331792.9200	59638.3140	220.0027	257.7814	146.6678	53.3335	824646.1400	7299.5961	10676.2650	12134.7600
x		122466.0800	1809.0689	159610.3400	17571.4130	14185.0580	6716.9250	894.9330	327588.9100	58751.5100	230.0029	264.8187	151.1124	57.7780	804455.6500	7020.4908	10316.9670	11686.4010
σ		1143.4903	38.4977	2773.1122	315.0104	62.1075	27.5427	35.6832	5572.5291	1212.0260	12.0188	32.2487	5.0918	5.0918	19921.4490	298.4899	380.2594	388.5807
%RSD		0.9337	2.1280	1.7374	1.7927	0.4378	0.4100	3.9872	1.7011	2.0630	5.2255	12.1777	3.3696	8.8127	2.4764	4.2517	3.6858	3.3251

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:30:00	47426.7230	3794.1249	51951.3520	2076.9039	33531.7270	246695.7600	1753.5024	12101.3820	377428.8900	227703.0700	217664.9700	6819.2233	385747.3600
2	22:30:14	46595.7760	3927.5149	53765.1860	2243.6102	34582.3180	253338.0700	2236.9418	12969.2440	391300.6300	234892.5600	222882.4600	7306.2681	401267.9900
3	22:30:27	47460.2300	4197.6356	55388.2200	2326.9644	35746.8100	257070.6900	2000.2200	12999.2870	396004.5600	239377.2900	229381.1400	7453.0539	407708.6000
x		47160.9090	3973.0918	53701.5860	2215.8262	34620.2850	252368.1700	1996.8881	12689.9710	388244.6900	233990.9800	223309.5200	7192.8484	398241.3200
σ		489.7070	205.5800	1719.3161	127.3245	1108.0293	5255.0265	241.7369	509.9543	9657.5330	5889.1006	5869.7523	331.7881	11289.1330
%RSD		1.0384	5.1743	3.2016	5.7461	3.2005	2.0823	12.1057	4.0186	2.4875	2.5168	2.6285	4.6127	2.8347

6100163-16@MH1G92 10/18/2016 22:34:02

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	22:34:02	115823.1500	413.3427	148967.2700	46223.8840	15700.2120	5949.9465	862.0409	97163.1440	9551.6819	76.6670	68.8892	40.0001	26.6667	217497.7000	12491.9100	19003.1740	20563.2300
2	22:34:16	118834.9900	393.3418	151627.3700	47647.8750	15643.4480	5952.6149	838.7053	100269.9400	9595.0609	53.3335	80.0004	53.3335	20.0000	225471.8200	12635.4420	20132.2670	21745.9780
3	22:34:29	118220.3800	386.6749	154620.4900	49289.9280	15897.8890	5937.2715	785.3673	101746.2100	9785.2635	63.3336	67.7780	50.0001	26.6667	230997.9900	12905.8210	19627.8330	21689.1760
x		117626.1800	397.7865	151738.3800	47720.5620	15747.1830	5946.6110	828.7045	99726.4310	9644.0021	64.4447	72.2225	47.7779	24.4445	224655.8300	12677.7240	19587.7580	21332.7950
σ		1591.4131	13.8784	2828.2465	1534.3136	133.5654	8.1975	39.3030	2339.3739	124.2438	11.7064	6.7587	6.9389	3.8490	6787.0315	210.1700	565.6123	667.0671
%RSD		1.3529	3.4889	1.8639	3.2152	0.8482	0.1379	4.7427	2.3458	1.2883	18.1650	9.3581	14.5233	15.7459	3.0211	1.6578	2.8876	3.1270

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:34:02	46207.1330	473.3457	8387.2005	173.3350	2600.3719	229384.5600	1573.4695	4881.3101	180368.3900	194096.8300	192227.7400	3944.1888	167546.5200
2	22:34:16	46073.1220	530.0154	8754.2130	270.0040	2903.7970	235696.3000	1760.1704	4944.6777	186724.8100	200043.6800	194757.4000	4284.3427	176755.1200
3	22:34:29	46528.7670	463.3451	8840.9635	176.6684	3130.5389	238658.7700	1963.5454	4994.7050	190842.3400	202681.1400	200435.5000	4437.7496	176945.4400
x		46269.6740	488.9021	8660.7923	206.6691	2878.2359	234579.8800	1765.7284	4940.2310	185978.5100	198940.5500	195806.8800	4222.0937	173749.0300
σ		234.1723	35.9546	240.8750	54.8749	266.0062	4736.8275	195.0973	56.8281	5276.7033	4397.1887	4203.3192	252.6000	5372.3698
%RSD		0.5061	7.3542	2.7812	26.5521	9.2420	2.0193	11.0491	1.1503	2.8373	2.2103	2.1467	5.9828	3.0920

6100163-17@MH1G93 10/18/2016 22:38:05

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
1	22:38:05	116619.9100	363.3406	158170.7900	10692.9520	19067.3080	6493.6517	939.3819	67607.1250	8961.0810	70.0003	98.8894	83.3337	30.0001	263593.5400	3907.5063	5871.8957	6712.4772
2	22:38:18	118355.4600	340.0064	160480.7500	11333.7270	19198.2500	6559.6991	916.0462	69974.9410	8891.0123	63.3336	93.3338	50.0001	26.6667	269170.0900	4057.5720	6252.1492	6669.1120
3	22:38:32	119240.2400	323.3391	163212.0700	11600.7300	19465.4840	6622.4112	917.3796	70787.8650	9094.5468	80.0004	81.1115	60.0002	40.0001	277711.3100	4020.8890	6275.4986	6859.2534
x		118071.8700	342.2287	160621.2000	11209.1360	19243.6810	6558.5873	924.2692	69456.6440	8982.2134	71.1114	91.1116	64.4447	32.2223	270158.3200	3995.3224	6133.1812	6746.9476
σ		1332.9852	20.0931	2523.5709	466.5380	202.9383	64.3869	13.1049	1652.4984	103.3998	8.3888	9.0949	17.1055	6.9389	7110.5784	78.2315	226.5808	99.6473
%RSD		1.1290	5.8713	1.5711	4.1621	1.0546	0.9817	1.4179	2.3792	1.1512	11.7967	9.9822	26.5429	21.5345	2.6320	1.9581	3.6943	1.4769

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:38:05	47071.5510	476.6792	16454.8790	110.0007	1823.5162	231715.9100	1070.0630	6225.4642	132410.6500	197996.2400	190185.4500	2940.4755	155671.5300
2	22:38:18	48083.4920	413.3427	17456.7450	170.0016	1863.5243	234680.5200	1056.7281	6355.5542	137779.5600	202149.5000	195741.5300	3017.1673	158944.1000
3	22:38:32	48204.1290	430.0102	17490.1420	120.0008	2103.5767	242128.7400	1083.3979	6542.3533	140202.8500	206461.4600	201812.1200	3170.5528	165071.8600
x		47786.3910	440.0107	17133.9220	133.3344	1930.2057	236175.0600	1070.0630	6374.4572	136797.6900	202202.4000	195913.0400	3042.7318	159895.8300
σ		622.0013	32.8311	588.3057	32.1460	151.4704	5364.8823	13.3349	159.2880	3987.8120	4232.8549	5815.2333	117.1497	4771.8847
%RSD		1.3016	7.4614	3.4336	24.1093	7.8474	2.2716	1.2462	2.4988	2.9151	2.0934	2.9683	3.8501	2.9844

6100163-18@MH1G94 10/18/2016 22:42:08

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	22:42:08	121003.3100	530.0154	163398.7100	25148.0690	23109.3350	9380.1702	1255.4200	109019.8000	13867.2350	140.0011	107.7784	63.3336	20.0000	284733.6100	7429.7015	11193.5540	13319.7510
2	22:42:21	122398.4700	440.0107	168992.9300	26608.8850	23038.4890	9424.2157	1256.0868	111688.5700	14267.8540	116.6674	92.2227	43.3334	6.6667	291269.1700	7559.8086	12251.5830	13232.9570
3	22:42:34	122557.2500	450.0111	169505.6700	26715.8650	22893.4560	9516.3115	1270.0867	112673.9500	14434.7840	123.3342	90.0004	76.6670	40.0001	298112.3900	7646.5478	12104.7200	13873.9120
x		121986.3400	473.3458	167299.1000	26157.6060	23013.7600	9440.2325	1260.5318	111127.4400	14189.9580	126.6676	96.6672	61.1113	22.2223	291371.7200	7545.3526	11849.9520	13475.5400
σ		855.0258	49.3315	3387.5565	875.9198	110.0432	69.4696	8.2832	1890.5966	291.6828	12.0187	9.6865	16.7775	16.7775	6689.9797	109.1436	573.1812	347.7189
%RSD		0.7009	10.4219	2.0249	3.3486	0.4782	0.7359	0.6571	1.7013	2.0556	9.4884	10.0205	27.4540	75.4984	2.2960	1.4465	4.8370	2.5804

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:42:08	48555.9940	1133.4040	18649.1090	640.0225	8207.0362	242029.4800	1586.8051	12975.9210	210134.1900	201116.9700	194314.7400	4030.8934	167505.7800
2	22:42:21	47825.4700	1066.7292	18592.3260	583.3520	8720.8476	249158.2300	1626.8122	13550.0910	217938.0600	205084.1400	199185.1300	4204.3053	174852.1800
3	22:42:34	48284.5540	1163.4078	19587.7460	716.6949	8774.2323	252474.5400	1613.4765	13877.2500	224733.8800	212402.6700	204248.9800	4034.2283	177343.0700
x		48222.0060	1121.1803	18943.0600	646.6898	8567.3720	247887.4200	1609.0313	13467.7540	217602.0400	206201.2600	199249.6200	4089.8090	173233.6800
σ		369.2566	49.4848	559.0358	66.9210	313.1995	5337.2305	20.3706	456.2711	7305.6432	5725.1817	4967.4335	99.1707	5114.4643
%RSD		0.7657	4.4136	2.9511	10.3482	3.6557	2.1531	1.2660	3.3879	3.3573	2.7765	2.4931	2.4248	2.9523

SEQ-IBL1@ZZZZZZ 10/18/2016 22:46:12

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	9
1	22:46:12	119969.7500	190.0020	162998.2800	35258.2410	27991.0260	8513.9850	1144.7387	58974.0010	9571.7030	50.0001	92.2227	70.0003	30.0001	201883.6900	10459.3470	16915.7230	18595.6660	10582.
2	22:46:25	119750.2100	173.3350	164922.5200	37018.5510	27779.0440	8452.5944	1168.0750	60614.7400	9988.8180	53.3335	87.7782	76.6670	26.6667	205987.5500	10826.4430	17406.6490	19200.2540	11240.
3	22:46:38	121759.9800	250.0034	166758.9000	37216.0210	27746.9460	8639.4366	1144.7387	62161.8010	9738.5467	80.0004	77.7781	46.6668	20.0000	205905.7300	10863.1530	17917.6400	19824.9260	11256.
x		120493.3100	204.4468	164893.2300	36497.6040	27839.0050	8535.3386	1152.5175	60583.5140	9766.3559	61.1113	85.9263	64.4447	25.5556	204592.3200	10716.3140	17413.3370	19205.9490	11026.
σ		1102.4432	40.3237	1880.4819	1077.8521	132.6283	95.2338	13.4732	1594.1292	209.9435	16.4431	7.3982	15.7528	5.0918	2346.1064	223.2961	500.9919	614.6574	384.
%RSD		0.9149	19.7233	1.1404	2.9532	0.4764	1.1158	1.1690	2.6313	2.1497	26.9067	8.6099	24.4439	19.9243	1.1467	2.0837	2.8771	3.2002	3.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:46:12	47198.8750	423.3432	31551.3240	170.0016	2116.9131	316170.7100	7509.7672	42787.1210	77418.2500	193014.1400	189664.7400	2813.7687	260815.1100
2	22:46:25	47198.8750	360.0071	32327.3760	156.6680	1950.2092	324216.7900	7716.6070	44297.6630	80666.3070	199222.6000	193548.6600	3010.4984	268020.1900
3	22:46:38	47738.3470	463.3451	32437.7680	213.3358	2270.2834	327228.5300	8136.9733	44709.6730	81355.7430	202831.0900	196858.6000	3187.2253	274674.4500
x		47378.6990	415.5652	32105.4890	180.0018	2112.4686	322538.6800	7787.7825	43931.4860	79813.4330	198355.9500	193357.3300	3003.8308	267836.5800
σ		311.4646	52.1062	483.0854	29.6279	160.0834	5716.7216	319.6034	1012.2332	2102.7386	4965.5290	3600.7450	186.8175	6931.4940
%RSD		0.6574	12.5386	1.5047	16.4598	7.5780	1.7724	4.1039	2.3041	2.6346	2.5033	1.8622	6.2193	2.5880

SEQ-CCV@CCV06 10/18/2016 22:50:18 QC Status: PASS (Inbal: 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

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	6342.2808
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%	220704.0500	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	8768.2136	÷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%	÷2149287.7000	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	2.6%	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	±17230.7270	±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	1867.5146
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	±3528355.5000	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%	586968.1700	463228.9300	627155.5300	5231.0466	±3677252.4000	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%	58060.7290	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	÷57216.7040	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

QJ14028-BLK1@PBS01@MH1G77@46282 10/18/2016 21:15:58 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	21:15:58	85.4%	42.1406	76.2%	-5.5460	-76.7918	-186.4325	-93.0600	81.2033	486.3668	0.3794	-6.8037	17.9826	-11.8540	-2297.7578	86.0164	168.0834	147.5960	136.3767	230.2958
2	21:16:11	87.5%	15.0723	78.3%	26.8949	-47.5706	-188.7765	-98.0984	78.2788	482.9548	-3.3392	-2.0468	-0.2353	2.5891	-1189.2299	149.6502	214.5670	178.7175	114.0453	217.4751
3	21:16:25	86.5%	23.0711	79.4%	8.9556	-68.1979	-203.0462	-92.3983	56.3610	474.9349	3.8963	-9.3163	3.3233	-1.1016	-150.3327	132.4677	181.5254	184.2410	120.4222	298.9098
x		86.5%	26.7613	77.9%	10.1015	-64.1868	-192.7517	-94.5189	71.9477	481.4188	0.3121	-6.0556	7.0235	-3.4555	-1212.4401	122.7114	188.0586	170.1848	123.6147	248.8936
σ		1.0%	13.9064	1.6%	16.2508	15.0179	8.9919	3.1175	13.5775	5.8687	3.6182	3.6920	9.6561	7.5038	1073.9007	32.9197	23.9206	19.7565	11.5029	43.7871
%RSD		1.2	51.9644	2.1	160.8745	23.3971	4.6650	3.2983	18.8713	1.2190	1159.1677	60.9690	137.4830	217.1555	88.5735	26.8269	12.7197	11.6088	9.3055	17.5927

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:15:58	89.6%	-35.9703	2.6231	0.0000	9.1217	-270.8935	123.5809	30.9246	-39.1062	97.4%	98.5%	224.1587	5824.3285
2	21:16:11	91.8%	-60.9075	2.2314	3.7723	23.7208	1518.9781	99.7456	81.0779	-43.3694	98.7%	99.6%	272.1913	9499.7833
3	21:16:25	92.1%	-35.4837	-12.9258	7.4706	19.6967	1155.5874	152.3090	58.1964	-26.0683	99.3%	101.5%	247.6841	8845.9907
x		91.2%	-44.1205	-2.6904	3.7476	17.5131	801.2240	125.2119	56.7330	-36.1813	98.4%	99.9%	248.0114	8056.7008
σ		1.3%	14.5400	8.8662	3.7354	7.5405	946.0921	26.3196	25.1086	9.0138	1.0%	1.5%	24.0180	1960.7335
%RSD		1.5	32.9552	329.5509	99.6730	43.0565	118.0809	21.0201	44.2576	24.9128	1.0	1.5	9.6842	24.3367

QJ14028-BS1@LCS01 10/18/2016 21:19:57 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	21:19:57	87.3%	964.3963	78.0%	31.5361	9328.6970	4860.8007	3.5710	15203.7760	3213.7425	96.4621	382.7484	174.3365	-4.8796	-1081.6338	9400.2042	16107.1490	17578.1280	9949.4652	27222.7060
2	21:20:10	89.0%	957.3301	81.3%	-9.0646	9159.8250	4796.5720	27.8327	15072.8670	3311.2163	103.3669	400.8954	145.6648	2.2117	-2387.9997	9638.7986	16658.1200	17642.0540	10063.0070	26082.2590
3	21:20:23	88.5%	953.9046	81.2%	7.3120	9308.3506	4898.9283	7.5781	14785.6580	3170.2314	129.5526	366.0093	146.9072	8.9074	-1913.3283	9172.6903	16561.5390	17717.6020	10386.3290	27689.6520
x		88.3%	107.944%	80.2%	9.9278	97.012%	95.949%	12.9939	104.363%	104.387%	109.7938	99.811%	155.6361	2.0798	-1794.3206	9403.8977	16442.2690	17645.9280	10132.9340	26998.2060
σ		0.9%	n/a	1.9%	20.4264	n/a	n/a	13.0060	n/a	n/a	17.4564	n/a	16.2069	6.8944	661.2640	233.0761	294.2126	69.8179	226.6712	826.8788
%RSD		1.0	0.5581	2.4	205.7490	0.9949	1.0661	100.0930	1.4238	2.2339	15.8992	4.5530	10.4133	331.4942	36.8532	2.4785	1.7894	0.3957	2.2370	3.0627

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:19:57	93.5%	192.0307	11740.0070	213.1521	2534.4462	952.1688	79.9172	17151.7150	28864.7010	97.3%	100.2%	19898.4160	4949.7903
2	21:20:10	93.7%	213.2251	11506.6440	176.2310	2444.6208	-949.0379	39.2621	17038.4670	29237.3670	100.3%	101.5%	20702.9390	6768.7885
3	21:20:23	95.3%	274.3022	11571.8130	199.3295	2652.5210	1488.4537	53.9601	17402.6390	29362.6950	103.1%	104.0%	20925.1680	5911.4313
x		94.2%	226.5193	101.082%	196.2375	99.512%	497.1949	57.7131	103.184%	100.791%	100.2%	101.9%	100.309%	5876.6700
σ		1.0%	42.7165	n/a	18.6537	n/a	1280.8560	20.5858	n/a	n/a	2.9%	1.9%	n/a	909.9972
%RSD		1.0	18.8578	1.0375	9.5057	4.0989	257.6165	35.6691	1.0837	0.8885	2.9	1.9	2.6340	15.4849

6100163-01@MH1G77 10/18/2016 21:23:31

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	21:23:31	88.9%	63.9768	84.7%	2591.2613	8536.7548	1757.8063	-51.7274	9756.2557	1810.7723	66.3387	61.4783	55.5013	-5.1209	20140.2390	6180.2319	10197.0530	11312.2470	6666.4443	16722.6200
2	21:23:44	91.7%	65.0394	87.7%	2480.5176	8622.5696	1782.2908	-15.3855	9618.4941	1731.2027	49.1303	59.4372	35.0753	12.4111	20455.0650	6259.8489	10600.3170	11423.2260	6442.8149	16844.8500
3	21:23:57	91.5%	83.0807	88.6%	2564.2552	8882.1753	1856.1761	-71.6713	9826.5874	1779.6429	42.2898	59.6763	21.1451	12.5068	21329.4210	8663.6459	10497.4090	11350.6690	6762.6592	16729.6720
x		90.7%	70.6990	87.0%	2545.3447	8680.4999	1798.7578	-46.2614	9733.7791	1773.8726	52.5863	60.1972	37.2406	6.5990	20641.5750	7034.5756	10431.5930	11362.0480	6623.9728	16765.7140
σ		1.6%	10.7360	2.1%	57.7429	179.8493	51.2106	28.5382	105.8518	40.0974	12.3913	1.1158	17.2802	10.1499	616.1400	1411.3778	209.5335	56.3578	164.0974	68.6246
%RSD		1.7	15.1856	2.4	2.2686	2.0719	2.8470	61.6888	1.0875	2.2604	23.5638	1.8536	46.4015	153.8090	2.9849	20.0634	2.0086	0.4960	2.4773	0.4093

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:23:31	95.7%	103.6034	104524.7200	64.4504	887.7227	23933.7030	4825.4725	16176.8530	71372.4660	101.2%	102.9%	2985.7247	173161.2200
2	21:23:44	95.3%	117.3790	106310.7000	93.9058	844.6996	24188.0320	5000.0886	16398.3020	72735.4380	103.6%	105.4%	2905.1680	176729.1900
3	21:23:57	95.0%	71.6813	105352.0500	68.3252	931.1448	23343.8680	4870.8837	16250.1660	71135.5990	106.3%	107.6%	2708.3989	178524.1700
x		95.3%	97.5546	105395.8200	75.5604	887.8557	23821.8680	4898.8150	16275.1070	71747.8340	103.7%	105.3%	2866.4306	176138.2000
σ		0.4%	23.4416	893.7920	16.0052	43.2227	433.0516	90.5970	112.8113	863.4509	2.5%	2.3%	142.6634	2729.8838
%RSD		0.4	24.0293	0.8480	21.1820	4.8682	1.8179	1.8494	0.6932	1.2035	2.4	2.2	4.9770	1.5499

6100163-02@MH1G78 10/18/2016 21:26:34

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	98Mo
1	21:26:34	92.9%	101.9277	91.4%	3332.0479	19520.6010	3672.7429	-25.6117	20977.1100	3701.9945	41.1924	84.2503	20.6410	8.4059	29077.4270	7545.4638	12366.2520	13984.4870	7854.0398	20148.1700
2	21:26:47	93.7%	78.4572	93.0%	3507.6477	19791.9940	3784.9614	17.6022	21722.1890	3818.9665	34.9081	59.0185	31.1283	-1.6645	28396.6500	7563.7280	12711.7080	13785.2020	7932.4222	20246.9140
3	21:27:00	94.7%	31.8050	93.1%	3498.3078	19431.3560	3684.3689	-11.9584	21195.4100	3819.8860	27.2388	83.4772	20.4294	4.8128	30999.9880	7760.4631	13231.2430	14060.4540	7885.0367	20334.8360
x		93.8%	70.7300	92.5%	3446.0011	19581.3170	3714.0244	-6.6560	21298.2360	3780.2823	34.4464	75.5820	24.0662	3.8514	29491.3550	7623.2183	12769.7340	13943.3810	7890.4996	20243.3060
σ		0.9%	35.6942	0.9%	98.7968	187.8290	61.7076	22.0895	383.0349	67.8008	6.9882	14.3497	6.1169	5.1036	1350.1276	119.2078	435.4054	142.1555	39.4757	93.3853
%RSD		1.0	50.4655	1.0	2.8670	0.9592	1.6615	331.8749	1.7984	1.7935	20.2872	18.9855	25.4168	132.5116	4.5780	1.5637	3.4097	1.0195	0.5003	0.4613

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:26:34	97.3%	143.1608	243751.3500	57.3312	747.8255	22035.0780	5125.6809	34368.4010	144320.7200	105.8%	105.4%	6550.3746	380999.2400
2	21:26:47	95.9%	118.9871	246379.7100	76.4436	597.6666	25613.3130	5452.0725	34841.0690	147466.8600	107.1%	109.2%	6962.1623	378713.2600
3	21:27:00	98.1%	98.6730	247397.6900	58.9100	656.0888	23604.3870	5478.3038	34856.5340	146932.5800	110.2%	110.0%	7018.8283	385743.2600
x		97.1%	120.2737	245842.9200	64.2283	667.1936	23750.9260	5352.0191	34688.6680	146240.0500	107.7%	108.2%	6843.7884	381818.5900
σ		1.1%	22.2718	1881.5072	10.6082	75.6929	1793.6127	196.4529	277.4671	1683.5196	2.3%	2.5%	255.6785	3585.9056
%RSD		1.2	18.5176	0.7653	16.5164	11.3450	7.5518	3.6706	0.7999	1.1512	2.1	2.3	3.7359	0.9392

6100163-03@MH1G79 10/18/2016 21:29:35

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	98Mo
1	21:29:35	87.2%	43.8828	85.3%	34927.3290	13819.1890	6955.5872	20.4524	17013.0130	2054.1384	47.6782	69.2744	50.1269	-15.5726	3838.8803	9045.3259	13472.1460	15133.7350	8316.2964	21391.4590
2	21:29:49	86.0%	31.4150	86.7%	34574.4530	13833.5840	6882.1335	-17.7436	17507.6770	2052.0800	23.8778	84.0896	42.3820	7.7563	5403.1729	9293.7527	13796.1930	15524.3950	8163.0220	21156.7150
3	21:30:02	87.2%	35.2227	86.7%	35207.6890	13505.9120	6774.0078	-4.4117	17285.4940	2055.0155	27.1277	66.9146	33.8055	-0.3391	6372.9183	9174.2056	13445.1550	15796.4340	8283.1777	21578.1520
x		86.8%	36.8402	86.2%	34903.1600	13719.5620	6870.5762	-0.5677	17268.7280	2053.7446	32.8946	73.4262	42.1048	-2.7185	5204.9905	9171.0947	13571.1650	15484.8550	8254.1654	21375.4420
σ		0.7%	6.3893	0.8%	317.3143	185.1660	91.3397	19.3860	247.7580	1.5069	12.9057	9.3098	8.1642	11.8450	1278.5908	124.2426	195.3466	333.1142	80.6508	211.1747
%RSD		0.8	17.3434	0.9	0.9091	1.3496	1.3294	3415.0772	1.4347	0.0734	39.2336	12.6792	19.3903	435.7246	24.5647	1.3547	1.4394	2.1512	0.9771	0.9879

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:29:35	84.9%	91.7413	42300.2720	81.9833	1482.2140	78819.7730	6276.8606	17625.5110	71539.9960	101.4%	103.1%	1719.0910	77841.6070
2	21:29:49	85.7%	134.4733	42292.5110	133.6659	1455.5557	78330.3290	6333.8220	16691.8490	71027.4250	102.5%	105.6%	1681.1940	73389.9000
3	21:30:02	87.5%	149.0771	41900.8350	118.3296	1529.4289	79683.4280	6260.6720	17087.4970	70246.7500	104.6%	106.9%	1571.7519	73550.5920
x		86.1%	125.0972	42164.5390	111.3263	1489.0662	78944.5100	6290.4515	17134.9520	70938.0570	102.9%	105.2%	1657.3456	74927.3660
σ		1.3%	29.7957	228.4079	26.5435	37.4103	685.1195	38.4222	468.6361	651.2382	1.6%	1.9%	76.5099	2525.0850
%RSD		1.5	23.8180	0.5417	23.8430	2.5123	0.8678	0.6108	2.7350	0.9180	1.6	1.8	4.6164	3.3700

6100163-04@MH1G80 10/18/2016 21:33:22

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	21:33:22	90.1%	182.1280	89.7%	32637.2950	25452.2820	7631.0429	-13.7737	52709.4460	7852.0974	60.2845	68.4184	6.9927	5.6353	56234.3650	8908.5630	14701.8590	16731.2840	9341.3901	23822.7840
2	21:33:35	91.0%	220.2960	90.8%	32060.7820	25495.9800	7680.9717	-19.2605	54624.7570	7953.4443	60.2540	54.2486	-3.1135	30.3558	60897.5760	8946.7288	15209.5000	16284.2670	9578.8755	24541.1760
3	21:33:49	92.2%	177.1560	92.1%	32957.5410	25680.0450	7841.5114	-8.9711	55136.2280	7510.6534	60.6534	61.7657	24.9335	12.8685	61410.6270	9168.8430	15640.8560	16828.7220	9597.2212	24361.2610
x		91.1%	193.1933	90.9%	32551.8730	25542.7690	7717.8420	-14.0018	54156.8100	7772.0650	60.3973	61.4776	9.6042	16.2865	59514.1890	9008.0449	15184.0720	16614.7570	9505.8290	24241.7400
σ		1.1%	23.6029	1.2%	454.4411	120.8753	109.9719	5.1485	1279.2765	231.9910	0.2223	7.0893	14.2047	12.7098	2851.9711	140.5566	470.0144	290.3302	142.7033	373.8125
%RSD		1.2	12.2172	1.3	1.3961	0.4732	1.4249	36.7703	2.3622	2.9849	0.3680	11.5315	147.9008	78.0385	4.7921	1.5603	3.0954	1.7474	1.5012	1.5420

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:33:22	94.3%	223.3832	27716.4780	126.7809	1755.6896	61690.1010	6178.7021	20437.2380	66862.8330	104.4%	105.6%	2607.4727	131664.7700
2	21:33:35	94.4%	216.1084	27230.9530	154.4531	1906.3353	69293.4770	6505.0556	21404.0100	67999.2960	107.4%	107.7%	2691.8368	134826.7700
3	21:33:49	93.8%	240.1996	27987.8530	138.7682	1704.1988	68904.8140	6643.7780	21529.1790	68998.1350	109.4%	110.6%	2797.1094	134824.1000
x		94.1%	226.5638	27645.0940	140.0007	1788.7412	66629.4640	6442.5119	21123.4760	67953.4210	107.1%	108.0%	2698.8063	133771.8800
σ		0.3%	12.3565	383.4658	13.8772	105.0433	4282.0256	238.7628	597.5856	1068.3897	2.5%	2.5%	95.0102	1824.8061
%RSD		0.3	5.4539	1.3871	9.9123	5.8725	6.4266	3.7061	2.8290	1.5722	2.4	2.3	3.5205	1.3641

QJ14028-MS1@MH1G80S 10/18/2016 21:37:24 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	21:37:24	93.7%	3779.3923	90.2%	26595.9890	103853.3600	50990.4520	487.8330	699242.6500	133857.5500	260.8110	715.0278	362.6328	2.0372	63043.6470.	191205.7000	335025.1100	359872.1700	208065.6900
2	21:37:37	92.5%	4082.0088	92.1%	26711.6290	104146.6500	51243.4260	544.0344	704752.6600	133719.1200	279.6855	725.3592	311.3197	9.1918	64649.4390	193840.6100	342197.6000	369145.8500	212053.9000
3	21:37:50	93.3%	3887.5624	93.2%	27331.9860	106612.7200	52060.7840	455.0966	709639.7200	133750.5200	239.7435	686.5696	289.5870	13.0251	65958.1400	195723.7200	339887.1000	370777.3400	213649.5400
x		93.2%	83.854%	91.8%	26879.8680	83.057%	86.442%	495.6547	90.377%	81.400%	260.0800	843.230%	321.1798	8.0847	64550.4090	193590.0100	339036.6000	366598.4500	211256.3800
σ		0.6%	n/a	1.5%	395.7920	n/a	n/a	44.9818	n/a	n/a	19.9810	n/a	37.5078	5.5770	1459.7682	2269.4109	3661.1044	5881.9706	2876.0910
%RSD		0.7	3.9155	1.7	1.4724	1.4452	1.0877	9.0752	0.7383	0.0543	7.6826	2.8334	11.6781	68.9818	2.2614	1.1723	1.0799	1.6045	1.3614

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:37:24	94.6%	1384.6575	97728.1520	1068.6285	14911.7390	96030.9140	6593.0600	65269.8320	724766.9800	105.3%	107.1%	93692.8750	152322.5500
2	21:37:37	94.2%	1496.0971	97181.8440	1050.5743	15127.9520	99775.5300	6861.5115	65909.3380	730365.5300	109.4%	110.0%	95974.0950	155260.2300
3	21:37:50	93.2%	1360.4918	98411.9750	1206.5977	15493.2500	101435.4600	6505.8468	65457.5180	728967.6500	110.9%	112.4%	94921.1210	154906.3900
x		94.0%	1413.7488	122.156%	1108.6002	104.750%	99080.6360	6653.4728	53.306%	114.098%	108.5%	109.8%	90.155%	154163.0500
σ		0.7%	72.3321	n/a	85.3471	n/a	2768.4737	185.3689	n/a	n/a	2.9%	2.7%	n/a	1603.7151
%RSD		0.8	5.1163	0.6304	7.6986	1.9366	2.7942	2.7860	0.5015	0.4002	2.7	2.4	1.2036	1.0403

QJ14028-DUP1@MH1G80D 10/18/2016 21:41:26

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	21:41:26	93.3%	198.9059	92.1%	31218.4510	27223.8600	9716.6892	50.6358	52323.6910	8153.0978	55.6172	84.2705	41.5983	5.2355	66035.7610	10980.1240	17582.8820	19821.8860	11068.5330	29754.2580
2	21:41:40	95.1%	193.5501	94.4%	30794.1700	27148.9620	9489.2053	48.5814	52149.4690	8163.6047	61.6849	64.7689	7.1406	18.6506	63288.2320	10869.0830	17991.0120	19799.8960	11226.1080	28881.5590
3	21:41:53	94.8%	238.3828	94.8%	31398.7070	27592.6350	9738.2342	1.1695	53095.8010	8071.1334	86.9856	86.7506	52.2262	12.2196	67121.1730	10977.3210	17951.1080	19937.2120	11581.5940	29641.2150
x		94.4%	210.2796	93.8%	31137.1090	27321.8190	9648.0429	33.4622	52522.9870	8129.2786	68.0959	78.5967	33.6550	12.0352	65481.7220	10942.1760	17841.6680	19852.9980	11292.0780	29425.6770
σ		1.0%	24.4850	1.5%	310.3685	237.5047	137.9786	27.9852	503.6617	50.6285	16.6379	12.0393	23.5690	6.7094	1975.6207	63.3155	225.0012	73.7555	262.8151	474.5980
%RSD		1.0	11.6440	1.6	0.9968	0.8693	1.4301	83.6321	0.9589	0.6228	24.4331	15.3178	70.0311	55.7483	3.0171	0.5786	1.2611	0.3715	2.3274	1.6129

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:41:26	96.1%	201.1531	35825.9070	117.0565	1702.2633	88554.0600	8852.5732	27236.6440	78706.3840	106.8%	106.4%	3248.2335	201168.3400
2	21:41:40	97.4%	205.3765	35503.7450	91.2448	1557.3525	89747.9700	8691.5136	26460.1830	79547.6970	109.7%	109.7%	3279.6144	203385.3700
3	21:41:53	96.0%	271.2911	36318.3460	112.4000	1693.5583	87837.5350	8730.6604	27541.6030	79820.1620	112.4%	113.0%	3184.7342	201273.4000
x		96.5%	225.9402	35882.6660	106.9004	1651.0580	88713.1880	8758.2491	27079.4770	79358.0810	109.7%	109.7%	3237.5274	201942.3700
σ		0.8%	39.3317	410.2557	13.7567	81.2680	965.1073	83.9994	557.5778	580.5954	2.8%	3.3%	48.3376	1250.7785
%RSD		0.8	17.4080	1.1433	12.8687	4.9222	1.0879	0.9591	2.0590	0.7316	2.6	3.0	1.4930	0.6194

SEQ-SRD1@MH1G80L@5X 10/18/2016 21:45:28

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	21:45:28	94.3%	38.5617	87.6%	7181.0601	5240.5559	1407.9184	-108.6256	11932.1340	1776.9044	10.3204	14.5204	17.1033	4.9168	11591.3830	2100.6074	3212.3917	3617.2661	1944.0983	5358.1805
2	21:45:42	94.7%	48.2177	90.0%	7416.5802	5120.6818	1392.9380	-118.7237	11706.8280	1911.6270	3.3835	6.2844	6.5296	-8.8499	12688.8400	2039.9604	3110.1827	3629.0821	2174.4056	5340.3558
3	21:45:55	95.6%	33.4374	90.0%	7204.1863	5470.0552	1437.8983	-147.4653	12171.4200	1633.4799	17.0226	13.2332	26.9251	-8.7853	14942.5350	2102.0055	3328.7870	3765.8676	2059.2860	5538.4327
x		94.9%	40.0723	89.2%	7267.2755	5277.0976	1412.9182	-124.9382	11936.7940	1774.0038	10.2422	11.3460	16.8527	-4.2395	13074.2530	2080.8578	3217.1205	3670.7386	2059.2633	5412.3230
σ		0.6%	7.5051	1.4%	129.8176	177.5300	22.8934	20.1518	232.3313	139.0962	6.8199	4.4304	10.2000	7.9297	1708.4972	35.4251	109.3789	82.5957	115.1536	109.5772
%RSD		0.7	18.7289	1.6	1.7863	3.3642	1.6203	16.1294	1.9463	7.8408	66.5868	39.0485	60.5248	187.0443	13.0676	1.7024	3.3999	2.2501	5.5920	2.0246

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:45:28	97.6%	12.8742	6016.2974	24.3669	349.2185	15242.0790	1439.2153	4538.9200	14931.2350	103.6%	105.3%	752.5027	31815.6870
2	21:45:42	99.2%	80.4794	5839.7416	33.9497	380.9649	17758.9220	1470.7240	4501.8822	15059.4310	106.0%	107.7%	683.6459	32161.3480
3	21:45:55	98.2%	47.3819	6358.7129	30.1538	388.7914	17596.7680	1715.5447	4729.5963	15073.5610	108.9%	110.6%	756.3999	32021.0180
x		98.3%	46.9118	6071.5840	29.4901	372.9916	16865.9230	1541.8280	4590.1328	15021.4090	106.2%	107.9%	730.8495	31999.3510
σ		0.8%	33.8051	263.8660	4.8258	20.9567	1408.6251	151.2657	122.1904	78.4122	2.6%	2.7%	40.9259	173.8464
%RSD		0.8	72.0609	4.3459	16.3640	5.6185	8.3519	9.8108	2.6620	0.5220	2.5	2.5	5.5998	0.5433

6100163-05@MH1G81 10/18/2016 21:49:31

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	21:49:31	87.5%	54.0618	87.2%	42953.8340	20203.7860	8365.8441	101.6063	148612.0100	1976.7215	53.1435	125.0367	18.9997	29.6135	5445.5738	16885.7630	24170.6700	28059.4000	15092.7630	39101.53
2	21:49:44	89.2%	30.5463	88.3%	44323.1870	20400.2720	8527.0927	-23.9675	150564.1800	2238.1218	41.3629	103.7169	81.4863	-4.3971	8577.4691	17446.2300	25075.3800	28324.2440	15378.1830	39570.50
3	21:49:57	88.0%	44.1756	90.5%	43415.1230	20347.6350	8552.4204	36.9591	150034.5600	2006.3888	37.6032	112.3054	77.8470	3.0376	6395.4773	17833.7330	24521.0880	29048.0930	15210.5180	39547.46
x		88.2%	42.9279	88.7%	43564.0480	20317.2310	8481.7857	38.1993	149736.9200	2073.7441	44.0365	113.6863	59.4443	9.4180	6806.1734	17388.5750	24589.0460	28477.2460	15227.1550	39406.50
σ		0.9%	11.8073	1.7%	696.7182	101.7104	101.2038	62.7961	1009.5477	143.1261	8.1078	10.7268	35.0733	17.8805	1605.8317	476.6075	456.1675	511.7962	143.4354	264.36
%RSD		1.0	27.5050	1.9	1.5993	0.5006	1.1932	164.3905	0.6742	6.9018	18.4115	9.4354	59.0020	189.8543	23.5938	2.7409	1.8552	1.7972	0.9420	0.67

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:49:31	88.5%	299.7521	52912.3290	196.4923	2302.3824	108952.7000	12047.8600	24239.6210	96367.1210	98.9%	101.0%	5068.8830	129287.6300
2	21:49:44	89.5%	256.2726	53986.3860	206.7755	2246.6773	112078.7900	12114.5670	24397.4040	96232.8640	101.4%	104.0%	4903.6259	127685.4800
3	21:49:57	89.6%	236.9122	53953.0210	133.5980	2312.0364	115785.7300	12078.5050	24311.9760	96179.0690	103.6%	104.9%	5288.8369	132468.9300
x		89.2%	264.3123	53617.2450	178.9552	2287.0320	112272.4100	12080.3100	24316.3330	96259.6850	101.3%	103.3%	5087.1153	129814.0100
σ		0.6%	32.1822	610.7032	39.6156	35.2800	3420.6264	33.3900	78.9820	96.8524	2.3%	2.0%	193.2516	2434.7832
%RSD		0.6	12.1758	1.1390	22.1372	1.5426	3.0467	0.2764	0.3248	0.1006	2.3	2.0	3.7988	1.8756

6100163-06@MH1G82 10/18/2016 21:53:34

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	98Mo
1	21:53:34	83.9%	132.5152	79.2%	44844.7960	15388.6580	6678.2577	-19.5561	48612.9690	7919.0514	32.8948	52.2834	25.0641	-1.0790	53710.6070	3536.2607	4555.6242	5216.1496	2914.0119	7063.1509
2	21:53:47	85.8%	167.4686	82.3%	44646.4530	14946.1870	6427.1601	-1.7283	48441.1690	8476.5335	28.2024	45.5519	10.6740	15.9691	56389.6390	3440.1394	4413.2707	5289.6220	2871.1935	7791.0593
3	21:54:00	87.4%	131.1583	84.5%	44117.6740	14992.9090	6551.6409	58.7512	48162.3680	7816.3875	18.1055	64.5346	21.6194	20.1687	56503.6090	3600.0295	4732.1032	5340.8657	2668.2484	7496.4126
x		85.7%	143.7207	82.0%	44536.3080	15109.2510	6552.3529	12.4889	48405.5020	8070.6575	26.4009	54.1233	19.1191	11.6863	55534.6180	3525.4765	4566.9994	5282.2124	2817.8179	7450.2076
σ		1.8%	20.5948	2.7%	375.8665	243.0982	125.5503	41.0440	227.4077	355.2274	7.5574	9.6242	7.5138	11.2527	1580.6679	80.4887	159.7203	62.6873	131.2884	366.1473
%RSD		2.1	14.3297	3.2	0.8440	1.6089	1.9161	328.6424	0.4698	4.4015	28.6256	17.7820	39.3000	96.2899	2.8463	2.2831	3.4973	1.1868	4.6592	4.9146

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:53:34	92.0%	624.2658	20474.7550	416.0671	6199.0006	27704.2270	4020.3155	8067.2327	180639.5900	100.5%	102.0%	2445.8812	77470.7430
2	21:53:47	95.1%	573.0462	20686.4940	439.2532	5958.3606	27355.2470	4193.3686	8196.1780	181178.2700	104.7%	106.7%	2577.3438	76682.4220
3	21:54:00	93.3%	584.7262	20706.5040	409.7973	6473.6531	28411.2900	3987.5637	8206.9277	181076.7900	107.8%	109.7%	2510.7144	75565.6880
x		93.5%	594.0127	20622.5840	421.7059	6210.3381	27823.5880	4067.0826	8156.7795	180964.8800	104.4%	106.1%	2511.3131	76572.9510
σ		1.6%	26.8429	128.4141	15.5164	257.8333	538.0449	110.5861	77.7358	286.2499	3.7%	3.9%	65.7333	957.2340
%RSD		1.7	4.5189	0.6227	3.6794	4.1517	1.9338	2.7191	0.9530	0.1582	3.5	3.6	2.6175	1.2501

6100163-07@MH1G83 10/18/2016 21:57:37

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	98
1	21:57:37	92.4%	703.1205	92.9%	40800.0920	20328.3860	8529.5696	67.4046	494494.4000	37189.2570	137.2149	91.3792	49.6275	30.1073	145469.3100	7030.3555	11551.3600	12724.4770	6975.8701	18450.9
2	21:57:50	92.3%	682.9593	95.1%	41584.2200	20596.6230	8557.3319	20.6617	496700.0200	38010.4720	149.1153	115.9321	25.7957	58.8817	151766.9500	7317.1161	12188.1020	13239.2880	6927.9288	18554.2
3	21:58:03	93.1%	821.2481	96.9%	42012.4380	20712.9940	8432.5195	-42.4328	500072.7700	37286.4290	160.4564	114.9380	66.3215	12.3073	150550.5300	7568.0364	11955.6500	12754.0430	6818.9884	18904.2
x		92.6%	735.7760	94.9%	41465.5830	20546.0010	8506.4737	15.2112	497089.0700	37495.3860	148.9289	107.4164	47.2482	33.7654	149262.2600	7305.1694	11898.3710	12905.9360	6907.5958	18636.4
σ		0.4%	74.7043	2.0%	614.8185	197.2376	65.5332	55.1212	2809.4627	448.7160	11.6219	13.8975	20.3674	23.5017	3340.6264	269.0394	322.2122	289.0694	80.3930	237.5
%RSD		0.5	10.1531	2.1	1.4827	0.9600	0.7704	362.3729	0.5652	1.1967	7.8036	12.9380	43.1073	69.6028	2.2381	3.6829	2.7080	2.2398	1.1638	1.2

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	21:57:37	94.9%	8598.0536	33113.5100	6132.1943	93527.9050	79818.8870	1459.4714	8276.9380	187419.5900	111.6%	111.5%	17267.8290	19369.0380
2	21:57:50	94.0%	8502.9421	33367.9760	6117.9877	94273.3950	76969.4640	1390.7116	8234.7625	189536.8900	115.4%	115.1%	16986.8230	19545.2330
3	21:58:03	95.6%	8582.4864	33583.6890	6434.1808	96173.0330	80491.8440	1551.0550	8490.3662	189936.8400	116.2%	115.4%	17559.5500	19259.5140
x		94.8%	8561.1607	33355.0580	6228.1209	94658.1110	79093.3990	1467.0793	8334.0222	188964.4400	114.4%	114.0%	17271.4010	19391.2620
σ		0.8%	51.0160	235.3559	178.5944	1363.8843	1869.9039	80.4420	137.0301	1352.7446	2.5%	2.2%	286.3798	144.1497
%RSD		0.9	0.5959	0.7056	2.8675	1.4409	2.3642	5.4831	1.6442	0.7159	2.1	1.9	1.6581	0.7434

6100163-08@MH1G84 10/18/2016 22:01:40

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	98M
1	22:01:40	91.5%	1012.9040	93.4%	51474.4790	24647.7420	10821.9890	80.1440	370706.0700	37736.0660	187.9711	177.3718	49.0850	66.4171	290408.5800	7230.9118	8726.8561	10005.8900	5221.5929	13210.21
2	22:01:53	92.7%	943.6997	95.0%	52290.4140	25212.8980	11016.2910	90.1695	376219.5400	39213.2250	189.6135	180.1333	79.7324	29.2197	298428.1800	7470.2586	8719.2669	9674.1935	5330.3591	13653.22
3	22:02:06	94.3%	945.2889	97.6%	52499.3250	24983.3170	10943.5090	47.8425	377909.6500	39227.8500	201.7315	150.1161	31.6069	45.9482	298921.6400	7282.4751	8967.3098	10038.4880	5462.3125	13729.39
x		92.9%	967.2975	95.3%	52088.0730	24947.9860	10927.2630	72.7187	374945.0900	38725.7140	193.1053	169.2071	53.4748	47.1950	295919.4700	7327.8818	8804.4776	9906.1905	5338.0881	13530.94
σ		1.4%	39.5043	2.1%	541.5571	284.2300	98.1643	22.1189	3767.1030	857.0911	7.5155	16.5908	24.3612	18.6300	4778.9439	125.9685	141.0679	201.5753	120.5458	280.36
%RSD		1.5	4.0840	2.2	1.0397	1.1393	0.8983	30.4171	1.0047	2.2132	3.8919	9.8050	45.5564	39.4746	1.6149	1.7190	1.6022	2.0348	2.2582	2.07

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:01:40	97.6%	8411.9565	25678.4850	5964.1435	91379.3010	19172.7870	1536.0304	6893.1023	256732.8200	118.0%	116.2%	13977.5000	34375.4560
2	22:01:53	96.7%	8649.6530	25208.2520	5984.9897	91351.6680	20024.1860	1518.0872	7218.4835	258848.1300	122.5%	121.4%	13675.7890	34033.8270
3	22:02:06	97.5%	8533.8428	26009.9080	6236.6693	92596.9980	24913.8950	1423.3204	7140.9189	263849.4200	124.7%	123.0%	14225.1950	34392.4100
x		97.3%	8531.8174	25632.2150	6061.9342	91775.9890	21370.2890	1492.4793	7084.1682	259810.1200	121.7%	120.2%	13959.4940	34267.2310
σ		0.5%	118.8612	402.8261	151.6836	711.1493	3098.2377	60.5616	169.9521	3654.5267	3.4%	3.5%	275.1452	202.3119
%RSD		0.5	1.3932	1.5716	2.5022	0.7749	14.4979	4.0578	2.3990	1.4066	2.8	2.9	1.9710	0.5904

6100163-09@MH1G85 10/18/2016 22:05:43

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	22:05:43	97.6%	854.4349	102.8%	22389.3910	26022.2840	10384.1410	16.4218	148554.4500	22494.6600	133.9341	154.4188	48.5575	25.9284	350582.9700	4869.9888	7650.1264	8606.5584	4396.5695	11614.9230
2	22:05:56	98.7%	991.3068	105.7%	21873.3690	26291.4450	10615.6820	18.9863	150179.4900	22793.1920	167.1161	165.2933	93.7288	16.5885	359070.3600	5012.5185	7695.0560	8843.2677	4630.4013	12235.2400
3	22:06:09	99.3%	993.6643	107.4%	23150.6230	26159.6490	10337.0930	45.5317	150525.6200	23002.9740	112.1720	160.6060	74.9078	48.6001	361965.3600	4750.9126	7653.0839	8378.4741	4755.2560	12225.8840
x		98.5%	946.4687	105.3%	22471.1280	26157.7930	10445.6380	26.9800	149753.1900	22763.6090	137.7407	160.1061	72.3980	30.3724	357206.2300	4877.8066	7666.0888	8609.4334	4594.0756	12025.3490
σ		0.8%	79.7123	2.4%	642.5376	134.5901	149.1289	16.1174	1052.4644	255.4453	27.6691	5.4545	22.6900	16.4620	5915.7349	130.9781	25.1299	232.4102	182.0815	355.4702
%RSD		0.9	8.4221	2.2	2.8594	0.5145	1.4277	59.7384	0.7028	1.1222	20.0878	3.4068	31.3406	54.2005	1.6561	2.6852	0.3278	2.6995	3.9634	2.9560

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:05:43	104.4%	2097.7986	17520.3740	1306.1702	19846.9330	16752.4220	987.6314	9903.8861	163624.1800	121.4%	120.5%	3656.2015	20344.7950
2	22:05:56	103.6%	2015.2009	17757.2030	1278.0568	19665.7750	19538.2920	1006.9084	10075.4830	163899.3000	123.9%	124.4%	3694.7708	18577.1620
3	22:06:09	103.9%	2110.1681	17539.5790	1427.3874	19932.0660	17090.7240	1029.1576	10037.0030	166137.8700	126.1%	126.1%	3771.7184	20575.6520
x		104.0%	2074.3892	17605.7190	1337.2048	19814.9250	17793.8130	1007.8991	10005.4570	164553.7800	123.8%	123.7%	3707.5636	19832.5360
σ		0.4%	51.6303	131.5404	79.3553	136.0002	1520.2034	20.7808	90.0429	1378.7377	2.4%	2.8%	58.8114	1093.2966
%RSD		0.4	2.4889	0.7471	5.9344	0.6864	8.5434	2.0618	0.8999	0.8379	1.9	2.3	1.5863	5.5126

6100163-10@MH1G86 10/18/2016 22:09:46

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	22:09:46	100.2%	342.7532	107.2%	42939.2460	24933.5070	11255.7340	48.4393	113582.8600	11873.1890	50.2721	56.7547	16.2159	12.8099	130002.9000	9050.5952	14106.5280	15381.2210	8901.6993	22602.5200
2	22:09:59	100.4%	339.4223	111.1%	42528.1040	25336.9910	11503.0230	42.6463	113291.6700	11342.7030	76.2346	57.3807	35.6273	22.6228	129953.2300	8985.5223	14349.4220	15462.7590	9146.1559	22488.9750
3	22:10:12	101.9%	353.3258	111.4%	43547.8790	24678.8060	11132.8710	53.5601	115170.9800	11750.5010	86.4978	71.0538	52.9708	3.0143	133894.6400	8963.5425	14295.6030	16048.6490	8770.9675	23465.6380
x		100.8%	345.1671	109.9%	43005.0760	24983.1010	11297.2090	48.2153	114015.1700	11655.4640	71.0015	61.7297	34.9380	12.8156	129950.2600	8999.8867	14250.5180	15630.8760	8939.6076	22852.3780
σ		0.9%	7.2593	2.3%	513.0650	331.8836	188.5290	5.4604	1011.4935	277.7191	18.6712	8.0809	18.3871	9.8042	3970.9701	45.2691	127.5693	364.0912	190.4452	534.1248
%RSD		0.9	2.1031	2.1	1.1930	1.3284	1.6688	11.3250	0.8872	2.3827	26.2969	13.0908	52.6278	76.5021	3.0558	0.5030	0.8952	2.3293	2.1304	2.3373

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:09:46	105.7%	263.2316	10367.7330	77.8008	1134.4662	-1090.7792	1679.1357	2314.8096	129582.5500	115.0%	115.8%	3187.5791	11876.5000
2	22:09:59	104.7%	253.9843	10443.6650	80.6906	1123.3967	-4676.4996	1716.4444	2298.1662	127681.4800	119.7%	119.2%	3175.8718	13208.2990
3	22:10:12	107.6%	278.4230	10336.9820	91.2406	1219.0349	-1482.8224	1694.1900	2582.9161	129746.8800	121.8%	122.4%	3347.5643	12031.3740
x		106.0%	265.2130	10382.7940	83.2440	1158.9659	-2416.7004	1696.5900	2398.6306	129003.6400	118.8%	119.1%	3237.0051	12372.0580
σ		1.5%	12.3393	54.9129	7.0744	52.3148	1966.8360	18.7698	159.8127	1147.9644	3.5%	3.3%	95.9259	728.3345
%RSD		1.4	4.6526	0.5289	8.4983	4.5139	81.3852	1.1063	6.6627	0.8899	2.9	2.8	2.9634	5.8869

6100163-11@MH1G87 10/18/2016 22:13:49

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	98Mo
1	22:13:49	100.5%	591.7212	107.7%	16778.8650	21530.5930	7671.9763	-7.5713	119139.8600	16551.1860	88.9132	73.2472	41.9072	19.4196	178674.1400	3111.9882	4398.4271	5116.8944	2804.6492	7015.8554
2	22:14:02	99.8%	567.3859	107.7%	16640.1550	21321.8850	7611.2799	18.2004	121675.4900	16642.0560	101.3661	106.8747	38.6971	22.5019	183712.9900	3296.8449	4333.0001	5217.3195	2866.9734	7273.4426
3	22:14:15	102.6%	532.5567	110.2%	16948.8250	20988.9090	7425.1924	34.5579	120139.9100	16990.9130	100.2785	80.5356	51.2005	37.8061	186859.5500	3426.3708	4444.8520	5288.2434	2904.6642	7453.4228
x		101.0%	563.8879	108.5%	16789.2820	21280.4620	7569.4829	15.0623	120318.4200	16728.0520	96.8526	86.8858	43.9349	26.5759	183082.2300	3278.4013	4392.0931	5207.4858	2858.7623	7247.5736
σ		1.5%	29.7370	1.5%	154.5987	273.2074	128.5917	21.2392	1277.2060	232.1341	6.8972	17.6903	6.4936	9.8470	4128.9970	158.0007	56.1943	86.0967	50.5105	219.9277
%RSD		1.5	5.2736	1.4	0.9208	1.2838	1.6988	141.0087	1.0615	1.3877	7.1213	20.3604	14.7802	37.0523	2.2553	4.8194	1.2794	1.6533	1.7669	3.0345

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:13:49	104.8%	1184.7541	12600.7690	647.2226	10326.8940	12626.8190	627.2160	4498.0535	77973.6590	117.3%	118.2%	2117.3224	14644.3190
2	22:14:02	105.1%	1140.2368	12946.5010	764.4115	10260.1730	17701.5110	816.1703	4646.9357	77099.5810	121.1%	120.4%	2097.6880	16005.0490
3	22:14:15	106.2%	1038.2643	12936.7520	678.4645	10247.2980	15679.5250	815.1029	4629.0812	78782.7180	123.0%	121.5%	2224.6858	17301.6580
x		105.3%	1121.0851	12828.0070	696.6996	10278.1220	15335.9510	752.8297	4591.3568	77951.9860	120.5%	120.0%	2146.5654	15983.6750
σ		0.7%	75.0993	196.8542	60.6852	42.7259	2554.7323	108.7860	81.2947	841.7782	2.9%	1.7%	68.3628	1328.7984
%RSD		0.7	6.6988	1.5346	8.7104	0.4157	16.6585	14.4503	1.7706	1.0799	2.4	1.4	3.1848	8.3135

6100163-12@MH1G88 10/18/2016 22:17:52

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	22:17:52	98.8%	573.2595	103.2%	40713.2350	23507.7460	9502.2345	47.2928	192094.1800	15616.2150	99.5093	94.4690	64.6144	10.1394	153109.1400	5443.7236	6912.5476	8143.0903	4616.1264	11282.1690
2	22:18:04	98.8%	449.2130	104.2%	40535.5000	23675.8020	9480.1213	-6.9396	192857.2800	14927.9410	108.4513	89.5568	10.3162	29.1435	156737.9700	5297.2710	7580.8726	8008.0439	4251.8962	11185.8430
3	22:18:17	98.7%	487.3419	106.9%	40759.5300	23554.7130	9589.7350	24.4952	189662.6200	15202.2830	64.3571	99.0816	58.2226	3.7692	155522.8500	5342.5482	7018.9319	7901.4868	4358.8154	11443.8950
x		98.8%	503.2715	104.8%	40669.4220	23579.4200	9524.0303	21.6161	191538.0300	15248.8130	90.7726	94.3691	44.3844	14.3507	155123.3200	5361.1809	7170.7840	8017.5403	4408.9460	11303.9690
σ		0.1%	63.5390	1.9%	118.2665	86.7098	57.9662	27.2306	1668.3640	346.4883	23.3093	4.7632	29.6765	13.2009	1847.1111	74.9832	359.1084	121.0814	187.2184	130.4001
%RSD		0.1	12.6252	1.8	0.2908	0.3677	0.6086	125.9735	0.8710	2.2722	25.6788	5.0474	66.8625	91.9881	1.1907	1.3986	5.0079	1.5102	4.2463	1.1536

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:17:52	103.7%	1161.9728	13596.0140	829.5329	11027.2630	25124.1290	2181.5389	5413.9910	122240.1700	115.6%	115.6%	4827.9491	27208.8820
2	22:18:04	104.4%	1168.3858	14159.9000	784.5412	11204.3700	25718.7760	2306.3664	5492.0377	124025.2700	118.7%	117.5%	5116.5805	28764.6460
3	22:18:17	103.4%	1100.0738	13639.4570	776.2428	11630.4320	27272.2740	2263.8519	5483.3755	125752.7300	121.8%	121.6%	5139.7277	27782.1360
x		103.8%	1143.4775	13798.4570	796.7723	11287.3550	26038.3930	2250.5858	5463.1347	124006.0600	118.7%	118.2%	5028.0858	27918.5550
σ		0.5%	37.7252	313.7716	28.6733	310.0296	1109.1652	63.4623	42.7795	1756.3595	3.1%	3.0%	173.7094	786.8027
%RSD		0.5	3.2992	2.2740	3.5987	2.7467	4.2597	2.8198	0.7831	1.4163	2.6	2.6	3.4548	2.8182

6100163-13@MH1G89 10/18/2016 22:21:54

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	22:21:54	99.5%	1347.2684	100.6%	15885.6470	7973.5410	2665.2280	-21.5757	203427.6300	38143.7390	208.0148	232.3776	123.9158	34.8996	566535.4400	10174.6990	17257.5330	18735.8690	10566.5200
2	22:22:07	98.9%	1142.9814	102.5%	15908.9360	7932.8458	2712.5976	-62.3062	205525.6900	38599.6470	207.0973	229.2292	17.7958	94.3563	572074.1800	10529.3530	17404.9080	18800.8690	10478.1070
3	22:22:20	98.4%	1291.4393	105.1%	15656.9410	8005.0330	2752.5419	-29.1176	206824.1400	37894.5470	267.5260	266.6423	39.5060	75.7648	577841.7400	10379.3990	17582.7950	18788.3280	10307.2850
x		98.9%	1260.5630	102.8%	15817.1740	7970.4733	2710.1225	-37.6665	205259.1500	38212.6440	227.5460	242.7497	60.4059	68.3402	572150.4500	10361.1500	17415.0790	18775.0220	10450.6380
σ		0.5%	105.5855	2.3%	139.2542	36.1913	43.7095	21.6693	1713.8740	357.5646	34.6267	20.7514	56.0622	30.4158	5653.5384	178.0298	162.8694	34.4826	131.7824
%RSD		0.5	8.3761	2.2	0.8804	0.4541	1.6128	57.5292	0.8350	0.9357	15.2175	8.5485	92.8091	44.5064	0.9881	1.7182	0.9352	0.1837	1.2610

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:21:54	105.7%	2758.9364	18475.1200	1705.7173	24379.0240	-10601.7260	1101.6000	7642.4039	254000.4300	132.7%	129.8%	2921.1605	228317.5900
2	22:22:07	106.1%	2753.4150	19280.7880	1554.2215	24659.5590	-11649.9700	1137.2710	7630.3877	258655.2200	135.4%	131.8%	2957.3505	229370.4900
3	22:22:20	105.8%	2748.6293	19428.4740	1644.1380	24480.8220	-10429.0980	1241.2953	7703.5191	256187.9700	138.5%	135.1%	3202.8657	225683.1400
x		105.9%	2753.6602	19061.4610	1634.6922	24506.4680	-10893.5980	1160.0554	7658.7702	256281.2100	135.5%	132.2%	3027.1256	227790.4100
σ		0.2%	5.1579	513.1269	76.1883	142.0151	660.6997	72.5812	39.2166	2328.7945	2.9%	2.7%	153.2673	1899.3658
%RSD		0.2	0.1873	2.6920	4.6607	0.5795	6.0650	6.2567	0.5120	0.9087	2.1	2.0	5.0631	0.8338

6100163-14@MH1G90 10/18/2016 22:25:58

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	9
1	22:25:58	97.1%	811.1512	102.5%	44022.3010	16391.1940	6669.9821	5.2549	170628.6400	16228.4790	94.9214	105.7001	69.9145	0.2758	194400.0300	29943.6460	51475.0990	54547.6860	32168.9200	80268.
2	22:26:11	98.8%	803.6189	104.3%	44741.9820	16303.9710	6718.6740	26.8227	172091.2200	15541.2760	114.0746	119.5851	48.4762	35.2008	199197.2500	30965.1130	50678.5190	54531.2280	32449.8780	82175.
3	22:26:24	97.7%	778.7933	105.4%	45005.1380	16654.1870	6731.6368	24.2679	173139.5100	15884.6780	70.1868	93.9062	32.7001	29.1823	202285.5500	30721.1710	52126.1850	55893.1460	32103.7360	83122.
x		97.9%	797.8544	104.1%	44589.8070	16449.7840	6706.7643	18.7818	171953.1200	15884.8110	93.0609	106.3971	50.3636	21.5530	198627.6100	30543.3100	51426.6010	54990.6870	32240.8450	81855.
σ		0.9%	16.9316	1.5%	508.7829	182.3112	32.5070	11.7841	1261.1188	343.6016	22.0030	12.8536	18.6788	18.6707	3973.5020	533.4556	725.0507	781.5963	183.9390	1453.
%RSD		0.9	2.1221	1.4	1.1410	1.1083	0.4847	62.7420	0.7334	2.1631	23.6436	12.0808	37.0880	86.6268	2.0005	1.7466	1.4099	1.4213	0.5705	1.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:25:58	105.2%	1553.3461	22433.5770	1081.5869	15319.9780	3516.1963	3228.1868	8059.0132	468986.8500	117.0%	117.0%	6001.8444	180040.2800
2	22:26:11	105.0%	1578.5802	23151.9470	972.3075	15387.3220	6092.5168	3264.2650	8189.9042	477631.2900	119.4%	119.7%	6200.4729	181098.0300
3	22:26:24	104.3%	1513.7477	22706.5140	1079.0062	15581.2560	3620.7262	3458.3370	8263.0313	480987.6900	122.7%	122.1%	6240.8723	184193.2100
x		104.8%	1548.5580	22764.0130	1044.3002	15429.5180	4409.8131	3316.9296	8170.6495	475868.6100	119.7%	119.6%	6147.7298	181777.1700
σ		0.5%	32.6804	362.6200	62.3609	135.6538	1458.2011	123.7839	103.3630	6191.5504	2.9%	2.6%	127.9451	2158.1529
%RSD		0.5	2.1104	1.5930	5.9715	0.8792	33.0672	3.7319	1.2651	1.3011	2.4	2.2	2.0812	1.1873

6100163-15@MH1G91 10/18/2016 22:30:00

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	22:30:00	100.3%	1680.3373	105.4%	16275.2710	12838.4460	5933.9026	-43.0396	296850.6300	52121.7790	224.2579	270.0778	97.6268	37.4290	566112.5600	5761.0737	8524.9536	9833.5481	5372.2960	13639.2400
2	22:30:14	100.5%	1652.6912	107.2%	16229.2900	13215.4760	6091.1376	-50.7875	299249.1500	52877.5130	212.4496	214.7868	86.7472	44.7208	568014.1400	5931.5203	8707.3425	9592.8115	5357.4930	13784.7800
3	22:30:27	102.0%	1683.5948	109.1%	16284.7630	12738.0170	5973.7612	7.2987	295671.7800	52251.2920	202.2880	230.4152	91.2665	34.2760	572822.3100	6024.0307	8812.1644	9983.2980	5495.0759	13881.4750
x		101.0%	1672.2078	107.2%	16263.1080	12930.6470	5999.6005	-28.8428	297257.1900	52416.8610	212.9985	238.4266	91.8801	38.8086	568983.0000	5905.5416	8681.4868	9803.2192	5408.2883	13768.4980
σ		0.9%	16.9801	1.9%	29.6691	251.7290	81.7402	31.5383	1823.0108	404.1575	10.9952	28.5028	5.4657	5.3574	3458.2102	133.3895	145.3406	197.0021	75.5238	121.9356
%RSD		0.9	1.0154	1.7	0.1824	1.9468	1.3624	109.3453	0.6133	0.7710	5.1621	11.9545	5.9487	13.8046	0.6078	2.2587	1.6741	2.0096	1.3964	0.8856

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:30:00	106.9%	3046.7770	43584.8060	1739.4245	27891.9900	-5916.8164	1278.6664	9820.4184	296662.0700	133.8%	130.9%	5230.2589	190254.5800
2	22:30:14	105.0%	3082.6641	44059.1320	1835.1647	28083.1720	-5514.0965	1629.8040	10262.7180	299178.2800	138.0%	134.0%	5471.6543	194935.1000
3	22:30:27	107.0%	3241.1290	44553.7900	1868.2956	28493.9370	-6325.4471	1410.9721	10095.7140	297146.5400	140.7%	138.0%	5423.6346	191122.7800
x		106.3%	3123.5234	44065.9090	1814.2949	28156.3660	-5918.7867	1439.8142	10059.6170	297662.2900	137.5%	134.3%	5375.1826	192104.1500
σ		1.1%	103.4180	484.5276	66.9224	307.5760	405.6789	177.3367	223.3482	1335.0395	3.5%	3.5%	127.7836	2489.8047
%RSD		1.0	3.3109	1.0996	3.6886	1.0924	6.8541	12.3166	2.2202	0.4485	2.5	2.6	2.3773	1.2961

6100163-16@MH1G92 10/18/2016 22:34:02

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	22:34:02	95.9%	398.2496	100.1%	46027.1690	14494.2390	5393.1629	26.1772	95594.7330	8597.4237	70.2615	55.6117	16.3460	10.0276	89510.9030	11803.7260	17957.8630	19398.6310	11013.8270	28558.0690
2	22:34:16	98.4%	371.3715	101.9%	46605.0540	14550.1690	5412.3462	3.9297	96790.6110	8461.1891	48.0101	66.5019	35.5123	3.6834	92408.9770	11671.8590	18597.3500	20051.6380	11280.6690	29058.4380
3	22:34:29	97.9%	357.4798	103.9%	47283.2330	14797.3260	5341.5944	-46.7618	96381.1670	8468.8413	57.0410	54.0952	25.7877	9.8506	93871.0300	11720.7580	17826.3250	19663.9040	11125.5630	29251.7270
x		97.4%	375.7003	101.9%	46638.4850	14613.9110	5382.3678	-5.5516	96255.5040	8509.1514	58.4375	58.7362	25.8820	7.8539	91930.3030	11732.1140	18127.1790	19704.7240	11140.0200	28956.0780
σ		1.3%	20.7268	1.9%	628.6988	161.2847	36.5903	37.3824	607.7618	76.5418	11.1912	6.7678	9.5835	3.6128	2219.1266	66.6631	412.4575	328.4115	134.0072	357.9782
%RSD		1.4	5.5168	1.9	1.3480	1.1036	0.6798	673.3582	0.6314	0.8995	19.1507	11.5224	37.0278	46.0006	2.4139	0.5682	2.2754	1.6667	1.2029	1.2363

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:34:02	104.2%	297.7219	7805.3867	161.4691	2396.9806	2507.4512	1289.9311	4442.4951	162313.4000	114.1%	115.6%	3432.7624	40510.9350
2	22:34:16	103.9%	338.9268	7953.6468	245.5161	2613.1892	2969.5120	1421.3822	4385.8613	163478.2100	117.6%	117.1%	3678.8500	46490.2450
3	22:34:29	104.9%	271.3098	7902.7295	158.0621	2773.7556	2265.6345	1576.6274	4362.0874	164679.7600	119.1%	120.5%	3702.4904	42373.2630
x		104.3%	302.6528	7887.2543	188.3491	2594.6418	2580.8659	1429.3136	4396.8146	163490.4600	116.9%	117.8%	3604.7010	43124.8140
σ		0.5%	34.0771	75.3318	49.5374	189.0711	357.6355	143.5126	41.3078	1183.2249	2.6%	2.5%	149.3716	3059.6824
%RSD		0.5	11.2595	0.9551	26.3008	7.2870	13.8572	10.0407	0.9395	0.7237	2.2	2.1	4.1438	7.0949

6100163-17@MH1G93 10/18/2016 22:38:05

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	22:38:05	96.5%	327.1677	106.3%	9985.2485	17356.8430	5800.6431	37.4033	62911.8320	7543.6614	62.6273	82.6687	53.8596	12.6987	122217.2100	3519.0898	5305.6445	6049.5892	3429.7979	9107.9795
2	22:38:18	97.9%	300.6051	107.8%	10433.0560	17196.7510	5732.7875	4.9814	64133.5330	7353.2722	55.0867	75.5822	25.0520	9.0286	123217.4400	3592.9320	5553.9406	5907.7849	3300.0968	9026.0248
3	22:38:32	98.6%	280.1286	109.7%	10499.8580	17415.5670	5775.3525	-0.7597	63762.5480	7396.1616	70.2798	64.1193	22.1748	21.2369	126326.6200	3494.2998	5471.6623	5964.0869	3581.9813	9229.4421
x		97.7%	302.6338	107.9%	10306.0540	17323.0540	5769.5943	13.8750	63602.6370	7431.0317	62.6653	74.1234	33.6955	14.3214	123920.4200	3535.4405	5443.7491	5973.8203	3437.2920	9121.1488
σ		1.1%	23.5851	1.7%	279.8264	113.2541	34.2923	20.5773	626.3520	99.8697	7.5956	9.3604	17.5218	6.2638	2142.9976	51.3087	126.4796	71.4015	141.0916	102.3461
%RSD		1.1	7.7933	1.6	2.7152	0.6538	0.5944	148.3047	0.9848	1.3440	12.1210	12.6281	52.0005	43.7374	1.7293	1.4513	2.3234	1.1952	4.1047	1.1221

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:38:05	106.1%	283.5330	14738.1080	98.5568	1617.8543	-2982.9944	792.1665	5483.3975	115801.7000	116.4%	114.4%	2591.8965	31685.4060
2	22:38:18	108.4%	220.1882	15361.0240	149.6270	1623.8457	-4113.3893	763.2214	5495.2491	118177.2900	118.8%	117.7%	2584.0721	30602.1820
3	22:38:32	108.7%	227.7358	15099.4210	103.6199	1799.4657	-1662.3547	768.2518	5547.3167	117848.3200	121.3%	121.4%	2633.3514	31589.5110
x		107.7%	243.8190	15066.1840	117.2679	1680.3885	-2919.5795	774.5465	5508.6544	117275.7700	118.8%	117.8%	2603.1067	31292.3660
σ		1.4%	34.5998	312.7855	28.1379	103.1673	1226.7473	15.4652	34.0029	1287.1354	2.5%	3.5%	26.4833	599.6374
%RSD		1.3	14.1908	2.0761	23.9946	6.1395	42.0179	1.9967	0.6173	1.0975	2.1	3.0	1.0174	1.9162

6100163-18@MH1G94 10/18/2016 22:42:08

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	22:42:08	99.7%	468.0503	109.8%	22817.6610	20553.2210	8250.5836	19.7189	98409.6840	11720.9120	124.5609	87.9404	42.9873	2.6988	134712.2300	6539.9502	9868.4054	11725.0180	6592.8060	16672.5570
2	22:42:21	100.9%	372.7985	113.5%	23350.4840	20814.3260	8422.3324	18.2733	97639.4300	11677.9120	104.8721	75.0161	37.1667	-9.3891	133265.9200	6471.6043	10506.6500	11330.9230	6491.3026	16557.1120
3	22:42:34	101.1%	380.4073	113.9%	23361.9060	20473.0670	8423.8312	19.8889	97844.9950	11736.4790	109.9680	72.1612	37.4547	21.1756	135388.1800	6440.6883	10210.9560	11583.2540	6378.8683	17317.5210
x		100.6%	407.0854	112.4%	23176.6840	20613.5380	8365.5824	19.2937	97964.7030	11711.7680	113.1337	78.3726	39.2029	4.8284	134455.4400	6484.0809	10195.3370	11579.7320	6487.6590	16849.0630
σ		0.7%	52.9341	2.3%	310.9750	178.4461	99.5947	0.8878	398.8365	30.3357	10.2190	8.4080	3.2805	15.3932	1084.1807	50.7935	319.4089	216.4842	107.0154	409.7817
%RSD		0.7	13.0032	2.0	1.3418	0.8657	1.1905	4.6013	0.4071	0.2590	9.0327	10.7282	8.3681	318.8058	0.8063	0.7834	3.1329	1.8695	1.6495	2.4321

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:42:08	109.5%	848.9103	16314.0500	560.0933	7154.2424	1407.3707	1220.6996	11222.9950	180340.6000	118.2%	116.9%	3470.3119	38919.5630
2	22:42:21	107.8%	766.1802	15842.9330	497.3490	7409.3134	2215.1289	1220.7771	11437.0660	182893.1500	120.5%	119.8%	3530.7312	41547.3380
3	22:42:34	108.8%	829.4751	16364.0460	598.8691	7299.9770	337.1811	1178.4099	11437.4830	183300.5800	124.8%	122.8%	3305.2678	39956.3860
x		108.7%	814.8552	16173.6760	552.1038	7287.8443	1319.8936	1206.6289	11365.8480	182178.1100	121.2%	119.8%	3435.4370	40141.0960
σ		0.8%	43.2594	287.5208	51.2294	127.9676	942.0251	24.4384	123.7146	1604.3176	3.4%	3.0%	116.7075	1323.5891
%RSD		0.8	5.3088	1.7777	9.2790	1.7559	71.3713	2.0253	1.0885	0.8806	2.8	2.5	3.3972	3.2973

SEQ-IBL1@ZZZZZZ 10/18/2016 22:46:12

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	22:46:12	99.2%	158.7622	109.5%	32114.3960	25767.1880	7682.9116	13.4002	53590.1380	7907.5724	43.6526	76.1517	41.1913	12.6225	64352.2930	9388.1137	15202.6060	16696.0590	9505.9594	24712.2230
2	22:46:25	98.9%	141.6964	110.8%	33316.0930	25482.4270	7625.2147	41.9110	54311.9970	8158.3649	46.7854	71.9746	50.5270	9.4897	64521.0370	9524.8903	15330.4860	16890.8420	9891.0186	24833.9700
3	22:46:38	100.6%	208.4028	112.0%	33121.0280	25288.5190	7709.0584	-1.7390	55041.4560	7830.6122	70.9981	61.7501	28.1846	3.0117	61985.5400	9424.7995	15561.5180	17197.5380	9766.8900	25096.1980
x		99.6%	169.6205	110.8%	32850.5060	25512.7110	7672.3949	17.8574	54314.5300	7965.5165	53.8120	69.9588	39.9676	8.3746	63619.6230	9445.9345	15364.8700	16928.1460	9721.2893	24880.7970
σ		0.9%	34.6534	1.3%	644.9078	240.7670	42.8998	22.1637	725.6625	171.3873	14.9658	7.4094	11.2213	4.9015	1417.6704	70.7953	181.9100	252.8123	196.5381	196.2239
%RSD		0.9	20.4300	1.1	1.9632	0.9437	0.5591	124.1152	1.3360	2.1516	27.8113	10.5910	28.0761	58.5275	2.2284	0.7495	1.1839	1.4934	2.0217	0.7887

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:46:12	106.4%	235.1946	28253.2600	152.2741	1878.4172	73094.6870	6546.9641	38134.9180	68641.1210	113.4%	114.1%	2487.8762	124233.6600
2	22:46:25	106.4%	171.3568	28308.8550	137.2074	1689.4556	73479.8800	6566.4195	38514.2750	69570.5720	117.1%	116.4%	2607.3803	125835.0900
3	22:46:38	107.6%	256.0398	27990.5840	184.0970	1939.8138	71795.7400	6824.5527	38271.9370	69012.3590	119.2%	118.4%	2713.1632	127584.0800
x		106.8%	220.8637	28184.2330	157.8595	1835.8955	72790.1020	6645.9788	38307.0430	69074.6840	116.6%	116.3%	2602.8065	125884.2800
σ		0.7%	44.1229	169.9930	23.9386	130.4833	882.4175	154.9552	192.0998	467.8497	2.9%	2.2%	112.7131	1675.7546
%RSD		0.7	19.9774	0.6031	15.1645	7.1073	1.2123	2.3316	0.5015	0.6773	2.5	1.9	4.3304	1.3312

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	96
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	÷0.5

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

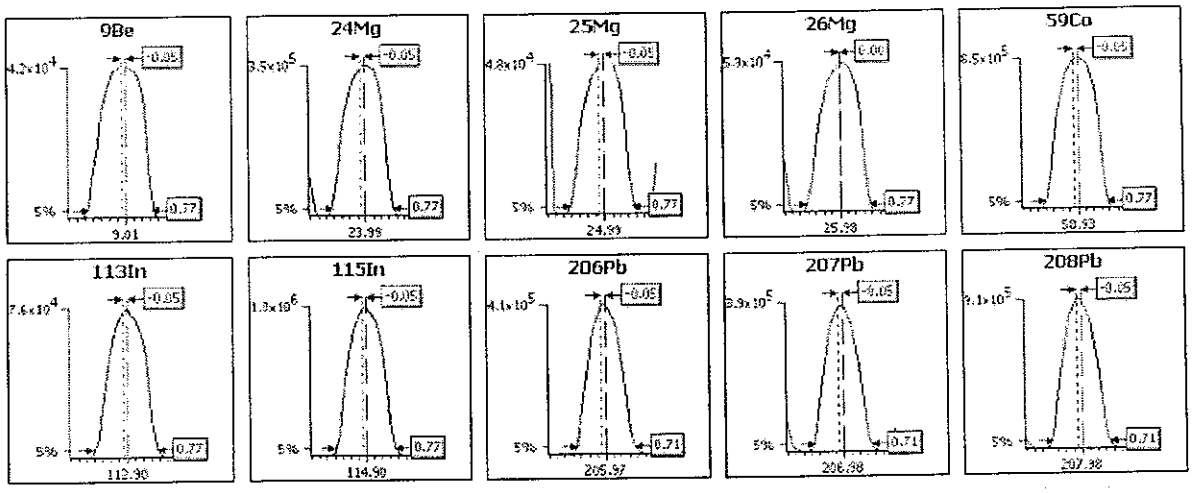
Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	22:54:54	94.6%	19.1734	86.1188	3.5364	77.5205	2750.5017	1054.3149	488.7201	82.8008	106.6%	108.5%	1037.7735	6301.6330
2	22:55:07	93.7%	-28.9036	46.1075	6.9603	96.8972	5610.3068	965.1770	427.1827	84.1371	107.4%	109.4%	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

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

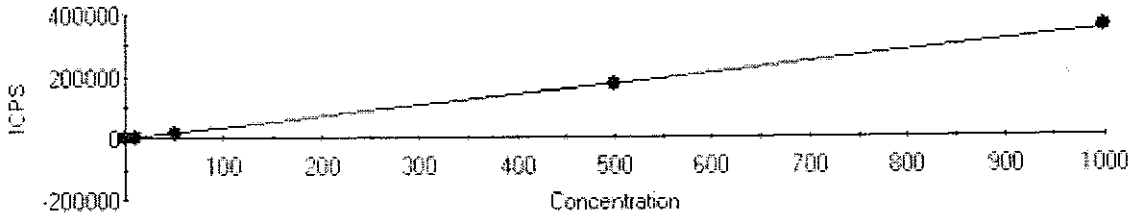
Sweeps : 30

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

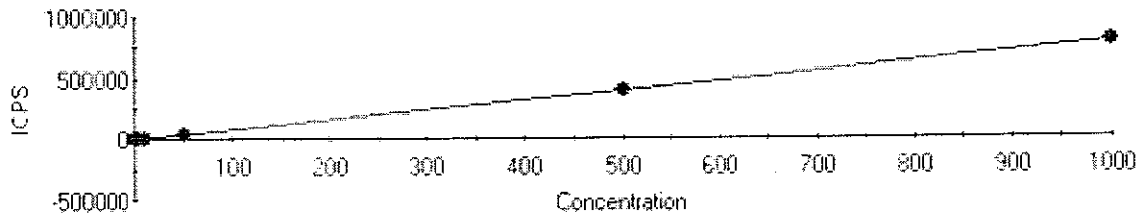
9Be FQ Block 1



Intercept CPS=-7.059925 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

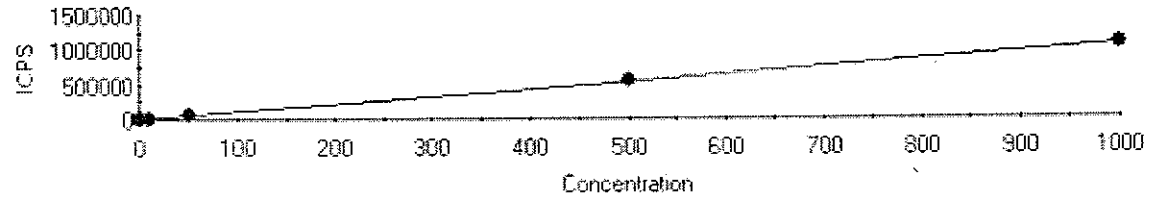
51V FQ Block 1



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

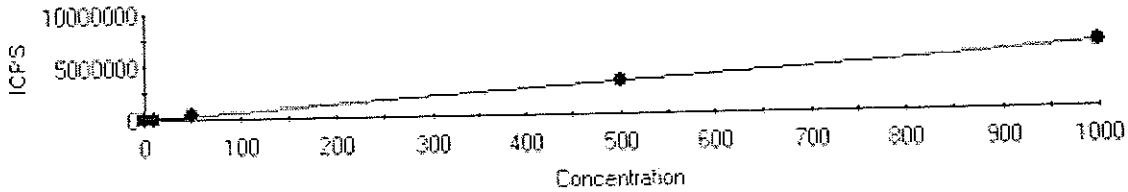
52Cr FQ Block 1



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

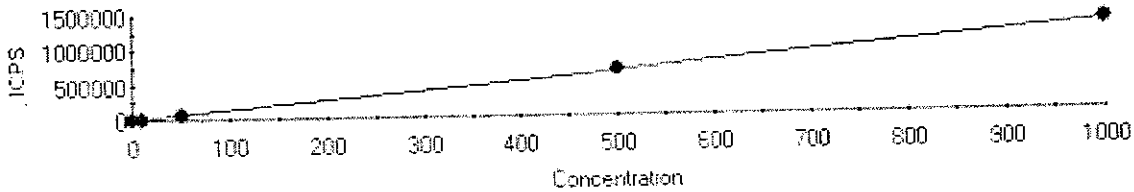
59Co FQ Block 1



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

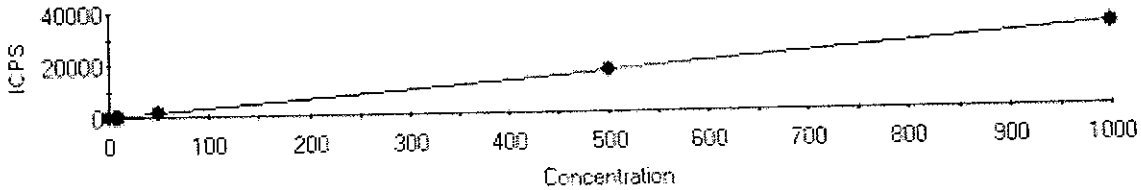
60Ni FQ Block 1



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

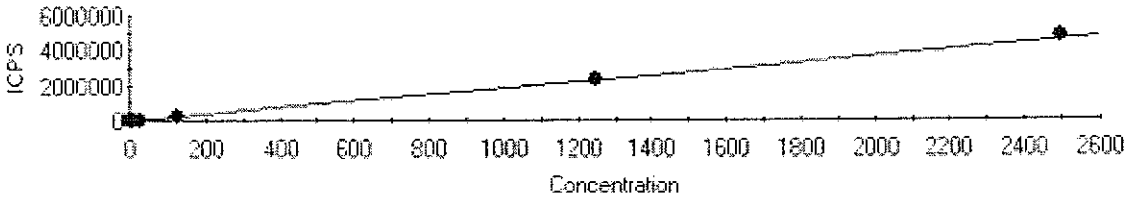
78Se FQ Block 1



Intercept CPS=8.668027 Intercept Conc=0.270729
Sensitivity=32.017410 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

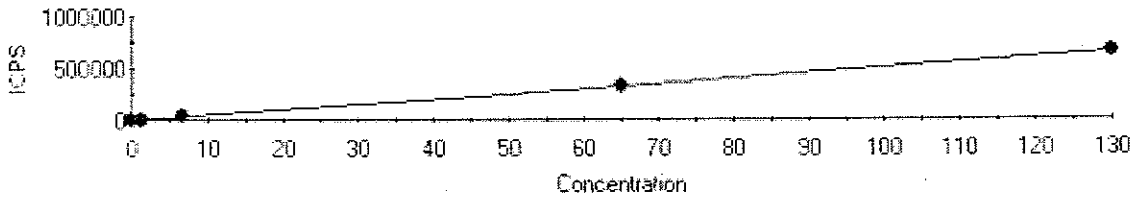
95Mo FQ Block 1



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

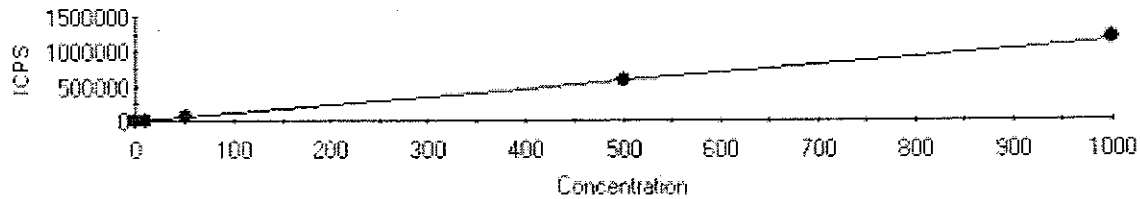
107Ag FQ Block 1



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

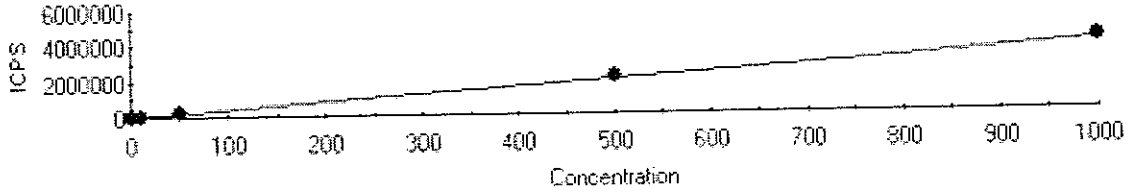
111Cd FQ Block 1



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

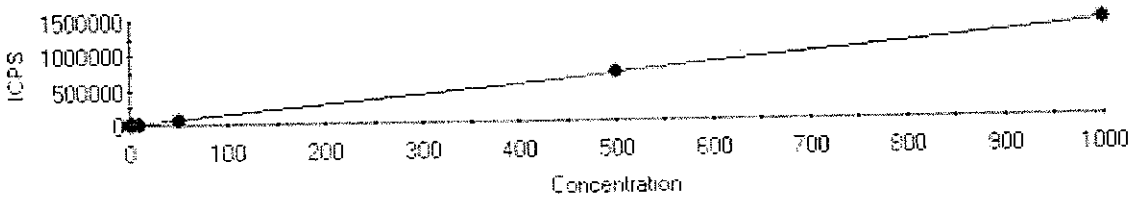
121Sb FQ Block 1



Intercept CPS=19.523347 Intercept Conc=0.004951
Sensitivity=3942.996329 Correlation Coeff=0.999968

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

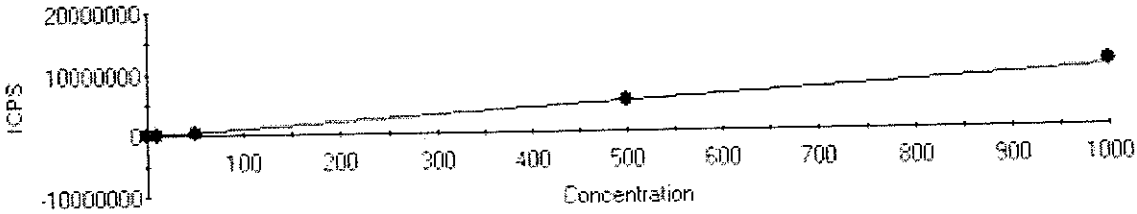
137Ba FQ Block 1



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

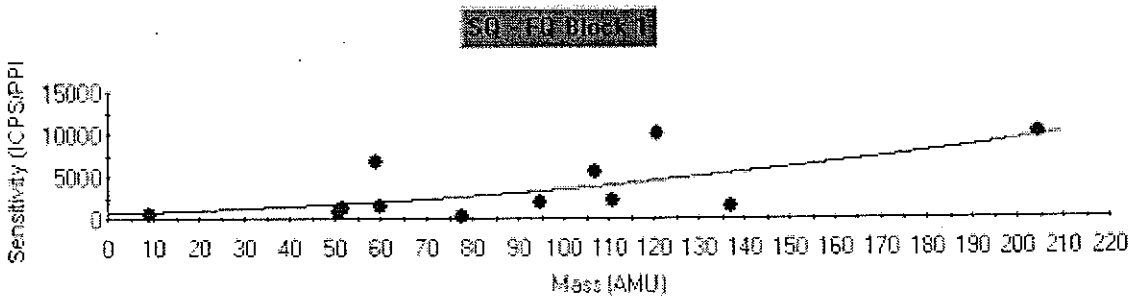
205Tl FQ Block 1



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	485.6000	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	07:55:36	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	0.0171	0.0223	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	07:55:36	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		0.0080	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	0.0574	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	2.2689	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	0.5088	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		0.0860	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	r 502.4000	499.9000	18.3200	496.9000	26.9800	1.1650	400.7000	1287.0000	r 773.3000	426.0000	r 1123.0000	97.2%
2	08:16:03	100.7%	499.7000	95.6%	301.1000	497.6000	500.0000	2777.0000	r 500.0000	497.0000	18.5600	504.0000	26.2800	-1.6320	406.3000	1293.0000	r 771.5000	430.3000	r 1122.0000	97.0%
3	08:16:16	100.3%	503.5000	94.7%	305.4000	490.9000	497.5000	2615.0000	r 505.7000	505.9000	19.1000	504.1000	26.9700	-0.3149	409.0000	1324.0000	r 781.4000	439.4000	r 1131.0000	98.2%
x		100.2%	501.4000	94.5%	302.3000	495.5000	498.9000	2623.0000	r 502.7000	500.9000	18.6600	501.7000	26.7500	-0.2606	405.3000	1302.0000	r 775.4000	431.9000	r 1126.0000	97.5%
σ		0.5%	1.9440	1.2%	2.7390	3.9990	1.2810	150.5000	r 2.9070	4.5680	0.3963	4.1110	0.4022	1.3990	4.2390	19.9900	r 5.2960	6.8690	r 4.8180	0.6%
%RSD		0.5	0.3877	1.2	0.9061	0.8070	0.2569	5.7370	r 0.5782	0.9118	2.1240	0.8194	1.5040	536.8000	1.0460	1.5360	r 0.6831	1.5900	r 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%	r 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%	r 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%	r 507.2000	0.0000
x		23.6700	65.1600	17.4200	501.4000	486.8000	513.3000	501.3000	104.5%	105.3%	r 507.5000	0.0000
σ		0.2304	0.3103	0.1806	3.2690	6.9090	5.4030	3.2220	2.9%	2.3%	r 1.1580	0.0000
%RSD		0.9733	0.4762	1.0360	0.6519	1.4190	1.0530	0.6429	2.8	2.2	r 0.2282	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%	n 1040.0000	87.6%	606.5000	n 1014.0000	n 1017.0000	4415.0000	r 994.2000	999.3000	37.8900	n 1004.0000	52.1300	1.4680	r 822.1000	TN 2577.0000	r 1530.0000	r 872.4000	r 2228.0000	92.1%
2	08:20:06	97.2%	n 1022.0000	89.5%	608.0000	977.9000	987.5000	4638.0000	r 987.6000	993.1000	37.4900	976.0000	52.1000	0.5005	r 833.7000	TN 2613.0000	r 1542.0000	r 877.8000	r 2251.0000	95.7%
3	08:20:21	97.4%	n 1028.0000	89.4%	618.6000	n 1002.0000	n 1004.0000	4845.0000	TN 1005.0000	n 1015.0000	35.9100	996.1000	54.7900	0.6004	r 835.0000	TN 2621.0000	r 1562.0000	r 884.9000	r 2261.0000	94.6%
x		97.1%	n 1030.0000	88.8%	611.0000	n 998.1000	n 1003.0000	4633.0000	TN 995.8000	n 1002.0000	37.1000	n 992.1000	53.0100	0.8563	r 830.3000	TN 2603.0000	r 1544.0000	r 878.4000	r 2247.0000	94.1%
σ		0.5%	n 9.2990	1.0%	6.5850	n 18.5400	n 14.8200	215.4000	TN 9.0120	n 11.1700	1.0490	n 14.5700	1.5460	0.5322	r 7.1010	TN 23.3700	r 16.0700	r 6.2610	r 17.0200	1.8%
%RSD		0.5	n 0.9027	1.2	1.0780	n 1.8580	n 1.4780	4.6500	TN 0.9051	n 1.1150	2.8280	n 1.4690	2.9170	62.1500	r 0.8553	TN 0.8976	r 1.0400	r 0.7127	r 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	n 1004.0000	r 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	n 1008.0000	r 953.5000	TN 1015.0000	TN 1008.0000	105.0%	106.7%	TN 1028.0000	0.0000
3	08:20:21	47.3800	n 130.9000	35.0800	n 1030.0000	r 964.5000	TN 1016.0000	TN 1017.0000	106.9%	107.5%	TN 1034.0000	0.0000
x		47.0700	n 129.9000	34.9400	n 1014.0000	r 956.3000	TN 1011.0000	TN 1012.0000	104.6%	105.2%	TN 1036.0000	0.0000
σ		0.3829	n 1.0320	0.1320	n 13.5400	r 7.1900	TN 8.5050	TN 4.7840	2.5%	3.2%	TN 9.4660	0.0000
%RSD		0.8134	n 0.7949	0.3778	n 1.3360	r 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%	r 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%	r 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%	r 215.4000	0.0000
x		4.8080	104.248%	3.5240	103.200%	0.1715	101.841%	101.118%	104.1%	105.3%	r 106.325%	0.0000
σ		0.1427	n/a	0.0315	n/a	0.0135	n/a	n/a	2.1%	2.2%	r n/a	0.0000
%RSD		2.9680	0.5370	0.8949	0.9352	7.8590	0.6290	0.6663	2.0	2.0	r 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	0.0472	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	0.0462	0.0653	-0.7969	0.0263	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	0.0879	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	32.8500	145.6000	36.8100	20.2800	1.8230	23.8100	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	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	08:32:35	93.4%	0.3964	92.3%	518.0000	-0.4735	21.8700	85.6200	1.2790	5.7540	-0.0085	-0.1191	-0.2016	4.7250	674.5000	r 2183.0000	r 1305.0000	725.3000	r 1890.0000	91.6%
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	-0.1516	2.7840	678.7000	r 2183.0000	r 1297.0000	r 737.4000	r 1890.0000	93.5%
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	-0.3755	6.5410	r 691.0000	r 2161.0000	r 1287.0000	r 732.9000	r 1866.0000	93.5%
x		95.2%	1.#IO%	96.7%	518.1000	-121.778%	103.237%	103.9000	127.172%	94.559%	0.0006	-32.174%	-0.2429	4.6830	r 681.4000	r 2176.0000	r 1296.0000	r 731.9000	r 1862.0000	92.9%
σ		1.7%	n/a	4.3%	0.3952	n/a	n/a	23.2200	n/a	n/a	0.0157	n/a	0.1175	1.8790	r 8.5380	r 12.5100	r 8.9380	r 6.1290	r 13.5100	1.1%
%RSD		1.7	16.2000	4.4	0.0763	29.5100	1.2220	22.3600	0.7063	1.5650	2669.0000	43.4600	48.4000	40.1200	r 1.2530	r 0.5748	r 0.6895	r 0.8374	r 0.7177	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%	0.0228	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@ICSA01 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	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	08:36:38	89.4%	20.0500	102.2%	505.3000	21.7700	43.8900	255.3000	20.3300	23.9800	0.6232	20.3200	0.7610	4.6330	r 681.4000	r 2139.0000	r 1269.0000	711.8000	r 1838.0000	90.7%
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	0.4660	9.6050	670.9000	r 2128.0000	r 1262.0000	r 722.5000	r 1849.0000	91.7%
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	0.9187	2.8700	678.4000	r 2148.0000	r 1277.0000	r 722.6000	r 1848.0000	92.8%
x		89.4%	102.175%	104.1%	509.5000	113.466%	108.899%	240.5000	102.663%	100.639%	0.6809	106.060%	0.7152	5.7030	r 676.9000	r 2138.0000	r 1269.0000	r 719.0000	r 1845.0000	91.7%
σ		0.1%	n/a	1.8%	3.7540	n/a	n/a	16.6300	n/a	n/a	0.1126	n/a	0.2298	3.4920	r 5.3910	r 10.1700	r 7.7110	r 6.2310	r 6.4540	1.1%
%RSD		0.1	3.8500	1.8	0.7368	0.9156	0.6763	6.9160	0.8824	1.2080	16.5400	3.2090	32.1300	61.2400	r 0.7964	r 0.4755	r 0.6075	r 0.8667	r 0.3498	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	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	08:40:58	97.5%	497.2000	111.9%	300.3000	505.2000	505.9000	2654.0000	r 504.0000	498.6000	20.2500	516.4000	28.9200	-0.5808	405.8000	r 1299.0000	r 773.6000	428.0000	r 1125.0000	106.9%
2	08:41:12	96.5%	498.6000	113.2%	300.9000	504.4000	507.7000	2594.0000	r 501.9000	499.5000	19.3200	511.1000	26.7600	2.2520	408.5000	r 1308.0000	r 778.3000	437.0000	r 1124.0000	107.8%
3	08:41:25	96.9%	497.3000	114.1%	301.7000	498.3000	499.7000	2621.0000	r 497.4000	496.4000	19.2000	509.5000	26.5700	2.5980	408.2000	r 1299.0000	r 774.0000	433.5000	r 1123.0000	109.8%
x		96.9%	99.536%	113.1%	301.0000	100.523%	100.888%	2623.0000	r 100.213%	99.636%	19.5900	102.466%	27.4200	1.4230	407.5000	r 1302.0000	r 775.3000	432.9000	r 1124.0000	108.2%
σ		0.5%	n/a	1.1%	0.7208	n/a	n/a	30.0900	r n/a	n/a	0.5731	n/a	1.3050	1.7440	1.5100	r 5.1860	r 2.6340	4.5080	r 0.8995	1.5%
%RSD		0.5	0.1539	1.0	0.2395	0.7514	0.8337	1.1470	r 0.6706	0.3156	2.9260	0.7002	4.7610	122.6000	0.3705	r 0.3983	r 0.3398	1.0410	r 0.0800	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%	r 504.9000	0.0000
2	08:41:12	24.5200	66.1100	18.0100	514.7000	496.1000	530.7000	515.6000	121.0%	121.5%	r 499.6000	0.0000
3	08:41:25	24.3900	66.0700	17.9100	513.2000	495.5000	528.2000	514.8000	121.9%	122.6%	r 495.1000	0.0000
x		24.3300	101.574%	17.9000	102.599%	494.2000	106.092%	102.795%	120.6%	121.2%	r 99.973%	0.0000
σ		0.2318	n/a	0.1097	n/a	2.6470	n/a	n/a	1.6%	1.6%	r n/a	0.0000
%RSD		0.9529	0.1876	0.6128	0.3537	0.5355	0.4016	0.4175	1.3	1.3	r 0.9818	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	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	08:45:01	94.9%	0.1316	103.9%	0.0031	-0.0325	0.0586	16.2500	0.0451	0.0224	-0.0085	0.0896	-0.0691	1.5130	0.0813	0.2693	0.1550	0.0772	0.2399	105.9%
2	08:45:15	96.5%	0.1763	105.0%	-0.0073	-0.0039	0.0473	13.2800	0.0436	0.0353	0.0034	-0.0771	-0.0174	1.1910	0.1144	0.2854	0.1515	0.0933	0.2723	107.5%
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	-0.0496	1.0020	0.0860	0.3239	0.1818	0.1045	0.2812	105.5%
x		95.7%	0.1246	105.0%	0.0057	-0.0296	0.0536	15.6800	0.0418	0.0507	-0.0005	-0.0532	-0.0454	1.2350	0.0939	0.2929	0.1628	0.0917	0.2645	106.3%
σ		0.8%	0.0556	1.0%	0.0145	0.0244	0.0058	2.1770	0.0045	0.0385	0.0069	0.1324	0.0261	0.2586	0.0179	0.0281	0.0166	0.0138	0.0218	1.1%
%RSD		0.8	44.5900	1.0	252.9000	82.2900	10.7500	13.8800	10.8300	75.8800	1344.0000	249.2000	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

SEQ-IBL1@ZZZZZZ 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	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	08:49:04	96.9%	0.4073	117.0%	37.8700	28.8800	7.6880	42.9900	6.3970	5.6990	1.2980	33.2500	1.8000	2.0370	5.5370	16.8800	10.0200	5.5840	14.5000	106.2%
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	1.5770	3.2010	5.5800	16.9600	10.0300	5.5870	14.5000	107.4%
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	1.7210	2.0260	5.5280	17.0700	10.1200	5.8040	14.6600	106.4%
x		97.8%	0.4044	118.7%	38.4100	28.8700	7.7250	34.5600	6.3950	5.7440	1.3080	32.4600	1.6990	2.4220	5.5480	16.9700	10.0500	5.6580	14.5600	106.7%
σ		0.7%	0.0576	1.7%	0.5620	0.1046	0.0925	13.1900	0.0349	0.0546	0.0307	1.5940	0.1131	0.6750	0.0278	0.0917	0.0540	0.1263	0.0926	0.6%
%RSD		0.7	14.2400	1.4	1.4630	0.3625	1.1970	38.1700	0.5454	0.9500	2.3450	4.9130	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	0.0747	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

Q114028-PS1@MH1G80A 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

6100163-13RE1@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

6100163-15RE1@MH1G91@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

SEQ-IBL2@ZZZZZZ 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	5.9380	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%	0.0105	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

SEQ-IBL3@ZZZZZZ 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	0.0182	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

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%	101.086%	2593.0000	±100.694%	100.132%	19.4400	102.007%	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	1.6	±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	0.3160	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%	0.0704	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	1.6%	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	30.0000	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	30.0000	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	30.0000	243.3366	6255.4848	1653.4837	2957.1475	166915.0600	163802.5400	2123.5813	106341.6900
2	07:55:50	110.0007	1153.4065	30.0000	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	236.6698	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	30.0000	101.1117	60.0002	156.6680	4314.3568	7122.7893	7573.1531	4260.9984	11246.9530	39050.358
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	39519.044
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	30.0000	123.3342	4267.6681	7232.8762	7713.2708	4387.7253	12138.0980	38782.549
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	39117.317
σ		1241.9490	28.8681	783.9858	10.0001	44.2143	43.0684	11.0958	139.9018	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		134.4455	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	185.5575	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	178.8907	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	98M
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	57.1860	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	105705.9200
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	154.4660	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	516.6814	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	123996.5700	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	6734.0468	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	0.8890	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	395819.6400	522648.0500	64036.0760	r2938133.9000	616102.8000	4667.8648	15480.9480	7389.6688	153.3346	1247498.1000	2252166.3000	r2472944.4000
2	08:16:03	97200.2040	165316.2400	119598.2300	468782.8600	397113.3900	522293.1700	64515.4470	r2998494.2000	628317.7900	4717.8906	15663.4820	7136.1331	106.6673	1300211.5000	2325998.2000	r2535273.5000
3	08:16:16	96745.3910	164983.6200	118460.1400	471241.8900	395779.0500	525837.6600	64690.0150	r3015502.6000	636045.0300	4911.3263	15854.9250	7433.0375	130.0009	1313631.0000	2391723.6000	r2579899.6000
x		96697.1130	163991.6100	118253.1000	465430.3200	396570.6900	523592.9600	64413.8460	r2984043.6000	626821.8700	4765.6939	15666.4520	7319.6131	130.0010	1287113.5000	2323296.1000	r2529539.2000
σ		528.8840	2013.1545	1459.6991	8031.0289	701.1391	1952.0479	338.6017	r40658.2460	10054.9230	128.5778	187.0062	160.3712	23.3337	34957.9290	69817.8640	r53749.4570
%RSD		0.5469	1.2276	1.2344	1.7255	0.1768	0.3728	0.5257	r1.3625	1.6041	2.6980	1.1937	2.1910	17.9488	2.7160	3.0051	r2.1249

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	r5255265.2000	110760.6500
2	08:16:03	50791.4920	331260.6900	38963.3190	587300.4200	2060266.7000	2055888.2000	709892.2300	171254.6600	170650.1200	r5373704.6000	113028.3100
3	08:16:16	52169.2610	336114.0500	39073.7920	599549.1400	2125602.8000	2100542.7000	721887.1400	175378.8500	173564.5200	r5473390.7000	117720.6300
x		50930.0930	329581.0100	38389.8190	586128.1900	2057967.5000	2043693.1000	704365.9800	170868.2900	170119.7000	r5367453.5000	113836.5300
σ		1176.0103	7515.0159	1090.4031	14043.8060	68813.7270	63826.9860	20841.2210	4715.6343	3738.3543	r109197.0000	3549.6818
%RSD		2.3091	2.2802	2.8403	2.3960	3.3438	3.1231	2.9589	2.7598	2.1975	r2.0344	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	n315425.4800	109630.4100	866368.3500	n762050.8500	n1008528.9000	122445.7600	r5502161.5000	1165953.8000	9141.2603	n29624.8580	13503.3550	150.0012	r2470060.2000	m4353041.20
2	08:20:06	93821.6520	n316325.9700	111911.2800	886640.0900	765065.6300	1017086.8000	124097.2700	r5584304.1000	1183982.8000	9394.8520	29903.5460	14004.1110	140.0011	r2565625.1000	m4521276.30
3	08:20:21	93990.0450	n317996.0800	111820.1700	901595.9000	n775338.2800	n1022117.6000	124934.6200	m5691282.7000	n1211320.7000	8894.3489	30168.8650	14558.3140	140.0011	r2585829.1000	m4563906.40
x		93656.6370	n316582.5100	111120.6200	884868.1100	n767484.9200	n1015911.1000	123825.8800	m5592582.8000	n1167085.8000	9143.4871	n29899.0900	14021.9270	143.3345	r2540504.8000	m4479408.00
σ		439.7814	n1304.3610	1291.3652	17680.4960	n6966.2536	n6870.2305	1266.4262	m94832.0160	n22842.0450	250.2590	n272.0308	527.7054	5.7736	r61837.5540	m111493.29
%RSD		0.4696	n0.4120	1.1621	1.9981	n0.9077	n0.6763	1.0227	m1.6957	n1.9242	2.7370	n0.9098	3.7634	4.0281	r2.4341	m2.48

Run	Time	106Cd	107Ag	108Cd	111Cd	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	08:19:52	95384.4560	619951.7000	73042.2600	n1119205.9000	r3844385.5000	m3816430.5000	m1370671.9000	166728.3500	163989.2000	m10671910.0000	113767.4400
2	08:20:06	98942.1780	641420.3600	75102.2770	n1152514.4000	r3955946.5000	m3971549.1000	m1404519.9000	171686.0200	172243.0800	m11012492.0000	117990.7600
3	08:20:21	100138.5000	n651135.8900	76093.8040	n1187178.8000	r4041616.0000	m4019931.3000	m1436516.1000	174675.5000	173574.7100	m11153300.0000	118696.5300
x		98155.0460	n637502.6500	74746.1140	n1152966.4000	r3947316.0000	m3935970.3000	m1403902.6000	171029.9600	169935.6600	m10945900.0000	116818.2400
σ		2472.8375	n15956.9670	1556.6370	n33988.6810	r98898.0870	m106313.3800	m32926.4730	4013.9894	5192.6535	m247507.2400	2665.5354
%RSD		2.5193	n2.5030	2.0826	n2.9479	r2.5055	m2.7011	m2.3454	2.3470	3.0557	m2.2612	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	r2278784.1000	112144.1200
2	08:24:25	9725.1991	497732.5100	7476.4064	114317.6100	720.0285	777830.9800	138537.6100	171495.8100	170653.5200	r2313351.8000	113713.4400
3	08:24:44	10385.9290	501610.5100	7523.1116	114388.4900	836.7052	788257.5500	140930.6400	172820.5500	173146.6700	r2318870.0000	115218.8800
x		9922.0843	497166.8800	7403.0141	113939.5900	766.6991	773548.4400	138789.3400	170248.6600	170023.4200	r2303668.6000	113692.1500
σ		403.2267	4751.7672	169.1865	717.0065	61.7395	17253.7090	2027.2033	3373.0619	3481.3306	r21726.5330	1537.4899
%RSD		4.0639	0.9558	2.2854	0.6293	8.0526	2.2305	1.4606	1.9813	2.0476	r0.9431	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	r.3762266.7000	r.4110144.4000	2315270.5000
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	r.3954284.1000	r.4295089.5000	r.2473947.9000
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	r.2313842.9000	r.4066440.8000	r.4425565.1000	r.2553807.5000
x		91777.7050	104.4451	120914.2700	815285.8300	282.2266	21834.4140	2729.2987	7712.1627	7626.5329	2.2222	5.1852	15.5556	202.2245	r.2190381.5000	r.3927663.9000	r.4276933.0000	r.2447675.3000
σ		1592.0337	13.4717	5343.9400	35797.1040	14.2573	232.3482	66.8777	328.3941	227.1502	3.8490	1.2830	9.6225	30.0623	r.122357.9800	r.153824.4300	r.158492.2600	r.121419.3600
%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	r.5.5861	r.3.9164	r.3.7057	r.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		108.8896	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	r.2285335.1000	r.4030484.3000	r.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	r.4096350.7000	r.4438236.2000	r.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	r.4197324.1000	r.4559724.7000	r.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	r.2314670.6000	r.4108053.0000	r.4455738.2000	r.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	r.39471.0440	r.84033.2360	r.96434.1000	r.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	r.1.7053	r.2.0456	r.2.1643	r.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	2.1891	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	r.3523781.5000	734694.6600	5668.4333	17678.2830	8670.7997	136.6677	1499760.2000	r.2697626.9000	r.2935377.9000
2	08:41:12	92828.1980	195176.2400	141533.2300	554305.7300	445978.0700	589377.9500	72357.4840	r.3551999.9000	745034.0900	5458.3048	17652.6780	8143.6459	190.0020	1531366.9000	r.2755222.0000	r.2995737.6000
3	08:41:25	93242.4050	196381.7900	142769.0000	560608.4700	449072.9800	590760.8600	72663.9130	r.3550840.3000	746898.1200	5521.6764	17922.0930	8243.7361	200.0022	1543329.4000	r.2759772.1000	r.3004360.4000
x		93287.3150	194662.2000	141410.3000	553899.2000	446062.3600	587421.7200	72207.8670	r.3542207.2000	742208.9600	5549.4715	17751.0180	8352.7272	175.5573	1524818.8000	r.2737540.3000	r.2978492.0000
σ		483.1398	2026.1101	1424.1444	6921.4979	2969.3739	4637.7547	546.4381	r.15967.6630	6573.9756	107.7865	148.7075	279.9680	34.0485	22510.5780	r.34640.8620	r.37585.9490
%RSD		0.5179	1.0408	1.0071	1.2496	0.6657	0.7895	0.7568	r.0.4508	0.8857	1.9423	0.8377	3.3518	19.3945	1.4763	r.1.2654	r.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	r.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	r.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	r.6093410.7000	129387.5900
x		61458.2070	391882.5300	46274.1600	702777.9700	2442977.2000	2467047.4000	839304.7100	197091.5900	195682.7500	r.6080852.2000	127344.9400
σ		1230.5980	5250.9398	763.1132	10246.0740	41549.1160	20636.3330	13738.0140	2627.4009	2580.1164	r.22618.0580	3045.5246
%RSD		2.0023	1.3399	1.6491	1.4579	1.7008	0.8365	1.6368	1.3331	1.3185	r.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	583.3521	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	288.6713	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	501.1251	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	137.7768	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-I8L1@ZZZZZZ 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	1196.7454	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	9056.0543	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	859.1985	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

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
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	493.3487	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

6100163-13RE1@MH1G89@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
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
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
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
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	295.4476	552.8268
%RSD		0.8091	5.9651	1.0677	3.7522	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	1.8809	3.9037	2.6857

6100163-15RE1@MH1G91@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	358.0071	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	7163.9514	42998
σ		570.4184	43.3800	2229.6636	244.7468	19.0213	50.2877	10.6323	2334.8855	766.9106	18.9543	2.2223	10.1836	5.0919	100.2007	49.5029	334.2474	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

SEQ-IBL2@ZZZZZZ 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
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

SEQ-IBL3@ZZZZZZ 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	42663.2070
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	42455.5720
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	43671.3100
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	42930.0300
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	650.3087
%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	1.5148

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	2689.5376	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

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	r3384622.3000	708370.1000	5174.8057	16541.7030	7986.8402	136.6677	1427338.4000	r2590525.9000	r2803404.4000
2	09:14:29	95802.1470	186530.8900	135055.8100	522195.8100	423099.1400	556361.8000	68596.4950	r3364850.1000	707229.5600	5251.5164	16833.3480	8006.8578	166.6682	1442564.5000	r2604864.0000	r2822289.6000
3	09:14:43	95573.0880	186908.5300	132464.7700	524478.4100	423548.0000	556764.0000	68362.0730	r3360056.9000	703402.3900	5184.8114	16718.6930	7830.0372	76.6670	1457316.4000	r2626118.3000	r2840223.4000
x		95749.3740	186618.2100	133559.5600	522325.3100	422895.5600	556135.9400	68307.8940	r3369843.1000	706334.0100	5203.7112	16697.9140	7941.2451	126.6676	1442406.4000	r2607169.4000	r2821972.5000
σ		156.7117	257.9870	1341.3579	2091.3650	774.5551	766.3714	319.1590	r13021.6320	2602.1209	41.7017	146.9289	96.8275	45.8264	14989.6260	r17907.8860	r18411.5410
%RSD		0.1637	0.1382	1.0043	0.4004	0.1832	0.1378	0.4672	r0.3864	0.3684	0.8014	0.8799	1.2193	36.1784	1.0392	r0.6869	r0.6524

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	r5824459.1000	119787.3600
2	09:14:29	58175.5480	375477.1800	44036.3990	672281.5800	r2280686.5000	2363768.0000	808086.9300	190277.3400	189477.5600	r5874143.6000	123422.1700
3	09:14:43	59212.2090	381194.5600	44987.7060	674328.4900	2363010.4000	2412769.2000	817403.8500	192421.7800	193712.0800	r5960129.5000	126375.6600
x		58291.8720	375015.6800	43885.7240	668307.6200	r2312160.1000	2361602.5000	808465.3700	190248.0200	190027.0600	r5886244.1000	123195.0700
σ		868.0395	6422.0750	1184.5292	8716.0672	r44451.0550	52263.0970	8755.3940	2188.5660	3443.3245	r68639.8360	3300.0165
%RSD		1.4891	1.7125	2.6991	1.3042	r1.9225	2.2139	1.0830	1.1504	1.8120	r1.1661	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	146.6679	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	843.3725	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	603.3534	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	-14.0522	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	5.9707	-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	458.5693	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	554.1713	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	11.0979	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%	5086.5028	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	137.7159	-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	48.1216	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	451.8888	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	-14.3856	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	656.0418	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	228896.8900	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	621.1361	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	2.8638	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	901.0677
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	r 3117967.5000	652939.7700	4797.7065	15910.2670	7572.5990	19.8808	1290542.5000	2328181.4000	r 2554509.2000	142
2	08:16:03	100.7%	172901.1000	95.6%	489470.3800	393936.9700	538141.7400	5046.7354	r 3102552.6000	649216.3300	4860.4143	16135.3710	7375.7100	-27.8522	1308850.7000	2339611.1000	r 2548565.8000	143
3	08:16:16	100.3%	174210.9400	94.7%	496518.3700	388657.9800	535437.1800	4752.8787	r 3138508.7000	660896.5700	5000.4028	16140.9890	7569.8241	-5.3745	1317247.0000	2395730.1000	r 2581402.1000	146
x		100.2%	173467.5900	94.5%	491422.7200	392306.9000	536946.1000	4766.6512	r 3119676.3000	654350.8900	4886.1745	16062.2090	7506.0444	-4.4486	1305946.7000	2354507.5000	r 2561492.4000	144
σ		0.5%	672.5896	1.2%	4452.9676	3166.0325	1379.2272	273.4581	r 18038.8690	5966.6109	103.7745	131.6156	112.8814	23.8799	13655.3810	36154.3090	r 17496.5630	2
%RSD		0.5	0.3877	1.2	0.9061	0.8070	0.2569	5.7369	r 0.5782	0.9118	2.1238	0.8194	1.5039	536.7943	1.0460	1.5355	r 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%	r 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%	r 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%	r 5093014.7000	5269.1670
x		51024.9550	330520.6400	38462.3240	584794.2600	2043472.0000	2023947.5000	687576.4900	104.5%	105.3%	r 5095701.7000	3788.0101
σ		496.6285	1573.8821	398.6444	3812.4724	29001.2000	21303.1940	4420.1864	2.9%	2.3%	r 11628.5100	1329.1641
%RSD		0.9733	0.4762	1.0365	0.6519	1.4192	1.0526	0.6429	2.8	2.2	r 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%	u 359884.8200	87.6%	986060.9100	u 803052.7600	u 1094760.6000	8022.7480	r 6169932.5000	1305417.0000	9922.2297	u 32154.3440	14629.0600	25.0608	r 2648068.6000	tu 4660633.2000
2	08:20:06	97.2%	u 353556.5700	89.5%	988443.3200	774177.6900	1062928.7000	8427.6895	r 6128748.5000	1297294.9000	9817.6934	31247.8410	14622.6890	8.5433	r 2685295.1000	tu 4725610.5000
3	08:20:21	97.4%	u 355712.8100	89.4%	1005680.6000	u 793220.7600	u 1080630.6000	8805.5446	tu 6239406.5000	u 1325639.1000	9402.8279	31892.4490	15377.5330	10.2477	r 2689710.2000	tu 4739946.8000
x		97.1%	u 356384.7300	88.8%	993394.9500	u 790150.4000	u 1079440.0000	8418.6607	tu 6179362.5000	u 1309450.4000	9714.2503	u 31764.8780	14876.4270	14.6173	r 2674358.0000	tu 4708730.1000
σ		0.5%	u 3217.1846	1.0%	10706.1730	u 14680.3470	u 15949.3220	391.4764	tu 55928.4490	u 14596.2000	274.7179	u 466.5215	433.9822	9.0844	r 22874.0440	tu 42265.4970
%RSD		0.5	u 0.9027	1.2	1.0777	u 1.8579	u 1.4776	4.6501	tu 0.9051	u 1.1147	2.8280	u 1.4687	2.9172	62.1485	r 0.8553	tu 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	u 1171226.5000	r 3991373.1000	tu 3946251.9000	tu 1386380.3000	102.0%	101.5%	tu 10510036.0000	7771.9111
2	08:20:06	101734.1400	659214.0600	77076.3040	u 1175943.7000	r 4002412.3000	tu 4000915.7000	tu 1382226.5000	105.0%	106.7%	tu 10325739.0000	6362.8324
3	08:20:21	102135.8700	u 663707.0400	77440.5890	u 1200636.6000	r 4048284.1000	tu 4007245.8000	tu 1395086.5000	106.9%	107.5%	tu 10377535.0000	6170.7527
x		101472.7900	u 658729.9400	77127.1300	u 1182602.3000	r 4014023.2000	tu 3984804.5000	tu 1387897.8000	104.6%	105.2%	tu 10404437.0000	6768.4987
σ		825.4037	u 5235.9726	291.3900	u 15795.3030	r 30179.9130	tu 33537.1440	tu 6562.9133	2.5%	3.2%	tu 95047.8040	874.2717
%RSD		0.8134	u 0.7949	0.3778	u 1.3356	r 0.7519	tu 0.8416	tu 0.4729	2.3	3.1	tu 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	9E
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	31421.4
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	31794.2
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	31979.1
x		96.7%	103.288%	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	31731.6
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	284.0
%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	0.8

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%	r 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%	r 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%	r 2162954.5000	3200.0353
x		10365.0020	104.248%	7779.6401	103.200%	719.6953	101.841%	101.118%	104.1%	105.3%	r 106.325%	3734.5395
σ		307.5865	n/a	69.6209	n/a	56.5622	n/a	n/a	2.1%	2.2%	r n/a	803.1971
%RSD		2.9675	0.5370	0.8949	0.9352	7.8592	0.6290	0.6663	2.0	2.0	r 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	132.7553	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	102.8%	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	98
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	±3947960.8000	±4310139.1000	2426314.4000	±6401395.70
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	±3948223.3000	±4285676.1000	±2466898.4000	±6400810.70
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	111.6493	±2225636.1000	±3908915.5000	±4251361.6000	±2451688.6000	±6321856.40
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	±2194852.8000	±3935033.2000	±4282392.2000	±2448300.5000	±6374687.60
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	±27500.6650	±22619.0160	±29526.0040	±20503.0370	±45754.09
%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	±1.2530	±0.5748	±0.6895	±0.8374	±0.71

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	-567.8136
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		273.2014	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	±2194684.3000	±3869107.4000	±4192643.8000	2381104.3000
2	08:36:52	89.3%	6781.7568	104.3%	833198.2100	17040.4030	46772.3200	442.7745	128358.7000	31990.6850	212.2685	662.6895	130.7801	163.9497	2160970.2000	±3848596.6000	±4168035.8000	±2417020.4000
3	08:37:06	89.4%	6431.8332	105.8%	830510.3600	16926.1080	46638.9610	404.3819	127726.3600	31330.4040	159.4159	622.3322	257.8366	48.9894	2185035.3000	±3885292.4000	±4218974.7000	±2417392.9000
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	±2180229.9000	±3867665.5000	±4193218.1000	±2405172.5000
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	±17363.1500	±18390.3870	±25474.2670	±20844.5210
%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	±0.7964	±0.4755	±0.6075	±0.8667

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%	2981.9421	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	±3127440.0000	651319.5400	5381.6801	16532.7410	8116.2484	-9.9133	1307024.9000	±2349740.8000	±2555471.0000
2	08:41:12	96.5%	172494.6200	113.2%	489255.2100	399285.4500	546474.4900	4713.6436	±3114392.8000	652469.9700	5060.3734	16364.2470	7508.9353	38.4354	1315870.5000	±2366147.1000	±2571183.3000
3	08:41:25	96.9%	172057.8000	114.1%	490539.5500	394471.1900	537840.7200	4762.5553	±3086614.1000	648480.2500	5026.4648	16313.2930	7457.5916	44.3535	1314956.4000	±2350061.0000	±2556842.9000
x		96.9%	99.536%	113.1%	489331.4600	100.523%	100.888%	4766.3369	±100.213%	99.636%	5129.5061	102.466%	7694.2584	24.2919	1312617.3000	±2355316.3000	±2561165.7000
σ		0.5%	n/a	1.1%	1171.8284	n/a	n/a	54.6823	±n/a	n/a	150.0678	n/a	366.3546	29.7700	4864.6317	±9381.1012	±8702.5418
%RSD		0.5	0.1539	1.0	0.2395	0.7514	0.8337	1.1473	±0.6706	0.3156	2.9256	0.7002	4.7614	122.5511	0.3706	±0.3983	±0.3398

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%	±5069908.5000	-569.7460
2	08:41:12	52872.5760	335346.4500	39754.5620	600240.3700	2082145.3000	2092450.7000	707255.8400	121.0%	121.5%	±5015984.2000	1740.3520
3	08:41:25	52578.8940	335134.0800	39534.8150	598525.0700	2079714.6000	2082818.2000	706138.7600	121.9%	122.6%	±4971502.5000	1294.5748
x		52449.9210	101.574%	39520.0870	102.599%	2074554.1000	106.092%	102.795%	120.6%	121.2%	±99.973%	821.7269
σ		499.7828	n/a	242.1753	n/a	11110.0660	n/a	n/a	1.6%	1.6%	±n/a	1225.4905
%RSD		0.9529	0.1876	0.6128	0.3537	0.5355	0.4016	0.4175	1.3	1.3	±0.9818	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	952.5780	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	35.0698	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

SEQ-IBL1@ZZZZZZ 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	18928.3990	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

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	25638.3700	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	495.7678	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	9.2885	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

6100163-13RE1@MH1G89@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%	559.9563	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	32.0651	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	0.6257	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	769.2768	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

6100163-15RE1@MH1G91@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		1403.2872	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%	71.4858	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

SEQ-IBL2@ZZZZZZ 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	411.0490	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

SEQ-IBL3@ZZZZZZ 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

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%	106.8%	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	±17402.8360	±16202.7820
%RSD		0.2	1.0806	1.0	1.1661	0.6344	0.4745	4.7019	±1.0206	0.7868	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	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

PREPARATION BENCH SHEET

QJ14028

Bonner Analytical Testing Co.

Matrix: Soil

Analysis: ISM023 - ICPMS (2658.0)

Prepared: 10/17/2016 11:50 using METALS - 200.8

Case: 46282

SDG: MH1G77

Work Order: 6100163

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100163-01	MH1G77	1	500				
6100163-02	MH1G78	1	500				
6100163-03	MH1G79	1	500				
6100163-04	MH1G80	1	500				
6100163-05	MH1G81	1	500				
6100163-06	MH1G82	1	500				
6100163-07	MH1G83	1	500				
6100163-08	MH1G84	1	500				
6100163-09	MH1G85	1	500				
6100163-10	MH1G86	1	500				
6100163-11	MH1G87	1	500				
6100163-12	MH1G88	1	500				
6100163-13	MH1G89	1	500				
6100163-13RE1	MH1G89	1	500				
6100163-14	MH1G90	1	500				
6100163-15	MH1G91	1	500				
6100163-15RE1	MH1G91	1	500				
6100163-16	MH1G92	1	500				
6100163-17	MH1G93	1	500				
6100163-18	MH1G94	1	500				
QJ14028-PS1	MH1G80A	1	500	B6J0150	500000		
QJ14028-MS1	MH1G80S	1	500	B6B0062	1000	B6H0062	1000
QJ14028-BS1	LCS01	1	500	B6A0009	1000	B6H0062	40
QJ14028-DUP1	MH1G80D	1	500				
QJ14028-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
B6J0150	PS-MH1G80	In House	NA	02/10/17

Table 2: Metals Apparatus

Balance ID		Satorius BP601	
Dig. Block ID		2	
Start Temp	Stop Temp	95.6	96.0
Start Time	Stop Time	1150	1220

Comments:

LEM — 10/17/2016

Perpared By — Date

10/26/2016

Preparation Reviewed By — Date

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICPMS01 **Case:** 46282 **FileID:** M101816B **Std. Prep Date:** 10/18/16
Analyst: LEM **SDG:** MH1G77 **Calibration ID:** B643021 **Std. Log Page No.:** 5

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
BJ62104-TUN1	TUNE01	10/18/16 17:36	B6G0089	B6G0072	1	
BJ62104-CAL1	S01	10/18/16 17:47	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CAL2	S02	10/18/16 17:51	B6A0044	B6G0072	1	MO
BJ62104-CAL3	S03	10/18/16 17:56	B6A0043	B6G0072	1	BA MO
BJ62104-CAL4	S04	10/18/16 18:00	B6A0042	B6G0072	1	AG BE CD CO CR MO NI SB SE TL V
BJ62104-CAL5	S05	10/18/16 18:04	B6A0041	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CAL6	S06	10/18/16 18:08	B6A0040	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CAL7	S07	10/18/16 18:11	B6A0039	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CAL8	S08	10/18/16 18:15	B6A0038	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-ICV1	ICV01	10/18/16 18:20	B6J0139	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-ICB1	ICB01	10/18/16 18:23	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-IFA1	ICSA01	10/18/16 18:27	B6A0093	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-IFB1	ICSAB01	10/18/16 18:31	B6A0095	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CCV1	CCV01	10/18/16 18:35	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CCB1	CCB01	10/18/16 18:39	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CCV2	CCV02	10/18/16 19:10	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CCB2	CCB02	10/18/16 19:14	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CCV3	CCV03	10/18/16 19:45	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CCB3	CCB03	10/18/16 19:49	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CCV4	CCV04	10/18/16 20:06	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CCB4	CCB04	10/18/16 20:10	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CCV5	CCV05	10/18/16 21:08	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CCB5	CCB05	10/18/16 21:12	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
QJ14028-BLK1	PBS01	10/18/16 21:15		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
QJ14028-BS1	LCS01	10/18/16 21:19		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-01	MH1G77	10/18/16 21:23		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-02	MH1G78	10/18/16 21:26		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-03	MH1G79	10/18/16 21:29		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-04	MH1G80	10/18/16 21:33		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
QJ14028-MS1	MH1G80S	10/18/16 21:37		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
QJ14028-DUP1	MH1G80D	10/18/16 21:41		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-SRD1	MH1G80L	10/18/16 21:45		B6G0072	5	AG BA BE CD CO CR MO NI SB SE TL V
6100163-05	MH1G81	10/18/16 21:49		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICPMS01 **Case:** 46282 **FileID:** M101816B **Std. Prep Date:** 10/18/16
Analyst: LEM **SDG:** MH1G77 **Calibration ID:** B643021 **Std. Log Page No.:** 5

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
6100163-06	MH1G82	10/18/16 21:53		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-07	MH1G83	10/18/16 21:57		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-08	MH1G84	10/18/16 22:01		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-09	MH1G85	10/18/16 22:05		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-10	MH1G86	10/18/16 22:09		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-11	MH1G87	10/18/16 22:13		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-12	MH1G88	10/18/16 22:17		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-13	MH1G89	10/18/16 22:21		B6G0072	1	BE CR SE V
6100163-14	MH1G90	10/18/16 22:25		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-15	MH1G91	10/18/16 22:30		B6G0072	1	BE CR SE V
6100163-16	MH1G92	10/18/16 22:34		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-17	MH1G93	10/18/16 22:38		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
6100163-18	MH1G94	10/18/16 22:42		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-IBL1	ZZZZZZ	10/18/16 22:46		B6G0072	1	non-report
BJ62104-CCV6	CCV06	10/18/16 22:50	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62104-CCB6	CCB06	10/18/16 22:54	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICPMS01 **Case:** 46282 **FileID:** M101916A **Std. Prep Date:** 10/18/16

Analyst: LEM **SDG:** MH1G77 **Calibration ID:** B643025 **Std. Log Page No.:** 5

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
BJ62108-TUN1	TUNE01	10/19/16 7:39	B6G0089	B6G0072	1	
BJ62108-CAL1	S01	10/19/16 7:51	B6I0135	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-CAL2	S02	10/19/16 7:55	B6A0044	B6G0072	1	MO
BJ62108-CAL3	S03	10/19/16 7:59	B6A0043	B6G0072	1	BA MO
BJ62108-CAL4	S04	10/19/16 8:03	B6A0042	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-CAL5	S05	10/19/16 8:07	B6A0041	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-CAL6	S06	10/19/16 8:11	B6A0040	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-CAL7	S07	10/19/16 8:15	B6A0039	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-CAL8	S08	10/19/16 8:19	B6A0038	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-ICV1	ICV01	10/19/16 8:23	B6J0139	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-ICB1	ICB01	10/19/16 8:28	B6I0135	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-IFA1	ICSA01	10/19/16 8:32	B6A0093	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-IFB1	ICSAB01	10/19/16 8:36	B6A0095	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-CCV1	CCV01	10/19/16 8:40	B6A0045	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-CCB1	CCB01	10/19/16 8:45	B6I0135	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-IBL1	ZZZZZZ	10/19/16 8:49		B6G0072	1	non-report
QJ14028-PS1	MH1G80A	10/19/16 8:53		B6G0072	1	SB
6100163-13RE1	MH1G89	10/19/16 8:57		B6G0072	2	AG BA CD CO MO NI SB TL
6100163-15RE1	MH1G91	10/19/16 9:01		B6G0072	2	AG BA CD CO MO NI SB TL
BJ62108-IBL2	ZZZZZZ	10/19/16 9:05		B6G0072	1	non-report
BJ62108-IBL3	ZZZZZZ	10/19/16 9:09		B6G0072	1	non-report
BJ62108-CCV2	CCV02	10/19/16 9:14	B6A0045	B6G0072	1	AG BA CD CO MO NI SB TL
BJ62108-CCB2	CCB02	10/19/16 9:18	B6I0135	B6G0072	1	AG BA CD CO MO NI SB TL

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

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

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

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 15:56:21-05'00'

Supervisor/Date

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

Analytical Standard Record

B6J0150

Description:	PS-MH1G80	Expires:	02/10/2017
Standard Type:	Analyte Spike	Prepared:	10/21/2016
Solvent:	NA	Prepared By:	Lauren Meadows
Final Volume (mls):	10	Department:	METALS
Vials:	1	Last Edit:	10/21/2016 12:44 by LEM

Analyte	Parent	CAS Number	Concentration	Units
Antimony	B6H0091	7440-36-0	0.008	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit		(mls)
B6H0091	Std - Antimony - 1ppm	08/23/2016	Inorganic Ventures	G2-SB03022	02/19/2017	08/23/2016 09:10	by LEM	0.08

Reviewed By

10/26/16
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.

MH1G77

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-01

% Solids: 71.9 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	0.38	*	10/18/2016	1949

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

Comments:

EPA SAMPLE NO.

MH1G78

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-02

% Solids: 86.9 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	0.56	*	10/18/2016	1952

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

Comments:

EPA SAMPLE NO.

MH1G79

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-03

% 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	0.11	J*	10/18/2016	1954

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

Comments:

EPA SAMPLE NO.

MH1G80

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-04

% Solids: 76.6 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	0.31	*	10/18/2016	1957

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

Comments:

EPA SAMPLE NO.

MH1G81

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-05

% Solids: 67.5 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	0.079	J*	10/18/2016	2004

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

Comments:

EPA SAMPLE NO.

MH1G82

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-06

% Solids: 62.9 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	2007

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

Comments:

EPA SAMPLE NO.

MH1G83

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-07
% Solids: 74.4
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	0.043	J*	10/18/2016	2009

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

Comments:

EPA SAMPLE NO.

MH1G84

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-08

% Solids: 65.9 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	0.041	J*	10/18/2016	2017

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

Comments:

EPA SAMPLE NO.

MH1G85

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-09

% Solids: 70.9 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	0.026	J*	10/18/2016	2020

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

Comments:

EPA SAMPLE NO.

MH1G86

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-10

% Solids: 77.3 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	0.062	J*	10/18/2016	2022

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

Comments:

EPA SAMPLE NO.

MH1G87

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-11

% Solids: 80.0 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	0.041	J*	10/18/2016	2025

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

Comments:

EPA SAMPLE NO.

MH1G88

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-12

% Solids: 68.3 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	0.059	J*	10/18/2016	2027

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

Comments:

EPA SAMPLE NO.

MH1G89

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-13
% Solids: 59.3
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	2030

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

Comments:

EPA SAMPLE NO.

MH1G90

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-14

% Solids: 71.9 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	0.17	*	10/18/2016	2032

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

Comments:

EPA SAMPLE NO.

MH1G91

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-15

% Solids: 78.1 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	0.018	J*	10/18/2016	2035

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

Comments:

EPA SAMPLE NO.

MH1G92

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-16

% Solids: 76.8 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	0.069	J*	10/18/2016	2037

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

Comments:

EPA SAMPLE NO.

MH1G93

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.: MH1G77
Matrix: Soil
Lab Sample ID: 6100163-17
% Solids: 83.9
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	0.010	J*	10/18/2016	2040

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

Comments:

EPA SAMPLE NO.

MH1G94

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.: MH1G77

Matrix: Soil Lab Sample ID: 6100163-18

% Solids: 84.7 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	0.025	J*	10/18/2016	2042

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.: MH1G77

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ62602H101816C 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	3.0	100		3.0	98	

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.: MH1G77

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ62602H101816C Analytical method: CVAA

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
Mercury					3.0000	2.9	97				

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1G77

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: QJ14039

Run Batch: BJ62602H101816C 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	-0.0033	J

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

EPA SAMPLE NO.

MH1G80S

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.: MH1G77

Matrix: Soil Analytical Method: CVAA

% Solids: 76.6

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	1.2		0.31		0.652	136	*

EPA SAMPLE NO.

MH1G80D

FORM 6-IN
DUPLICATES

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.:46282 MA No.: SDG No.: MH1G77

Matrix: Soil Analytical Method: CVAA

% Solids: 76.6

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	0.13	0.31		0.43		32	

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.: MH1G77

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.: MH1G77

Instrument ID: CETAC01

Analytical Method: CVAA

Start Date: 10/18/2016

End Date: 10/18/2016

Run Batch: BJ62602H101816C

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	1919															X											
S02	1.0	1921															X											
S03	1.0	1924															X											
S04	1.0	1926															X											
S05	1.0	1929															X											
S06	1.0	1932															X											
S07	1.0	1934															X											
ICV01	1.0	1937															X											
ICB01	1.0	1939															X											
CCV01	1.0	1942															X											
CCB01	1.0	1944															X											
PBS01	1.0	1947															X											
MH1G77	1.0	1949															X											
MH1G78	1.0	1952															X											
MH1G79	1.0	1954															X											
MH1G80	1.0	1957															X											
MH1G80S	1.0	1959															X											
MH1G80D	1.0	2002															X											
MH1G81	1.0	2004															X											
MH1G82	1.0	2007															X											
MH1G83	1.0	2009															X											
CCV02	1.0	2012															X											
CCB02	1.0	2014															X											
MH1G84	1.0	2017															X											
MH1G85	1.0	2020															X											
MH1G86	1.0	2022															X											
MH1G87	1.0	2025															X											
MH1G88	1.0	2027															X											
MH1G89	1.0	2030															X											
MH1G90	1.0	2032															X											

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1G77
Instrument ID: CETAC01
Analytical Method: CVAA
Start Date: 10/18/2016
End Date: 10/18/2016
Run Batch: BJ62602H101816C

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	
MH1G91	1.0	2035															X										
MH1G92	1.0	2037															X										
MH1G93	1.0	2040															X										
MH1G94	1.0	2042															X										
CCV03	1.0	2046															X										
CCB03	1.0	2048															X										

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.:

SDG No.: MH1G77

Instrument ID: CETAC01

Start Date: 10/18/2016

Analytical method: CVAA

Run Batch: BJ62602H101816C

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	0.0	0.011		0.10	0.098	2	0.20	0.19	4

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.:

SDG No.: MH1G77

Instrument ID: CETAC01

Start Date: 10/18/2016

Analytical method: CVAA

Run Batch: BJ62602H101816C

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	0.50	0.49	3	1.0	1.0	0	3.0	3.0	0

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.:

SDG No.: MH1G77

Instrument ID: CETAC01

Start Date: 10/18/2016

Analytical method: CVAA

Run Batch: BJ62602H101816C

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	6.0	6.0	0						

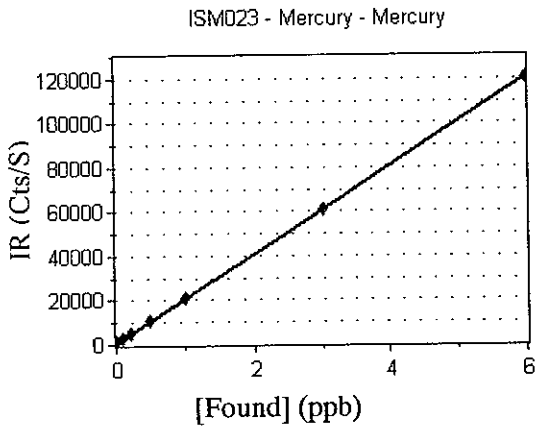
FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1G77
Instrument ID: CETAC01
Start Date: 10/18/2016
Analytical method: CVAA
Run Batch: BJ62602H101816C

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Mercury	0.99998	19995.61	0.0473993	Lin. Reg	None

Bonner Analytical Testing Company

Instrument ID: CETAC01 Calibration ID: B644041 Calibration Date: 10/18/2016



Calibration Plot: Mercury
Calibration Type: Linear Regression
Corr. Coeff.: 0.99998
Fit: [Y] = 19995.61 * [X] + 947.778
[y-intercept] = -0.05

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ62602-CAL1	B6G0104	0	0.01	1170	0
BJ62602-CAL2	B6G0103	0.1	0.10	2898	2
BJ62602-CAL3	B6G0102	0.2	0.19	4789	4
BJ62602-CAL4	B6G0101	0.5	0.49	10690	3
BJ62602-CAL5	B6G0100	1	1.00	21040	0
BJ62602-CAL6	B6G0099	3	3.01	61200	0
BJ62602-CAL7	B6G0098	6	5.99	120800	0

Bonner Analytical Testing Company

Report Generated By Teledyne Leeman QuickTrace

Analyst: caultman

Worksheet file: X:\\H101816C.wszf

Creation Date: 8/3/2016 10:18:10 AM

Comment: Instrument ID: CETAC 01

10/20

Results

Sample Name		Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
SEQ-CAL1@S01		STD	10/18/16 07:19:22 pm	0.0000	1170	0.00	11.11		N/A
Replicates	1170.5								
SEQ-CAL2@S02		STD	10/18/16 07:21:53 pm	0.1000	2898	0.00	-2.47		N/A
Replicates	2898.3								
SEQ-CAL3@S03		STD	10/18/16 07:24:25 pm	0.2000	4789	0.00	-7.90		N/A
Replicates	4789.4								
SEQ-CAL4@S04		STD	10/18/16 07:26:57 pm	0.5000	10691	0.00	-12.75		N/A
Replicates	10690.9								
SEQ-CAL5@S05		STD	10/18/16 07:29:29 pm	1.0000	21037	0.00	4.67		N/A
Replicates	21036.7								
SEQ-CAL6@S06		STD	10/18/16 07:32:01 pm	3.0000	61203	0.00	13.48		N/A
Replicates	61202.8								
SEQ-CAL7@S07		STD	10/18/16 07:34:34 pm	6.0000	120795	0.00	-6.15		N/A
Replicates	120795.2								
SEQ-ICV@ICV01		ICV	10/18/16 07:37:07 pm	3.9050	79027	0.00			97.62
Replicates	79027.4								
SEQ-ICB@ICB01		ICB	10/18/16 07:39:38 pm	-0.0023	902	0.00			N/A
Replicates	902.4								
SEQ-CCV@CCV01		CCV	10/18/16 07:42:10 pm	2.9910	60757	0.00			99.71
Replicates	60756.9								
SEQ-CCB@CCB01		CCB	10/18/16 07:44:42 pm	0.0036	1021	0.00			N/A
Replicates	1020.8								
QJ14039-BLK1@PBS01		UNK	10/18/16 07:47:12 pm	-0.0166	617	0.00			N/A
Replicates	617.2								
6100163-01@MH1G77		UNK	10/18/16 07:49:43 pm	1.3820	28586	0.00			N/A
Replicates	28586.3								
6100163-02@MH1G78		UNK	10/18/16 07:52:15 pm	2.4150	49242	0.00			N/A
Replicates	49241.6								
6100163-03@MH1G79		UNK	10/18/16 07:54:46 pm	0.3324	7594	0.00			N/A
Replicates	7594.2								
6100163-04@MH1G80		UNK	10/18/16 07:57:18 pm	1.1980	24901	0.00			N/A
Replicates	24900.7								

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
QJ14039-MS1@MH1G80S	UNK	10/18/16 07:59:50 pm	4.5180	91278	0.00			N/A
Replicates 91278.3								
QJ14039-DUP1@MH1G80D	UNK	10/18/16 08:02:23 pm	1.6490	33924	0.00			N/A
Replicates 33924.1								
6100163-05@MH1G81	UNK	10/18/16 08:04:53 pm	0.2681	6308	0.00			N/A
Replicates 6308.0								
6100163-06@MH1G82	UNK	10/18/16 08:07:24 pm	0.3161	7268	0.00			N/A
Replicates 7268.3								
6100163-07@MH1G83	UNK	10/18/16 08:09:56 pm	0.1606	4159	0.00			N/A
Replicates 4158.7								
SEQ-CCV@CCV2 B2	CCV	10/18/16 08:12:28 pm	2.9510	59945	0.00			98.35
Replicates 59945.0								
SEQ-CCB@CCB2 02	CCB	10/18/16 08:14:59 pm	0.0006	961	0.00			N/A
Replicates 960.8								
6100163-08@MH1G84	UNK	10/18/16 08:17:31 pm	0.1348	3644	0.00			N/A
Replicates 3644.0								
6100163-09@MH1G85	UNK	10/18/16 08:20:03 pm	0.0906	2760	0.00			N/A
Replicates 2760.0								
6100163-10@MH1G86	UNK	10/18/16 08:22:35 pm	0.2387	5721	0.00			N/A
Replicates 5721.1								
6100163-11@MH1G87	UNK	10/18/16 08:25:07 pm	0.1651	4250	0.00			N/A
Replicates 4250.1								
6100163-12@MH1G88	UNK	10/18/16 08:27:38 pm	0.2001	4950	0.00			N/A
Replicates 4950.2								
6100163-13@MH1G89	UNK	10/18/16 08:30:10 pm	0.0939	2826	0.00			N/A
Replicates 2826.0								
6100163-14@MH1G90	UNK	10/18/16 08:32:41 pm	0.6064	13074	0.00			N/A
Replicates 13073.6								
6100163-15@MH1G91	UNK	10/18/16 08:35:12 pm	0.0688	2324	0.00			N/A
Replicates 2323.9								
6100163-16@MH1G92	UNK	10/18/16 08:37:44 pm	0.2655	6257	0.00			N/A
Replicates 6257.2								
6100163-17@MH1G93	UNK	10/18/16 08:40:17 pm	0.0423	1794	0.00			N/A
Replicates 1793.9								
6100163-18@MH1G94	UNK	10/18/16 08:42:49 pm	0.1064	3075	0.00			N/A
Replicates 3075.3								
SEQ-CCV@CCV3 03	CCV	10/18/16 08:46:23 pm	2.9180	59301	0.00			97.28
Replicates 59300.8								
SEQ-CCB@CCB3 03	CCB	10/18/16 08:48:54 pm	-0.0003	942	0.00			N/A
Replicates 942.1								

ccv 10/26/16

ccb 10/26/16

PREPARATION BENCH SHEET

QJ14039

Bonner Analytical Testing Co.

Matrix: Soil
Analysis: ISM023 - Mercury
Prepared: 10/18/2016 13:00 using METALS - 7471B

Case: 46282
SDG: MH1G77
Work Order: 6100163

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100163-01	MH1G77	0.5	100				
6100163-02	MH1G78	0.5	100				
6100163-03	MH1G79	0.5	100				
6100163-04	MH1G80	0.5	100				
6100163-05	MH1G81	0.5	100				
6100163-06	MH1G82	0.5	100				
6100163-07	MH1G83	0.5	100				
6100163-08	MH1G84	0.5	100				
6100163-09	MH1G85	0.5	100				
6100163-10	MH1G86	0.5	100				
6100163-11	MH1G87	0.5	100				
6100163-12	MH1G88	0.5	100				
6100163-13	MH1G89	0.5	100				
6100163-14	MH1G90	0.5	100				
6100163-15	MH1G91	0.5	100				
6100163-16	MH1G92	0.5	100				
6100163-17	MH1G93	0.5	100				
6100163-18	MH1G94	0.5	100				
QJ14039-MS1	MH1G80S	0.5	100	B5I0091	2500		
QJ14039-DUP1	MH1G80D	0.5	100				
QJ14039-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
B5I0091	HG - S-WS (100ppb)	Inorganic Ventures	H2-HG02129
B6H0098	R - Aqua Regia	na	na
B6J0126	R - Sodium Chloride Hydroxylam	In-House	NA
B6J0127	R - Stannous Chloride	In House	010SC505
B6J0128	R - Potassium Permanganate	In House	NA

Table 2: Hg Digestion Apparatus

Balance ID		Mettler IV					
Dig. Block ID		1					
Start Temp	Stop Temp	95	94				
Start Time	Stop Time	1300	1330				

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

QJ14039

Bonner Analytical Testing Co.

Matrix: Soil
Analysis: QC
Prepared: 10/18/2016 13:00 using METALS - 7471B

Case:
SDG: MH1G77
Work Order: 6100163

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)

NDP 10/18/2016

Perpared By Date

Preparation Reviewed By Date 10/26/16

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: CETAC01 **Case:** 46282 **FileID:** H101816C **Std. Prep Date:** 101816

Analyst: NDP **SDG:** MH1G77 **Calibration ID:** B644041 **Std. Log Page No.:** 30

Lab Number	EPA ID	Analyzed Date/Time	STD ID	DF	Elements list are used per QC/sample
BJ62602-CAL1	S01	10/18/16 19:19	B6G0104	1	HG
BJ62602-CAL2	S02	10/18/16 19:21	B6G0103	1	HG
BJ62602-CAL3	S03	10/18/16 19:24	B6G0102	1	HG
BJ62602-CAL4	S04	10/18/16 19:26	B6G0101	1	HG
BJ62602-CAL5	S05	10/18/16 19:29	B6G0100	1	HG
BJ62602-CAL6	S06	10/18/16 19:32	B6G0099	1	HG
BJ62602-CAL7	S07	10/18/16 19:34	B6G0098	1	HG
BJ62602-ICV1	ICV01	10/18/16 19:37	B6G0105	1	HG
BJ62602-ICB1	ICB01	10/18/16 19:39	B6G0104	1	HG
BJ62602-CCV1	CCV01	10/18/16 19:42	B6G0099	1	HG
BJ62602-CCB1	CCB01	10/18/16 19:44	B6G0104	1	HG
QJ14039-BLK1	PBS01	10/18/16 19:47		1	HG
6100163-01	MH1G77	10/18/16 19:49		1	HG
6100163-02	MH1G78	10/18/16 19:52		1	HG
6100163-03	MH1G79	10/18/16 19:54		1	HG
6100163-04	MH1G80	10/18/16 19:57		1	HG
QJ14039-MS1	MH1G80S	10/18/16 19:59		1	HG
QJ14039-DUP1	MH1G80D	10/18/16 20:02		1	HG
6100163-05	MH1G81	10/18/16 20:04		1	HG
6100163-06	MH1G82	10/18/16 20:07		1	HG
6100163-07	MH1G83	10/18/16 20:09		1	HG
BJ62602-CCV2	CCV02	10/18/16 20:12	B6G0099	1	HG
BJ62602-CCB2	CCB02	10/18/16 20:14	B6G0104	1	HG
6100163-08	MH1G84	10/18/16 20:17		1	HG
6100163-09	MH1G85	10/18/16 20:20		1	HG
6100163-10	MH1G86	10/18/16 20:22		1	HG
6100163-11	MH1G87	10/18/16 20:25		1	HG
6100163-12	MH1G88	10/18/16 20:27		1	HG
6100163-13	MH1G89	10/18/16 20:30		1	HG
6100163-14	MH1G90	10/18/16 20:32		1	HG
6100163-15	MH1G91	10/18/16 20:35		1	HG
6100163-16	MH1G92	10/18/16 20:37		1	HG
6100163-17	MH1G93	10/18/16 20:40		1	HG

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: CETAC01 **Case:** 46282 **FileID:** H101816C **Std. Prep Date:** 101816

Analyst: NDP **SDG:** MH1G77 **Calibration ID:** B644041 **Std. Log Page No.:** 30

Lab Number	EPA ID	Analyzed Date/Time	STD ID	DF	Elements list are used per QC/sample
6100163-18	MH1G94	10/18/16 20:42		1	HG
BJ62602-CCV3	CCV03	10/18/16 20:46	B6G0099	1	HG
BJ62602-CCB3	CCB03	10/18/16 20:48	B6G0104	1	HG

Bonner Analytical Testing Company
Instrument: CETAC01

Bonner Analytical Testing Company

ISM02.3 Hg Standard and Quality Control Log

Analyst: LEM Date: 10/18/16

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.

10/18/16

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

REAGENTS PREPARATION LOG

Potassium Persulfate Solution

Lims ID: B610024

Preparation Date: 09/06/2016

Prepared By: LFM

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled H2O	Neat	1000 mL	BATCO	NA	NA	NA
Potassium Persulfate	Neat	50 g	ARCOS	A0367996	04/12/16	04/12/19

Balance ID _____

Instrument Cetac M-7600

Final Volume 1 Liter

Concentration 5%

Used For Mercury Digestion

Expiration Date 6 months after preparation date

Comments: 50 grams to 1000 mL of Distilled Water

Reviewed By: [signature] 9/9/16

Supervisor/Date

Bonner Analytical Testing Company

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	01D86505	06/09/16	11/2016
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

Percent Solids/Moisture

Analyst: NDP

Reviewer:

Batch ID: QJ21015
SDG: MH1G77
Case: 46282

Volume

INST

Oven
Wet Lab

Date In	Time In	Date Out	Date Out
10/18/16	20:00	10/19/16	14:00
Temp In (°C)	106	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
QJ21015-DUP1	MH1G80D	1	1.00	8.15	6.62	78.6	21.4
6100163-01	MH1G77	2	1.07	9.99	7.48	71.9	28.1
6100163-02	MH1G78	3	1.00	8.50	7.52	86.9	13.1
6100163-03	MH1G79	4	1.00	9.22	5.84	58.9	41.1
6100163-04	MH1G80	5	1.00	7.38	5.89	76.6	23.4
6100163-05	MH1G81	6	0.99	7.06	5.09	67.5	32.5
6100163-06	MH1G82	7	0.99	8.53	5.73	62.9	37.1
6100163-07	MH1G83	8	0.98	9.80	7.54	74.4	25.6
6100163-08	MH1G84	9	1.06	9.65	6.72	65.9	34.1
6100163-09	MH1G85	10	1.02	7.80	5.83	70.9	29.1
6100163-10	MH1G86	11	0.97	8.81	7.03	77.3	22.7
6100163-11	MH1G87	12	0.95	8.35	6.87	80.0	20.0
6100163-12	MH1G88	13	0.94	8.72	6.25	68.3	31.7
6100163-13	MH1G89	14	1.00	10.88	6.86	59.3	40.7
6100163-14	MH1G90	15	0.99	7.26	5.50	71.9	28.1
6100163-15	MH1G91	16	1.00	7.84	6.34	78.1	21.9
6100163-16	MH1G92	17	1.00	8.80	6.99	76.8	23.2
6100163-17	MH1G93	18	0.99	8.26	7.09	83.9	16.1
6100163-18	MH1G94	19	0.99	7.97	6.90	84.7	15.3

TO 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/FB42/14E8

FedEx Express

J162016070501uv

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

CUSTODY SEAL
QEC
Quality Environmental Containers
800-255-3900 • 304-255-3900
DATE 10/12/16
SIGNATURE

CUSTODY SEAL
QEC
Quality Environmental Containers
800-255-3900 • 304-255-3900
DATE 10/12/16
SIGNATURE

P. Aik
10-13-16
0855
0°C

COPY
ORIGINAL IN CSF: MH1F86
Signature: P. Aik

CHADWE
BONNER
2703 OAI

HATTIES

1 of 10
TRK# 0201 7774 5569 187
MASTER
XH HBGA

..10 - 13 OCT 10:30A
PRIORITY OVERNIGHT
39402
MS-US MSY

1 of 10
TRK# 0201 7774 5569 187
MASTER
XH HBGA

PRIORITY OVERNIGHT
7774 5569 7187
39402
MSY

P. Ack

COPY
ORIGINAL IN CSF MH1605
Signature: P. Ack

CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-3300
DATE 10/12/16
SIGNATURE

CUSTODY SEAL QEC
800-255-3950
DATE 10/12/16
SIGNATURE

P. Ach
10-13-16
0855
0°C

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.[illegible] LB
CAD: 1022158[illegible]3/INET3790
DIMS: 20x11x[illegible] 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:

FedEx Express

THU - 13 OCT 10:30A
PRIORITY OVERNIGHT

39402
MSY
MS-US

3 of 10
MPS# 0263 7774 5569 7235
Mstr# 7774 5569 7187 0201

THU - 13 OCT 10:30A
PRIORITY OVERNIGHT

39402
MSY
MS-US

XH HBGA

CUSTODY SEAL
QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/13/16
SIGNATURE

CUSTODY SEAL
QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/13/16
SIGNATURE

COPY
ORIGINAL IN CSF: MHIF86
Signature: P. Ach

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
INV:
PO: DEPT:

544J3/FB42/14EB

FedEx Express

E

J16201S070501uu

THU - 13 OCT 10:30A
PRIORITY OVERNIGHT

7 of 10
MPS# 0263 7774 5569 7338
Mstr# 7774 5569 7187 0201

39402
XH HBGA MS-US MSY

CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/12/16
SIGNATURE

CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/12/16
SIGNATURE

fter printing this label

P. Ach
10-13-16
0855
0°C

COPY
ORIGINAL IN CSF: MH1F86
Signature: P. Ach

ORIGIN ID:WFIHA (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: 03072402028 1AA8M500A119
INV:
PO:
DEPT:

544J3/FB42/14EB

FedEx Express

THU - 13 OCT 10:30A
PRIORITY OVERNIGHT

8 of 10

MPS# 7774 5569 7420
0263
Mstr# 7774 5569 7187
0201

39402
MS-US MSY

XH HBGA

CUSTODY SEAL QEC Quality Environmental Containers 800-255-3950 • 304-255-3900
DATE 10/12/16
SIGNATURE

CUSTODY SEAL QEC Quality Environmental Containers 800-255-3950 • 304-255-3900
DATE 10/12/16
SIGNATURE

P. Ash
10-13-16
0855
0°C

COPY

ORIGINAL IN CSF: MH1G05

Signature: P. Ash

ORIGIN ... (303) 312-7726
SCOTT W... KER
TECHLAW...
16194 WE... 45TH DRIVE

GOLDEN, CO 80403
UNITED STATES US

SHIP DATE: 12OCT16
ACTWGT: 25.00 LB
CAD: 102215893/INET3790
DIMS: 15x1...x14 IN

BILL SEND...R

TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2854 REF: 0307240202B1AA
INV:
PO: DEPT:

544J3/FB42/14E8

FedEx Express

THU - 13 OCT 10:30A
PRIORITY OVERNIGHT

569 7522
69 7187
0201

39402
MS

BGA

MS-U

OCT 10 ...
OVERNIGHT

6 of 10
7774 5569 7522
Mstr# 7774 5569 7187

39402
MSY

XH HBGA

MS-US

P. Aik
10-13-16
0855
0 °C

CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/13/16
SIGNATURE

CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/13/16
SIGNATURE

COPY
ORIGINAL IN CSF: MH1F86
Signature: P. Aik

365

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/FB42/14E8

FedEx Express

J152016070501uv

THU - 13 OCT 10:30A
PRIORITY OVERNIGHT

2 of 10

MPS# 7774 5569 6548
0263
Mstr# 7774 5569 7187
0201

39402
MS-US MSY

XH HBGA

CUSTODY SEAL
DATE
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

COPY
ORIGINAL IN CSF: MH1F86
Signature: P. Atk

P. Atk
10-13-16
0855
0°C

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
INV:
PO: DEPT:

544J3FB42/1459

FedEx Express

THU - 13 OCT 10:30A
PRIORITY OVERNIGHT

10 of 10
MPS# 0263 7774 5569 7740
Mstr# 7774 5569 7187 0201

39402
MS-US MSY

XH HBGA

CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/13/16
SIGNATURE

CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/13/16
SIGNATURE

ter printing this label

P. Aich
10-13-16
0855
0°C

COPY
ORIGINAL IN CSF: MHIG05
Signature: P. Aich

CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2654

FedEx

E

THU - 13 OCT 10:30A
PRIORITY OVERNIGHT

5 of 10
MPS# 7774 5569 6905
Mstr# 7774 5569 7187

39402
MS-US MSY

XH HBGA

CUSTODY SEAL
QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/13/16
SIGNATURE

CUSTODY SEAL
QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/13/16
SIGNATURE

COPY
ORIGINAL IN CSF MH1F86
Signature: P. Aik

P. Aik
10-13-16
0855
0°C

Bonner Analytical Testing Company

SAMPLE RECEIPT FORM

28[illegible]

Client: CLP

Date: 10-13-16

Sample Type: Grab Composite

SDG#: MH1677

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: If YES, enter airbill number here: See below	NA	YES	NO
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. Aick

COPY

ORIGINAL IN CSF: MH1F86

Signature: P. Aick

Rev No. 1.4
Date: 07/15/05

WORK ORDER

6100163

Bonner Analytical Testing Co.

Client: Environmental Protection Agency, Region 8
Case: 46282 SDG: MH1G77

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-740	Temp Received: 0.0°C	Airbill No.: 777455697740	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
6100163-01	MH1G77	[Soil]	09/30/2016 00:00	10/13/2016 08:55	Cooler-548	

Analysis: ISM023 - ICPAES (1-4)
Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight

6100163-02	MH1G78	[Soil]	09/30/2016 00:00	10/13/2016 08:55	Cooler-420	

Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight
Analysis: ISM023 - ICPAES (1-4)

6100163-03	MH1G79	[Soil]	09/28/2016 00:00	10/13/2016 08:55	Cooler-235	

Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - ICPAES (1-4)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight

WORK ORDER

6100163

Bonner Analytical Testing Co.

Client: Environmental Protection Agency, Region 8
Case: 46282 SDG: MH1G77

LAB ID	EPA ID	Matrix	Sampled Date/Time	Received Date/Time	Cooler ID	QC Source
6100163-04	MH1G80	[Soil]	09/28/2016 00:00	10/13/2016 08:55	Cooler-187	QC
Analysis: ISM023 - ICPAES (1-4) Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: Solids, Dry Weight						
6100163-05	MH1G81	[Soil]	09/28/2016 00:00	10/13/2016 08:55	Cooler-132	
Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: ISM023 - ICPAES (1-4) Analysis: Solids, Dry Weight						
6100163-06	MH1G82	[Soil]	09/28/2016 00:00	10/13/2016 08:55	Cooler-235	
Analysis: ISM023 - ICPAES (1-4) Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: Solids, Dry Weight						
6100163-07	MH1G83	[Soil]	09/28/2016 00:00	10/13/2016 08:55	Cooler-548	
Analysis: ISM023 - Mercury Analysis: ISM023 - ICPAES (1-4) Analysis: Solids, Dry Weight Analysis: ISM023 - ICPMS (2658.0)						
6100163-08	MH1G84	[Soil]	09/28/2016 00:00	10/13/2016 08:55	Cooler-235	
Analysis: Solids, Dry Weight Analysis: ISM023 - Mercury Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - ICPAES (1-4)						
6100163-09	MH1G85	[Soil]	09/28/2016 00:00	10/13/2016 08:55	Cooler-132	
Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - ICPAES (1-4) Analysis: ISM023 - Mercury Analysis: Solids, Dry Weight						
6100163-10	MH1G86	[Soil]	09/28/2016 00:00	10/13/2016 08:55	Cooler-338	
Analysis: Solids, Dry Weight Analysis: ISM023 - ICPAES (1-4) Analysis: ISM023 - Mercury Analysis: ISM023 - ICPMS (2658.0)						
6100163-11	MH1G87	[Soil]	09/27/2016 00:00	10/13/2016 08:55	Cooler-187	
Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: Solids, Dry Weight Analysis: ISM023 - ICPAES (1-4)						

WORK ORDER

6100163

Bonner Analytical Testing Co.

Client: Environmental Protection Agency, Region 8
Case: 46282 SDG: MH1G77

LAB ID	EPA ID	Matrix	Sampled Date/Time	Received Date/Time	Cooler ID	QC Source
6100163-12	MH1G88	[Soil]	09/27/2016 00:00	10/13/2016 08:55	Cooler-548	

Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight
Analysis: ISM023 - ICPAES (1-4)

6100163-13	MH1G89	[Soil]	09/28/2016 00:00	10/13/2016 08:55	Cooler-905	

Analysis: Solids, Dry Weight
Analysis: ISM023 - Mercury
Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - ICPAES (1-4)

6100163-14	MH1G90	[Soil]	09/28/2016 00:00	10/13/2016 08:55	Cooler-338	

Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: ISM023 - ICPAES (1-4)
Analysis: Solids, Dry Weight

6100163-15	MH1G91	[Soil]	09/28/2016 00:00	10/13/2016 08:55	Cooler-548	

Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - ICPAES (1-4)
Analysis: Solids, Dry Weight
Analysis: ISM023 - Mercury

6100163-16	MH1G92	[Soil]	09/28/2016 00:00	10/13/2016 08:55	Cooler-522	

Analysis: ISM023 - ICPAES (1-4)
Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight

6100163-17	MH1G93	[Soil]	09/27/2016 00:00	10/13/2016 08:55	Cooler-740	

Analysis: ISM023 - Mercury
Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - ICPAES (1-4)
Analysis: Solids, Dry Weight

6100163-18	MH1G94	[Soil]	09/27/2016 00:00	10/13/2016 08:55	Cooler-132	

Analysis: ISM023 - ICPMS (2658.0)
Analysis: Solids, Dry Weight
Analysis: ISM023 - ICPAES (1-4)
Analysis: ISM023 - Mercury

D. Ach
Reviewed By

10-14-16
Date

Bonner Analytical Testing Co.
In-House Chain of Custody
for Samples

SDG Number: MH1G77 **Case No.:** 46282

Work Order No.: 6100163

1) MH1G77	7) MH1G83	13) MH1G89	19)
2) MH1G78	8) MH1G84	14) MH1G90	20)
3) MH1G79	9) MH1G85	15) MH1G91	21)
4) MH1G80	10) MH1G86	16) MH1G92	22)
5) MH1G81	11) MH1G87	17) MH1G93	23)
6) MH1G82	12) MH1G88	18) MH1G94	24)

Sample to be used for QC: MH1G80

Name: P. [illegible]	Signature: P. [illegible]	Date &Time: 10-14-16 1516	Purpose: S
Name: NPrice	Signature: Nathan Price	Date &Time: 10-17-16 1100	Purpose: W
Name: NPrice	Signature: Nathan Price	Date &Time: 10-17-16 1400	Purpose: S
Name: NPrice	Signature: Nathan Price	Date &Time: 10-18-16 1700	Purpose: W
Name: NPrice	Signature: [illegible]	Date &Time: 10-18-16 1730	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:

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: MH1G77 **Case No.:** 46282

Work Order No.: 6100163 **Fraction:** _____

1) MH1G77	7) MH1G83	13) MH1G89	19)
2) MH1G78	8) MH1G84	14) MH1G90	20)
3) MH1G79	9) MH1G85	15) MH1G91	21)
4) MH1G80	10) MH1G86	16) MH1G92	22)
5) MH1G81	11) MH1G87	17) MH1G93	23)
6) MH1G82	12) MH1G88	18) MH1G94	24)

Sample to be used for QC: MH1G80

Name:	NDPrice	Signature:	Nathan Price	Date &Time:	10/17/16	1100	Purpose: W
Name:	NDPrice	Signature:	Nathan Price	Date &Time:	10/17/16	1900	Purpose: S
Name:	L MEADUS	Signature:	[signature]	Date &Time:	10/17/16	1150	Purpose: D
Name:	L MEADUS	Signature:	[signature]	Date &Time:	10/17/16	1240	Purpose: S
Name:	L MEADUS	Signature:	[signature]	Date &Time:	10/10/16	2100	Purpose: A
Name:	L MEADUS	Signature:	[signature]	Date &Time:	10/19/16	1400	Purpose: A
Name:	L MEADUS	Signature:	[signature]	Date &Time:	10/19/16	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: MH1G77 **Case No.:** 46282

Work Order No.: 6100163 **Fraction:** _____

1) MH1G77	7) MH1G83	13) MH1G89	19)
2) MH1G78	8) MH1G84	14) MH1G90	20)
3) MH1G79	9) MH1G85	15) MH1G91	21)
4) MH1G80	10) MH1G86	16) MH1G92	22)
5) MH1G81	11) MH1G87	17) MH1G93	23)
6) MH1G82	12) MH1G88	18) MH1G94	24)

Sample to be used for QC: MH1G80

Name: N Prin	Signature: Nathan Prin	Date &Time: 10/17/16 1100	Purpose: W
Name: N Prin	Signature: Nathan Prin	Date &Time: 10/17/16 1900	Purpose: S
Name: L MEADOWS	Signature:	Date &Time: 10/17/16 1600	Purpose: D
Name: L MEADOWS	Signature:	Date &Time: 10/18/16 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:
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: MH1G77 **Case No.:** 46282

Work Order No.: 6100163 **Fraction:** Ag

1) MH1G77	7) MH1G83	13) MH1G89	19)
2) MH1G78	8) MH1G84	14) MH1G90	20)
3) MH1G79	9) MH1G85	15) MH1G91	21)
4) MH1G80	10) MH1G86	16) MH1G92	22)
5) MH1G81	11) MH1G87	17) MH1G93	23)
6) MH1G82	12) MH1G88	18) MH1G94	24)

Sample to be used for QC: MH1G80

Name	Signature	Date &Time	Purpose
NDPrin	Nathan Prin	10/17/16 1100	W
NDPrin	Nathan Prin	10/17/16 1400	S
NDPrin	Nathan Prin	10/18/16 ~~0952~~ 1300	Dig
NDPrin	Nathan Prin	10/18/16 1428	A
M.R	[illegible]	10/20/16 1200	DP

MP 10/18/16

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

Enduring Values. Inspired Performance.

This electronic message transmission contains information from CSRA that may be attorney-client privileged, proprietary or confidential. The information in this message is intended only for use by the individual(s) to whom it is addressed. If you believe you have received this message in error, please contact me immediately and be aware that any use, disclosure, copying or distribution of the contents of this message is strictly prohibited. NOTE: Regardless of content, this email shall not operate to bind CSRA to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of email for such purpose.

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

Enduring Values. Inspired Performance.

This electronic message transmission contains information from CSRA that may be attorney-client privileged, proprietary or confidential. The information in this message is intended only for use by the individual(s) to whom it is addressed. If you believe you have received this message in error, please contact me immediately and be aware that any use, disclosure, copying or distribution of the contents of this message is strictly prohibited. NOTE: Regardless of content, this email shall not operate to bind CSRA to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of email for such purpose.

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

CSRA
Enduring Values. Inspired Performance.

LEAVE ALERT: Friday, October 14th

This electronic message transmission contains information from CSRA that may be attorney-client privileged, proprietary or confidential. The information in this message is intended only for use by the individual(s) to whom it is addressed. If you believe you have received this message in error, please contact me immediately and be aware that any use, disclosure, copying or distribution of the contents of this message is strictly prohibited. NOTE Regardless of content, this email shall not operate to bind CSRA to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of email for such purpose.

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
www.csra.com

CSRA
Enduring Values. Inspired Performance.

LEAVE ALERT: Friday, October 14th

This electronic message transmission contains information from CSRA that may be attorney-client privileged, proprietary or confidential. The information in this message is intended only for use by the individual(s) to whom it is addressed. If you believe you have received this message in error, please contact me immediately and be aware that any use, disclosure, copying or distribution of the contents of this message is strictly prohibited. NOTE: Regardless of content, this email shall not operate to bind CSRA to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of email for such purpose.

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

CSRA
Enduring Values. Inspired Performance.

LEAVE ALERT: Friday, October 14th

This electronic message transmission contains information from CSRA that may be attorney client privileged, proprietary or confidential. The information in this message is intended only for use by the individual(s) to whom it is addressed. If you believe you have received this message in error please contact me immediately and be aware that any use, disclosure, copying or distribution of the contents of this message is strictly prohibited. NOTE: Regardless of content, this email shall not operate to bind CSRA to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of email for such purpose.

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
DASS Environmental Coordinator - Team Leader
CSRA Inc.
6361 Walker Lane, Alexandria, VA 22310
Office: 703-461-2019 | Eloise.Danganan@csra.com
www.csra.com

CSRA
Enduring Values. Inspired Performance.

LEAVE ALERT: Friday, October 14th

This electronic message transmission contains information from CSRA that may be attorney-client privileged, proprietary or confidential. The information in this message is intended only for use by the individual(s) to whom it is addressed. If you believe you have received this message in error please contact me immediately and be aware that any use, disclosure, copying or distribution of the contents of this message is strictly prohibited. NOTE: Regardless of content, this email shall not operate to bind CSRA to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of email for such purpose.

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
www.csra.com

Enduring Values. Inspired Performance.

This electronic message transmission contains information from CSRA that may be attorney-client privileged, proprietary or confidential. The information in this message is intended only for use by the individual(s) to whom it is addressed. If you believe you have received this message in error, please contact me immediately and be aware that any use, disclosure, copying or distribution of the contents of this message is strictly prohibited. NOTE: Regardless of content, this email shall not operate to bind CSRA to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of email for such purpose.

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
www.csra.com

Enduring Values. Inspired Performance.

This electronic message transmission contains information from CSRA that may be attorney-client privileged, proprietary or confidential. The information in this message is intended only for use by the individual(s) to whom it is addressed. If you believe you have received this message in error, please contact me immediately and be aware that any use, disclosure, copying or distribution of the contents of this message is strictly prohibited. NOTE: Regardless of content, this email shall not operate to bind CSRA to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of email for such purpose.

Bonner Analytical Testing Company

Corrective Action

Topic: MHIG77 46202 Date: 10/24/16

Nature of Problem: 1. MHIG002, 91 OUTSIDE ACCEPTABLE RANGE FOR TD, HD
2. PB FAILED FOR SD

Action Requested:

1 New Sample Requested: YES (NO)

2 Retest or Reanalysis Necessary: (YES) NO

3 Other Action:

Submitter

Signature: [illegible] Date: 10/24/16

Corrective Action Taken: 1. CO, NI, MO, CD, AG, SD, BA, TI REPORTED FROM 2x
2. PS FOR SDC 2x INDIGENOUS

Was the problem resolved: (YES) NO

Responder

Signature: [illegible] Date: 10/25/16